Appendix A
Air Quality Worksheets

A.1 Construction Emissions

- Construction: CalEEMod Output (Annual)
- Construction: CalEEMod Output (Summer)

A.2 Operational Emissions

- Operations : CalEEMod Output (Annual)
- Operations : CalEEMod Output (Summer)
- Operations : CalEEMod Output (Winter)

Appendix A.1
Construction Emissions

- Construction: CalEEMod Output (Annual)
- Construction: CalEEMod Output (Summer)

LAUSD Colfax Elementary School Campus Improvements - Construction

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Elementary School	39.46	1000sqft	0.91	39,460.00	0
Parking Lot	32.00	Space	0.29	12,800.00	0
City Park	0.04	Acre	0.04	1,932.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	11			**Operational Year**	2020
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	1227.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - See construction assumptions.

Construction Phase - See construction assumptions

Off-road Equipment - See construction assumptions.

Off-road Equipment - See construction assumptions.

Off-road Equipment - See construction assumptions.

Off-road Equipment - See construction assumptions.

Off-road Equipment - See construction assumptions.

Off-road Equipment - See construction assumptions.

Off-road Equipment - See construction assumptions.

Off-road Equipment - See construction assumptions.

Off-road Equipment - See construction assumptions.

Trips and VMT - See construction assumptions.

Demolition -

Grading - See construction assumptions.

Construction Off-road Equipment Mitigation -

Off-road Equipment - See construction assumptions.

Architectural Coating - See construction assumptions.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	20,888.00	0.00
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	20,888.00	15,943.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	62,664.00	768.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	62,664.00	6,733.00
tblConstructionPhase	NumDays	200.00	447.00
tblConstructionPhase	NumDays	200.00	392.00
tblConstructionPhase	NumDays	200.00	108.00
tblConstructionPhase	NumDays	200.00	108.00
tblConstructionPhase	NumDays	20.00	22.00
tblConstructionPhase	NumDays	4.00	54.00
tblConstructionPhase	NumDays	10.00	65.00
tblConstructionPhase	NumDays	10.00	87.00
tblConstructionPhase	PhaseEndDate	7/1/2021	12/31/2019
tblConstructionPhase	PhaseEndDate	5/29/2020	5/31/2020
tblConstructionPhase	PhaseEndDate	10/28/2020	5/31/2020
tblConstructionPhase	PhaseEndDate	3/30/2018	3/31/2018
tblConstructionPhase	PhaseEndDate	4/13/2018	4/15/2018
tblConstructionPhase	PhaseEndDate	8/28/2020	5/31/2020
tblConstructionPhase	PhaseEndDate	1/16/2018	1/15/2018
tblConstructionPhase	PhaseEndDate	4/30/2020	12/31/2019

tblConstructionPhase	PhaseStartDate	1/1/2020	7/1/2018
tblConstructionPhase	PhaseStartDate	6/1/2020	1/1/2020
tblConstructionPhase	PhaseStartDate	6/1/2020	3/1/2020
tblConstructionPhase	PhaseStartDate	1/2/2018	1/1/2018
tblConstructionPhase	PhaseStartDate	1/1/2020	9/1/2019
tblGrading	AcresOfGrading	0.00	1.50
tblGrading	MaterialExported	0.00	7,407.00
tblLandUse	LandUseSquareFeet	1,742.40	1,932.00
tblOffRoadEquipment	OffRoadEquipmentType		Cranes
tblOffRoadEquipment	OffRoadEquipmentType		Air Compressors
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentType		Trenchers
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Other Construction Equipment
tblOffRoadEquipment	OffRoadEquipmentType		Rubber Tired Loaders
tblOffRoadEquipment	OffRoadEquipmentType		Cranes
tblOffRoadEquipment	OffRoadEquipmentType		Pumps
tblOffRoadEquipment	OffRoadEquipmentType		Other Construction Equipment
tblOffRoadEquipment	OffRoadEquipmentType		Other Construction Equipment
tblOffRoadEquipment	OffRoadEquipmentType		Other Construction Equipment
tblOffRoadEquipment	OffRoadEquipmentType		Other Construction Equipment
tblOffRoadEquipment	OffRoadEquipmentType		Forklifts
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentType		Paving Equipment
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	4.00
tblOffRoadEquipment	UsageHours	6.00	4.00
tblOffRoadEquipment	UsageHours	6.00	0.00
tblOffRoadEquipment	UsageHours	6.00	4.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblProjectCharacteristics	OperationalYear	2014	2020
tblTripsAndVMT	HaulingTripNumber	49.00	176.00
tblTripsAndVMT	HaulingTripNumber	926.00	1,944.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.0311	0.3018	0.2295	3.4000e-004	8.0900e-003	0.0160	0.0241	1.5800e-003	0.0152	0.0168	0.0000	29.9530	29.9530	5.1900e-003	0.0000	30.0619
2018	0.3524	3.2213	2.5593	4.6800e-003	0.0714	0.1653	0.2367	0.0191	0.1537	0.1727	0.0000	405.7642	405.7642	0.0838	0.0000	407.5244
2019	0.5772	3.8484	3.3378	5.6600e-003	0.0826	0.2087	0.2913	0.0222	0.1947	0.2169	0.0000	477.4667	477.4667	0.1109	0.0000	479.7953
2020	0.1378	1.0778	1.1345	1.9100e-003	0.0350	0.0582	0.0932	9.4000e-003	0.0543	0.0637	0.0000	155.2609	155.2609	0.0344	0.0000	155.9827
Total	**1.0985**	**8.4492**	**7.2611**	**0.0126**	**0.1971**	**0.4483**	**0.6453**	**0.0523**	**0.4179**	**0.4701**	**0.0000**	**1,068.4448**	**1,068.4448**	**0.2343**	**0.0000**	**1,073.3643**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.0311	0.3018	0.2295	3.4000e-004	4.9800e-003	0.0160	0.0210	1.1100e-003	0.0152	0.0163	0.0000	29.9530	29.9530	5.1900e-003	0.0000	30.0619
2018	0.3524	3.2213	2.5593	4.6800e-003	0.0705	0.1653	0.2358	0.0190	0.1537	0.1726	0.0000	405.7639	405.7639	0.0838	0.0000	407.5241
2019	0.5772	3.8484	3.3378	5.6600e-003	0.0826	0.2087	0.2913	0.0222	0.1947	0.2169	0.0000	477.4663	477.4663	0.1109	0.0000	479.7949
2020	0.1378	1.0778	1.1345	1.9100e-003	0.0350	0.0582	0.0932	9.4000e-003	0.0543	0.0637	0.0000	155.2607	155.2607	0.0344	0.0000	155.9826
Total	**1.0985**	**8.4492**	**7.2611**	**0.0126**	**0.1931**	**0.4483**	**0.6413**	**0.0517**	**0.4179**	**0.4695**	**0.0000**	**1,068.4439**	**1,068.4439**	**0.2343**	**0.0000**	**1,073.3634**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**2.03**	**0.00**	**0.62**	**1.11**	**0.00**	**0.13**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition (Demolition of Existing Classrooms)	Demolition	12/1/2017	1/1/2018	5	22	
2	Utility Relocation	Trenching	1/1/2018	1/15/2018	5	11	
3	Site Prep/Excavation	Grading	1/16/2018	3/31/2018	5	54	
4	Concrete Pours/Foundation	Paving	4/1/2018	4/15/2018	5	10	
5	Classroom and Administration Building	Building Construction	4/16/2018	12/31/2019	5	447	
6	Kindergarten Building	Building Construction	7/1/2018	12/31/2019	5	392	
7	Building Architectural Coatings	Architectural Coating	9/1/2019	12/31/2019	5	87	
8	Kitchen Upgrades	Building Construction	1/1/2020	5/31/2020	5	108	
9	Administration Building Reuse	Building Construction	1/1/2020	5/31/2020	5	108	
10	Restripe Parking Lot, Landscaping	Architectural Coating	3/1/2020	5/31/2020	5	65	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 768; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition (Demolition of Existing Classrooms)	Cranes	1	4.00	226	0.29
Demolition (Demolition of Existing Classrooms)	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition (Demolition of Existing Classrooms)	Air Compressors	1	8.00	78	0.48
Demolition (Demolition of Existing Classrooms)	Rubber Tired Dozers	1	8.00	255	0.40
Demolition (Demolition of Existing Classrooms)	Tractors/Loaders/Backhoes	1	6.00	97	0.37

Utility Relocation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Utility Relocation	Trenchers	1	8.00	80	0.50
Site Prep/Excavation	Excavators	1	8.00	162	0.38
Site Prep/Excavation	Other Construction Equipment	1	8.00	171	0.42
Site Prep/Excavation	Rubber Tired Loaders	1	8.00	199	0.36
Concrete Pours/Foundation	Cranes	1	4.00	226	0.29
Concrete Pours/Foundation	Pumps	1	8.00	84	0.74
Site Prep/Excavation	Rubber Tired Dozers	0	6.00	255	0.40
Classroom and Administration Building	Other Construction Equipment	1	8.00	171	0.42
Kindergarten Building	Other Construction Equipment	1	8.00	171	0.42
Concrete Pours/Foundation	Cement and Mortar Mixers	2	8.00	9	0.56
Kitchen Upgrades	Other Construction Equipment	1	8.00	171	0.42
Administration Building Reuse	Other Construction Equipment	1	8.00	171	0.42
Restripe Parking Lot, Landscaping	Forklifts	1	6.00	89	0.20
Concrete Pours/Foundation	Pavers	0	6.00	125	0.42
Concrete Pours/Foundation	Paving Equipment	0	8.00	130	0.36
Restripe Parking Lot, Landscaping	Air Compressors	0	6.00	78	0.48
Concrete Pours/Foundation	Rollers	0	7.00	80	0.38
Concrete Pours/Foundation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Architectural Coatings	Air Compressors	1	8.00	78	0.48
Site Prep/Excavation	Graders	0	6.00	174	0.41
Classroom and Administration Building	Cranes	1	4.00	226	0.29
Classroom and Administration Building	Forklifts	1	6.00	89	0.20
Classroom and Administration Building	Generator Sets	0	8.00	84	0.74
Site Prep/Excavation	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Restripe Parking Lot, Landscaping	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Restripe Parking Lot, Landscaping	Paving Equipment	1	8.00	130	0.36
Classroom and Administration Building	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Classroom and Administration Building	Welders	1	8.00	46	0.45
Kindergarten Building	Cranes	1	4.00	226	0.29
Kindergarten Building	Forklifts	1	6.00	89	0.20
Kindergarten Building	Generator Sets	0	8.00	84	0.74
Kindergarten Building	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Kindergarten Building	Welders	1	8.00	46	0.45
Kitchen Upgrades	Cranes	0	0.00	226	0.29
Kitchen Upgrades	Forklifts	1	6.00	89	0.20
Kitchen Upgrades	Generator Sets	0	8.00	84	0.74
Kitchen Upgrades	Tractors/Loaders/Backhoes	0	6.00	97	0.37
Kitchen Upgrades	Welders	1	8.00	46	0.45
Administration Building Reuse	Cranes	0	4.00	226	0.29
Administration Building Reuse	Forklifts	1	6.00	89	0.20
Administration Building Reuse	Generator Sets	0	8.00	84	0.74
Administration Building Reuse	Tractors/Loaders/Backhoes	0	6.00	97	0.37
Administration Building Reuse	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition (Demolition of Existing Classrooms)	5	13.00	0.00	176.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Utility Relocation	2	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Prep/Excavation	3	8.00	0.00	1,944.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Concrete Pours/Foundation	5	13.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Classroom and Administration Building	5	23.00	9.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Kindergarten Building	5	23.00	9.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Kitchen Upgrades	3	23.00	9.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

Administration Building Reuse	3	23.00	9.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Restripe Parking Lot, Landscaping	3	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Architectural Coatings	1	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Demolition (Demolition of Existing Classrooms) - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					5.1100e-003	0.0000	5.1100e-003	7.7000e-004	0.0000	7.7000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0292	0.2782	0.2032	2.5000e-004		0.0157	0.0157		0.0149	0.0149	0.0000	22.9111	22.9111	5.0700e-003	0.0000	23.0176
Total	**0.0292**	**0.2782**	**0.2032**	**2.5000e-004**	**5.1100e-003**	**0.0157**	**0.0208**	**7.7000e-004**	**0.0149**	**0.0157**	**0.0000**	**22.9111**	**22.9111**	**5.0700e-003**	**0.0000**	**23.0176**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.4500e-003	0.0228	0.0181	6.0000e-005	1.4900e-003	3.2000e-004	1.8100e-003	4.1000e-004	2.9000e-004	7.0000e-004	0.0000	5.6370	5.6370	4.0000e-005	0.0000	5.6379
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.3000e-004	7.9000e-004	8.2000e-003	2.0000e-005	1.5000e-003	1.0000e-005	1.5100e-003	4.0000e-004	1.0000e-005	4.1000e-004	0.0000	1.4049	1.4049	8.0000e-005	0.0000	1.4065
Total	**1.9800e-003**	**0.0236**	**0.0263**	**8.0000e-005**	**2.9900e-003**	**3.3000e-004**	**3.3200e-003**	**8.1000e-004**	**3.0000e-004**	**1.1100e-003**	**0.0000**	**7.0419**	**7.0419**	**1.2000e-004**	**0.0000**	**7.0444**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.9900e-003	0.0000	1.9900e-003	3.0000e-004	0.0000	3.0000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0292	0.2782	0.2032	2.5000e-004		0.0157	0.0157		0.0149	0.0149	0.0000	22.9111	22.9111	5.0700e-003	0.0000	23.0175
Total	**0.0292**	**0.2782**	**0.2032**	**2.5000e-004**	**1.9900e-003**	**0.0157**	**0.0177**	**3.0000e-004**	**0.0149**	**0.0152**	**0.0000**	**22.9111**	**22.9111**	**5.0700e-003**	**0.0000**	**23.0175**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.4500e-003	0.0228	0.0181	6.0000e-005	1.4900e-003	3.2000e-004	1.8100e-003	4.1000e-004	2.9000e-004	7.0000e-004	0.0000	5.6370	5.6370	4.0000e-005	0.0000	5.6379
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.3000e-004	7.9000e-004	8.2000e-003	2.0000e-005	1.5000e-003	1.0000e-005	1.5100e-003	4.0000e-004	1.0000e-005	4.1000e-004	0.0000	1.4049	1.4049	8.0000e-005	0.0000	1.4065
Total	**1.9800e-003**	**0.0236**	**0.0263**	**8.0000e-005**	**2.9900e-003**	**3.3000e-004**	**3.3200e-003**	**8.1000e-004**	**3.0000e-004**	**1.1100e-003**	**0.0000**	**7.0419**	**7.0419**	**1.2000e-004**	**0.0000**	**7.0444**

3.2 Demolition (Demolition of Existing Classrooms) - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.4000e-004	0.0000	2.4000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.2400e-003	0.0118	9.0700e-003	1.0000e-005		6.5000e-004	6.5000e-004		6.1000e-004	6.1000e-004	0.0000	1.0808	1.0808	2.4000e-004	0.0000	1.0858
Total	**1.2400e-003**	**0.0118**	**9.0700e-003**	**1.0000e-005**	**2.4000e-004**	**6.5000e-004**	**8.9000e-004**	**4.0000e-005**	**6.1000e-004**	**6.5000e-004**	**0.0000**	**1.0808**	**1.0808**	**2.4000e-004**	**0.0000**	**1.0858**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	7.0000e-005	1.0100e-003	8.5000e-004	0.0000	1.1500e-003	2.0000e-005	1.1700e-003	2.9000e-004	1.0000e-005	3.0000e-004	0.0000	0.2640	0.2640	0.0000	0.0000	0.2641
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	3.0000e-005	3.5000e-004	0.0000	7.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0645	0.0645	0.0000	0.0000	0.0645
Total	**9.0000e-005**	**1.0400e-003**	**1.2000e-003**	**0.0000**	**1.2200e-003**	**2.0000e-005**	**1.2400e-003**	**3.1000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**0.3285**	**0.3285**	**0.0000**	**0.0000**	**0.3286**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					9.0000e-005	0.0000	9.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.2400e-003	0.0118	9.0700e-003	1.0000e-005		6.5000e-004	6.5000e-004		6.1000e-004	6.1000e-004	0.0000	1.0808	1.0808	2.4000e-004	0.0000	1.0858
Total	**1.2400e-003**	**0.0118**	**9.0700e-003**	**1.0000e-005**	**9.0000e-005**	**6.5000e-004**	**7.4000e-004**	**1.0000e-005**	**6.1000e-004**	**6.2000e-004**	**0.0000**	**1.0808**	**1.0808**	**2.4000e-004**	**0.0000**	**1.0858**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	7.0000e-005	1.0100e-003	8.5000e-004	0.0000	1.1500e-003	2.0000e-005	1.1700e-003	2.9000e-004	1.0000e-005	3.0000e-004	0.0000	0.2640	0.2640	0.0000	0.0000	0.2641
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	3.0000e-005	3.5000e-004	0.0000	7.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0645	0.0645	0.0000	0.0000	0.0645
Total	**9.0000e-005**	**1.0400e-003**	**1.2000e-003**	**0.0000**	**1.2200e-003**	**2.0000e-005**	**1.2400e-003**	**3.1000e-004**	**1.0000e-005**	**3.2000e-004**	**0.0000**	**0.3285**	**0.3285**	**0.0000**	**0.0000**	**0.3286**

3.3 Utility Relocation - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.0200e-003	0.0374	0.0278	4.0000e-005		2.7700e-003	2.7700e-003		2.5500e-003	2.5500e-003	0.0000	3.2985	3.2985	1.0300e-003	0.0000	3.3200
Total	**4.0200e-003**	**0.0374**	**0.0278**	**4.0000e-005**		**2.7700e-003**	**2.7700e-003**		**2.5500e-003**	**2.5500e-003**	**0.0000**	**3.2985**	**3.2985**	**1.0300e-003**	**0.0000**	**3.3200**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-004	1.4000e-004	1.5000e-003	0.0000	3.0000e-004	0.0000	3.0000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.2727	0.2727	1.0000e-005	0.0000	0.2730
Total	**1.0000e-004**	**1.4000e-004**	**1.5000e-003**	**0.0000**	**3.0000e-004**	**0.0000**	**3.0000e-004**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**0.0000**	**0.2727**	**0.2727**	**1.0000e-005**	**0.0000**	**0.2730**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.0200e-003	0.0374	0.0278	4.0000e-005		2.7700e-003	2.7700e-003		2.5500e-003	2.5500e-003	0.0000	3.2985	3.2985	1.0300e-003	0.0000	3.3200
Total	**4.0200e-003**	**0.0374**	**0.0278**	**4.0000e-005**		**2.7700e-003**	**2.7700e-003**		**2.5500e-003**	**2.5500e-003**	**0.0000**	**3.2985**	**3.2985**	**1.0300e-003**	**0.0000**	**3.3200**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-004	1.4000e-004	1.5000e-003	0.0000	3.0000e-004	0.0000	3.0000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.2727	0.2727	1.0000e-005	0.0000	0.2730
Total	**1.0000e-004**	**1.4000e-004**	**1.5000e-003**	**0.0000**	**3.0000e-004**	**0.0000**	**3.0000e-004**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**0.0000**	**0.2727**	**0.2727**	**1.0000e-005**	**0.0000**	**0.2730**

3.4 Site Prep/Excavation - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.2100e-003	0.0000	1.2100e-003	1.5000e-004	0.0000	1.5000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0343	0.3893	0.2482	4.7000e-004		0.0175	0.0175		0.0161	0.0161	0.0000	43.2891	43.2891	0.0135	0.0000	43.5721
Total	**0.0343**	**0.3893**	**0.2482**	**4.7000e-004**	**1.2100e-003**	**0.0175**	**0.0187**	**1.5000e-004**	**0.0161**	**0.0162**	**0.0000**	**43.2891**	**43.2891**	**0.0135**	**0.0000**	**43.5721**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0164	0.2450	0.2056	7.2000e-004	0.0166	3.6900e-003	0.0203	4.5700e-003	3.3900e-003	7.9600e-003	0.0000	64.1569	64.1569	4.9000e-004	0.0000	64.1672
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.6000e-004	1.1300e-003	0.0118	3.0000e-005	2.3700e-003	2.0000e-005	2.3900e-003	6.3000e-004	2.0000e-005	6.5000e-004	0.0000	2.1416	2.1416	1.1000e-004	0.0000	2.1440
Total	**0.0172**	**0.2461**	**0.2174**	**7.5000e-004**	**0.0190**	**3.7100e-003**	**0.0227**	**5.2000e-003**	**3.4100e-003**	**8.6100e-003**	**0.0000**	**66.2985**	**66.2985**	**6.0000e-004**	**0.0000**	**66.3112**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					4.7000e-004	0.0000	4.7000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0343	0.3893	0.2482	4.7000e-004		0.0175	0.0175		0.0161	0.0161	0.0000	43.2891	43.2891	0.0135	0.0000	43.5721
Total	**0.0343**	**0.3893**	**0.2482**	**4.7000e-004**	**4.7000e-004**	**0.0175**	**0.0180**	**6.0000e-005**	**0.0161**	**0.0162**	**0.0000**	**43.2891**	**43.2891**	**0.0135**	**0.0000**	**43.5721**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0164	0.2450	0.2056	7.2000e-004	0.0166	3.6900e-003	0.0203	4.5700e-003	3.3900e-003	7.9600e-003	0.0000	64.1569	64.1569	4.9000e-004	0.0000	64.1672
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.6000e-004	1.1300e-003	0.0118	3.0000e-005	2.3700e-003	2.0000e-005	2.3900e-003	6.3000e-004	2.0000e-005	6.5000e-004	0.0000	2.1416	2.1416	1.1000e-004	0.0000	2.1440
Total	**0.0172**	**0.2461**	**0.2174**	**7.5000e-004**	**0.0190**	**3.7100e-003**	**0.0227**	**5.2000e-003**	**3.4100e-003**	**8.6100e-003**	**0.0000**	**66.2985**	**66.2985**	**6.0000e-004**	**0.0000**	**66.3112**

3.5 Concrete Pours/Foundation - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	5.8100e-003	0.0527	0.0385	7.0000e-005		3.0600e-003	3.0600e-003		2.9400e-003	2.9400e-003	0.0000	5.8140	5.8140	1.0500e-003	0.0000	5.8360
Paving	3.8000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.1900e-003**	**0.0527**	**0.0385**	**7.0000e-005**		**3.0600e-003**	**3.0600e-003**		**2.9400e-003**	**2.9400e-003**	**0.0000**	**5.8140**	**5.8140**	**1.0500e-003**	**0.0000**	**5.8360**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.3000e-004	3.4000e-004	3.5400e-003	1.0000e-005	7.1000e-004	1.0000e-005	7.2000e-004	1.9000e-004	1.0000e-005	2.0000e-004	0.0000	0.6445	0.6445	3.0000e-005	0.0000	0.6452
Total	**2.3000e-004**	**3.4000e-004**	**3.5400e-003**	**1.0000e-005**	**7.1000e-004**	**1.0000e-005**	**7.2000e-004**	**1.9000e-004**	**1.0000e-005**	**2.0000e-004**	**0.0000**	**0.6445**	**0.6445**	**3.0000e-005**	**0.0000**	**0.6452**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	5.8100e-003	0.0527	0.0385	7.0000e-005		3.0600e-003	3.0600e-003		2.9400e-003	2.9400e-003	0.0000	5.8140	5.8140	1.0500e-003	0.0000	5.8360
Paving	3.8000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.1900e-003**	**0.0527**	**0.0385**	**7.0000e-005**		**3.0600e-003**	**3.0600e-003**		**2.9400e-003**	**2.9400e-003**	**0.0000**	**5.8140**	**5.8140**	**1.0500e-003**	**0.0000**	**5.8360**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.3000e-004	3.4000e-004	3.5400e-003	1.0000e-005	7.1000e-004	1.0000e-005	7.2000e-004	1.9000e-004	1.0000e-005	2.0000e-004	0.0000	0.6445	0.6445	3.0000e-005	0.0000	0.6452
Total	**2.3000e-004**	**3.4000e-004**	**3.5400e-003**	**1.0000e-005**	**7.1000e-004**	**1.0000e-005**	**7.2000e-004**	**1.9000e-004**	**1.0000e-005**	**2.0000e-004**	**0.0000**	**0.6445**	**0.6445**	**3.0000e-005**	**0.0000**	**0.6452**

3.6 Classroom and Administration Building - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1556	1.3813	0.9739	1.4700e-003		0.0796	0.0796		0.0740	0.0740	0.0000	129.7360	129.7360	0.0383	0.0000	130.5402
Total	**0.1556**	**1.3813**	**0.9739**	**1.4700e-003**		**0.0796**	**0.0796**		**0.0740**	**0.0740**	**0.0000**	**129.7360**	**129.7360**	**0.0383**	**0.0000**	**130.5402**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.4400e-003	0.0641	0.0904	1.8000e-004	5.1400e-003	9.6000e-004	6.1000e-003	1.4700e-003	8.9000e-004	2.3500e-003	0.0000	16.1262	16.1262	1.2000e-004	0.0000	16.1287
Worker	7.5100e-003	0.0112	0.1164	3.0000e-004	0.0234	2.1000e-004	0.0237	6.2300e-003	1.9000e-004	6.4200e-003	0.0000	21.2080	21.2080	1.1100e-003	0.0000	21.2314
Total	**0.0140**	**0.0753**	**0.2067**	**4.8000e-004**	**0.0286**	**1.1700e-003**	**0.0298**	**7.7000e-003**	**1.0800e-003**	**8.7700e-003**	**0.0000**	**37.3341**	**37.3341**	**1.2300e-003**	**0.0000**	**37.3601**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1556	1.3813	0.9739	1.4700e-003		0.0796	0.0796		0.0740	0.0740	0.0000	129.7358	129.7358	0.0383	0.0000	130.5400
Total	**0.1556**	**1.3813**	**0.9739**	**1.4700e-003**		**0.0796**	**0.0796**		**0.0740**	**0.0740**	**0.0000**	**129.7358**	**129.7358**	**0.0383**	**0.0000**	**130.5400**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.4400e-003	0.0641	0.0904	1.8000e-004	5.1400e-003	9.6000e-004	6.1000e-003	1.4700e-003	8.9000e-004	2.3500e-003	0.0000	16.1262	16.1262	1.2000e-004	0.0000	16.1287
Worker	7.5100e-003	0.0112	0.1164	3.0000e-004	0.0234	2.1000e-004	0.0237	6.2300e-003	1.9000e-004	6.4200e-003	0.0000	21.2080	21.2080	1.1100e-003	0.0000	21.2314
Total	**0.0140**	**0.0753**	**0.2067**	**4.8000e-004**	**0.0286**	**1.1700e-003**	**0.0298**	**7.7000e-003**	**1.0800e-003**	**8.7700e-003**	**0.0000**	**37.3341**	**37.3341**	**1.2300e-003**	**0.0000**	**37.3601**

3.6 Classroom and Administration Building - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1966	1.7731	1.3379	2.0600e-003		0.0991	0.0991		0.0922	0.0922	0.0000	179.5367	179.5367	0.0531	0.0000	180.6526
Total	**0.1966**	**1.7731**	**1.3379**	**2.0600e-003**		**0.0991**	**0.0991**		**0.0922**	**0.0922**	**0.0000**	**179.5367**	**179.5367**	**0.0531**	**0.0000**	**180.6526**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	8.5700e-003	0.0830	0.1226	2.6000e-004	7.2100e-003	1.2900e-003	8.5000e-003	2.0600e-003	1.1800e-003	3.2400e-003	0.0000	22.1642	22.1642	1.6000e-004	0.0000	22.1676
Worker	9.6600e-003	0.0144	0.1496	4.2000e-004	0.0329	2.9000e-004	0.0332	8.7400e-003	2.7000e-004	9.0000e-003	0.0000	28.5922	28.5922	1.4600e-003	0.0000	28.6229
Total	**0.0182**	**0.0974**	**0.2722**	**6.8000e-004**	**0.0401**	**1.5800e-003**	**0.0417**	**0.0108**	**1.4500e-003**	**0.0122**	**0.0000**	**50.7563**	**50.7563**	**1.6200e-003**	**0.0000**	**50.7905**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1966	1.7731	1.3379	2.0600e-003		0.0991	0.0991		0.0922	0.0922	0.0000	179.5365	179.5365	0.0531	0.0000	180.6524
Total	**0.1966**	**1.7731**	**1.3379**	**2.0600e-003**		**0.0991**	**0.0991**		**0.0922**	**0.0922**	**0.0000**	**179.5365**	**179.5365**	**0.0531**	**0.0000**	**180.6524**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	8.5700e-003	0.0830	0.1226	2.6000e-004	7.2100e-003	1.2900e-003	8.5000e-003	2.0600e-003	1.1800e-003	3.2400e-003	0.0000	22.1642	22.1642	1.6000e-004	0.0000	22.1676
Worker	9.6600e-003	0.0144	0.1496	4.2000e-004	0.0329	2.9000e-004	0.0332	8.7400e-003	2.7000e-004	9.0000e-003	0.0000	28.5922	28.5922	1.4600e-003	0.0000	28.6229
Total	**0.0182**	**0.0974**	**0.2722**	**6.8000e-004**	**0.0401**	**1.5800e-003**	**0.0417**	**0.0108**	**1.4500e-003**	**0.0122**	**0.0000**	**50.7563**	**50.7563**	**1.6200e-003**	**0.0000**	**50.7905**

3.7 Kindergarten Building - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1096	0.9728	0.6859	1.0300e-003		0.0560	0.0560		0.0521	0.0521	0.0000	91.3732	91.3732	0.0270	0.0000	91.9396
Total	**0.1096**	**0.9728**	**0.6859**	**1.0300e-003**		**0.0560**	**0.0560**		**0.0521**	**0.0521**	**0.0000**	**91.3732**	**91.3732**	**0.0270**	**0.0000**	**91.9396**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.5400e-003	0.0452	0.0636	1.3000e-004	3.6200e-003	6.8000e-004	4.3000e-003	1.0300e-003	6.3000e-004	1.6600e-003	0.0000	11.3577	11.3577	8.0000e-005	0.0000	11.3595
Worker	5.2900e-003	7.8900e-003	0.0820	2.1000e-004	0.0165	1.5000e-004	0.0167	4.3800e-003	1.4000e-004	4.5200e-003	0.0000	14.9368	14.9368	7.8000e-004	0.0000	14.9533
Total	**9.8300e-003**	**0.0531**	**0.1456**	**3.4000e-004**	**0.0201**	**8.3000e-004**	**0.0210**	**5.4100e-003**	**7.7000e-004**	**6.1800e-003**	**0.0000**	**26.2945**	**26.2945**	**8.6000e-004**	**0.0000**	**26.3127**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1096	0.9728	0.6859	1.0300e-003		0.0560	0.0560		0.0521	0.0521	0.0000	91.3731	91.3731	0.0270	0.0000	91.9395
Total	**0.1096**	**0.9728**	**0.6859**	**1.0300e-003**		**0.0560**	**0.0560**		**0.0521**	**0.0521**	**0.0000**	**91.3731**	**91.3731**	**0.0270**	**0.0000**	**91.9395**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.5400e-003	0.0452	0.0636	1.3000e-004	3.6200e-003	6.8000e-004	4.3000e-003	1.0300e-003	6.3000e-004	1.6600e-003	0.0000	11.3577	11.3577	8.0000e-005	0.0000	11.3595
Worker	5.2900e-003	7.8900e-003	0.0820	2.1000e-004	0.0165	1.5000e-004	0.0167	4.3800e-003	1.4000e-004	4.5200e-003	0.0000	14.9368	14.9368	7.8000e-004	0.0000	14.9533
Total	**9.8300e-003**	**0.0531**	**0.1456**	**3.4000e-004**	**0.0201**	**8.3000e-004**	**0.0210**	**5.4100e-003**	**7.7000e-004**	**6.1800e-003**	**0.0000**	**26.2945**	**26.2945**	**8.6000e-004**	**0.0000**	**26.3127**

3.7 Kindergarten Building - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1966	1.7731	1.3379	2.0600e-003		0.0991	0.0991		0.0922	0.0922	0.0000	179.5367	179.5367	0.0531	0.0000	180.6526
Total	**0.1966**	**1.7731**	**1.3379**	**2.0600e-003**		**0.0991**	**0.0991**		**0.0922**	**0.0922**	**0.0000**	**179.5367**	**179.5367**	**0.0531**	**0.0000**	**180.6526**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	8.5700e-003	0.0830	0.1226	2.6000e-004	7.2100e-003	1.2900e-003	8.5000e-003	2.0600e-003	1.1800e-003	3.2400e-003	0.0000	22.1642	22.1642	1.6000e-004	0.0000	22.1676
Worker	9.6600e-003	0.0144	0.1496	4.2000e-004	0.0329	2.9000e-004	0.0332	8.7400e-003	2.7000e-004	9.0000e-003	0.0000	28.5922	28.5922	1.4600e-003	0.0000	28.6229
Total	**0.0182**	**0.0974**	**0.2722**	**6.8000e-004**	**0.0401**	**1.5800e-003**	**0.0417**	**0.0108**	**1.4500e-003**	**0.0122**	**0.0000**	**50.7563**	**50.7563**	**1.6200e-003**	**0.0000**	**50.7905**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1966	1.7731	1.3379	2.0600e-003		0.0991	0.0991		0.0922	0.0922	0.0000	179.5365	179.5365	0.0531	0.0000	180.6524
Total	**0.1966**	**1.7731**	**1.3379**	**2.0600e-003**		**0.0991**	**0.0991**		**0.0922**	**0.0922**	**0.0000**	**179.5365**	**179.5365**	**0.0531**	**0.0000**	**180.6524**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	8.5700e-003	0.0830	0.1226	2.6000e-004	7.2100e-003	1.2900e-003	8.5000e-003	2.0600e-003	1.1800e-003	3.2400e-003	0.0000	22.1642	22.1642	1.6000e-004	0.0000	22.1676
Worker	9.6600e-003	0.0144	0.1496	4.2000e-004	0.0329	2.9000e-004	0.0332	8.7400e-003	2.7000e-004	9.0000e-003	0.0000	28.5922	28.5922	1.4600e-003	0.0000	28.6229
Total	**0.0182**	**0.0974**	**0.2722**	**6.8000e-004**	**0.0401**	**1.5800e-003**	**0.0417**	**0.0108**	**1.4500e-003**	**0.0122**	**0.0000**	**50.7563**	**50.7563**	**1.6200e-003**	**0.0000**	**50.7905**

3.8 Building Architectural Coatings - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1314					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0155	0.1065	0.1068	1.7000e-004		7.4700e-003	7.4700e-003		7.4700e-003	7.4700e-003	0.0000	14.8089	14.8089	1.2500e-003	0.0000	14.8351
Total	**0.1468**	**0.1065**	**0.1068**	**1.7000e-004**		**7.4700e-003**	**7.4700e-003**		**7.4700e-003**	**7.4700e-003**	**0.0000**	**14.8089**	**14.8089**	**1.2500e-003**	**0.0000**	**14.8351**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.0000e-004	1.0400e-003	0.0108	3.0000e-005	2.3800e-003	2.0000e-005	2.4000e-003	6.3000e-004	2.0000e-005	6.5000e-004	0.0000	2.0719	2.0719	1.1000e-004	0.0000	2.0741
Total	**7.0000e-004**	**1.0400e-003**	**0.0108**	**3.0000e-005**	**2.3800e-003**	**2.0000e-005**	**2.4000e-003**	**6.3000e-004**	**2.0000e-005**	**6.5000e-004**	**0.0000**	**2.0719**	**2.0719**	**1.1000e-004**	**0.0000**	**2.0741**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1314					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0155	0.1065	0.1068	1.7000e-004		7.4700e-003	7.4700e-003		7.4700e-003	7.4700e-003	0.0000	14.8089	14.8089	1.2500e-003	0.0000	14.8351
Total	**0.1468**	**0.1065**	**0.1068**	**1.7000e-004**		**7.4700e-003**	**7.4700e-003**		**7.4700e-003**	**7.4700e-003**	**0.0000**	**14.8089**	**14.8089**	**1.2500e-003**	**0.0000**	**14.8351**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.0000e-004	1.0400e-003	0.0108	3.0000e-005	2.3800e-003	2.0000e-005	2.4000e-003	6.3000e-004	2.0000e-005	6.5000e-004	0.0000	2.0719	2.0719	1.1000e-004	0.0000	2.0741
Total	**7.0000e-004**	**1.0400e-003**	**0.0108**	**3.0000e-005**	**2.3800e-003**	**2.0000e-005**	**2.4000e-003**	**6.3000e-004**	**2.0000e-005**	**6.5000e-004**	**0.0000**	**2.0719**	**2.0719**	**1.1000e-004**	**0.0000**	**2.0741**

3.9 Kitchen Upgrades - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0508	0.4187	0.3645	5.3000e-004		0.0235	0.0235		0.0220	0.0220	0.0000	44.7664	44.7664	0.0127	0.0000	45.0329
Total	**0.0508**	**0.4187**	**0.3645**	**5.3000e-004**		**0.0235**	**0.0235**		**0.0220**	**0.0220**	**0.0000**	**44.7664**	**44.7664**	**0.0127**	**0.0000**	**45.0329**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.3900e-003	0.0300	0.0494	1.1000e-004	2.9800e-003	4.9000e-004	3.4700e-003	8.5000e-004	4.5000e-004	1.3000e-003	0.0000	8.9671	8.9671	7.0000e-005	0.0000	8.9685
Worker	3.7400e-003	5.5300e-003	0.0576	1.7000e-004	0.0136	1.2000e-004	0.0137	3.6100e-003	1.1000e-004	3.7200e-003	0.0000	11.3557	11.3557	5.7000e-004	0.0000	11.3677
Total	**7.1300e-003**	**0.0356**	**0.1070**	**2.8000e-004**	**0.0166**	**6.1000e-004**	**0.0172**	**4.4600e-003**	**5.6000e-004**	**5.0200e-003**	**0.0000**	**20.3228**	**20.3228**	**6.4000e-004**	**0.0000**	**20.3362**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0508	0.4187	0.3645	5.3000e-004		0.0235	0.0235		0.0220	0.0220	0.0000	44.7663	44.7663	0.0127	0.0000	45.0329
Total	**0.0508**	**0.4187**	**0.3645**	**5.3000e-004**		**0.0235**	**0.0235**		**0.0220**	**0.0220**	**0.0000**	**44.7663**	**44.7663**	**0.0127**	**0.0000**	**45.0329**

Mitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.3900e-003	0.0300	0.0494	1.1000e-004	2.9800e-003	4.9000e-004	3.4700e-003	8.5000e-004	4.5000e-004	1.3000e-003	0.0000	8.9671	8.9671	7.0000e-005	0.0000	8.9685
Worker	3.7400e-003	5.5300e-003	0.0576	1.7000e-004	0.0136	1.2000e-004	0.0137	3.6100e-003	1.1000e-004	3.7200e-003	0.0000	11.3557	11.3557	5.7000e-004	0.0000	11.3677
Total	**7.1300e-003**	**0.0356**	**0.1070**	**2.8000e-004**	**0.0166**	**6.1000e-004**	**0.0172**	**4.4600e-003**	**5.6000e-004**	**5.0200e-003**	**0.0000**	**20.3228**	**20.3228**	**6.4000e-004**	**0.0000**	**20.3362**

3.10 Administration Building Reuse - 2020

Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Off-Road	0.0508	0.4187	0.3645	5.3000e-004		0.0235	0.0235		0.0220	0.0220	0.0000	44.7664	44.7664	0.0127	0.0000	45.0329
Total	**0.0508**	**0.4187**	**0.3645**	**5.3000e-004**		**0.0235**	**0.0235**		**0.0220**	**0.0220**	**0.0000**	**44.7664**	**44.7664**	**0.0127**	**0.0000**	**45.0329**

Unmitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.3900e-003	0.0300	0.0494	1.1000e-004	2.9800e-003	4.9000e-004	3.4700e-003	8.5000e-004	4.5000e-004	1.3000e-003	0.0000	8.9671	8.9671	7.0000e-005	0.0000	8.9685
Worker	3.7400e-003	5.5300e-003	0.0576	1.7000e-004	0.0136	1.2000e-004	0.0137	3.6100e-003	1.1000e-004	3.7200e-003	0.0000	11.3557	11.3557	5.7000e-004	0.0000	11.3677
Total	**7.1300e-003**	**0.0356**	**0.1070**	**2.8000e-004**	**0.0166**	**6.1000e-004**	**0.0172**	**4.4600e-003**	**5.6000e-004**	**5.0200e-003**	**0.0000**	**20.3228**	**20.3228**	**6.4000e-004**	**0.0000**	**20.3362**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0508	0.4187	0.3645	5.3000e-004		0.0235	0.0235		0.0220	0.0220	0.0000	44.7663	44.7663	0.0127	0.0000	45.0329
Total	**0.0508**	**0.4187**	**0.3645**	**5.3000e-004**		**0.0235**	**0.0235**		**0.0220**	**0.0220**	**0.0000**	**44.7663**	**44.7663**	**0.0127**	**0.0000**	**45.0329**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.3900e-003	0.0300	0.0494	1.1000e-004	2.9800e-003	4.9000e-004	3.4700e-003	8.5000e-004	4.5000e-004	1.3000e-003	0.0000	8.9671	8.9671	7.0000e-005	0.0000	8.9685
Worker	3.7400e-003	5.5300e-003	0.0576	1.7000e-004	0.0136	1.2000e-004	0.0137	3.6100e-003	1.1000e-004	3.7200e-003	0.0000	11.3557	11.3557	5.7000e-004	0.0000	11.3677
Total	**7.1300e-003**	**0.0356**	**0.1070**	**2.8000e-004**	**0.0166**	**6.1000e-004**	**0.0172**	**4.4600e-003**	**5.6000e-004**	**5.0200e-003**	**0.0000**	**20.3228**	**20.3228**	**6.4000e-004**	**0.0000**	**20.3362**

3.11 Restripe Parking Lot, Landscaping - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.4500e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0170	0.1686	0.1840	2.7000e-004		0.0101	0.0101		9.3000e-003	9.3000e-003	0.0000	23.5969	23.5969	7.6300e-003	0.0000	23.7572
Total	**0.0214**	**0.1686**	**0.1840**	**2.7000e-004**		**0.0101**	**0.0101**		**9.3000e-003**	**9.3000e-003**	**0.0000**	**23.5969**	**23.5969**	**7.6300e-003**	**0.0000**	**23.7572**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.9000e-004	7.2000e-004	7.5400e-003	2.0000e-005	1.7800e-003	2.0000e-005	1.8000e-003	4.7000e-004	1.0000e-005	4.9000e-004	0.0000	1.4858	1.4858	8.0000e-005	0.0000	1.4873
Total	**4.9000e-004**	**7.2000e-004**	**7.5400e-003**	**2.0000e-005**	**1.7800e-003**	**2.0000e-005**	**1.8000e-003**	**4.7000e-004**	**1.0000e-005**	**4.9000e-004**	**0.0000**	**1.4858**	**1.4858**	**8.0000e-005**	**0.0000**	**1.4873**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	4.4500e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0170	0.1686	0.1840	2.7000e-004		0.0101	0.0101		9.3000e-003	9.3000e-003	0.0000	23.5969	23.5969	7.6300e-003	0.0000	23.7571
Total	**0.0214**	**0.1686**	**0.1840**	**2.7000e-004**		**0.0101**	**0.0101**		**9.3000e-003**	**9.3000e-003**	**0.0000**	**23.5969**	**23.5969**	**7.6300e-003**	**0.0000**	**23.7571**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.9000e-004	7.2000e-004	7.5400e-003	2.0000e-005	1.7800e-003	2.0000e-005	1.8000e-003	4.7000e-004	1.0000e-005	4.9000e-004	0.0000	1.4858	1.4858	8.0000e-005	0.0000	1.4873
Total	**4.9000e-004**	**7.2000e-004**	**7.5400e-003**	**2.0000e-005**	**1.7800e-003**	**2.0000e-005**	**1.8000e-003**	**4.7000e-004**	**1.0000e-005**	**4.9000e-004**	**0.0000**	**1.4858**	**1.4858**	**8.0000e-005**	**0.0000**	**1.4873**

LAUSD Colfax Elementary School Campus Improvements - Construction

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Elementary School	39.46	1000sqft	0.91	39,460.00	0
Parking Lot	32.00	Space	0.29	12,800.00	0
City Park	0.04	Acre	0.04	1,932.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	11			**Operational Year**	2020
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	1227.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - See construction assumptions.

Construction Phase - See construction assumptions

Off-road Equipment - See construction assumptions.

Off-road Equipment - See construction assumptions.

Off-road Equipment - See construction assumptions.

Off-road Equipment - See construction assumptions.

Off-road Equipment - See construction assumptions.

Off-road Equipment - See construction assumptions.

Off-road Equipment - See construction assumptions.

Off-road Equipment - See construction assumptions.

Off-road Equipment - See construction assumptions.

Trips and VMT - See construction assumptions.

Demolition -

Grading - See construction assumptions.

Construction Off-road Equipment Mitigation -

Off-road Equipment - See construction assumptions.

Architectural Coating - See construction assumptions.

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	20,888.00	0.00
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	20,888.00	15,943.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	62,664.00	768.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	62,664.00	6,733.00
tblConstructionPhase	NumDays	200.00	447.00
tblConstructionPhase	NumDays	200.00	392.00
tblConstructionPhase	NumDays	200.00	108.00
tblConstructionPhase	NumDays	200.00	108.00
tblConstructionPhase	NumDays	20.00	22.00
tblConstructionPhase	NumDays	4.00	54.00
tblConstructionPhase	NumDays	10.00	65.00
tblConstructionPhase	NumDays	10.00	87.00
tblConstructionPhase	PhaseEndDate	7/1/2021	12/31/2019
tblConstructionPhase	PhaseEndDate	5/29/2020	5/31/2020
tblConstructionPhase	PhaseEndDate	10/28/2020	5/31/2020
tblConstructionPhase	PhaseEndDate	3/30/2018	3/31/2018
tblConstructionPhase	PhaseEndDate	4/13/2018	4/15/2018
tblConstructionPhase	PhaseEndDate	8/28/2020	5/31/2020
tblConstructionPhase	PhaseEndDate	1/16/2018	1/15/2018
tblConstructionPhase	PhaseEndDate	4/30/2020	12/31/2019

tblConstructionPhase	PhaseStartDate	1/1/2020	7/1/2018
tblConstructionPhase	PhaseStartDate	6/1/2020	1/1/2020
tblConstructionPhase	PhaseStartDate	6/1/2020	3/1/2020
tblConstructionPhase	PhaseStartDate	1/2/2018	1/1/2018
tblConstructionPhase	PhaseStartDate	1/1/2020	9/1/2019
tblGrading	AcresOfGrading	0.00	1.50
tblGrading	MaterialExported	0.00	7,407.00
tblLandUse	LandUseSquareFeet	1,742.40	1,932.00
tblOffRoadEquipment	OffRoadEquipmentType		Cranes
tblOffRoadEquipment	OffRoadEquipmentType		Air Compressors
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentType		Trenchers
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Other Construction Equipment
tblOffRoadEquipment	OffRoadEquipmentType		Rubber Tired Loaders
tblOffRoadEquipment	OffRoadEquipmentType		Cranes
tblOffRoadEquipment	OffRoadEquipmentType		Pumps
tblOffRoadEquipment	OffRoadEquipmentType		Other Construction Equipment
tblOffRoadEquipment	OffRoadEquipmentType		Other Construction Equipment
tblOffRoadEquipment	OffRoadEquipmentType		Other Construction Equipment
tblOffRoadEquipment	OffRoadEquipmentType		Other Construction Equipment
tblOffRoadEquipment	OffRoadEquipmentType		Forklifts
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentType		Paving Equipment
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	4.00
tblOffRoadEquipment	UsageHours	6.00	4.00
tblOffRoadEquipment	UsageHours	6.00	0.00
tblOffRoadEquipment	UsageHours	6.00	4.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblProjectCharacteristics	OperationalYear	2014	2020
tblTripsAndVMT	HaulingTripNumber	49.00	176.00
tblTripsAndVMT	HaulingTripNumber	926.00	1,944.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	2.9612	28.6223	21.6960	0.0321	0.7760	1.5254	2.3014	0.1516	1.4464	1.5979	0.0000	3,151.4186	3,151.4186	0.5446	0.0000	3,162.8544
2018	3.6434	32.3943	25.7220	0.0456	3.0481	1.8277	4.8758	0.7104	1.7189	2.4293	0.0000	4,480.3948	4,480.3948	0.9371	0.0000	4,500.0732
2019	6.6812	31.0538	27.2151	0.0468	0.6824	1.7142	2.3966	0.1832	1.6067	1.7899	0.0000	4,342.5434	4,342.5434	0.9595	0.0000	4,362.6931
2020	2.8182	21.9589	23.1889	0.0393	0.6824	1.2023	1.8847	0.1832	1.1201	1.3032	0.0000	3,531.4489	3,531.4489	0.8057	0.0000	3,548.3687
Total	**16.1039**	**114.0294**	**97.8219**	**0.1638**	**5.1889**	**6.2696**	**11.4585**	**1.2282**	**5.8921**	**7.1204**	**0.0000**	**15,505.8058**	**15,505.8058**	**3.2468**	**0.0000**	**15,573.9894**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	2.9612	28.6223	21.6960	0.0321	0.4794	1.5254	2.0048	0.1066	1.4464	1.5530	0.0000	3,151.4186	3,151.4186	0.5446	0.0000	3,162.8544
2018	3.6434	32.3943	25.7220	0.0456	2.7514	1.8277	4.5791	0.6654	1.7189	2.3844	0.0000	4,480.3948	4,480.3948	0.9371	0.0000	4,500.0732
2019	6.6812	31.0538	27.2151	0.0468	0.6824	1.7142	2.3966	0.1832	1.6067	1.7899	0.0000	4,342.5434	4,342.5434	0.9595	0.0000	4,362.6931
2020	2.8182	21.9589	23.1889	0.0393	0.6824	1.2023	1.8847	0.1832	1.1201	1.3032	0.0000	3,531.4489	3,531.4489	0.8057	0.0000	3,548.3687
Total	**16.1039**	**114.0294**	**97.8219**	**0.1638**	**4.5956**	**6.2696**	**10.8652**	**1.1384**	**5.8921**	**7.0305**	**0.0000**	**15,505.8058**	**15,505.8058**	**3.2468**	**0.0000**	**15,573.9894**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**11.43**	**0.00**	**5.18**	**7.31**	**0.00**	**1.26**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition (Demolition of Existing Classrooms)	Demolition	12/1/2017	1/1/2018	5	22	
2	Utility Relocation	Trenching	1/1/2018	1/15/2018	5	11	
3	Site Prep/Excavation	Grading	1/16/2018	3/31/2018	5	54	
4	Concrete Pours/Foundation	Paving	4/1/2018	4/15/2018	5	10	
5	Classroom and Administration Building	Building Construction	4/16/2018	12/31/2019	5	447	
6	Kindergarten Building	Building Construction	7/1/2018	12/31/2019	5	392	
7	Building Architectural Coatings	Architectural Coating	9/1/2019	12/31/2019	5	87	
8	Kitchen Upgrades	Building Construction	1/1/2020	5/31/2020	5	108	
9	Administration Building Reuse	Building Construction	1/1/2020	5/31/2020	5	108	
10	Restripe Parking Lot, Landscaping	Architectural Coating	3/1/2020	5/31/2020	5	65	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 768; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition (Demolition of Existing Classrooms)	Cranes	1	4.00	226	0.29
Demolition (Demolition of Existing Classrooms)	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition (Demolition of Existing Classrooms)	Air Compressors	1	8.00	78	0.48
Demolition (Demolition of Existing Classrooms)	Rubber Tired Dozers	1	8.00	255	0.40
Demolition (Demolition of Existing Classrooms)	Tractors/Loaders/Backhoes	1	6.00	97	0.37

Utility Relocation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Utility Relocation	Trenchers	1	8.00	80	0.50
Site Prep/Excavation	Excavators	1	8.00	162	0.38
Site Prep/Excavation	Other Construction Equipment	1	8.00	171	0.42
Site Prep/Excavation	Rubber Tired Loaders	1	8.00	199	0.36
Concrete Pours/Foundation	Cranes	1	4.00	226	0.29
Concrete Pours/Foundation	Pumps	1	8.00	84	0.74
Site Prep/Excavation	Rubber Tired Dozers	0	6.00	255	0.40
Classroom and Administration Building	Other Construction Equipment	1	8.00	171	0.42
Kindergarten Building	Other Construction Equipment	1	8.00	171	0.42
Concrete Pours/Foundation	Cement and Mortar Mixers	2	8.00	9	0.56
Kitchen Upgrades	Other Construction Equipment	1	8.00	171	0.42
Administration Building Reuse	Other Construction Equipment	1	8.00	171	0.42
Restripe Parking Lot, Landscaping	Forklifts	1	6.00	89	0.20
Concrete Pours/Foundation	Pavers	0	6.00	125	0.42
Concrete Pours/Foundation	Paving Equipment	0	8.00	130	0.36
Restripe Parking Lot, Landscaping	Air Compressors	0	6.00	78	0.48
Concrete Pours/Foundation	Rollers	0	7.00	80	0.38
Concrete Pours/Foundation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Architectural Coatings	Air Compressors	1	8.00	78	0.48
Site Prep/Excavation	Graders	0	6.00	174	0.41
Classroom and Administration Building	Cranes	1	4.00	226	0.29
Classroom and Administration Building	Forklifts	1	6.00	89	0.20
Classroom and Administration Building	Generator Sets	0	8.00	84	0.74
Site Prep/Excavation	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Restripe Parking Lot, Landscaping	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Restripe Parking Lot, Landscaping	Paving Equipment	1	8.00	130	0.36
Classroom and Administration Building	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Classroom and Administration Building	Welders	1	8.00	46	0.45
Kindergarten Building	Cranes	1	4.00	226	0.29
Kindergarten Building	Forklifts	1	6.00	89	0.20
Kindergarten Building	Generator Sets	0	8.00	84	0.74
Kindergarten Building	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Kindergarten Building	Welders	1	8.00	46	0.45
Kitchen Upgrades	Cranes	0	0.00	226	0.29
Kitchen Upgrades	Forklifts	1	6.00	89	0.20
Kitchen Upgrades	Generator Sets	0	8.00	84	0.74
Kitchen Upgrades	Tractors/Loaders/Backhoes	0	6.00	97	0.37
Kitchen Upgrades	Welders	1	8.00	46	0.45
Administration Building Reuse	Cranes	0	4.00	226	0.29
Administration Building Reuse	Forklifts	1	6.00	89	0.20
Administration Building Reuse	Generator Sets	0	8.00	84	0.74
Administration Building Reuse	Tractors/Loaders/Backhoes	0	6.00	97	0.37
Administration Building Reuse	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition (Demolition of Existing	5	13.00	0.00	176.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Utility Relocation	2	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Prep/Excavation	3	8.00	0.00	1,944.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Concrete Pours/Foundation	5	13.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Classroom and Administration Building	5	23.00	9.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Kindergarten Building	5	23.00	9.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Kitchen Upgrades	3	23.00	9.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Administration Building Reuse	3	23.00	9.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

Restripe Parking Lot, Landscaping	3	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Architectural Coatings	1	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Soil Stabilizer

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Demolition (Demolition of Existing Classrooms) - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.4863	0.0000	0.4863	0.0736	0.0000	0.0736			0.0000			0.0000
Off-Road	2.7759	26.4966	19.3540	0.0243		1.4937	1.4937		1.4173	1.4173		2,405.2551	2,405.2551	0.5322		2,416.4304
Total	**2.7759**	**26.4966**	**19.3540**	**0.0243**	**0.4863**	**1.4937**	**1.9801**	**0.0736**	**1.4173**	**1.4909**		**2,405.2551**	**2,405.2551**	**0.5322**		**2,416.4304**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1332	2.0598	1.5249	5.9700e-003	0.1444	0.0303	0.1747	0.0394	0.0279	0.0673		592.3699	592.3699	4.3700e-003		592.4616
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0520	0.0659	0.8171	1.8900e-003	0.1453	1.3200e-003	0.1466	0.0385	1.2100e-003	0.0398		153.7936	153.7936	8.0400e-003		153.9624
Total	**0.1853**	**2.1257**	**2.3420**	**7.8600e-003**	**0.2897**	**0.0317**	**0.3213**	**0.0779**	**0.0291**	**0.1071**		**746.1635**	**746.1635**	**0.0124**		**746.4240**

Mitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
Fugitive Dust					0.1897	0.0000	0.1897	0.0287	0.0000	0.0287			0.0000			0.0000
Off-Road	2.7759	26.4966	19.3540	0.0243		1.4937	1.4937		1.4173	1.4173	0.0000	2,405.2551	2,405.2551	0.5322		2,416.4304
Total	**2.7759**	**26.4966**	**19.3540**	**0.0243**	**0.1897**	**1.4937**	**1.6834**	**0.0287**	**1.4173**	**1.4460**	**0.0000**	**2,405.2551**	**2,405.2551**	**0.5322**		**2,416.4304**

Mitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
Hauling	0.1332	2.0598	1.5249	5.9700e-003	0.1444	0.0303	0.1747	0.0394	0.0279	0.0673		592.3699	592.3699	4.3700e-003		592.4616
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0520	0.0659	0.8171	1.8900e-003	0.1453	1.3200e-003	0.1466	0.0385	1.2100e-003	0.0398		153.7936	153.7936	8.0400e-003		153.9624
Total	**0.1853**	**2.1257**	**2.3420**	**7.8600e-003**	**0.2897**	**0.0317**	**0.3213**	**0.0779**	**0.0291**	**0.1071**		**746.1635**	**746.1635**	**0.0124**		**746.4240**

3.2 Demolition (Demolition of Existing Classrooms) - 2018

Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
Fugitive Dust					0.4863	0.0000	0.4863	0.0736	0.0000	0.0736			0.0000			0.0000
Off-Road	2.4722	23.5948	18.1451	0.0243		1.2919	1.2919		1.2260	1.2260		2,382.7499	2,382.7499	0.5220		2,393.7118
Total	**2.4722**	**23.5948**	**18.1451**	**0.0243**	**0.4863**	**1.2919**	**1.7783**	**0.0736**	**1.2260**	**1.2996**		**2,382.7499**	**2,382.7499**	**0.5220**		**2,393.7118**

Unmitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
Hauling	0.1309	1.9139	1.4927	5.9600e-003	2.3605	0.0303	2.3908	0.5834	0.0279	0.6112		582.6400	582.6400	4.4200e-003		582.7329
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0468	0.0598	0.7424	1.8900e-003	0.1453	1.2700e-003	0.1466	0.0385	1.1800e-003	0.0397		148.1657	148.1657	7.4700e-003		148.3225
Total	**0.1778**	**1.9737**	**2.2351**	**7.8500e-003**	**2.5058**	**0.0316**	**2.5374**	**0.6219**	**0.0291**	**0.6510**		**730.8056**	**730.8056**	**0.0119**		**731.0554**

Mitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
Fugitive Dust					0.1897	0.0000	0.1897	0.0287	0.0000	0.0287			0.0000			0.0000
Off-Road	2.4722	23.5948	18.1451	0.0243		1.2919	1.2919		1.2260	1.2260	0.0000	2,382.7499	2,382.7499	0.5220		2,393.7118
Total	**2.4722**	**23.5948**	**18.1451**	**0.0243**	**0.1897**	**1.2919**	**1.4816**	**0.0287**	**1.2260**	**1.2547**	**0.0000**	**2,382.7499**	**2,382.7499**	**0.5220**		**2,393.7118**

Mitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
Hauling	0.1309	1.9139	1.4927	5.9600e-003	2.3605	0.0303	2.3908	0.5834	0.0279	0.6112		582.6400	582.6400	4.4200e-003		582.7329
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0468	0.0598	0.7424	1.8900e-003	0.1453	1.2700e-003	0.1466	0.0385	1.1800e-003	0.0397		148.1657	148.1657	7.4700e-003		148.3225
Total	**0.1778**	**1.9737**	**2.2351**	**7.8500e-003**	**2.5058**	**0.0316**	**2.5374**	**0.6219**	**0.0291**	**0.6510**		**730.8056**	**730.8056**	**0.0119**		**731.0554**

3.3 Utility Relocation - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7304	6.8028	5.0563	6.5600e-003		0.5037	0.5037		0.4634	0.4634		661.0817	661.0817	0.2058		665.4035
Total	**0.7304**	**6.8028**	**5.0563**	**6.5600e-003**		**0.5037**	**0.5037**		**0.4634**	**0.4634**		**661.0817**	**661.0817**	**0.2058**		**665.4035**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0180	0.0230	0.2856	7.3000e-004	0.0559	4.9000e-004	0.0564	0.0148	4.5000e-004	0.0153		56.9868	56.9868	2.8700e-003		57.0471
Total	**0.0180**	**0.0230**	**0.2856**	**7.3000e-004**	**0.0559**	**4.9000e-004**	**0.0564**	**0.0148**	**4.5000e-004**	**0.0153**		**56.9868**	**56.9868**	**2.8700e-003**		**57.0471**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7304	6.8028	5.0563	6.5600e-003		0.5037	0.5037		0.4634	0.4634	0.0000	661.0816	661.0816	0.2058		665.4035
Total	**0.7304**	**6.8028**	**5.0563**	**6.5600e-003**		**0.5037**	**0.5037**		**0.4634**	**0.4634**	**0.0000**	**661.0816**	**661.0816**	**0.2058**		**665.4035**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0180	0.0230	0.2856	7.3000e-004	0.0559	4.9000e-004	0.0564	0.0148	4.5000e-004	0.0153		56.9868	56.9868	2.8700e-003		57.0471
Total	**0.0180**	**0.0230**	**0.2856**	**7.3000e-004**	**0.0559**	**4.9000e-004**	**0.0564**	**0.0148**	**4.5000e-004**	**0.0153**		**56.9868**	**56.9868**	**2.8700e-003**		**57.0471**

3.4 Site Prep/Excavation - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0450	0.0000	0.0450	5.5300e-003	0.0000	5.5300e-003			0.0000			0.0000
Off-Road	1.2707	14.4173	9.1936	0.0176		0.6479	0.6479		0.5961	0.5961		1,767.3360	1,767.3360	0.5502		1,778.8901
Total	**1.2707**	**14.4173**	**9.1936**	**0.0176**	**0.0450**	**0.6479**	**0.6929**	**5.5300e-003**	**0.5961**	**0.6016**		**1,767.3360**	**1,767.3360**	**0.5502**		**1,778.8901**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.5892	8.6125	6.7170	0.0268	0.6272	0.1364	0.7635	0.1717	0.1255	0.2972		2,621.8800	2,621.8800	0.0199		2,622.2981
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0288	0.0368	0.4569	1.1600e-003	0.0894	7.8000e-004	0.0902	0.0237	7.3000e-004	0.0244		91.1789	91.1789	4.5900e-003		91.2754
Total	**0.6180**	**8.6493**	**7.1739**	**0.0280**	**0.7166**	**0.1372**	**0.8538**	**0.1954**	**0.1262**	**0.3216**		**2,713.0588**	**2,713.0588**	**0.0245**		**2,713.5734**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0175	0.0000	0.0175	2.1600e-003	0.0000	2.1600e-003			0.0000			0.0000
Off-Road	1.2707	14.4173	9.1936	0.0176		0.6479	0.6479		0.5961	0.5961	0.0000	1,767.3360	1,767.3360	0.5502		1,778.8901
Total	**1.2707**	**14.4173**	**9.1936**	**0.0176**	**0.0175**	**0.6479**	**0.6654**	**2.1600e-003**	**0.5961**	**0.5982**	**0.0000**	**1,767.3360**	**1,767.3360**	**0.5502**		**1,778.8901**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.5892	8.6125	6.7170	0.0268	0.6272	0.1364	0.7635	0.1717	0.1255	0.2972		2,621.8800	2,621.8800	0.0199		2,622.2981
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0288	0.0368	0.4569	1.1600e-003	0.0894	7.8000e-004	0.0902	0.0237	7.3000e-004	0.0244		91.1789	91.1789	4.5900e-003		91.2754
Total	**0.6180**	**8.6493**	**7.1739**	**0.0280**	**0.7166**	**0.1372**	**0.8538**	**0.1954**	**0.1262**	**0.3216**		**2,713.0588**	**2,713.0588**	**0.0245**		**2,713.5734**

3.5 Concrete Pours/Foundation - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1613	10.5487	7.7003	0.0135		0.6127	0.6127		0.5881	0.5881		1,281.7616	1,281.7616	0.2313		1,286.6178
Paving	0.0760					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.2372**	**10.5487**	**7.7003**	**0.0135**		**0.6127**	**0.6127**		**0.5881**	**0.5881**		**1,281.7616**	**1,281.7616**	**0.2313**		**1,286.6178**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0468	0.0598	0.7424	1.8900e-003	0.1453	1.2700e-003	0.1466	0.0385	1.1800e-003	0.0397		148.1657	148.1657	7.4700e-003		148.3225
Total	**0.0468**	**0.0598**	**0.7424**	**1.8900e-003**	**0.1453**	**1.2700e-003**	**0.1466**	**0.0385**	**1.1800e-003**	**0.0397**		**148.1657**	**148.1657**	**7.4700e-003**		**148.3225**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1613	10.5487	7.7003	0.0135		0.6127	0.6127		0.5881	0.5881	0.0000	1,281.7616	1,281.7616	0.2313		1,286.6178
Paving	0.0760					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.2372**	**10.5487**	**7.7003**	**0.0135**		**0.6127**	**0.6127**		**0.5881**	**0.5881**	**0.0000**	**1,281.7616**	**1,281.7616**	**0.2313**		**1,286.6178**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0468	0.0598	0.7424	1.8900e-003	0.1453	1.2700e-003	0.1466	0.0385	1.1800e-003	0.0397		148.1657	148.1657	7.4700e-003		148.3225
Total	**0.0468**	**0.0598**	**0.7424**	**1.8900e-003**	**0.1453**	**1.2700e-003**	**0.1466**	**0.0385**	**1.1800e-003**	**0.0397**		**148.1657**	**148.1657**	**7.4700e-003**		**148.3225**

3.6 Classroom and Administration Building - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6735	14.8522	10.4716	0.0158		0.8554	0.8554		0.7961	0.7961		1,537.7356	1,537.7356	0.4539		1,547.2680
Total	**1.6735**	**14.8522**	**10.4716**	**0.0158**		**0.8554**	**0.8554**		**0.7961**	**0.7961**		**1,537.7356**	**1,537.7356**	**0.4539**		**1,547.2680**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0653	0.6601	0.8206	1.9700e-003	0.0562	0.0103	0.0665	0.0160	9.5000e-003	0.0255		191.8122	191.8122	1.4000e-003		191.8416
Worker	0.0829	0.1058	1.3135	3.3400e-003	0.2571	2.2600e-003	0.2593	0.0682	2.0900e-003	0.0703		262.1392	262.1392	0.0132		262.4166
Total	**0.1482**	**0.7660**	**2.1342**	**5.3100e-003**	**0.3133**	**0.0126**	**0.3258**	**0.0842**	**0.0116**	**0.0958**		**453.9514**	**453.9514**	**0.0146**		**454.2583**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6735	14.8522	10.4716	0.0158		0.8554	0.8554		0.7961	0.7961	0.0000	1,537.7356	1,537.7356	0.4539		1,547.2680
Total	**1.6735**	**14.8522**	**10.4716**	**0.0158**		**0.8554**	**0.8554**		**0.7961**	**0.7961**	**0.0000**	**1,537.7356**	**1,537.7356**	**0.4539**		**1,547.2680**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0653	0.6601	0.8206	1.9700e-003	0.0562	0.0103	0.0665	0.0160	9.5000e-003	0.0255		191.8122	191.8122	1.4000e-003		191.8416
Worker	0.0829	0.1058	1.3135	3.3400e-003	0.2571	2.2600e-003	0.2593	0.0682	2.0900e-003	0.0703		262.1392	262.1392	0.0132		262.4166
Total	**0.1482**	**0.7660**	**2.1342**	**5.3100e-003**	**0.3133**	**0.0126**	**0.3258**	**0.0842**	**0.0116**	**0.0958**		**453.9514**	**453.9514**	**0.0146**		**454.2583**

3.6 Classroom and Administration Building - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5064	13.5867	10.2518	0.0158		0.7590	0.7590		0.7062	0.7062		1,516.5157	1,516.5157	0.4489		1,525.9415
Total	**1.5064**	**13.5867**	**10.2518**	**0.0158**		**0.7590**	**0.7590**		**0.7062**	**0.7062**		**1,516.5157**	**1,516.5157**	**0.4489**		**1,525.9415**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0620	0.6090	0.7909	1.9600e-003	0.0562	9.8200e-003	0.0660	0.0160	9.0400e-003	0.0250		187.8785	187.8785	1.3700e-003		187.9072
Worker	0.0762	0.0970	1.2062	3.3300e-003	0.2571	2.2000e-003	0.2593	0.0682	2.0400e-003	0.0702		251.8685	251.8685	0.0124		252.1278
Total	**0.1382**	**0.7061**	**1.9971**	**5.2900e-003**	**0.3133**	**0.0120**	**0.3253**	**0.0842**	**0.0111**	**0.0952**		**439.7470**	**439.7470**	**0.0137**		**440.0350**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5064	13.5867	10.2518	0.0158		0.7590	0.7590		0.7062	0.7062	0.0000	1,516.5157	1,516.5157	0.4489		1,525.9415
Total	**1.5064**	**13.5867**	**10.2518**	**0.0158**		**0.7590**	**0.7590**		**0.7062**	**0.7062**	**0.0000**	**1,516.5157**	**1,516.5157**	**0.4489**		**1,525.9415**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0620	0.6090	0.7909	1.9600e-003	0.0562	9.8200e-003	0.0660	0.0160	9.0400e-003	0.0250		187.8785	187.8785	1.3700e-003		187.9072
Worker	0.0762	0.0970	1.2062	3.3300e-003	0.2571	2.2000e-003	0.2593	0.0682	2.0400e-003	0.0702		251.8685	251.8685	0.0124		252.1278
Total	**0.1382**	**0.7061**	**1.9971**	**5.2900e-003**	**0.3133**	**0.0120**	**0.3253**	**0.0842**	**0.0111**	**0.0952**		**439.7470**	**439.7470**	**0.0137**		**440.0350**

3.7 Kindergarten Building - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6735	14.8522	10.4716	0.0158		0.8554	0.8554		0.7961	0.7961		1,537.7356	1,537.7356	0.4539		1,547.2680
Total	**1.6735**	**14.8522**	**10.4716**	**0.0158**		**0.8554**	**0.8554**		**0.7961**	**0.7961**		**1,537.7356**	**1,537.7356**	**0.4539**		**1,547.2680**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0653	0.6601	0.8206	1.9700e-003	0.0562	0.0103	0.0665	0.0160	9.5000e-003	0.0255		191.8122	191.8122	1.4000e-003		191.8416
Worker	0.0829	0.1058	1.3135	3.3400e-003	0.2571	2.2600e-003	0.2593	0.0682	2.0900e-003	0.0703		262.1392	262.1392	0.0132		262.4166
Total	**0.1482**	**0.7660**	**2.1342**	**5.3100e-003**	**0.3133**	**0.0126**	**0.3258**	**0.0842**	**0.0116**	**0.0958**		**453.9514**	**453.9514**	**0.0146**		**454.2583**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6735	14.8522	10.4716	0.0158		0.8554	0.8554		0.7961	0.7961	0.0000	1,537.7356	1,537.7356	0.4539		1,547.2680
Total	**1.6735**	**14.8522**	**10.4716**	**0.0158**		**0.8554**	**0.8554**		**0.7961**	**0.7961**	**0.0000**	**1,537.7356**	**1,537.7356**	**0.4539**		**1,547.2680**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0653	0.6601	0.8206	1.9700e-003	0.0562	0.0103	0.0665	0.0160	9.5000e-003	0.0255		191.8122	191.8122	1.4000e-003		191.8416
Worker	0.0829	0.1058	1.3135	3.3400e-003	0.2571	2.2600e-003	0.2593	0.0682	2.0900e-003	0.0703		262.1392	262.1392	0.0132		262.4166
Total	**0.1482**	**0.7660**	**2.1342**	**5.3100e-003**	**0.3133**	**0.0126**	**0.3258**	**0.0842**	**0.0116**	**0.0958**		**453.9514**	**453.9514**	**0.0146**		**454.2583**

3.7 Kindergarten Building - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5064	13.5867	10.2518	0.0158		0.7590	0.7590		0.7062	0.7062		1,516.5157	1,516.5157	0.4489		1,525.9415
Total	**1.5064**	**13.5867**	**10.2518**	**0.0158**		**0.7590**	**0.7590**		**0.7062**	**0.7062**		**1,516.5157**	**1,516.5157**	**0.4489**		**1,525.9415**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0620	0.6090	0.7909	1.9600e-003	0.0562	9.8200e-003	0.0660	0.0160	9.0400e-003	0.0250		187.8785	187.8785	1.3700e-003		187.9072
Worker	0.0762	0.0970	1.2062	3.3300e-003	0.2571	2.2000e-003	0.2593	0.0682	2.0400e-003	0.0702		251.8685	251.8685	0.0124		252.1278
Total	**0.1382**	**0.7061**	**1.9971**	**5.2900e-003**	**0.3133**	**0.0120**	**0.3253**	**0.0842**	**0.0111**	**0.0952**		**439.7470**	**439.7470**	**0.0137**		**440.0350**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5064	13.5867	10.2518	0.0158		0.7590	0.7590		0.7062	0.7062	0.0000	1,516.5157	1,516.5157	0.4489		1,525.9415
Total	**1.5064**	**13.5867**	**10.2518**	**0.0158**		**0.7590**	**0.7590**		**0.7062**	**0.7062**	**0.0000**	**1,516.5157**	**1,516.5157**	**0.4489**		**1,525.9415**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0620	0.6090	0.7909	1.9600e-003	0.0562	9.8200e-003	0.0660	0.0160	9.0400e-003	0.0250		187.8785	187.8785	1.3700e-003		187.9072
Worker	0.0762	0.0970	1.2062	3.3300e-003	0.2571	2.2000e-003	0.2593	0.0682	2.0400e-003	0.0702		251.8685	251.8685	0.0124		252.1278
Total	**0.1382**	**0.7061**	**1.9971**	**5.2900e-003**	**0.3133**	**0.0120**	**0.3253**	**0.0842**	**0.0111**	**0.0952**		**439.7470**	**439.7470**	**0.0137**		**440.0350**

3.8 Building Architectural Coatings - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	3.0202					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3553	2.4472	2.4551	3.9600e-003		0.1717	0.1717		0.1717	0.1717		375.2641	375.2641	0.0317		375.9297
Total	**3.3755**	**2.4472**	**2.4551**	**3.9600e-003**		**0.1717**	**0.1717**		**0.1717**	**0.1717**		**375.2641**	**375.2641**	**0.0317**		**375.9297**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0166	0.0211	0.2622	7.2000e-004	0.0559	4.8000e-004	0.0564	0.0148	4.4000e-004	0.0153		54.7540	54.7540	2.6800e-003		54.8104
Total	**0.0166**	**0.0211**	**0.2622**	**7.2000e-004**	**0.0559**	**4.8000e-004**	**0.0564**	**0.0148**	**4.4000e-004**	**0.0153**		**54.7540**	**54.7540**	**2.6800e-003**		**54.8104**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	3.0202					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3553	2.4472	2.4551	3.9600e-003		0.1717	0.1717		0.1717	0.1717	0.0000	375.2641	375.2641	0.0317		375.9297
Total	**3.3755**	**2.4472**	**2.4551**	**3.9600e-003**		**0.1717**	**0.1717**		**0.1717**	**0.1717**	**0.0000**	**375.2641**	**375.2641**	**0.0317**		**375.9297**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0166	0.0211	0.2622	7.2000e-004	0.0559	4.8000e-004	0.0564	0.0148	4.4000e-004	0.0153		54.7540	54.7540	2.6800e-003		54.8104
Total	**0.0166**	**0.0211**	**0.2622**	**7.2000e-004**	**0.0559**	**4.8000e-004**	**0.0564**	**0.0148**	**4.4000e-004**	**0.0153**		**54.7540**	**54.7540**	**2.6800e-003**		**54.8104**

3.9 Kitchen Upgrades - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9412	7.7531	6.7503	9.8500e-003		0.4342	0.4342		0.4064	0.4064		913.8235	913.8235	0.2591		919.2649
Total	**0.9412**	**7.7531**	**6.7503**	**9.8500e-003**		**0.4342**	**0.4342**		**0.4064**	**0.4064**		**913.8235**	**913.8235**	**0.2591**		**919.2649**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0593	0.5330	0.7673	1.9600e-003	0.0562	8.9700e-003	0.0652	0.0160	8.2500e-003	0.0242		183.6944	183.6944	1.3400e-003		183.7225
Worker	0.0714	0.0900	1.1242	3.3300e-003	0.2571	2.1800e-003	0.2593	0.0682	2.0200e-003	0.0702		241.7575	241.7575	0.0117		242.0033
Total	**0.1307**	**0.6230**	**1.8915**	**5.2900e-003**	**0.3133**	**0.0112**	**0.3244**	**0.0842**	**0.0103**	**0.0944**		**425.4519**	**425.4519**	**0.0130**		**425.7258**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9412	7.7531	6.7503	9.8500e-003		0.4342	0.4342		0.4064	0.4064	0.0000	913.8235	913.8235	0.2591		919.2649
Total	**0.9412**	**7.7531**	**6.7503**	**9.8500e-003**		**0.4342**	**0.4342**		**0.4064**	**0.4064**	**0.0000**	**913.8235**	**913.8235**	**0.2591**		**919.2649**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0593	0.5330	0.7673	1.9600e-003	0.0562	8.9700e-003	0.0652	0.0160	8.2500e-003	0.0242		183.6944	183.6944	1.3400e-003		183.7225
Worker	0.0714	0.0900	1.1242	3.3300e-003	0.2571	2.1800e-003	0.2593	0.0682	2.0200e-003	0.0702		241.7575	241.7575	0.0117		242.0033
Total	**0.1307**	**0.6230**	**1.8915**	**5.2900e-003**	**0.3133**	**0.0112**	**0.3244**	**0.0842**	**0.0103**	**0.0944**		**425.4519**	**425.4519**	**0.0130**		**425.7258**

3.10 Administration Building Reuse - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9412	7.7531	6.7503	9.8500e-003		0.4342	0.4342		0.4064	0.4064		913.8235	913.8235	0.2591		919.2649
Total	**0.9412**	**7.7531**	**6.7503**	**9.8500e-003**		**0.4342**	**0.4342**		**0.4064**	**0.4064**		**913.8235**	**913.8235**	**0.2591**		**919.2649**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0593	0.5330	0.7673	1.9600e-003	0.0562	8.9700e-003	0.0652	0.0160	8.2500e-003	0.0242		183.6944	183.6944	1.3400e-003		183.7225
Worker	0.0714	0.0900	1.1242	3.3300e-003	0.2571	2.1800e-003	0.2593	0.0682	2.0200e-003	0.0702		241.7575	241.7575	0.0117		242.0033
Total	**0.1307**	**0.6230**	**1.8915**	**5.2900e-003**	**0.3133**	**0.0112**	**0.3244**	**0.0842**	**0.0103**	**0.0944**		**425.4519**	**425.4519**	**0.0130**		**425.7258**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9412	7.7531	6.7503	9.8500e-003		0.4342	0.4342		0.4064	0.4064	0.0000	913.8235	913.8235	0.2591		919.2649
Total	**0.9412**	**7.7531**	**6.7503**	**9.8500e-003**		**0.4342**	**0.4342**		**0.4064**	**0.4064**	**0.0000**	**913.8235**	**913.8235**	**0.2591**		**919.2649**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0593	0.5330	0.7673	1.9600e-003	0.0562	8.9700e-003	0.0652	0.0160	8.2500e-003	0.0242		183.6944	183.6944	1.3400e-003		183.7225
Worker	0.0714	0.0900	1.1242	3.3300e-003	0.2571	2.1800e-003	0.2593	0.0682	2.0200e-003	0.0702		241.7575	241.7575	0.0117		242.0033
Total	**0.1307**	**0.6230**	**1.8915**	**5.2900e-003**	**0.3133**	**0.0112**	**0.3244**	**0.0842**	**0.0103**	**0.0944**		**425.4519**	**425.4519**	**0.0130**		**425.7258**

3.11 Restripe Parking Lot, Landscaping - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	0.1369					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.5218	5.1872	5.6609	8.2600e-003		0.3111	0.3111		0.2862	0.2862		800.3421	800.3421	0.2589		805.7779
Total	**0.6587**	**5.1872**	**5.6609**	**8.2600e-003**		**0.3111**	**0.3111**		**0.2862**	**0.2862**		**800.3421**	**800.3421**	**0.2589**		**805.7779**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0155	0.0196	0.2444	7.2000e-004	0.0559	4.7000e-004	0.0564	0.0148	4.4000e-004	0.0153		52.5560	52.5560	2.5400e-003		52.6094
Total	**0.0155**	**0.0196**	**0.2444**	**7.2000e-004**	**0.0559**	**4.7000e-004**	**0.0564**	**0.0148**	**4.4000e-004**	**0.0153**		**52.5560**	**52.5560**	**2.5400e-003**		**52.6094**

Mitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
Archit. Coating	0.1369					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.5218	5.1872	5.6609	8.2600e-003		0.3111	0.3111		0.2862	0.2862	0.0000	800.3421	800.3421	0.2589		805.7779
Total	**0.6587**	**5.1872**	**5.6609**	**8.2600e-003**		**0.3111**	**0.3111**		**0.2862**	**0.2862**	**0.0000**	**800.3421**	**800.3421**	**0.2589**		**805.7779**

Mitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0155	0.0196	0.2444	7.2000e-004	0.0559	4.7000e-004	0.0564	0.0148	4.4000e-004	0.0153		52.5560	52.5560	2.5400e-003		52.6094
Total	**0.0155**	**0.0196**	**0.2444**	**7.2000e-004**	**0.0559**	**4.7000e-004**	**0.0564**	**0.0148**	**4.4000e-004**	**0.0153**		**52.5560**	**52.5560**	**2.5400e-003**		**52.6094**

Appendix A.2
Operational Emissions

- Operations : CalEEMod Output (Annual)
- Operations : CalEEMod Output (Summer)
- Operations : CalEEMod Output (Winter)

LAUCSD Colfax ES Improvements - Operations

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Elementary School	39.46	1000sqft	0.91	39,460.00	0
Parking Lot	32.00	Space	0.29	12,800.00	0
City Park	0.04	Acre	0.04	1,932.00	0

1.2 Other Project Characteristics

Urbanization Urban **Wind Speed (m/s)** 2.2 **Precipitation Freq (Days)** 33

Climate Zone 11 **Operational Year** 2020

Utility Company Los Angeles Department of Water & Power

CO2 Intensity (lb/MWhr) 1227.89 **CH4 Intensity (lb/MWhr)** 0.029 **N2O Intensity (lb/MWhr)** 0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - See assumptions

Vehicle Trips - See assumptions

Area Mitigation -

Energy Mitigation -

Water Mitigation -

Waste Mitigation -

Table Name	Column Name	Default Value	New Value
tblLandUse	LandUseSquareFeet	1,742.40	1,932.00
tblProjectCharacteristics	OperationalYear	2014	2020
tblVehicleTrips	ST_TR	1.59	0.00

tblVehicleTrips	SU_TR	1.59	0.00
tblVehicleTrips	WD_TR	1.59	0.00
tblVehicleTrips	WD_TR	15.43	5.22

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.2443	1.0000e-005	9.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.7700e-003	1.7700e-003	0.0000	0.0000	1.8700e-003
Energy	2.3200e-003	0.0211	0.0177	1.3000e-004		1.6000e-003	1.6000e-003		1.6000e-003	1.6000e-003	0.0000	176.4557	176.4557	4.0700e-003	1.1700e-003	176.9039
Mobile	0.0797	0.2475	0.9485	2.8900e-003	0.1923	4.0000e-003	0.1963	0.0515	3.6900e-003	0.0552	0.0000	203.6869	203.6869	7.5600e-003	0.0000	203.8456
Waste						0.0000	0.0000		0.0000	0.0000	10.4134	0.0000	10.4134	0.6154	0.0000	23.3372
Water						0.0000	0.0000		0.0000	0.0000	0.3630	26.7993	27.1624	0.0379	1.0100e-003	28.2721
Total	**0.3264**	**0.2686**	**0.9671**	**3.0200e-003**	**0.1923**	**5.6000e-003**	**0.1979**	**0.0515**	**5.2900e-003**	**0.0568**	**10.7765**	**406.9437**	**417.7201**	**0.6650**	**2.1800e-003**	**432.3607**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.2443	1.0000e-005	9.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.7700e-003	1.7700e-003	0.0000	0.0000	1.8700e-003
Energy	1.7700e-003	0.0161	0.0136	1.0000e-004		1.2300e-003	1.2300e-003		1.2300e-003	1.2300e-003	0.0000	158.9135	158.9135	3.6800e-003	1.0100e-003	159.3046
Mobile	0.0797	0.2475	0.9485	2.8900e-003	0.1923	4.0000e-003	0.1963	0.0515	3.6900e-003	0.0552	0.0000	203.6869	203.6869	7.5600e-003	0.0000	203.8456
Waste						0.0000	0.0000		0.0000	0.0000	5.2067	0.0000	5.2067	0.3077	0.0000	11.6686
Water						0.0000	0.0000		0.0000	0.0000	0.2178	23.3073	23.5251	0.0229	6.4000e-004	24.2055
Total	**0.3258**	**0.2636**	**0.9629**	**2.9900e-003**	**0.1923**	**5.2300e-003**	**0.1975**	**0.0515**	**4.9200e-003**	**0.0564**	**5.4245**	**385.9095**	**391.3340**	**0.3419**	**1.6500e-003**	**399.0262**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.17**	**1.84**	**0.43**	**0.99**	**0.00**	**6.61**	**0.19**	**0.00**	**6.99**	**0.65**	**49.66**	**5.17**	**6.32**	**48.59**	**24.31**	**7.71**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0797	0.2475	0.9485	2.8900e-003	0.1923	4.0000e-003	0.1963	0.0515	3.6900e-003	0.0552	0.0000	203.6869	203.6869	7.5600e-003	0.0000	203.8456
Unmitigated	0.0797	0.2475	0.9485	2.8900e-003	0.1923	4.0000e-003	0.1963	0.0515	3.6900e-003	0.0552	0.0000	203.6869	203.6869	7.5600e-003	0.0000	203.8456

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
Elementary School	205.98	0.00	0.00	507,064	507,064
Parking Lot	0.00	0.00	0.00		
Total	205.98	0.00	0.00	507,064	507,064

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6
Elementary School	16.60	8.40	6.90	65.00	30.00	5.00	63	25	12
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.530094	0.057664	0.178835	0.124843	0.039181	0.006319	0.017052	0.034445	0.002509	0.003148	0.003693	0.000531	0.001685

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	141.3530	141.3530	3.3400e-003	6.9000e-004	141.6372
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	153.5242	153.5242	3.6300e-003	7.5000e-004	153.8329
NaturalGas Mitigated	1.7700e-003	0.0161	0.0136	1.0000e-004		1.2300e-003	1.2300e-003		1.2300e-003	1.2300e-003	0.0000	17.5606	17.5606	3.4000e-004	3.2000e-004	17.6674
NaturalGas Unmitigated	2.3200e-003	0.0211	0.0177	1.3000e-004		1.6000e-003	1.6000e-003		1.6000e-003	1.6000e-003	0.0000	22.9315	22.9315	4.4000e-004	4.2000e-004	23.0710

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Elementary School	429719	2.3200e-003	0.0211	0.0177	1.3000e-004		1.6000e-003	1.6000e-003		1.6000e-003	1.6000e-003	0.0000	22.9315	22.9315	4.4000e-004	4.2000e-004	23.0710
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**2.3200e-003**	**0.0211**	**0.0177**	**1.3000e-004**		**1.6000e-003**	**1.6000e-003**		**1.6000e-003**	**1.6000e-003**	**0.0000**	**22.9315**	**22.9315**	**4.4000e-004**	**4.2000e-004**	**23.0710**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Elementary School	329073	1.7700e-003	0.0161	0.0136	1.0000e-004		1.2300e-003	1.2300e-003		1.2300e-003	1.2300e-003	0.0000	17.5606	17.5606	3.4000e-004	3.2000e-004	17.6674
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**1.7700e-003**	**0.0161**	**0.0136**	**1.0000e-004**		**1.2300e-003**	**1.2300e-003**		**1.2300e-003**	**1.2300e-003**	**0.0000**	**17.5606**	**17.5606**	**3.4000e-004**	**3.2000e-004**	**17.6674**

5.3 Energy by Land Use - Electricity

Unmitigated

Land Use	Electricity Use (kWh/yr)	Total CO2 (MT/yr)	CH4 (MT/yr)	N2O (MT/yr)	CO2e (MT/yr)
City Park	0	0.0000	0.0000	0.0000	0.0000
Elementary School	264382	147.2506	3.4800e-003	7.2000e-004	147.5467
Parking Lot	11264	6.2736	1.5000e-004	3.0000e-005	6.2862
Total		**153.5242**	**3.6300e-003**	**7.5000e-004**	**153.8329**

Mitigated

Land Use	Electricity Use (kWh/yr)	Total CO2 (MT/yr)	CH4 (MT/yr)	N2O (MT/yr)	CO2e (MT/yr)
City Park	0	0.0000	0.0000	0.0000	0.0000
Elementary School	242529	135.0794	3.1900e-003	6.6000e-004	135.3510
Parking Lot	11264	6.2736	1.5000e-004	3.0000e-005	6.2862
Total		**141.3530**	**3.3400e-003**	**6.9000e-004**	**141.6372**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.2443	1.0000e-005	9.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.7700e-003	1.7700e-003	0.0000	0.0000	1.8700e-003
Unmitigated	0.2443	1.0000e-005	9.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.7700e-003	1.7700e-003	0.0000	0.0000	1.8700e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0484					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1958					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	9.0000e-005	1.0000e-005	9.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.7700e-003	1.7700e-003	0.0000	0.0000	1.8700e-003
Total	**0.2443**	**1.0000e-005**	**9.2000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.7700e-003**	**1.7700e-003**	**0.0000**	**0.0000**	**1.8700e-003**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0484					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1958					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	9.0000e-005	1.0000e-005	9.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.7700e-003	1.7700e-003	0.0000	0.0000	1.8700e-003
Total	**0.2443**	**1.0000e-005**	**9.2000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.7700e-003**	**1.7700e-003**	**0.0000**	**0.0000**	**1.8700e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	23.5251	0.0229	6.4000e-004	24.2055
Unmitigated	27.1624	0.0379	1.0100e-003	28.2721

7.2 Water by Land Use

Unmitigated

Land Use	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
	Mgal	MT/yr			
City Park	0 / 0.0476593	0.2949	1.0000e-005	0.0000	0.2955
Elementary School	1.14422 / 2.94228	26.8674	0.0379	1.0100e-003	27.9766
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**27.1624**	**0.0379**	**1.0100e-003**	**28.2721**

Mitigated

Land Use	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
	Mgal	MT/yr			
City Park	0 / 0.0476593	0.2949	1.0000e-005	0.0000	0.2955
Elementary School	0.686531 / 2.94228	23.2302	0.0229	6.4000e-004	23.9100
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**23.5251**	**0.0229**	**6.4000e-004**	**24.2055**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	5.2067	0.3077	0.0000	11.6686
Unmitigated	10.4134	0.6154	0.0000	23.3372

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Elementary School	51.3	10.4134	0.6154	0.0000	23.3372
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**10.4134**	**0.6154**	**0.0000**	**23.3372**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
City Park	0	0.0000	0.0000	0.0000	0.0000
Elementary School	25.65	5.2067	0.3077	0.0000	11.6686
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**5.2067**	**0.3077**	**0.0000**	**11.6686**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

LAUCSD Colfax ES Improvements - Operations

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Elementary School	39.46	1000sqft	0.91	39,460.00	0
Parking Lot	32.00	Space	0.29	12,800.00	0
City Park	0.04	Acre	0.04	1,932.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	11			**Operational Year**	2020
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	1227.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - See assumptions

Vehicle Trips - See assumptions

Area Mitigation -

Energy Mitigation -

Water Mitigation -

Waste Mitigation -

Table Name	Column Name	Default Value	New Value
tblLandUse	LandUseSquareFeet	1,742.40	1,932.00
tblProjectCharacteristics	OperationalYear	2014	2020

tblVehicleTrips	ST_TR	1.59	0.00
tblVehicleTrips	SU_TR	1.59	0.00
tblVehicleTrips	WD_TR	1.59	0.00
tblVehicleTrips	WD_TR	15.43	5.22

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.3389	7.0000e-005	7.3500e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0157	0.0157	4.0000e-005		0.0165
Energy	0.0127	0.1154	0.0970	6.9000e-004		8.7700e-003	8.7700e-003		8.7700e-003	8.7700e-003		138.5075	138.5075	2.6500e-003	2.5400e-003	139.3504
Mobile	0.6179	1.7738	7.2672	0.0230	1.5081	0.0308	1.5389	0.4033	0.0284	0.4317		1,784.2401	1,784.2401	0.0641		1,785.5868
Total	**1.9696**	**1.8893**	**7.3715**	**0.0237**	**1.5081**	**0.0396**	**1.5477**	**0.4033**	**0.0372**	**0.4405**		**1,922.7632**	**1,922.7632**	**0.0668**	**2.5400e-003**	**1,924.9537**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.3389	7.0000e-005	7.3500e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0157	0.0157	4.0000e-005		0.0165
Energy	9.7200e-003	0.0884	0.0743	5.3000e-004		6.7200e-003	6.7200e-003		6.7200e-003	6.7200e-003		106.0670	106.0670	2.0300e-003	1.9400e-003	106.7125
Mobile	0.6179	1.7738	7.2672	0.0230	1.5081	0.0308	1.5389	0.4033	0.0284	0.4317		1,784.2401	1,784.2401	0.0641		1,785.5868
Total	**1.9666**	**1.8623**	**7.3488**	**0.0235**	**1.5081**	**0.0375**	**1.5456**	**0.4033**	**0.0352**	**0.4385**		**1,890.3227**	**1,890.3227**	**0.0662**	**1.9400e-003**	**1,892.3157**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.15**	**1.43**	**0.31**	**0.68**	**0.00**	**5.18**	**0.13**	**0.00**	**5.51**	**0.47**	**0.00**	**1.69**	**1.69**	**0.93**	**23.62**	**1.70**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
Mitigated	0.6179	1.7738	7.2672	0.0230	1.5081	0.0308	1.5389	0.4033	0.0284	0.4317		1,784.2401	1,784.2401	0.0641		1,785.5868
Unmitigated	0.6179	1.7738	7.2672	0.0230	1.5081	0.0308	1.5389	0.4033	0.0284	0.4317		1,784.2401	1,784.2401	0.0641		1,785.5868

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
Elementary School	205.98	0.00	0.00	507,064	507,064
Parking Lot	0.00	0.00	0.00		
Total	205.98	0.00	0.00	507,064	507,064

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-...	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6
Elementary School	16.60	8.40	6.90	65.00	30.00	5.00	63	25	12
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.530094	0.057664	0.178835	0.124843	0.039181	0.006319	0.017052	0.034445	0.002509	0.003148	0.003693	0.000531	0.001685

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	9.7200e-003	0.0884	0.0743	5.3000e-004		6.7200e-003	6.7200e-003		6.7200e-003	6.7200e-003		106.0670	106.0670	2.0300e-003	1.9400e-003	106.7125
NaturalGas Unmitigated	0.0127	0.1154	0.0970	6.9000e-004		8.7700e-003	8.7700e-003		8.7700e-003	8.7700e-003		138.5075	138.5075	2.6500e-003	2.5400e-003	139.3504

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Elementary School	1177.31	0.0127	0.1154	0.0970	6.9000e-004		8.7700e-003	8.7700e-003		8.7700e-003	8.7700e-003		138.5075	138.5075	2.6500e-003	2.5400e-003	139.3504
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0127**	**0.1154**	**0.0970**	**6.9000e-004**		**8.7700e-003**	**8.7700e-003**		**8.7700e-003**	**8.7700e-003**		**138.5075**	**138.5075**	**2.6500e-003**	**2.5400e-003**	**139.3504**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Elementary School	0.901569	9.7200e-003	0.0884	0.0743	5.3000e-004		6.7200e-003	6.7200e-003		6.7200e-003	6.7200e-003		106.0670	106.0670	2.0300e-003	1.9400e-003	106.7125
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**9.7200e-003**	**0.0884**	**0.0743**	**5.3000e-004**		**6.7200e-003**	**6.7200e-003**		**6.7200e-003**	**6.7200e-003**		**106.0670**	**106.0670**	**2.0300e-003**	**1.9400e-003**	**106.7125**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.3389	7.0000e-005	7.3500e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0157	0.0157	4.0000e-005		0.0165
Unmitigated	1.3389	7.0000e-005	7.3500e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0157	0.0157	4.0000e-005		0.0165

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2653					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.0730					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.9000e-004	7.0000e-005	7.3500e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0157	0.0157	4.0000e-005		0.0165
Total	**1.3389**	**7.0000e-005**	**7.3500e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**		**0.0157**	**0.0157**	**4.0000e-005**		**0.0165**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2653					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.0730					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.9000e-004	7.0000e-005	7.3500e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0157	0.0157	4.0000e-005		0.0165
Total	**1.3389**	**7.0000e-005**	**7.3500e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**		**0.0157**	**0.0157**	**4.0000e-005**		**0.0165**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

LAUCSD Colfax ES Improvements - Operations

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Elementary School	39.46	1000sqft	0.91	39,460.00	0
Parking Lot	32.00	Space	0.29	12,800.00	0
City Park	0.04	Acre	0.04	1,932.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	11			**Operational Year**	2020
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	1227.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - See assumptions

Vehicle Trips - See assumptions

Area Mitigation -

Energy Mitigation -

Water Mitigation -

Waste Mitigation -

Table Name	Column Name	Default Value	New Value
tblLandUse	LandUseSquareFeet	1,742.40	1,932.00

tblProjectCharacteristics	OperationalYear	2014	2020
tblVehicleTrips	ST_TR	1.59	0.00
tblVehicleTrips	SU_TR	1.59	0.00
tblVehicleTrips	WD_TR	1.59	0.00
tblVehicleTrips	WD_TR	15.43	5.22

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.3389	7.0000e-005	7.3500e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0157	0.0157	4.0000e-005		0.0165
Energy	0.0127	0.1154	0.0970	6.9000e-004		8.7700e-003	8.7700e-003		8.7700e-003	8.7700e-003		138.5075	138.5075	2.6500e-003	2.5400e-003	139.3504
Mobile	0.6449	1.8681	7.2672	0.0220	1.5081	0.0309	1.5390	0.4033	0.0285	0.4318		1,707.9852	1,707.9852	0.0642		1,709.3333
Total	**1.9966**	**1.9836**	**7.3715**	**0.0227**	**1.5081**	**0.0397**	**1.5478**	**0.4033**	**0.0373**	**0.4406**		**1,846.5083**	**1,846.5083**	**0.0669**	**2.5400e-003**	**1,848.7002**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.3389	7.0000e-005	7.3500e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0157	0.0157	4.0000e-005		0.0165
Energy	9.7200e-003	0.0884	0.0743	5.3000e-004		6.7200e-003	6.7200e-003		6.7200e-003	6.7200e-003		106.0670	106.0670	2.0300e-003	1.9400e-003	106.7125
Mobile	0.6449	1.8681	7.2672	0.0220	1.5081	0.0309	1.5390	0.4033	0.0285	0.4318		1,707.9852	1,707.9852	0.0642		1,709.3333
Total	**1.9936**	**1.9566**	**7.3488**	**0.0225**	**1.5081**	**0.0376**	**1.5457**	**0.4033**	**0.0352**	**0.4385**		**1,814.0678**	**1,814.0678**	**0.0663**	**1.9400e-003**	**1,816.0623**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**

Percent Reduction	0.15	1.36	0.31	0.71	0.00	5.17	0.13	0.00	5.50	0.47	0.00	1.76	1.76	0.93	23.62	1.77

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.6449	1.8681	7.2672	0.0220	1.5081	0.0309	1.5390	0.4033	0.0285	0.4318		1,707.985 2	1,707.9852	0.0642		1,709.333 3
Unmitigated	0.6449	1.8681	7.2672	0.0220	1.5081	0.0309	1.5390	0.4033	0.0285	0.4318		1,707.985 2	1,707.9852	0.0642		1,709.333 3

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	0.00	0.00	0.00		
Elementary School	205.98	0.00	0.00	507,064	507,064
Parking Lot	0.00	0.00	0.00		
Total	205.98	0.00	0.00	507,064	507,064

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
City Park	16.60	8.40	6.90	33.00	48.00	19.00	66	28	6
Elementary School	16.60	8.40	6.90	65.00	30.00	5.00	63	25	12
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.530094	0.057664	0.178835	0.124843	0.039181	0.006319	0.017052	0.034445	0.002509	0.003148	0.003693	0.000531	0.001685

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
NaturalGas Mitigated	9.7200e-003	0.0884	0.0743	5.3000e-004		6.7200e-003	6.7200e-003		6.7200e-003	6.7200e-003		106.0670	106.0670	2.0300e-003	1.9400e-003	106.7125
NaturalGas Unmitigated	0.0127	0.1154	0.0970	6.9000e-004		8.7700e-003	8.7700e-003		8.7700e-003	8.7700e-003		138.5075	138.5075	2.6500e-003	2.5400e-003	139.3504

5.2 Energy by Land Use - NaturalGas

Unmitigated

Land Use	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	kBTU/yr	lb/day										lb/day					
Elementary School	1177.31	0.0127	0.1154	0.0970	6.9000e-004		8.7700e-003	8.7700e-003		8.7700e-003	8.7700e-003		138.5075	138.5075	2.6500e-003	2.5400e-003	139.3504
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0127**	**0.1154**	**0.0970**	**6.9000e-004**		**8.7700e-003**	**8.7700e-003**		**8.7700e-003**	**8.7700e-003**		**138.5075**	**138.5075**	**2.6500e-003**	**2.5400e-003**	**139.3504**

Mitigated

Land Use	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	kBTU/yr	lb/day										lb/day					
Elementary School	0.901569	9.7200e-003	0.0884	0.0743	5.3000e-004		6.7200e-003	6.7200e-003		6.7200e-003	6.7200e-003		106.0670	106.0670	2.0300e-003	1.9400e-003	106.7125
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**9.7200e-003**	**0.0884**	**0.0743**	**5.3000e-004**		**6.7200e-003**	**6.7200e-003**		**6.7200e-003**	**6.7200e-003**		**106.0670**	**106.0670**	**2.0300e-003**	**1.9400e-003**	**106.7125**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.3389	7.0000e-005	7.3500e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0157	0.0157	4.0000e-005		0.0165
Unmitigated	1.3389	7.0000e-005	7.3500e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0157	0.0157	4.0000e-005		0.0165

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2653					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.0730					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.9000e-004	7.0000e-005	7.3500e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0157	0.0157	4.0000e-005		0.0165
Total	**1.3389**	**7.0000e-005**	**7.3500e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**		**0.0157**	**0.0157**	**4.0000e-005**		**0.0165**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2653					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.0730					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	6.9000e-004	7.0000e-005	7.3500e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0157	0.0157	4.0000e-005		0.0165
Total	**1.3389**	**7.0000e-005**	**7.3500e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**		**0.0157**	**0.0157**	**4.0000e-005**		**0.0165**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

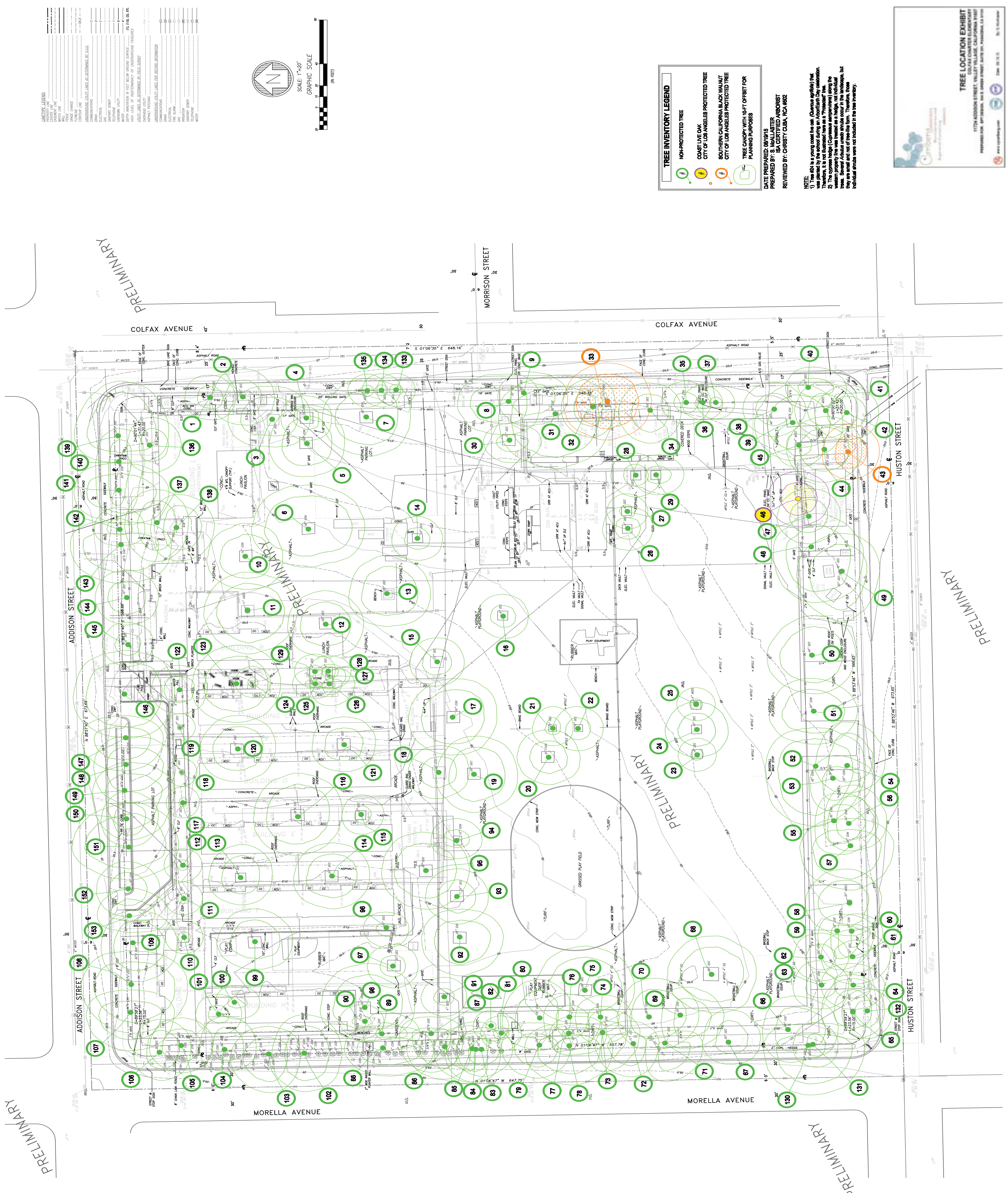
9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

Appendix B
Colfax Tree Survey

COLFAX TREE INVENTORY



COLFAX TREE INVENTORY

COLFAX ELEMENTARY SCHOOL-TREE INVENTORY

Tag Number	Common Name	Botanical Name	No. of Trunks	DBH(s) in inches	City of Los Angeles Protected Tree	Height	N	E	S	W	% Canopy Cover	Terrain Flat \ Slope	Lean	Wound Wood Dev. (P,A,E)	Foliage Density	Codominant Trunks /branch	Epicormic Growth	Cavities Trunk / Branch	Fungus	Cankers	Exudations	Mechanical Damage	Crown Dieback (N,Mi,Mo,Ex)	Shaded Out	Pest / Disease	Vigor (E,A,F,P)	Health	Structure	Disposition
1	Southern magnolia	*Magnolia grandiflora*	1	14	No	30	10	10	10	10	75	F		A	A			X					MI			F	B-	B+	
2	Silk Oak	*Grevillea robusta*	2	27,27	No	65	15	15	15	15	90	F		A	A	X	X						MI			A	A	C	
3	California Pepper	*Schinus molle*	1	15	No	30	25	20	20	15	80	F	E	A	A	X							MI			A	A-	B+	
4	She-Oak	*Casuarina equisetifolia*	1	18	No	45	10	10	10	10	80	F		P	A		X						MI	X	X	A	A	B	
5	Torrey Pine	*Pinus torreyana*	1	40	No	75	20	25	20	20	75	F		A	A						X	X	MI			A	A	A-	
6	Torrey Pine	*Pinus torreyana*	1	39	No	75	35	30	35	25	75	F		A	A						X		MI			A	A	A-	
7	Canary Island Pine	*Pinus canariensis*	1	34	No	75	25	25	25	25	90	F		A	D		X						MO			A	B	B	
8	Swamp Mahogany	*Eucalytpus robusta*	1	23	No	45	30	15	15	20	90	F		A	S	X	X					X	MI		X	A	A-	C	
9	Red Ironbark	*Eucalyptus sideroxylon*	1	32	No	55	10	10	25	20	40	F		P	S	X	X			X	X	X	EX		X	P	C	C	
10	Deodar Cedar	*Cedrus deodara*	1	16	No	40	20	20	20	20	85	F		A	A								MI			A	A-	A	
11	Jacaranda	*Jacaranda mimosifolia*	2	15,16	No	45	25	25	30	30	75	F		A	A	X	X	X					MI		X	A	A		
12	Silk Oak	*Grevillea robusta*	1	34	No	70	20	20	20	20	80	F		A	A	X	X	X					MI		X	A	A	C	
13	Hong Kong Orchid	*Bauhinia × blakeana*	1	14	No	30	20	25	25	20	80	F	E	A	A	X	X						MO			F	B	B	
14	Crape Myrtle	*Lagerstroemia indica*	1	8	No	18	10	10	10	10	80	F		A	S	X	X	X		X			MO		X	F	B-	B	
15	Carrotwood	*Cupaniopsis anacardioides*	1	12	No	25	12	12	12	12	90	F			A		X	X				X	MI			A	B	B	
16	Australian Willow	*Geijera parvifolia*	1	8 @3'	No	20	10	10	10	10	80	F		A	A	X							MI			A	A	B	
17	Atlas Cedar	*Cedrus atlantica*	1	15	No	40	25	25	25	25	70	F		A	A	X		X				X	MI			A	B	B	
18	Chinese Elm	*Ulmus parvifolia*	1	16	No	35	14	14	14	14	80	F		A	A		X	X				X	MI	X		A	A	B	
19	Shamel Ash	*Fraxinus uhdei*	1	18	No	45	20	25	25	25	95	F		A	A	A		X					MI	X		A	A	B	
20	Canary Island Pine	*Pinus canariensis*	1	22	No	65	15	15	15	15	100	F		A	D	X	X						MI			E	A	B	
21	Cajeput	*Melaleuca quinquenervia*	1	5	No	20	6	10	6	6	75	F		A	S	X	X	X					MO			F	B	A-	
22	Cajeput	*Melaleuca quinquenervia*	1	8	No	22	10	10	10	10	95	F		A	A								MI			A	A	A	
23	Australian Willow	*Geijera parvifolia*	1	3	No	15	5	5	5	5	80	F		P	A								MI			A	A-	A	
24	Coast Live Oak	*Quercus agrifolia*	1	10	No (Planted by School)	20	15	15	15	15	90	F		A	A	X	X						MI			E	A	A-	

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COLFAX TREE INVENTORY

COLFAX ELEMENTARY SCHOOL-TREE INVENTORY

Tag Number	Common Name	Botanical Name	No. of Trunks	DBH(s) in inches	City of Los Angeles Protected Tree	Height	N	E	S	W	% Canopy Cover	Terrain Flat \ Slope	Lean	Wound Wood Dev. (P,A,E)	Foliage Density	Codominant Trunks /branch	Epicormic Growth	Cavities Trunk / Branch	Fungus	Cankers	Exudations	Mechanical Damage	Crown Dieback (N,MI,Mo,Ex)	Shaded Out	Pest / Disease	Vigor (E,A,F,P)	Health	Structure	Disposition
25	Australian Willow	*Geijera parvifolia*	2	2,3 @4'	No	15	5	5	5	5	75	F		P	A	X							MI			A	A-	B	
26	Australian Willow	*Geijera parvifolia*	1	5	No	15	10	10	10	10	75	F		A	A	X		X				X	MI			A	A	B	
27	Australian Willow	*Geijera parvifolia*	1	3	No	15	6	6	6	6	75	F		A	A								MI			A	A	A	
28	Australian Willow	*Geijera parvifolia*	1	5	No	20	10	10	10	10	60	F		A	S	X							MI			A	B	B	
29	Australian Willow	*Geijera parvifolia*	1	4	No	20	8	8	12	8	75	F		A	S	X							MI			A	B	B	
30	Flooded Gum	*Eucalyptus rudis*	1	13	No	25	10	5	15	10	50	F		P	S	X	X					X	MO			P	C-	C-	
31	Lemon Scented Gum	*Corymbia citriodora*	1	33	No	80	35	25	35	40	60	F		A	S	X		X					MO			F	B	B	
32	Hong Kong Orchid	*Bauhinia × blakeana*	3	6,6,7	No	30	15	15	8	18	80	F		A	A	X	X						MI	X		A	B	B	
33	Southern Ca. Black Walnut	*Juglans californica var. californica*	2	13,15	YES	30	25	25	25	25	75	F		A	S	X	X			X			MO	X	X	A	B	B	
34	Silk Oak	*Grevillea robusta*	1	30	No		15	15	15	20	75	F		P	A			X					MI			A	A-	C	
35	Aleppo Pine	*Pinus halepensis*	1	6	No	20	10	10	10	10	100	F		A	A								MI			E	A	A	
36	Lemon Bottlebrush	*Callistemon citrinus*	2	3,5	No	10	6	6	6	6	90	F		A	A	X							MO	X		A	B	B	
37	Lemon Bottlebrush	*Callistemon citrinus*	4	2,2,2,2 @ 4'	No	10	5	5	5	5	90	F		A	A	X							MO	X		A	B	B	
38	Silk Oak	*Grevillea robusta*	1	36	No	70	15	15	15	15	90	F		P	A	X	X						MI	X		A	A	C	
39	Blue Gum	*Eucalyptus globulus*	1	44	No	60	20	25	30	25	75	F		A	S	X	X						MO	X	X	F	B	C	
40	Catalpa	*Catalpa speciosa*	1	17	No	25	0	8	20	8	30	F	**S**	P	S	X	X						EX			P	D	D	
41	Chinese Elm	*Ulmus parvifolia*	5	2,3,3,3	No	20	15	15	15	15	75	F		A	A	X							N	X		A	A	B	
42	Chinese Elm	*Ulmus parvifolia*	3	4,6,6	No	25	15	15	15	15	75	F		A	A	X							N	X		A	A	B	
43	Southern Ca. Black Walnut	*Juglans californica var. californica*	3	5,6,7	YES	20	10	15	15	15	40	F		A	S	X							MO			F	C+	B	
44	Manna Gum	*Eucalyptus viminalis*	1	48	No	75	20	20	20	20	20	F		A	S	X	X						EX		X	P	D	C	
45	Chinese Elm	*Ulmus parvifolia*	2	5,5	No	20	10	10	10	10	75	F		A	A	X				X			N			A	A	B	
46	Coast Live Oak	*Quercus agrifolia*	2	2,8	YES	30	15	15	15	15	90	F		N	A								N			E	A	A	
47	Italian Cypress	*Cupressus sempervirens*	1	25	No	60	15	15	15	15	100	F		A	A								MI			A	A	A	
48	Aleppo Pine	*Pinus halepensis*	1	29	No		20	20	40	40	70	F	SW	A	A	X							MI			A	A	C-	

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COLFAX TREE INVENTORY

COLFAX ELEMENTARY SCHOOL-TREE INVENTORY

Tag Number	Common Name	Botanical Name	No. of Trunks	DBH(s) in inches	City of Los Angeles Protected Tree	Height	N	E	S	W	% Canopy Cover	Terrain Flat \ Slope	Lean	Wound Wood Dev. (P,A,E)	Foliage Density	Codominant Trunks /branch	Epicormic Growth	Cavities Trunk / Branch	Fungus	Cankers	Exudations	Mechanical Damage	Crown Dieback (N,MI,Mo,Ex)	Shaded Out	Pest / Disease	Vigor (E,A,F,P)	Health	Structure	Disposition
49	California Pepper	*Schinus molle*	3	18,23,30	No	50	25	25	20	35	90	F		A	A	X	X	X				X	MI	X		A	A	C-	
50	California Pepper	*Schinus molle*	1	48	No	50	25	25	25	25	75	F		A			X	X					MI			A	A	C-	
51	Aleppo Pine	*Pinus halepensis*	1	29	No	50	25	20	25	20	75	F		A	A	X		X					MI	X		A	A	C-	
52	Aleppo Pine	*Pinus halepensis*	1	39	No	65	30	25	30	45	90	F	W	A	A	X		X					MI	X		E	A	C-	
53	Flooded Gum	*Eucalyptus rudis*	1	28	No	40	8	10	22	20	75	F		A	A	X	X	X					MO	X	X	F	B-	C-	
54	Deodar Cedar	*Cedrus deodara*	1	30	No	50	15	30	20	15	80	F	S	X	A								MI	X		A	A	B+	
55	Red River Gum	*Eucalyptus camaldulensis*	1	28	No	55	5	15	25	20	75	F		A	A	X	X	X					MI	X	X	F	B	C	
56	Deodar Cedar	*Cedrus deodara*	2	17,18	No	50	10	25	20	15	65	F		A	A	X							MI	X		F	B+	B	
57	Deodar Cedar	*Cedrus deodara*	1	21	No	50	15	25	30	65	65	F		A	S								MI	X		F	B+	B	
58	California Pepper	*Schinus molle*	2	20,35	No	50	25	20	15	20	75	F		A	S	X	X	X					MI			F	B	C-	
59	Red Ironbark	*Eucalyptus sideroxylon*	1	15	No	45	5	5	20	25	50	F	SW	A	S	X							MI		X	F	B	B	
60	Deodar Cedar	*Cedrus deodara*	1	10	No	22	0	5	15	15	50	F	SW	A	S	X					X	X	Mi	X		F	B	B	
61	California Pepper	*Schinus molle*	1	18	No	25	15	15	20	15	65	F		A	S	X	X	X					MO			F	B	B	
62	Canary Island Pine	*Pinus canariensis*	1	24	No	60	12	12	12	12	90	F		A	A	X	X						MI			E	A	B-	
63	Canary Island Pine	*Pinus canariensis*	1	24	No	60	12	12	12	12	80	F		A	S	X	X						MO			F	B	B-	
64	Deodar Cedar	*Cedrus deodara*	1	12	No	30	15	10	15	12	50	F		P	S								MO			F	B	B	
65	California Pepper	*Schinus molle*	3	7,10,12	No	20	15	20	15	15	75	F		A	S	X	X	X					MO			F	B	B	
66	Red River Gum	*Eucalyptus sideroxylon*	1	34	No	65	10	20	30	20	50	F		A	S	X	X						MO		X	F	B	B	
67	Silk Oak	*Grevillea robusta*	1	17	No	55	10	20	15	10	75	F		A	A	X	X	X					MI			A	B+	B-	
68	Shamel Ash	*Fraxinus uhdei*	1	17	No	45	25	25	25	25	90	F		A	A	X	X	X					MI			A	B+	B	
69	Red River Gum	*Eucalyptus camaldulensis*	1	17	No	45	5	15	25	20	60	F	S	A	S	X	X	X					MI	X	X	F	B	B	
70	Red River Gum	*Eucalyptus camaldulensis*	1	34	No	65	15	25	30	20	75	F		A	A	X	X						MI			X	A-	A	
71	Red Ironbark	*Eucalyptus sideroxylon*	1	14	No	35	5	0	20	25	50	F		P	S	X	X	X			X	X	MO			F	B	B	
72	California Pepper	*Schinus molle*	1	19	No	20	20	10	10	20	75	F		A	S	X	X					X	MI		X	F	B	C	

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COLFAX TREE INVENTORY

COLFAX ELEMENTARY SCHOOL-TREE INVENTORY

Tag Number	Common Name	Botanical Name	No. of Trunks	DBH(s) in inches	City of Los Angeles Protected Tree	Height	N	E	S	W	% Canopy Cover	Terrain Flat \ Slope	Lean	Wound Wood Dev. (P,A,E)	Foliage Density	Codominant Trunks /branch	Epicormic Growth	Cavities Trunk / Branch	Fungus	Cankers	Exudations	Mechanical Damage	Crown Dieback (N,Mi,Mo,Ex)	Shaded Out	Pest / Disease	Vigor (E,A,F,P)	Health	Structure	Disposition
73	Red River Gum	*Eucalyptus camaldulensis*	1	18	No	55	0	10	20	25	70	F	SW	A	A	X	X						MI	X	X	F	B	B	
74	Canary Island Pine	*Pinus canariensis*	1	22	No	55	10	10	15	15	90	F	W	A	D		X						MI	X		E	A	B	
75	Silver Dollar Gum	*Eucalyptus polyanthemos*	1	33.5	No	50	30	30	30	20	80	F		A	A	X	X	X				X	MI	X	X	A	A	B-	
76	Canary Island Pine	*Pinus canariensis*	1	18.5	No	55	10	10	15	20	85	F	SW	A	S/A		X						MI	X		F	B	B	
77	Red River Gum	*Eucalyptus camaldulensis*	1	15.5	No	35	5	5	20	10	70	F	SW	A	A	X	X						MI	X		F	B+	B	
78	Red Ironbark	*Eucalyptus sideroxylon*	1	22	No	35	25	10	25	25	80	F		A	S	X	X						MO	X	X	A	B+	B	
79	California Pepper	*Schinus molle*	1	22	No	30	20	10	15	20	80	F		A	S	X	X	X					MI	X		F	B	B	
80	Deodar Cedar	*Cedrus deodara*	1	18	No	40	20	25	15	20	75	F	W	A	A	X	X				X		MI	X		A	B	B	
81	Citrus (Lemon)	*Citrus sp.*	1	5 @ base	No	10	6	6	6	6	80	F		A	S		X						MI			F	B	A	
82	Citrus (Tangerine)	*Citrus sp.*	1	1	No	6	4	4	4	4	80	F		A	A		X						MI			F	B	A	
83	Silk Oak	*Grevillea robusta*	1	20	No	55	10	10	15	15	80	F		A	S	X	X	X					MO	X		F	B	B-	
84	Chinese Elm	*Ulmus parvifolia*	4	4,4,7,7	No	30	15	15	10	20	100	F		A	A	X							N	X		A	A	B	
85	Chinese Elm	*Ulmus parvifolia*	1	7	No	30	20	10	0	20	100	F	N	A	A	X							MI	X		A	A	B	
86	California Pepper	*Schinus molle*	1	25	No	20	20	5	10	20	90	F	N	A	A	X	X	X				X	MI	X		A	A-	B	
87	Red River Gum	*Eucalyptus camaldulensis*	1	19	No	40	15	5	15	25	90	F	NW	A	S	X							MI		X	F	B	B	
88	Silk Oak	*Grevillea robusta*	1	32	No	60	20	10	30	15	90	F		A	A	X	X	X					MI			A	A	C-	
89	Red River Gum	*Eucalyptus camaldulensis*	1	21	No	60	5	10	20	5	80	F		A	A		X						MI	X	X	A	A-	B	
90	Red River Gum	*Eucalyptus camaldulensis*	1	12	No	30	10	5	5	5	60	F		A	A	X	X					X	MI	X	X	A	B	B-	
91	Australian Willow	*Geijera parvifolia*	1	4	No	15	8	8	8	8	80	F		A	A	X							N			A	A	B	
92	Red Ironbark	*Eucalyptus sideroxylon*	1	29	No	60	20	15	25	25	70	F		A	A	X	X	X			X		MO		X	F	B	C	
93	Silk Oak	*Grevillea robusta*	1	22	No	60	15	15	15	15	90	F		A	A	X	X					X	MI			A	A	B	
94	Canary Island Pine	*Pinus canariensis*	1	10	No	40	10	10	10	6	75	F		A	A	X							MI			A	A	B-	
95	Manna Gum	*Eucalyptus viminalis*	1	28	No	50	25	25	25	25	60	F		A	S	X							MO		X	F	B	B	
96	Kurrajong	*Brachychiton populneus*	1	8 @ 4'	No	15	8	4	8	8	75	F		A	A								MI			A	A	B	

COLFAX TREE INVENTORY

COLFAX ELEMENTARY SCHOOL-TREE INVENTORY

Tag Number	Common Name	Botanical Name	No. of Trunks	DBH(s) in inches	City of Los Angeles Protected Tree	Height	N	E	S	W	% Canopy Cover	Terrain Flat \ Slope	Lean	Wound Wood Dev. (P,A,E)	Foliage Density	Codominant Trunks /branch	Epicormic Growth	Cavities Trunk / Branch	Fungus	Cankers	Exudations	Mechanical Damage	Crown Dieback (N,Mi,Mo,Ex)	Shaded Out	Pest / Disease	Vigor (E,A,F,P)	Health	Structure	Disposition
97	Silk Oak	*Grevillea robusta*	1	18	No	40	10	10	10	10	80	F		A	A	X	X	X				X	MI			A	A	B	
98	Canary Island Pine	*Pinus canariensis*	1	39	No	60	25	30	30	20	90	F		A	D		X						MI			E	A	B-	
99	Carrotwood	*Cupaniopsis anacardioides*	1	17	No	25	20	20	20	15	90	F		A	D	X	X	X				X	MI			A	A	B	
100	Palo Verde 'Desert Museum'	*Cercidium x 'Desert Museum'*	2	1,2	No	12	5	5	10	5	10	F		A	S	X							N			A	B	A	
101	Desert Willow	*Chilopsis linearis*	2	2,3 @ base	No	15	8	8	8	8	60	F		A	A	X	X						N			A	A	A-	
102	Chinese Elm	*Ulmus parvifolia*	1	18 @2'	No	40	15	25	20	25	75	F		A	A	X							MI	X		A	B+	B	
103	Chinese Elm	*Ulmus parvifolia*	2	12,16	No	40	20	15	15	25	75	F		A	A	X							MI	X		A	B+	B	
104	Silk Oak	*Grevillea robusta*	1	31	No	60	10	20	15	10	50	F		P	S	X	X	X					EX			F	C	C-	
105	Carrotwood	*Cupaniopsis anacardioides*	1	9 @ 4'	No	30	15	15	15	15	90	F		A	A	X							MI			E	A	B	
106	Silk Oak	*Grevillea robusta*	1	34	No	65	10	20	15	15	80	F		A	A	X	X	X					MI			A	A	C-	
107	Blue Gum	*Eucalyptus globulus*	1	28	No	65	25	10	25	25	75	F		P	S	X	X	X					MO	X	X	F	B	B-	
108	Manna Gum	*Eucalyptus viminalis*	1	34	No	65	30	20	35	35	65	F	S	A	S	X	X						MO	X	X	F	B	B-	
109	Blue Gum	*Eucalyptus globulus*	1	46.5	No	75	15	20	25	25	80	F	S	A	A	X	X						MI	X	X	A	B+	C	
110	Crape Myrtle	*Lagerstroemia indica*	1	4	No	15	5	5	6	5	50	F		A	S	X						X	MO			F	B	B	
111	Southern Magnolia	*Magnolia grandiflora*	1	2	No	10	5	5	5	5	80	F		A	A								MI			A	A-	A	
112	Southern Magnolia	*Magnolia grandiflora*	1	2	No	10	5	5	5	5	80	F		A	A							X	N			A	A-	A-	
113	Gold Medallion	*Cassia leptophylla*	1	8	No	18	15	20	15	15	90	F	S	A	A	X							MO			A	B	B	
114	Chinese Elm	*Ulmus parvifolia*	1	10	No	20	20	20	20	20	90	F		A	A		X	X				X	MO			A	B	B	
115	Kurrajong	*Brachychiton populneus*	1	7	No	20	5	8	8	8	90	F	S	A	A								MI			A	A	B	
116	Red River Gum	*Eucalyptus camaldulensis*	1	37	No	65	25	30	25	25	75	F		A	S	X	X	X					MI		X	F	B	B-	
117	Southern Magnolia	*Magnolia grandiflora*	1	2	No	10	3	5	3	4	80	F		A	A							X	MI			A	A	A-	
118	Southern Magnolia	*Magnolia grandiflora*	1	1	No	8	1	3	2	3	50	F		P	S							X	MO			F	B	B-	
119	Southern Magnolia	*Magnolia grandiflora*	1	1	No	8	2	3	2	2	80	F		A	A							X	N			A	A	B	
120	Chinese Elm	*Ulmus parvifolia*	1	15	No	30	20	20	20	20	25	F		A	S	X	X						MI			A	B	B	

COLFAX TREE INVENTORY

COLFAX ELEMENTARY SCHOOL-TREE INVENTORY

Tag Number	Common Name	Botanical Name	No. of Trunks	DBH(s) in inches	City of Los Angeles Protected Tree	Height	N	E	S	W	% Canopy Cover	Terrain Flat \ Slope	Lean	Wound Wood Dev. (P,A,E)	Foliage Density	Codominant Trunks /branch	Epicormic Growth	Cavities Trunk / Branch	Fungus	Cankers	Exudations	Mechanical Damage	Crown Dieback (N,Mi,Mo,Ex)	Shaded Out	Pest / Disease	Vigor (E,A,F,P)	Health	Structure	Disposition
121	Kurrajong	*Brachychiton populneus*	1	14	No	30	15	15	15	15	80	F		A	A								N			E	A	A	
122	Southern Magnolia	*Magnolia grandiflora*	2	5,7	No	30	12	12	12	12	85	F		A	A								N			E	A	B	
123	Chinese Elm	*Ulmus parvifolia*	1	17	No	0	25	25	25	25	90	F		A	A	X	X						MI			A	B	B	
124	Knife Acacia	*Acacia cultriformis*	1	1 @ base	No	4	3	5	5	3	50	F		A	A	X							N			A	A	A	
125	Acacia	*Acacia sp.*	3	2,2,2 @ base	No	8	8	3	5	3	50	F		A	A	X							N			A	A	A	
126	Bailey Acacia	*Acacia baileyana*	1	3	No	15	5	5	10	10	75	F	W	X	A								MI			A	A-	A-	
127	Acacia	*Acacia sp.*	1	2,2 @ base	No	5	1	0	3	2	70	F		P	S	X							EX	X		P	D	D	
128	Golden Wattle	*Acacia pycnantha*	2	2,3	No	8	5	4	8	6	90	F		A	A					X			MI			A	A	A-	
129	Bailey Acacia	*Acacia baileyana*	1	4	No	15	6	6	6	6	70	F		A	A	X						X	MI			A	A-	C	
130	Red River Gum	*Eucalyptus camaldulensis*	1	24	No	70	25	10	35	35	75	F	W	A	A	X	X						MI	X	X	A	B	B	
131	Silk Oak	*Grevillea robusta*	5	2,3,4,4,5	No	20	5	10	10	10	75	F		P	A	X	X			X	X		MI	X	X	A	B	B	
132	Red River Gum	*Eucalyptus camaldulensis*	1	20	No	20	10	10	10	15	80	F		P	A	X	X						MI		X	A	A	C	
133	Lemon Bottlebrush	*Callistemon citrinus*	1	3	No	12	5	5	5	5	90	F		A	A								MI			A	A	A	
134	Lemon Bottlebrush	*Callistemon citrinus*	2	2,2	No	12	5	5	5	5	90	F		A	A	X							MI			A	A	B	
135	Lemon Bottlebrush	*Callistemon citrinus*	2	2,2	No	10	5	5	5	5	80	F		A	A	X							MI			A	A	B	
136	Jacaranda	*Jacaranda mimosifolia*	1	9	No	30	8	15	15	15	75	F		A	A	X	X						MI			A	A	B	
137	Tipu Tree	*Tipuana tipu*	2	10,11	No	40	15	20	15	25	75	F		A	A	X							MI			A	A-	B	
138	Tipu Tree	*Tipuana tipu*	1	15	No	40	10	20	20	20	75	F		A	A	X							MI			A	A	B	
139	Red River Gum	*Eucalyptus camaldulensis*	1	37	No	70	25	40	30	15	85	F	E	A	A	X	X						MI			E	A	B	
140	Red Ironbark	*Eucalyptus sideroxylon*	1	25	No	60	8	20	10	40	50	F	S	P	S	X	X						MO	X	X	F	C	C	
141	Blue Gum	*Eucalyptus globulus*	1	48	No	70	25	15	30	20	80	F		A	S	X	X	X					MO		X	F	C	C	
142	Beefwood	*Casuarina equisetifolia*	1	21	No	60	10	10	10	5	75	F		P	A	X	X					X	MI	X		A	A	B-	
143	Blue Gum	*Eucalyptus globulus*	1	27	No	60	30	10	30	25	75	F		A	S	X	X						MO	X	X	F	B-	C	
144	Fern Pine	*Afrocarpus gracilior*	1	10	No	35	15	15	15	15	100	F		A	D	X							N			E	A	B	

Page 6 of 7

COLFAX TREE INVENTORY

COLFAX ELEMENTARY SCHOOL-TREE INVENTORY

Tag Number	Common Name	Botanical Name	No. of Trunks	DBH(s) in inches	City of Los Angeles Protected Tree	Height	N	E	S	W	% Canopy Cover	Terrain Flat \ Slope	Lean	Wound Wood Dev. (P,A,E)	Foliage Density	Codominant Trunks /branch	Epicormic Growth	Cavities Trunk / Branch	Fungus	Cankers	Exudations	Mechanical Damage	Crown Dieback (N,Mi,Mo,Ex)	Shaded Out	Pest / Disease	Vigor (E,A,F,P)	Health	Structure	Disposition
145	Fern Pine	*Afrocarpus gracilior*	1	7	No	22	10	10	10	10	100	F	S	A	D	X						X				E	A	B	
146	Blue Gum	*Eucalyptus globulus*	1	60	No	70	30	30	30	30	70	F		A	S	X	X					X	MO		X	A	B	C	
147	Red River Gum	*Eucalyptus camaldulensis*	1	31	No	70	25	10	20	20	70	F		A	A	X	X						MI	X	X	A	A	B	
148	Blue Gum	*Eucalyptus globulus*	1	30	No	65	15	15	30	25	60	F		A	S	X	X						MO	X	X	F	B	C	
149	Red Ironbark	*Eucalyptus sideroxylon*	1	32	No	60	15	15	30	35	50	F	W	A	S	X	X						MO	X	X	F	B	C	
150	Blue Gum	*Eucalyptus globulus*	1	22	No	45	10	15	15	15	50	F	W	A	S	X	X						MO	X	X	F	B	C	
151	Red Ironbark	*Eucalyptus sideroxylon*	1	31	No	60	25	30	30	20	60	F	S	A	S	X	X						MO	X	X	F	B	C	
152	Canary Island Pine	*Pinus canariensis*	1	33	No	80	15	15	15	15	90	F		A	D		X						MI			E	A	B	
153	Beefwood	*Casuarina equisetifolia*	1	29	No	60	15	15	20	5	75	F		A	A	X	X						MI	X		A	A-	C	

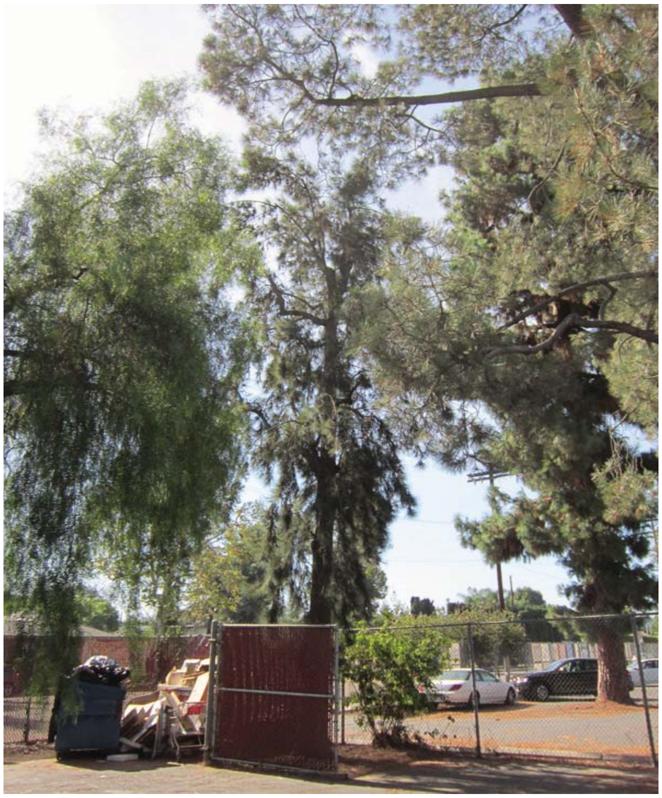
Page 7 of 7

COLFAX TREE INVENTORY

Tree 1 (L), Tree 2 (R)

Tree 3

COLFAX TREE INVENTORY



Tree 4

Tree 5

COLFAX TREE INVENTORY

Tree 6

Tree 7

COLFAX TREE INVENTORY

Tree 8

Tree 9

COLFAX TREE INVENTORY

Tree 10

Tree 11

COLFAX TREE INVENTORY

Tree 12

Tree 13

COLFAX TREE INVENTORY

Tree 14

Tree 15

COLFAX TREE INVENTORY

Tree 16

Tree 17

COLFAX TREE INVENTORY

Tree 18

Tree 19

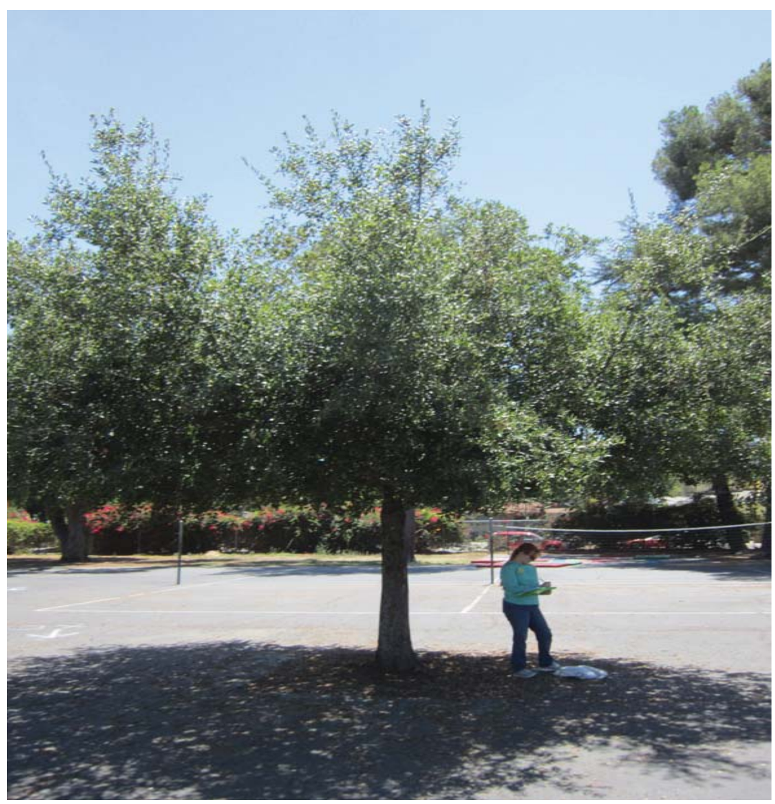
COLFAX TREE INVENTORY

Tree 20

Tree 21 (L), Tree 22 (R)

COLFAX TREE INVENTORY

Tree 23



Tree 24

COLFAX TREE INVENTORY

Tree 25

Tree 26

COLFAX TREE INVENTORY

Tree 27

Tree 28

COLFAX TREE INVENTORY

Tree 29

Tree 30

COLFAX TREE INVENTORY

Tree 31

Tree 32

COLFAX TREE INVENTORY

Tree 33

Tree 34

COLFAX TREE INVENTORY

Tree 35

Tree 36 (L), Tree 37 (R)

COLFAX TREE INVENTORY

Tree 38 (L), Tree 39 (R)

Tree 40

Tree 41

Tree 42

COLFAX TREE INVENTORY

Tree 43

Tree 44

COLFAX TREE INVENTORY

Tree 45

Tree 46

COLFAX TREE INVENTORY

Tree 47

Tree 48

COLFAX TREE INVENTORY

Tree 49

Tree 50

COLFAX TREE INVENTORY

Tree 51

Tree 51

COLFAX TREE INVENTORY

Tree 52

Tree 53

COLFAX TREE INVENTORY

Tree 54

Tree 55 (L), Tree 56 (C), Tree 57 (R)

COLFAX TREE INVENTORY

Tree 58

Tree 58

COLFAX TREE INVENTORY

Tree 60 (L), Tree 59 (C), Tree 61 (R)

Tree 62 (L), Tree 63 (R)

COLFAX TREE INVENTORY

Tree 64

Tree 65

COLFAX TREE INVENTORY

Tree 66

Tree 67

COLFAX TREE INVENTORY

Tree 68

Tree 69 (L), Tree 70 (R)

COLFAX TREE INVENTORY

Tree 71

Tree 72

COLFAX TREE INVENTORY

Tree 73

Tree 74

COLFAX TREE INVENTORY

Tree 75

Tree 76

COLFAX TREE INVENTORY

Tree 77 (L), Tree 78 (R)

Tree 79 (L), Tree 80 (R)

COLFAX TREE INVENTORY

Tree 81

Tree 82

COLFAX TREE INVENTORY

Tree 83

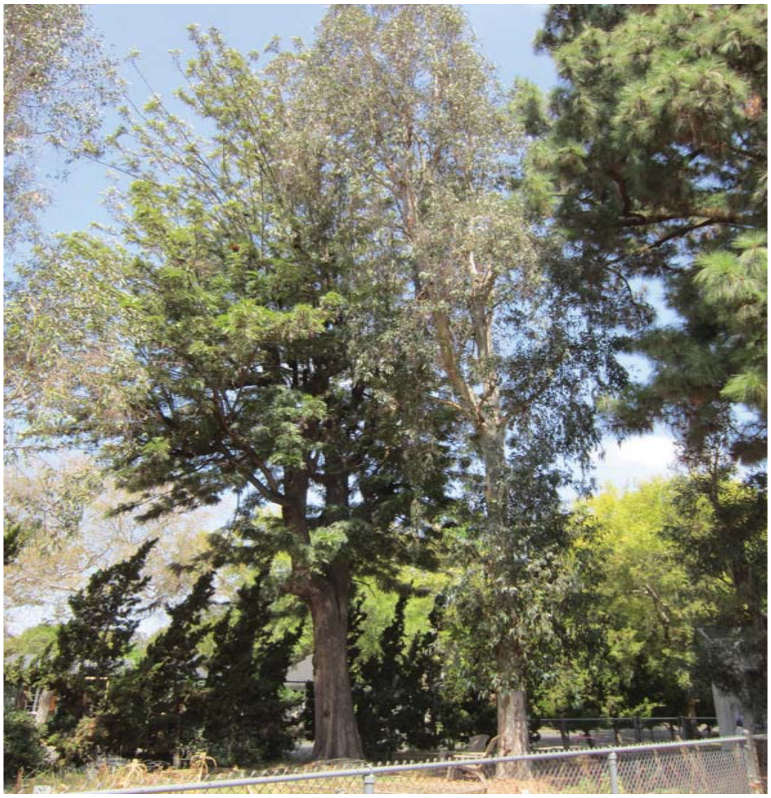
Tree 84 (L), Tree 85 (R)

COLFAX TREE INVENTORY

Tree 86

Tree 87

COLFAX TREE INVENTORY



Tree 88 (L), Tree 89 (R)

Tree 90

COLFAX TREE INVENTORY


Tree 91


Tree 92

COLFAX TREE INVENTORY

Tree 93 (L), Tree 94 (R)

Tree 94

COLFAX TREE INVENTORY

Tree 95

Tree 96

COLFAX TREE INVENTORY

Tree 97

Tree 98

COLFAX TREE INVENTORY

Tree 99

Tree 100

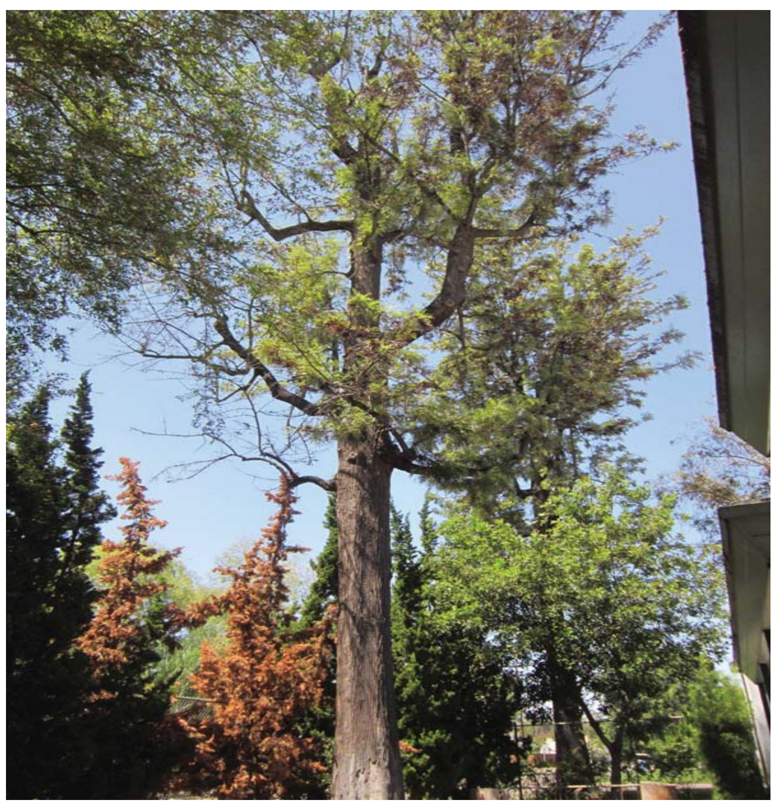
COLFAX TREE INVENTORY

Tree 101

Tree 102

COLFAX TREE INVENTORY

Tree 103



Tree 104

COLFAX TREE INVENTORY

Tree 105 (L), Tree 106 (R)

Tree 107 (L), Tree 108 (R)

COLFAX TREE INVENTORY

Tree 109

Tree 110

COLFAX TREE INVENTORY

Tree 111

Tree 112

COLFAX TREE INVENTORY

Tree 113

Tree 114

COLFAX TREE INVENTORY

Tree 115

Tree 116

COLFAX TREE INVENTORY

Tree 117

Tree 118

COLFAX TREE INVENTORY

Tree 119

Tree 120

COLFAX TREE INVENTORY

Tree 121

Tree 122

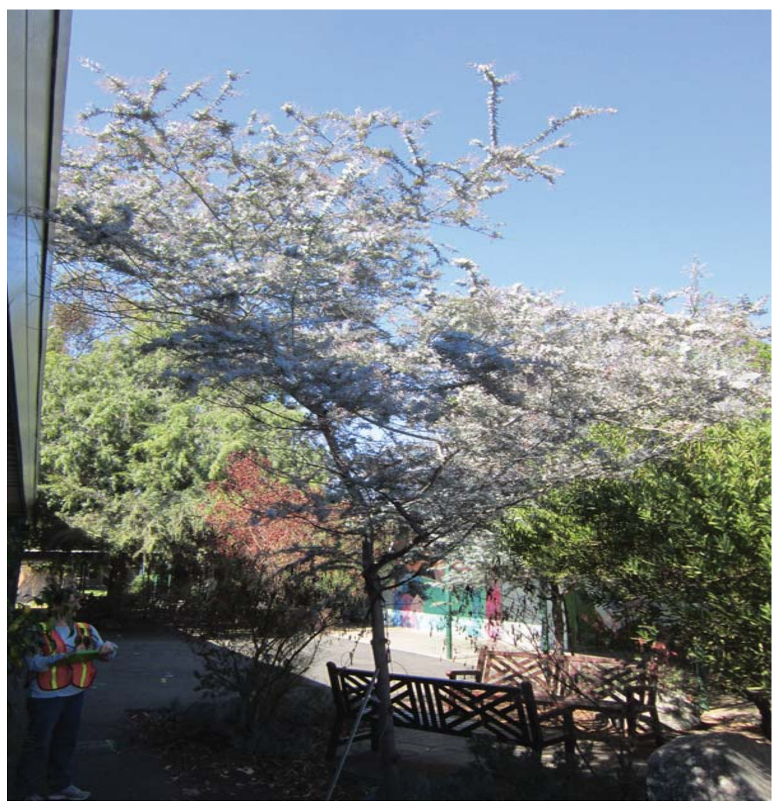
COLFAX TREE INVENTORY

Tree 123

Tree 124

COLFAX TREE INVENTORY

Tree 125



Tree 126

COLFAX TREE INVENTORY

Tree 127

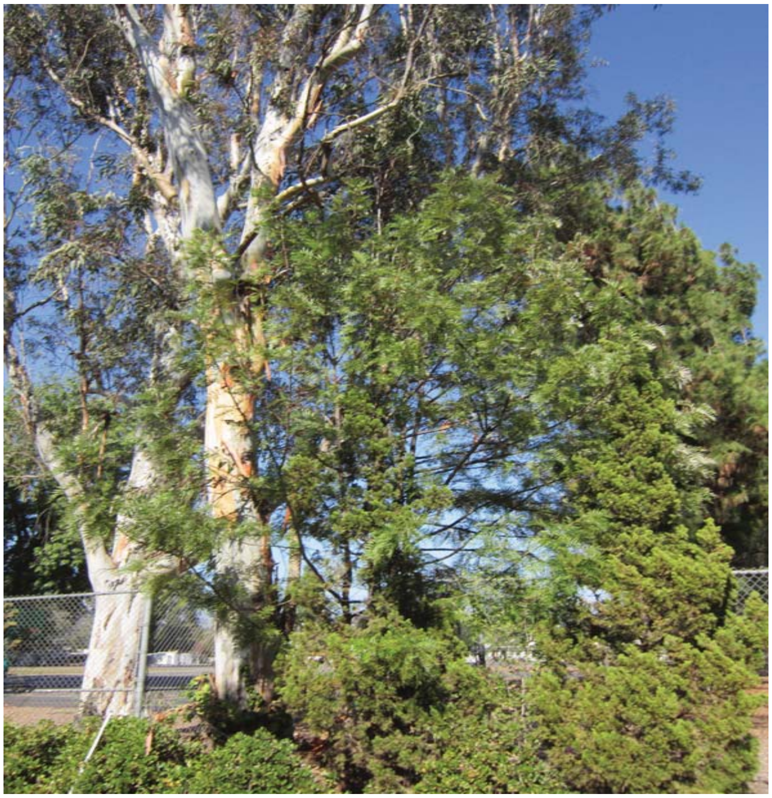
Tree 128

COLFAX TREE INVENTORY

Tree 129

Tree 130

COLFAX TREE INVENTORY



Tree 131

Tree 132

COLFAX TREE INVENTORY

Tree 133 (L), Tree 134 (C), Tree 135 (R)

Tree 136

COLFAX TREE INVENTORY

Tree 137 (L), Tree 138 (R)

Tree 139 (L), Tree 140 (R)

COLFAX TREE INVENTORY

Tree 141

Tree 142 (L), Tree 143 (R)

COLFAX TREE INVENTORY

Tree 144

Tree 145

COLFAX TREE INVENTORY

Tree 146

Tree 147 (L), Tree 148 (C), Tree 149 (R)

COLFAX TREE INVENTORY

Tree 150 (L), Tree 151 (R)

Tree 152 (L), Tree 153 (R)

COLFAX TREE INVENTORY

Italian Cypress Hedge

HISTORICAL RESOURCES SURVEY REPORT JUNE 2014

LOS ANGELES UNIFIED SCHOOL DISTRICT

HISTORIC RESOURCES SURVEY REPORT

Prepared by

Sapphos Environmental, Inc.
for the
Los Angeles Unified School District
Office of Environmental Health and Safety

June 2014

LOS ANGELES UNIFIED SCHOOL DISTRICT

HISTORIC RESOURCES SURVEY REPORT

School Name: Colfax Avenue Elementary School
Address: 11724 Addison St., North Hollywood
Date(s) of Construction: 1950–1955
Architect/Designer: Unknown
Eligibility Criteria: CRHR 1
CHR Status Code: 3CD

Notes: Appears eligible as a historic district under CRHR Criterion 1, in the context of institutional architecture/educational facilities in Los Angeles. Colfax Avenue Elementary School is an excellent, intact example of an indoor-outdoor, postwar finger-plan school. Exemplifies LAUSD design ideals and principles of the era. Some replaced/filled-in windows and non-original hardscaping; CRHR eligible as historic district.

School Name: Dodson Middle School
Address: 28014 South Montereina Drive, Rancho Palos Verdes
Date(s) of Construction: 1960
Architect/Designer: Unknown
Eligibility Criteria: CRHR 1
CHR Status Code: 3CD

Notes: Campus core appears eligible as a historic district under CRHR Criterion 1, in the context of institutional architecture/educational facilities in Los Angeles. Excellent and intact example of an indoor-outdoor, postwar finger-plan school. Exemplifies LAUSD design principles of the era. CRHR eligible only (due to alterations).

TABLE V-1
UPDATED LAUSD HISTORIC RESOURCES INVENTORY WITH COMPILED RESULTS FROM THE LAUSD HISTORIC RESOURCES SURVEY, 2013/2014, AND THE GETTY HISTORIC RESOURCES SURVEYS, 2001/2004

Assessor Parcel Number	LAUSD Campus #	Campus Name	School Type	Street #	Street Direction	Street Name	Street Type	City	ZIP	Principal Construction Dates: Start Date	Principal Construction Dates: End Date	Year Opened	Former Names & Dates	CR Status (2001-2004 Getty Surveys)	Evaluation Results / Notes	Found Eligible in 2013 / 2014 Survey?	CHR Status Code
4063-012-900	13673	**156th Street Elementary School**	ES	2100	W	156th	St	Gardena	90249	1953		1953		6Z/7N	Campus core appears eligible as a historic district under California Register Criterion 1, in the context of institutional architecture/educational facilities in Los Angeles. Excellent and intact example of the standardized indoor-outdoor, postwar finger-plan school used throughout LAUSD in the postwar period. Exemplifies LAUSD design principles of the era. California Register eligible only (due to alterations).	Yes	3CD
4308-019-900	13680	**Castle Heights Elementary School**	ES	9755		Cattaraugus	Ave	Los Angeles	90034	1951	1961	1951		6Z/7N	Campus core appears eligible as a historic district under California Register Criterion 1, in the context of institutional architecture/educational facilities in Los Angeles. Castle Heights Elementary School is an excellent example of a postwar, indoor-outdoor LAUSD campus. Exemplifies LAUSD design principles of the postwar era.	Yes	3CD
2355-013-900	13681	**Colfax Avenue Elementary School**	ES	11724		Addison	St	North Hollywood	91607	1950	1955	1951		6Z/7N	Campus core appears eligible as a historic district under California Register Criterion 1, in the context of institutional architecture/educational facilities in Los Angeles. Colfax Avenue Elementary School is an excellent, intact example of an indoor-outdoor, postwar finger-plan school. Exemplifies LAUSD design ideals and principles of the era. Some replaced/filled-in windows and non-original hardscaping; CRHR eligible as historic district.	Yes	3CD
2631-019-904	13594	**Fernangeles Elementary School**	ES	12001		Art	St	Sun Valley	91352	1948	1954	1946		6Z/7N	Campus core appears eligible as a historic district under California Register Criterion 1, in the context of institutional architecture/educational facilities in Los Angeles. Administration building and assembly room form a distinctive, 1950s-flavored entrance to the school and anchor for the residential community around it. From the interior, these two buildings frame a courtyard and outdoor dining area. Site design features buildings and facilities oriented around an expansive lawn with mature (original) trees. Due to alterations on many of the classrooms, however, including clerestories that have been covered and sheathed in stucco, contributing buildings appear eligible for the California Register only.	Yes	3CD
2505-025-900	13707	**Olive Vista Middle School**	MS	14600		Tyler	St	Sylmar	91342	1958	1968	1958		6Z/7N	Campus core appears eligible as a historic district under Criteria C/3, as an excellent example of Mid-Century Modern design applied to institutional architecture. The elements of the campus that are considered contributors are the complex of buildings and structures at the entrance of the campus on Tyler Street, consisting of the Administration Building, the Library, the Health and Counseling Building, and the entrance portal that unifies the northwest side of the campus and forms a distinctive 1950s Mid-Century Modern entrance. Because the other structures on	Yes	3CD

HISTORICAL RESOURCES SURVEY REPORT JUNE 2014

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary #
HRI #
Trinomial
NRHP Status Code 3CD
Other Listings
Review Code **Reviewer** **Date**

Page 1 of 7 **Resource name(s) or number** (assigned by recorder) Colfax Avenue Elementary School

P1. Other Identifier:
***P2. Location:** ☐Not for Publication ■Unrestricted
***a. County** Los Angeles County
***b. USGS 7.5' Quad** Sherman Village, CA **Date** 1972 **T** 2N **R** 16W; Unsectioned; S.B.**B.M.**
c. Address 11724 Addison Street City North Hollywood Zip 91607
e. Other Locational Data: APN: # 2355-013-900
***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries.)

Located on an 8-acre site in the Valley Village area of the San Fernando Valley, Colfax Avenue Elementary School is bounded by Colfax Avenue on the east, Huston Street on the south, Morella Avenue on the west, and Addison Street on the north. The campus exhibits the textbook features of a postwar, finger-plan school, with axial, one-story classroom wings, one room deep, extending across the site. Indoor-outdoor integration is created through the generous use of windows, which occupy approximately 80 percent of the wall height along eastern elevations, as well as through the incorporation of courtyards adjacent to classroom wings, outdoor gathering and recreational areas, and mature landscaping and trees.

The core of the campus consists of five rectilinear classroom wings, linked on both sides by continuous arcades. The arcades, which form circulation corridors throughout the main campus, display flat-roofed shelters, terminating in broad, unadorned wood fascia. Wood rafters and planks, visible from beneath the sheltered corridors, form the roof structure. Simple metal poles serve as supports for corridors throughout campus. Classroom wings display the differentiated fenestration patterns and roof eave treatment typical of postwar schools from this era (though ordinarily the orientation of the building would have been north-south, with fewer windows on the sunny, south side, and broad expanses of windows on the north side). In this case, the orientation of classroom wings is east-west, with fewer windows/clerestories on the west, and generous expanses of windows on the east. *(See Continuation Sheet)*

***P3b. Resource Attributes:** (list attributes and codes) HP15. Educational Building. HP29. Landscape architecture.

***P4. Resources Present:** ☐Building ☐Structure ☐Object ☐Site ■District ☐Element of District ☐Other

P5a. Photo

P5b. Photo: (view and date) Northwest elevation, 15 January 2014

***P6. Date Constructed/Age and Sources:** : ■ Historic ☐ Prehistoric ☐ Both 1950-1955 (Los Angeles Unified School District)

***P7. Owner and Address:**
Los Angeles Unified School District

***P8. Recorded by:**
Debi Howell-Ardila, MHP
Sapphos Environmental, Inc.
430 North Halstead Street
Pasadena, CA 91107

***P9. Date Recorded:** 20 January 2014

***P10. Survey Type:** Intensive

***P11. Report Citation:** (Cite survey report and other sources, or enter "none")
Sapphos Environmental, Inc. March 2014. *Los Angeles Unified School District Historic Context Statement, 1870 to 1969*. Pasadena, CA.
Sapphos Environmental, Inc. June 2014. *Los Angeles Unified School District Historic Resources Survey Report*. Pasadena, CA.

***Attachments:** ☐None ☐Location Map ☐Sketch Map ■Continuation Sheet ■Building, Structure, and Object Record ☐Archaeological Record ☐District Record ☐Linear Feature Record ☐Milling Station Record ☐Rock Art Record ☐Artifact Record ☐Photograph Record ☐ Other (list)

DPR 523A (1/95) *Required information

HISTORICAL RESOURCES SURVEY REPORT JUNE 2014

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
BUILDING, STRUCTURE, AND OBJECT RECORD

Primary #
HRI#
***NHRP Status Code** 3CD

Page 2 **of** 7 ***Resource Name or #:** Colfax Avenue Elementary School

B1. Historic Name: Colfax Avenue Elementary School
B2. Common Name: Same
B3. Original Use: Institutional (Educational Facility) B4. Present Use: Institutional (Educational Facility)
***B5. Architectural Style:** Mid-Century Modern–influenced
***B6. Construction History:** (Construction date, alterations, and date of alterations):

According to records on file with the Los Angeles Unified School District, construction on the core of the campus was completed in 1950/1951. In 1955, a two-story auditorium was added in the northeastern corner of the parcel, at Colfax Avenue and Addison Street. The eastern portion of the campus grounds also includes several portable/temporary buildings from the late 1980s and early 1990s. A number of alterations and repairs have taken place over the years, including seismic and systems upgrades, the installation of air-conditioner units, replacement of original hardscaping, new fencing, and various safety improvements (see *LAUSD Pre-Planning Survey, Colfax Avenue Elementary School* for list of repairs and improvements carried out since the 1990s). In addition, alterations to original classroom wings include the infilling of some clerestory casements and entry glazing, as well as replacement of original windows with air-conditioner units; such changes are visible on several of the classroom wings.

***B7. Moved?** ■**No** ☐**Yes** ☐**Unknown** **Date:**______ **Original Location:**______
***B8. Related Features:** Landscaping/mature trees, hardscaping, benches
B9a. Architect: Unknown b. Builder: Unknown
***B10. Significance:** **Theme**, Institutional (Educational Facility),
"Educating the Baby Boom: Postwar Expansion and the Functional, Modern School Plant, 1945-1969" **Area** Los Angeles
Period of Significance: 1950-1955 (District) **Property Type:** Institutional (Educational Facility)
Applicable Criteria: CRHR: 1.
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity)

The campus core of Colfax Avenue Elementary School appears eligible for the California Register of Historical Resources under Criterion 1 as an excellent, intact example of a modern, indoor-outdoor postwar elementary school in Los Angeles. The campus plan and buildings exemplify LAUSD design principles and ideals from the postwar period (as described in *the Los Angeles Unified School District Historic Context Statement, 1870 to 1969*). The construction of Colfax Avenue Elementary School in 1950/1951 also reflects the rapid postwar suburban expansion of the San Fernando Valley.

The campus exhibits some alterations, such as the removal of original hardscaping and windows and the infilling of original clerestory hopper casement windows, which spanned the length of classroom wings on the west elevations. While many of the casements appear to have been painted over or filled in with wood, the original size and configuration of the windows is still visible. Overall, the campus core (which includes the site plan, the relationship of buildings to outdoor spaces, and original plantings) retains integrity of location, design, setting, workmanship, feeling, and association. However, due to alterations, the campus is not eligible for the National Register and is eligible for the California Register only.

B11. Additional Resource Attributes: HP15. Educational Building. HP29. Landscape Architecture.

***B12. References:** *(See Continuation Sheet)*

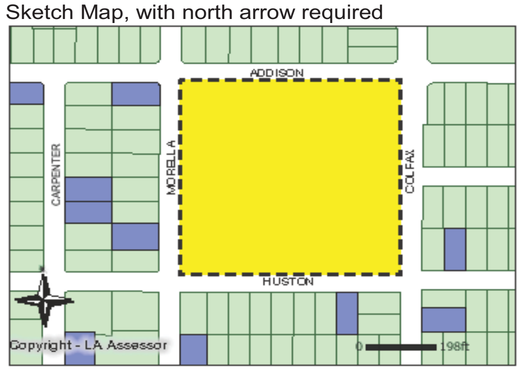
B13. Remarks: None

***B14. Evaluator:** Debi Howell-Ardila, MHP

***Date of Evaluation:** 24 January 2014

(This space reserved for official comments.)

Sketch Map, with north arrow required



DPR 523B (1/95) *Required information

State of California — The Resources Agency DEPARTMENT OF PARKS AND RECREATION **CONTINUATION SHEET**	Primary # HRI# Trinomial

Page 3 **of** 7 ***Resource Name or #:** Colfax Avenue Elementary School

Recorded by Debi Howell-Ardila **Date:** 23 January 2014 ☒ Continuation ☐ Update

***P3a. Description (continued):**

Along the west elevations, classroom windows are sheltered beneath wide cantilevered eaves, with wood beams and planks and broad, unadorned fascia boards. A slightly sloping shed roof caps the classroom buildings, with the slightly higher side located on the east. Clerestory windows appear to have originally spanned the west elevations of the classrooms (they are now filled in). On the east elevation, roof eaves are slightly shallower, also displaying wood beams and fascia boards. The main entrances to classrooms are located on the east elevation and generally consist of original metal doors with single-pane fixed windows. On the east elevations, classrooms are lined with generous expanses of wood-framed windows (which span roughly 80 percent of the wall height, from roof line nearly to the ground). Also on the east elevations of the classrooms are two square built-in mechanical service rooms, which appear to house air-conditioning units. These mechanical service rooms are flush with the roofline and accessed via paired metal doors.

The Administration Building, which serves as the main entrance to the campus, is located on the northeastern portion of the lot, on Addison Street. One story in height, the building is roughly rectangular in shape, with a street-level façade displaying recessed wings and features. The building is capped with a very low-pitched side-gable roof, terminating in shallow eaves with exposed wood beams. Broad, unadorned wood fascia boards terminate the roof line. A projecting, cantilevered shelter marks the entrance to the Administration Building. The entrance shelter has a flat roof with wide eaves and wood fascia boards, which display the school name. The roof line is trimmed with an open wood grid, marking a transitional space from the outside to the inside. The design composition of the façade is simple. The wall plane varies, with portions of the façade featuring wide expanses of wood-framed windows, set flush with the roof eaves, and recessed sheltered with sets of double-hung wood-framed windows, accented with brick planters along the ground. The façade includes a simple ornamental detail of a diamond-patterned metal screen and an angled wood grid serving as a roof support.

The campus exhibits many of the characteristics typical of Mid-Century Modernism. The Administration Building and classroom wings display a horizontal design composition, with very low-pitched or flat roofs and wide, cantilevered overhangs. There is an overall lack of applied ornament; campus buildings consist of simple, geometric volumes, with modular site planning. All classrooms are lined with windows, which appear to be wood-framed, multi-light double-hung sashes. *(See Continuation Sheet, p. 4)*

P5b. Photo (continued): (view and date)

Colfax Avenue Elementary School, Administration Building, view from inside campus. Southwest perspective. Source: Sapphos Environmental, Inc., 21 January 2014.

DPR 523L (1/95) *Required information

HISTORICAL RESOURCES SURVEY REPORT JUNE 2014

State of California — The Resources Agency	**Primary #**
DEPARTMENT OF PARKS AND RECREATION	**HRI#**
CONTINUATION SHEET	**Trinomial**

Page 4 **of** 7 ***Resource Name or #:** Colfax Avenue Elementary School

Recorded by Debi Howell-Ardila **Date:** 23 January 2014 ☒ Continuation ☐ Update

***P3a. Description (continued):**

Extending southward from the classroom wings and library are an outdoor dining area, capped with a flat roof supported on metal poles, a playground and recreational fields, and other facilities extending through the south portion of the campus. Mature trees appearing to date to the original construction era (early 1950s) are located throughout the campus, in particular in the northern portion. In the northeastern corner of the campus is the two-story auditorium building, constructed in 1955.

Alterations include the infilling of clerestory lights along the west elevations of classrooms, the apparent addition of mechanical sheds along the east elevations, the replacement of original hardscaping , as well as the addition of security gates at the entrance and bars on some of the windows. In addition, since the school's construction, a number of portable structures have been added, primarily in the southeastern portion of campus. The campus is otherwise in good repair, intact, and enhanced through landscaping and mature trees (including a number of old eucalyptus along Addison Street).

P5b. Photo (continued): (view and date)

Colfax Avenue Elementary School, detail, Administration Building. Eaves extend to form an open grid around the entrance wing. Northeast perspective. Source: Sapphos Environmental, Inc., 21 January 2014.

State of California — The Resources Agency DEPARTMENT OF PARKS AND RECREATION **CONTINUATION SHEET**	Primary # HRI# Trinomial

Page 5 **of** 7 ***Resource Name or #:** Colfax Avenue Elementary School

Recorded by Debi Howell-Ardila **Date:** 23 January 2014 ☒ Continuation ☐ Update

P5b. Photo (continued): (view and date)

Colfax Avenue Elementary School, typical west-elevation classroom wing and mature trees. North perspective. Source: Sapphos Environmental, Inc., 21 January 2014.

Colfax Avenue Elementary School, arcades connect all classrooms along the north and south expanses of campus. East perspective. Source: Sapphos Environmental, Inc., 21 January 2014.

DPR 523L (1/95) *Required information

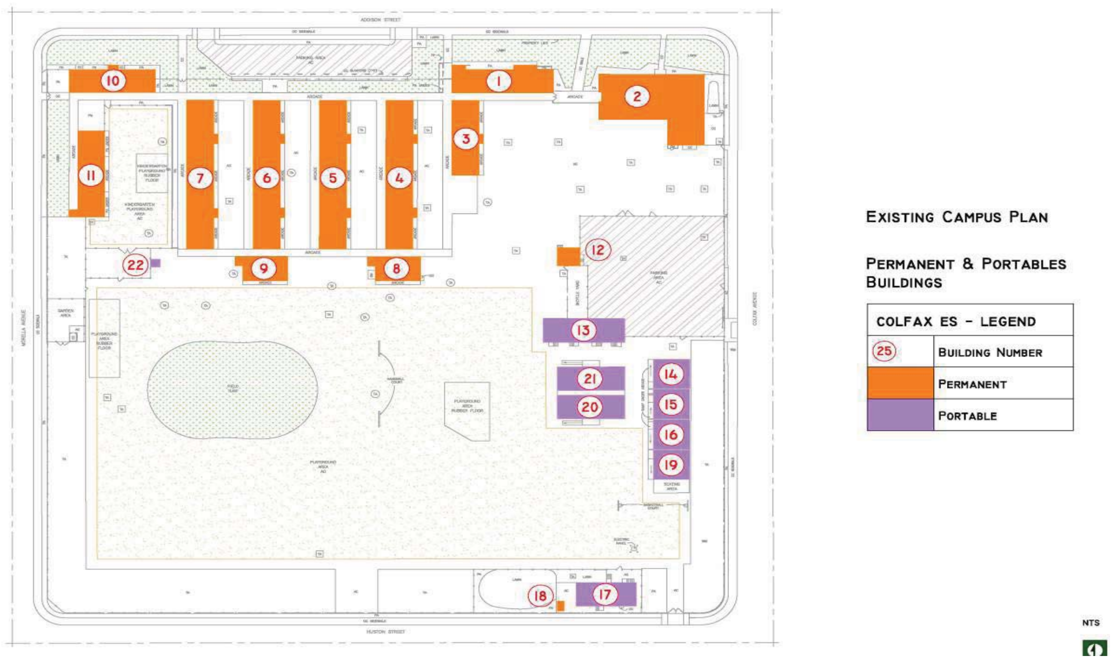
HISTORICAL RESOURCES SURVEY REPORT JUNE 2014

State of California — The Resources Agency DEPARTMENT OF PARKS AND RECREATION **CONTINUATION SHEET**	Primary # HRI# Trinomial

Page 6 **of** 7 ***Resource Name or #:** Colfax Avenue Elementary School

Recorded by Debi Howell-Ardila **Date:** 23 January 2014 ☒ Continuation ☐ Update

P5b. Photo (continued): (view and date)



Colfax Avenue Elementary School, Site Plan, with permanent buildings marked in orange and portable buildings marked in purple. Source: Los Angeles Unified School District Pre-Planning Survey, Colfax Avenue Elementary

State of California — The Resources Agency DEPARTMENT OF PARKS AND RECREATION **CONTINUATION SHEET**	Primary # HRI# Trinomial

Page 7 **of** 7 ***Resource Name or #:** Colfax Avenue Elementary School

Recorded by Debi Howell-Ardila **Date:** 23 January 2014 ☒ Continuation ☐ Update

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DPR 523L (1/95) *Required information

HISTORICAL RESOURCES SURVEY REPORT JUNE 2014

CAPACITY ASSESSMENT SUMMARY

Location Code	3164	QEIA	NO
School	COLFAX CHARTER EL		
Configuration	K-5	Site Acres	8.1
Calendar	1 TRK	Play Acres	3.9
Multi-track	NO	PA req'd	1.6
Norm Category	DESEG		
Escutia?	Yes		
Magnet Center(s)	NO		
Center 1			
Center 2			
Center 3			

	2014-15 Current Enroll	2014-15 Magnet Center(s)	2014-15 Total Site Current	2014-15 Forecast	2014-15 Magnet Forecast	2014-15 Total Site Forecast	2013-14 Norm Day	2013-14 Magnet Center(s)	Total Site Enroll
K	118		118	100	0	100	112	0	112
1	122		122	110	0	110	103	0	103
2	107		107	106	0	106	108	0	108
3	103		103	105	0	105	122	0	122
4	117		117	121	0	121	99	0	99
5	92		92	98	0	98	104	0	104
6			0	0	0	0	0	0	0
7			0	0	0	0	0	0	0
8			0	0	0	0	0	0	0
9			0	0	0	0	0	0	0
10			0	0	0	0	0	0	0
11			0	0	0	0	0	0	0
12			0	0	0	0	0	0	0
K-5/6 U	7		7						
6-8 U			0						
9-12 U			0	9	0	9	9	0	9
Total	666	0	666	649	0	649	657	0	657

	Standard Size Classrooms					Small Classrooms		
Elementary (up to grade 6)	Counts as of 2013-14	Removals and/or adds since CAR 2013	Estimated Counts for 2014-15	2014-15 Revisions	2014-15 Final Counts	Counts as of 2013-14	Removals and/or adds since CAR 2013	2014-15 Final Counts
K-5/6 Rooms	28	0	28	0	30	2	-2	0
Special Education	2		2	1	3	0	0	0
Pre-K (at ES only)	0		0	0	0	0	0	0
Co-Located Charter	0		0	0	0	0	0	0
District Set-Asides	0		0	0	0	0	0	0
School Set-Asides	2		2	1	3	0	0	0
Out-of-Service	0		0	0	0	0	0	0
Rooms Available for K-5/6 Instruction	24		24	-2	24			
Non QEIA/non NORM funded teaching positions								

K-5/6	Assessmt Based on Calendar	Pre-CAP Maximum to Avoid Bussing
2014-15 Capacity	653	653
Current Enrollment	666	666
Capacity vs enrollment	-13	-13
Total rooms*	30	
Rooms In Use*	30	
Remaining rooms	0	
Estimated capacity in remaining rooms	0	
(* total rooms and rooms needed include magnet)		

	Standard Size Classrooms					Small Classrooms		
Middle School	Counts as of 2013-14	Removals and/or adds since CAR 2013	Estimated Counts for 2014-15	2014-15 Revisions	2014-15 Final Counts	Counts as of 2013-14	Removals and/or adds since CAR 2013	2014-15 Final Counts
6-8 Rooms	0	0	0		0	0		0
Special Education	0		0		0	0		0
Pre-K (at ES only)								
Co-Located Charter	0		0		0	0		0
District Set-Asides	0		0		0	0		0
School Set-Asides	0		0		0	0		0
Out-of-Service	0		0		0	0		0
Rooms Available for 6-8 Instruction	0		0		0			
Non QEIA/non NORM funded teaching positions								

Middle School	Assessmt Based on Calendar	Pre-CAP Maximum to Avoid Bussing (30% Trav)
2014-15 Capacity	0	0
Current Enrollment	0	0
Capacity vs enrollment	0	0
Total rooms*	0	
Rooms In Use*	0	
Remaining rooms	0	
Estimated capacity in remaining rooms	0	
(* total rooms and rooms needed include magnet)		

	Standard Size Classrooms					Small Classrooms		
High School	Counts as of 2013-14	Removals and/or adds since CAR 2013	Estimated Counts for 2014-15	2014-15 Revisions	2014-15 Final Counts	Counts as of 2013-14	Removals and/or adds since CAR 2013	2014-15 Final Counts
9-12 Rooms	0	0	0		0	0		0
Special Education	0		0		0	0		0
Pre-K (at ES only)								
Co-Located Charter	0		0		0	0		0
District Set-Asides	0		0		0	0		0
School Set-Asides	0		0		0	0		0
Out-of-Service	0		0		0	0		0
Rooms Available for 9-12 Instruction	0		0		0			
Non QEIA/non NORM funded teaching positions								

High School	Assessmt Based on Calendar	Pre-CAP Maximum to Avoid Bussing (30% Trav)
2014-15 Capacity	0	0
Current Enrollment	0	0
Capacity vs enrollment	0	0
Total rooms*	0	
Rooms In Use*	0	
Remaining rooms	0	
Estimated capacity in remaining rooms	0	
(* total rooms and rooms needed include magnet)		

Rationale for classroom count/allocation revisions

12-10-14 – Changes discussed between Susana Gomez, Principal and Bruce Takeguma, SMS.

2014-15 School Total (includes SDC and Magnet)	Assessment Based on Calendar	Pre-CAP Maximum to Avoid Bussing (30% Trav)
2014-15 Capacity	653	653
Current Enrollment	666	666
Capacity vs enrollment	-13	-13
Total rooms	30	
Rooms In Use*	30	
Remaining rooms	0	
Estimated capacity in remaining rooms	0	
(* total rooms and rooms needed include magnet)		

Mandated classroom removal after SY 2014-15	0
Adjusted remaining rooms	0

I have reviewed and understand the assessment of the capacity and allocation of seats at my school. I understand that this information will be shared with other LAUSD offices, to be used in the assessment of future campus needs and utilization.

Principal: S. Gomez-Judkins Date: 12/10/2014

Additional comments submitted YES NO SMS: V. Maffei

Page 1 of 4

HISTORICAL RESOURCES SURVEY REPORT JUNE 2014

CLASSROOM INVENTORY AND ALLOCATION WORKSHEET: PART 1 - SPECIAL EDUCATION, PRE-K, CO-LOCATIONS, & OUT OF SERVICE

Location Code: **3164** School: **COLFAX CHARTER EL** Co-Located Charter School(s) On-Site: **NO**

2014-15 Classroom Inventory Update	Elementary (K-5/6)		Middle School (6-8)		High School (9-12)		School Totals	
	Standard	Small	Standard	Small	Standard	Small	Standard	Small
2013-14 Counts	28	2	0	0	0	0	28	2
Classroom Adds/Removals per Relocatable Housing Unit	0	0	0	0	0	0	0	0
2014-15 Adjusted Counts	28	2	0	0	0	0	28	2
Add'l Revisions Per School (provide explanation)	2	-2	0	0	0	0	2	-2
2014-15 Final Counts	30	0	0	0	0	0	30	0
Approved Classroom Adds/Removals post 2014-15	0	0					0	0
2015-16 Estimated Count	30	0	0	0	0	0	30	0

2014-15 Classroom Allocation Update	Elementary (K-5/6)		Middle School (6-8)		High School (9-12)		Full School Tally	
	Room # Standard	Room # Small	Room # Standard	Room # Small	Room # Standard	Room # Small	Room # Standard	Room # Small
Special Education (list programs below and room #s -->)								
1 RSP - Resource Specialist Program	20							
2 LC - Learning Center	21							
3 SLD - Specific Learning Disability	28							
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
Pre-K (at ES only; list programs below and room #s -->)								
1								
2								
3								
4								
Co-Located Charter (confirm count of exclusive use classrooms)								
Administration/Office 0								
Instruction 0								
Classrooms temporarily 'out-of-service' or unsafe								
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
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17								
18								
19								
20								

I verify that the inventory and allocation of classrooms at my school as shown above is true and accurate.

Principal S Jimenez-Judkins SMS V. Maffei Date 10-Dec-14

Page 2 of 4

HISTORICAL RESOURCES SURVEY REPORT JUNE 2014

CLASSROOM INVENTORY AND ALLOCATION WORKSHEET: PART 2 - DISTRICT AND SCHOOL SET-ASIDES

Location Code: **3164** School: **COLFAX CHARTER EL**

2014-15 Classroom Allocation Update	Elementary (K-5/6)		Middle School (6-8)		High School (9-12)		Full School Tally	
	Room # Standard	Room # Small	Room # Standard	Room # Small	Room # Standard	Room # Small	Room # Standard	Room # Small
District Set-Asides (list uses below and room #s -->)								
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
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12								
13								
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28								
29								
30								
School Set-Asides (list uses below and room #s -->)								
1 Parent Center Escutia	27							
2 Computer Lab	24							
3 Science Lab	26							
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

I verify that the inventory and allocation of classrooms at my school as shown above is true and accurate.

Principal S. Gomez-Judkins SMS V. Maffei Date 10-Dec-14

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HISTORICAL RESOURCES SURVEY REPORT JUNE 2014

CAPACITY CALCULATION DETAIL WORKSHEET

School - COLFAX CHARTER EL	Calendar - 1 TRK	NormCat - DESEG	Config - K- 5	QEIA - NO

Allocation of Classrooms for K-5/6 Instruction (6th grade including at K-6 schools; K-5 only at span schools)

	2014-15 Enrollment	2014-15 Norms	Classrooms Needed for Enrollment	2014-15 2-Semester Operating Capacity	2014-15 Non-QEIA Norms	Classrooms Needed If Not QEIA	Estimated Non-QEIA 2-Semester Capacity
Magnet Center/Norm Category							
K-3 @ 24:1	0	0	0	0	0	0	0
4-5/6 @ 30.5:1 or 34:1	0	0	0	0	0	0	0
Classrooms for magnet center	0		0	0		0	0
Resident School							
K-3 @ 24:1	450	24:1	19	456	24:1	19	456
4-5/6 @ 30.5:1 or 36:1	209	36:1	6	216	36:1	6	216
Allocations for non-magnet instruction	659		25	672		25	672
Rooms allocated for Non QEIA/Non NORM positions			0	0		0	0
Remaining classrooms/stations			-1	-26		-1	-26
Capacity in K-5/6 classrooms (SDC excluded)			24	646		24	646
Capacity with Magnet (SDC excluded)			24	646		24	646

Allocation of Classrooms for 6-12 Instruction (applies to middle schools, high schools, and span schools with grades 7 and above)

	Percentage of students and periods per day	Norm	Rooms needed	Capacity in rooms needed
6-8 Magnet(s)/Norm Category				
center 1	N/A	N/A	0	0
center 2	N/A	N/A	0	0
center 3	N/A	N/A	0	0
Rooms need for 6-8 magnet enroll			0	0
6-8 Resident School				
Grades 6 thru 8 DRW	N/A	N/A	0	0
Grade 6 Core	N/A	N/A	0	0
Grade 7 Core	N/A	N/A	0	0
Grade 8 Core	N/A	N/A	0	0
Grade 6-8 Other	N/A	N/A	0	0
Rooms need for 6-8 non-magnet enroll			0	0
Rooms available for 6-8 instruction & magnet			0	
Rooms needed for all 6-8 enroll			0	0
			0	
Rooms allocated for prep and/or conference			0	
Rooms allocated for Non QEIA/Non NORM positions			0	
Under/over allocated classrooms			0	0
9-12 Magnet(s)/Norm Category				
center 1	N/A	N/A	0	0
center 2	N/A	N/A	0	0
center 3	N/A	N/A	0	0
Rooms need for 9-12 magnet enroll			0	0
9-12 Resident School				
Grade 9 Math & English	N/A	N/A	0	0
Grade 9 Core	N/A	N/A	0	0
Grade 10 Core	N/A	N/A	0	0
Grade 11 English	N/A	N/A	0	0
Grade 11 Core	N/A	N/A	0	0
Grade 12 Core	N/A	N/A	0	0
Grade 9-12 Other	N/A	N/A	0	0
Rooms need for 9-12 non-magnet enroll			0	0
Rooms available for instruction & magnet			0	
Rooms needed for all 9-12 enroll			0	0
			0	
Rooms allocated for prep and/or conference			0	
Rooms allocated for Non QEIA/Non NORM positions			0	
Under/over allocated classrooms			0	0

Capacity Summary	
Capacity in rooms needed for non-magnet	0
Adjustment for rooms under/over	0
Capacity in available rooms	0
Capacity in magnet rooms	0
Capacity in Special Day Classes	0
Capacity subtotal	0
Capacity for P.E. (all students 1 period)	0
2-sem capacity, 0% traveling	**0**
Prep/conf to be used if 30% traveling	0
Added capacity if 30% traveling	0
2-sem capacity, 30% traveling	0
For QEIA schools only:	
2-sem capacity at PHBAO norms & 0%	**N/A**
Estimated available classrooms w/o QEIA	N/A
Capacity in rooms needed for non-magnet	0
Adjustment for rooms under/over	0
Capacity in available rooms	0
Capacity in magnet rooms	0
Capacity in Special Day Classes	0
Capacity subtotal	0
Capacity for P.E. (9th & 10th grade 1 ppd)	0
2-sem capacity, 0% traveling	**0**
Prep/conf to be used if 30% traveling	0
Added capacity if 30% traveling	0
2-sem capacity, 30% traveling	0
4-track capacity, 0% traveling	N/A
For QEIA schools only:	
2-sem capacity at PHBAO norms & 0%	**N/A**
Estimated available classrooms w/o QEIA	**N/A**

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HISTORICAL RESOURCES SURVEY REPORT JUNE 2014

SUPERCEDED

CAPACITY ASSESSMENT SUMMARY

Location Code	3164	QEIA	NO
School	COLFAX CHARTER EL		
Configuration	K- 5	Site Acres	8.1
Calendar	1 TRK	Play Acres	3.9
Multi-track	NO	PA req'd	1.6
Norm Category	DESEG		
Escutia?	Yes		
Magnet Center(s)	NO		
Center 1			
Center 2			
Center 3			

	2014-15 Current Enroll	2014-15 Magnet Center(s)	2014-15 Total Site Current	2014-15 Forecast	2014-15 Magnet Forecast	2014-15 Total Site Forecast	2013-14 Norm Day	2013-14 Magnet Center(s)	Total Site Enroll
K	118		118	100	0	100	112	0	112
1	122		122	110	0	110	103	0	103
2	107		107	106	0	106	108	0	108
3	103		103	105	0	105	122	0	122
4	117		117	121	0	121	99	0	99
5	92		92	98	0	98	104	0	104
6			0	0	0	0	0	0	0
7			0	0	0	0	0	0	0
8			0	0	0	0	0	0	0
9			0	0	0	0	0	0	0
10			0	0	0	0	0	0	0
11			0	0	0	0	0	0	0
12			0	0	0	0	0	0	0
K-5/6 U	7		7						
6-8 U			0						
9-12 U			0	9	0	9	9	0	9
Total	666	0	666	649	0	649	657	0	657

	Standard Size Classrooms					Small Classrooms		
Elementary (up to grade 6)	Counts as of 2013-14	Removals and/or adds since CAR 2013	Estimated Counts for 2014-15	2014-15 Revisions	2014-15 Final Counts	Counts as of 2013-14	Removals and/or adds since CAR 2013	2014-15 Final Counts
K-5/6 Rooms	28	0	28	0	28	2	0	2
Special Education	2		2	0	2	0	1	1
Pre-K (at ES only)	0		0	0	0	0	1	1
Co-Located Charter	0		0	0	0	0	0	0
District Set-Asides	0		0	0	0	0	0	0
School Set-Asides	2		2	0	2	0	1	1
Out-of-Service	0		0	0	0	0	0	0
Rooms Available for K-5/6 Instruction	24		24	0	24			
Non QEIA/non NORM funded teaching positions								

K-5/6	Assessmt Based on Calendar	Pre-CAP Maximum to Avoid Bussing
2014-15 Capacity	653	653
Current Enrollment	666	666
Capacity vs enrollment	-13	-13
Total rooms*	28	
Rooms In Use*	28	
Remaining rooms	0	
Estimated capacity in remaining rooms	0	
(* total rooms and rooms needed include magnet)		

	Standard Size Classrooms					Small Classrooms		
Middle School	Counts as of 2013-14	Removals and/or adds since CAR 2013	Estimated Counts for 2014-15	2014-15 Revisions	2014-15 Final Counts	Counts as of 2013-14	Removals and/or adds since CAR 2013	2014-15 Final Counts
6-8 Rooms	0	0	0		0			0
Special Education	0		0		0	0		0
Pre-K (at ES only)								
Co-Located Charter	0		0		0	0		0
District Set-Asides	0		0		0	0		0
School Set-Asides	0		0			0		0
Out-of-Service	0		0		0	0		0
Rooms Available for 6-8 Instruction	0		0		0			
Non QEIA/non NORM funded teaching positions								

Middle School	Assessmt Based on Calendar	Pre-CAP Maximum to Avoid Bussing (30% Trav)
2014-15 Capacity	0	0
Current Enrollment	0	0
Capacity vs enrollment	0	0
Total rooms*	0	
Rooms In Use*	0	
Remaining rooms	0	
Estimated capacity in remaining rooms	0	
(* total rooms and rooms needed include magnet)		

	Standard Size Classrooms					Small Classrooms		
High School	Counts as of 2013-14	Removals and/or adds since CAR 2013	Estimated Counts for 2014-15	2014-15 Revisions	2014-15 Final Counts	Counts as of 2013-14	Removals and/or adds since CAR 2013	2014-15 Final Counts
9-12 Rooms	0	0			0	0		0
Special Education	0		0		0	0		0
Pre-K (at ES only)								
Co-Located Charter	0		0		0	0		0
District Set-Asides	0		0		0	0		0
School Set-Asides	0		0		0	0		0
Out-of-Service	0		0		0	0		0
Rooms Available for 9-12 Instruction	0		0		0			
Non QEIA/non NORM funded teaching positions								

High School	Assessmt Based on Calendar	Pre-CAP Maximum to Avoid Bussing (30% Trav)
2014-15 Capacity	0	0
Current Enrollment	0	0
Capacity vs enrollment	0	0
Total rooms*	0	
Rooms In Use*	0	
Remaining rooms	0	
Estimated capacity in remaining rooms	0	
(* total rooms and rooms needed include magnet)		

Rationale for classroom count/allocation revisions

2014-15 School Total (includes SDC and Magnet)	Assessment Based on Calendar	Pre-CAP Maximum to Avoid Bussing (30% Trav)
2014-15 Capacity	653	653
Current Enrollment	666	666
Capacity vs enrollment	-13	-13
Total rooms	28	
Rooms In Use*	28	
Remaining rooms	0	
Estimated capacity in remaining rooms	0	
(* total rooms and rooms needed include magnet)		

I have reviewed and understand the assessment of the capacity and allocation of seats at my school. I understand that this information will be shared with other LAUSD offices, to be used in the assessment of future campus needs and utilization.

Principal [signature] Date 9/9/14

Additional comments submitted YES NO SMS AP

Mandated classroom removal after SY 2014-15	0
Adjusted remaining rooms	0

HISTORICAL RESOURCES SURVEY REPORT JUNE 2014

CLASSROOM INVENTORY AND ALLOCATION WORKSHEET: PART 1 - SPECIAL EDUCATION, PRE-K, CO-LOCATIONS, & OUT OF SERVICE

Location Code: **3164** School: **COLFAX CHARTER EL** Co-Located Charter School(s) On-Site: **NO**

2014-15 Classroom Inventory Update	Elementary (K-5/6) Standard	Elementary (K-5/6) Small	Middle School (6-8) Standard	Middle School (6-8) Small	High School (9-12) Standard	High School (9-12) Small	School Totals Standard	School Totals Small
2013-14 Counts	28	2	0	0	0	0	28	2
Classroom Adds/Removals per Relocatable Housing Unit	0	0	0	0	0	0	0	0
2014-15 Adjusted Counts	28	2	0	0	0	0	28	2
Add'l Revisions Per School (provide explanation)	0	0					0	0
2014-15 Final Counts	28	2					28	2
Approved Classroom Adds/Removals post 2014-15	0	0					0	0
2015-16 Estimated Count	28	2					28	2

2014-15 Classroom Allocation Update	Elementary (K-5/6) Room # Standard	Elementary (K-5/6) Room # Small	Middle School (6-8) Room # Standard	Middle School (6-8) Room # Small	High School (9-12) Room # Standard	High School (9-12) Room # Small	Full School Tally Room # Standard	Full School Tally Room # Small
Special Education (list programs below and room #s -->)								
1 LC - Learning Center	20							
2 LC - Learning Center	21							
3 SLD - Specific Learning Disability		28						
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
Pre-K (at ES only; list programs below and room #s -->)								
1								
2								
3								
4								
Co-Located Charter (confirm count of exclusive use classrooms)								
Administration/Office 0								
Instruction 0								
Classrooms temporarily 'out-of-service' or unsafe								
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								

SUPERCEDED

I verify that the inventory and allocation of classrooms at my school as shown above is true and accurate.

Principal [signature] SMS [initials] Date 9/9/14

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HISTORICAL RESOURCES SURVEY REPORT JUNE 2014

CLASSROOM INVENTORY AND ALLOCATION WORKSHEET: PART 2 - DISTRICT AND SCHOOL SET-ASIDES

Location Code: **3164** School: **COLFAX CHARTER EL**

2014-15 Classroom Allocation Update	Elementary (K-5/6)		Middle School (6-8)		High School (9-12)		Full School Tally	
	Room # Standard	Room # Small	Room # Standard	Room # Small	Room # Standard	Room # Small	Room # Standard	Room # Small
District Set-Asides (list uses below and room #s -->)								
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								
School Set-Asides (list uses below and room #s -->)								
1 Parent Center		27						
2 Computer Lab	24							
3 Computer Lab	26							
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

SUPERCEDED

I verify that the inventory and allocation of classrooms at my school as shown above is true and accurate.

Principal [signature] SMS RP Date 9/9/14

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HISTORICAL RESOURCES SURVEY REPORT JUNE 2014

CAPACITY CALCULATION DETAIL WORKSHEET

School - COLFAX CHARTER EL	Calendar - 1 TRK	NormCat - DESEG	Config - K- 5	QEIA - NO

Allocation of Classrooms for K-5/6 Instruction (6th grade including at K-6 schools; K-5 only at span schools)

	2014-15 Enrollment	2014-15 Norms	Classrooms Needed for Enrollment	2014-15 2-Semester Operating Capacity	2014-15 Non-QEIA Norms	Classrooms Needed If Not QEIA	Estimated Non-QEIA 2-Semester Capacity
Magnet Center/Norm Category							
K-3 @ 24:1	0	0	0	0	0	0	0
4-5/6 @ 30.5:1 or 34:1	0	0	0	0	0	0	0
Classrooms for magnet center	0		0	0		0	0
Resident School							
K-3 @ 24:1	450	24:1	19	456	24:1	19	456
4-5/6 @ 30.5:1 or 36:1	209	36:1	6	216	36:1	6	216
Allocations for non-magnet instruction	659		25	672		25	672
Rooms allocated for Non QEIA/Non NORM positions			0	0		0	0
Remaining classrooms/stations			-1	-26		-1	-26
Capacity in K-5/6 classrooms (SDC excluded)			24	646		24	646
Capacity with Magnet (SDC excluded)			24	646		24	646

Allocation of Classrooms for 6-12 Instruction (applies to middle schools, high schools, and span schools with grades 7 and above)

	Percentage of students and periods per day	Norm	Rooms needed	Capacity in rooms needed
6-8 Magnet(s)/Norm Category				
center 1	N/A	N/A	0	0
center 2	N/A	N/A	0	0
center 3	N/A	N/A	0	0
Rooms need for 6-8 magnet enroll			0	[illegible]
6-8 Resident School				
Grades 6 thru 8 DRW	N/A	N/A	0	0
Grade 6 Core	N/A	N/A	[illegible]	0
Grade 7 Core	N/A	N/A	[illegible]	0
Grade 8 Core	N/A	N/A	0	0
Grade 6-8 Other	N/A	N/A	0	0
Rooms need for 6-8 non-magnet enroll			[illegible]	0
Rooms available for 6-8 instruction & magnet			0	
Rooms needed for all 6-8 enroll			0	0
			0	
Rooms allocated for prep and/or conference			0	
Rooms allocated for Non QEIA/Non NORM positions			0	
Under/over allocated classrooms			0	0
9-12 Magnet(s)/Norm Category				
center 1	N/A	N/A	0	0
center 2	N/A	N/A	0	0
center 3	N/A	N/A	0	0
Rooms need for 9-12 magnet enroll			0	0
9-12 Resident School				
Grade 9 Math & English	N/A	N/A	0	0
Grade 9 Core	N/A	N/A	0	0
Grade 10 Core	N/A	N/A	0	0
Grade 11 English	N/A	N/A	0	0
Grade 11 Core	N/A	N/A	0	0
Grade 12 Core	N/A	N/A	0	0
Grade 9-12 Other	N/A	N/A	0	0
Rooms need for 9-12 non-magnet enroll			0	0
Rooms available for instruction & magnet			0	
Rooms needed for all 9-12 enroll			0	0
			0	
Rooms allocated for prep and/or conference			0	
Rooms allocated for Non QEIA/Non NORM positions			0	
Under/over allocated classrooms			0	0

Capacity Summary (6-8)	
Capacity in rooms needed for non-magnet	0
Adjustment for rooms under/over	0
Capacity in available rooms	0
Capacity in magnet rooms	0
Capacity in Special Day Classes	0
Capacity subtotal	0
Capacity for P.E. (all students 1 period)	0
2-sem capacity, 0% traveling	**0**
Prep/conf to be used if 30% traveling	0
Added capacity if 30% traveling	0
2-sem capacity, 30% traveling	0
For QEIA schools only:	
2-sem capacity at PHBAO norms & 0%	**N/A**
Estimated available classrooms w/o QEIA	N/A

Capacity Summary (9-12)	
Capacity in rooms needed for non-magnet	0
Adjustment for rooms under/over	0
Capacity in available rooms	0
Capacity in magnet rooms	0
Capacity in Special Day Classes	0
Capacity subtotal	0
Capacity for P.E. (9th & 10th grade 1 ppd)	0
2-sem capacity, 0% traveling	**0**
Prep/conf to be used if 30% traveling	0
Added capacity if 30% traveling	0
2-sem capacity, 30% traveling	0
4-track capacity, 0% traveling	N/A
For QEIA schools only:	
2-sem capacity at PHBAO norms & 0%	**N/A**
Estimated available classrooms w/o QEIA	N/A

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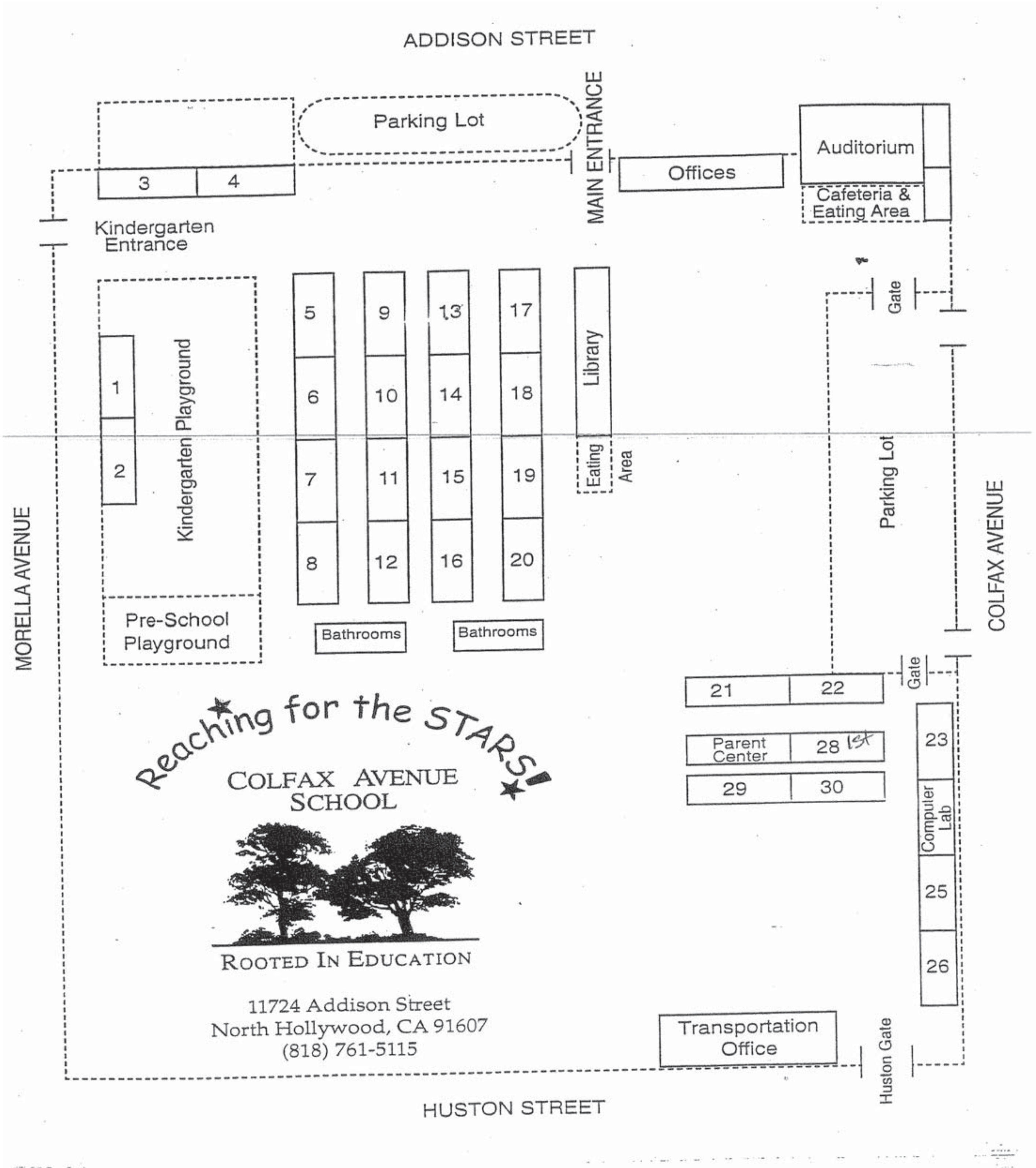
HISTORICAL RESOURCES SURVEY REPORT JUNE 2014



HISTORICAL RESOURCES SURVEY REPORT JUNE 2014

Enrollment Forecast for Colfax ES

	2013 Actual	2014 Forecast	2014 Actual	2015	2016	2017	2018	2019	2020	2021	2022	2023
Resident Enrollment	590	596	606	633	665	726	760	793	825	849	877	901
Non-Resident Enrollment	56	44	47	42	36	30	30	30	30	30	30	30
CAP Out	32	32	14	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
Total	678	672	667	675	701	756	790	823	855	879	907	931

Enrollment Forecast by Norm Category for Colfax ES

	2013 Actual	2014 Forecast	2014 Actual	2015	2016	2017	2018	2019	2020	2021	2022	2023
Grades K-3	473	448	459	450	467	504	527	549	570	586	605	621
Grades 4-5	205	224	208	225	234	252	263	274	285	293	302	310
Total	678	672	667	675	701	756	790	823	855	879	907	931

Impact to Classroom Demand at Colfax ES

	2013 Actual	2014 Forecast	2014 Actual	2015	2016	2017	2018	2019	2020	2021	2022	2023
Grades K-3	20	19	20	19	20	21	22	23	24	25	26	26
Grades 4-5	6	7	6	7	7	7	8	8	8	9	9	9
Subtotal: Clrms for K-5	26	26	26	26	27	28	30	31	32	34	35	35
Clrms for SDC & S-A	6	6	6	6	6	7	7	7	7	7	7	7
Total Clrms Needed	32	32	32	32	33	35	37	38	39	41	42	42
Total Clrms @ Colfax ES	30	30	30	30	30	30	30	30	30	30	30	30
Colfax Clrms vs Need	-2	-2	-2	-2	-3	-5	-7	-8	-9	-11	-12	-12

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rev January 9, 2015

CAPACITY ASSESSMENT REPORT 12-10-14

CAPACITY ASSESSMENT SUMMARY			
Location Code	3164	QEIA	NO
School	COLFAX CHARTER EL		
Configuration	K-5	Site Acres	8.1
Calendar	1 TRK	Play Acres	3.9
Multi-track	NO	PA req'd	1.6
Norm Category	DESEG		
Escutia?	Yes		
Magnet Center(s)	NO		
Center 1			
Center 2			
Center 3			

	2014-15 Current Enroll	2014-15 Magnet Center(s)	2014-15 Total Site Current	2014-15 Forecast	2014-15 Magnet Forecast	2014-15 Total Site Forecast	2013-14 Norm Day	2013-14 Magnet Center(s)	Total Site Enroll
K	118		118	100	0	100	112	0	112
1	122		122	110	0	110	103	0	103
2	107		107	106	0	106	108	0	108
3	103		103	105	0	105	122	0	122
4	117		117	121	0	121	99	0	99
5	92		92	98	0	98	104	0	104
6			0	0	0	0	0	0	0
7			0	0	0	0	0	0	0
8			0	0	0	0	0	0	0
9			0	0	0	0	0	0	0
10			0	0	0	0	0	0	0
11			0	0	0	0	0	0	0
12			0	0	0	0	0	0	0
K-5/6 U	7		7						
6-8 U			0						
9-12 U			0	9	0	9	9	0	9
Total	666	0	666	649	0	649	657	0	657

	Standard Size Classrooms					Small Classrooms		
Elementary (up to grade 6)	Counts as of 2013-14	Removals and/or adds since CAR 2013	Estimated Counts for 2014-15	2014-15 Revisions	2014-15 Final Counts	Counts as of 2013-14	Removals and/or adds since CAR 2013	2014-15 Final Counts
K-5/6 Rooms	28	0	28	0	30	2	-2	0
Special Education	2		2	1	3	0	0	0
Pre-K (at ES only)	0		0	0	0	0	0	0
Co-Located Charter	0		0	0	0	0	0	0
District Set-Asides	0		0	0	0	0	0	0
School Set-Asides	2		2	1	3	0	0	0
Out-of-Service	0		0	0	0	0	0	0
Rooms Available for K-5/6 Instruction	24		24	-2	24			
Non QEIA/non NORM funded teaching positions								

K-5/6	Assessmt Based on Calendar	Pre-CAP Maximum to Avoid Bussing
2014-15 Capacity	653	653
Current Enrollment	666	666
Capacity vs enrollment	-13	-13
Total rooms*	30	
Rooms In Use*	30	
Remaining rooms	0	
Estimated capacity in remaining rooms	0	
(* total rooms and rooms needed include magnet)		

	Standard Size Classrooms					Small Classrooms		
Middle School	Counts as of 2013-14	Removals and/or adds since CAR 2013	Estimated Counts for 2014-15	2014-15 Revisions	2014-15 Final Counts	Counts as of 2013-14	Removals and/or adds since CAR 2013	2014-15 Final Counts
6-8 Rooms	0	0	0		0	0		0
Special Education	0		0		0	0		0
Pre-K (at ES only)								
Co-Located Charter	0		0		0	0		0
District Set-Asides	0		0		0	0		0
School Set-Asides	0		0		0	0		0
Out-of-Service	0		0		0	0		0
Rooms Available for 6-8 Instruction	0		0		0			
Non QEIA/non NORM funded teaching positions								

Middle School	Assessmt Based on Calendar	Pre-CAP Maximum to Avoid Bussing (30% Trav)
2014-15 Capacity	0	0
Current Enrollment	0	0
Capacity vs enrollment	0	0
Total rooms*	0	
Rooms In Use*	0	
Remaining rooms	0	
Estimated capacity in remaining rooms	0	
(* total rooms and rooms needed include magnet)		

	Standard Size Classrooms					Small Classrooms		
High School	Counts as of 2013-14	Removals and/or adds since CAR 2013	Estimated Counts for 2014-15	2014-15 Revisions	2014-15 Final Counts	Counts as of 2013-14	Removals and/or adds since CAR 2013	2014-15 Final Counts
9-12 Rooms	0	0	0		0	0		0
Special Education	0		0		0	0		0
Pre-K (at ES only)								
Co-Located Charter	0		0		0	0		0
District Set-Asides	0		0		0	0		0
School Set-Asides	0		0		0	0		0
Out-of-Service	0		0		0	0		0
Rooms Available for 9-12 Instruction	0		0		0			
Non QEIA/non NORM funded teaching positions								

High School	Assessmt Based on Calendar	Pre-CAP Maximum to Avoid Bussing (30% Trav)
2014-15 Capacity	0	0
Current Enrollment	0	0
Capacity vs enrollment	0	0
Total rooms*	0	
Rooms In Use*	0	
Remaining rooms	0	
Estimated capacity in remaining rooms	0	
(* total rooms and rooms needed include magnet)		

Rationale for classroom count/allocation revisions

12-10-14 – Changes discussed between Susana Gomez, Principal and Bruce Takeguma, SMS.

2014-15 School Total (includes SDC and Magnet)	Assessment Based on Calendar	Pre-CAP Maximum to Avoid Bussing (30% Trav)
2014-15 Capacity	653	653
Current Enrollment	666	666
Capacity vs enrollment	-13	-13
Total rooms	30	
Rooms In Use*	30	
Remaining rooms	0	
Estimated capacity in remaining rooms	0	
(* total rooms and rooms needed include magnet)		

I have reviewed and understand the assessment of the capacity and allocation of seats at my school. I understand that this information will be shared with other LAUSD offices, to be used in the assessment of future campus needs and utilization.

Principal: SV Gomez-Judkins Date: 12/10/2014

Additional comments submitted YES NO SMS: V. Maffei

Mandated classroom removal after SY 2014-15	0
Adjusted remaining rooms	0

CAPACITY ASSESSMENT REPORT 12-10-14

CLASSROOM INVENTORY AND ALLOCATION WORKSHEET: PART 1 - SPECIAL EDUCATION, PRE-K, CO-LOCATIONS, & OUT OF SERVICE

Location Code: **3164** School: **COLFAX CHARTER EL** Co-Located Charter School(s) On-Site: **NO**

2014-15 Classroom Inventory Update	Elementary (K-5/6)		Middle School (6-8)		High School (9-12)		School Totals	
	Standard	Small	Standard	Small	Standard	Small	Standard	Small
2013-14 Counts	28	2	0	0	0	0	28	2
Classroom Adds/Removals per Relocatable Housing Unit	0	0	0	0	0	0	0	0
2014-15 Adjusted Counts	28	2	0	0	0	0	28	2
Add'l Revisions Per School (provide explanation)	2	-2	0	0	0	0	2	-2
2014-15 Final Counts	30	0	0	0	0	0	30	0
Approved Classroom Adds/Removals post 2014-15	0	0					0	0
2015-16 Estimated Count	30	0	0	0	0	0	30	0

2014-15 Classroom Allocation Update	Elementary (K-5/6)		Middle School (6-8)		High School (9-12)		Full School Tally	
	Room # Standard	Room # Small	Room # Standard	Room # Small	Room # Standard	Room # Small	Room # Standard	Room # Small
Special Education (list programs below and room #s -->)								
1 RSP - Resource Specialist Program	20							
2 LC - Learning Center	21							
3 SLD - Specific Learning Disability	28							
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
Pre-K (at ES only; list programs below and room #s -->)								
1								
2								
3								
4								
Co-Located Charter (confirm count of exclusive use classrooms)								
Administration/Office 0								
Instruction 0								
Classrooms temporarily 'out-of-service' or unsafe								
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								

I verify that the inventory and allocation of classrooms at my school as shown above is true and accurate.

Principal S Gomez-Judkins SMS V. Maffei Date 10-Dec-14

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CAPACITY ASSESSMENT REPORT 12-10-14

CLASSROOM INVENTORY AND ALLOCATION WORKSHEET: PART 2 - DISTRICT AND SCHOOL SET-ASIDES

Location Code: **3164** School: **COLFAX CHARTER EL**

2014-15 Classroom Allocation Update	Elementary (K-5/6) Room # Standard	Elementary (K-5/6) Room # Small	Middle School (6-8) Room # Standard	Middle School (6-8) Room # Small	High School (9-12) Room # Standard	High School (9-12) Room # Small	Full School Tally Room # Standard	Full School Tally Room # Small
District Set-Asides (list uses below and room #s -->)								
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								
School Set-Asides (list uses below and room #s -->)								
1 Parent Center Escutia	27							
2 Computer Lab	24							
3 Science Lab	26							
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
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16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

I verify that the inventory and allocation of classrooms at my school as shown above is true and accurate.

Principal SGomez-Judkins SMS V. Maffei Date 10-Dec-14

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CAPACITY ASSESSMENT REPORT 12-10-14

CAPACITY CALCULATION DETAIL WORKSHEET

School - COLFAX CHARTER EL	Calendar - 1 TRK	NormCat - DESEG	Config - K-5	QEIA - NO

Allocation of Classrooms for K-5/6 Instruction (6th grade including at K-6 schools; K-5 only at span schools)

	2014-15 Enrollment	2014-15 Norms	Classrooms Needed for Enrollment	2014-15 2-Semester Operating Capacity	2014-15 Non-QEIA Norms	Classrooms Needed If Not QEIA	Estimated Non-QEIA 2-Semester Capacity
Magnet Center/Norm Category							
K-3 @ 24:1	0	0	0	0	0	0	0
4-5/6 @ 30.5:1 or 34:1	0	0	0	0	0	0	0
Classrooms for magnet center	0		0	0		0	0
Resident School							
K-3 @ 24:1	450	24:1	19	456	24:1	19	456
4-5/6 @ 30.5:1 or 36:1	209	36:1	6	216	36:1	6	216
Allocations for non-magnet instruction	659		25	672		25	672
Rooms allocated for Non QEIA/Non NORM positions			0	0		0	0
Remaining classrooms/stations			-1	-26		-1	-26
Capacity in K-5/6 classrooms (SDC excluded)			24	646		24	646
Capacity with Magnet (SDC excluded)			24	646		24	646

Allocation of Classrooms for 6-12 Instruction (applies to middle schools, high schools, and span schools with grades 7 and above)

	Percentage of students and periods per day	Norm	Rooms needed	Capacity in rooms needed
6-8 Magnet(s)/Norm Category				
center 1	N/A	N/A	0	0
center 2	N/A	N/A	0	0
center 3	N/A	N/A	0	0
Rooms need for 6-8 magnet enroll			0	0
6-8 Resident School				
Grades 6 thru 8 DRW	N/A	N/A	0	0
Grade 6 Core	N/A	N/A	0	0
Grade 7 Core	N/A	N/A	0	0
Grade 8 Core	N/A	N/A	0	0
Grade 6-8 Other	N/A	N/A	0	0
Rooms need for 6-8 non-magnet enroll			0	0
Rooms available for 6-8 instruction & magnet			0	
Rooms needed for all 6-8 enroll			0	0
			0	
Rooms allocated for prep and/or conference			0	
Rooms allocated for Non QEIA/Non NORM positions			0	
Under/over allocated classrooms			0	0
9-12 Magnet(s)/Norm Category				
center 1	N/A	N/A	0	0
center 2	N/A	N/A	0	0
center 3	N/A	N/A	0	0
Rooms need for 9-12 magnet enroll			0	0
9-12 Resident School				
Grade 9 Math & English	N/A	N/A	0	0
Grade 9 Core	N/A	N/A	0	0
Grade 10 Core	N/A	N/A	0	0
Grade 11 English	N/A	N/A	0	0
Grade 11 Core	N/A	N/A	0	0
Grade 12 Core	N/A	N/A	0	0
Grade 9-12 Other	N/A	N/A	0	0
Rooms need for 9-12 non-magnet enroll			0	0
Rooms available for instruction & magnet			0	
Rooms needed for all 9-12 enroll			0	0
			0	
Rooms allocated for prep and/or conference			0	
Rooms allocated for Non QEIA/Non NORM positions			0	
Under/over allocated classrooms			0	0

Capacity Summary (6-8)

Capacity in rooms needed for non-magnet	0
Adjustment for rooms under/over	0
Capacity in available rooms	0
Capacity in magnet rooms	0
Capacity in Special Day Classes	0
Capacity subtotal	0
Capacity for P.E. (all students 1 period)	0
2-sem capacity, 0% traveling	**0**
Prep/conf to be used if 30% traveling	0
Added capacity if 30% traveling	0
2-sem capacity, 30% traveling	0
For QEIA schools only:	
2-sem capacity at PHBAO norms & 0%	**N/A**
Estimated available classrooms w/o QEIA	N/A

Capacity Summary (9-12)

Capacity in rooms needed for non-magnet	0
Adjustment for rooms under/over	0
Capacity in available rooms	0
Capacity in magnet rooms	0
Capacity in Special Day Classes	0
Capacity subtotal	0
Capacity for P.E. (9th & 10th grade 1 ppd)	0
2-sem capacity, 0% traveling	**0**
Prep/conf to be used if 30% traveling	0
Added capacity if 30% traveling	0
2-sem capacity, 30% traveling	0
4-track capacity, 0% traveling	N/A
For QEIA schools only:	
2-sem capacity at PHBAO norms & 0%	**N/A**
Estimated available classrooms w/o QEIA	**N/A**

CAPACITY ASSESSMENT REPORT 12-10-14

CAPACITY ASSESSMENT SUMMARY

Location Code 3164 QEIA NO

School COLFAX CHARTER EL

Configuration	K- 5	Site Acres	8.1
Calendar	1 TRK	Play Acres	3.9
Multi-track	NO	PA req'd	1.6
Norm Category	DESEG		
Escutia?	Yes		

Magnet Center(s) NO
Center 1
Center 2
Center 3

	2014-15 Current Enroll	2014-15 Magnet Center(s)	2014-15 Total Site Current	2014-15 Forecast	2014-15 Magnet Forecast	2014-15 Total Site Forecast	2013-14 Norm Day	2013-14 Magnet Center(s)	Total Site Enroll
K	118		118	100	0	100	112	0	112
1	122		122	110	0	110	103	0	103
2	107		107	106	0	106	108	0	108
3	103		103	105	0	105	122	0	122
4	117		117	121	0	121	99	0	99
5	92		92	98	0	98	104	0	104
6			0	0	0	0	0	0	0
7			0	0	0	0	0	0	0
8			0	0	0	0	0	0	0
9			0	0	0	0	0	0	0
10			0	0	0	0	0	0	0
11			0	0	0	0	0	0	0
12			0	0	0	0	0	0	0
K-5/6 U	7		7						
6-8 U			0						
9-12 U			0	9	0	9	9	0	9
Total	666	0	666	649	0	649	657	0	657

Elementary (up to grade 6)	Standard Size Classrooms: Counts as of 2013-14	Removals and/or adds since CAR 2013	Estimated Counts for 2014-15	2014-15 Revisions	2014-15 Final Counts	Small Classrooms: Counts as of 2013-14	Removals and/or adds since CAR 2013	2014-15 Final Counts
K-5/6 Rooms	28	0	28	0	28	2	0	2
Special Education	2		2	0	2	0	1	1
Pre-K (at ES only)	0		0	0	0	0	1	1
Co-Located Charter	0		0	0	0	0	0	0
District Set-Asides	0		0	0	0	0	0	0
School Set-Asides	2		2	0	2	0	1	1
Out-of-Service	0		0	0	0	0	0	0
Rooms Available for K-5/6 Instruction	24		24	0	24			
Non QEIA/non NORM funded teaching positions								

K-5/6	Assessmt Based on Calendar	Pre-CAP Maximum to Avoid Bussing
2014-15 Capacity	653	653
Current Enrollment	666	666
Capacity vs enrollment	-13	-13
Total rooms*	28	
Rooms In Use*	28	
Remaining rooms	0	
Estimated capacity in remaining rooms	0	

(* total rooms and rooms needed include magnet)

Middle School	Standard Size Classrooms: Counts as of 2013-14	Removals and/or adds since CAR 2013	Estimated Counts for 2014-15	2014-15 Revisions	2014-15 Final Counts	Small Classrooms: Counts as of 2013-14	Removals and/or adds since CAR 2013	2014-15 Final Counts
6-8 Rooms	0	0	0		0			0
Special Education	0		0		0	0		0
Pre-K (at ES only)								
Co-Located Charter	0		0		0	0		0
District Set-Asides	0		0		0	0		0
School Set-Asides	0		0			0		0
Out-of-Service	0		0			0		0
Rooms Available for 6-8 Instruction	0		0		0			
Non QEIA/non NORM funded teaching positions								

Middle School	Assessmt Based on Calendar	Pre-CAP Maximum to Avoid Bussing (30% Trav)
2014-15 Capacity	0	0
Current Enrollment	0	0
Capacity vs enrollment	0	0
Total rooms*	0	
Rooms In Use*	0	
Remaining rooms	0	
Estimated capacity in remaining rooms	0	

(* total rooms and rooms needed include magnet)

High School	Standard Size Classrooms: Counts as of 2013-14	Removals and/or adds since CAR 2013	Estimated Counts for 2014-15	2014-15 Revisions	2014-15 Final Counts	Small Classrooms: Counts as of 2013-14	Removals and/or adds since CAR 2013	2014-15 Final Counts
9-12 Rooms	0				0	0		0
Special Education	0		0		0	0		0
Pre-K (at ES only)								
Co-Located Charter	0		0		0	0		0
District Set-Asides	0		0		0	0		0
School Set-Asides	0		0		0	0		0
Out-of-Service	0		0		0	0		0
Rooms Available for 9-12 Instruction	0		0		0			
Non QEIA/non NORM funded teaching positions								

High School	Assessmt Based on Calendar	Pre-CAP Maximum to Avoid Bussing (30% Trav)
2014-15 Capacity	0	0
Current Enrollment	0	0
Capacity vs enrollment	0	0
Total rooms*	0	
Rooms In Use*	0	
Remaining rooms	0	
Estimated capacity in remaining rooms	0	

(* total rooms and rooms needed include magnet)

SUPERCEDED

Rationale for classroom count/allocation revisions

2014-15 School Total (includes SDC and Magnet)	Assessment Based on Calendar	Pre-CAP Maximum to Avoid Bussing (30% Trav)
2014-15 Capacity	653	653
Current Enrollment	666	666
Capacity vs enrollment	-13	-13
Total rooms	28	
Rooms In Use*	28	
Remaining rooms	0	
Estimated capacity in remaining rooms	0	

(* total rooms and rooms needed include magnet)

I have reviewed and understand the assessment of the capacity and allocation of seats at my school. I understand that this information will be shared with other LAUSD offices, to be used in the assessment of future campus needs and utilization.

Principal [signature] Date 9/9/14

Additional comments submitted YES NO SMS AP

Mandated classroom removal after SY 2014-15	0
Adjusted remaining rooms	0

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CAPACITY ASSESSMENT REPORT 12-10-14

CLASSROOM INVENTORY AND ALLOCATION WORKSHEET: PART 1 - SPECIAL EDUCATION, PRE-K, CO-LOCATIONS, & OUT OF SERVICE

Location Code: **3164** School: **COLFAX CHARTER EL** Co-Located Charter School(s) On-Site: **NO**

2014-15 Classroom Inventory Update	Elementary (K-5/6)		Middle School (6-8)		High School (9-12)		School Totals	
	Standard	Small	Standard	Small	Standard	Small	Standard	Small
2013-14 Counts	28	2	0	0	0	0	28	2
Classroom Adds/Removals per Relocatable Housing Unit	0	0	0	0	0	0	0	0
2014-15 Adjusted Counts	28	2	0	0	0	0	28	2
Add'l Revisions Per School (provide explanation)	0	0					0	0
2014-15 Final Counts	28	2					28	2
Approved Classroom Adds/Removals post 2014-15	0	0					0	0
2015-16 Estimated Count	28	2					28	2

2014-15 Classroom Allocation Update	Elementary (K-5/6)		Middle School (6-8)		High School (9-12)		Full School Tally	
	Room # Standard	Room # Small	Room # Standard	Room # Small	Room # Standard	Room # Small	Room # Standard	Room # Small
Special Education (list programs below and room #s -->)								
1 LC - Learning Center	20							
2 LC - Learning Center	21							
3 SLD - Specific Learning Disability		28						
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
Pre-K (at ES only; list programs below and room #s -->)								
1								
2								
3								
4								
Co-Located Charter (confirm count of exclusive use classrooms)								
Administration/Office 0								
Instruction								
Classrooms temporarily 'out-of-service' or unsafe								
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								

SUPERCEDED

I verify that the inventory and allocation of classrooms at my school as shown above is true and accurate.

Principal ______ SMS ______ Date 9/9/14

Page 2 of 4

Appendix C

Secretary of Interior Standards Review and Character Defining Features Memorandum

ESA PCR

233 Wilshire Boulevard
Suite 150
Santa Monica, CA 90401
310.451.4488 phone
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www.pcrnet.com

August 30, 2016

Ms. Gwenn Godek, CEQA Advisor/Contract Professional
LOS ANGELES UNIFIED SCHOOL DISTRICT
Office of Environmental Health and Safety
333 South Beaudry Avenue, 21st Floor
Los Angeles, California 90017

Subject: Secretary of the Interior's (SOI) Standards Review for LAUSD Colfax Avenue Elementary School Classroom Addition Project, 11724 Addison Street, North Hollywood, California

Dear Ms. Godek:

ESA PCR has reviewed the plans for the proposed Colfax Charter Elementary School Classroom Addition Project ("Project") for the Los Angeles Unified School District ("LAUSD") at Colfax Avenue Elementary School ("Colfax ES" or "Campus") located at 11724 Addison Street in North Hollywood, California. During the 2014 Historic Resources Inventory Survey prepared for LAUSD, Colfax ES was recommended eligible as a historic district under the California Register Criterion 1. Under the proposed plans, prepared by LAUSD on April 25, 2016, the Project would include a new Classroom and Administration Building, Kindergarten Building, expanded lunch shelter and arcades, the removal of ten portable classrooms situated in five buildings, the repurposing and rehabilitation of the Administration Building, an expanded lunch shelter and arcade, and relocation of the school's main entry from Addison Street to Colfax Avenue.

ESA PCR's historic resources practice group staff Margarita Jerabek, Ph.D., Director of Historic Resources, and Amanda Y. Kainer, M.S., Senior Architectural Historian, have conducted a site visit of the Campus and the immediate surrounding built environment to assess the potential impacts of the Project to Colfax ES. The design for the Project was then reviewed for conformance to the Secretary of the Interior's Standards for Rehabilitation ("SOI Standards"). [1] This letter report was prepared for compliance with CEQA, School Upgrade Program EIR (September 2015), the SOI Standards, and LAUSD's guidelines for the management and treatment of historic resources.

CHARACTER-DEFINING FEATURES

In May 2016, ESA PCR (then PCR) prepared a Character-Defining Features Memorandum ("CDFM") for Colfax ES. The primary period of significance for Colfax ES is the first phase of campus design and construction between 1950 and 1951 when the campus site plan, layout, buildings, and landscape were designed in the Mid-Century Modern style by William Glenn Balch and Louis L. Bryan, Architects. The following buildings and features were identified as significant (primary) buildings built within the primary period of significance: Administration Building 1/A, Library Building 3/B, Classroom Buildings 4/C to 7/F, Classroom Building 10/G, and Kindergarten Building 11/G. In addition to those buildings, the front landscape, entry courtyard, hardscape, and arcades connected to Auditorium Building 1 were identified as significant (primary) landscape features.

[1] Department of Interior regulations, 36 CFR 67.

The secondary period of significance is 1954 when Multi-Purpose Building 2 was designed and constructed. Therefore, Multi-Purpose Building 2 was identified as a contributing (secondary) building. Also, Sanitary Buildings 8 and 9 were identified as contributing (secondary) buildings because they are support buildings and did not constitute the principal buildings of importance on the Campus.

For each significant (primary) or contributing (secondary) building and landscape, ESA PCR identified features that contribute to the visual character and architectural significance of the building/landscape from its period of significance. The CDFM ESA PCR prepared for Colfax ES is provided in Attachment A.

PROPOSED PROJECT

The Project would increase student capacity at Colfax ES by up to 160 new students, allowing the school to accommodate current and anticipated resident enrollment, by the construction of new facilities including a Classroom and Administration Building, Kindergarten Building, expansion of the lunch shelter area, and arcades. In addition, the Project proposed to re-purpose and rehabilitate the original Administration Building and the relocation of the school's main entry from Addison Street to Colfax Avenue. ESA PCR reviewed project plans drawn by AC Martin and dated April 25, 2016.

New Facilities

The Project proposes to provide additional classroom capacity to accommodate a projected increase of students in the attendance area, and to allow that the neighborhood students currently capped out to return to their neighborhood school. The Project would include the removal of 10 portable classrooms and the construction of 18 permanent classrooms, for a net gain of eight classrooms. The proposed two-story Classroom and Administration Building would house 16 classrooms and two administration rooms/spaces. A new Kindergarten Building, housing two new Kindergarten classrooms, would be constructed by the existing Kindergarten area. New administrative and support spaces would also be provided, as well as an expanded lunch shelter area. All new facilities would be connected to the existing, covered walkway/arcade system, while the integrity of historical features is maintained. New landscaping would also be installed, as well as furnishing and equipping of new and reconfigured facilities, utility upgrades, and improvements required by the Americans with Disabilities Act (ADA).

Parking and Circulation Improvements

The main entry of the school would be relocated from Addison Street to Colfax Avenue. New and renovated parking for faculty, staff and visitors would be provided, thereby improving vehicular circulation and access and creating a safer pedestrian environment for students. The existing surface parking lot along Addison Street would be maintained in its current location. The parking lot that is accessed from Colfax Avenue would be relocated to the southeastern corner of the campus and would include an internal student pick-up/drop-off area. This would result in an increase in on-site staff and visitor parking of 32 spaces, for a total of 86 on-site spaces.

1. Project Design

Construction of the project would be implemented in three phases. Phase 1 of the Project would include site preparation activities, such as relocation of electric and wet utilities, preparation of an on-site construction staging area and removal of the portable classroom structures. The new two-story Classroom and Administration building would be constructed, along with the new expanded lunch shelter and covered walkway/arcade. A new digital marquee will also be installed at the corner of Addison Street and Colfax Avenue. Existing play equipment at the Kindergarten area would be relocated and the new Kindergarten Building would be constructed, as well as the new covered walkway/arcade. Next, at the Kindergarten area, restriping would commence, and an upgraded path of travel would be established, linking the Kindergarten to the Multi-Purpose Building and the Library. Food preparation area and kitchen upgrades would also be undertaken. Phase 2 of the project would involve the reuse of the existing Administration Building, and relocating the existing administrative uses into the new Classroom and Administration Building. The Transportation Office trailer would also be removed. Phase 3 of the project would entail restriping to create the new parking lot and student pick-up/drop-off area, followed by landscaping. The hardscape play area for the school would decrease by approximately 18,646 square feet; however, the remaining play area would still be in excess of California Department of Education (CDE) standard requirements.

a. New Classroom and Administration Building

The new approximately 25,617 square-foot Classroom and Administration Building would be two stories in height and would be located along Colfax Avenue, at the site of the existing 42-space parking lot, immediately adjacent to the new primary entrance to the school. A total of 16 new classrooms will be housed in this building. Administrative offices, including Principal and Assistant Principal offices, main office, clerical space, health unit, storage space, and other school support services offices will be located on the first floor along with six classrooms. New restrooms for faculty/staff and students and an elevator would also be provided in addition to a stairway to access the second floor. The second floor of the Classroom and Administration Building would be dedicated to ten new classrooms, as well as restrooms and storage space. The new and expanded lunch shelter (approximately 1,496 square feet) and circulation walkways/arcades would be accessed from the first floor. The new covered walkways would extend from and match the existing arcades.

b. New Kindergarten Building

The new approximately 2,922 square-foot Kindergarten Building would be constructed to the south of the existing Kindergarten playground, adjacent to the existing Kindergarten classrooms. The new Kindergarten Building would be accessed from the entrance along Morella Avenue. Both classrooms would be accessed by a vestibule, where restrooms for faculty/staff and students would also be located. A new covered walkway/arcade will connect the Kindergarten Building to the main walkway/arcade structure by the main, permanent classroom buildings. In addition to the new Kindergarten Building, the Kindergarten playground would increase by approximately 1,932 square feet.

c. Reuse of Existing Administration Building

Due to the construction of a new Classroom and Administration Building, the Project proposes to reuse the Administration Building and reconfigure the interior to accommodate a faculty/staff lounge, parent center, and two new meeting/resource rooms, as well as restrooms for faculty/staff. The primary (north) elevation of the Administrative Building will be restored back to its period of significance (1950-1951) as windows altered with AC units will be removed and replaced with new glazing to match the original windows. Also, another window on the south elevation will be restored back to its original appearance. All other windows being retained will be refinished. No changes are proposed to the west elevation that contains the main entrance into the building. The reuse of the Administration Building will require subtle alterations to the rear (south) elevation, as a result of the reconfiguration of the interior. Three door opening will be infilled and patched with stucco. And four new door openings will be inserted into the rear (south) elevation. A pair of double doors will be inserted into the north end of the side (east) elevation. The interior partition walls are all proposed to be removed and the building divided into four larger rooms.

2. Access, Circulation and Parking

The main entrance for the school is currently located along Addison Street, with the Kindergarten entry located along Morella Avenue. The new main school entry will be along Colfax Avenue by the new Classroom and Administration Building, to the north of the new parking lot. The sidewalks along Addison Street, Colfax Avenue, and Morella Avenue are marked as "Passenger Loading Only," with signage prohibiting parking during specified student pick-up/drop-off hours. The existing parking lot on Addison Street has 13 parking spaces, which will be reduced to 12 parking spaces as part of the project. Another parking lot is located along Colfax Avenue, adjacent to the portable classroom structures slated for removal and will be relocated south on the project site. This parking lot currently has 35 spaces and will be increased to provide 74 parking spaces, and the new Classroom and Administration Building will be built in location of the old Colfax parking lot. An additional 38 spaces will be provided as part of the project, for a total of 86 on-site spaces, and street parking in the surrounding neighborhood which occurs in association with current school use would be reduced.

Ingress to the new parking lot would only be from Colfax Avenue, and egress will only be permitted from Huston Street. An internal student drop-off and pick up lane will be established within this new parking lot, allowing for a much safer drop-off than on the street. Students will be dropped off via a dedicated lane, while cars continuing through the lot will continue use a second lane to exit on Huston Street. 45 bicycle parking spaces will be located within the new parking lot. The bus drop off location will now be along Addison Street, instead of Huston Street.

During project construction, students in First through Fifth Grades would access the school from the existing Addison Street entrance. After project completion, the new primary school access would be on Colfax Avenue, while staff would be able to access the campus from the parking lots on Addison Street and Colfax Avenue. Kindergarten students would continue to access the campus from the existing Morella Avenue entrance.

3. Landscaping

Colfax has approximately 153 trees, including some that have been maintained since its days as an arboretum, particularly the larger specimens remaining around the perimeter of the school. The new landscape design would soften the appearance of the proposed new buildings while enhancing the overall campus appearance. The project's landscape design will complement and enhance the existing landscape features while blending the new architecture with the established buildings to best serve the needs of the students, faculty and staff, and the community. The primary goals of the new landscape design includes the creation of welcoming spaces that students, faculty and staff will want to use; providing clear paths of travel around the campus; and improving the outdoor play environment by adding additional trees and plants at the new parking lot perimeter and lunch area, providing shade and reducing the heat island effect from hot pavement.

The landscape plan would enhance the campus canopy by planting trees appropriate for their specific context with respect to buildings or other site features. Planting throughout the school will consist primarily of California native species, in order to achieve a balanced plant palette that will be water efficient while also meeting campus durability and maintenance requirements. The landscape plan incorporates all existing trees that are safe to remain given their current location and condition. Those trees would be protected during project construction through the use of temporary fencing, while any trees that have been identified as a safety concern or are dead will be removed. However, the loss of these trees and planters would be more than compensated for through planting of new trees and other landscaping features.

With regard to the campus hardscape plan, the new walkways/arcades would connect to new and existing buildings and corridors, and paving would be scored to match the existing paving pattern. New tree wells would be installed into the existing pavement, and planters would be contained within raised curbs to provide protection for planted materials. Wood benches would be created by repurposing and reusing the trees on site that would be removed due to project implementation. These unique, solid wood benches would be cut to size, sanded and treated for durability, and then built onto weather resistant metal legs.

A new "Smart Weather" controller would be installed to replace the existing, inefficient irrigation system, which only covers approximately 20 percent of the school. Irrigation would be adjustable, in order to minimize overspray on buildings and paving. All trees will be irrigated using a root watering bubbler system, and all planting areas would use efficient pop-up sprayers. The landscape plan would include a biofiltration system, to capture and treat stormwater runoff from the newly constructed structures and areas. The runoff will primarily be directed to an underground sump not affecting the planting areas. Mulch or groundcover used on the site will be made of recycled content.

4. Site Security and Safety

Most of the campus perimeter is surrounded by eight-foot-high chain-link security fencing. A majority of the chain link fence along the new school entrance at Colfax Avenue and the Kindergarten entrance along Morella Avenue will be replaced with new decorative perimeter fencing. The ornamental screen fence would consist of perforated ornamental metal, with images of children and trees on them.

For security purposes, the new main entrance gate will include upgraded security fencing. There would be electronic access control at school entrances and parking lots. The project site would have safe dispersal/evacuation areas, and all new structures would be equipped with fire suppression sprinkler systems.

The perimeter of the proposed new Kindergarten Building and Classroom and Administration Building would have new light fixtures attached to the exterior walls. All entries would be illuminated to provide a safe access. The new parking lot would also have security lighting on poles, that would be focused and shielded to reduce glare and light spill-over. Project design features would be incorporated to ensure that these new sources would not create light spill-over of greater than two-foot candles onto adjacent residences. Furthermore, site lighting would be designed to have minimal off-site impact and contribution to sky glow. Outdoor lighting of architectural and landscape features and interior lighting would be designed to minimize light trespass to the outside from the interior.

5. Sustainability Features

LAUSD is committed to sustainable construction principles, and has been a member of the Collaborative for High Performance Schools (CHPS) since 2001. CHPS has established criteria for the development of high performance schools, in order to create a better educational experience for students and teachers by designing the best facilities possible. CHPS-designed facilities are healthy, comfortable, energy efficient, material efficient, easy to maintain and operate, commissioned, environmentally responsive site, a building that teaches, safe and secure, community resource, stimulating architecture, and adaptable to changing needs. [2]

School facilities seeking CHPS-certification complete a scorecard and achieve a certain number of points to be certified. The proposed project has exceeded the minimum requirements to qualify as a CHPS-certified school. Some of the sustainable design features include easy access to public transportation, the provision of bicycle racks, on-site treatment of stormwater runoff, "cool roof" building materials, lighting which reduces light pollution, water and energy efficient design, water-wise landscaping, collection of recyclables, and sustainable and/or recycled-content building materials. [3]

CEQA GUIDELINES AND THE SECRETARY OF THE INTERIOR'S STANDARDS

Would the project cause a substantial adverse change in significance of a historical resource as defined in State CEQA §15064.5?

Less Than Significant Impact. Colfax ES and its associated landscape has been identified as a property eligible for listing in the California Register, and is therefore a historical resource for CEQA purposes. According to CEQA, projects which comply with the SOI Standards are presumed to have a less-than-significant impact on historical resources. The District requests a review of the Project to ensure that it would comply with SOI Standards. If significant impacts are identified, the District requests recommendations to reduce impacts to a less than significant level through enhanced compliance with the SOI Standards. The CEQA Guidelines and the SOI Standards are outlined within the School Upgrade Program EIR (September 2015).

The Project would retain the essential character-defining buildings, landscapes, features, and spatial relationships of Colfax ES that account for the school's eligibility for listing on the California Register. Constructed towards the rear west and east of the historic campus core, the new Classroom and Administration Building and Kindergarten Building would be compatible with the size and height of the Postwar Modern style campus because it would not adversely change the existing relationship between the historical buildings and the setting. The character of the setting, landscape elements, pathways, and important views and visual relationships would also be retained because of the sensitivity of the new design. Additionally, the designs of the new buildings are inspired by the original Mid-Century Modern style classroom buildings in their design, massing and materials. Both new buildings would be articulated in contemporary designs with rectangular footprints and massing and sheathed in compatible, yet distinctive materials, such as stucco and fiber reinforced horizontal cement siding.

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2 Collaborative for High Performance Schools, What is a High Performance School? Website: http://www.chps.net/dev/Drupal/node/166. Accessed May 2016.

3 AC Martin Architecture, Design Development Design Report, Los Angeles Unified School District Colfax Charter Elementary School Classroom Addition Project, April 25, 2016.

The introduction of new arcades from the proposed buildings unites the campus without compromising the significant finger-plan.

Furthermore, the re-purposing and rehabilitation of the Administration Building would retain and restore the historic appearance of the primary (north and west) elevations, while inserting needed new openings on the secondary (south and east) elevations that are non-distinctive and not visible from the public right-of-way. The rear (south) elevation is not a prominent elevation as it is shielded from views from within the Campus by an attached arcade and Building 3. And views of the east elevation are blocked by shrubbery and an attached arcade. And views of the east elevation are blocked by shrubbery and an attached arcade. The changes proposed to repurpose and rehabilitate the Administration Building would be differentiated due to the use of materials, but compatible in their design, scale and size. Specifically, the new doors and frames would be hallow metal thereby differentiated in materials from the original wood doors and frames, yet the new doors would be designed in the same style and would be similar to all of the contributing doors found throughout the Campus. The replacement and insertion of new doors would not detract from the original design of the Administration Building. Therefore, the rehabilitation of the Administration Building would protect the integrity of the primary character-defining building and the work would conform to the SOI Standards.

In summary, the Project would not materially impair the eligibility of the California Register eligible Campus, as the majority of the character-defining features would be retained and the integrity would be protected. The Project conforms to the intent of all SOI Standards as described in the following section below, and upon Project completion, the Campus would remain eligible as a potential historical resource. Therefore, PCR finds no direct or indirect impacts resulting from the Project to Colfax ES.

SECRETARY OF INTERIOR'S STANDARDS REVIEW

As mentioned above, under CEQA, a project that follows the SOI Standards shall be considered as mitigated to a level of less than a significant impact on the historical resource, and is therefore categorically exempt from CEQA. [4]

According to the *SOI Standards*:

Standard 1: A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces, and spatial relationships.

The Campus would continue to be used as an elementary school and would not change in use. However, the original Administration Building, a significant (primary) character-defining building, would be rehabilitated for a new use as a faculty/staff lounge and parent center. The Project also proposes to construct a new Classroom and Administration Building and Kindergarten Building. The primary elevations, north and west, of the Administration Building would be restored back to their original appearance, while the rear (south) and side (east) elevations would be altered with new door openings to accommodate the enhanced interior configuration. The new door openings in the Administration Building's rear and side (east) are required for the building's

[4] *California Environmental Quality Act, (15 C.C.R., sections 15064.5 (3) and 15331)*

conversion and would not affect the Administration Building's eligibility as a primary character-defining building. Additionally, the construction of the new Classroom and Administration Building and Kindergarten Building, the expansion of the lunch shelter and arcades, and relocation of the Colfax ES's main entry to Addison Street to Colfax Avenue would retain the primary and secondary character-defining buildings, landscapes, and features of the subject school. As such, the Project requires minimal change to the Colfax ES's distinctive materials, features, spaces, and spatial relationships and therefore the Project conforms to Standard 1.

Standard 2: The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces, and spatial relationships that characterize a property will be avoided.

The historic character of the Administration Building would be preserved upon completion of the proposed rehabilitation. The removal of distinctive materials or alteration of features, space, and spatial relationships that characterize the Administration Building's eligibility as a primary character-defining building would be avoided. The windows on the primary (north and west) elevations would be restored and refinished. However, the project does require the removal of secondary doors located on the rear (south) elevation and the removal of building fabric to insert new doors on the rear and west elevations to accommodate the new use. The rear (south) and east elevations are not readily visible from the public right-or-way and these elevations are non-distinctive. The rear (south) elevation is not a prominent elevation as it is shielded from views from within the Campus by an attached arcade and Building 3. And views of the east elevation are blocked by shrubbery and an attached arcade. Despite the removal of doors, building fabric, and the reconfiguration of the interior, which are necessary to meet the building's new use, the original Administration Building would retain eligibility as a significant (primary) building. The project would result in an improvement in the condition, preserving the historic character of the building, and therefore, conforms to Standard 2.

Standard 3: Each property will be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historic properties, will not be undertaken.

The Project is designed so as to recognize the property as a physical record of its own time and does not add any conjectural features or elements from other historic properties. As such, the Project therefore complies with Standard 3.

Standard 4: Changes to a property that have acquired historic significance in their own right will be retained and preserved.

The primary period of significance associated with Colfax ES is 1950-1951, the original date of construction. The secondary period of significance is 1954 when the Multi-Purpose Building 2 was designed and constructed. The Project does not include removal of changes that have acquired historic significance and therefore, the Project conforms to Standard 4.

Standard 5: Distinctive materials, features, finishes, and construction techniques or examples of craftsmanship that characterize a property will be preserved.

The project seeks to maintain and rehabilitate character defining features, such as the wood-frame windows, primary entrance doors on the west elevation, stucco finish, and brick planters, displaying the original construction techniques and craftsmanship exhibiting the building's Mid-Century Modern style. While the Project proposes to infill three contributing (secondary) and insert two new openings on the rear (south) elevation le doors on the east elevation of the original Administration Building, the primary entrance into the Administration Building located on the west elevation would be retained. Despite the removal of these contributing (secondary) doors, the majority of the character-defining features of the Administration Building on the elevations facing the public right-of-way that define the Campus would be preserved. The rear (south) elevation is not a prominent elevation as it is shielded from views from within the Campus by an attached arcade and Building 3. Therefore, the Project conforms to the intent Standard 5.

Standard 6: Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture, and, where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.

Standard 6 applies to the restoration of the windows on the Administration Building. Incompatible alterations resulting from the insertion of AC units in windows on the north and south elevations would be removed and the window panes reinserted into the window frames. The replacement of the missing window panes would be substantiated by physical evidence presented in the unaltered windows and the documentation provided on the original plans dated May 1950. Therefore, the Project complies with Standard 6.

Standard 7: Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.

The refinishing of windows on the Administration Building would be undertaken using the gentlest means possible and the work would conform to Standard 7.

Standard 8: Archeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.

The Campus does not appear to contain any potentially significant archeological resources. Therefore, the Project conforms to Standard 8.

Standard 9: New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work shall be differentiated from the old and will be compatible with the historic materials, features, size, scale, and proportion, and massing to protect the integrity of the property and its environment.

The construction of the new Classroom and Administration Building, Kindergarten Building, the reconfiguration of the Administration Building, and the expansion of the lunch shelter and arcades would not destroy the historic materials, features, and spatial relationships that characterize and account for the historical eligibility of Colfax ES.

First, both new buildings are constructed outside of the historic grouping of buildings. The two-story Classroom and Administrative Building would be constructed on a parking lot at the southeast side of the campus and the Kindergarten Building would be constructed to the southwest side of the historical buildings. Also, the new buildings would not disrupt or block the views underneath the arcades to the playground. Due to the thoughtful placement of the new buildings, the historic spatial relationships that characterize Colfax ES are protected.

Furthermore, the project would be compatible with the size and height of the Mid-Century Modern style campus because it would not adversely change the existing relationship between the historical buildings and the setting. The new Kindergarten Building is of similar size, scale, proportion and massing to the original one-story classroom buildings. While the new Administration Building is two-stories in height, taller than the one-story classroom buildings, the location of the building to the southeast of the Campus and the introduction of new one-story arcades connecting to the original arcades protect the spatial relationships and integrity of the historic core.

The designs of the new buildings are inspired by the original Mid-Century Modern style classroom buildings in their design, massing and materials. Both new buildings would be articulated in contemporary designs with rectangular footprints and massing. The new buildings would be sheathed with compatible materials, such as stucco and fiber reinforced horizontal cement siding. The fiber reinforced horizontal cement siding along the bottom of the elevations helps to differentiate the new buildings from the historic buildings. The windows and doors are of simple designs and relate to the proportions of the openings on the historic buildings. The simple rectangular awnings protecting the windows on the new buildings relate to the Mid-Century style and the original building's extended eaves. The proposed arcades and expanded lunch shelter are also simplistic in design and supported by galvanized steel columns. However, the covers are sheathed in metal, which contrast to the original wood covers with exposed rafters and wood fascias. And the arcades and lunch shelter are attached in a compatible manner to the original features so as to clearly differentiate the separation between the old and new, as well as protect the historic integrity of the primary character-defining arcades and contributing lunch shelter attached to the Multi-Purpose Building.

The changes proposed to repurpose and rehabilitate the Administration Building would be differentiated due to the use of materials, but compatible in the design, scale and size. Specifically, the new doors and frames would be metal thereby differentiated in materials from the wood doors and frames, yet the new doors would be designed in the same style and would be similar to all of the contributing doors found throughout the Campus. The replacement and insertion of new doors would not detract from the original design of the Administration Building. Furthermore, the restoration of windows would further e protect the integrity of the primary character-defining Administration Building.

Therefore, upon project completion the new work would be differentiated from the old, yet compatible with the Mid-Century Modern style architecture of the Campus, and would protect the integrity of the California Register eligible Campus. Therefore, the Project conforms to Standard 9.

Standard 10: New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

The Project proposes the construction of a new Classroom and Administration Building, Kindergarten Building and the expansion of the lunch shelter and arcades. The new Classroom and Administration Building is proposed to be constructed on a former parking lot, and the new Kindergarten Building will be constructed on the asphalt playground just south of the Kindergarten playground. The new arcades and lunch shelter are attached in a manner to the original features to protect the historic integrity of the original features and could be easily removed without compromising their integrity. The Project does not include any new construction that, if removed in the future, would impair the essential integrity of the historic property to a degree that would be considered significant. If the Classroom and Administration Building, Kindergarten Building and the expanded lunch shelter and arcades were removed in the future, the essential form and integrity of the Colfax ES would be unimpaired and the subject school would remain eligible for the California Register. Therefore, the Project complies with Standard 10.

CONCLUSION

In summary, the proposed Project would not materially impair the eligibility of the California Register eligible Campus, as the majority of the character-defining features would be retained and the integrity would be protected. The Project conforms to the intent of all SOI Standards as described in the following section below, and upon Project completion, the Campus would remain eligible as a potential historical resource. Therefore, PCR finds no direct or indirect impacts resulting from the Project to Colfax ES.

Should you have any questions or require additional information please feel free to contact me at (310)-451-4488 or via email at mjerabek@esassoc.com.

Sincerely,

Margarita Jerabek

Margarita Jerabek
Director of Historical Resources

Attachment A – Character Defining Features Memorandum (CDFM) for Colfax ES

Attachment A – Character Defining Features Memorandum (CDFM) for Colfax ES

Memorandum

TO: Gwynneth Doyle, CEQA Project Manager/Contract Professional, Los Angeles Unified School District (LAUSD) **DATE:** May 11, 2016

FROM: Margarita Jerabek, Ph.D., Director of Historic Resources, Amanda Kainer, M.S., Senior Architectural Historian, and Virginia Harness, Assistant Architectural Historian

re: ***Character-Defining Features Memorandum (CDFM) for Colfax Avenue Elementary School, 11724 Addison Street, North Hollywood, California 91607***

INTRODUCTION

PCR Services Corporation ("PCR") appreciates the opportunity to prepare Character-Defining Features Memorandum ("CDFM") for Colfax Avenue Elementary School ("Colfax ES" or "Campus") located at 11724 Addison Street, North Hollywood, Los Angeles County, California. Constructed between 1950 and 1955, Colfax ES is older than forty-five years and was previously found eligible for listing in the California Register of Historical Resources ("California Register"), and therefore is considered a historical resource pursuant to CEQA 15064.5. From a preservation planning perspective, the first step in the project planning process involving a historically significant school is the identification of character-defining features that account for its eligibility as a historical resource. The baseline data presented in this CDFM is to be used in conjunction with the *LAUSD Guidelines and Treatment Approaches for Historic Schools* to ensure future modernization and upgrade projects will avoid significant adverse impacts to design, materials and features that convey the eligibility of Colfax ES.[1] This CDFM includes a discussion of the methodology used, previous evaluations, a brief historic overview, and an analysis of the primary and contributing character-defining landscapes, buildings, and features of the Campus.

METHODOLOGY

The CDFM was conducted Margarita C. Jerabek, Ph.D., Director of Historic Resources, Amanda Y. Kainer, M.S., Senior Architectural Historian, and Virginia E. Harness, M.A., Assistant Architectural Historian, all of whom meet and exceed the Secretary of the Interior's Professional Qualification Standards in history and architectural history.[2]

The following tasks were performed by PCR for the study:

- Undertook an intensive pedestrian survey on November 12, 2015 to document the existing conditions of the subject property using digital photography. PCR utilized the survey methodology of the State Office of Historic Preservation ("OHP").

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[1] SWCA Environmental Consultants, *Los Angeles Unified School District Guidelines and Treatment Approaches for Historic Schools*, prepared for Los Angeles Unified School District (January 2015).

[2] The Professional Qualification Standards are requirements used by the National Park Service and have been published in the Code of Federal Regulations ("CFR"), 36 CFR Part 61.

- Conducted site-specific research on the school sites utilizing Sanborn fire insurance maps, historical photographs and plans, historical plans provided by LAUSD, and other published sources.
- Reviewed themes and architectural styles associated with the Mid-Century Modern period presented in the LAUSD Historic Context Statement to support the analysis of character-defining features presented in this CDFM.[3] In addition, utilized the National Park Service's ("NPS") guidance provided in Preservation Brief 17, *Architectural Character: Identifying the Visual Aspects of Historic Buildings as an Aid to Their Preservation*, to identify the visual character of the subject school.[4]

PREVIOUS EVALUATIONS

In February 2013, the Campus was evaluated as part of the City of Los Angeles Department of City Planning's Office of Historic Resources (OHR) SurveyLA historic resources survey of the North Hollywood-Valley Village Community Plan Area (CPA). The Campus was recommended eligible for the federal, state and local registers as an "excellent example of a post-World War II Los Angeles Unified School District elementary school campus, reflecting LAUSD school planning and design concepts of the post-war period and the increase in facilities to accommodate Postwar growth in the San Fernando Valley." At this time the Campus was assigned California Historical Resource ("CHR") status codes of 3S, 3CS, and 5S3.[5]

During the 2014 Historic Resources Inventory Survey prepared for LAUSD, Colfax ES was recommended eligible as a historic district under California Register Criterion 1, as an excellent example of Mid-Century Modern style applied to institutional architecture reflecting the rapid Postwar suburban expansion of the San Fernando Valley.[6] Despite some alterations indicated on the survey form, the Campus (including the site plan, the relationship of buildings to outdoor spaces, and original plantings) was found to retain integrity of location, design, setting, workmanship, feeling and association. But due to alterations, the Campus was not found eligible for the National Register of Historic Places. Colfax ES was assigned a California Historical Resource status code of 3CD, "appears eligible for the California Register as a contributor to a California Register eligible district through survey evaluation."

[3] Sapphos Environmental, Inc., *Los Angeles Unified School District: Historic Context Statement, 1870 to* 1969 (March 2014).
[4] Lee H. Nelson, *Preservation Brief 17: Architectural Character—Identifying the Visual Aspects of Historic Buildings as an Aid to Preserving their Character*, National Park Service, September 1988, http://www.nps.gov/tps/how-to-preserve/briefs/17-architectural-character.htm, accessed June 4, 2015.
[5] Architectural Resources Group, SurveyLA: Los Angeles Historic Resources Survey of North Hollywood-Valley Village Community Plan Area, Historic Districts, Planning Districts and Multi-Property Resources, Prepared for the City of Los Angeles Department of City Planning Office of Historic Resources (February 26, 2013): 143-144.
[6] Sapphos Environmental, Inc., Debi Howell-Ardila, MHP, *DPR Form: Colfax Avenue Elementary School*, Prepared for LAUSD (January 24, 2014).

HISTORIC OVERVIEW

The history of the Campus dates back to 1902 when Dr. A. F. Schiffman, one of the founders of the Jonathan Club, purchased the 10-acres site and began to plant trees in a variety of species.[7] At the time LAUSD purchased the subject property in 1949 there were 200 species of trees planted on the site; including redwoods, elms, maples, catalpas, mulberry, willows, camphor, magnolias, eucalyptus, and sycamores. LAUSD's acquisition of the subject property was controversial and as a condition of the purchase the District promised to retain as many trees as possible. It appears the existing trees, around the perimeter of the Campus, are a remnant of Dr. A. F. Schiffman's passion for horticulture.

The first plans for Colfax ES were drawn by William Glenn Balch and Louis L. Bryan, Architects, in May of 1950. And the prominent landscape architect, Fred Barlow, Jr., incorporated his new landscape design amongst the remaining tree plantings on the site. The Campus was constructed on a rectangular shaped block, with the school buildings located at the north end of the block and the playground occupying the southern portion. The Campus was laid out in essentially a finger plan, with a covered walkway unifying the site plan by wrapping around at least two elevations of the administration office, eight classroom buildings, and two sanitary buildings thereby creating a continuous covered walkway around all of the buildings.[8]

Four years later plans were prepared for the L-shaped Multi-Purpose building drawn by John B. Lyman and Russell E. Collins, associated architects, located at the northeast corner of the subject block.[9] According to the 1954 plan set, the architects also designed multi-purpose buildings for three other campuses: Dixie Canyon Avenue School, Nestle Avenue School, and Toluca Lake School. The architectural drawings for these four multi-purpose buildings are similar.

The southeast portion of the block is improved with several portable/temporary buildings added during the 1990s.[10] Plans dating from November 1992 detail a number of improvements designed to comply with the Americans with Disabilities Act ("ADA") and include: restrooms updates in Building A, Multi-purpose Building L, and Sanitary Building 8/K; handicapped drinking fountain installed on the south elevation near the southwest corner of the Multi-purpose Building L; and some onsite paving repairs.

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[7] "Landmarks: School Plan Perils 1500 Trees," Newspaper in Colfax ES archive – undated.

[8] 3164.03.000 May 1, 1950, New Plant – Buildings A, B, C, D, E, F, G, H, J and K

[9] 3164.VG.029, June 1, 1954, Building L (Multi-Purpose Building)

[10] 3164.VG.690, March 9, 1990, Site Access Compliance Work in Buildings A, K and L for Installation of Relocatable Buildings (Bldgs A-1415 thru A-1417)
3164.VG.794, July 24, 1991, Site work and utilities for installation of OSA approved modular relocatable buildings (Building A-1938)
3164.08.000, October 1, 1998, Install New Modular Building
3164.07.000, July 24, 2007, Site work for New Modular Building

A number of alterations and repairs have taken place over the years on Campus, including seismic and systems upgrades, the installation of air-conditioner units, replacement of original hardscaping, new fencing, and various safety improvements. In addition, alterations to original classroom wings include the infilling of clerestory awning windows and entry glazing and replacement of original windows with air-conditioner units; such changes are visible on several of the classroom wings.

CHARACTER-DEFINING FEATURES INVENTORY

The character-defining features inventory summarizes the existing buildings, architectural elements, features, materials, finishes and spaces that contribute to the potential eligibility of Colfax ES as a historical resource. A project that retains a significant combination of character-defining features and is designed in accordance to the Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings ("Standards") would likely result in a less than significant impact to historical resources pursuant to CEQA impact thresholds. A less than significant impact finding can also be supported when some features are lost or altered, and certain Standards are not conformed to, if the property would still retain its eligibility for listing as a historical resource.

The character-defining features analysis presented below is a detailed summary of the visual character of Colfax ES, including the site plan, landscape, buildings, architectural details, materials, finishes and interior spaces, which contribute to the eligibility of Colfax ES as a historical resource. According to the NPS, "character refers to all those visual aspects and physical features that comprise the appearance of every historic building. Character-defining elements include the overall shape of the building, its materials, craftsmanship, decorative details, interior spaces and features, as well as the various aspects of its site and environment."[11] The NPS describes the visual characteristics that generally represent character-defining features: "the major contributors to a building's overall character and embodied in the general aspects of its *setting*; the *shape* of the building; its *roof* and roof features, such as chimneys or cupolas; the various *projections* on the building, such as porches or bay windows; the *recesses* or voids in a building, such as open galleries, covered walkways, or recessed balconies; the *openings* for windows and doorways; and finally the various materials that contribute to a buildings character."[12] The approach to identifying visual character involved the examination of the subject school from afar to understand its overall setting and architectural context; then moving up closer to investigate its materials and the craftsmanship and surface finishes; and lastly, going into and through the buildings to perceive those spaces, rooms and details that comprise its interior visual character.

The character-defining features on the Colfax ES campus are analyzed and classified as significant, contributing, and non-contributing. These terms are generally interchangeable with "primary"

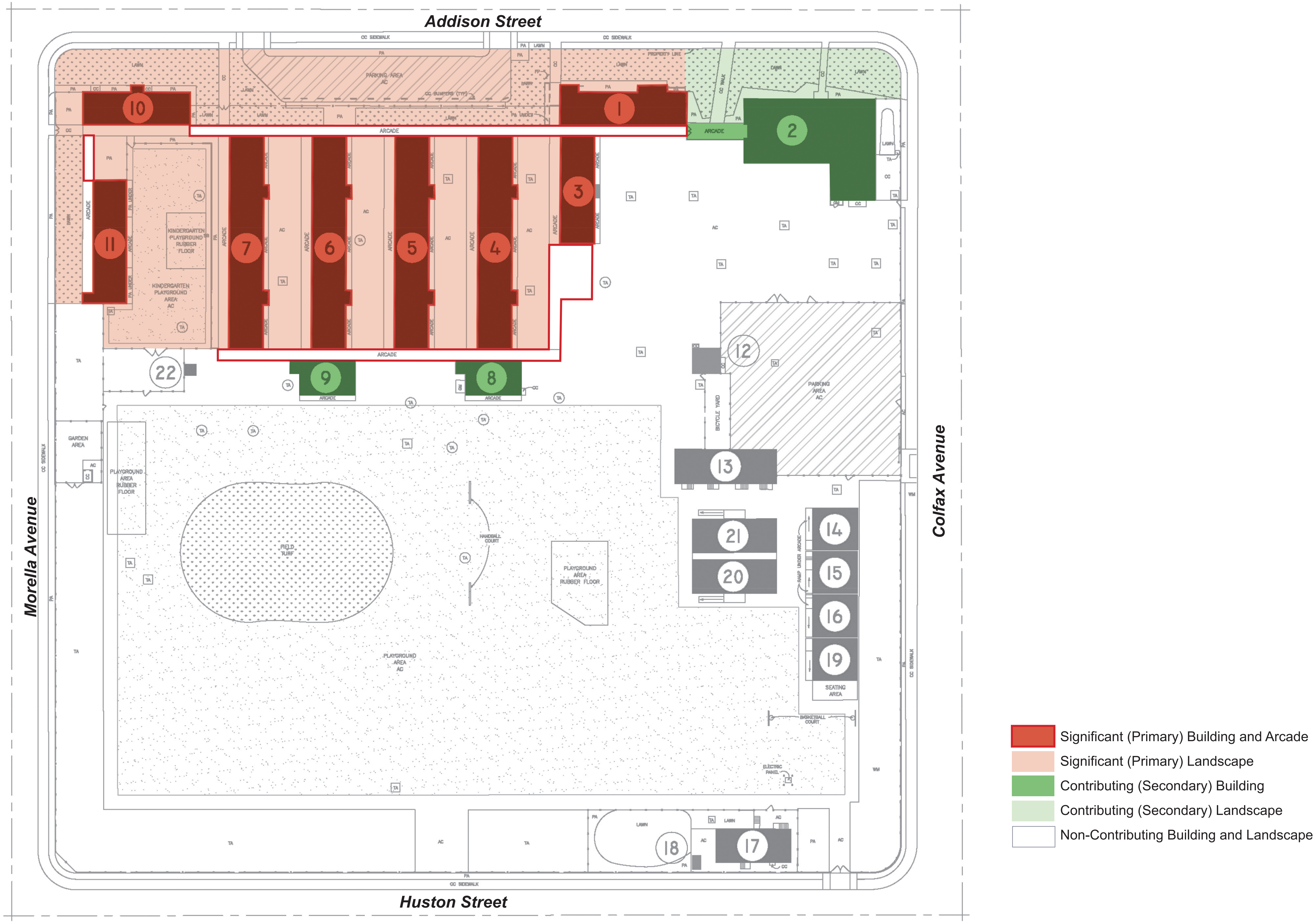
[11] Lee H. Nelson, *Preservation Brief 17: Architectural Character—Identifying the Visual Aspects of Historic Buildings as an Aid to Preserving their Character*, National Park Service, September 1988, http://www.nps.gov/tps/how-to-preserve/briefs/17-architectural-character.htm, accessed June 4, 2015.
[12] Ibid.

(significant), "secondary" (contributing), and "tertiary" (contributing) character-defining features, which are also commonly used descriptors. Significant character-defining buildings and landscapes determine the eligibility of a historical resource (Colfax ES) and are the most important features to retain. Alterations to significant buildings, features, and landscapes shall be avoided.[13] Contributing character-defining buildings and landscapes are secondary and tertiary features that taken together with the primary features convey a property's significance as a historical resource. Compared to primary character-defining features, these contributing components are not as visually prominent on the Campus or retain moderate integrity. Because contributing character-defining buildings and landscapes have a lower level of significance, they shall be preserved to the greatest extent feasible and rehabilitated as appropriate; however, more flexibility is given to these buildings and landscapes and alterations or removal of these contributing features may not adversely impact the subject school's eligibility as a historical resource. The greatest flexibility is afforded to non-contributing buildings and landscapes; they do not contribute to the significance of the subject school, therefore, their complete removal does not adversely impact affect the eligibility of the subject school and would not result in a significant impact.

Described below are the significant (primary) and contributing (secondary and tertiary) character-defining buildings and landscapes of Colfax ES dating from the period of significance that account for its eligibility as a historical resource. The **primary** period of significance for Colfax ES is the first phase of campus design and construction between 1950 and 1951 when the campus site plan, layout, and primary classroom buildings was designed in the Mid-Century Modern style by William Glenn Balch and Louis L. Bryan, Architects. The **secondary** period of significance is 1954 when the Multi-Purpose Building 2 was designed and constructed.

Significant character-defining buildings and landscapes represent the primary period of significance and Mid-Century approach to campus design, are visually prominent, and retain high integrity. In contrast, the contributing character-defining buildings and landscapes retain moderate integrity, are secondary support buildings, and/or fall outside of the primary period of significance. Multi-Purpose Building 2 and its associated landscape were designed during the second phase of campus construction at the northeast corner of the campus and are considered a contributing (secondary) building. Also, Sanitary Buildings 8/K and 9/J are considered contributing (secondary) buildings because they are support buildings and do not constitute the principal buildings of importance on the Campus. Described underneath each significant or contributing building/landscape is a list of features that contribute to the visual character and architectural significance of the building/landscape from its period of significance. Non-contributing buildings, landscapes, and features were not identified; however, non-contributing alterations located on identified significant or contributing buildings/landscapes are *italicized*. If a building, landscape, or feature is not listed below as significant or contributing, it can be assumed the building, landscape, or feature is non-contributing. The site plan presented as Figure 1, on the following page, visually depicts the character-defining buildings and landscapes of Colfax ES.

[13] Should a significant landscape or building require alteration further historic review will be required under CEQA law.



PCR

Character-Defining Features Analysis
Colfax Avenue Elementary School

East Village Mixed Use Project

Source: Los Angeles Unified School District, 2010; PCR Services Corporation, 2015.

FIGURE
1

Significant (Primary) and Contributing (Secondary): Site Plan and Landscape

Significant (Primary) Features:

- Finger plan school, with single-loaded one-story rectilinear classroom buildings extending outward like finger-like wings connected by covered walkways or arcades sited on the northern portion of the subject block. Between the one-story classroom buildings are shared courtyards. The southern portion of the subject block is an asphalt playground (*alteration: portable buildings added to the southeast corner of subject block in 1990s*). The landscape in front of Multi-Purpose Building 2 is contributing because it was added later in 1954 and is not part of the primary period of significance.
- Landscape and open space fronting Addison Street wraps around the corner to Morella Avenue and ends near the south elevation of Building 11. The landscape consists of open lawn, mature trees, parking lot, and walkways (*alteration: ADA ramps in front of Building 1/A is a more recent improvement*).
- 55' flagpole to north of Building 1/A.
- Mature trees most likely from the earlier Schiffman period line the perimeter of the school site.
- Covered walkway/arcade primarily oriented west-east connected to the north and south elevations: exposed rafters, wood fascia, supported by painted steel pipes (3" diameter).

Contributing (Secondary) Features:

- Landscape and open space in front of Multi-Purpose Building 2 added when constructed in 1954

<table>
<tr><th colspan="2">Current Photographs of the Site Plan and Landscape</th></tr>
<tr><td>
Courtyard between Buildings 3 and 4, View South</td><td>
Covered Walkway/Arcade Connecting the North Elevations of Buildings 3 to 7, View West</td></tr>
<tr><td>
Landscape Fronting Addison Street, View Southwest</td><td>
Landscape Fronting Addison Street, View Southwest</td></tr>
<tr><td>
Parking lot centered in landscape along Addison Street, View East</td><td>
Landscape Fronting Addison Street, View Southwest</td></tr>
</table>

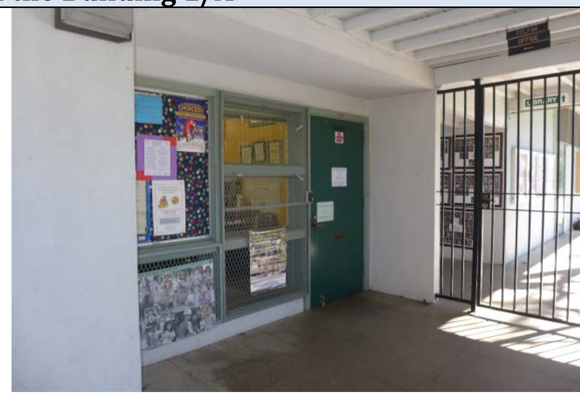
Significant (Primary): Administration Building 1/A

- One-story rectangular plan
- Concrete foundation and wood frame
- Slightly-pitched side gable roof practically flat with continuous wood fascia
- Exterior walls sheathed with stucco
- Roman brick planter at east corner of north elevation
- Angled wood trellis at east corner of north elevation
- Double-hung wood sash windows, fixed wood windows (*alteration, some windows covered with metal security screens and some windows infilled with AC equipment*)
- *Alteration: hopper window at west end of the north elevation boarded*
- Wood flush-doors, wood door with single light *(alteration, single-light cover with metal security screens and some doors replaced with flat-panel doors)*
- Wood trellis and brick planter box at east end of north elevation
- School entrance in front of the west elevation of Building 1/A accessed underneath a cover at a lower height than the roof with a wide fascia board.
- Metal diamond-pattern trellis
- Roman brick planters
- *Alterations: above primary entrance "Colfax Avenue School" letters were once standing on-top of the cover, are now adhered to the fascia; original gate removed and replaced, ADA ramp added more recently.*

Current Photographs of the Building 1/A

Administration Building 1/A, North Elevation, View South

Administration Building 1/A, North Elevation, View Southwest

Current Photographs of the Building 1/A	
 *Administration Building 1/A, North Elevation, View South*	 *Administration Building 1/A, Side Entrance on West Elevation, View East*
 *Administration Building 1/A, Entrance, View South, Note Brick Planter and Trellis at South-end*	 *Administration Building 1/A, South Elevation, View North*

Significant (Primary): Library Building 3/B

- One-story, rectangular plan (*alteration interior walls removed, originally a two-classroom unit later remodeled into library)*
- Concrete foundation and wood frame
- Slightly angled roof
- Five-light wood sash windows (*alteration, some windows covered with metal security screens and some windows infilled with AC equipment*)
- *Alterations: all clerestory awning windows infilled*
- Wood door with single-light on east elevation *(alteration, single-light covered with metal security screens, southern door replaced with flat-panel doors)*
- Flush wood door on west elevation *(alteration, south elevation door infilled)*
- Extended eave over east elevation

- Drinking fountain on west elevation
- Fire hose cabinet on west elevation (*alteration, painted over*)
- Heater room centered on east elevation has wood double doors with louver near bottom (*alteration, south door replaced*) and large wood louvre above double door
- Cover over lunch area attached to south elevation with exposed rafters and wood fascia
- Covered walkway connected to north elevation

Current Photographs of Library Building 3/B	
 *Library Building 3, West Elevation, View East*	 *Library Building 3, East Elevation, View West*
 *Library Building 3, Under Lunch Cover, South Elevation, View North*	 *Library Building 3, Under Covered Walkway, North Elevation, View Southwest*

Significant (Primary): Classroom Buildings 4/C to 7/F

- One-story, rectangular plan with four-classroom units. Each unit has a door on the east and west elevations opening out onto the shared courtyards.
- Concrete foundation and wood frame
- Slightly angled roofs

- Covered walkway connected to north and south elevations
- Door and window openings on east and west elevations, while north and south elevations are flat planes without openings
- Five-light wood sash windows (*alteration, some windows covered with metal security screens and some windows infilled with AC equipment*)
- *Alterations: all clerestory awning windows infilled*
- Wood doors with single-light on east elevation *(alteration, single-light covered with metal security screens)*
- Flush wood doors on west elevation *(alteration, transom windows painted over)*
- Extended eaves over west and east elevations
- Drinking fountain on west elevation
- Fire hose cabinet on west elevation (*alteration, painted over*)
- Two heater rooms on east elevation has wood double doors with louver near bottom and wood louvre above double door

Current Photographs of Classroom Buildings 4/C to 7/F	
 *Classroom Building 4/C, East Elevation, View Southwest*	 *Classroom Building 4/C, West Elevation, View Southeast*
 *Classroom Building 5/D, East Elevation, View Southwest*	 *Classroom Building 5/D, West Elevation, View Southeast*

Current Photographs of Classroom Buildings 4/C to 7/F	
 *Classroom Building 6/E, East Elevation, View Southwest*	 *Classroom Building 6/E, West Elevation, View Southeast*
 *Classroom Building 7/F, East Elevation, View Southwest*	 *Classroom Building 7/F, West Elevation, View Southeast*

Significant (Primary): Classroom Building 10/G

- One-story, rectangular plan with two-classroom units. Each unit has a door on the north and south elevations.
- Concrete foundation and wood frame
- Slightly angled roof
- Door and window openings on north and south elevations, while east and west elevations are flat planes without openings
- Five-light wood sash windows (*alteration, some windows covered with metal security screens and some windows infilled with AC equipment*)
- *Alterations: all clerestory awning windows infilled or painted over*
- Wood doors with single-light on north elevation *(alteration, single-light covered with metal security screens)*
- Flush wood doors on south elevation *(alteration, transom windows painted over)*

- Extended eave over north elevation
- One heater room on north elevation has wood double doors with louver near bottom and wood louvre above double door

Current Photographs of Classroom Building 10/G	
	
Classroom Building 10/G, South and West Elevation, View Southeast	*Classroom Building 10/G, West and North Elevation, View Southeast*

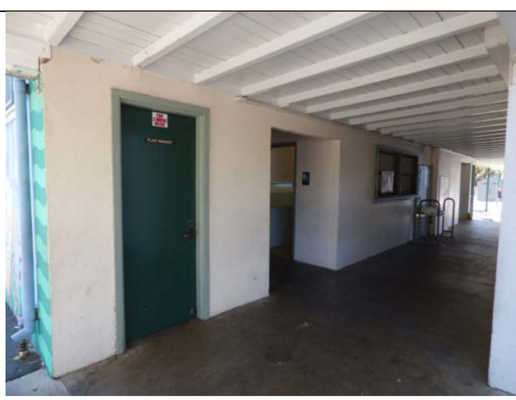
Significant (Primary): Kindergarten Building 11/G

- One-story, rectangular plan with two-classroom units. Each unit has a door on the east and west elevations. The east elevation opens out onto the Kindergarten playground.
- Concrete foundation and wood frame
- Slightly angled roof
- Door and window openings on east and west elevations, while north and south elevations are flat planes without openings
- Five-light wood sash windows (*alteration, some windows covered with metal security screens and some windows infilled with AC equipment*)
- *Alterations: all clerestory awning windows infilled or painted over*
- Wood doors with single-light on east elevation *(alteration, single-light covered with metal security screens)*
- Flush wood doors on west elevation *(alteration, transom windows painted over)*
- Extended eave over east and west elevation
- One heater room on the south-end of the west elevation has wood double doors with louver near bottom and wood louvre above double door
- Open space to the east of Building 11 for the kindergarten playground (*alteration: flooring, equipment and fence are later replacements*)

<table>
<tr><th colspan="2">Current Photographs of Kindergarten Classroom Building 11/G</th></tr>
<tr><td>
Kindergarten Classroom Building 11/H, South and East Elevations, View Northwest</td><td>
Kindergarten Classroom Building 11/H, East Elevation, View Southwest</td></tr>
<tr><td>
Kindergarten Classroom Building 11/H, North and West Elevations, View Southeast</td><td>
Kindergarten Classroom Building 11/H, North and West Elevations, View Southeast</td></tr>
</table>

Contributing (Secondary): Sanitary Buildings 8/K and 9/J

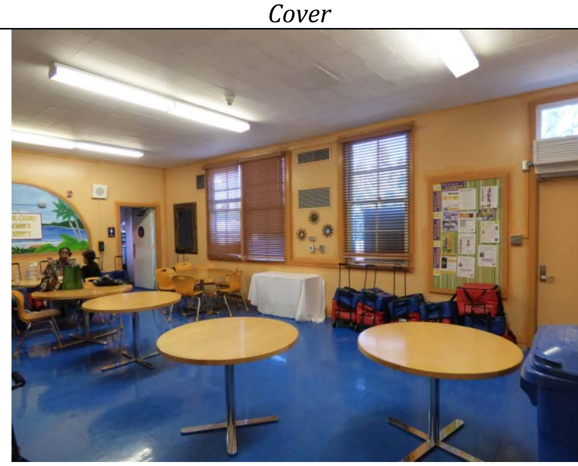
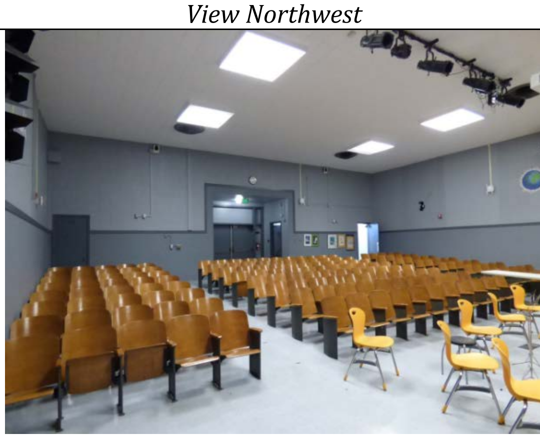
- One-story, rectangular plan
- Concrete foundation and wood frame
- Slightly angled roof
- Extended eave over south elevation
- Covered walkway connected to north elevation
- Row of six double hung sash windows on west elevation
- Row of four awning windows on east elevation
- Flush door, opening into restroom, and pair of double-hung windows, water fountain and fire house cabinet on west elevation
- *Alteration: Non-original storage units to the rear of Building 9/J*

Current Photographs of Sanitary Buildings 8/K and 9/J	
 *Sanitary Building 9/J, West Elevation, View East*	 *Sanitary Building 9/J, West and Rear (South) Elevations, View Northeast, Note non-contributing storage units*
 *Sanitary Building 9/J, North Elevation, View Southwest*	 *Sanitary Building 8/K, East Elevation, View West*

Contributing (Secondary): Multi-Purpose Building 2

- One and two-story, L-shape plan.
- Concrete foundation and wood-frame
- Flat composition roof
- Square vents below roofline
- Exterior walls sheathed with stucco, some small areas of brick veneer
- Metal screeds
- Clerestory wood-framed windows
- Paired and single metal doors
- Four over four wood-frame windows
- Four and two light awning windows (*alteration, covered by metal security screens*)
- Covered lunch area connected to south elevation covered by a cover supported by steel pipes around the perimeter
- Interior retains spatial configuration, spaces, and auditorium wood seating
- Covered passage connecting west elevation to existing covered walkway and Administration Building
- *Alteration: lunch windows underneath lunch cover replaced*

Current Photographs of Multi-Purpose Building 2	
	
Multi-Purpose Building 2, North Elevation, View South	*Multi-Purpose Building 2, South Elevation, View Northeast*

Current Photographs of Multi-Purpose Building 2	
 *Multi-Purpose Building 2, West and South Elevation, View Northeast*	 *Multi-Purpose Building 2, View Northwest under Lunch Cover*
 *Multi-Purpose Building 2, East Elevation of Lunch Room, View Northwest*	 *Multi-Purpose Building 2, Interior of Lunchroom, View Northeast*
 *Interior of Multipurpose Room, View West*	 *Interior of Multipurpose Room, View East*

Appendix D
Geotechnical Evaluations

D.1 Updated Geotechnical Investigation

D.2 Geotechnical Investigation

Appendix D.1
Updated Geotechnical Investigation

UPDATED GEOTECHNICAL INVESTIGATION

COLFAX CHARTER ELEMENTARY SCHOOL CLASSROOM ADDITION PROJECT 11724 ADDISON STREET VALLEY VILLAGE AREA OF LOS ANGELES, CALIFORNIA

GEOCON
WEST, INC.

GEOTECHNICAL
ENVIRONMENTAL
MATERIALS

PREPARED FOR

LOS ANGELES UNIFIED SCHOOL DISTRICT
LOS ANGELES, CALIFORNIA

PROJECT NO. A8326-06-69A

AUGUST 2016

Project No. A8326-06-69A
August 31, 2016

Mr. Peyman Soroosh Moghadam
Los Angeles Unified School District
333 S. Beaudry Avenue, 22nd Floor
Los Angeles, California 90017

Subject: UPDATED GEOTECHNICAL INVESTIGATION
COLFAX CHARTER ELEMENTARY SCHOOL
CLASSROOM ADDITION PROJECT
11724 ADDISON STREET
VALLEY VILLAGE AREA OF LOS ANGELES, CALIFORNIA

Dear Mr. Moghadam:

In accordance with your authorization of our proposal dated July 8, 2016, we have performed an updated geotechnical investigation for the proposed Colfax Charter Elementary School classroom addition project located at 11724 Addison Street in the Valley Village area of the City of Los Angeles, California. The accompanying report presents the findings of our study, and our conclusions and recommendations pertaining to the geotechnical aspects of proposed design and construction. Based on the results of our investigation, it is our opinion that the site can be developed as proposed, provided the recommendations of this report are followed and implemented during design and construction.

If you have any questions regarding this report, or if we may be of further service, please contact the undersigned.

Very truly yours,

GEOCON WEST, INC.

Jelisa M. Thomas	Susan F. Kirkgard	Neal D. Berliner
PE 74946	CEG 1754	GE 2576

(EMAIL) Addressee

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UPDATED GEOTECHNICAL INVESTIGATION

1. PURPOSE AND SCOPE

This report presents the results of an updated geotechnical investigation for the proposed Colfax Charter Elementary School classroom addition project located at 11724 Addison Street in the Valley Village area of the City of Los Angeles, California (see Vicinity Map, Figure 1). The purpose of the investigation was to evaluate subsurface soil and geologic conditions underlying the areas of proposed construction and, based on conditions encountered, to provide conclusions and recommendations pertaining to the geotechnical aspects of design and construction.

The scope of this investigation included a review of prior reports prepared for the site, a site reconnaissance, field exploration, laboratory testing, engineering analysis, and the preparation of this report. The site was explored on August 5, 2016 by excavating three 8-inch diameter borings utilizing a truck-mounted hollow-stem auger drilling machine. The borings were advanced to depths between 20½ feet and 30½ feet below the existing ground surface. The approximate locations of the exploratory borings are depicted on the Site Plan (see Figure 2). A detailed discussion of the field investigation, including boring logs, is presented in Appendix A.

Laboratory tests were performed on selected soil samples obtained during the investigation to determine pertinent physical soil properties. Appendix B presents a summary of the laboratory test results.

The recommendations presented herein are based on analyses of the data obtained during our investigation, as well as the data obtained during the previous geotechnical investigation by Ninyo and Moore, and our experience with similar soil and geologic conditions. The prior investigation is summarized in Section 2, Background Review. References reviewed to prepare this report are provided in the *List of References* section.

If project details vary significantly from those described herein, Geocon should be contacted to determine the necessity for review and possible revision of this report.

2. BACKGROUND REVIEW

As a part of the preparation of this report, we reviewed prior reports provided to us by the Client:

> *Preliminary Geotechnical and Geologic Seismic Hazard Evaluation, Colfax Charter Elementary School Modernization, 11724 Addison Street, Valley Village, California, Los Angeles Unified School District*, prepared by Ninyo & Moore, dated September 30, 2015;
>
> *Geotechnical Evaluation, Colfax Charter Elementary School Modernization, 11724 Addison Street, Valley Village, California, Los Angeles Unified School District*, prepared by Ninyo & Moore, dated May 3, 2016.

The 2016 report indicates that nine borings and four Cone Penetrometer Test (CPT) soundings were performed throughout the area of proposed construction. The borings were excavated with an 8-inch-diameter hollow-stem auger drilling machine to depths between 6½ and 96½ feet below the ground surface. The CPTs were advanced to depths between 45 and 48 feet below the ground surface. Groundwater was not encountered in the borings or CPTs. The locations of the prior boring and CPTs are indicated on the Site Plan (Figure 2).

Laboratory testing was performed on representative soil samples collected within the upper 50 feet of the ground surface and included: direct shear testing, consolidation testing, grain size analysis, Atterberg limits, expansion indices, R-value, corrosivity, and in-situ density and moisture content.

Geocon West, Inc. has reviewed the referenced report by Ninyo & Moore, and the recommendations presented herein are based on analysis of the subsurface and laboratory data obtained from the prior investigation by Ninyo & Moore, as well as our own subsurface and laboratory data. Furthermore, we assume responsibility for the utilization of the exploration and laboratory data presented within the geotechnical report by Ninyo & Moore. A copy of the pertinent exploration and laboratory data prepared by Ninyo & Moore is provided in Appendix C.

3. SITE AND PROJECT DESCRIPTION

The subject site is located at 11724 Addison Street in the Valley Village area of the City of Los Angeles, California. The site is occupied by the existing Colfax Charter Elementary School campus. The site is bounded by Addison Street to the north, by Colfax Avenue to the east, by Huston Street to the south, and by Morella Avenue to the west. The site slopes gently to the southeast with approximately 4½ feet of vertical relief. Surface water drainage appears to be by sheet flow along the ground surface to the surface streets. Vegetation onsite consists of grass and trees located in isolated planter areas.

Based on the information provided by the Client, it is our understanding that the proposed project consists of a two-story administration and classroom building, a single-story kindergarten classroom building, lunch shelter, and new parking lot all to be constructed at or near present grade (see Site Plan, Figure 2).

Column and wall loads were provided by the project structural engineer, Brandow & Johnston, Incorporated. Column loads for the administration and classroom building are anticipated to be up to 85 kips (dead & live load) and wall loads for the kindergarten classroom building are anticipated to be up to 1 kip per linear foot (dead & live load).

Once the design phase and foundation loading configuration proceeds to a more finalized plan, the recommendations within this report should be reviewed and revised, if necessary. Any changes in the design, location or elevation of any structure, as outlined in this report, should be reviewed by this office. Geocon should be contacted to determine the necessity for review and possible revision of this report.

4. GEOLOGIC SETTING

The site is located in the southern margin of the San Fernando Valley. The San Fernando Valley is an elliptical-shaped alluvium-filled basin, approximately 23 miles wide and 12 miles long, formed by deposition from streams and rivers that have transported sediments from the surrounding upland areas. The alluvium is mainly derived from the Santa Monica Mountains to the south, the Santa Susana Mountains to the northwest, the Simi Hills to the west, the San Gabriel Mountains to the northeast, and the Verdugo Mountains to the east.

Regionally, the site is located in the Transverse Ranges geomorphic province. This province is characterized by east-west trending geologic structures that include the east-west trending Santa Monica Mountains and the east-west trending active San Fernando fault zone. The trend of the San Fernando Valley reflects the overall trend of the Transverse Ranges, where major structural features exhibit an east-west orientation in contrast to the northwest-southeast trend that dominates in the rest of California. The San Fernando Valley is an area of compression between the San Gabriel Mountains on the northeast and the Santa Monica Mountains on the south.

5. SOIL AND GEOLOGIC CONDITIONS

Based on our field investigation and published geologic maps of the area, the site is underlain by artificial fill and unconsolidated Holocene age alluvial fan deposits (Geological Survey, 2010). The geologic conditions at the site and in the general vicinity are shown on Figure 3, Local Geologic Map. Detailed stratigraphic profiles of the materials encountered at the site are provided on the boring logs in Appendix A.

5.1 Artificial Fill

Artificial fill was encountered in our current explorations, as well as the prior Ninyo & Moore explorations, to a maximum depth of 3 feet below existing ground surface. The artificial fill generally consists of yellowish brown silty sand which can be characterized as fine- to medium-grained, slightly moist and loose to medium dense with trace fine gravel. The fill is likely the result of past grading or construction activities at the site. Deeper fill may exist between excavations and in other portions of the site that were not directly explored.

5.2 Alluvium

Holocene age alluvium was encountered beneath the fill. The alluvium generally consists of brown to yellowish brown silty sand, sandy silt, silt, and sand with silt with trace coarse gravel. The alluvial soils are primarily fine- to medium-grained, slightly moist and loose to very dense or firm to hard.

6. GROUNDWATER

The Seismic Hazard Zone Report for the Van Nuys Quadrangle (California Division of Mines and Geology [CDMG], 1997) indicates the historically highest groundwater level in the area is approximately 10 feet beneath the ground surface.

The site is located within the Upper Los Angeles River Area (ULARA) Watermaster service area. As a part of the preparation of this report, we reached out to the ULARA Watermaster to request their opinion on the current and potential future groundwater conditions at the site. Based on their response, the ULARA Watermaster has indicated that current groundwater conditions beneath the subject site are greater than 50 feet below the ground surface and future levels will likely remain in excess of 50 to 75 feet below the ground surface. A copy of the letter prepared by the ULARA Watermaster which confirms the current and potential future groundwater level is included as Appendix D.

Groundwater was not encountered within the current and prior borings, drilled to a maximum depth of 96½ feet below the existing ground surface. Considering the information provided by the ULARA Watermaster and the lack of groundwater in current and prior borings, it is our opinion that a groundwater depth of 50 feet may be assumed for the design of the project.

Based on these considerations and the proposed on-grade construction, groundwater is neither expected to be encountered during construction, nor have a detrimental effect on the proposed project. However, it is not uncommon for groundwater levels to vary seasonally or for groundwater seepage conditions to develop where none previously existed, especially in impermeable fine-grained soils which are heavily irrigated or after seasonal rainfall. In addition, recent requirements for stormwater infiltration could result in shallower seepage conditions in the immediate site vicinity. Proper surface drainage of irrigation and precipitation will be critical for future performance of the project. Recommendations for drainage are provided in the S*urface Drainage* section of this report (see Section 8.17).

7. GEOLOGIC HAZARDS

7.1 Surface Fault Rupture

The numerous faults in Southern California include active, potentially active, and inactive faults. The criteria for these major groups are based on criteria developed by the California Geological Survey (CGS, formerly known as CDMG) for the Alquist-Priolo Earthquake Fault Zone Program (CGS, 2016; Bryant and Hart, 2007). By definition, an active fault is one that has had surface displacement within Holocene time (about the last 11,000 years). A potentially active fault has demonstrated surface displacement during Quaternary time (approximately the last 1.6 million years), but has had no known Holocene movement. Faults that have not moved in the last 1.6 million years are considered inactive.

The site is not within a state-designated Alquist-Priolo Earthquake Fault Zone (CGS, 2016) or a city-designated Preliminary Fault Rupture Study Area (City of Los Angeles, 2016) for surface fault rupture hazards. No active or potentially active faults with the potential for surface fault rupture are known to pass directly beneath the site. Therefore, the potential for surface rupture due to faulting occurring beneath the site during the design life of the proposed development is considered low. However, the site is located in the seismically active Southern California region, and could be subjected to moderate to strong ground shaking in the event of an earthquake on one of the many active Southern California faults. The faults in the vicinity of the site are shown in Figure 4, Regional Fault Map.

The closest active fault to the site is an “Unnamed Fault” located approximately 1,800 feet to the north of the school campus. This fault is identified by Weber et al. (1980) as an apparent east-northeast trending, south-facing, linear break in topography observed on 1901 and 1926 topographic maps. The break in slope observed in the young alluvial deposits suggests this feature may be related to Holocene age faulting (Weber et al., 1980). However, this interpretation has not been confirmed by subsurface exploration.

Other nearby active faults include the Hollywood Fault, the Verdugo Fault, the Newport-Inglewood Fault Zone, the Santa Monica Fault, and the Raymond Fault located approximately 4.3 miles south-southeast, 4.6 miles east, 5.9 miles southwest, 6.7 miles southwest, and 7.5 miles southeast of the site, respectively (Bryant and Hart, 2007; Ziony and Jones, 1989). The active San Andreas Fault Zone is located approximately 31 miles northeast of the site (Bryant and Hart, 2007; Ziony and Jones, 1989).

Several buried thrust faults, commonly referred to as blind thrusts, underlie the Los Angeles Basin and the San Fernando Valley at depth. These faults are not exposed at the ground surface and are typically identified at depths greater than 3.0 kilometers. The October 1, 1987 M_w 5.9 Whittier Narrows earthquake and the January 17, 1994 M_w 6.7 Northridge earthquake were a result of movement on the Puente Hills Blind Thrust and the Northridge Thrust, respectively. These thrust faults and others in the greater Los Angeles area are not exposed at the surface and do not present a potential surface fault rupture hazard at the site; however, these deep thrust faults are considered active features capable of generating future earthquakes that could result in moderate to significant ground shaking at the site.

7.2 Seismicity

As with all of Southern California, the site has experienced historic earthquakes from various regional faults. The seismicity of the region surrounding the site was formulated based on research of an electronic database of earthquake data. The epicenters of recorded earthquakes with magnitudes equal to or greater than 5.0 in the site vicinity are depicted on Figure 5, Regional Seismicity Map. A partial list of moderate to major magnitude earthquakes that have occurred in the Southern California area within the last 100 years is included in the following table.

LIST OF HISTORIC EARTHQUAKES

Earthquake (Oldest to Youngest)	Date of Earthquake	Magnitude	Distance to Epicenter (Miles)	Direction to Epicenter
San Jacinto-Hemet area	April 21, 1918	6.8	84	ESE
Near Redlands	July 23, 1923	6.3	66	E
Long Beach	March 10, 1933	6.4	45	SE
Tehachapi	July 21, 1952	7.5	68	NW
San Fernando	February 9, 1971	6.6	17	N
Whittier Narrows	October 1, 1987	5.9	19	ESE
Sierra Madre	June 28, 1991	5.8	23	ENE
Landers	June 28, 1992	7.3	111	E
Big Bear	June 28, 1992	6.4	89	E
Northridge	January 17, 1994	6.7	9	WNW
Hector Mine	October 16, 1999	7.1	125	ENE

The site could be subjected to strong ground shaking in the event of an earthquake. However, this hazard is common in Southern California and the effects of ground shaking can be mitigated if the proposed structures are designed and constructed in conformance with current building codes and engineering practices.

7.3 Ground Motion Hazard Analysis

Ground motion hazard analyses were performed in accordance with ASCE 7-10 and Section 1613A of the 2013 CBC utilizing the computer program EZFRISK (version 7.65) in conjunction with data from the U.S. Seismic Design Maps web application provided by the USGS.

7.3.1 Probabilistic Seismic Hazard Analysis

The probabilistic Maximum Considered Earthquake (MCE_R) response spectrum consists of the spectral response accelerations which are expected to achieve a 1 percent probability of collapse within a 50-year period, evaluated at 5 percent damping. The procedure described in ASCE 7-10 Section 21.2.1.1 as Method 1 was used to evaluate the probabilistic response spectrum.

The spectral response accelerations having a 2 percent chance of exceedance in 50 years were evaluated at 5 percent damping. The probabilistic analysis was performed using the ground motion prediction equations (GMPEs) of Boore and Atkinson (2008) NGA USGS 2008 MRC (next generation attenuation, maximum rotated component), Campbell-Bozorgnia (2008) NGA USGS 2008 MRC, and Chiou-Youngs (2008) NGA USGS 2008 MRC. Each GMPE was assigned an equal weight and the maximum rotated component of ground motion derived from the relationships was evaluated. It is our opinion that the use of these three GMPEs is appropriate for the subject site

The probabilistic analysis was performed by evaluating the ground motions generated by active faults within a 120 mile (200 kilometer) radius of the site. The soil underlying the site was modeled as a Site Class "D" with a corresponding average shear wave velocity (V_S30) of 270 meters per second.

The GMPE of Campbell and Borzorgnia requires that the depth to where the shear wave velocity reaches 2.5 kilometers per second (Z2.5) be defined. The value of Z2.5 was estimated using data from the Community Velocity Model (CVM) Version 4 developed by Southern California Earthquake Data Center (SCEDC). The value of Z2.5 used in the analysis was 0.99 kilometers.

According to ASCE 7-10 Section 21.2.1.1 Method 1, the probabilistic MCE_R spectral response accelerations may be determined as the product of the spectral response accelerations having a 2 percent chance of exceedance in 50 years and the risk coefficient C_R. The value of C_R at 0.2 seconds (C_{RS}) and 1 second (C_{R1}) were determined from ASCE 7-10 Figures 22-17 and 22-18, respectively. At spectral response accelerations less than or equal to 0.2 seconds, the value of C_R was taken as C_{RS} and at spectral response accelerations greater than or equal to 1.0 seconds the value of C_R was taken as C_{R1}. Liner interpolation was used to evaluate the values of C_R between 0.2 and 1.0 seconds.

7.3.2 Deterministic Seismic Hazard Analysis

The deterministic analysis was performed using the same GMPEs as the probabilistic analysis, as well as the same active faults within a within a 120 mile (200 kilometer) radius of the site and the same value of Z2.5.

The 84th percentile of the maximum rotated component of ground motion derived from the GMPEs was evaluated. Based on the results of the analysis, the fault source resulting in the highest spectral accelerations from 0 to 4 seconds would be a magnitude 6.7 event on the Santa Monica fault.

The 84th percentile of the maximum rotated component of ground motion was compared to the Deterministic Lower Limit MCE_R response spectrum, and the maximum values taken as the deterministic MCE_R response spectrum.

7.3.3 Site-Specific Response Spectrum

The lesser of the probabilistic and deterministic MCE_R response spectrums is the Site-Specific MCE_R. Two thirds of the Site-Specific MCE_R is the Design Earthquake (DE) Response Spectrum, provided the results are not less than 80 percent of the General Design Response Spectrum determined by ASCE 7-10 Section 11.4.5.

Graphical representations of the analyses are presented on Figures 6 and 7. The Site-Specific Design Earthquake response spectrum at 5 percent damping is presented on Figure 7 and as Table 1.

7.3.4 Mapped Acceleration Parameters

The following table summarizes the mapped acceleration parameters obtained from the 2013 California Building Code (CBC; Based on the 2012 International Building Code [IBC] and ASCE 7-10), Chapter 16A Structural Design, Section 1613A Earthquake Loads. The data was calculated using the computer program U.S. Seismic Design Maps, provided by the USGS. The short spectral response uses a period of 0.2 second.

MAPPED SPECTRAL ACCELERATIONS

Parameter	Value	2013 CBC Reference
Site Class	D	Section 1613A.3.2
MCE_R Ground Motion Spectral Response Acceleration – Class B (short), S_S	2.230g	Figure 1613A.3.1(1)
MCE_R Ground Motion Spectral Response Acceleration – Class B (1 sec), S_1	0.751g	Figure 1613A.3.1(2)

7.3.5 Site-Specific Seismic Design Criteria

Based the site-specific ground motion hazard analysis performed, and in accordance with the ASCE 7-10 Section 21.4, site-specific seismic design parameters shall be derived using the results of the site-specific ground motion hazard analysis.

The parameter S_{DS} shall be obtained from the site-specific spectra at a period of 0.2 second and not less than 90 percent of the peak spectra acceleration at any period larger than 0.2 second. The parameter S_{D1} shall be taken as the greater of the site-specific spectral acceleration at a period of 1.0 second or twice the spectral acceleration at a period of 2 seconds (whichever is greater). The values of S_{MS} and S_{M1} shall be taken as 1.5 times the site-specific values of S_{DS} and S_{D1}. The site-specific seismic design parameters shall not be less than 80 percent of the general seismic design values determined by ASCE 7-10 Section 11.4.

The following table presents the site-specific seismic design parameters based on the site-specific ground motion hazard analysis.

SITE-SPECIFIC SEISMIC DESIGN PARAMETERS

Parameter	Value
Site Class Modified MCE_R Spectral Response Acceleration (short), S_{MS}	2.124g
Site Class Modified MCE_R Spectral Response Acceleration – (1 sec), S_{M1}	1.481g
5% Damped Design Spectral Response Acceleration (short), S_{DS}	1.416g
5% Damped Design Spectral Response Acceleration (1 sec), S_{D1}	0.987g

7.3.6 Site-Specific Peak Ground Acceleration

The site-specific Maximum Considered Earthquake (MCE_G) geometric mean peak ground acceleration was evaluated in accordance with ASCE 7-10 Section 21.5.

The probabilistic geometric mean peak ground acceleration was evaluated using the computer program EZFrisk. The analysis was performed using the GMPEs of Boore and Atkinson (2008) NGA USGS 2008, Campbell-Bozorgnia (2008) NGA USGS 2008, and Chiou-Youngs (2008) NGA USGS 2008. Each GMPE was assigned an equal weight. The analysis used the same faults, Site Class, and value of Z2.5 as described above.

The probabilistic geometric mean peak ground acceleration (probabilistic MCE_G) was evaluated at a 2 percent probability of exceedance with a 50 year period.

The deterministic geometric mean peak ground acceleration (deterministic MCE_G) was evaluated as the 84th percentile geometric mean peak ground acceleration. The deterministic MCE_G shall not be less than $0.5F_{PGA}$, where F_{PGA} is determined from ASCE 7-10 Table 11.8-1 with the value of PGA taken as 0.5g.

The site-specific MCE_G peak ground acceleration is taken as the lesser of the probabilistic and deterministic MCE_G, provided the value is not less than 80 percent of the value of PGA_M as determined by ASCE 7-10 Equation 11.8.1.

ASCE 7-10 SITE-SPECIFIC PEAK GROUND ACCELERATION

Parameter	Value	ASCE 7-10 Reference
Site-Specific MCE_G Peak Ground Acceleration, PGA_M	0.834g	Section 21.5

7.3.7 Deaggregated Seismic Source Parameters

The Maximum Considered Earthquake Ground Motion (MCE) is the level of ground motion that has a 2 percent chance of exceedance in 50 years, with a statistical return period of 2,475 years. According to the 2013 California Building Code and ASCE 7-10, the MCE is to be utilized for the evaluation of liquefaction, lateral spreading, seismic settlements, and it is our understanding that the intent of the Building code is to maintain “Life Safety” during a MCE event. The Design Earthquake Ground Motion (DE) is the level of ground motion that has a 10 percent chance of exceedance in 50 years, with a statistical return period of 475 years.

Deaggregation of the MCE peak ground acceleration was performed using the USGS 2008 Probabilistic Seismic Hazard Analysis (PSHA) Interactive Deaggregation online tool. The result of the deaggregation analysis indicates that the predominant earthquake contributing to the MCE peak ground acceleration is characterized as a 6.74 magnitude event occurring at a hypocentral distance of 10.5 kilometers from the site.

Deaggregation was also performed for the Design Earthquake (DE) peak ground acceleration, and the result of the analysis indicates that the predominant earthquake contributing to the DE peak ground acceleration is characterized as a 6.72 magnitude occurring at a hypocentral distance of 14.4 kilometers from the site.

Conformance to the criteria in the above tables for seismic design does not constitute any kind of guarantee or assurance that significant structural damage or ground failure will not occur if a large earthquake occurs. The primary goal of seismic design is to protect life, not to avoid all damage, since such design may be economically prohibitive.

7.4 Liquefaction Potential

Liquefaction is a phenomenon in which loose, saturated, relatively cohesionless soil deposits lose shear strength during strong ground motions. Primary factors controlling liquefaction include intensity and duration of ground motion, gradation characteristics of the subsurface soils, in-situ stress conditions, and the depth to groundwater. Liquefaction is typified by a loss of shear strength in the liquefied layers due to rapid increases in pore water pressure generated by earthquake accelerations.

The current standard of practice, as outlined in the “Recommended Procedures for Implementation of DMG Special Publication 117, Guidelines for Analyzing and Mitigating Liquefaction in California” and “Special Publication 117A, Guidelines for Evaluating and Mitigating Seismic Hazards in California” requires liquefaction analysis to a depth of 50 feet below the lowest portion of the proposed structure. Liquefaction typically occurs in areas where the soils below the water table are composed of poorly consolidated, fine to medium-grained, primarily sandy soil. In addition to the requisite soil conditions, the ground acceleration and duration of the earthquake must also be of a sufficient level to induce liquefaction.

The State of California Seismic Hazard Zone Map for the Van Nuys Quadrangle (1998) indicates that the site is located in an area identified as having a potential for liquefaction (see Figure 8, Seismic Hazard Zone Map). Also, according to the Los Angeles County Safety Element (1990), the site is located within an area identified as having a potential for liquefaction.

As discussed in the *Groundwater* Section of this report (see Section 6.0), the current and potential future groundwater depths are in excess of 50 feet below the ground surface. Based on the absence of groundwater, it is our opinion that the potential for liquefaction and associated ground deformations beneath the site is very low. However, the site may be subject to seismically induced settlements of dry sands, which is discussed in the following section.

7.5 Seismically-Induced Settlement

Dynamic compaction of dry and loose sands may occur during a major earthquake. Typically, settlements occur in thick beds of such soils. The seismically-induced settlement calculations were performed in accordance with the American Society of Civil Engineers, Technical Engineering and Design Guides as adapted from the US Army Corps of Engineers, No. 9.

Analysis of seismically-induced settlements was performed using the four CPT soundings conducted by Ninyo & Moore in 2016. Digital copies of the prior CPTs were provided to us by the client. The analysis was performed using the computer program CLiq (Version 1.7) by GeoLogismiki.

Analysis of seismically-induced settlement was performed for a Design Earthquake level by a magnitude 6.72 earthquake and a peak horizontal acceleration of 0.556g (⅔PGA_M). The enclosed analyses, included herein for CPTs 1 through 4, indicate that the alluvial soils could be prone to up to 0.22 inches of settlement as a result of the Design Earthquake peak ground acceleration. A summary of the anticipated seismically-induced settlements is provided as Figure 9. Calculations and output from CLiq are provided in Appendix E.

It is our understanding that the intent of the Building Code is to maintain “Life Safety” during Maximum Considered Earthquake level events. Therefore, additional analysis was performed to evaluate the potential for liquefaction during a MCE event. The structural engineer should evaluate the proposed structure for the anticipated MCE seismically-induced settlements and verify that anticipated deformations would not cause the foundation system to lose the ability to support the gravity loads and/or cause collapse of the structure.

Analysis of seismically-induced settlement was performed for a Maximum Considered Earthquake level by a magnitude 6.74 earthquake and a peak horizontal acceleration of 0.834 (PGA_M). The enclosed analyses, included herein for CPTs 1 through 4, indicate that alluvial soils could be prone to approximately 0.88 inches of settlement as a result of the Maximum Considered Earthquake peak ground acceleration. A summary of the anticipated seismically-induced settlements is provided as Figure 10. Calculations and output from CLiq are provided in Appendix E.

7.6 Slope Stability

The topography at the site is relatively level and the topography in the immediate site vicinity slopes gently to the southeast. The site is not located within a City of Los Angeles Hillside Grading Area and not within a Hillside Ordinance Area (City of Los Angeles, 2016). The County of Los Angeles Safety Element (Leighton, 1990), indicates the site is not within an area identified as having a potential for slope instability. Additionally, the site is not within an area identified as having a potential for seismic slope instability (CDMG, 1998). There are no known landslides near the site, nor is the site in the path of any known or potential landslides. Therefore, the potential for slope stability hazards to adversely affect the proposed development is considered low.

7.7 Earthquake-Induced Flooding

Earthquake-induced flooding is inundation caused by failure of dams or other water-retaining structures due to earthquakes. The Los Angeles County Safety Element (Leighton, 1990) indicates that the site is located within the Hansen Dam and Lopez Dam inundation areas. However, these reservoirs, as well as others in California, are continually monitored by various governmental agencies (such as the State of California Division of Safety of Dams and the U.S. Army Corps of Engineers) to guard against the threat of dam failure. Current design, construction practices, and ongoing programs of review, modification, or total reconstruction of existing dams are intended to ensure that all dams are capable of withstanding the maximum considered earthquake (MCE) for the site. Therefore, the potential for inundation at the site as a result of an earthquake-induced dam failure is considered low.

7.8 Tsunamis, Seiches, and Flooding

The site is not located within a coastal area. Therefore, tsunamis, seismic sea waves, are not considered a significant hazard at the site.

Seiches are large waves generated in enclosed bodies of water in response to ground shaking. No major water-retaining structures are located immediately up gradient from the project site. Therefore, flooding resulting from a seismically-induced seiche is considered unlikely.

The site is within an area of minimal flooding (Zone X) as defined by the Federal Emergency Management Agency (FEMA, 2016; LACDPW, 2016b).

7.9 Oil Fields & Methane Potential

Based on a review of the California Division of Oil, Gas and Geothermal Resources (DOGGR) Oil and Gas Well Location Map W1-2, the site is not located within the limits of an oilfield and oil or gas wells are not located in the immediate site vicinity. However, due to the voluntary nature of record reporting by the oil well drilling companies, wells may be improperly located or not shown on the location map and undocumented wells could be encountered during construction. Any wells encountered during construction will need to be properly abandoned in accordance with the current requirements of the DOGGR.

The site is not located within the boundaries of a city-designated Methane Zone or Methane Buffer Zone (City of Los Angeles, 2016). Since the site is not located within the boundaries of a known oil field, the potential for the presence of methane or other volatile gases at the site is considered low. However, should it be determined that a methane study is required for the proposed development it is recommended that a qualified methane consultant be retained to perform the study and provide mitigation measures as necessary.

7.10 Subsidence

Subsidence occurs when a large portion of land is displaced vertically, usually due to the withdrawal of groundwater, oil, or natural gas. Soils that are particularly subject to subsidence include those with high silt or clay content. The site is not located within an area of known ground subsidence. No large-scale extraction of groundwater, gas, oil, or geothermal energy is occurring or planned at the site or in the general site vicinity. There appears to be little or no potential for ground subsidence due to withdrawal of fluids or gases at the site.

8. CONCLUSIONS AND RECOMMENDATIONS

8.1 General

8.1.1 It is our opinion that neither soil nor geologic conditions were encountered during the investigation that would preclude the construction of the proposed project provided the recommendations presented herein are followed and implemented during design and construction,

8.1.2 Up to 3 feet of existing artificial fill was encountered during the site investigation. The existing fill encountered is believed to be the result of past grading and construction activities at the site. Deeper fill may exist in other areas of the site that were not directly explored. Future demolition of the existing improvements which occupy the areas of proposed construction will likely disturb the upper few feet of soil. It is our opinion that the existing fill, in its present condition, is not suitable for direct support of proposed foundations or slabs. The existing fill and site soils are suitable for re-use as engineered fill provided the recommendations in the Grading section of this report are followed (see Section 8.4).

8.1.3 The enclosed seismically-induced settlement analyses indicate that the site soils could be susceptible to up to 0.22 inches of total settlement as a result of the Design Earthquake peak ground acceleration ($\frac{2}{3}PGA_M$). Based on our analysis of the four CPTs located throughout the area of proposed construction, the differential settlement at the foundation level is anticipated to be less than ¼ inch over a distance of 20 feet.

8.1.4 It is recommended that the upper six feet of existing earth materials within the building footprint areas be excavated and properly compacted for foundation and slab support. Deeper excavations should be conducted as needed to remove any encountered fill or soft soils as necessary at the direction of the Geotechnical Engineer (a representative of Geocon). The excavation should extend laterally a minimum distance of five feet beyond the building footprint areas, including building appurtenances, or a distance equal to the depth of fill below the foundation, whichever is greater. Proposed building foundations should be underlain by a minimum of 3 feet of newly placed engineered fill. The limits of existing fill and/or soft soil removal will be verified by the Geocon representative during site grading activities. Recommendations for earthwork are provided in the *Grading* section of this report (see Section 8.4).

8.1.5 Subsequent to the recommended grading, the proposed structures may be supported on a conventional shallow spread foundation system deriving support in newly placed engineered fill. Recommendations for the design of a conventional foundation system are provided in Section 8.6.

8.1.6 As an alternative, the proposed structures may also be supported on a grade beam or mat foundation system deriving support in newly placed engineered fill. Recommendations for the design of a grade beam or mat foundation system are provided in Section 8.7.

8.1.7 All excavations must be observed and approved in writing by the Geotechnical Engineer (a representative of Geocon). Prior to placing any fill, the upper 12 inches of the excavation bottom must be scarified, moistened, and proof-rolled with heavy equipment in the presence of the Geotechnical Engineer (a representative of Geocon West, Inc.).

8.1.8 It is anticipated that stable excavations for the recommended grading associated with the proposed structures can be achieved with sloping measures. However, if excavations in close proximity to an existing structure or improvement are required, special excavation measures may be necessary in order to maintain lateral support of existing improvements. Excavation recommendations are provided in the *Temporary Excavations* section of this report (Section 8.15).

8.1.9 Foundations for small outlying structures, such as block walls up to 6 feet in height, planter walls or trash enclosures, which will not be tied to existing or proposed structures, may be supported on conventional foundations deriving support on a minimum of 12 inches of newly placed engineered fill which extends laterally at least 12 inches beyond the foundation area. Where excavation and compaction cannot be performed or is undesirable, foundations may derive support directly in the competent undisturbed alluvial soils found at or below a depth of 2 feet, and should be deepened as necessary to maintain a minimum 12-inch embedment into the recommended bearing materials. If the soils exposed in the excavation bottom are soft or loose, compaction of the soils will be required prior to placing steel or concrete. Compaction of the foundation excavation bottom is typically accomplished with a compaction wheel or mechanical whacker and must be observed and approved by a Geocon representative.

8.1.10 Where new paving is to be placed, it is recommended that all existing fill and soft alluvial soils be excavated and properly compacted for paving support. The client should be aware that excavation and compaction of all existing fill and soft alluvial soils in the area of new paving is not required; however, paving constructed over existing uncertified fill or unsuitable alluvial soil may experience increased settlement and/or cracking, and may therefore have a shorter design life and increased maintenance costs. As a minimum, the upper 12 inches of subgrade soil should be scarified and properly compacted for paving support. Paving recommendations are provided in *Preliminary Pavement Recommendations* section of this report (see Section 8.12).

8.1.11 Based on the conditions encountered during the site exploration, the laboratory test results presented herein, and the results of the percolation testing previously performed at the site by others, a stormwater infiltration system is considered feasible for this project. Recommendations for infiltration are provided in the *Stormwater Infiltration* section of this report (see Section 8.16).

8.1.12 Once the design and foundation loading configuration for the proposed structure proceeds to a more finalized plan, the recommendations within this report should be reviewed and revised, if necessary. Based on the final foundation loading configurations, the potential for settlement should be re-evaluated by this office.

8.1.13 Any changes in the design, location or elevation, as outlined in this report, should be reviewed by this office. Geocon should be contacted to determine the necessity for review and possible revision of this report.

8.2 Soil and Excavation Characteristics

8.2.1 The in-situ soils can be excavated with moderate effort using conventional excavation equipment. Minor caving should be anticipated in unshored excavations, especially where granular soils are encountered.

8.2.2 It is the responsibility of the contractor to ensure that all excavations and trenches are properly shored and maintained in accordance with applicable OSHA rules and regulations to maintain safety and maintain the stability of existing adjacent improvements.

8.2.3 All onsite excavations must be conducted in such a manner that potential surcharges from existing structures, construction equipment, and vehicle loads are resisted. The surcharge area may be defined by a 1:1 projection down and away from the bottom of an existing foundation or vehicle load. Penetrations below this 1:1 projection will require special excavation measures such as sloping or shoring. Excavation recommendations are provided in the *Temporary Excavations* section of this report (see Section 8.15).

8.2.4 The upper 5 feet of existing site soils encountered during this investigation are considered to have a “very low” expansive potential (EI < 5); and are classified as “non-expansive” based on the 2013 California Building Code (CBC) Section 1803.5.3. Recommendations presented herein assume that the building foundations and slabs will derive support in these materials.

8.3 Minimum Resistivity, pH, and Water-Soluble Sulfate

8.3.1 Potential of Hydrogen (pH) and resistivity testing as well as chloride content testing were performed on representative samples of soil to generally evaluate the corrosion potential to surface utilities. The tests were performed in accordance with California Test Method Nos. 643 and 422 and indicate that the soils are considered "mildly to moderately corrosive" with respect to corrosion of buried ferrous metals on site. The results are presented in Appendix C and should be considered for design of underground structures.

8.3.2 Laboratory tests were performed on representative samples of the site materials to measure the percentage of water-soluble sulfate content. Results from the laboratory water-soluble sulfate tests are presented in Appendix C and indicate that the on-site materials possess "negligible" sulfate exposure to concrete structures as defined by 2013 CBC Section 1904 and ACI 318-11 Sections 4.2 and 4.3.

8.3.3 Geocon West, Inc. does not practice in the field of corrosion engineering and mitigation. If corrosion sensitive improvements are planned, it is recommended that a corrosion engineer be retained to evaluate corrosion test results and incorporate the necessary precautions to avoid premature corrosion of buried metal pipes and concrete structures in direct contact with the soils.

8.4 Grading

8.4.1 Earthwork should be observed, and compacted fill tested by representatives of Geocon West, Inc. The existing fill and alluvial soil encountered during exploration is suitable for re-use as engineered fill, provided any encountered oversize material (greater than 6 inches) and any encountered deleterious debris are removed.

8.4.2 A preconstruction conference should be held at the site prior to the beginning of grading operations with the owner, contractor, civil engineer, geotechnical engineer, and building official in attendance. Special soil handling requirements can be discussed at that time.

8.4.3 Grading should commence with the removal of all existing vegetation and existing improvements from the area to be graded. Deleterious debris such as wood and root structures should be exported from the site and should not be mixed with the fill soils. Asphalt and concrete should not be mixed with the fill soils unless approved by the Geotechnical Engineer. All existing underground improvements planned for removal should be completely excavated and the resulting depressions properly backfilled in accordance with the procedures described herein. Once a clean excavation bottom has been established it must be observed and approved in writing by the Geotechnical Engineer (a representative of Geocon West, Inc.).

8.4.4 As a minimum, it is recommended that the upper six feet of existing earth materials within the proposed building footprint areas be excavated and properly compacted for foundation and slab support. Deeper excavations should be conducted as necessary to remove deeper artificial fill or soft alluvial soil at the direction of the Geotechnical Engineer (a representative of Geocon). The excavation should extend laterally a minimum distance of 5 feet beyond the building footprint area, including building appurtenances, or a distance equal to the depth of fill below the foundation, whichever is greater. Proposed building foundations should be underlain by a minimum of 3 feet of newly placed engineered fill. The limits of existing fill and/or soft alluvial soils removal will be verified by the Geocon representative during site grading activities.

8.4.5 All excavations must be observed and approved in writing by the Geotechnical Engineer (a representative of Geocon). Prior to placing any fill, the upper 12 inches of the excavation bottom must be scarified, moistened, and proof-rolled with heavy equipment in the presence of the Geotechnical Engineer (a representative of Geocon West, Inc.).

8.4.6 All fill and backfill soils should be placed in horizontal loose layers approximately 6 to 8 inches thick, moisture conditioned to above optimum moisture content, and properly compacted to a minimum 90 percent of the maximum dry density in accordance with ASTM D 1557 (latest edition).

8.4.7 It is anticipated that stable excavations for the recommended grading associated with the proposed structures can be achieved with sloping measures. However, if excavations in close proximity to an existing structure or improvement are required, special excavation measures may be necessary in order to maintain lateral support of existing improvements. Excavation recommendations are provided in the *Temporary Excavations* section of this report (Section 8.15).

8.4.8. Where new paving is to be placed, it is recommended that all existing fill and soft alluvium be excavated and properly compacted for paving support. As a minimum, the upper 12 inches of soil should be scarified, moisture conditioned to optimum moisture content, and compacted to at least 95 percent relative compaction, as determined by ASTM Test Method D 1557 (latest edition). Paving recommendations are provided in *Preliminary Pavement Recommendations* section of this report (see Section 8.12).

8.4.9 Foundations for small outlying structures, such as block walls up to 6 feet high, planter walls or trash enclosures, which will not be tied to existing or proposed structures, may be supported on conventional foundations deriving support on a minimum of 12 inches of newly placed engineered fill which extends laterally at least 12 inches beyond the foundation area. Where excavation and proper compaction cannot be performed or is undesirable, foundations may derive support directly in the undisturbed alluvial soils found at or below a depth of 2 feet, and should be deepened as necessary to maintain a minimum 12 inch embedment into the recommended bearing materials. If the soils exposed in the excavation bottom are soft or loose, compaction of the soils will be required prior to placing steel or concrete. Compaction of the foundation excavation bottom is typically accomplished with a compaction wheel or mechanical whacker and must be observed and approved by a Geocon representative.

8.4.10 Utility trenches should be properly backfilled in accordance with the requirements of the Green Book (latest edition). The pipe should be bedded with clean sands (Sand Equivalent greater than 30) to a depth of at least 1 foot over the pipe, and the bedding material must be inspected and approved in writing by the Geotechnical Engineer (a representative of Geocon). The use of gravel is not acceptable unless used in conjunction with filter fabric to prevent the gravel from having direct contact with soil. The remainder of the trench backfill may be derived from onsite soil or approved import soil, compacted as necessary, until the required compaction is obtained. The use of minimum 2-sack slurry is also acceptable as backfill. Prior to placing any bedding materials or pipes, the excavation bottom must be observed and approved in writing by the Geotechnical Engineer (a representative of Geocon).

8.4.11 All imported fill shall be observed, tested, and approved by Geocon West, Inc. prior to bringing soil to the site. Rocks larger than 6 inches in diameter shall not be used in the fill. If necessary, import soils used as structural fill should have an expansion index less than 20 and corrosivity properties that are equally or less detrimental to that of the existing onsite soils (see Appendix C). Import soils placed in the building area should be placed uniformly across the building pad or in a manner that is approved by the Geotechnical Engineer (a representative of Geocon).

8.4.12 All trench and foundation excavation bottoms must be observed and approved in writing by the Geotechnical Engineer (a representative of Geocon), prior to placing bedding materials, fill, steel, gravel, or concrete.

8.5 Shrinkage

8.5.1 Shrinkage results when a volume of material removed at one density is compacted to a higher density. A shrinkage factor of up to 25 percent should be anticipated when excavating and compacting the upper five feet of existing earth materials on the site to an average relative compaction of 92 percent.

7.4.2 If import soils will be utilized in the building pad, the soils must be placed uniformly and at equal thickness at the direction of the Geotechnical Engineer (a representative of Geocon West, Inc.). Soils can be borrowed from non-building pad areas and later replaced with imported soils.

8.6 Conventional Foundation Design

8.6.1 Subsequent to the recommended grading, a conventional shallow spread foundation system may be utilized for support of the proposed structure provided foundations derive support in newly placed engineered fill. Foundations should be underlain by a minimum of 3 feet of newly placed engineered fill.

8.6.2 Continuous footings may be designed for an allowable bearing capacity of 2,000 pounds per square foot (psf), and should be a minimum of 12 inches in width, 18 inches in depth below the lowest adjacent grade, and 12 inches into the recommended bearing material.

8.6.3 Isolated spread foundations may be designed for an allowable bearing capacity of 2,200 psf, and should be a minimum of 24 inches in width, 18 inches in depth below the lowest adjacent grade, and 12 inches into the recommended bearing material.

8.6.4 The allowable soil bearing pressure above may be increased by 300 psf and 500 psf for each additional foot of foundation width and depth, respectively, up to a maximum allowable soil bearing pressure of 3,500 psf.

8.6.5 The allowable bearing pressures may be increased by one-third for transient loads due to wind or seismic forces.

8.6.6 If depth increases are utilized for the perimeter foundations, this office should be provided a copy of the final construction plans so that the excavation recommendations presented herein could be properly reviewed and revised if necessary. Additional grading should be conducted as-needed in order to maintain the required 3-foot thick blanket of engineered fill below proposed foundations.

8.6.7 Continuous footings should be reinforced with four No. 4 steel reinforcing bars, two placed near the top of the footing and two near the bottom. Reinforcement for spread footings should be designed by the project structural engineer.

8.6.8 The above foundation dimensions and minimum reinforcement recommendations are based on soil conditions and building code requirements only, and are not intended to be used in lieu of those required for structural purposes.

8.6.9 No special subgrade presaturation is required prior to placement of concrete. However, the slab and foundation subgrade should be sprinkled as necessary; to maintain a moist condition as would be expected in any concrete placement.

8.6.10 Foundation excavations should be observed and approved in writing by the Geotechnical Engineer (a representative of Geocon West, Inc.), prior to the placement of reinforcing steel and concrete to verify that the excavations and exposed soil conditions are consistent with those anticipated. If unanticipated soil conditions are encountered, foundation modifications may be required.

8.6.11 This office should be provided a copy of the final construction plans so that the excavation recommendations presented herein could be properly reviewed and revised if necessary.

8.7 Grade Beam (Waffle-Slab) Foundation System

8.7.1 As an alternative, the proposed structures may also be supported on a reinforced concrete grade beam system. The grade beam foundation system consists of a continuous perimeter reinforced concrete grade beam foundation, which is interconnected with interior grade beams and a concrete slab. The system of grade beams, in conjunction with the slab, provides a stiff foundation system capable of distributing building loads and resisting differential settlements. The grade beams and slab should be poured monolithically where possible.

8.7.2 Continuous grade beam foundations may be designed for a bearing value of 2,000 pounds per square foot (psf), and should be a minimum of 18 inches in width and 18 inches in depth below the lowest adjacent grade. The soil bearing pressure above may be increased by 300 psf and 500 psf for each additional foot of foundation width and depth, respectively, up to a maximum allowable soil bearing pressure of 3,500 psf. The allowable bearing pressure may be increased by up to one-third for transient loads due to wind or seismic forces.

8.7.3 As an alternative, a uniform thickness mat foundation may be utilized with a maximum allowable soil bearing pressure of 3,500 psf.

8.7.4 It is recommended that a modulus of subgrade reaction of 100 pounds per cubic inch (pci) be utilized for the design of the foundation bearing in newly placed engineered fill. This value is a unit value for use with a one-foot square footing. The modulus should be reduced in accordance with the following equation when used with larger foundations:

$$K_R = K\left[\frac{B+1}{2B}\right]^2$$

where: K_R = reduced subgrade modulus
K = unit subgrade modulus
B = foundation width (in feet)

8.7.5 Unless specifically designed by the project structural engineer, the concrete slab-on-grade for the grade beam system should be a minimum of 5-inches thick with minimum slab reinforcement of No. 4 steel reinforcing bars placed 16 inches on center in both horizontal directions. Steel reinforcing should be positioned vertically near the slab midpoint.

8.7.6 The thickness of and reinforcement for the grade beam or mat foundation should be designed by the project structural engineer.

8.7.7 Foundation excavations should be observed by the Geotechnical Engineer (a representative of Geocon West, Inc.), prior to the placement of reinforcing steel and concrete to verify that the excavations and exposed soil conditions are consistent with those anticipated. If unanticipated soil conditions are encountered, foundation modifications may be required.

8.7.8 This office should be provided a copy of the final construction plans so that the excavation recommendations presented herein could be properly reviewed and revised if necessary.

8.8 Foundation Settlement

8.8.1 The enclosed seismically-induced settlement analyses indicate that the alluvial soils could be susceptible to up to 0.22 inches of total settlement as a result of the Design Earthquake peak ground acceleration (⅔PGA_M). The differential settlement at the foundation level is anticipated to be less than ¼ inch over a distance of 20 feet. These settlements are in addition to the static settlements indicated below and must be considered in the structural design.

8.8.2 The maximum expected static settlement for a structure supported on a conventional foundation system deriving support in newly placed engineered fill and designed with a maximum bearing pressure of 3,500 psf is estimated to be less than 1 inches and occur below the heaviest loaded structural element. Settlement of the foundation system is expected to occur on initial application of loading. Differential settlement is not expected to exceed ½ inch over a distance of 20 feet. Based on seismic considerations, the proposed structures supported on a conventional foundation system should be designed for a combined static and seismically induced differential settlement of ¾ inch over a distance of 20 feet.

8.8.3 The maximum expected static settlement for a structure supported on a grade beam (waffle-slab) or mat foundation system deriving support in newly placed engineered fill and designed with a maximum bearing pressure of 3,500 psf is estimated to be less than ¾ inch and occur below the heaviest loaded structural element. Settlement of the foundation system is expected to occur on initial application of loading. Differential settlement is not expected to exceed ¼ inch over a distance of 20 feet. Based on seismic considerations, the proposed structures should be designed for a combined static and seismically induced differential settlement of ½ inch over a distance of 20 feet.

8.8.4 Once the design and foundation loading configurations for the proposed structures proceeds to a more finalized plan, the estimated settlements presented in this report should be reviewed and revised, if necessary. If the final foundation loading configurations are greater than the assumed loading conditions, the potential for settlement should be reevaluated by this office.

8.9 Miscellaneous Foundations

8.9.1 Foundations for small outlying structures, such as block walls up to 6 feet in height, planter walls or trash enclosures which will not be tied to existing or proposed structures may be supported on conventional foundations bearing on a minimum of 12 inches of newly placed engineered fill which extends laterally at least 12 inches beyond the foundation area. Where excavation and compaction cannot be performed or is undesirable, such as adjacent to property lines, foundations may derive support in the undisturbed alluvial soils found at and below a depth of 2 feet, and should be deepened as necessary to maintain a minimum 12 inch embedment into the recommended bearing materials.

8.9.2 If the soils exposed in the excavation bottom are soft, compaction of the soft soils will be required prior to placing steel or concrete. Compaction of the foundation excavation bottom is typically accomplished with a compaction wheel or mechanical whacker and must be observed and approved by a Geocon representative. Miscellaneous foundations may be designed for a bearing value of 1,500 psf, and should be a minimum of 12 inches in width, 18 inches in depth below the lowest adjacent grade and 12 inches into the recommended bearing material. The allowable bearing pressure may be increased by up to one-third for transient loads due to wind or seismic forces.

8.9.3 Foundation excavations should be observed and approved in writing by the Geotechnical Engineer (a representative of Geocon West, Inc.), prior to the placement of reinforcing steel and concrete to verify that the excavations and exposed soil conditions are consistent with those anticipated.

8.10 Lateral Design

8.10.1 Resistance to lateral loading may be provided by friction acting at the base of foundations, slabs and by passive earth pressure. An allowable coefficient of friction of 0.4 may be used with the dead load forces in the competent alluvial soils or in properly compacted engineered fill.

8.10.2 Passive earth pressure for the sides of foundations and slabs poured against properly compacted engineered fill or competent alluvial soils may be computed as an equivalent fluid having a density of 260 pcf with a maximum earth pressure of 2,600 psf. When combining passive and friction for lateral resistance, the passive component should be reduced by one-third.

8.11 Concrete Slabs-on-Grade

8.11.1 Concrete slabs-on-grade subject to vehicle loading should be designed in accordance with the recommendations in the *Pavement Recommendations* section of this report (Section 8.12).

8.11.2 Subsequent to the recommended grading, concrete slabs-on-grade for structures utilizing a spread foundation system, not subject to vehicle loading, should be a minimum of 4 inches thick and minimum slab reinforcement should consist of No. 4 steel reinforcing bars placed 16 inches on center in both horizontal directions. Steel reinforcing should be positioned vertically near the slab midpoint.

8.11.3 Slabs-on-grade at the ground surface that may receive moisture-sensitive floor coverings or may be used to store moisture-sensitive materials should be underlain by a vapor retarder placed directly beneath the slab. The vapor retarder and acceptable permeance should be specified by the project architect or developer based on the type of floor covering that will be installed. The vapor retarder design should be consistent with the guidelines presented in Section 9.3 of the American Concrete Institute's (ACI) Guide for Concrete Slabs that Receive Moisture-Sensitive Flooring Materials (ACI 302.2R-06) and should be installed in general conformance with ASTM E 1643 (latest edition) and the manufacturer's recommendations. A minimum thickness of 15 mils extruded polyolefin plastic is recommended; vapor retarders which contain recycled content or woven materials are not recommended. The vapor retarder should have a permeance of less than 0.01 perms demonstrated by testing before and after mandatory conditioning. The vapor retarder should be installed in direct contact with the concrete slab with proper perimeter seal. If the California Green Building Code requirements apply to this project, the vapor retarder should be underlain by 4 inches of clean aggregate. It is important that the vapor retarder be puncture resistant since it will be in direct contact with angular gravel. As an alternative to the clean aggregate suggested in the Green Building Code, it is our opinion that the concrete slab-on-grade may be underlain by a vapor retarder over 4 inches of clean sand (sand equivalent greater than 30), since the sand will serve a capillary break and will minimize the potential for punctures and damage to the vapor barrier.

8.11.4 For seismic design purposes, a coefficient of friction of 0.4 may be utilized between concrete slabs and subgrade soils without a moisture barrier, and 0.15 for slabs underlain by a moisture barrier.

8.11.5 Exterior slabs for walkways or flatwork, not subject to traffic loads, should be at least 4 inches thick and reinforced with No. 3 steel reinforcing bars placed 18 inches on center in both horizontal directions, positioned near the slab midpoint. Prior to construction of slabs, the upper 12 inches of subgrade should be moistened to optimum moisture content and properly compacted to at least 95 percent relative compaction, as determined by ASTM Test Method D 1557 (latest edition). Crack control joints should be spaced at intervals not greater than 10 feet and should be constructed using saw-cuts or other methods as soon as practical following concrete placement. Crack control joints should extend a minimum depth of one-fourth the slab thickness. The project structural engineer should design construction joints as necessary.

8.11.6 The recommendations of this report are intended to reduce the potential for cracking of slabs due to settlement. However, even with the incorporation of the recommendations presented herein, foundations, stucco walls, and slabs-on-grade may exhibit some cracking due to minor soil movement and/or concrete shrinkage. The occurrence of concrete shrinkage cracks is independent of the supporting soil characteristics. Their occurrence may be reduced and/or controlled by limiting the slump of the concrete, proper concrete placement and curing, and by the placement of crack control joints at periodic intervals, in particular, where re-entrant slab corners occur.

8.12 Preliminary Pavement Recommendations

8.12.1 Where new paving is to be placed, it is recommended that all existing fill and soft or unsuitable alluvial materials be excavated and properly recompacted for paving support. The client should be aware that excavation and compaction of all existing artificial fill and soft alluvium in the area of new paving is not required; however, paving constructed over existing unsuitable material may experience increased settlement and/or cracking, and may therefore have a shorter design life and increased maintenance costs. As a minimum, the upper 12 inches of paving subgrade should be scarified, moisture conditioned to optimum moisture content, and properly compacted to at least 95 percent relative compaction, as determined by ASTM Test Method D 1557 (latest edition).

8.12.2 The following pavement sections are based on an assumed R-Value of 35. Once site grading activities are complete an R-Value should be obtained by laboratory testing to confirm the properties of the soils serving as paving subgrade, prior to placing pavement.

8.12.3 The Traffic Indices listed below are estimates. Geocon does not practice in the field of traffic engineering. The actual Traffic Index for each area should be determined by the project civil engineer. If pavement sections for Traffic Indices other than those listed below are required, Geocon should be contacted to provide additional recommendations. Pavement thicknesses were determined following procedures outlined in the *California Highway Design Manual* (Caltrans). It is anticipated that the majority of traffic will consist of automobile and large truck traffic.

PRELIMINARY PAVEMENT DESIGN SECTIONS

Location	Estimated Traffic Index (TI)	Asphalt Concrete (inches)	Class 2 Aggregate Base (inches)
Automobile Parking And Driveways	4.0	3.0	4.0
Trash Truck & Fire Lanes	7.0	4.0	9.0

8.12.4 Asphalt concrete should conform to Section 203-6 of the "*Standard Specifications for Public Works Construction*" (Green Book). Class 2 aggregate base materials should conform to Section 26-1.02A of the "*Standard Specifications of the State of California, Department of Transportation*" (Caltrans). The use of Crushed Miscellaneous Base in lieu of Class 2 aggregate base is acceptable. Crushed Miscellaneous Base should conform to Section 200-2.4 of the "*Standard Specifications for Public Works Construction*" (Green Book).

8.12.5 Unless specifically designed and evaluated by the project structural engineer, where exterior concrete paving will be utilized for support of vehicles, it is recommended that the concrete be a minimum of 6 inches of concrete reinforced with No. 3 steel reinforcing bars placed 18 inches on center in both horizontal directions. Concrete paving supporting vehicular traffic should be underlain by a minimum of 4 inches of aggregate base and a properly compacted subgrade. The subgrade and base material should be compacted to 95 percent relative compaction as determined by ASTM Test Method D 1557 (latest edition).

8.12.6 The performance of pavements is highly dependent upon providing positive surface drainage away from the edge of pavements. Ponding of water on or adjacent to the pavement will likely result in saturation of the subgrade materials and subsequent cracking, subsidence and pavement distress. If planters are planned adjacent to paving, it is recommended that the perimeter curb be extended at least 12 inches below the bottom of the aggregate base to minimize the introduction of water beneath the paving.

8.13 Retaining Walls Design

8.13.1 The recommendations presented below are generally applicable to the design of rigid concrete or masonry retaining walls having a maximum height of 5 feet. In the event that walls significantly higher than 5 feet are planned, Geocon should be contacted for additional recommendations.

8.13.2 Retaining wall foundations may be designed in accordance with the recommendations provided in the *Conventional Foundation Design* sections of this report (see Section 8.6).

8.13.3 Retaining walls with a level backfill surface that are not restrained at the top should be designed utilizing a triangular distribution of pressure (active pressure) of 30 pcf.

8.13.4 Restrained walls are those that are not allowed to rotate more than 0.001H (where H equals the height of the retaining portion of the wall in feet) at the top of the wall. Where walls are restrained from movement at the top, walls may be designed utilizing a triangular distribution of pressure (at-rest pressure) of 50 pcf.

8.13.5 The wall pressures provided above assume that the proposed retaining walls will support relatively undisturbed alluvial soils. If sloping techniques are to be utilized for construction of proposed walls, which would result in a wedge of engineered fill behind the retaining walls, revised earth pressures may be required. This should be evaluated once the use of sloping measures is established and once the geotechnical characteristics of the engineered backfill soils can be further evaluated.

8.13.6 The wall pressures provided above assume that the retaining wall will be properly drained preventing the buildup of hydrostatic pressure. If retaining wall drainage is not implemented, the equivalent fluid pressure to be used in design of undrained walls is 90 pcf. The value includes hydrostatic pressures plus buoyant lateral earth pressures.

8.13.7 Additional active pressure should be added for a surcharge condition due to sloping ground, vehicular traffic or adjacent structures and should be designed for each condition as the project progresses. Once the design becomes more finalized, an addendum letter can be prepared revising recommendations and addressing specific surcharge conditions throughout the project, if necessary.

8.14 Retaining Wall Drainage

8.14.1 Retaining walls should be provided with a drainage system extended at least two-thirds the height of the wall. At the base of the drain system, a subdrain covered with a minimum of 12 inches of gravel should be installed, and a compacted fill blanket or other seal placed at the surface (see Figure 11). The clean bottom and subdrain pipe, behind a retaining wall, should be observed by the Geotechnical Engineer (a representative of Geocon), prior to placement of gravel or compacting backfill.

8.14.2 As an alternative, a plastic drainage composite such as Miradrain or equivalent may be installed in continuous, 4-foot wide columns along the entire back face of the wall, at 8 feet on center. The top of these drainage composite columns should terminate approximately 18 inches below the ground surface, where either hardscape or a minimum of 18 inches of relatively cohesive material should be placed as a cap (see Figure 12). These vertical columns of drainage material would then be connected at the bottom of the wall to a collection panel or a 1-cubic-foot rock pocket drained by a 4-inch subdrain pipe.

8.14.3 Subdrainage pipes at the base of the retaining wall drainage system should outlet to an acceptable location via controlled drainage structures. Drainage should not be allowed to flow uncontrolled over descending slopes.

8.14.4 Moisture affecting below grade walls is one of the most common post-construction complaints. Poorly applied or omitted waterproofing can lead to efflorescence or standing water. Particular care should be taken in the design and installation of waterproofing to avoid moisture problems, or actual water seepage into the structure through any normal shrinkage cracks which may develop in the concrete walls, floor slab, foundations and/or construction joints. The design and inspection of the waterproofing is not the responsibility of the geotechnical engineer. A waterproofing consultant should be retained in order to recommend a product or method, which would provide protection to subterranean walls, floor slabs and foundations.

8.15 Temporary Excavations

8.15.1 Excavations on the order of 6 feet in height may be required during grading operations. The excavations are expected to expose artificial fill and alluvial soils, which are suitable for vertical excavations up to 5 feet in height where loose soils or caving sands are not present, and where not surcharged by adjacent traffic or structures.

8.15.2 Vertical excavations greater than 5 feet or where surcharged by existing structures will require sloping or shoring measures in order to provide a stable excavation. Where sufficient space is available, temporary unsurcharged slopes may be sloped back at a uniform 1:1 slope gradient or flatter up to a maximum height of 8 feet. A uniform slope does not have a vertical portion. It is anticipated that sufficient space is available to complete the required earthwork for this project using sloping measures. If necessary, shoring and/or alternative temporary excavation recommendations can be provided in an addendum.

8.15.3 Where temporary construction slopes are utilized, the top of the slope should be barricaded to prevent vehicles and storage loads at the top of the slope within a horizontal distance equal to the height of the slope. If the temporary construction slopes are to be maintained during the rainy season, berms are suggested along the tops of the slopes where necessary to prevent runoff water from entering the excavation and eroding the slope faces. Geocon personnel should inspect the soils exposed in the cut slopes during excavation so that modifications of the slopes can be made if variations in the soil conditions occur. All excavations should be stabilized within 30 days of initial excavation.

8.16 Stormwater Infiltration

8.16.1 Percolation testing was previously performed at the site by others (see *Background Review*, Section 2.0). The prior testing was reported to have been performed in general accordance with the County of Los Angeles Department of Public Works (LACDPW) guidelines. The locations of the prior percolation tests are indicated on the Site Plan (Figure 2). The percolation rate are provided in the following table:

Boring	Infiltration Depth (ft.)	Percolation Rate (in / hour)
P-1	7-8	2.7
P-2	2-3	2.2
P-3	1.8-2.8	3.7

8.16.2 The results of the percolation testing indicate that the soils at depths in the above table are conductive to infiltration. Once the location of the stormwater infiltration system has been determined, it is recommended that additional borings and laboratory testing be conducted to confirm that the soils are suitable for infiltration of stormwater and would not induce excessive hydro-consolidation, create a perched groundwater condition, affect soil structure interaction of existing or proposed foundations due to expansive soils, saturate soils supported by existing or proposed retaining walls, or increase the potential for liquefaction.

8.16.3 The infiltration system should be located such that the closest distance between an adjacent foundation is at least 10 feet in all directions from the zone of saturation. The zone of saturation may be assumed to project downward from the discharge of the infiltration facility at a gradient of 1:1. Additional property line or foundation setbacks may be required by the governing jurisdiction and should be incorporated into the stormwater infiltration system design as necessary.

8.16.4 Subsequent to the placement of the infiltration system, it is acceptable to backfill the resulting void space between the excavation sidewalls and the infiltration system with minimum two-sack slurry provided the slurry is not placed in the infiltration zone. It is recommended that pea gravel be utilized adjacent to the infiltration zone so communication of water to the soil is not hindered.

8.16.5 Due to the preliminary nature of the project at this time, the type of stormwater infiltration system and location of the stormwater infiltration systems has not yet been determined. The design drawings should be reviewed and approved by the Geotechnical Engineer. The installation of the stormwater infiltration system should be observed and approved by the Geotechnical Engineer (a representative of Geocon).

8.17 Surface Drainage

8.17.1 Proper surface drainage is critical to the future performance of the project. Uncontrolled infiltration of irrigation excess and storm runoff into the soils can adversely affect the performance of the planned improvements. Saturation of a soil can cause it to lose internal shear strength and increase its compressibility, resulting in a change in the original designed engineering properties. Proper drainage should be maintained at all times.

8.17.2 All site drainage should be collected and controlled in non-erosive drainage devices. Drainage should not be allowed to pond anywhere on the site, and especially not against any foundation or retaining wall. The site should be graded and maintained such that surface drainage is directed away from structures in accordance with 2013 CBC 1804.3 or other applicable standards. In addition, drainage should not be allowed to flow uncontrolled over any descending slope. Discharge from downspouts, roof drains and scuppers are not recommended onto unprotected soils within five feet of the building perimeter. Planters which are located adjacent to foundations should be sealed to prevent moisture intrusion into the soils providing foundation support. Landscape irrigation is not recommended within 5 feet of the building perimeter footings except when enclosed in protected planters.

8.17.3 Positive site drainage should be provided away from structures, pavement, and the tops of slopes to swales or other controlled drainage structures. The building pad and pavement areas should be fine graded such that water is not allowed to pond.

8.17.4 Landscaping planters immediately adjacent to paved areas are not recommended due to the potential for surface or irrigation water to infiltrate the pavement's subgrade and base course. Either a subdrain, which collects excess irrigation water and transmits it to drainage structures, or an impervious above-grade planter boxes should be used. In addition, where landscaping is planned adjacent to the pavement, it is recommended that consideration be given to providing a cutoff wall along the edge of the pavement that extends at least 12 inches below the base material.

8.18 Plan Review

8.18.1 Grading and foundation plans should be reviewed by the Geotechnical Engineer (a representative of Geocon West, Inc.), prior to finalization to verify that the plans have been prepared in substantial conformance with the recommendations of this report and to provide additional analyses or recommendations.

LIMITATIONS AND UNIFORMITY OF CONDITIONS

1. The recommendations of this report pertain only to the site investigated and are based upon the assumption that the soil conditions do not deviate from those disclosed in the investigation. If any variations or undesirable conditions are encountered during construction, or if the proposed construction will differ from that anticipated herein, Geocon West, Inc. should be notified so that supplemental recommendations can be given. The evaluation or identification of the potential presence of hazardous or corrosive materials was not part of the scope of services provided by Geocon West, Inc.

2. This report is issued with the understanding that it is the responsibility of the owner, or of his representative, to ensure that the information and recommendations contained herein are brought to the attention of the architect and engineer for the project and incorporated into the plans, and the necessary steps are taken to see that the contractor and subcontractors carry out such recommendations in the field.

3. The findings of this report are valid as of the date of this report. However, changes in the conditions of a property can occur with the passage of time, whether they are due to natural processes or the works of man on this or adjacent properties. In addition, changes in applicable or appropriate standards may occur, whether they result from legislation or the broadening of knowledge. Accordingly, the findings of this report may be invalidated wholly or partially by changes outside our control. Therefore, this report is subject to review and should not be relied upon after a period of three years.

4. The firm that performed the geotechnical investigation for the project should be retained to provide testing and observation services during construction to provide continuity of geotechnical interpretation and to check that the recommendations presented for geotechnical aspects of site development are incorporated during site grading, construction of improvements, and excavation of foundations. If another geotechnical firm is selected to perform the testing and observation services during construction operations, that firm should prepare a letter indicating their intent to assume the responsibilities of project geotechnical engineer of record. A copy of the letter should be provided to the regulatory agency for their records. In addition, that firm should provide revised recommendations concerning the geotechnical aspects of the proposed development, or a written acknowledgement of their concurrence with the recommendations presented in our report. They should also perform additional analyses deemed necessary to assume the role of Geotechnical Engineer of Record.

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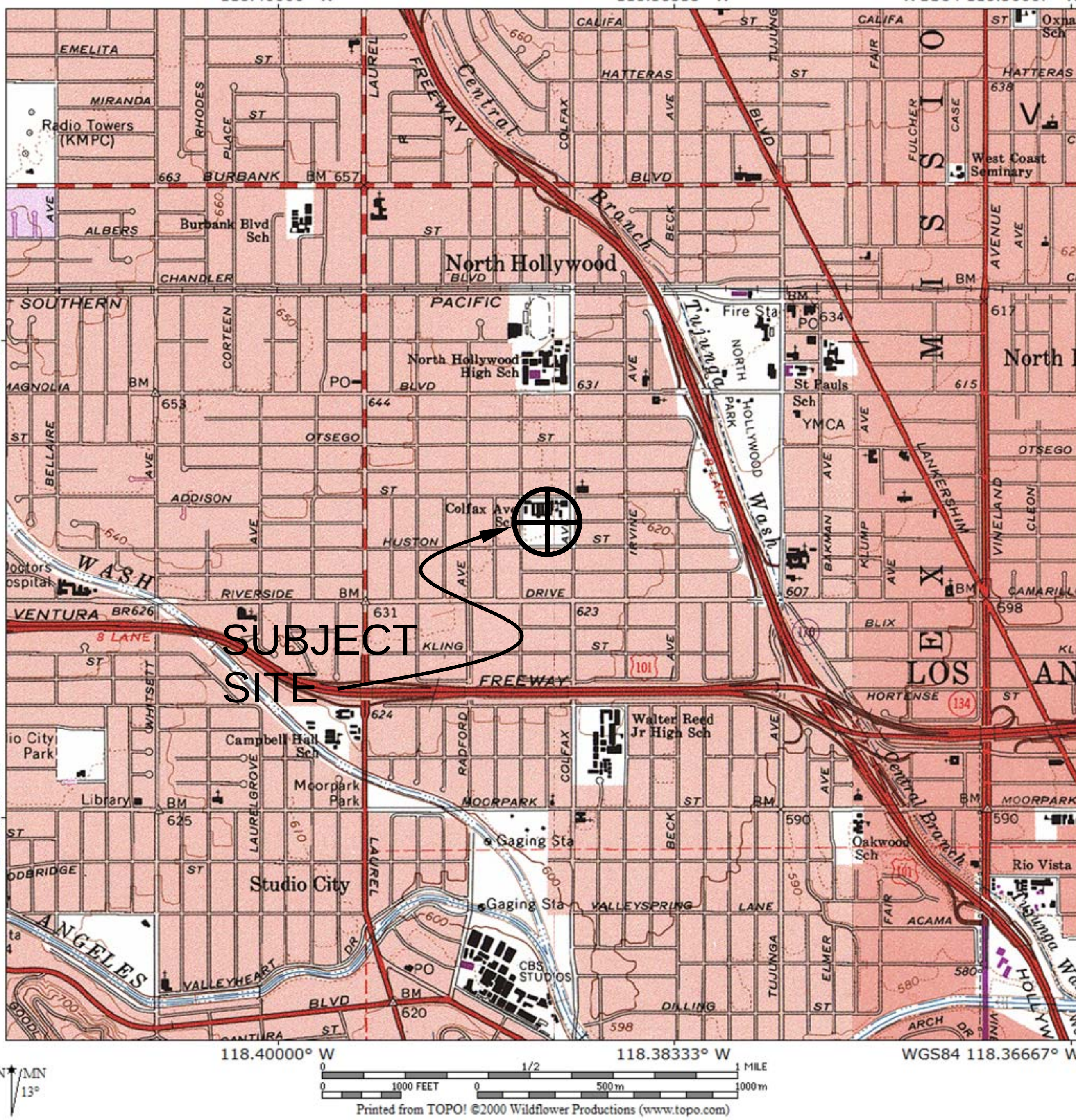

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LONGTITUDE: -118.3887

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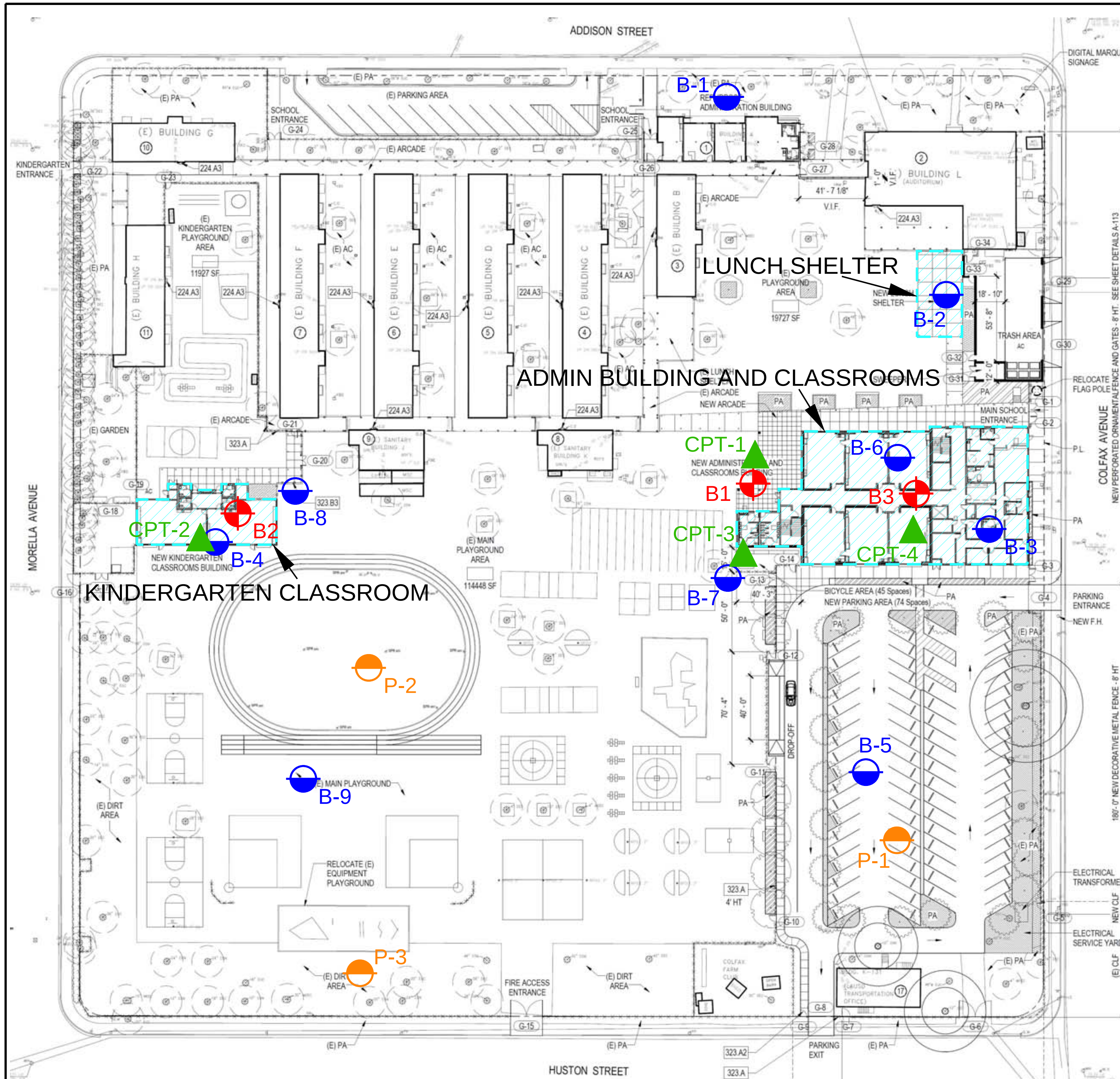
VICINITY MAP

COLFAX CHARTER ELEMENTARY SCHOOL
CLASSROOM ADDITION PROJECT
11724 ADDISON STREET
LOS ANGELES, CALIFORNIA

DRAFTED BY: RA	CHECKED BY: SFK	AUG 2016	PROJECT NO. A8326-06-69A	FIG. 1



LEGEND

- B3 — Approximate Location of Boring (Geocon, 2016)
- B-9 — Approximate Location of Boring (Ninyo & Moore, 2015-2016)
- P-3 — Approximate Location of Perc Test (Ninyo & Moore, 2016)
- CPT-4 — Approximate Location of CPT Sounding (Ninyo & Moore, 2016)
- Approximate Location of Proposed Structures

0 80' 160'

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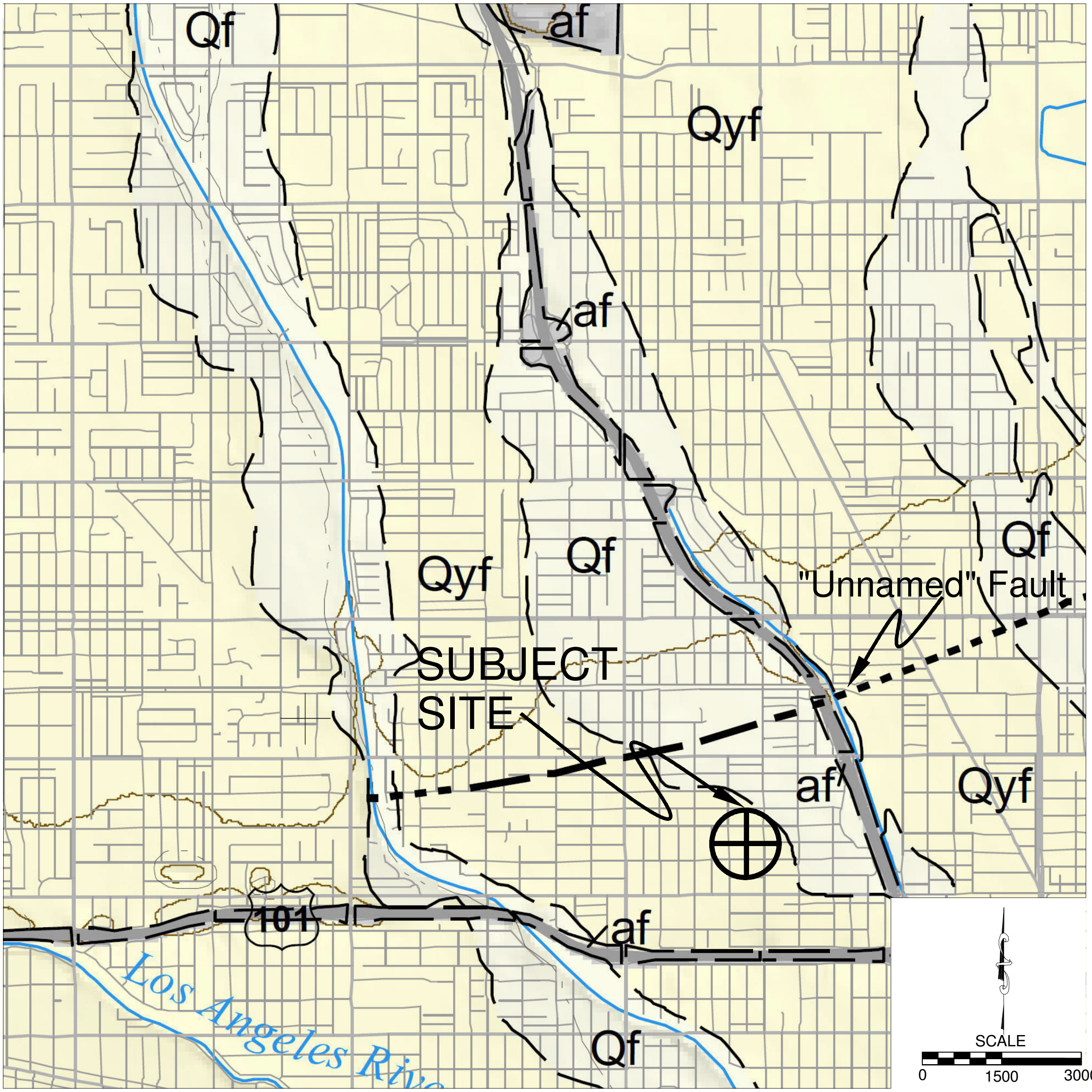
Drafted by: JMT	Checked by: NDB

SITE PLAN

COLFAX CHARTER ELEMENTARY SCHOOL
CLASSROOM ADDITION PROJECT
11724 ADDISON STREET
LOS ANGELES, CALIFORNIA

AUG 2016	PROJECT NO. A8326-06-69A	FIG. 2

REFERENCE: California Geological Survey, 2010, Geologic Compilation of Quaternary Surficial Deposits in Southern California, Los Angeles 30' X 60' Quadrangle



LATITUDE: 34.1604 LONGTITUDE: -118.3887

af - ARTIFICIAL FILL - deposits of fill resulting from human construction, mining, or quarrying activities
Qf - ALLUVIAL FAN DEPOSITS - unconsolidated boulders, cobbles, gravel, sand, and silt
Qyf - YOUNG ALLUVIAL FAN DEPOSITS - unconsolidated to slightly consolidated boulder, cobble, gravel, sand, and silt
— – FAULT (dashed where approximate; dotted where concealed)

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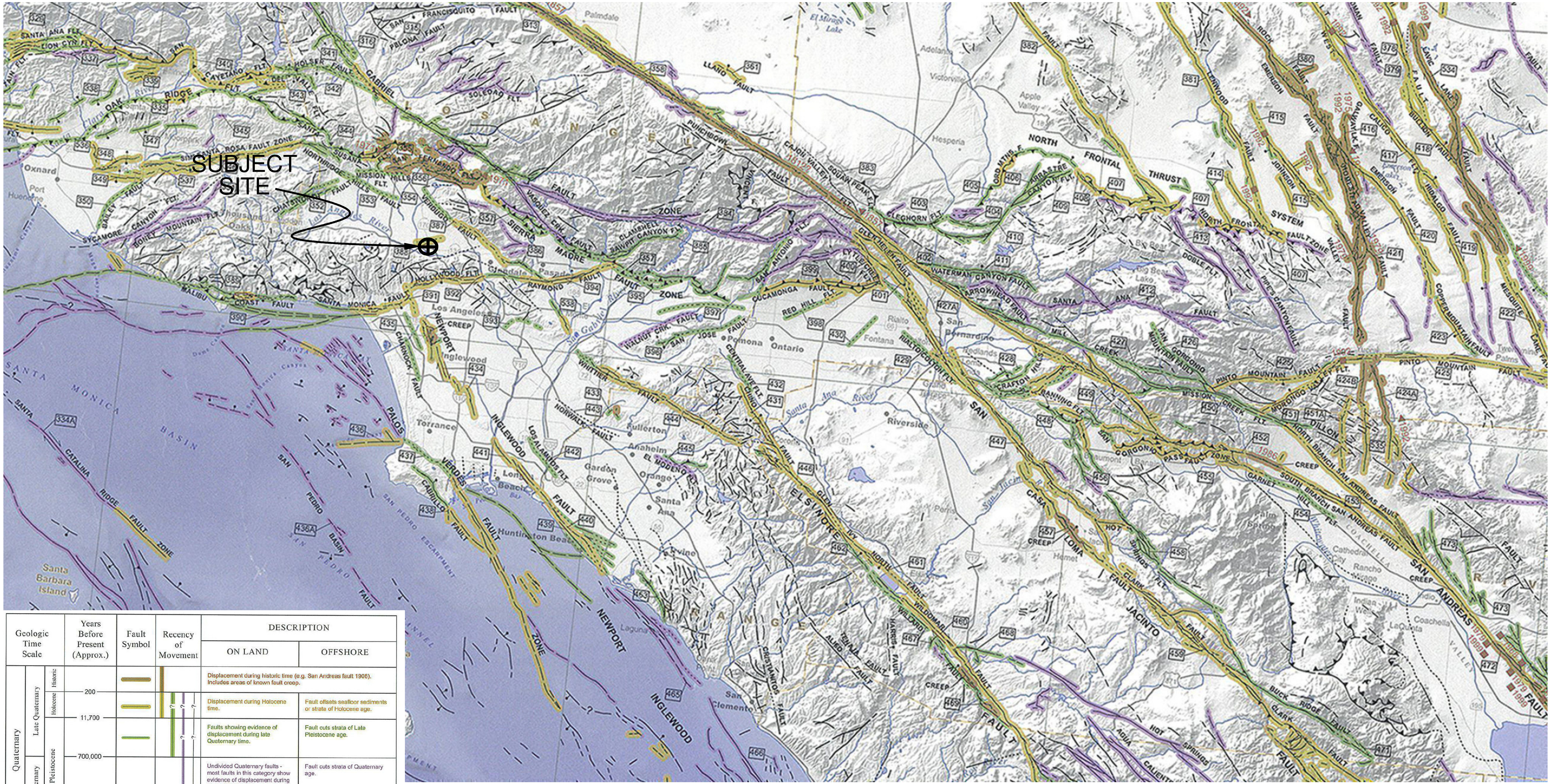
DRAFTED BY: RMA	CHECKED BY: SFK

LOCAL GEOLOGIC MAP

COLFAX CHARTER ELEMENTARY SCHOOL
CLASSROOM ADDITION PROJECT
11724 ADDISON STREET
LOS ANGELES, CALIFORNIA

AUG 2016	PROJECT NO. A8326-06-69A	FIG. 3

Reference: Jennings, C.W. and Bryant, W. A., 2010, Fault Activity Map of California, California Geological Survey Geologic Data Map No. 6.



Geologic Time Scale			Years Before Present (Approx.)	Fault Symbol	Recency of Movement	DESCRIPTION: ON LAND	DESCRIPTION: OFFSHORE
Quaternary	Late Quaternary	Historic				Displacement during historic time (e.g. San Andreas fault 1906). Includes areas of known fault creep.	
		Holocene	200		? ? ?	Displacement during Holocene time.	Fault offsets seafloor sediments or strata of Holocene age.
		Pleistocene	11,700		? ?	Faults showing evidence of displacement during late Quaternary time.	Fault cuts strata of Late Pleistocene age.
	Early Quaternary		700,000		?	Undivided Quaternary faults - most faults in this category show evidence of displacement during the last 1,600,000 years; possible exceptions are faults which displace rocks of undifferentiated Plio-Pleistocene age.	Fault cuts strata of Quaternary age.
Pre-Quaternary			1,600,000* – 4.5 billion (Age of Earth)			Faults without recognized Quaternary displacement or showing evidence of no displacement during Quaternary time. Not necessarily inactive.	Fault cuts strata of Pliocene or older age.

* Quaternary now recognized as extending to 2.6 Ma (Walker and Geissman, 2009). Quaternary faults in this map were established using the previous 1.6 Ma criterion.

0 12 24 Miles

LATITUDE: 34.1604
LONGTITUDE: -118.3887

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REGIONAL FAULT MAP

COLFAX CHARTER ELEMENTARY SCHOOL
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DRAFTED BY: RA	CHECKED BY: SFK	AUG 2016	PROJECT NO. A8326-06-69A	FIG. 4

Reference: Toppozada, T., Branum, D., Petersen, M., Hallstrom, C., Cramer, C., and Reichle, M., 2000, Epicenters and Areas Damaged by M≥5 California Earthquakes, 1800 - 1999, California Geological Survey, Map Sheet 49.

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DRAFTED BY: RA | CHECKED BY: SFK

REGIONAL SEISMICITY MAP

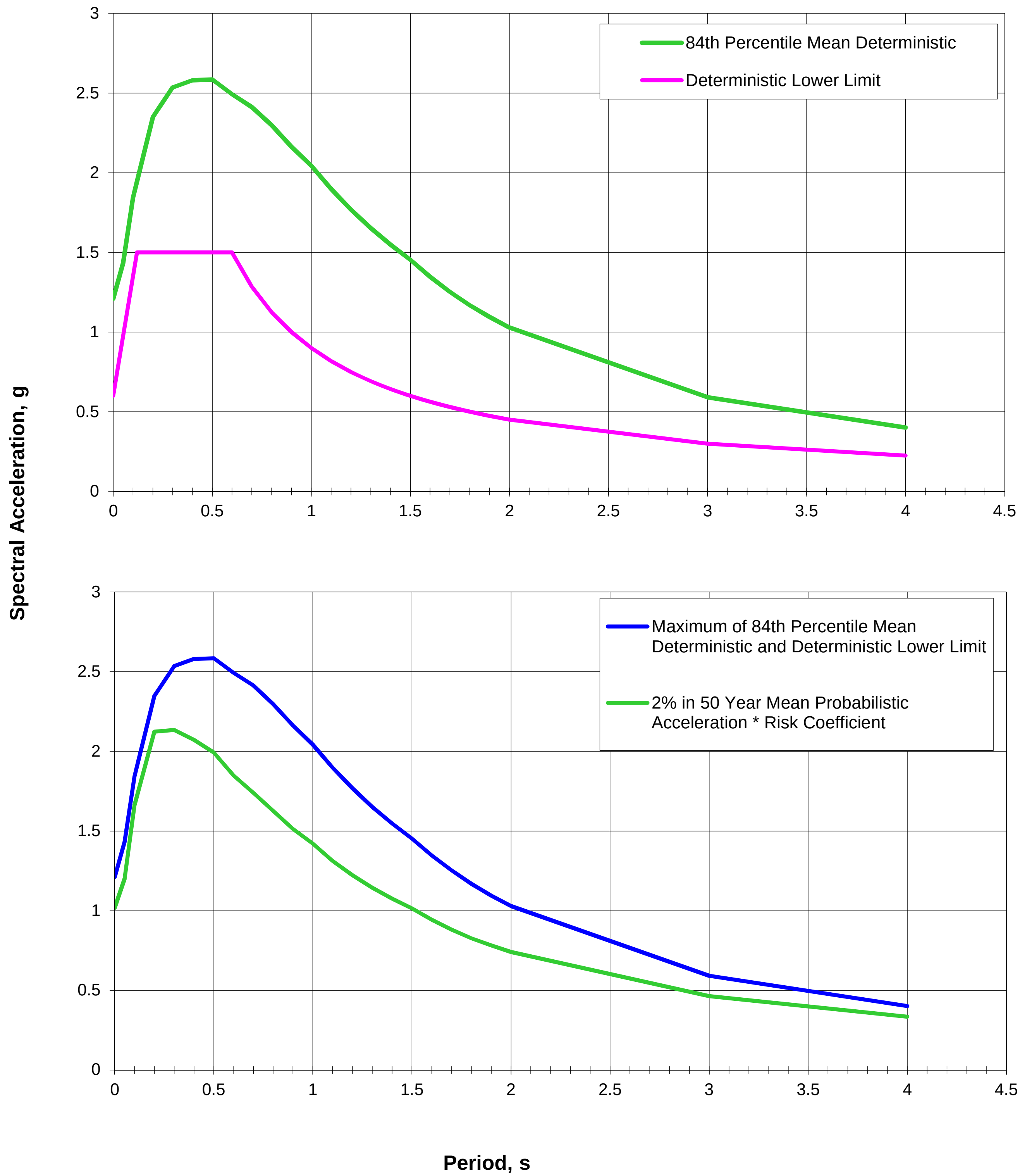
COLFAX CHARTER ELEMENTARY SCHOOL

CLASSROOM ADDITION PROJECT

11724 ADDISON STREET

LOS ANGELES, CALIFORNIA

AUG 2016 | PROJECT NO. A8326-06-69A | FIG. 5



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JMT

DESIGN RESPONSE SPECTRUM

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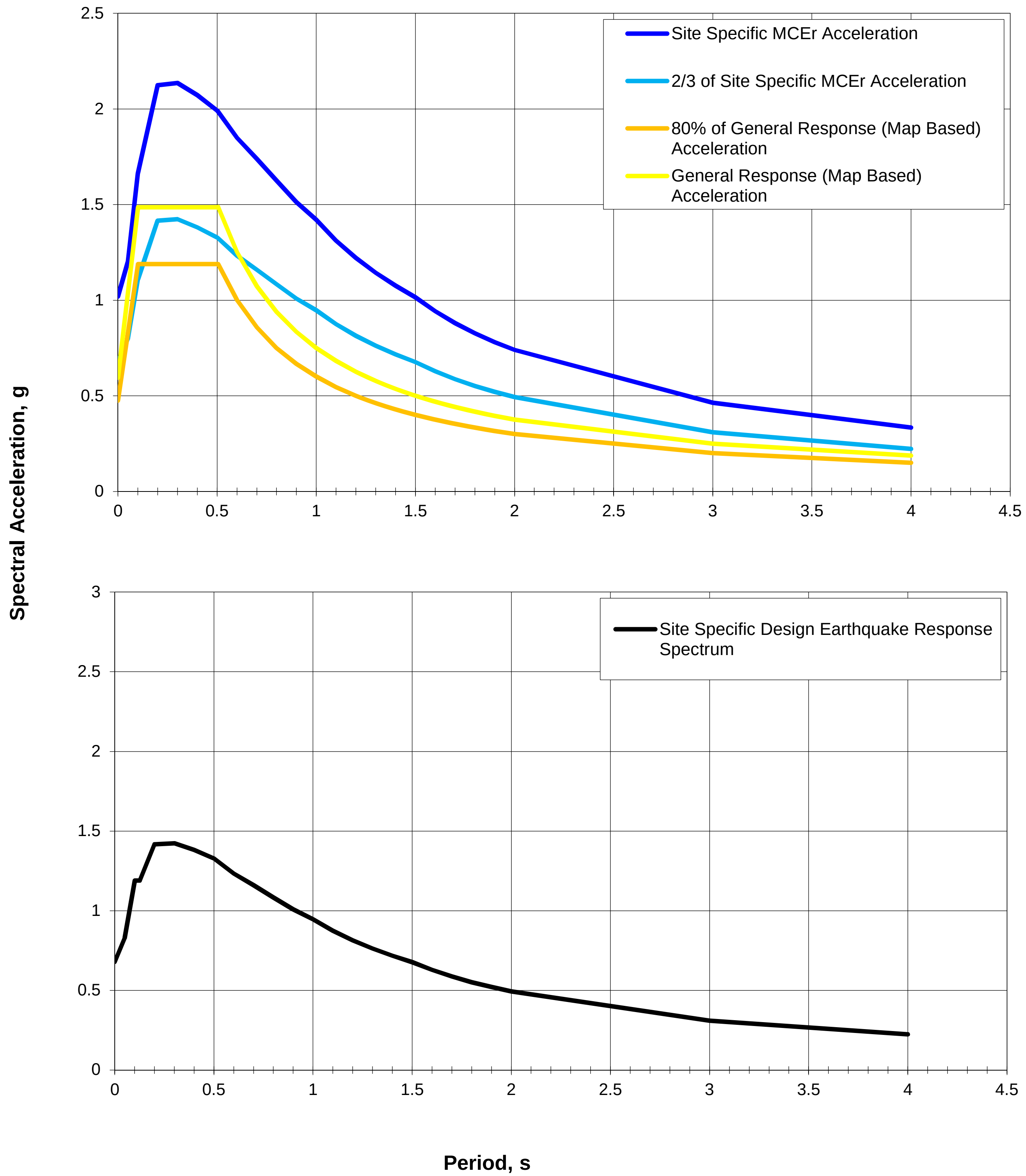
CLASSROOM ADDITION PROJECT
11724 ADDISON STREET
LOS ANGELES, CALIFORNIA

AUG 2016 | PROJECT NO. A8326-06-69A | FIG. 6



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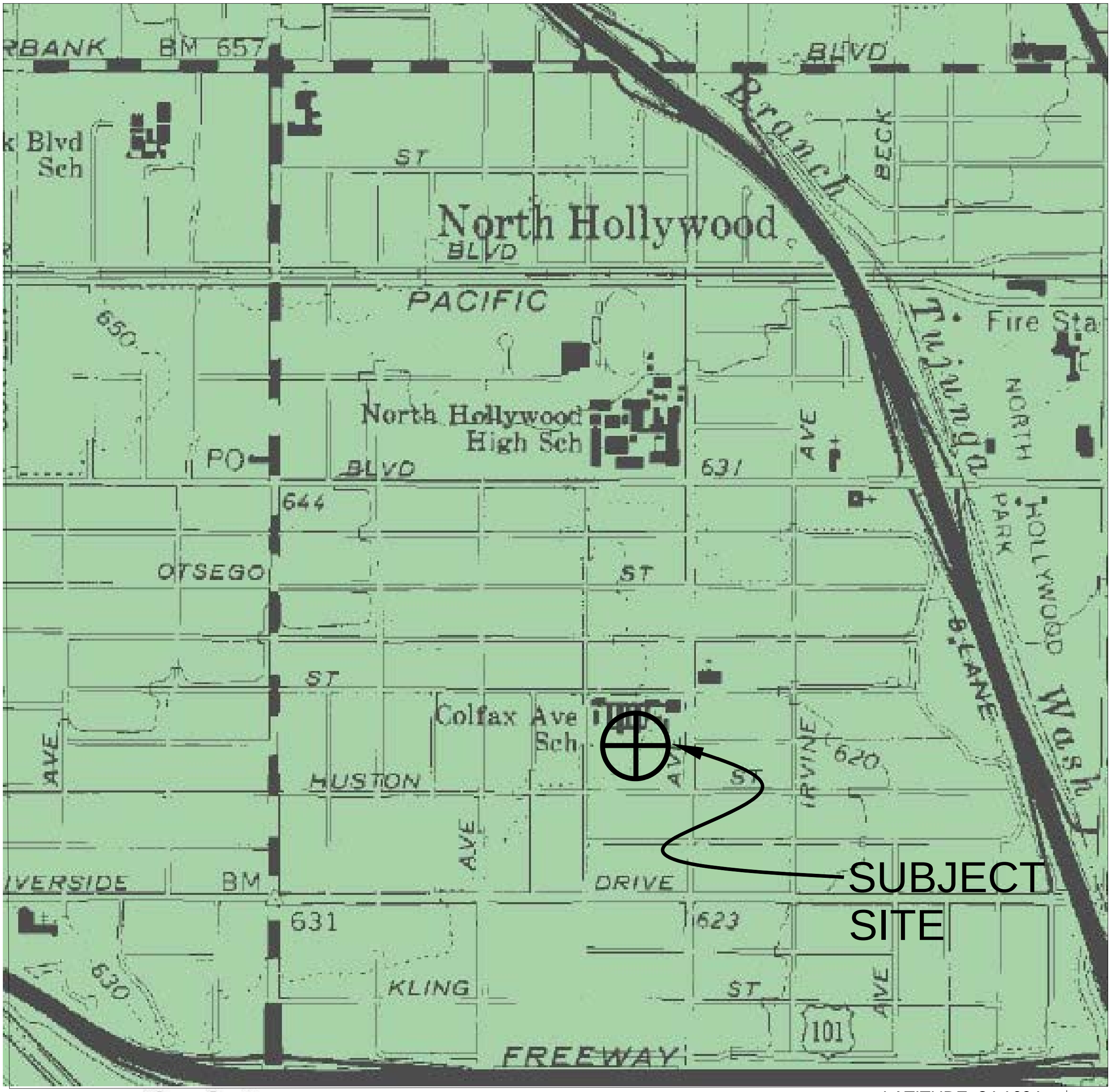
JMT		

DESIGN RESPONSE SPECTRUM

COLFAX CHARTER ELEMNETARY SCHOOL
CLASSROOM ADDITION PROJECT
11724 ADDISON STREET
LOS ANGELES, CALIFORNIA

AUG 2016	PROJECT NO. A8326-06-69A	FIG. 7



Liquefaction

Areas where historic occurrence of liquefaction, or local geological, geotechnical and groundwater conditions indicate a potential for permanent ground displacements such that mitigation as defined in Public Resources Code Section 2693(c) would be required.

LATITUDE: 34.1604
LONGTITUDE: -118.3887

REFERENCE: C.D.M.G. STATE OF CALIFORNIA SEISMIC HAZARD ZONE MAP, VAN NUYS QUADRANGLE, CA OFFICIAL MAP (February 1, 1998)

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SEISMIC HAZARD ZONE MAP

COLFAX CHARTER ELEMENTARY SCHOOL
CLASSROOM ADDITION PROJECT
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LOS ANGELES, CALIFORNIA

DRAFTED BY: RMA	CHECKED BY: SFK	AUG 2016	PROJECT NO. A8326-06-69A	FIG. 8

GeoLogismiki
Geotechnical Engineers
Merarhias 56
http://www.geologismiki.gr

Project title : Colfax Charter Elementary School - DE Analysis

Location : A8326-06-69A

Overall vertical settlements report

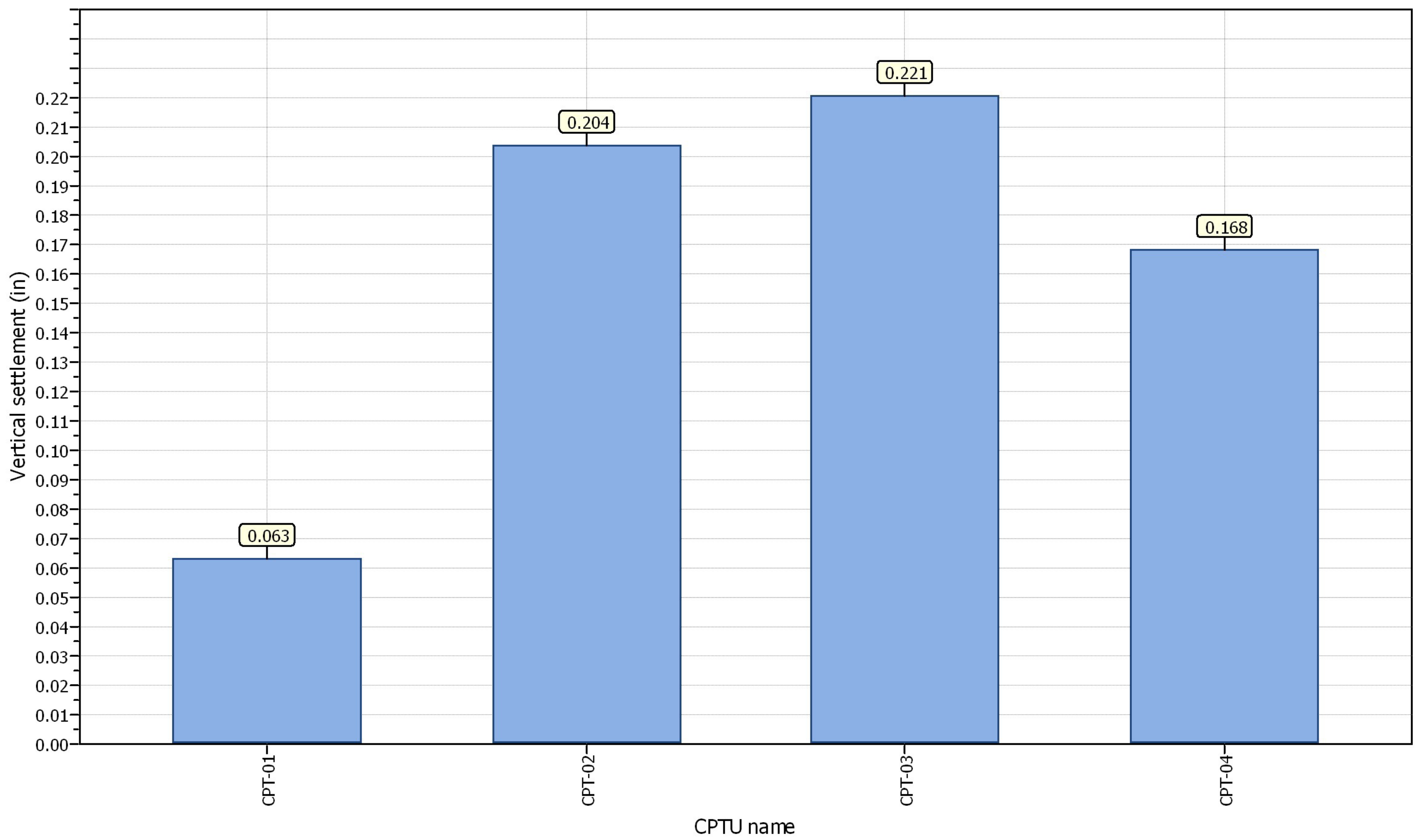


Figure 9

Project title : Colfax Charter Elementary School - MCE Analysis

Location : A8326-06-69A

Overall vertical settlements report

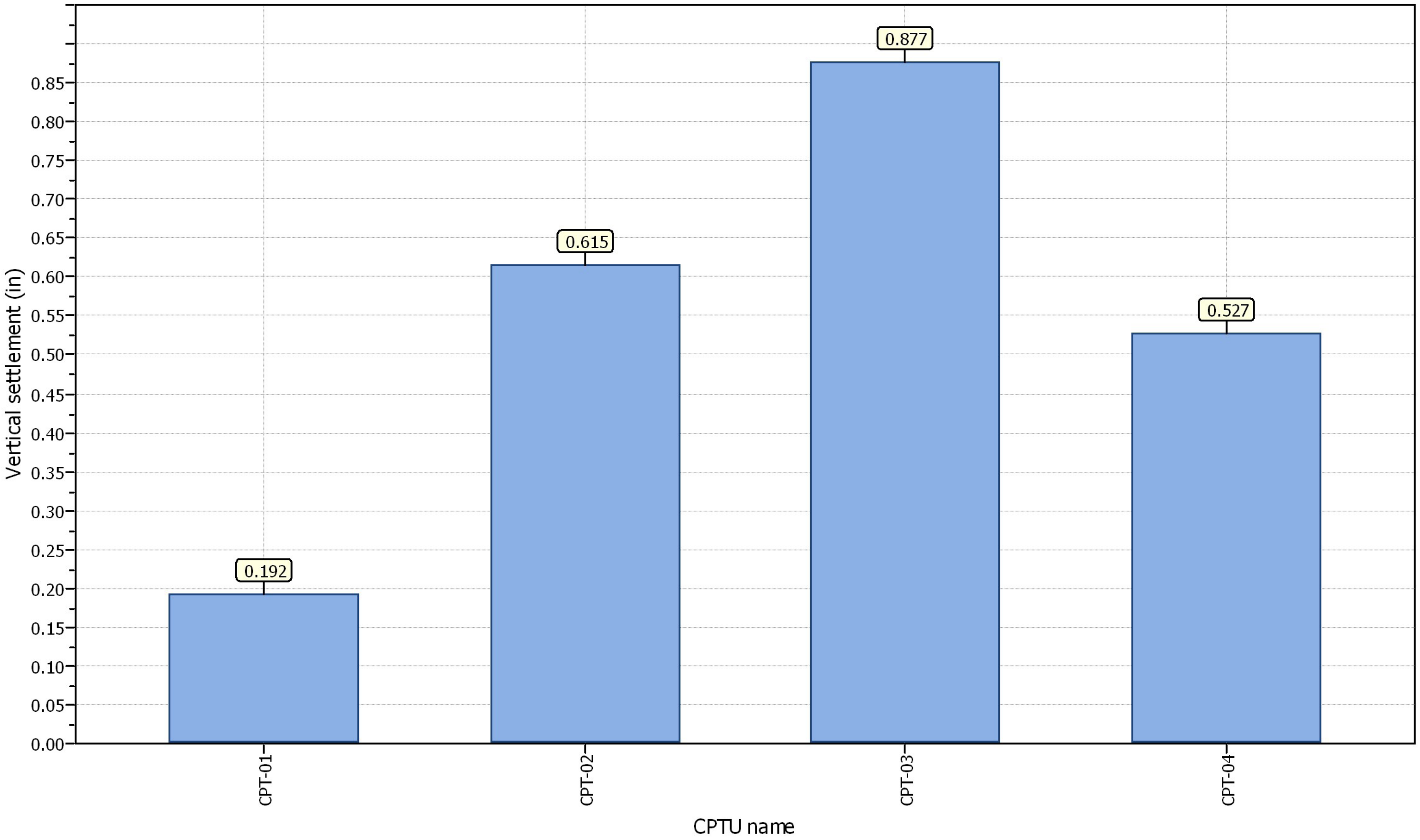
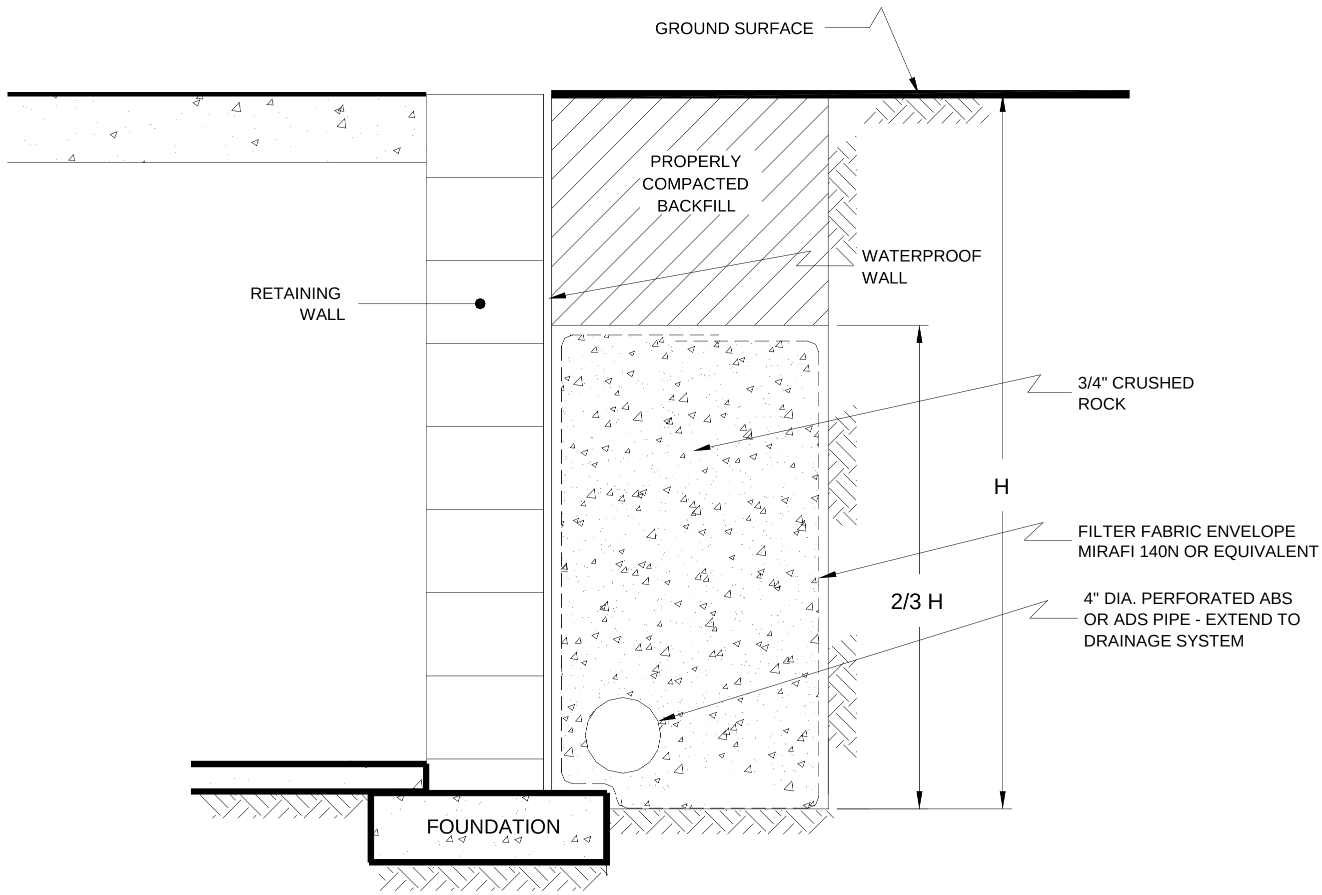


Figure 10



NO SCALE

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RETAINING WALL DRAIN DETAIL

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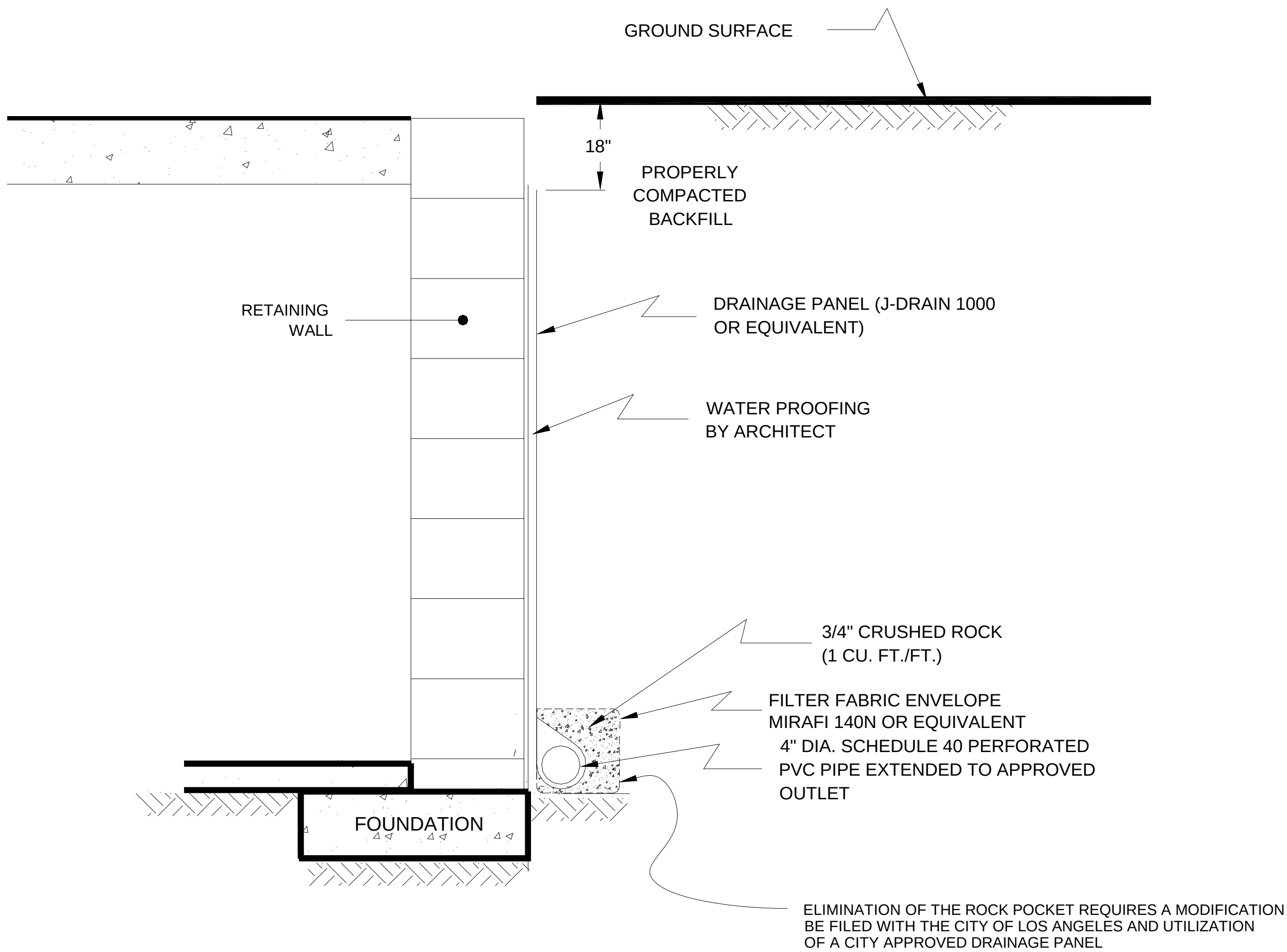
LOS ANGELES, CALIFORNIA

Drafted by: JMT	Checked by: NDB	AUG 2016	PROJECT NO. A8326-06-69A	FIG. 11



NO SCALE

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RETAINING WALL DRAIN DETAIL

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AUG 2016 | PROJECT NO. A8326-06-69A | FIG. 12

APPENDIX A

APPENDIX A

FIELD INVESTIGATION

The site was explored on August 5, 2016 by excavating three 8-inch diameter borings utilizing a truck-mounted hollow-stem auger drilling machine. The borings were advanced to depths between 20½ feet and 30½ feet below the existing ground surface. Representative and relatively undisturbed samples were obtained by driving a 3-inch, O. D., California Modified Sampler into the "undisturbed" soil mass with blows from a 140-pound auto-hammer falling 30 inches. The California Modified Sampler was equipped with 1-inch high by 2³/₈-inch diameter brass sampler rings to facilitate soil removal and testing. Bulk samples were also obtained.

The soil conditions encountered in the borings were visually examined, classified and logged in general accordance with the Unified Soil Classification System (USCS). Logs of the borings are presented on Figures A1 through A3. The logs depict the soil and geologic conditions encountered and the depth at which samples were obtained.

PROJECT NO. A8326-06-69A

BORING 1

ELEV. (MSL.) -- DATE COMPLETED 8/5/16

EQUIPMENT HOLLOW STEM AUGER BY: TL

DEPTH IN FEET	SAMPLE NO.	LITHOLOGY	GROUNDWATER	SOIL CLASS (USCS)	MATERIAL DESCRIPTION	PENETRATION RESISTANCE (BLOWS/FT*)	DRY DENSITY (P.C.F.)	MOISTURE CONTENT (%)
0	BULK 0-5'				**ASPHALT: 2" BASE: 8"**			
					ARTIFICIAL FILL Silty Sand, medium dense, slightly moist, yellowish brown with brown mottles, fine- to medium-grained, trace fine gravel.			
2	B1@2.5'					25	91.9	6.9
4				SP-SM	**ALLUVIUM** Sand with Silt, poorly graded, loose, slightly moist, yellowish brown, fine-grained.			
	B1@5'					13	84.9	5.7
6				SM	Silty Sand, loose, slightly moist, yellowish brown, fine-grained.			
	B1@7.5'					10	103.5	14.5
8				ML	Sandy Silt, firm, slightly moist, brown, fine-grained.			
10	B1@10'					16	107.2	16.8
12				ML	Silt, stiff, slightly moist, brown.			
	B1@12.5'					27	95.3	18.9
14				SM	Silty Sand, medium dense, slightly moist, olive brown with reddish brown mottles, very fine- to fine-grained.			
	B1@15'					24	107.8	10.4
16								
18	B1@17.5'					25	112.8	13.6
20	B1@20'					46	111.3	14.0
22				SP-SM	Sand with Silt, poorly graded, dense, slightly moist, yellowish brown, fine-grained.			
	B1@22.5'					63	117.1	6.4
24				SM	Silty Sand, very dense, moist, olive brown with yellowish brown mottles, fine-grained.			
	B1@25'					50 (5")	111.9	10.8
26								
28								
				ML	Silt, stiff, slightly moist, olive brown.			

Figure A1,
Log of Boring 1, Page 1 of 2

A8326-06-69A BORING LOGS.GPJ

SAMPLE SYMBOLS

- ... SAMPLING UNSUCCESSFUL
- ... STANDARD PENETRATION TEST
- ... DRIVE SAMPLE (UNDISTURBED)
- ... DISTURBED OR BAG SAMPLE
- ... CHUNK SAMPLE
- ... WATER TABLE OR SEEPAGE

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

GEOCON

PROJECT NO. A8326-06-69A

DEPTH IN FEET	SAMPLE NO.	LITHOLOGY	GROUNDWATER	SOIL CLASS (USCS)	**BORING 1** ELEV. (MSL.) **--** DATE COMPLETED **8/5/16** EQUIPMENT **HOLLOW STEM AUGER** BY: **TL**	PENETRATION RESISTANCE (BLOWS/FT*)	DRY DENSITY (P.C.F.)	MOISTURE CONTENT (%)
					MATERIAL DESCRIPTION			
30	B1@30'			ML		36	73.5	15.8
					Total depth of boring: 30.5 Fill to 3 feet. No groundwater encountered. Backfilled with soil cuttings and tamped. Asphalt patched. *Penetration resistance for 140-pound hammer falling 30 inches by auto-hammer.			

Figure A1,
Log of Boring 1, Page 2 of 2

A8326-06-69A BORING LOGS.GPJ

SAMPLE SYMBOLS			
	... SAMPLING UNSUCCESSFUL	... STANDARD PENETRATION TEST	... DRIVE SAMPLE (UNDISTURBED)
	... DISTURBED OR BAG SAMPLE	... CHUNK SAMPLE	... WATER TABLE OR SEEPAGE

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

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BORING 2

ELEV. (MSL.) -- DATE COMPLETED 8/5/16

EQUIPMENT HOLLOW STEM AUGER BY: TL

DEPTH IN FEET	SAMPLE NO.	LITHOLOGY	GROUNDWATER	SOIL CLASS (USCS)	MATERIAL DESCRIPTION	PENETRATION RESISTANCE (BLOWS/FT*)	DRY DENSITY (P.C.F.)	MOISTURE CONTENT (%)
0	BULK 0-5'				**ASPHALT: 2" BASE: 5"**			
					ARTIFICIAL FILL Silty Sand, loose, slightly moist, yellowish brown, fine- to medium-grained.			
2	B2@2.5'			SP-SM	**ALLUVIUM** Sand with Silt, poorly graded, loose, slightly moist, yellowish brown, fine-grained.	13	99.0	7.0
4	B2@5'			SP	Sand, poorly graded, loose, slightly moist, pale brown, fine-grained.	16	95.7	7.7
6–8	B2@7.5'					15	93.8	1.1
10	B2@10'				- medium dense, trace coarse gravel	27	91.1	1.2
12	B2@12.5'			SM	Silty Sand, medium dense, slightly moist, yellowish brown with pale brown mottles, fine-grained.	42	109.9	5.5
14	B2@15'				- dense	59	109.6	5.3
16–18	B2@17.5'			ML	Sandy Silt, hard, slightly moist, yellowish brown with olive brown mottles, fine-grained.	68	114.7	3.9
20	B2@19.5'				- light brown	50 (6")	101.2	4.2
22	B2@22'			ML	Silt with Sand, hard, slightly moist, yellowish brown, fine-grained.	50 (5")	105.7	5.0
24	B2@24.5'			ML	Silt, hard, slightly moist, pale brown with yellowish brown mottles.	50 (6")	132.9	3.7
26–28					- pale brown with light brown mottles			

Figure A2,
Log of Boring 2, Page 1 of 2

A8326-06-69A BORING LOGS.GPJ

SAMPLE SYMBOLS
... SAMPLING UNSUCCESSFUL ... STANDARD PENETRATION TEST ... DRIVE SAMPLE (UNDISTURBED)
... DISTURBED OR BAG SAMPLE ... CHUNK SAMPLE ... WATER TABLE OR SEEPAGE

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

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DEPTH IN FEET	SAMPLE NO.	LITHOLOGY	GROUNDWATER	SOIL CLASS (USCS)	BORING 2 ELEV. (MSL.) -- DATE COMPLETED 8/5/16 EQUIPMENT HOLLOW STEM AUGER BY: TL	PENETRATION RESISTANCE (BLOWS/FT*)	DRY DENSITY (P.C.F.)	MOISTURE CONTENT (%)
					MATERIAL DESCRIPTION			
	B2@29.5'				Total depth of boring: 30 feet Fill to 1.5 feet. No groundwater encountered. Backfilled with soil cuttings and tamped. Asphalt patched. *Penetration resistance for 140-pound hammer falling 30 inches by auto-hammer.	50 (6")	95.2	7.6

Figure A2,
Log of Boring 2, Page 2 of 2

A8326-06-69A BORING LOGS.GPJ

SAMPLE SYMBOLS			
	... SAMPLING UNSUCCESSFUL	... STANDARD PENETRATION TEST	... DRIVE SAMPLE (UNDISTURBED)
	... DISTURBED OR BAG SAMPLE	... CHUNK SAMPLE	... WATER TABLE OR SEEPAGE

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

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PROJECT NO. A8326-06-69A

BORING 3

ELEV. (MSL.) -- DATE COMPLETED 8/5/16

EQUIPMENT HOLLOW STEM AUGER BY: TL

DEPTH IN FEET	SAMPLE NO.	SOIL CLASS (USCS)	MATERIAL DESCRIPTION	PENETRATION RESISTANCE (BLOWS/FT*)	DRY DENSITY (P.C.F.)	MOISTURE CONTENT (%)
0	BULK 0-5'		**ASPHALT: 2" BASE: 3"**			
			ARTIFICIAL FILL Silty Sand, loose, slightly moist, brown, fine-grained.			
2			**ALLUVIUM**			
	B3@2.5'	SM	Silty Sand, loose, slightly moist, brown, fine-grained.	12	87.1	22.9
4			- yellowish brown			
	B3@5'			13	99.6	5.5
6			Silt, firm, slightly moist, brown.			
8	B3@7.5'			18	93.9	12.1
10	B3@10'			17	109.5	14.3
12			- stiff, dark yellowish brown			
	B3@12.5'	ML		27	111.3	11.1
14						
	B3@15'			23	101.9	8.0
16			- olive brown with dark yellowish brown mottles			
18	B3@17.5'			33	111.3	9.3
		SM	Silty Sand, medium dense, slightly moist, brown, fine-grained.			
20	B3@20'			46	115.5	5.8

Total depth of boring: 20.5 feet
Fill to 1.5 feet.
No groundwater encountered.
Backfilled with soil cuttings and tamped.
Asphalt patched.

*Penetration resistance for 140-pound hammer falling 30 inches by auto-hammer.

A8326-06-69A BORING LOGS.GPJ

Figure A3,
Log of Boring 3, Page 1 of 1

SAMPLE SYMBOLS
... SAMPLING UNSUCCESSFUL
... STANDARD PENETRATION TEST
... DRIVE SAMPLE (UNDISTURBED)
... DISTURBED OR BAG SAMPLE
... CHUNK SAMPLE
... WATER TABLE OR SEEPAGE

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

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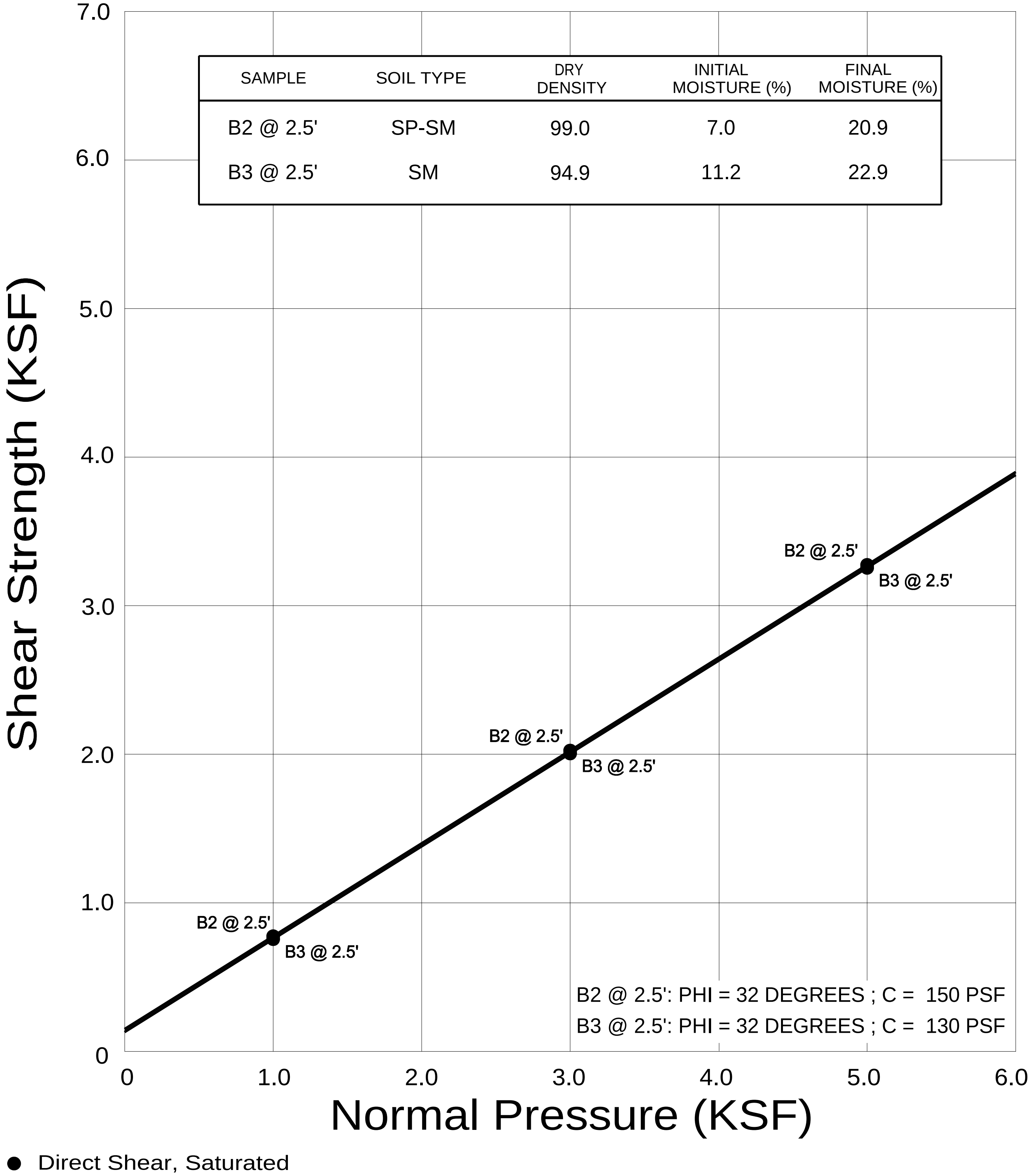
APPENDIX B

APPENDIX B

LABORATORY TESTING

Laboratory tests were performed in accordance with generally accepted test methods of the "American Society for Testing and Materials (ASTM)", or other suggested procedures. Selected samples were tested for direct shear strength, consolidation and expansion characteristics, moisture density relationships, in-place dry density and moisture content. The results of the laboratory tests are summarized in Figures B1 through B8. The in-place dry density and moisture content of the samples tested are presented on the boring logs, Appendix A.



SAMPLE	SOIL TYPE	DRY DENSITY	INITIAL MOISTURE (%)	FINAL MOISTURE (%)
B2 @ 2.5'	SP-SM	99.0	7.0	20.9
B3 @ 2.5'	SM	94.9	11.2	22.9

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DIRECT SHEAR TEST RESULTS

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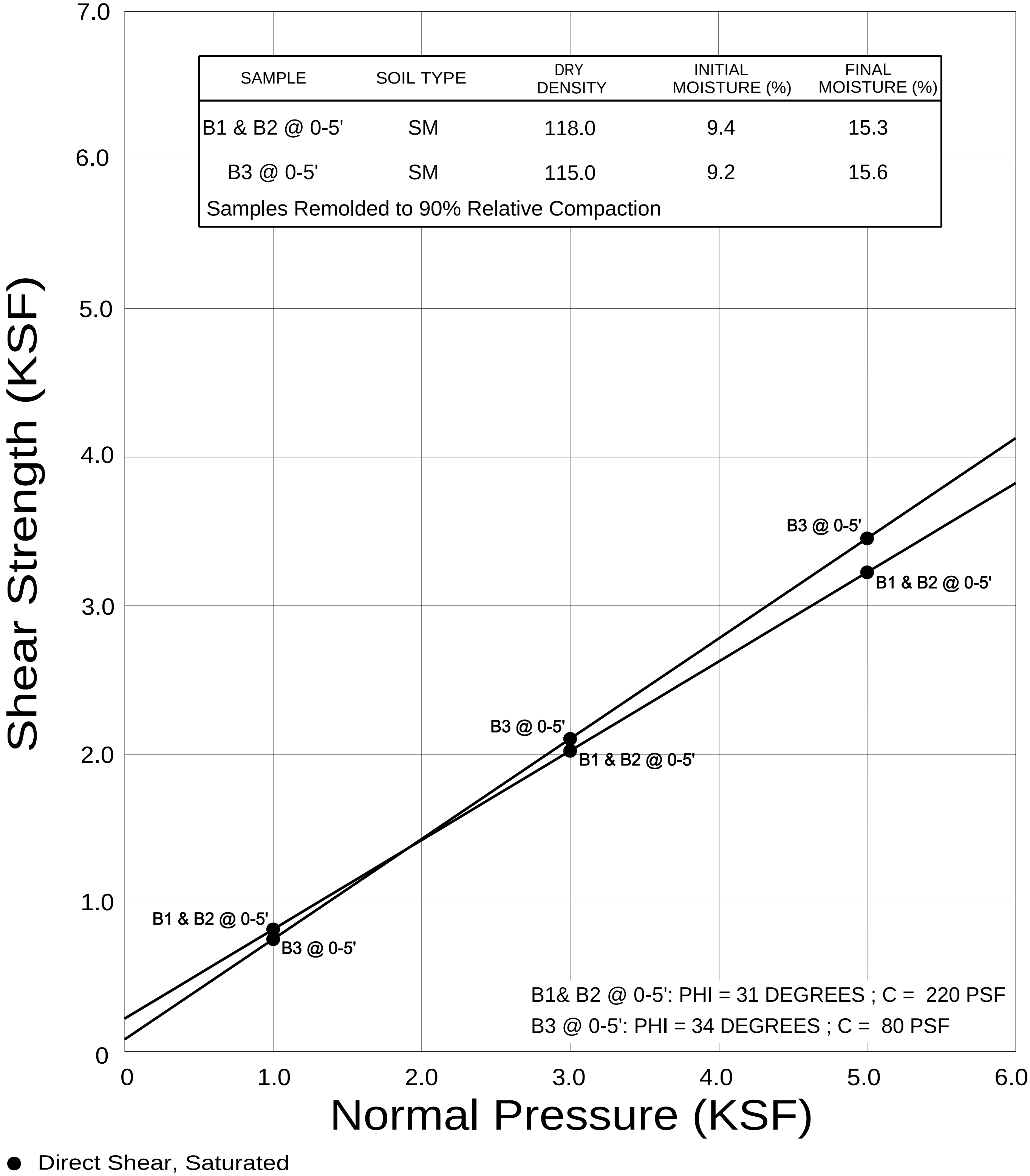
11724 ADDISON STREET
LOS ANGELES, CALIFORNIA

DRAFTED BY: JMT	CHECKED BY: NDB	AUG 2016	PROJECT NO. A8326-06-69A	FIG. B1

SAMPLE	SOIL TYPE	DRY DENSITY	INITIAL MOISTURE (%)	FINAL MOISTURE (%)
B1 & B2 @ 0-5'	SM	118.0	9.4	15.3
B3 @ 0-5'	SM	115.0	9.2	15.6

Samples Remolded to 90% Relative Compaction



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DIRECT SHEAR TEST RESULTS

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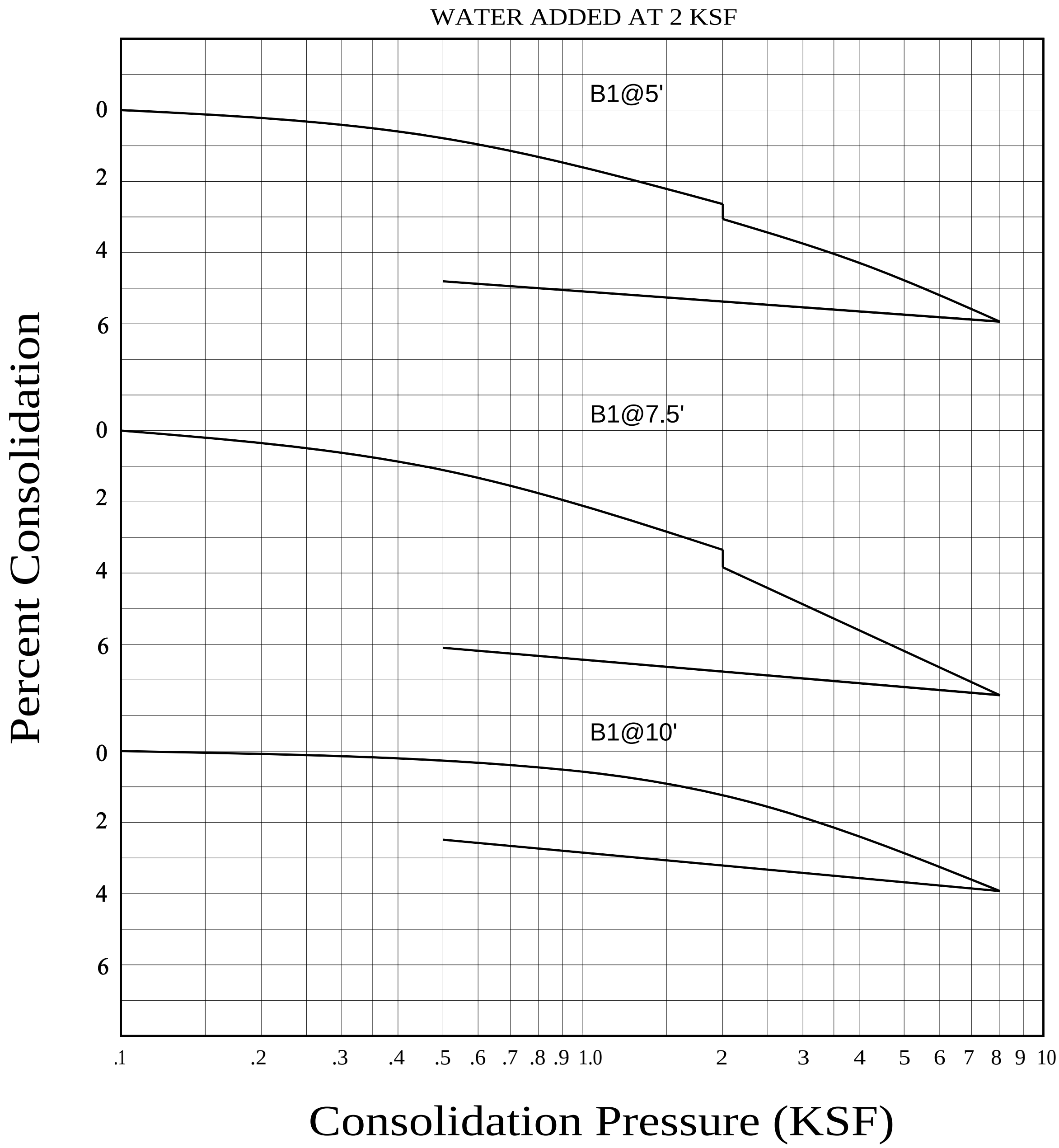
DRAFTED BY: JMT	CHECKED BY: NDB	AUG 2016	PROJECT NO. A8326-06-69A	FIG. B2



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CONSOLIDATION TEST RESULTS

COLFAX CHARTER ELEMENTARY SCHOOL
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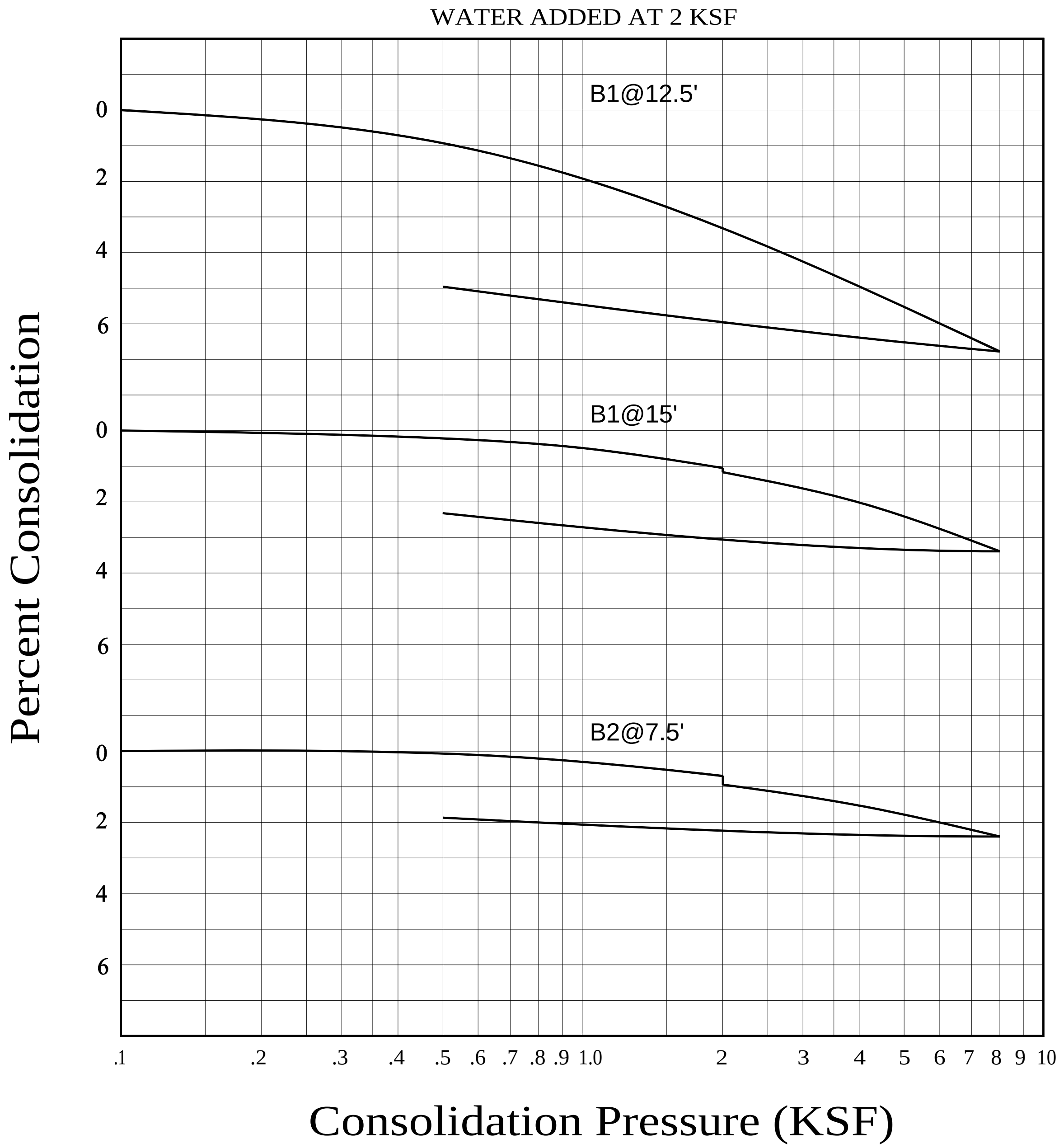
AUG 2016	PROJECT NO. A8326-06-69A	FIG. B3



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CONSOLIDATION TEST RESULTS

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CLASSROOM ADDITION PROJECT
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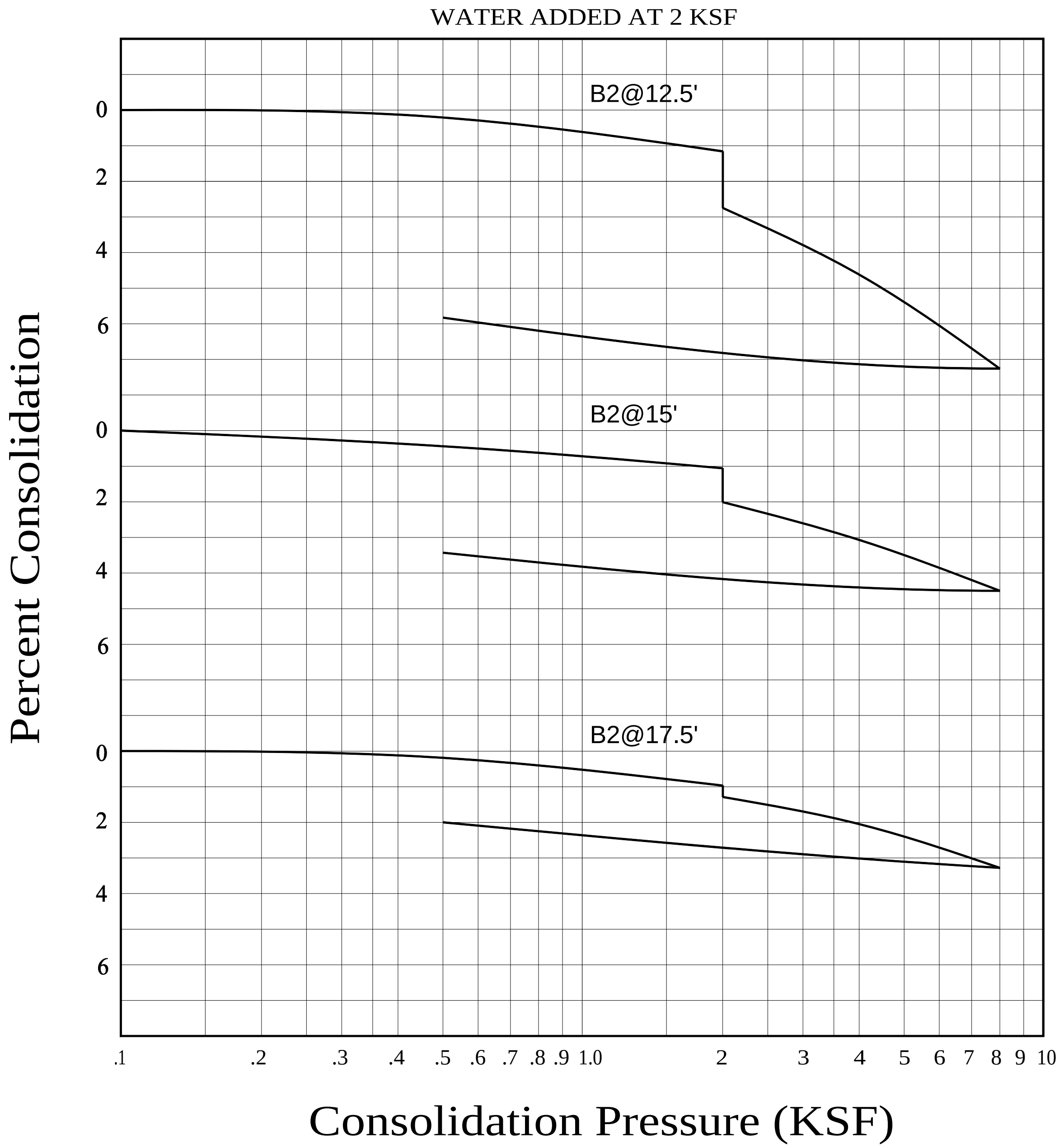
AUG 2016	PROJECT NO. A8326-06-69A	FIG. B4



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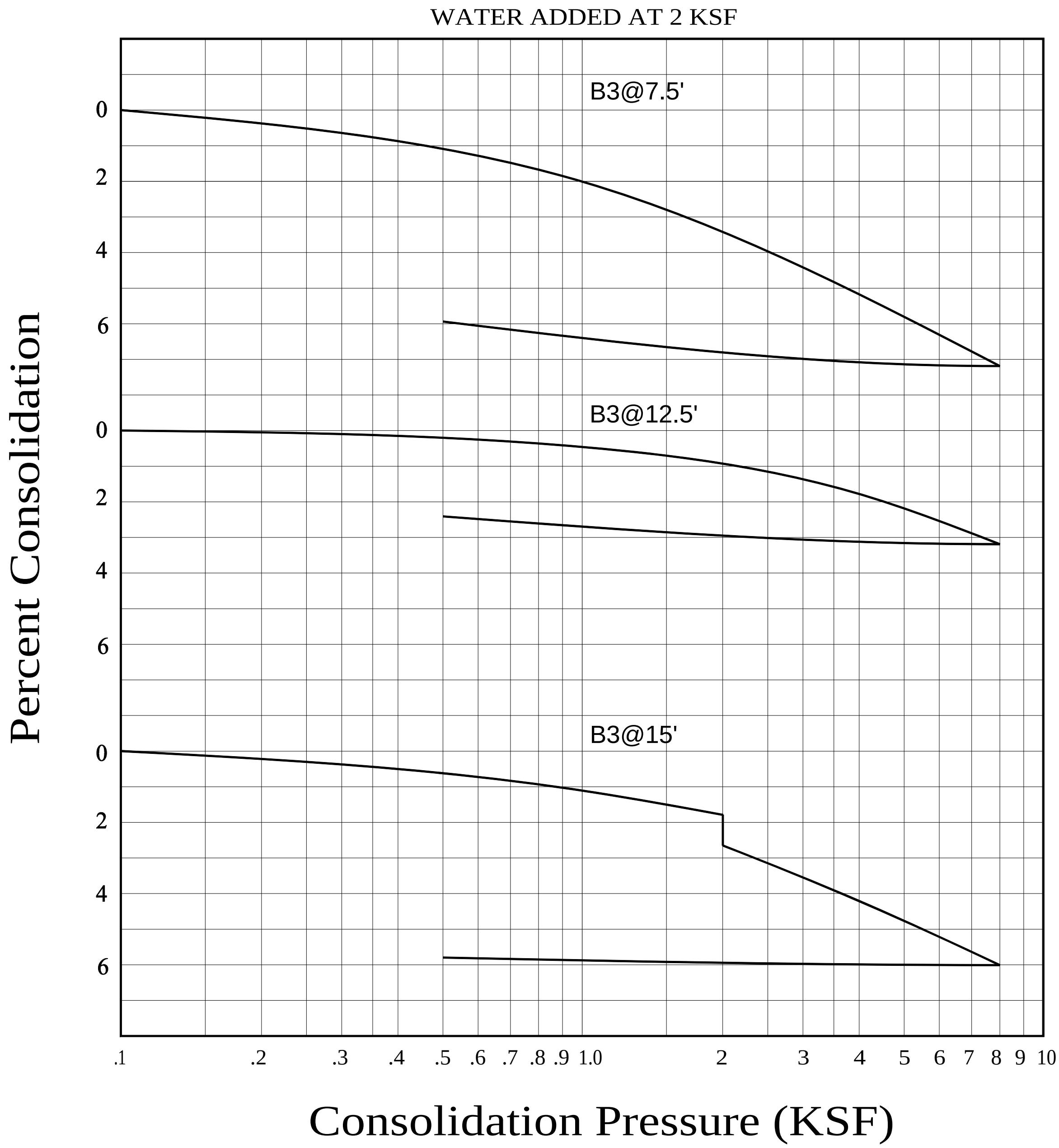
CONSOLIDATION TEST RESULTS

COLFAX CHARTER ELEMENTARY SCHOOL
CLASSROOM ADDITION PROJECT
11724 ADDISON STREET
LOS ANGELES, CALIFORNIA

AUG 2016	PROJECT NO. A8326-06-69A	FIG. B5



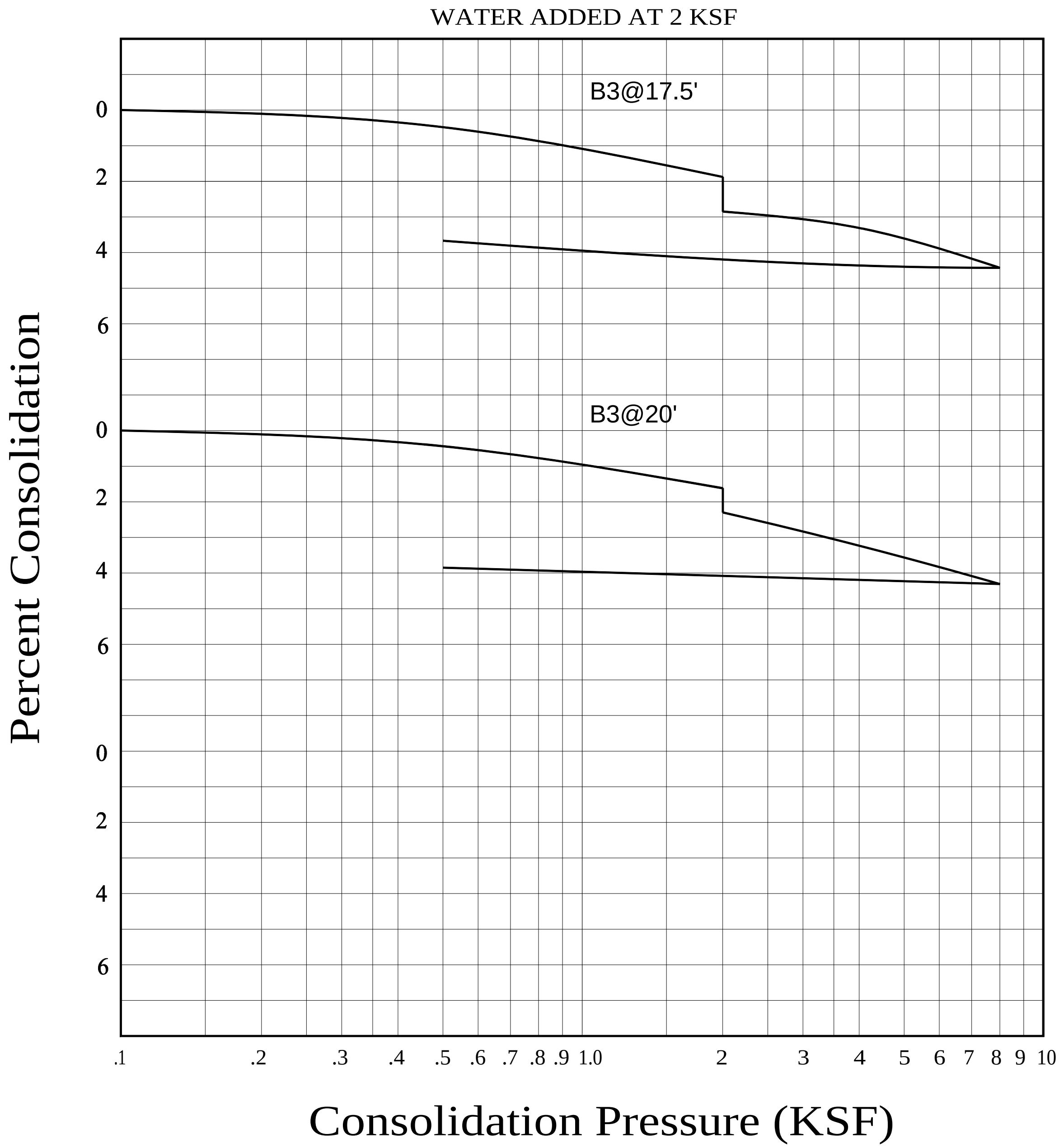
GEOCON
WEST, INC.

ENVIRONMENTAL GEOTECHNICAL MATERIALS
3303 N. SAN FERNANDO BLVD. - SUITE 100 - BURBANK, CA 91504
PHONE (818) 841-8388 - FAX (818) 841-1704

CONSOLIDATION TEST RESULTS

COLFAX CHARTER ELEMENTARY SCHOOL
CLASSROOM ADDITION PROJECT
11724 ADDISON STREET
LOS ANGELES, CALIFORNIA

Drafted by: JMT	Checked by: NDB	AUG 2016	PROJECT NO. A8326-06-69A	FIG. B6



GEOCON WEST, INC.

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3303 N. SAN FERNANDO BLVD. - SUITE 100 - BURBANK, CA 91504
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CONSOLIDATION TEST RESULTS

COLFAX CHARTER ELEMENTARY SCHOOL
CLASSROOM ADDITION PROJECT
11724 ADDISON STREET
LOS ANGELES, CALIFORNIA

AUG 2016 | PROJECT NO. A8326-06-69A | FIG. B7

SUMMARY OF LABORATORY EXPANSION INDEX TEST RESULTS
ASTM D 4829-11

Sample No.	Moisture Content (%)		Dry Density (pcf)	Expansion Index	*UBC Classification	**CBC Classification
	Before	After				
B1&B2 @ 0-5'	8.0	14.3	116.4	5	Very Low	Non-Expansive
B3 @ 0-5'	8.2	13.5	115.7	3	Very Low	Non-Expansive

* Reference: 1997 Uniform Building Code, Table 18-I-B.

** Reference: 2013 California Building Code, Section 1803.5.3

SUMMARY OF LABORATORY MAXIMUM DENSITY AND AND OPTIMUM MOISTURE CONTENT TEST RESULTS
ASTM D 1557-12

Sample No.	Soil Description	Maximum Dry Density (pcf)	Optimum Moisture (%)
B1&B2 @ 0-5'	Yellowish Brown Silty Sand	131.0	9.6
B3 @ 0-5'	Brown Silty Sand	128.0	9.2

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LABORATORY TEST RESULTS

COLFAX CHARTER ELEMENTARY SCHOOL
CLASSROOM ADDITION PROJECT
11724 ADDISON STREET
LOS ANGELES, CALIFORNIA

AUG 2016 | PROJECT NO. A8326-06-69A | FIG. B8

APPENDIX C

APPENDIX C

PRIOR EXPLORATION AND LABORATORY TEST DATA

DATE DRILLED	6/10/15
BORING NO.	B-1
GROUND ELEVATION	630' ± (MSL)
SHEET	1 OF 2
METHOD OF DRILLING	8" Hollow-Stem Auger (Geoboden)
DRIVE WEIGHT	140 lbs. (Auto. Trip Hammer)
DROP	30"
SAMPLED BY	SCM
LOGGED BY	SCM
REVIEWED BY	GMC

DEPTH (feet)	SAMPLES	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
0					ML	FILL: Black to grown, moist, loose, sandy SILT with organics; grass; approximately 2 inches thick.
	Bulk				ML	ALLUVIUM: Brown, moist, medium dense, sandy SILT; trace gravel; few organics.
	Driven	21	5.0	104.0		
					SP-SM	Light brown, moist, medium dense, poorly graded SAND with silt.
					SM	Yellowish brown, moist, medium dense, silty SAND; pinhole porosity.
10	Driven	11				
					SC	Yellowish brown, moist, medium dense, clayey SAND; caliche stringers; trace organics.
	Driven	22	6.2	94.1		
					SM	Yellowish brown, moist, medium dense, silty SAND; trace organics.
20	Driven	17				
	Driven	44	9.4	107.1		Dense; pinhole porosity.
					ML	Reddish gray, moist, medium dense, sandy SILT; caliche stringers; pinhole porosity.
30	Driven	11				
					CL	Yellowish brown, moist, very stiff, CLAY with sand; trace gravel; oxidation staining.
	Driven	24				
					SP-SM	Reddish gray, moist, very dense, poorly graded SAND with silt; few to little gravel.
40						

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BORING LOG

COLFAX CHARTER ELEMENTARY SCHOOL MODERNIZATION
11724 ADDISON STREET, VALLEY VILLAGE, CALIFORNIA

PROJECT NO.	DATE	FIGURE
209381010	5/16	A-1

DEPTH (feet)	SAMPLES Bulk	SAMPLES Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
40		◣	71				SP-SM	ALLUVIUM: (Continued) Reddish gray, moist, very dense, poorly graded SAND with silt; few to little gravel.
								Total Depth = 41.5 feet. Groundwater was not encountered during drilling. Backfilled with on-site soil on 6/10/15. Note: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
50								
60								
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80								

DATE DRILLED 6/10/15 BORING NO. B-1

GROUND ELEVATION 630' ± (MSL) SHEET 2 OF 2

METHOD OF DRILLING 8" Hollow-Stem Auger (Geoboden)

DRIVE WEIGHT 140 lbs. (Auto. Trip Hammer) DROP 30"

SAMPLED BY SCM LOGGED BY SCM REVIEWED BY GMC

DATE DRILLED	6/10/15	BORING NO.	B-2
GROUND ELEVATION	630' ± (MSL)	SHEET 1 OF 2	
METHOD OF DRILLING	8" Hollow-Stem Auger (Geoboden)		
DRIVE WEIGHT	140 lbs. (Auto. Trip Hammer)	DROP	30"
SAMPLED BY	SCM	LOGGED BY SCM	REVIEWED BY GMC

DEPTH (feet)	SAMPLES Bulk	SAMPLES Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
0							ASPHALT CONCRETE: Approximately 2 inches thick.
						GP	AGGREGATE BASE: Brown, moist, medium dense, poorly graded GRAVEL with sand; approximately 3 inches thick.
	X					SM	FILL: Light brown, moist, medium dense, silty SAND.
		X	8			SM	ALLUVIUM: Light brown, moist, loose, silty SAND; trace organics. Medium dense.
						SC	ALLUVIUM: Yellowish brown, moist, medium dense, clayey SAND; trace organics; caliche stringers.
						ML	Yellowish brown, moist, medium dense, sandy SILT; pinhole porosity.
10		X	17	6.8	94.3		
		X	14				Interbeds of silty sand with trace gravel.
20						SC	Yellowish brown, moist, medium dense, clayey SAND.
						ML	Yellowish brown, moist, dense, SILT with sand; trace gravel.
		X	52	3.3	102.9		
		X	18				Medium dense; oxidation staining.
						CL	Reddish brown, moist, hard, sandy CLAY; trace gravel; caliche stringers.
30		X	38	14.4	112.5		
							@ 32': Gravel bed encountered.
						SC	Reddish brown, moist, very dense, clayey SAND; trace gravel.
		X	52			SM	Brown, moist, very dense, silty SAND; few gravel.
						SP-SM	Reddish gray, moist, very dense, poorly graded SAND with silt; few gravel.
40							

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BORING LOG

COLFAX CHARTER ELEMENTARY SCHOOL MODERNIZATION
11724 ADDISON STREET, VALLEY VILLAGE, CALIFORNIA

PROJECT NO.	DATE	FIGURE
209381010	5/16	A-3

DEPTH (feet)	SAMPLES Bulk	SAMPLES Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 6/10/15 BORING NO. B-2
								GROUND ELEVATION 630' ± (MSL) SHEET 2 OF 2
								METHOD OF DRILLING 8" Hollow-Stem Auger (Geoboden)
								DRIVE WEIGHT 140 lbs. (Auto. Trip Hammer) DROP 30"
								SAMPLED BY SCM LOGGED BY SCM REVIEWED BY GMC
								DESCRIPTION/INTERPRETATION
40		■	80				SP-SM	ALLUVIUM: (Continued) Reddish gray, moist, very dense, poorly graded SAND with silt; few gravel.
								Total Depth = 41.5 feet. Groundwater was not encountered during drilling. Backfilled with on-site soil and capped with rapid-set concrete on 6/10/15. Note: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DATE DRILLED 6/10/15 BORING NO. B-3

GROUND ELEVATION 630' ± (MSL) SHEET 1 OF 2

METHOD OF DRILLING 8" Hollow-Stem Auger (Geoboden)

DRIVE WEIGHT 140 lbs. (Auto. Trip Hammer) DROP 30"

SAMPLED BY SCM LOGGED BY SCM REVIEWED BY GMC

DEPTH (feet)	SAMPLES Bulk	SAMPLES Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
0							ASPHALT CONCRETE: Approximately 4 inches thick.
						GP	AGGREGATE BASE: Brown, moist, medium dense, poorly graded GRAVEL with sand; approximately 6 inches thick.
						SM	FILL: Brown, moist, medium dense, silty SAND.
	Bulk					SM	ALLUVIUM: Brown, moist, loose, silty SAND; trace gravel.
		Driven	30	5.9	103.6		Medium dense.
						ML	Yellowish brown, moist, medium dense, sandy SILT; pinhole porosity; caliche stringers.
10		SPT	11				
		Driven	26	5.8	99.6		
						SM	Light yellowish brown, moist, dense, silty SAND; trace gravel.
20		SPT	24				
		Driven	56	3.4	103.4		Yellowish brown.
						SC	Yellowish brown, moist, dense, clayey SAND; trace gravel; oxidation staining; caliche stringers.
30		SPT	22				
		Driven	46	5.5	112.8		
						SP-SM	Reddish gray, moist, very dense, poorly graded SAND with silt; few to little gravel.
40							

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COLFAX CHARTER ELEMENTARY SCHOOL MODERNIZATION
11724 ADDISON STREET, VALLEY VILLAGE, CALIFORNIA

PROJECT NO.	DATE	FIGURE
209381010	5/16	A-5

DEPTH (feet)	SAMPLES Bulk	SAMPLES Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
40			61				SP-SM	ALLUVIUM: (Continued) Reddish gray, moist, very dense, poorly graded SAND with silt; few to little gravel.
			34				ML	Reddish gray, moist, medium dense, SILT with sand; trace gravel; oxidation staining.
50			60					Very dense; few to little gravel; interbeds of silty clay; oxidation staining.
								Total Depth = 51.5 feet. Groundwater was not encountered during drilling. Backfilled with on-site soil and capped with rapid-set concrete on 6/10/15. Note: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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DATE DRILLED 6/10/15 BORING NO. B-3

GROUND ELEVATION 630' ± (MSL) SHEET 2 OF 2

METHOD OF DRILLING 8" Hollow-Stem Auger (Geoboden)

DRIVE WEIGHT 140 lbs. (Auto. Trip Hammer) DROP 30"

SAMPLED BY SCM LOGGED BY SCM REVIEWED BY GMC

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COLFAX CHARTER ELEMENTARY SCHOOL MODERNIZATION
11724 ADDISON STREET, VALLEY VILLAGE, CALIFORNIA

PROJECT NO.	DATE	FIGURE
209381010	5/16	A-6

DATE DRILLED	6/10/15	BORING NO.	B-4
GROUND ELEVATION	632' ± (MSL)	SHEET	1 OF 3
METHOD OF DRILLING	8" Hollow-Stem Auger (Geoboden)		
DRIVE WEIGHT	140 lbs. (Auto. Trip Hammer)	DROP	30"
SAMPLED BY	FR	LOGGED BY	FR
REVIEWED BY	GMC		

DEPTH (feet)	SAMPLES Bulk	SAMPLES Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
0							GP	ASPHALT CONCRETE: Approximately 3 inches thick.
							SM	AGGREGATE BASE: Reddish brown, moist, medium dense, poorly graded GRAVEL with clay; approximately 4 inches thick.
							SM	FILL: Yellowish brown, moist, medium dense, silty SAND.
								ALLUVIUM: Yellowish brown, moist, loose, silty SAND; pockets of clay.
			8	2.6	90.5		SP-SM	Dark brown, moist, loose, poorly graded SAND with silt; trace gravel.
10			12					Yellowish brown; medium dense.
			22	5.5	98.4		SM	Dark brown, moist, medium dense, silty SAND; oxidation staining.
20			24				ML	Light brown, moist, dense, sandy SILT.
			34	3.1	100.7			Yellowish light brown; medium dense.
30			38					Light brown; very dense; decrease in silt content.
			30					Brown; dense.
40								

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COLFAX CHARTER ELEMENTARY SCHOOL MODERNIZATION
11724 ADDISON STREET, VALLEY VILLAGE, CALIFORNIA

PROJECT NO.	DATE	FIGURE
209381010	5/16	A-7

DATE DRILLED 6/10/15 BORING NO. B-4

GROUND ELEVATION 632' ± (MSL) SHEET 2 OF 3

METHOD OF DRILLING 8" Hollow-Stem Auger (Geoboden)

DRIVE WEIGHT 140 lbs. (Auto. Trip Hammer) DROP 30"

SAMPLED BY FR LOGGED BY FR REVIEWED BY GMC

DEPTH (feet)	SAMPLES Bulk	SAMPLES Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
40			20				SM	ALLUVIUM: (Continued) Light brown, moist, medium dense, silty SAND; caliche.
			50/6"					Brown; very dense; oxidation staining.
50			50/6"				SP-SM	Yellowish brown, moist, very dense, poorly graded SAND with silt and gravel.
								Difficult drilling; gravel interbed.
			50/6"					Light grayish brown; few gravel.
								Gravel.
60			50/6"				CL	Brown, moist, hard, silty CLAY; few gravel; increase in moisture. @60': Switched to downhole hammer with spooling head.
			23					Very stiff.
70			17					Mottled brown and gray.
			14				SM	Yellowish brown, moist, medium dense, silty SAND; trace gravel.
80								

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COLFAX CHARTER ELEMENTARY SCHOOL MODERNIZATION
11724 ADDISON STREET, VALLEY VILLAGE, CALIFORNIA

PROJECT NO.	DATE	FIGURE
209381010	5/16	A-8

DATE DRILLED 6/10/15 BORING NO. B-4

GROUND ELEVATION 632' ± (MSL) SHEET 3 OF 3

METHOD OF DRILLING 8" Hollow-Stem Auger (Geoboden)

DRIVE WEIGHT 140 lbs. (Auto. Trip Hammer) DROP 30"

SAMPLED BY FR LOGGED BY FR REVIEWED BY GMC

DEPTH (feet)	SAMPLES Bulk	SAMPLES Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
80		▼	23				SM	ALLUVIUM: (Continued) Yellowish brown, moist, medium dense, silty SAND; trace gravel.
		▼	30					Brown; oxidation staining.
90		▼	33					Mottled gray and brown; dense.
		▼	31					
100								Total Depth = 96.5 feet. Groundwater was not encountered during drilling. Backfilled with on-site soil and capped with rapid-set concrete on 6/10/15. Note: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
110								
120								

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COLFAX CHARTER ELEMENTARY SCHOOL MODERNIZATION
11724 ADDISON STREET, VALLEY VILLAGE, CALIFORNIA

PROJECT NO.	DATE	FIGURE
209381010	5/16	A-9

DATE DRILLED	6/10/15
BORING NO.	B-5
GROUND ELEVATION	630' ± (MSL)
SHEET	1 OF 1
METHOD OF DRILLING	8" Hollow-Stem Auger (Geoboden)
DRIVE WEIGHT	140 lbs. (Auto. Trip Hammer)
DROP	30"
SAMPLED BY	FR
LOGGED BY	FR
REVIEWED BY	GMC

DEPTH (feet)	SAMPLES Bulk	SAMPLES Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
0								ASPHALT CONCRETE: Approximately 3½ inches thick.
	X						SM	FILL: Brown, moist, medium dense, silty SAND.
	X						SM	ALLUVIUM: Brown, moist, loose, silty SAND.
		X	4	6.1	90.5		SP	Light brown, moist, loose, poorly graded SAND.
10		X	9				ML	Brown, moist, medium dense, sandy SILT.
								Total Depth = 11.5 feet. Groundwater was not encountered during drilling. Backfilled with on-site soil on 6/10/15.
								Note: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
								The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
20								
30								
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COLFAX CHARTER ELEMENTARY SCHOOL MODERNIZATION
11724 ADDISON STREET, VALLEY VILLAGE, CALIFORNIA

PROJECT NO.	DATE	FIGURE
209381010	5/16	A-10

DATE DRILLED 3/23/16 BORING NO. B-6

GROUND ELEVATION ± (MSL) SHEET 1 OF 2

METHOD OF DRILLING 8" Hollow-Stem Auger (Geoboden)

DRIVE WEIGHT 140 lbs. (Auto. Trip Hammer) DROP 30"

SAMPLED BY FR LOGGED BY FR REVIEWED BY RDH

DEPTH (feet)	SAMPLES Bulk	SAMPLES Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
0						SM	ASPHALT CONCRETE: Approximately 3.5 inches thick.
						SM	FILL: Grayish brown, moist, loose to medium dense, silty SAND; few gravel.
							ALLUVIUM: Brown, dry to moist, loose, silty SAND; fine sand.
			14				
10						ML	Light brown, moist, loose, sandy SILT; fine sand.
			5				
			11	10.1	93.7		Pockets of sand.
20			17				Medium dense.
							Brown.
			36				
							Oxidation staining.
30			19				Dark brown; very stiff; clayey.
			40				Hard.
						SP	Yellow, moist, dense, poorly graded SAND; trace gravel.
40							

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BORING LOG

COLFAX CHARTER ELEMENTARY SCHOOL MODERNIZATION
11724 ADDISON STREET, VALLEY VILLAGE, CALIFORNIA

PROJECT NO.	DATE	FIGURE
209381010	5/16	A-11

DATE DRILLED	3/23/16	BORING NO.	B-6
GROUND ELEVATION	± (MSL)	SHEET	2 OF 2
METHOD OF DRILLING	8" Hollow-Stem Auger (Geoboden)		
DRIVE WEIGHT	140 lbs. (Auto. Trip Hammer)	DROP	30"
SAMPLED BY	FR	LOGGED BY / REVIEWED BY	FR / RDH

DEPTH (feet)	SAMPLES Bulk	SAMPLES Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
40		◤	31				SP	ALLUVIUM (Continued): Yellow, moist, dense, poorly graded SAND; trace gravel.
								Total Depth = 41.5 feet. Groundwater was not encountered during drilling. Backfilled with on-site soil and capped with rapid set concrete on 3/23/ 16.
								NOTES: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
50								The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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BORING LOG

COLFAX CHARTER ELEMENTARY SCHOOL MODERNIZATION
11724 ADDISON STREET, VALLEY VILLAGE, CALIFORNIA

PROJECT NO.	DATE	FIGURE
209381010	5/16	A-12

DATE DRILLED	3/23/16	BORING NO.	B-7
GROUND ELEVATION	± (MSL)	SHEET 1 OF 2	
METHOD OF DRILLING	8" Hollow-Stem Auger (Geoboden)		
DRIVE WEIGHT	140 lbs. (Auto. Trip Hammer)	DROP	30"
SAMPLED BY	FR	LOGGED BY FR	REVIEWED BY RDH

DEPTH (feet)	SAMPLES Bulk	SAMPLES Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
0							SM	ASPHALT CONCRETE: Approximately 3 inches thick.
							SM	FILL: Grayish brown, moist, medium dense, silty SAND; few gravel.
	X							ALLUVIUM: Brown, moist, loose, silty SAND; fine sand content.
		X	7	4.7	105.8			
10		X	5				ML	Light brown, moist, loose, sandy silt.
		X	15				SM	Light brown, moist, medium dense, silty SAND.
20		X	12					Trace clay.
		X	28				ML	Yellowish brown, moist, medium dense, sandy SILT; fine to medium SAND.
30		X	24					Brown; hard; clayey.
		X	22	21.8	101.9			Very stiff; interbedded clay.
40								

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BORING LOG

COLFAX CHARTER ELEMENTARY SCHOOL MODERNIZATION
11724 ADDISON STREET, VALLEY VILLAGE, CALIFORNIA

PROJECT NO.	DATE	FIGURE
209381010	5/16	A-13

DATE DRILLED	3/23/16	BORING NO.	B-7
GROUND ELEVATION	± (MSL)	SHEET 2	OF 2
METHOD OF DRILLING	8" Hollow-Stem Auger (Geoboden)		
DRIVE WEIGHT	140 lbs. (Auto. Trip Hammer)	DROP	30"
SAMPLED BY FR	LOGGED BY FR	REVIEWED BY	RDH

DEPTH (feet)	SAMPLES Bulk	SAMPLES Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
40		◣	17				ML	ALLUVIUM (Continued): Reddish brown, moist, very stiff, clayey SILT; pockets of sand; oxidation staining.
								Total Depth = 41.5 feet. Groundwater was not encountered during drilling. Backfilled with on-site soil and capped with rapid-set concrete on 3/26 16. NOTES: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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BORING LOG

COLFAX CHARTER ELEMENTARY SCHOOL MODERNIZATION
11724 ADDISON STREET, VALLEY VILLAGE, CALIFORNIA

PROJECT NO.	DATE	FIGURE
209381010	5/16	A-14

DATE DRILLED 3/23/16 BORING NO. B-8

GROUND ELEVATION ± (MSL) SHEET 1 OF 2

METHOD OF DRILLING 8" Hollow-Stem Auger (Geoboden)

DRIVE WEIGHT 140 lbs. (Auto. Trip Hammer) DROP 30"

SAMPLED BY FR LOGGED BY FR REVIEWED BY RDH

DEPTH (feet)	SAMPLES Bulk	SAMPLES Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
0								ASPHALT CONCRETE: Approximately 4 inches thick.
							GP	BASE: Gray, dry, loose, poorly graded GRAVEL with sand; approximately 4 inches thick.
							SM	ALLUVIUM: Yellowish brown, moist, loose, silty SAND; trace gravel; fine sand.
			9					
10			13					Medium dense.
			20	3.6	97.4			Roots; pinhole porosity; increase in silt.
20			34					Very dense; no roots observed; no pinhole porosity observed.
			66				ML	Yellowish brown, dry, dense, sandy SILT.
30			38					Pale brown; hard; clayey; trace oxidation staining.
			37	6.9	97.3		ML	Light brown, dry, dense, sandy SILT.
							SP	Yellow, dry, very dense, poorly graded SAND; trace gravel.
40								

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BORING LOG

COLFAX CHARTER ELEMENTARY SCHOOL MODERNIZATION
11724 ADDISON STREET, VALLEY VILLAGE, CALIFORNIA

PROJECT NO.	DATE	FIGURE
209381010	5/16	A-15

DEPTH (feet)	SAMPLES Bulk	SAMPLES Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
40		■	48				SP	ALLUVIUM (Continued): Yellow, dry, very dense, poorly graded SAND; few gravel.
								Total Depth = 41.5 feet. Groundwater was not encountered during drilling. Backfilled with on-site soil and capped with rapid-set concrete on 3/23 16.
								NOTES: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
								The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
50								
60								
70								
80								

DATE DRILLED 3/23/16 BORING NO. B-8

GROUND ELEVATION ± (MSL) SHEET 2 OF 2

METHOD OF DRILLING 8" Hollow-Stem Auger (Geoboden)

DRIVE WEIGHT 140 lbs. (Auto. Trip Hammer) DROP 30"

SAMPLED BY FR LOGGED BY FR REVIEWED BY RDH

Ninyo & Moore

BORING LOG

COLFAX CHARTER ELEMENTARY SCHOOL MODERNIZATION
11724 ADDISON STREET, VALLEY VILLAGE, CALIFORNIA

PROJECT NO.	DATE	FIGURE
209381010	5/16	A-16

DEPTH (feet)	SAMPLES Bulk	SAMPLES Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 3/23/16 BORING NO. B-9 GROUND ELEVATION ± (MSL) SHEET 1 OF 1 METHOD OF DRILLING 8" Hollow-Stem Auger (Geoboden) DRIVE WEIGHT 140 lbs. (Auto. Trip Hammer) DROP 30" SAMPLED BY FR LOGGED BY FR REVIEWED BY RDH DESCRIPTION/INTERPRETATION
0							SM	ASPHALT CONCRETE: Approximately 2 inches thick.
							SM	BASE: Grayish brown, moist, loose to medium dense, silty SAND; few gravel; approximately 9 inches thick.
							SM	FILL: Yellowish brown, moist, medium dense, silty SAND.
			8	6.6	88.1			ALLUVIUM: Brown, moist, loose, silty SAND; fine sand content.
								Total Depth = 6.5 feet. Groundwater was not encountered during drilling. Backfilled with on-site soil and capped with rapid-set concrete on 3/23/16. NOTES: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
10								
20								
30								
40								

Ninyo & Moore

BORING LOG

COLFAX CHARTER ELEMENTARY SCHOOL MODERNIZATION
11724 ADDISON STREET, VALLEY VILLAGE, CALIFORNIA

PROJECT NO.	DATE	FIGURE
209381010	5/16	A-17

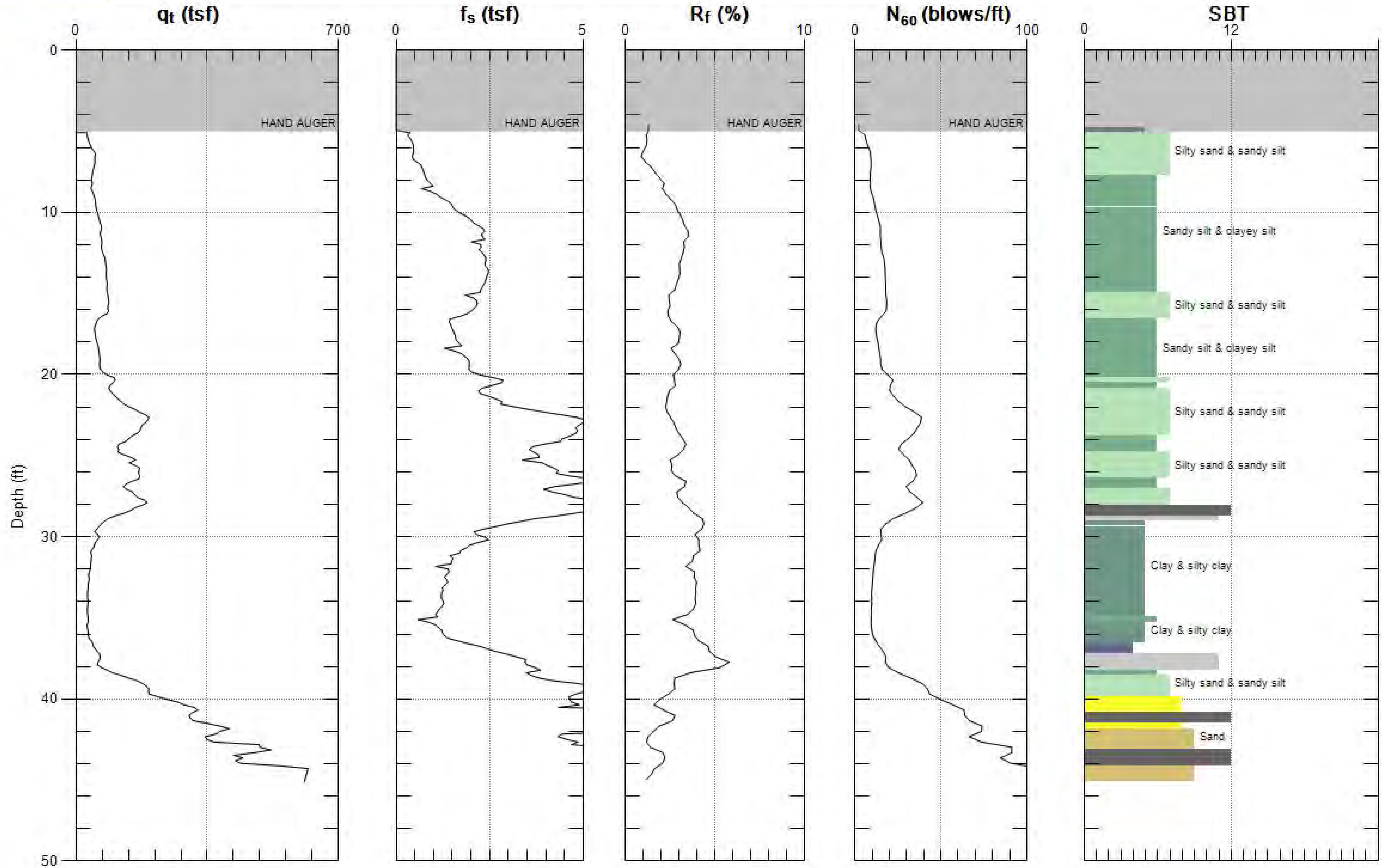
GREGG **NINYO & MOORE**

Site: COLFAX SCHOOL

Sounding: CPT-1

Engineer: F.RUIZ

Date: 3/23/2016 08:35

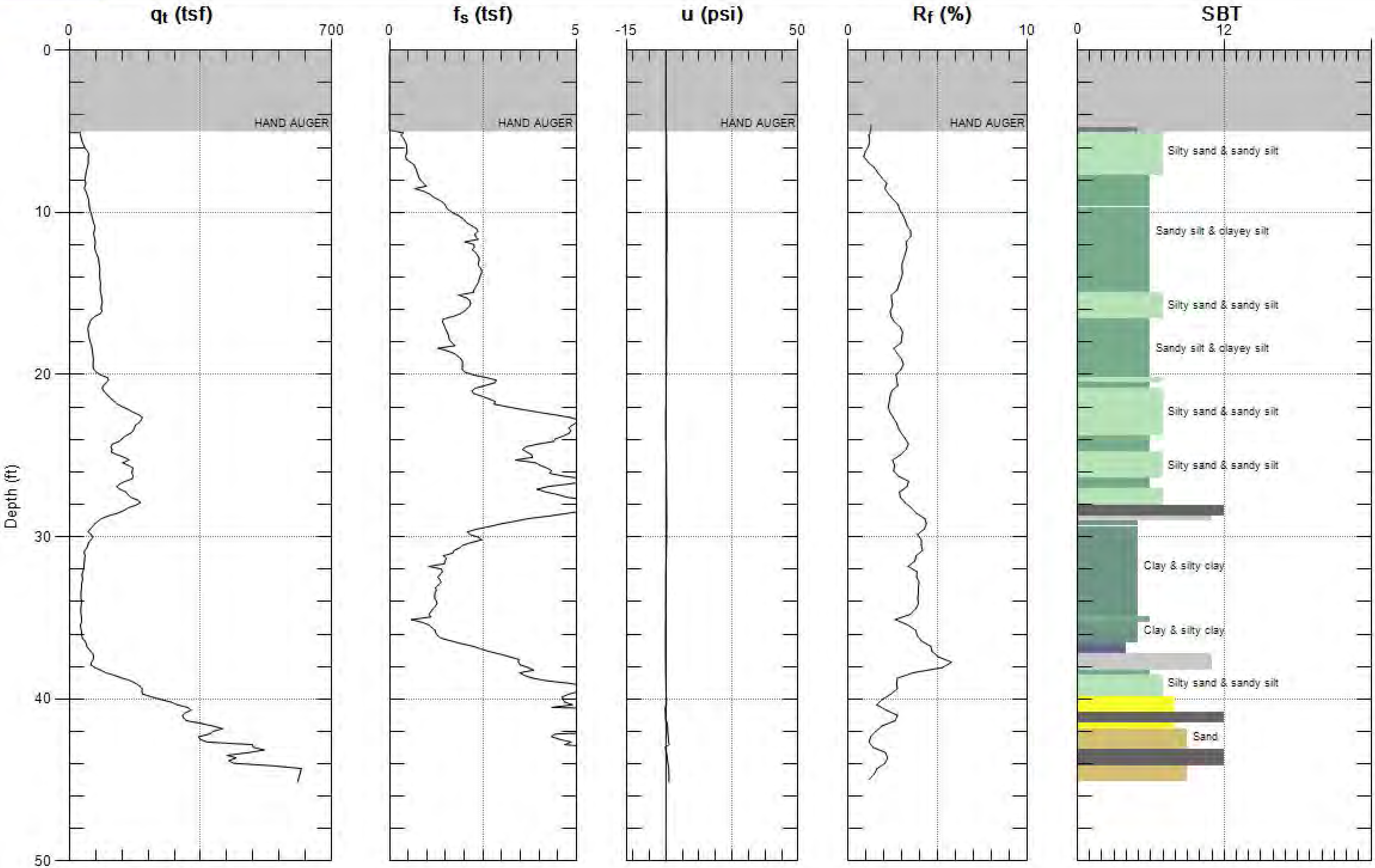


Max. Depth: 45.112 (ft)
Avg. Interval: 0.328 (ft)

SBT: Soil Behavior Type (Robertson 1990)

GREGG NINYO & MOORE

Site: COLFAX SCHOOL | Engineer: F.RUIZ
Sounding: CPT-1 | Date: 3/23/2016 08:35



Max. Depth: 45.112 (ft)
Avg. Interval: 0.328 (ft)

SBT: Soil Behavior Type (Robertson 1990)

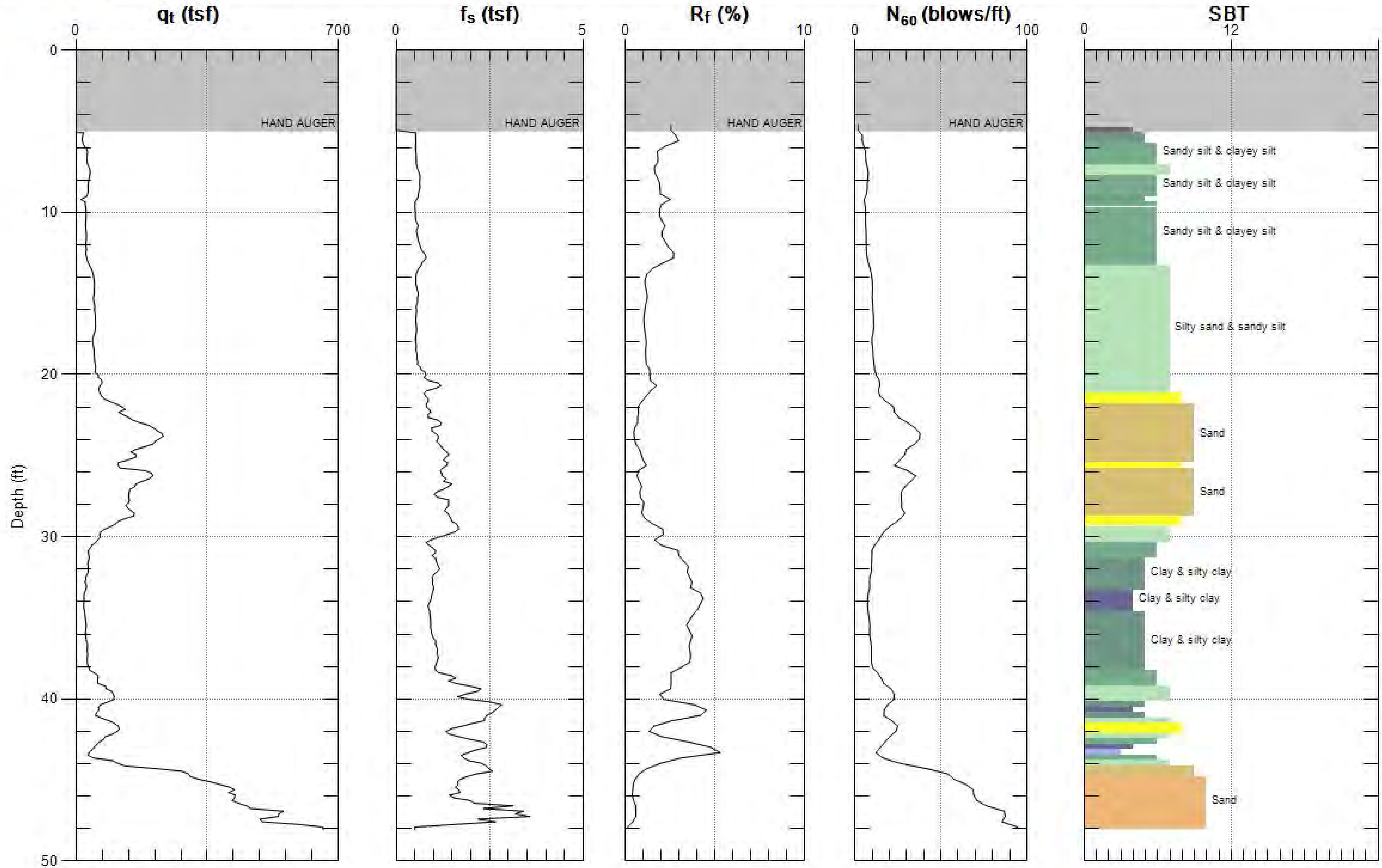
GREGG NINYO & MOORE

Site: COLFAX SCHOOL

Sounding: CPT-3

Engineer: F.RUIZ

Date: 3/23/2016 09:36

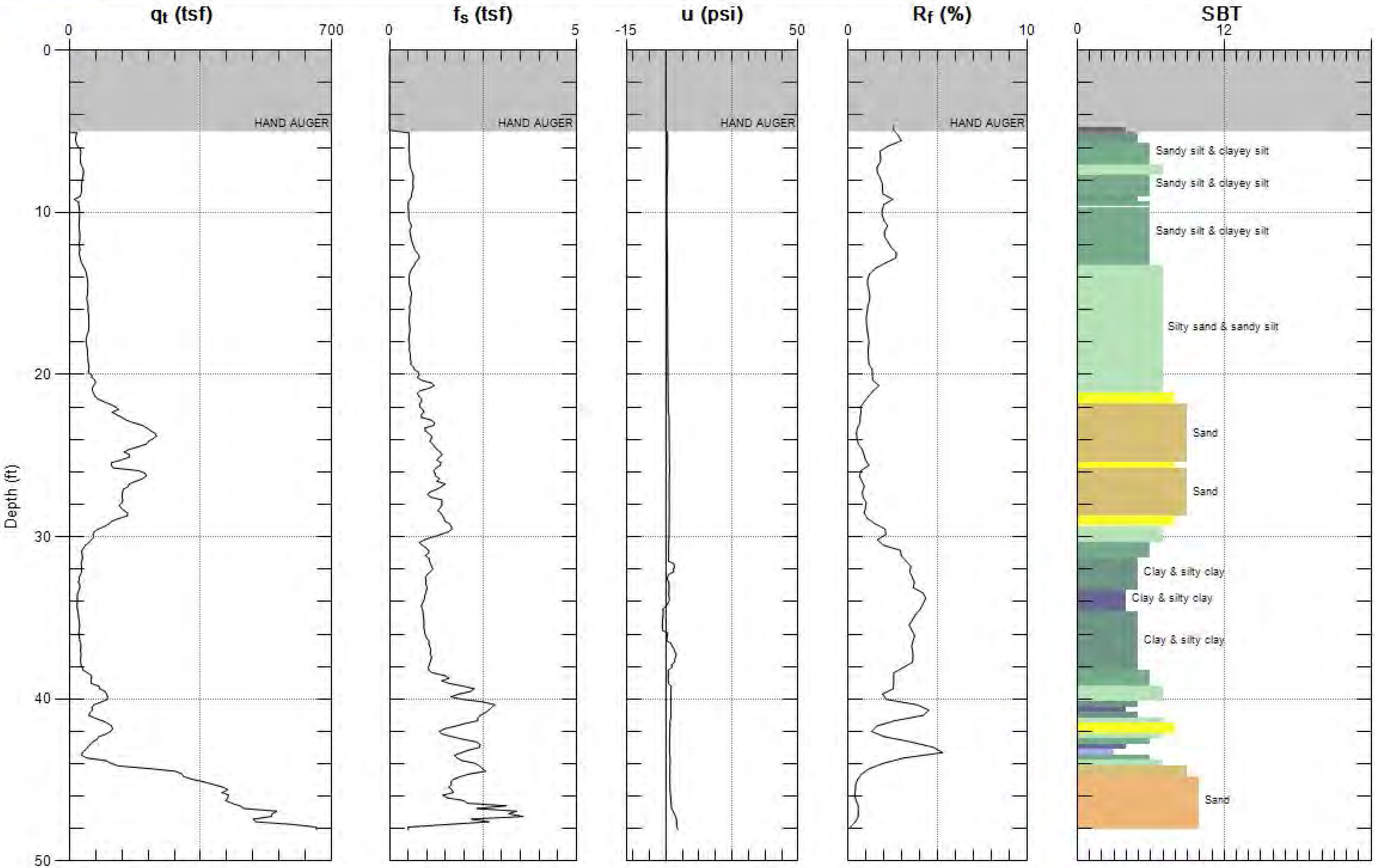


Max. Depth: 48.064 (ft)
Avg. Interval: 0.328 (ft)

SBT: Soil Behavior Type (Robertson 1990)

GREGG **NINYO & MOORE**

Site: COLFAX SCHOOL | Engineer: F.RUIZ
Sounding: CPT-3 | Date: 3/23/2016 09:36



Max. Depth: 48.064 (ft)
Avg. Interval: 0.328 (ft)

SBT: Soil Behavior Type (Robertson 1990)

GREGG

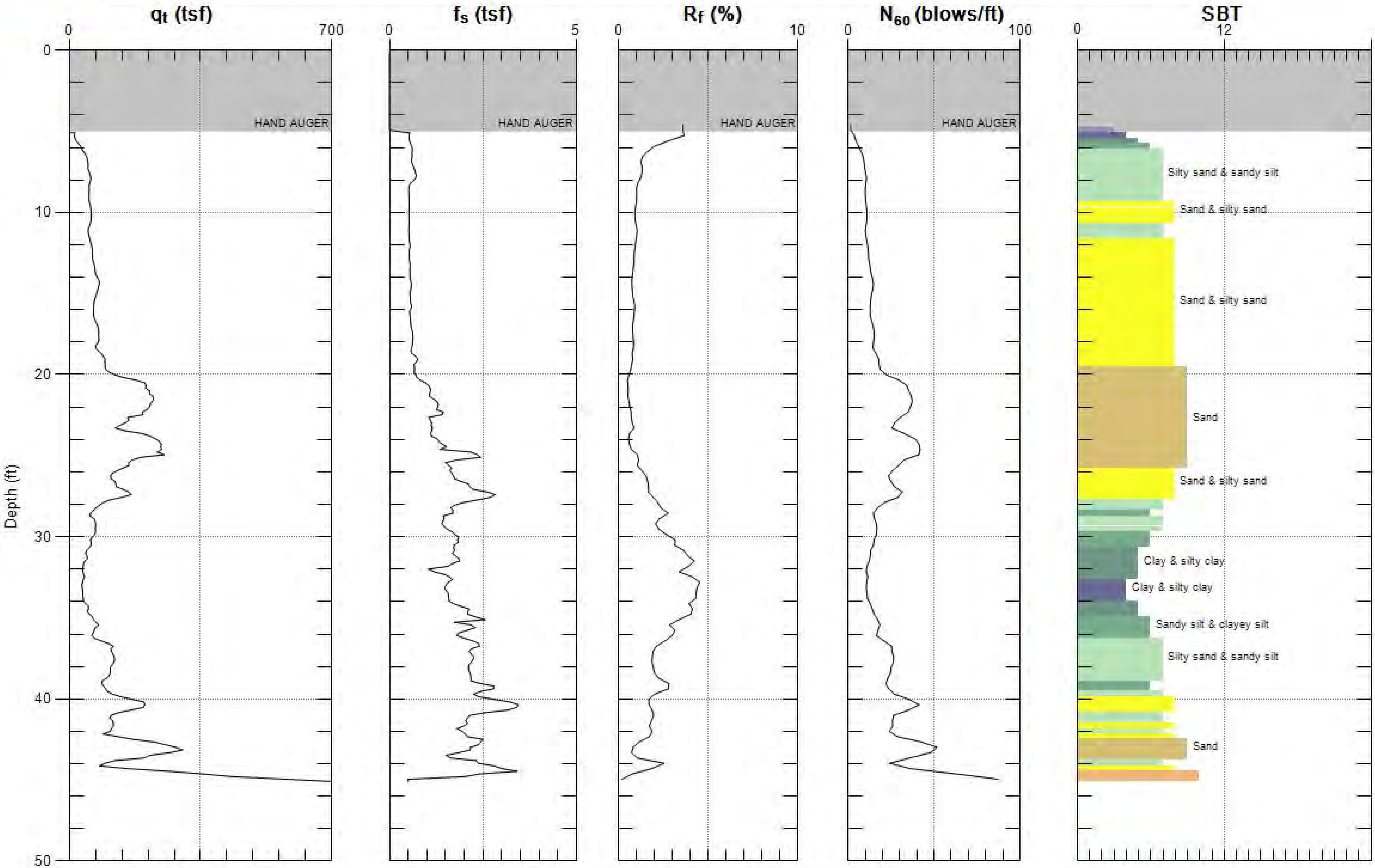
NINYO & MOORE

Site: COLFAX SCHOOL

Sounding: CPT-4

Engineer: F.RUIZ

Date: 3/23/2016 07:24



Max. Depth: 45.112 (ft)
Avg. Interval: 0.328 (ft)

SBT: Soil Behavior Type (Robertson 1990)

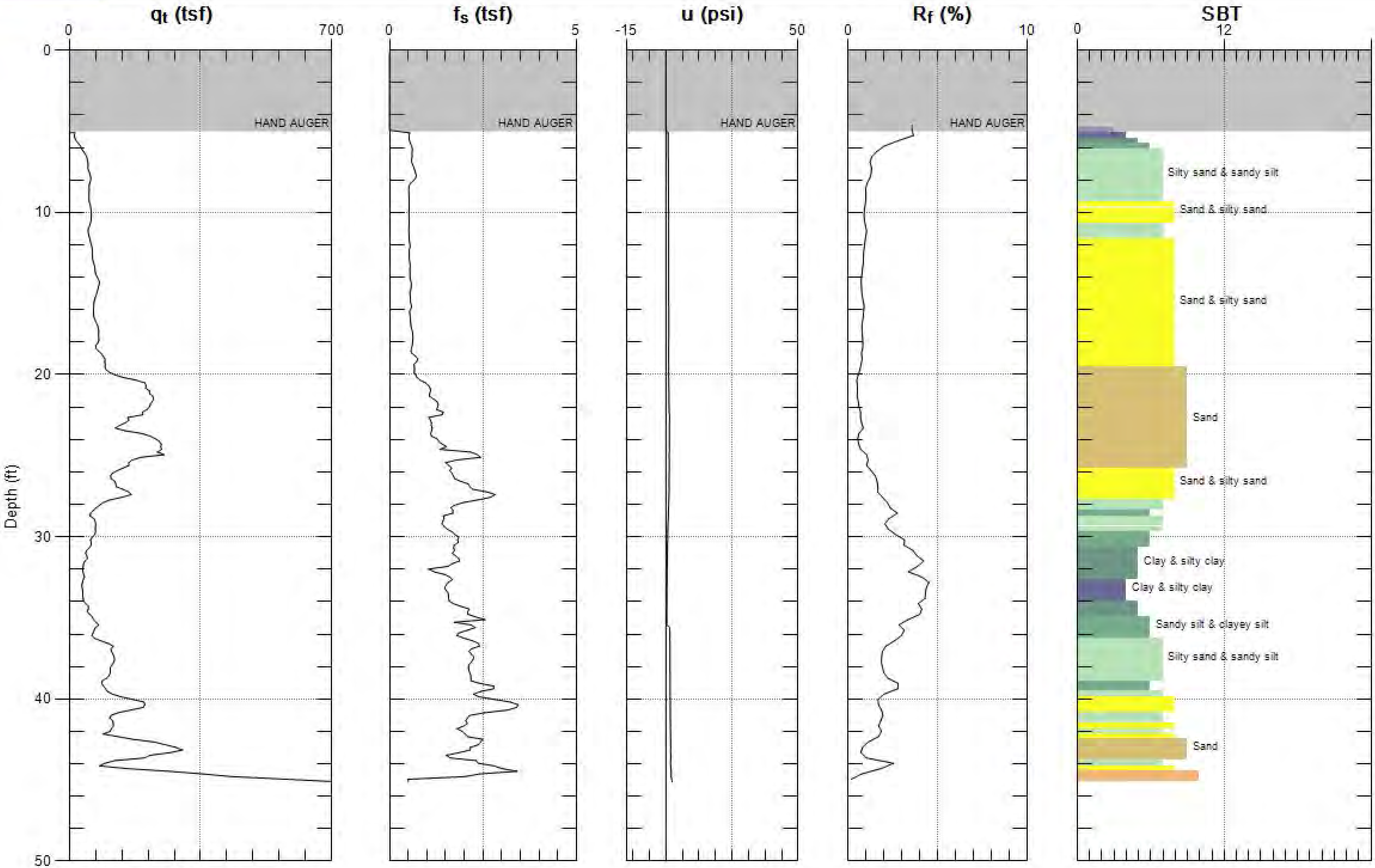
NINYO & MOORE

Site: COLFAX SCHOOL

Sounding: CPT-4

Engineer: F.RUIZ

Date: 3/23/2016 07:24



Max. Depth: 45.112 (ft)
Avg. Interval: 0.328 (ft)

SBT: Soil Behavior Type (Robertson 1990)

GREGG

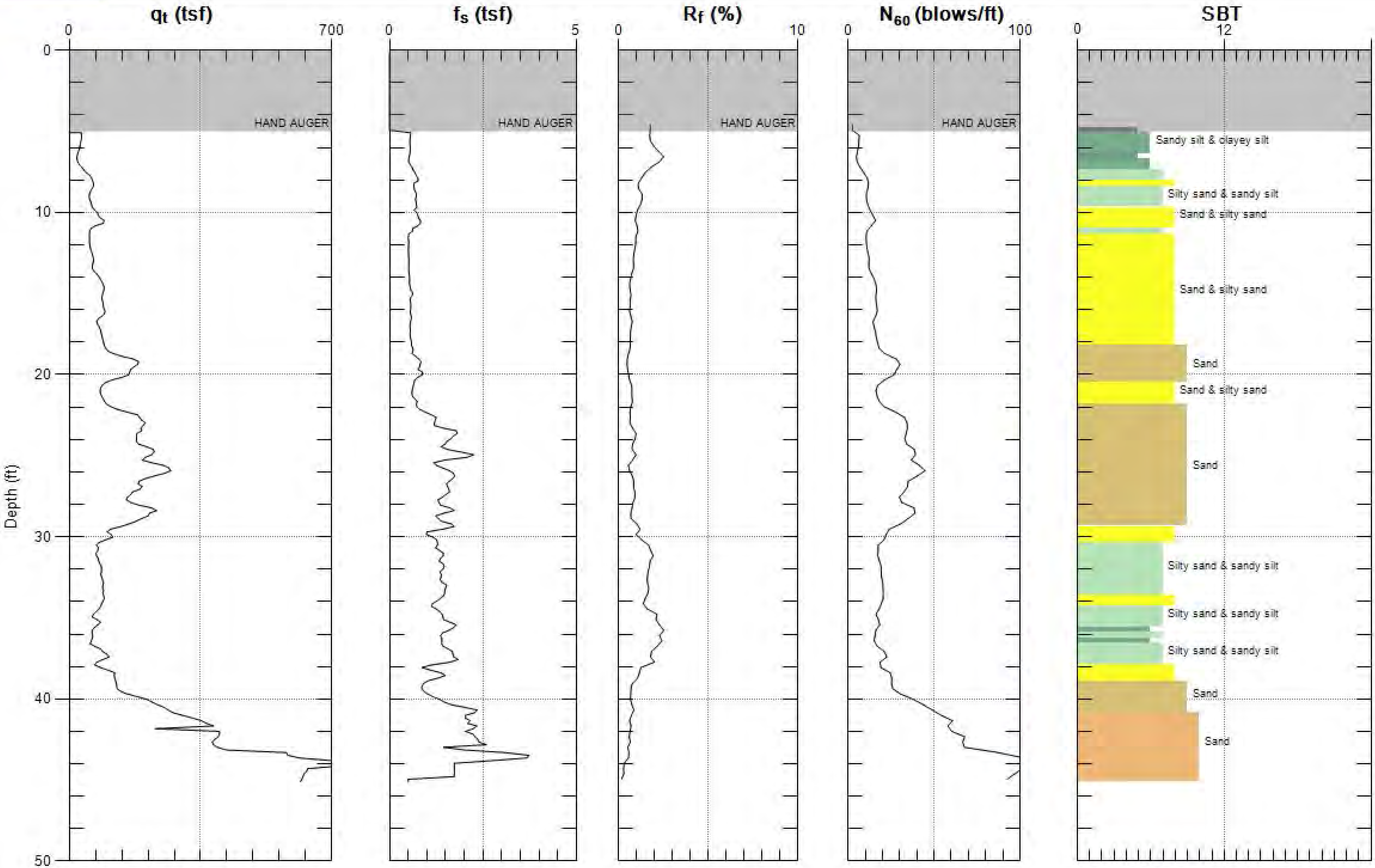
NINYO & MOORE

Site: COLFAX SCHOOL

Sounding: SCPT-2

Engineer: F.RUIZ

Date: 3/23/2016 10:57



Max. Depth: 45.112 (ft)
Avg. Interval: 0.328 (ft)

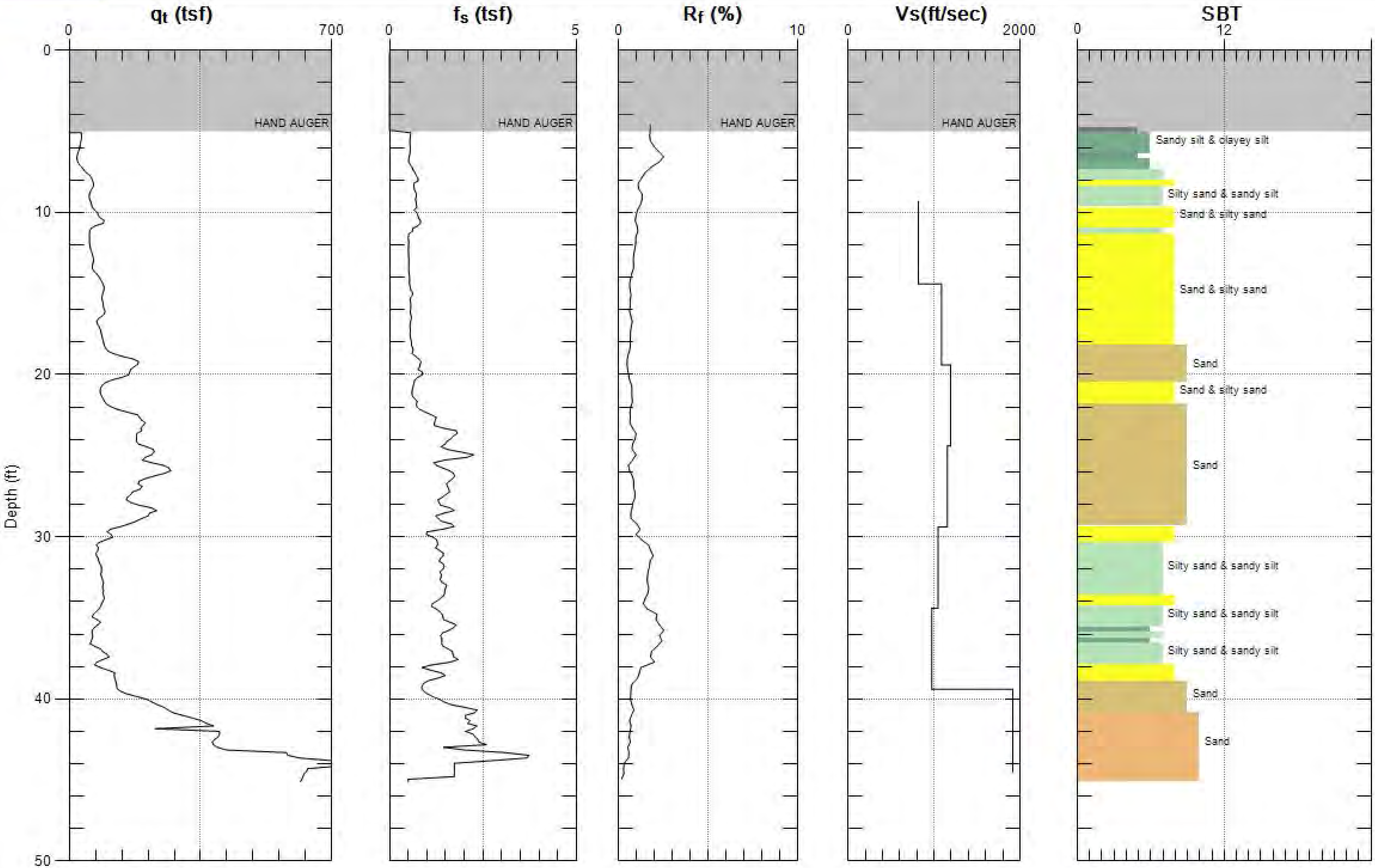
SBT: Soil Behavior Type (Robertson 1990)

GREGG

NINYO & MOORE

Site: COLFAX SCHOOL
Sounding: SCPT-2

Engineer: F.RUIZ
Date: 3/23/2016 10:57



Max. Depth: 45.112 (ft)
Avg. Interval: 0.328 (ft)

SBT: Soil Behavior Type (Robertson 1990)

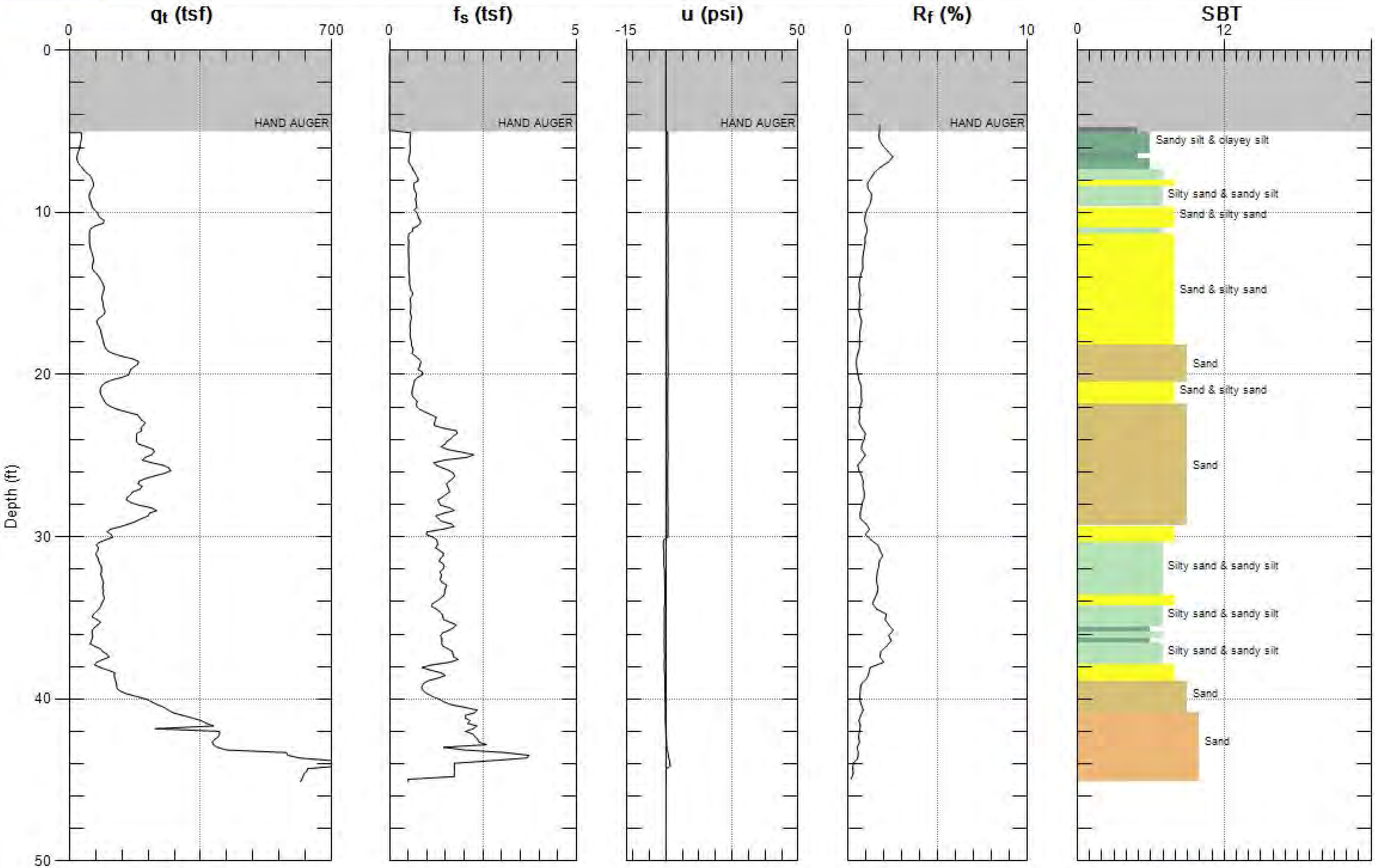
GREGG NINYO & MOORE

Site: COLFAX SCHOOL

Sounding: SCPT-2

Engineer: F.RUIZ

Date: 3/23/2016 10:57



Max. Depth: 45.112 (ft)
Avg. Interval: 0.328 (ft)

SBT: Soil Behavior Type (Robertson 1990)

APPENDIX B

LABORATORY TESTING

In-Place Moisture and Density Tests

The moisture content and dry density of relatively undisturbed samples obtained from the exploratory excavations were evaluated in general accordance with ASTM D 2937. The test results are presented on the logs of the exploratory excavations in Appendix A.

Classification

Soils were visually and texturally classified in accordance with the Unified Soil Classification System (USCS) in general accordance with ASTM D 2488. Soil classifications are indicated on the logs of the exploratory excavations in Appendix A.

200 Wash

An evaluation of the percentage of particles finer than the No. 200 sieve in selected soil samples was performed in general accordance with ASTM D 1140. The results of the tests are presented on Figure B-1. These test results were utilized in evaluating the soil classifications in accordance with the Unified Soil Classification System (USCS).

Gradation Analysis

Gradation analysis testing was performed on selected representative soil samples in general accordance with ASTM D 422. The grain-size distribution curves are shown on Figures B-2 through B-9. The test results were utilized in evaluating the soil classifications in accordance with the Unified Soil Classification System (USCS).

Atterberg Limits

Testing was performed on selected representative fine-grained soil samples to evaluate the liquid limit, plastic limit, and plasticity index in general accordance with ASTM D 4318. The test results were utilized to evaluate the soil classification in accordance with the Unified Soil Classification System (USCS). The test results and classifications are shown on Figures B-10 and B-11.

Expansion Index Tests

The expansion index of selected materials was evaluated in general accordance with Uniform Building Code (UBC) Standard No. 18-2 (ASTM D 4829). A specimen was molded under a specified compactive energy at approximately 50 percent saturation (plus or minus 1 percent). The prepared 1-inch thick by 4-inch diameter specimen was loaded with a surcharge of 144 pounds per square foot and were inundated with tap water. Readings of volumetric swell were made for a period of 24 hours. The results of this test are presented on Figure B-12.

Direct Shear Tests

Direct shear tests were performed on undisturbed samples in general accordance with ASTM D 3080 to evaluate the shear strength characteristics of selected materials. The samples were inundated during shearing to represent adverse field conditions. The results are shown on Figures B-13 through B-17.

Consolidation Test

A consolidation test was performed on a selected relatively undisturbed soil sample in general accordance with ASTM D 2435. The sample was inundated during testing to represent adverse field conditions. The percent of consolidation for each load cycle was recorded as a ratio of the amount of vertical compression to the original height of the sample. The results of the test are summarized on Figure B-18.

Hydro-Collapse Potential Test

Collapse potential tests were performed on a selected relatively undisturbed soil samples in general accordance with ASTM D 5333. The sample was inundated during testing to represent adverse field conditions. The percent of consolidation for each load cycle was recorded as a ratio of the amount of vertical compression to the original height of the sample. The results of the test are summarized on Figures B-19 and B-20.

R-Value

The resistance value, or R-value, for site soils was evaluated in general accordance with California Test (CT) 301. Samples were prepared and evaluated for exudation pressure and expansion pressure. The equilibrium R-value is reported as the lesser or more conservative of the two calculated results. The test results are shown on Figure B-21.

Soil Corrosivity Tests

Soil pH, and resistivity tests were performed on a representative samples in general accordance with CT 643. The soluble sulfate and chloride content of the selected sample was evaluated in general accordance with CT 417 and CT 422, respectively. The test results are presented on Figure B-22.

SAMPLE LOCATION	SAMPLE DEPTH (FT)	DESCRIPTION	PERCENT PASSING NO. 4	PERCENT PASSING NO. 200	USCS (TOTAL SAMPLE)
B-1	35.0-36.5	CLAY WITH SAND	100	75	CL
B-2	25.0-26.5	SILT WITH SAND	100	71	ML
B-3	20.0-21.5	SILTY SAND	100	25	SM
B-3	45.0-46.5	SILT WITH SAND	100	74	ML
B-4	10.0-11.5	POORLY GRADED SAND WITH SILT	93	6	SP-SM
B-4	20.0-21.5	SANDY SILT	100	59	ML
B-4	30.0-31.5	SILT WITH SAND	100	84	ML
B-4	40.0-41.5	SILTY SAND	99	37	SM
B-4	50.0-51.5	POORLY GRADED SAND WITH SILT AND GRAVEL	79	10	SP-SM

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 1140

Ninyo & Moore

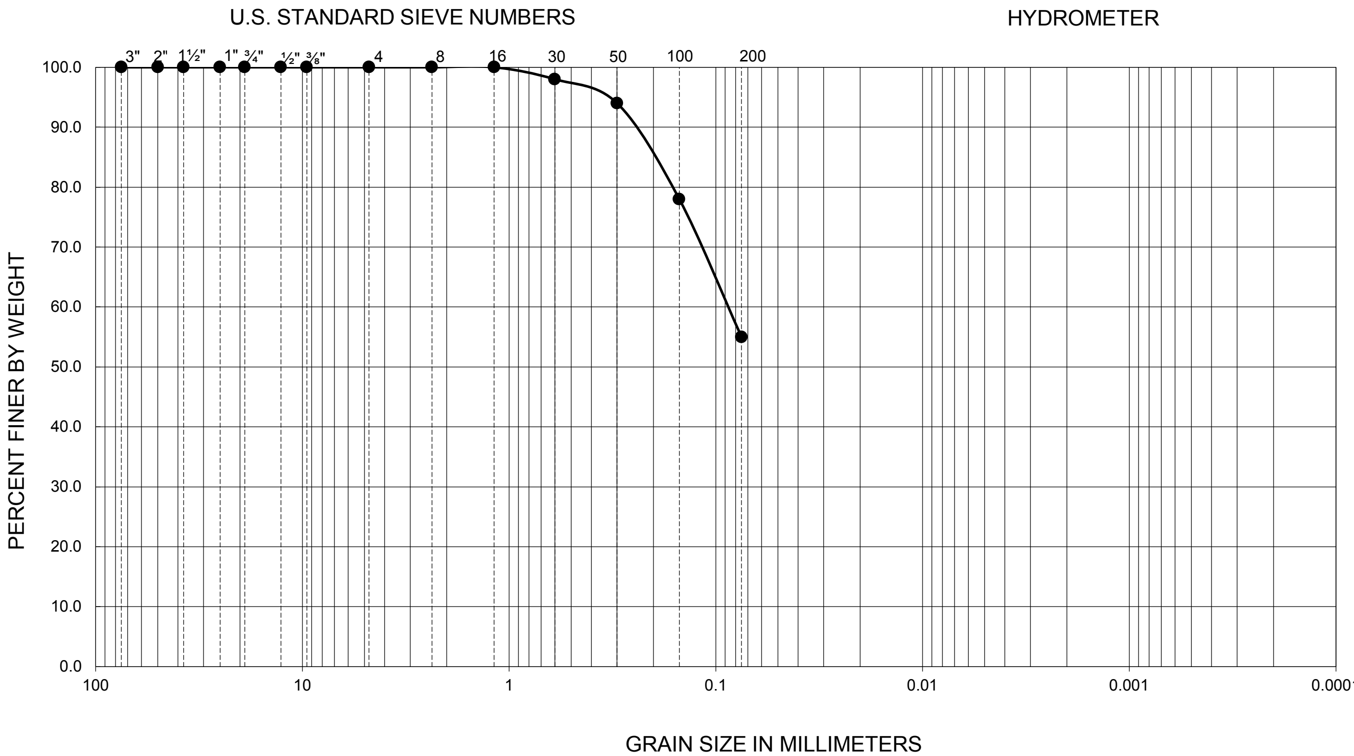
NO. 200 SIEVE ANALYSIS

FIGURE **B-1**

PROJECT NO.	DATE
209381010	5/16

COLFAX CHARTER ELEMENTARY SCHOOL MODERNIZATION
11724 ADDISON STREET
VALLEY VILLAGE, CALIFORNIA

GRAVEL		SAND			FINES	
Coarse	Fine	Coarse	Medium	Fine	SILT	CLAY

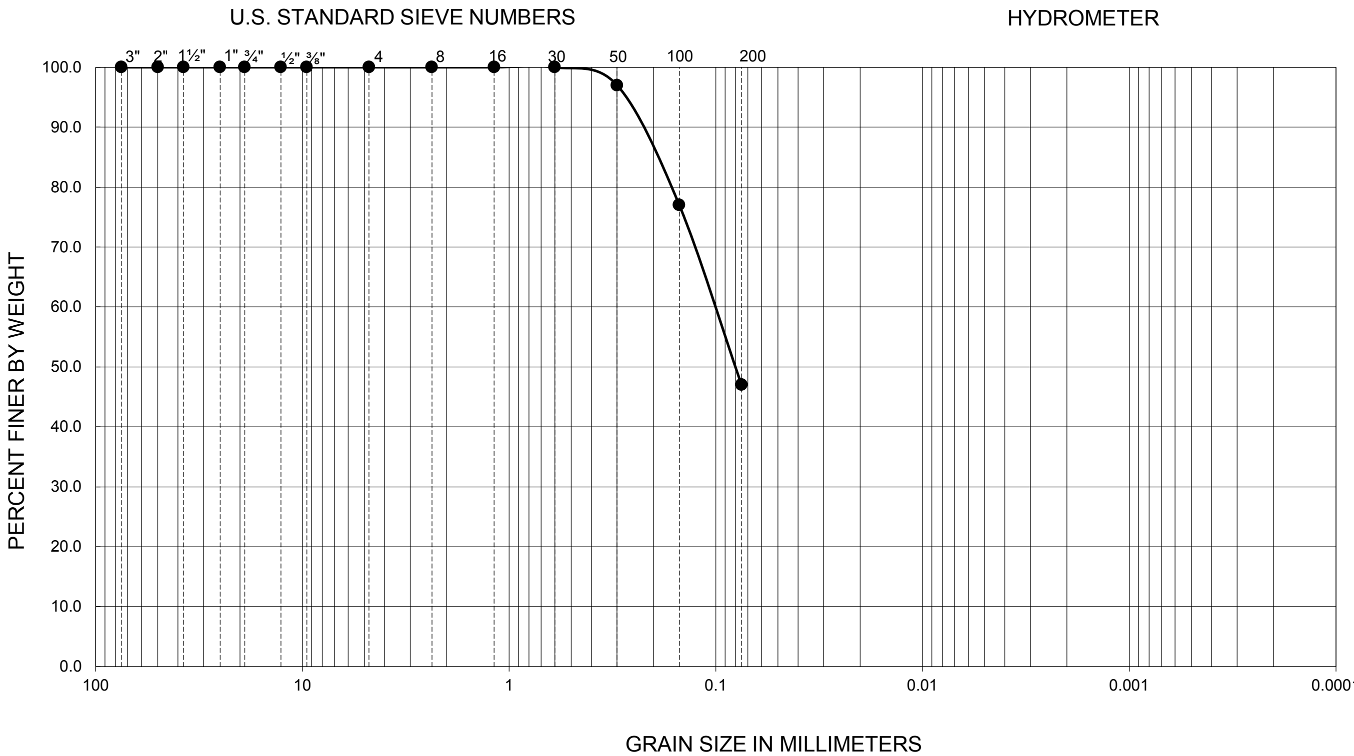


Symbol	Sample Location	Depth (ft)	Liquid Limit	Plastic Limit	Plasticity Index	D_{10}	D_{30}	D_{60}	C_u	C_c	Passing No. 200 (%)	USCS
●	B-3	15.0-16.5	--	--	--	--	--	--	--	--	55	ML

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 422

Ninyo & Moore		GRADATION TEST RESULTS	FIGURE
PROJECT NO.	DATE	COLFAX CHARTER ELEMENTARY SCHOOL MODERNIZATION 11724 ADDISON STREET VALLEY VILLAGE, CALIFORNIA	B-2
209381010	5/16		

GRAVEL		SAND			FINES	
Coarse	Fine	Coarse	Medium	Fine	SILT	CLAY

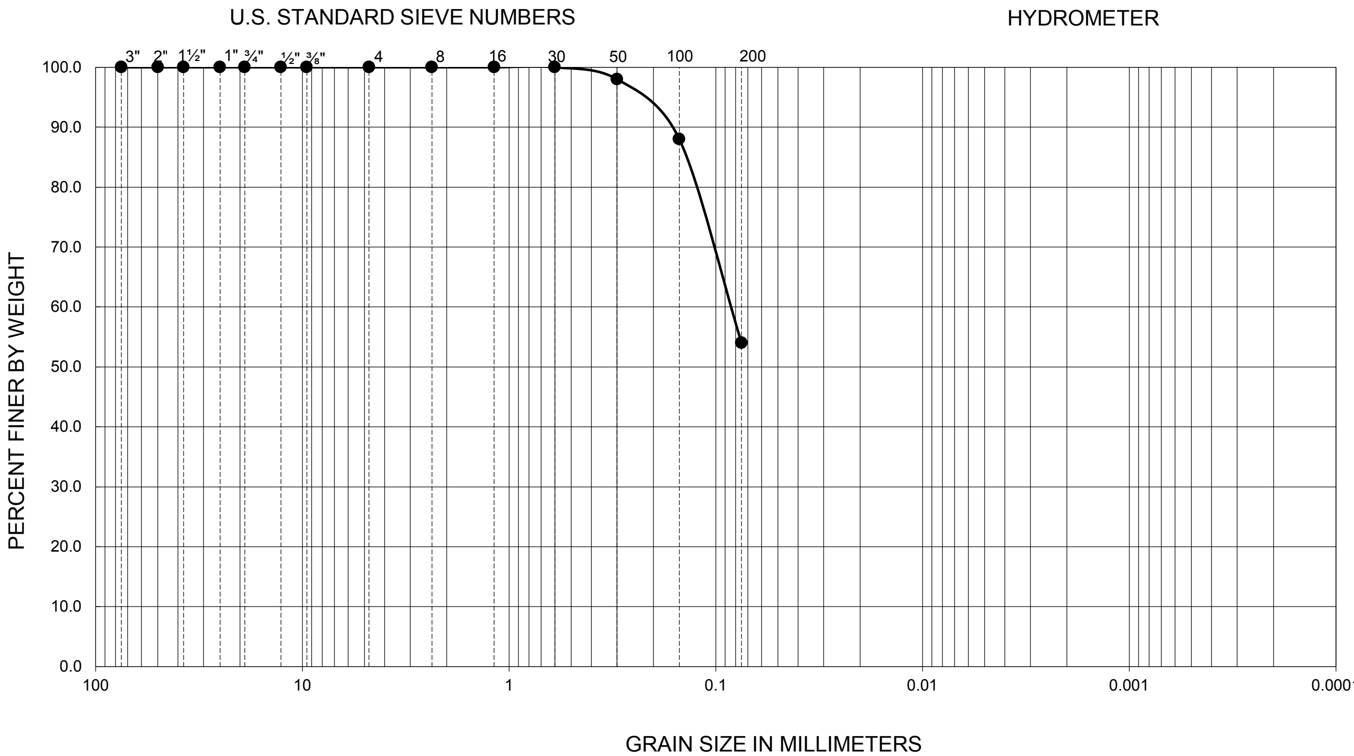


Symbol	Sample Location	Depth (ft)	Liquid Limit	Plastic Limit	Plasticity Index	D_{10}	D_{30}	D_{60}	C_u	C_c	Passing No. 200 (%)	USCS
●	B-3	25.0-26.5	--	--	--	--	--	--	--	--	47	SM

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 422

Ninyo & Moore		GRADATION TEST RESULTS	FIGURE
PROJECT NO.	DATE	COLFAX CHARTER ELEMENTARY SCHOOL MODERNIZATION 11724 ADDISON STREET VALLEY VILLAGE, CALIFORNIA	B-3
209381010	5/16		

GRAVEL		SAND			FINES	
Coarse	Fine	Coarse	Medium	Fine	SILT	CLAY

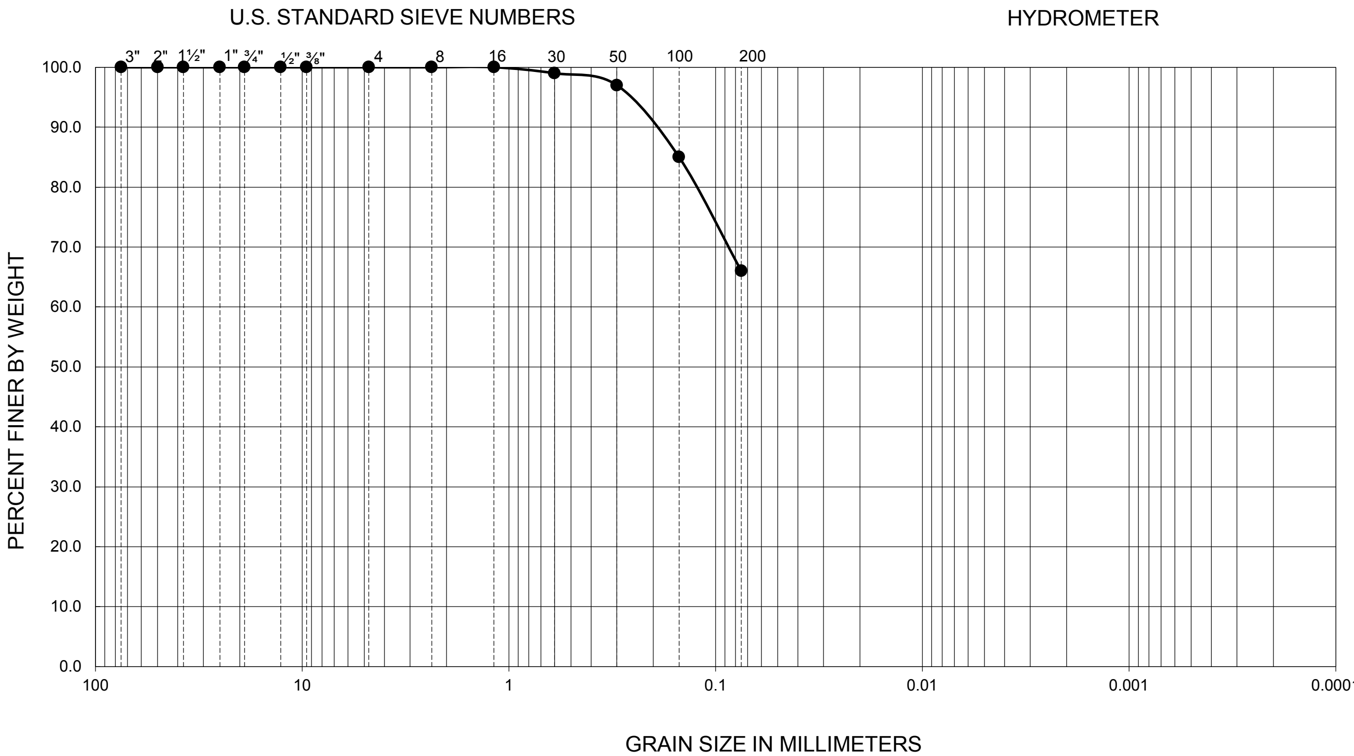


Symbol	Sample Location	Depth (ft)	Liquid Limit	Plastic Limit	Plasticity Index	D_{10}	D_{30}	D_{60}	C_u	C_c	Passing No. 200 (%)	USCS
●	B-4	25.0-26.5	--	--	--	--	--	--	--	--	54	ML

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 422

Ninyo & Moore		GRADATION TEST RESULTS	FIGURE
PROJECT NO.	DATE	COLFAX CHARTER ELEMENTARY SCHOOL MODERNIZATION 11724 ADDISON STREET VALLEY VILLAGE, CALIFORNIA	B-4
209381010	5/16		

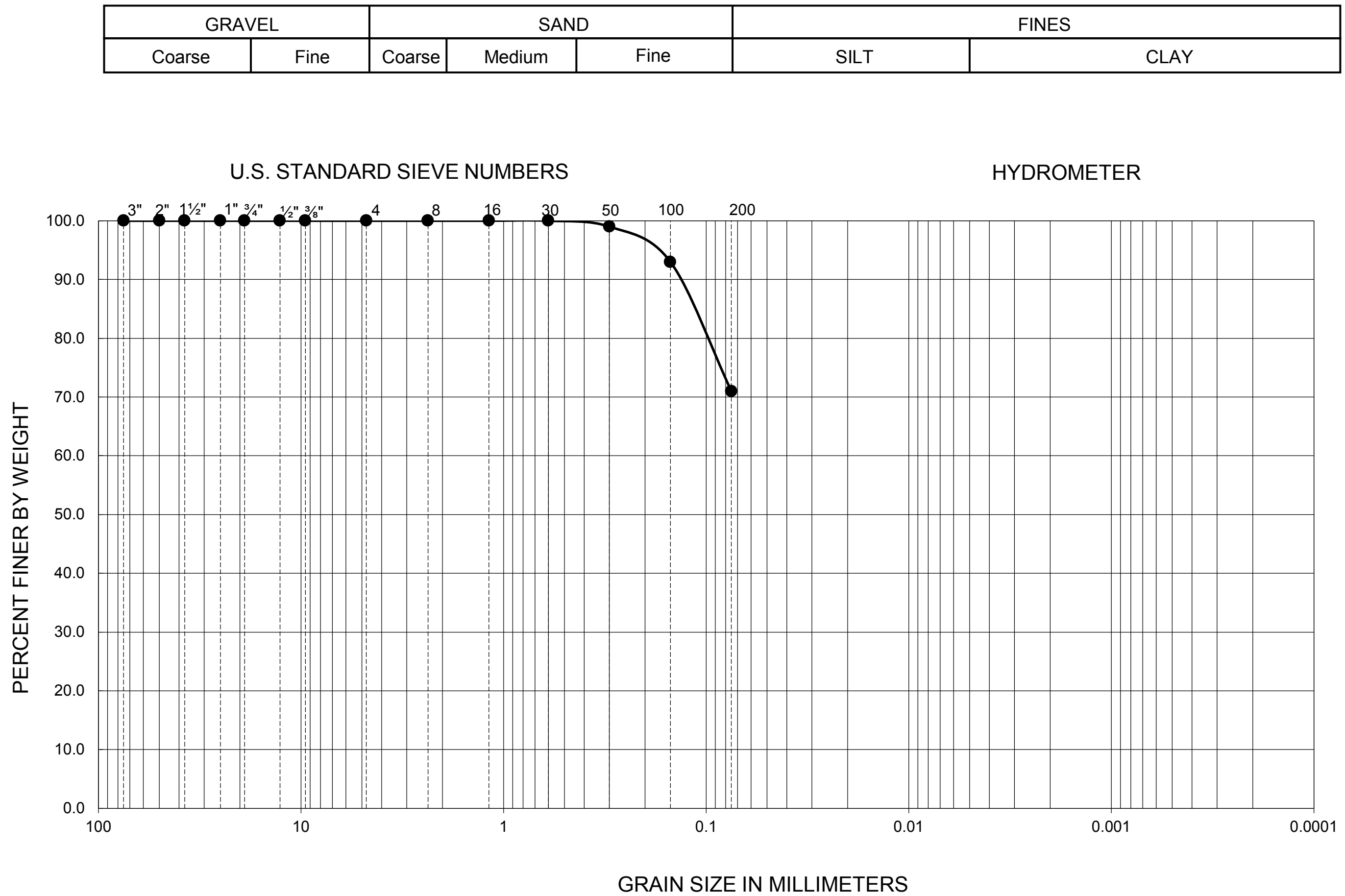
GRAVEL		SAND			FINES	
Coarse	Fine	Coarse	Medium	Fine	SILT	CLAY



Symbol	Sample Location	Depth (ft)	Liquid Limit	Plastic Limit	Plasticity Index	D_{10}	D_{30}	D_{60}	C_u	C_c	Passing No. 200 (%)	USCS
●	B-6	10.0-11.5	--	--	--	--	--	--	--	--	66	ML

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 422

Ninyo & Moore		GRADATION TEST RESULTS	FIGURE
PROJECT NO.	DATE	COLFAX CHARTER ELEMENTARY SCHOOL MODERNIZATION 11724 ADDISON STREET VALLEY VILLAGE, CALIFORNIA	B-5
209381010	5/16		



Symbol	Sample Location	Depth (ft)	Liquid Limit	Plastic Limit	Plasticity Index	D_{10}	D_{30}	D_{60}	C_u	C_c	Passing No. 200 (%)	USCS
●	B-6	25.0-26.5	--	--	--	--	--	--	--	--	71	ML

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 422

Ninyo & Moore

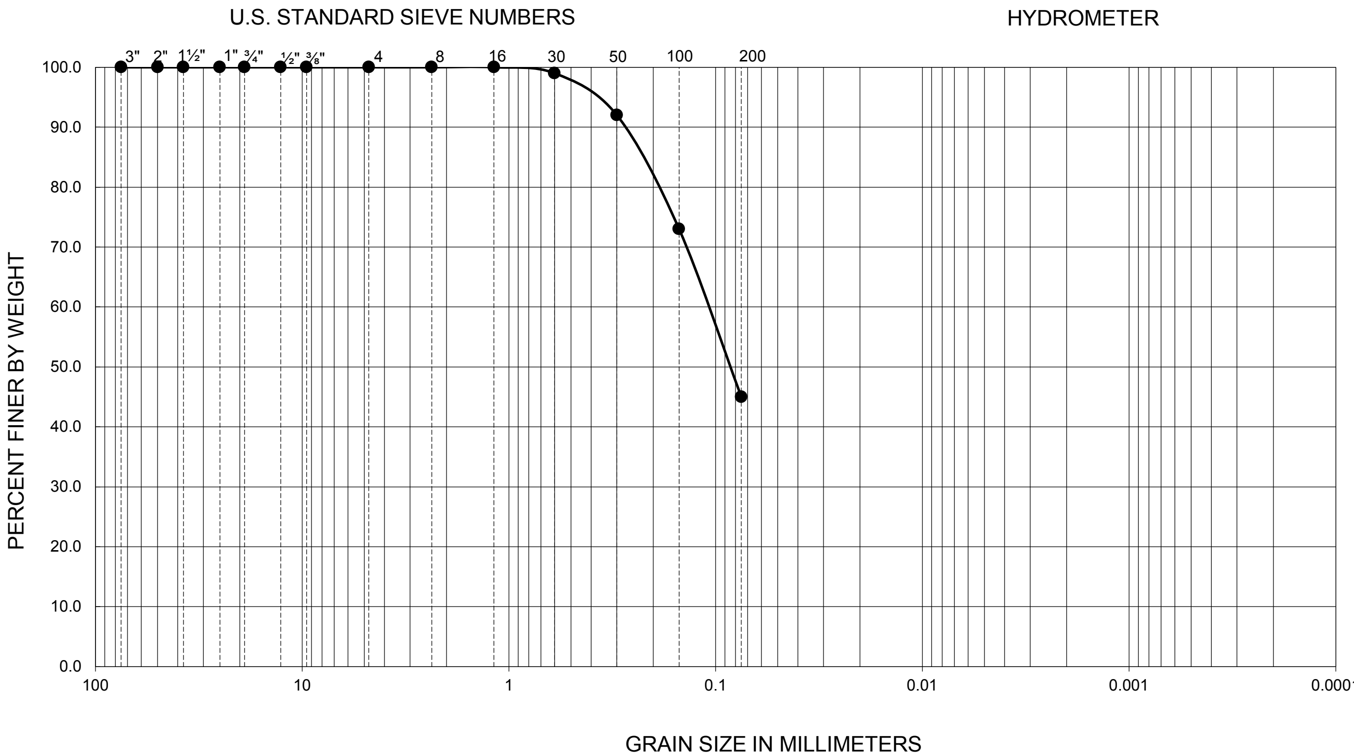
GRADATION TEST RESULTS

PROJECT NO.	DATE
209381010	5/16

COLFAX CHARTER ELEMENTARY SCHOOL MODERNIZATION
11724 ADDISON STREET
VALLEY VILLAGE, CALIFORNIA

FIGURE
B-6

GRAVEL		SAND			FINES	
Coarse	Fine	Coarse	Medium	Fine	SILT	CLAY

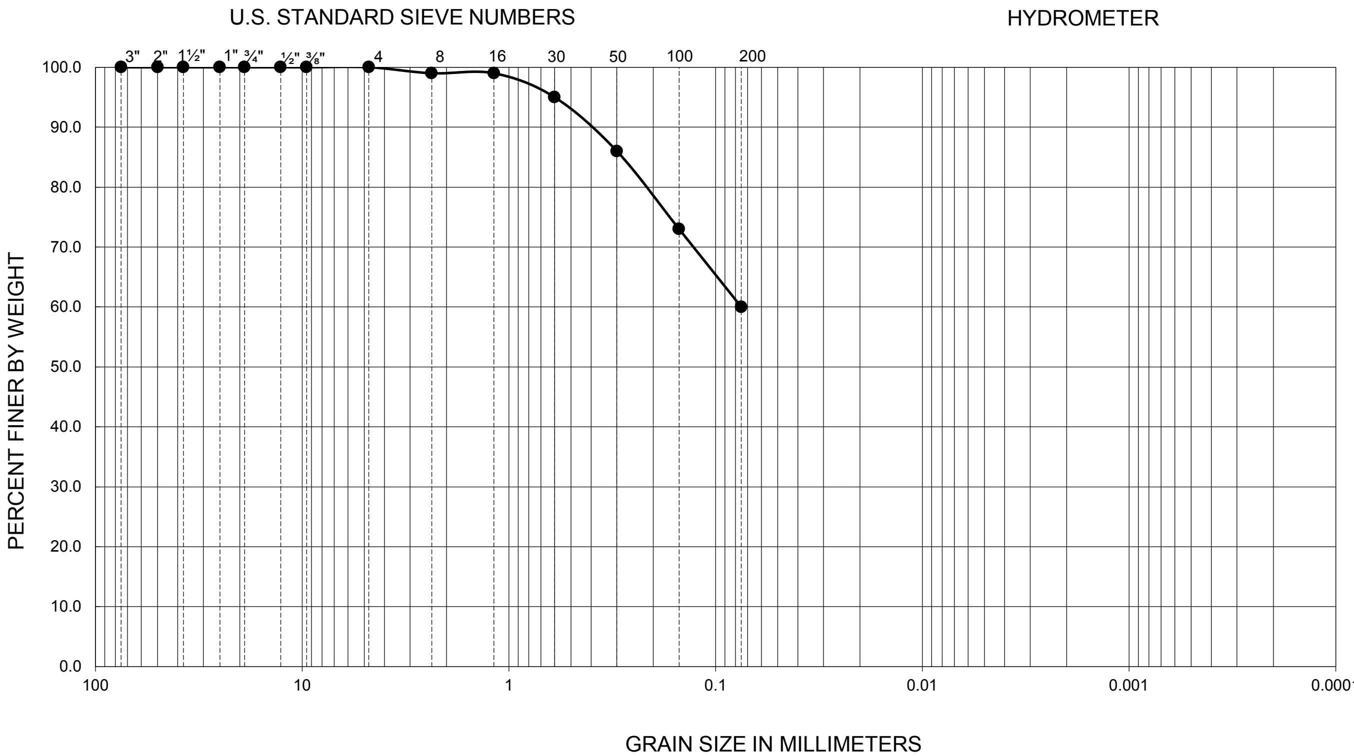


Symbol	Sample Location	Depth (ft)	Liquid Limit	Plastic Limit	Plasticity Index	D_{10}	D_{30}	D_{60}	C_u	C_c	Passing No. 200 (%)	USCS
●	B-7	15.0-16.5	23	23	0	--	--	--	--	--	45	SM

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 422

Ninyo & Moore		GRADATION TEST RESULTS	FIGURE
PROJECT NO.	DATE	COLFAX CHARTER ELEMENTARY SCHOOL MODERNIZATION 11724 ADDISON STREET VALLEY VILLAGE, CALIFORNIA	B-7
209381010	5/16		

GRAVEL		SAND			FINES	
Coarse	Fine	Coarse	Medium	Fine	SILT	CLAY

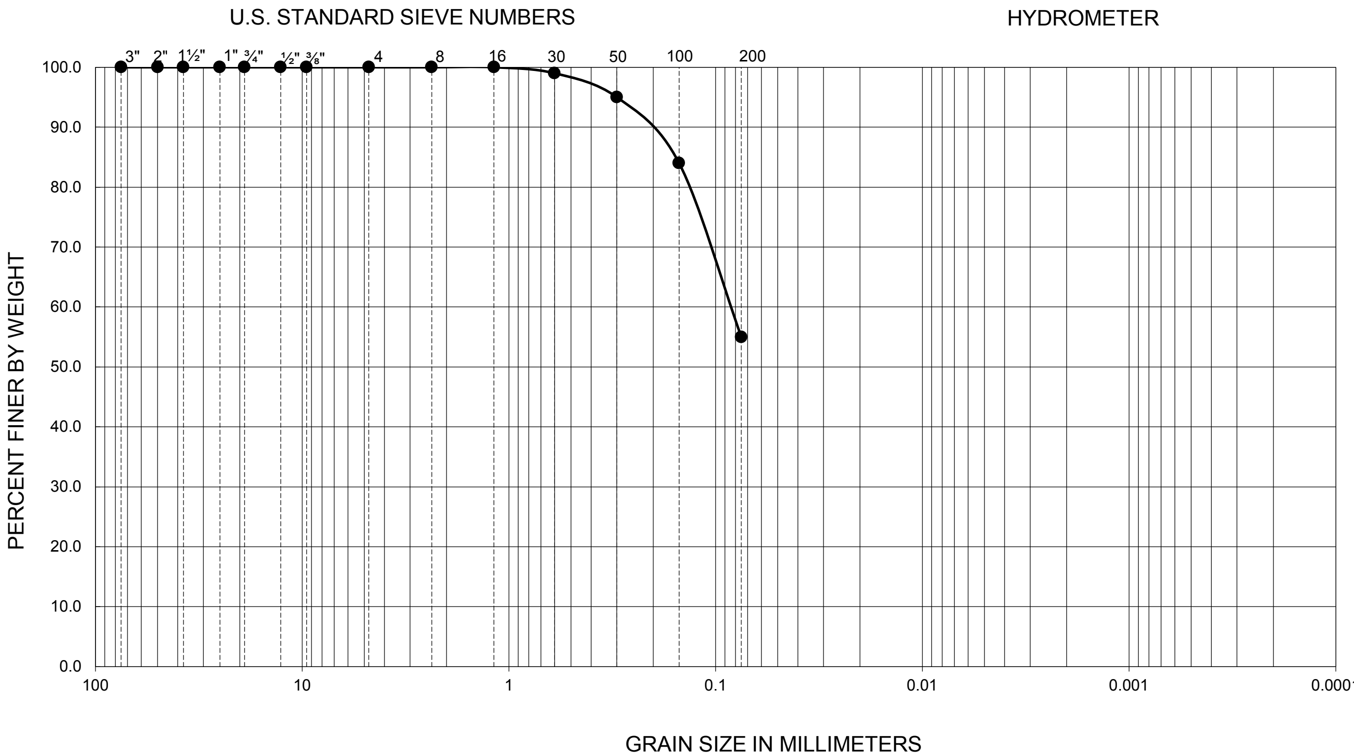


Symbol	Sample Location	Depth (ft)	Liquid Limit	Plastic Limit	Plasticity Index	D_{10}	D_{30}	D_{60}	C_u	C_c	Passing No. 200 (%)	USCS
●	B-7	25.0-26.5	--	--	--	--	--	--	--	--	60	ML

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 422

Ninyo & Moore		GRADATION TEST RESULTS	FIGURE
PROJECT NO.	DATE	COLFAX CHARTER ELEMENTARY SCHOOL MODERNIZATION 11724 ADDISON STREET VALLEY VILLAGE, CALIFORNIA	B-8
209381010	5/16		

GRAVEL		SAND			FINES	
Coarse	Fine	Coarse	Medium	Fine	SILT	CLAY



Symbol	Sample Location	Depth (ft)	Liquid Limit	Plastic Limit	Plasticity Index	D_{10}	D_{30}	D_{60}	C_u	C_c	Passing No. 200 (%)	USCS
●	B-8	25.0-26.5	--	--	--	--	--	--	--	--	55	ML

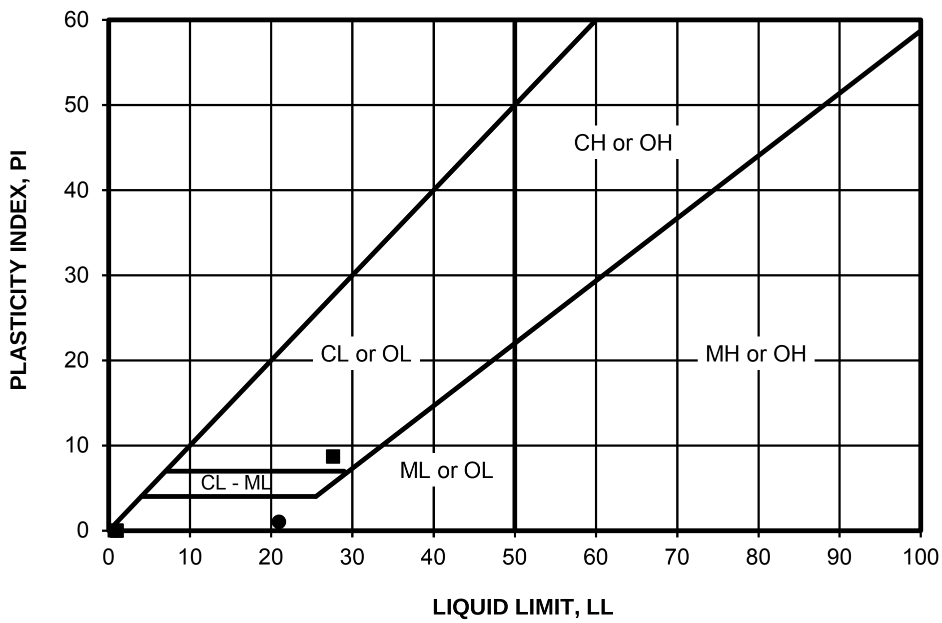
PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 422

Ninyo & Moore		GRADATION TEST RESULTS	FIGURE
PROJECT NO.	DATE	COLFAX CHARTER ELEMENTARY SCHOOL MODERNAZTION 11724 ADDISON STREET VALLEY VILLAGE , CALIFORNIA	B-9
209381010	5/16		

209381010 Fig B-09_SIEVE w No 8 B-8 25.0-26.5

SYMBOL	LOCATION	DEPTH (FT)	LIQUID LIMIT, LL	PLASTIC LIMIT, PL	PLASTICITY INDEX, PI	USCS CLASSIFICATION (Fraction Finer Than No. 40 Sieve)	USCS (Entire Sample)
●	B-3	15.0-16.5	21	20	1	ML	ML
■	B-3	30.0-31.5	28	19	9	CL	SC
◆	B-4	15.0-16.5				NP	SM
○	B-4	40.0-41.5				NP	SM

NP - INDICATES NON-PLASTIC

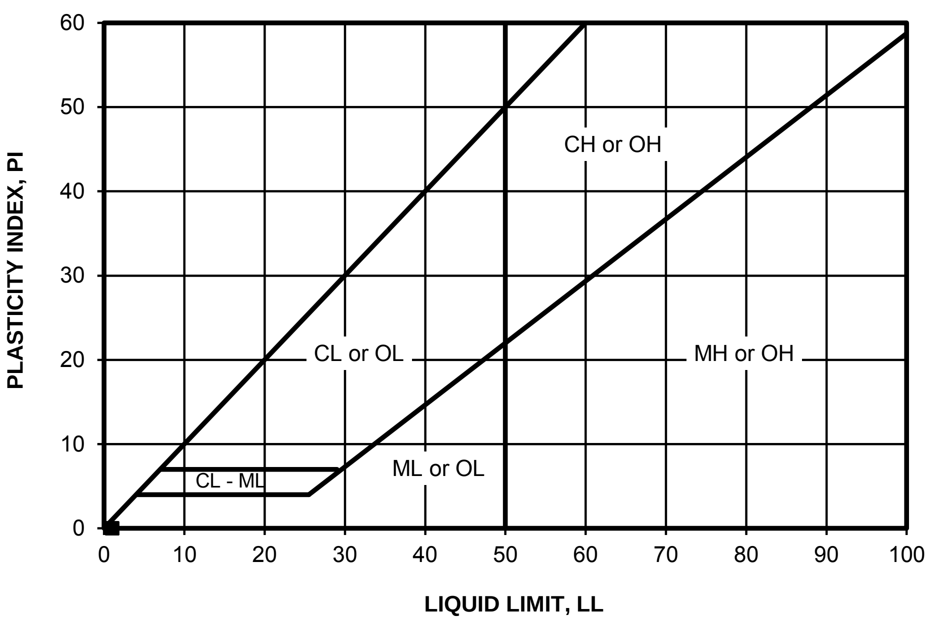


PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 4318

Ninyo & Moore	ATTERBERG LIMITS TEST RESULTS	FIGURE
PROJECT NO. 209381010 / DATE 5/16	COLFAX CHARTER ELEMENTARY SCHOOL MODERNIZATION 11724 ADDISON STREET VALLEY VILLAGE, CALIFORNIA	B-10

SYMBOL	LOCATION	DEPTH (FT)	LIQUID LIMIT, LL	PLASTIC LIMIT, PL	PLASTICITY INDEX, PI	USCS CLASSIFICATION (Fraction Finer Than No. 40 Sieve)	USCS (Entire Sample)
●	B-7	15.0-16.5	23	23	0	ML	SM

NP - INDICATES NON-PLASTIC



PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 4318

Ninyo & Moore

ATTERBERG LIMITS TEST RESULTS

PROJECT NO.	DATE
209381010	5/16

COLFAX CHARTER ELEMENTARY SCHOOL MODERNIZATION
11724 ADDISON STREET
VALLEY VILLAGE, CALIFORNIA

FIGURE
B-11

SAMPLE LOCATION	SAMPLE DEPTH (FT)	INITIAL MOISTURE (%)	COMPACTED DRY DENSITY (PCF)	FINAL MOISTURE (%)	VOLUMETRIC SWELL (IN)	EXPANSION INDEX	POTENTIAL EXPANSION
B-4	0.5-5.0	9.5	111.0	21.3	0.000	0	Very Low
B-7	2.0-5.0	10.0	108.8	24.7	0.000	0	Very Low

PERFORMED IN GENERAL ACCORDANCE WITH ☐ UBC STANDARD 18-2 ☑ ASTM D 4829

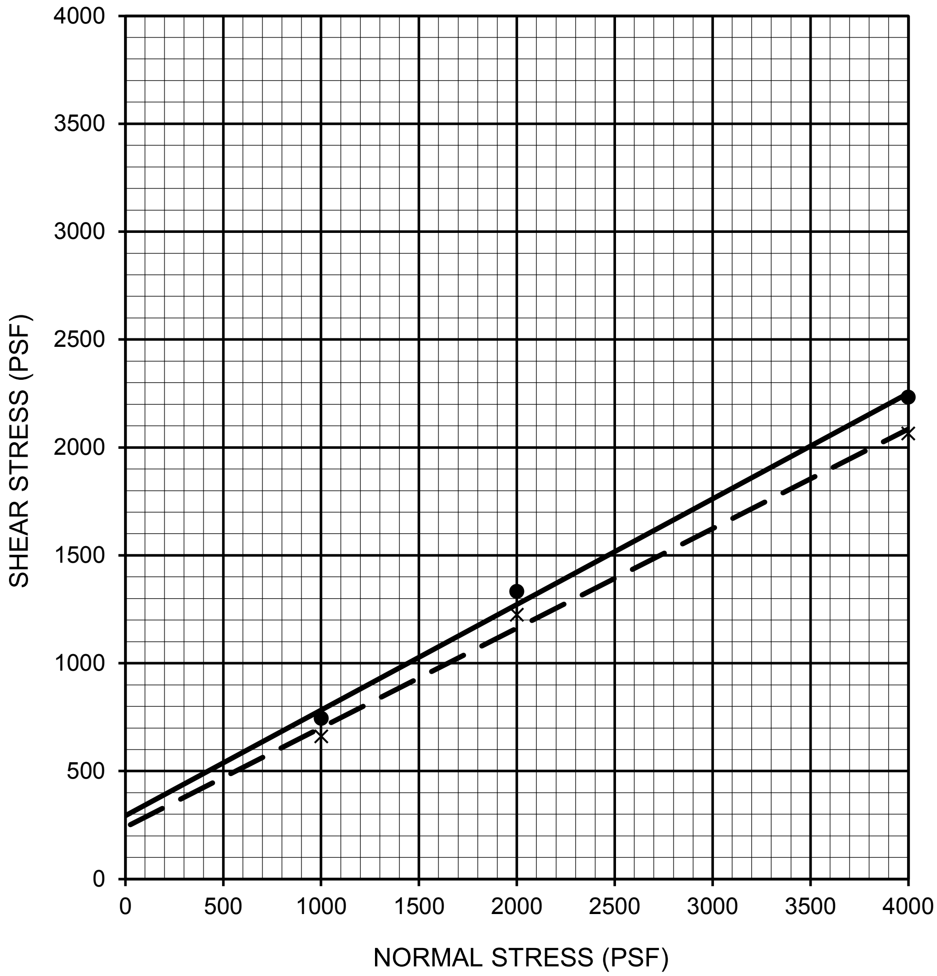
Ninyo & Moore

EXPANSION INDEX TEST RESULTS

PROJECT NO.	DATE
209381010	5/16

COLFAX CHARTER ELEMENTARY SCHOOL MODERNIZATION
11724 ADDISON STREET
VALLEY VILLAGE, CALIFORNIA

FIGURE
B-12



Description	Symbol	Sample Location	Depth (ft)	Shear Strength	Cohesion, c (psf)	Friction Angle, ϕ (degrees)	Soil Type
SANDY SILT	——●——	B-1	5.0-6.5	Peak	295	26	ML
SANDY SILT	- - X - -	B-1	5.0-6.5	Ultimate	240	25	ML

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 3080

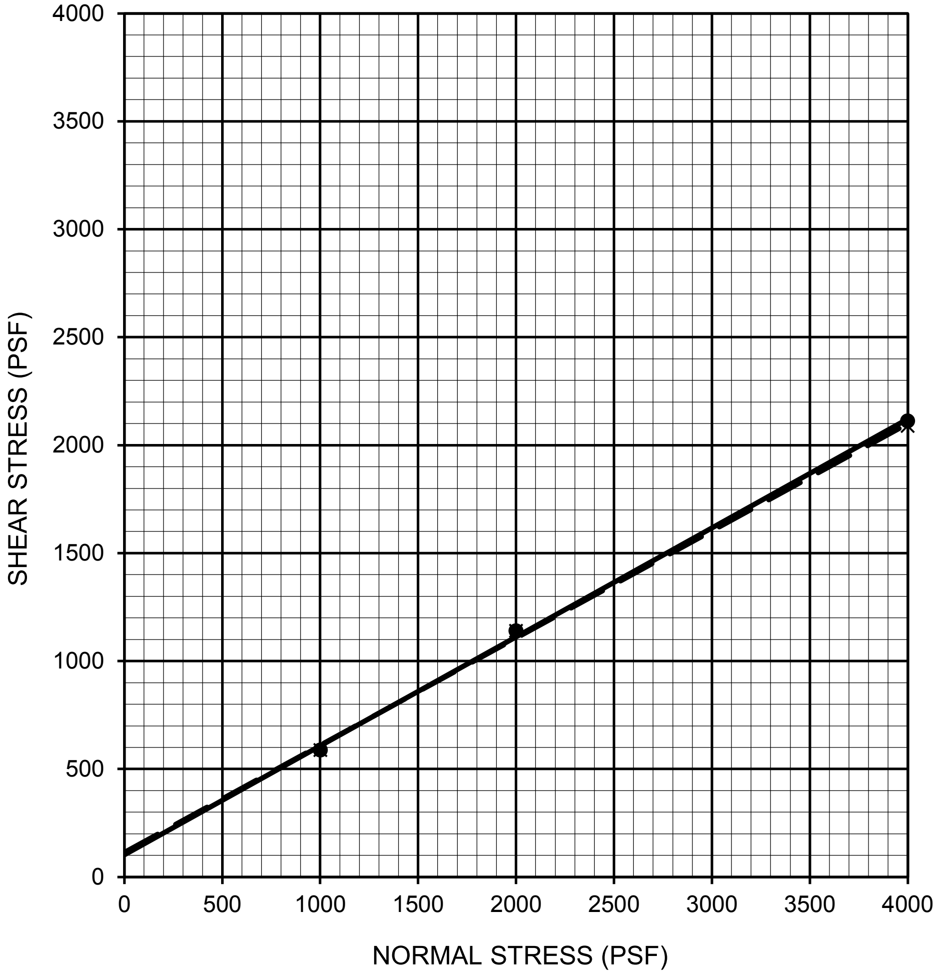
Ninyo & Moore

PROJECT NO.	DATE
209381010	5/16

DIRECT SHEAR TEST RESULTS

COLFAX CHARTER ELEMENTARY SCHOOL MODERNIZATION
11724 ADDISON STREET
VALLEY VILLAGE, CALIFORNIA

FIGURE
B-13



Description	Symbol	Sample Location	Depth (ft)	Shear Strength	Cohesion, c (psf)	Friction Angle, ϕ (degrees)	Soil Type
SANDY SILT	——●——	B-2	10.0-11.5	Peak	100	27	ML
SANDY SILT	- - x - -	B-2	10.0-11.5	Ultimate	115	26	ML

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 3080

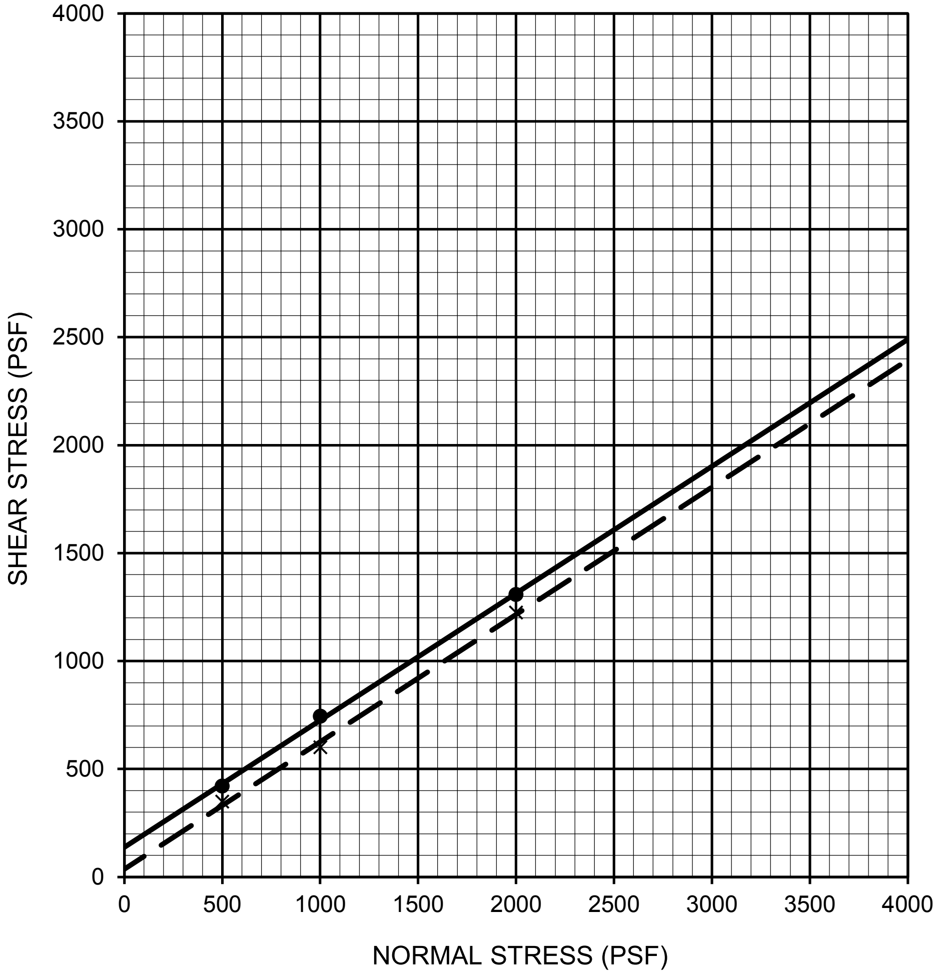
Ninyo & Moore

DIRECT SHEAR TEST RESULTS

FIGURE **B-14**

PROJECT NO.	DATE
209381010	5/16

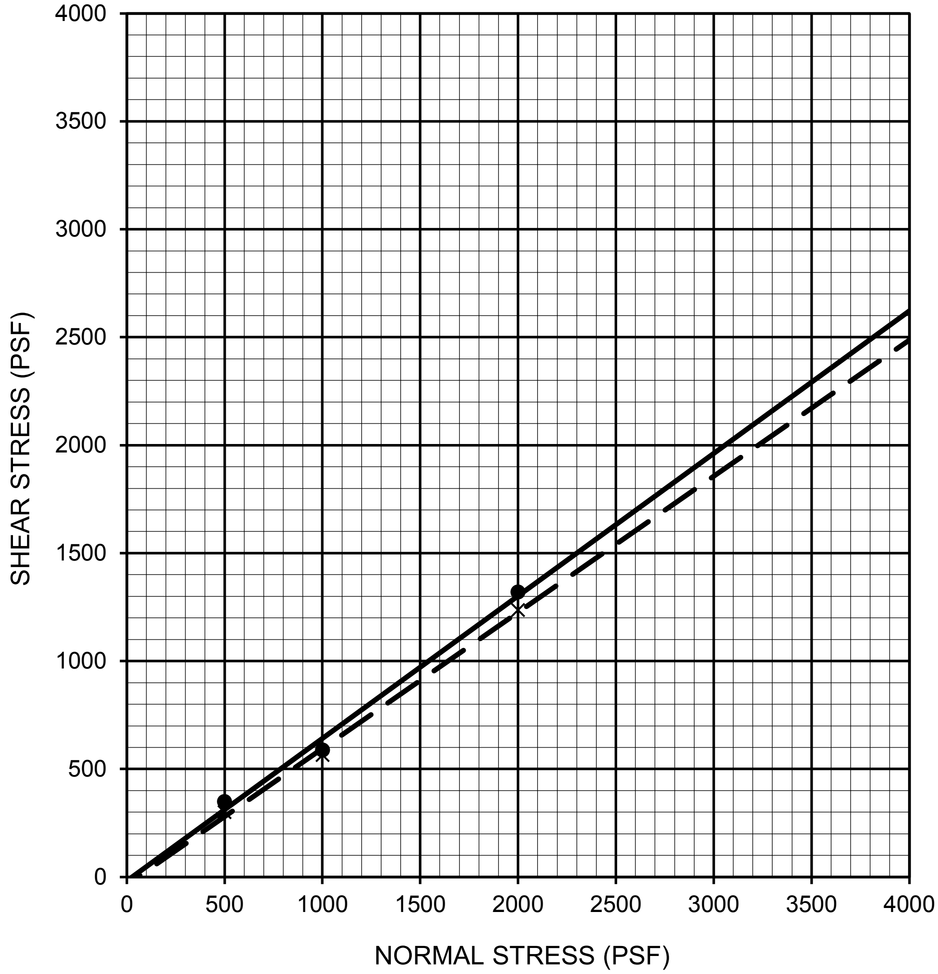
COLFAX CHARTER ELEMENTARY SCHOOL MODERNIZATION
11724 ADDISON STREET
VALLEY VILLAGE, CALIFORNIA



Description	Symbol	Sample Location	Depth (ft)	Shear Strength	Cohesion, c (psf)	Friction Angle, ϕ (degrees)	Soil Type
POORLRY GRADED SAND WITH SILT	—●—	B-4	5.0-6.5	Peak	140	30	SP-SM
POORLRY GRADED SAND WITH SILT	- - x - -	B-4	5.0-6.5	Ultimate	35	31	SP-SM

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 3080

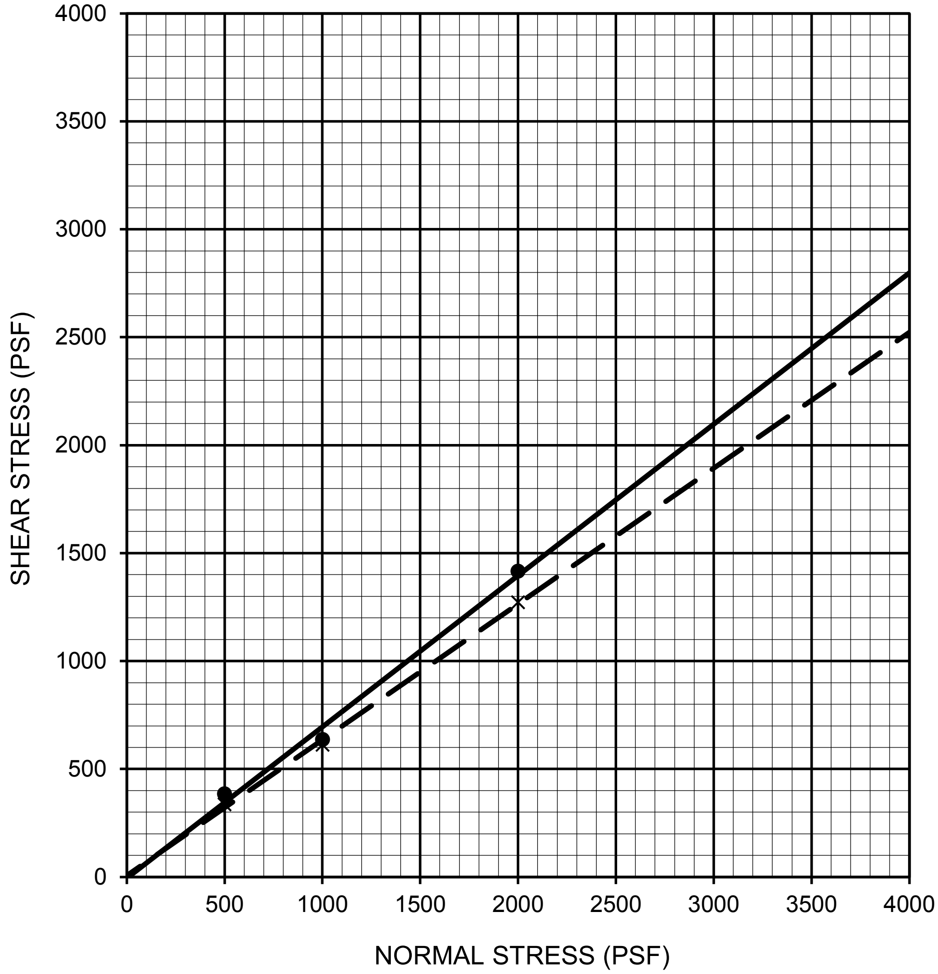
Ninyo & Moore		DIRECT SHEAR TEST RESULTS	FIGURE
PROJECT NO.	DATE	COLFAX CHARTER ELEMENTARY SCHOOL MODERNIZATION 11724 ADDISON STREET VALLEY VILLAGE, CALIFORNIA	B-15
209381010	5/16		



Description	Symbol	Sample Location	Depth (ft)	Shear Strength	Cohesion, c (psf)	Friction Angle, ϕ (degrees)	Soil Type
SILTY SAND	——●——	B-7	5.0-6.5	Peak	0	33	SM
SILTY SAND	- - x - -	B-7	5.0-6.5	Ultimate	0	32	SM

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 3080

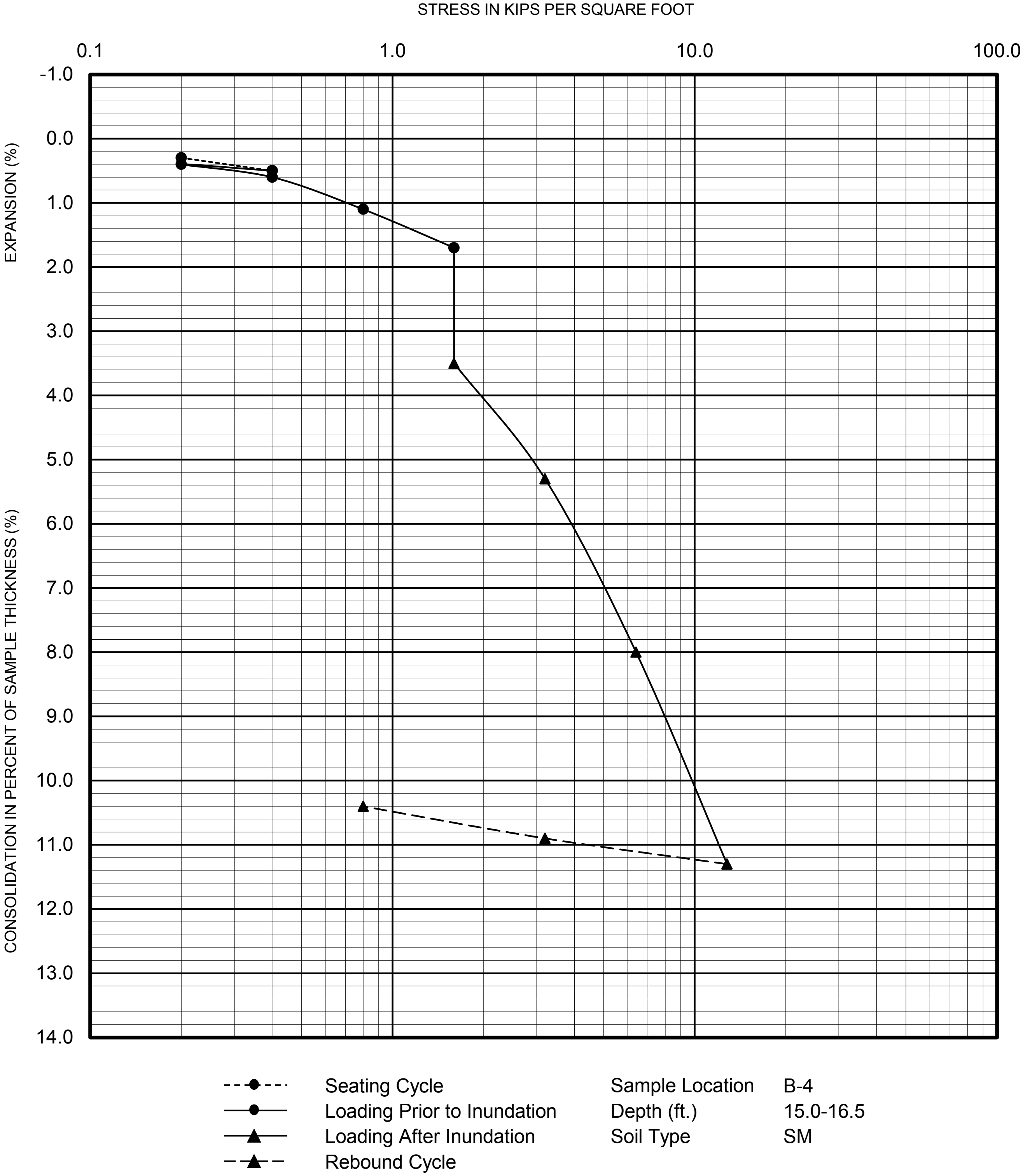
Ninyo & Moore		DIRECT SHEAR TEST RESULTS	FIGURE
PROJECT NO.	DATE	COLFAX CHARTER ELEMENTARY SCHOOL MODERNIZATION 11724 ADDISON STREET VALLEY VILLAGE, CALIFORNIA	B-16
209381010	5/16		



Description	Symbol	Sample Location	Depth (ft)	Shear Strength	Cohesion, c (psf)	Friction Angle, ϕ (degrees)	Soil Type
POORLY GRADED SAND	—●—	B-8	5.0-6.5	Peak	0	35	SP
POORLY GRADED SAND	- - x - -	B-8	5.0-6.5	Ultimate	6	32	SP

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 3080

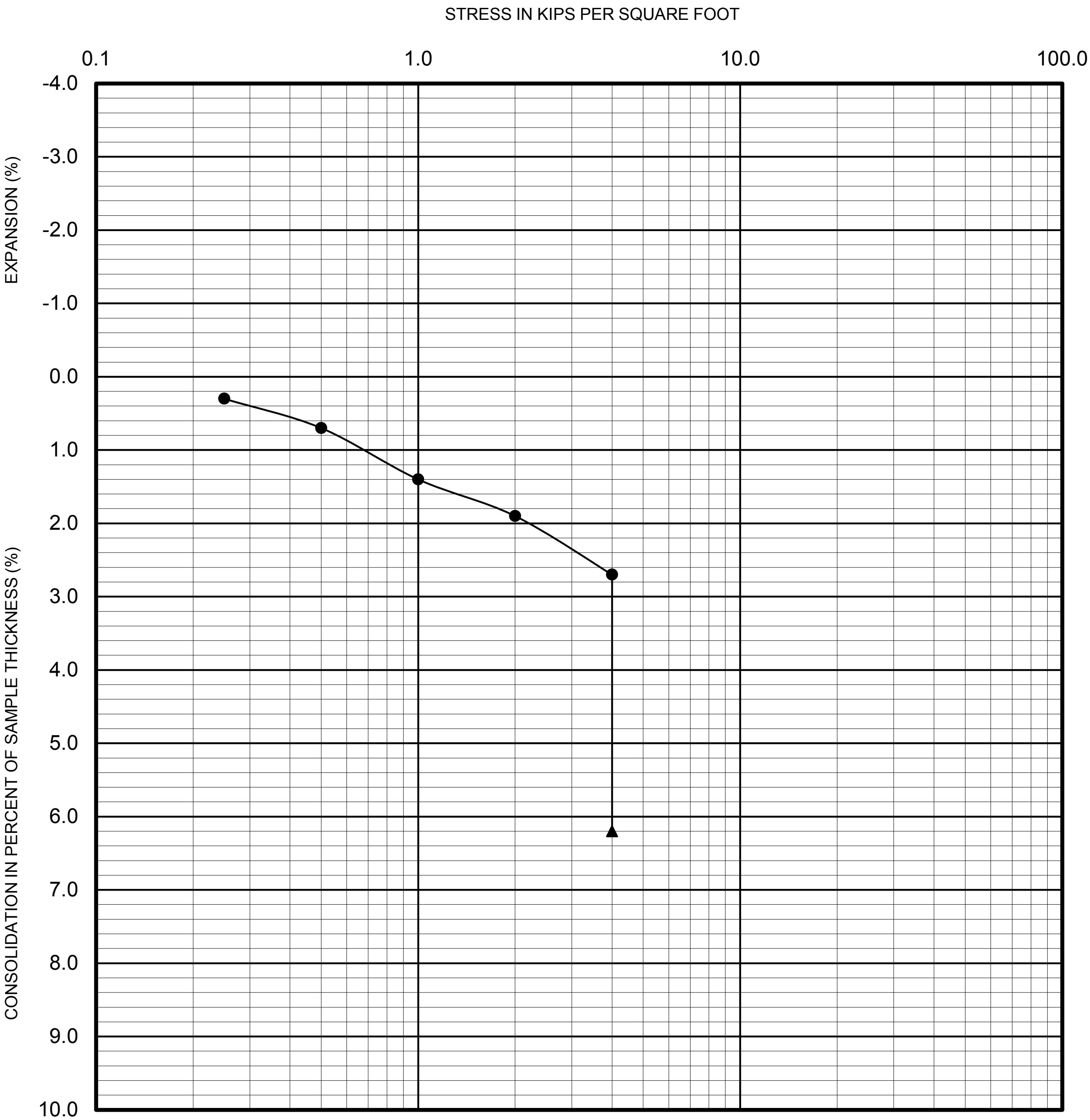
Ninyo & Moore		DIRECT SHEAR TEST RESULTS	FIGURE
PROJECT NO.	DATE	COLFAX CHARTER ELEMENTARY SCHOOL MODERNIZATION 11724 ADDISON STREET VALLEY VILLAGE, CALIFORNIA	B-17
209381010	5/16		



Sample Location	B-4
Depth (ft.)	15.0-16.5
Soil Type	SM

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 2435

Ninyo & Moore		CONSOLIDATION TEST RESULTS	FIGURE
PROJECT NO.	DATE	COLFAX CHARTER ELEMENTARY SCHOOL MODERNIZATION 11724 ADDISON STREET VALLEY VILLAGE, CALIFORNIA	B-18
209381010	5/16		

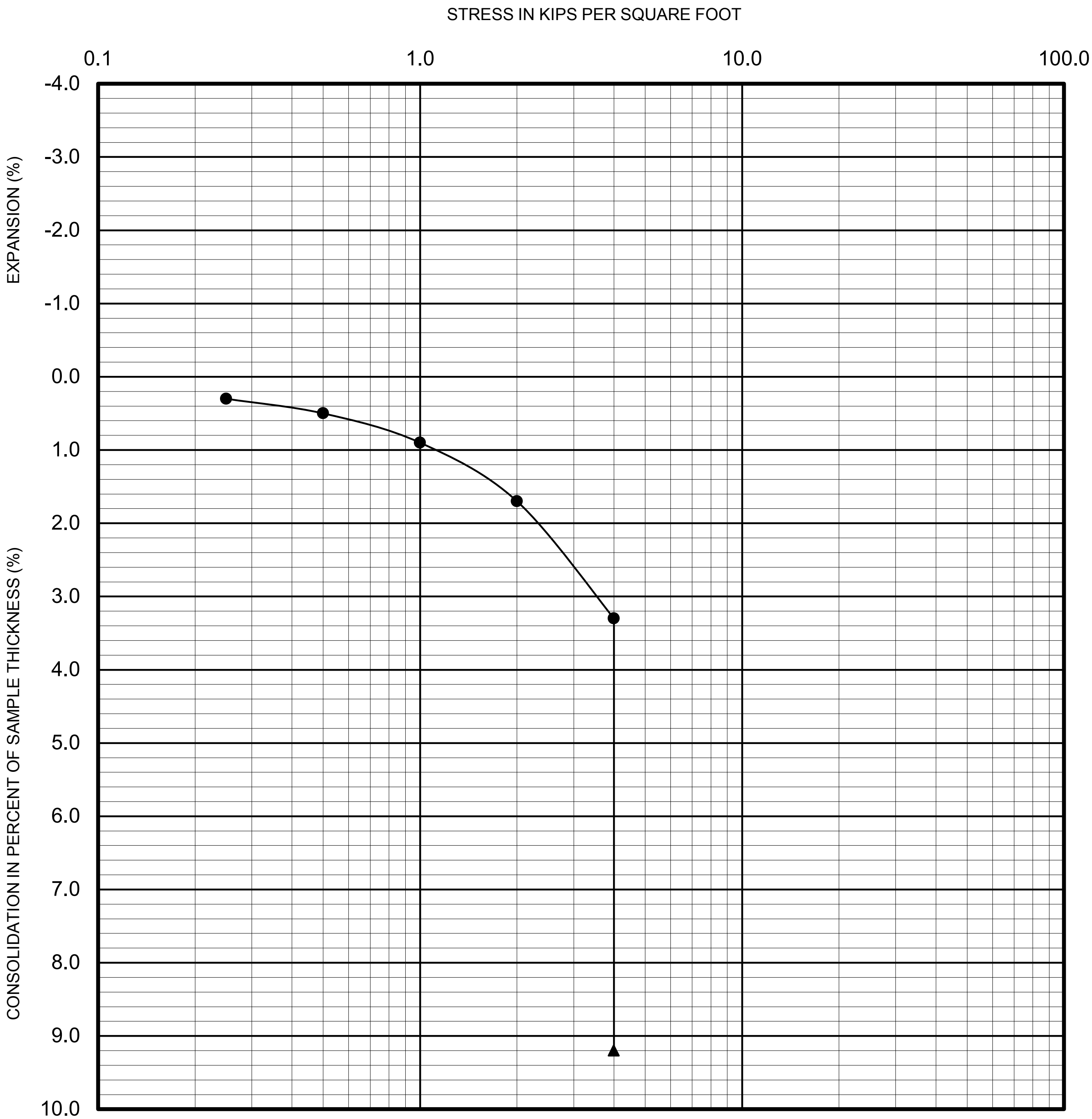


Seating Cycle
Loading Prior to Inundation
Loading After Inundation
Rebound Cycle

Sample Location	B-1
Depth (ft.)	15.0-16.5
Soil Type	SC

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 5333

Ninyo & Moore	HYDRO-COLLAPSE POTENTIAL TEST RESULTS	FIGURE
PROJECT NO. 209381010 / DATE 5/16	COLFAX CHARTER ELEMENTARY SCHOOL MODERNIZATION 11724 ADDISON STREET VALLEY VILLAGE, CALIFORNIA	B-19



Seating Cycle		Sample Location	B-6
Loading Prior to Inundation		Depth (ft.)	15.0-16.5
Loading After Inundation		Soil Type	ML
Rebound Cycle			

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 2435

Ninyo & Moore

HYDROCOLLAPSE TEST RESULTS

PROJECT NO.	DATE	COLFAX CHARTER ELEMENTARY SCHOOL MODERNIZATION 11724 ADDISON STREET VALLEY VILLAGE, CALIFORNIA	FIGURE
209381010	5/16		B-20

SAMPLE LOCATION	SAMPLE DEPTH (FT)	SOIL TYPE	R-VALUE
B-5	1.5-5.0	SM	76

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 2844/CT 301

Ninyo & Moore

R-VALUE TEST RESULTS

FIGURE

B-21

PROJECT NO.	DATE
209381010	5/16

COLFAX CHARTER ELEMENTARY SCHOOL MODERNIZATION
11724 ADDISON STREET
VALLEY VILLAGE, CALIFORNIA

SAMPLE LOCATION	SAMPLE DEPTH (FT)	pH [1]	RESISTIVITY [1] (Ohm-cm)	SULFATE CONTENT [2] (ppm)	SULFATE CONTENT [2] (%)	CHLORIDE CONTENT [3] (ppm)
B-5	5.0-6.5	6.7	13,925	30	0.003	50
B-6	1.0-5.0	6.5	7,417	10	0.001	50

[1] PERFORMED IN GENERAL ACCORDANCE WITH CALIFORNIA TEST METHOD 643
[2] PERFORMED IN GENERAL ACCORDANCE WITH CALIFORNIA TEST METHOD 417
[3] PERFORMED IN GENERAL ACCORDANCE WITH CALIFORNIA TEST METHOD 422

Ninyo & Moore

CORROSIVITY TEST RESULTS

PROJECT NO.	DATE
209381010	5/16

COLFAX CHARTER ELEMENTARY SCHOOL MODERNIZATION
11724 ADDISON STREET
VALLEY VILLAGE, CALIFORNIA

FIGURE
B-22

APPENDIX D

APPENDIX D

ULARA WATERMASTER LETTER

ULARA

UPPER LOS ANGELES RIVER AREA WATERMASTER
Richard C. Slade - Watermaster

ularawatermaster.com

14051 Burbank Blvd, STE 300
Sherman Oaks, CA 91401

818-506-0418 PHONE
818-506-1343 FAX

August 16, 2016

To: Ms. Jelisa Thomas
Geocon West Inc.
Sent via email (thomas@geoconinc.com)

From: Richard C. Slade
Watermaster, Upper Los Angeles River Area

Re: Watermaster's Opinion of Groundwater Levels in the Vicinity of the Proposed School Structure at Colfax Elementary School, 11724 Addison Street, Valley Village
San Fernando Groundwater Basin, Los Angeles County

Job No. 500-LAS02

Ms. Thomas:

Based on your emails to me dated July 28 and August 2, 2016, I understand your company is currently providing geotechnical engineering services to the Los Angeles Unified School District (LAUSD), in regard to a project at the Colfax Elementary School at 11724 Addison Street in the Valley Village area of the San Fernando Valley. I further understand all projects that your firm conducts for LAUSD are reviewed by the Design State Architect and the California Geological Survey.

From your emails, you are requesting that I, as Watermaster for the Superior Court-adjudicated region known as the Upper Los Angeles River Area (ULARA), provide an opinion, to the extent possible, on future potential groundwater depths in the vicinity of Colfax Elementary School. As determined using the Google Earth software package, the ground surface elevation at the subject site is about 630 ft above sea level (asl).

From your email to me dated August 2, 2016, I further understand that available data, generated by your firm during recent subsurface exploration at the property, include:

- The school was originally constructed in 1950, and only one additional structure was built between 1954 and 1964. There are no historical data available to document the subsurface exploration (or possible groundwater levels) encountered prior to or during the construction of any of these school structures.
- Your company drilled nine borings in 2015 and 2016 to depths reportedly ranging from 6½ ft to 96½ ft below ground surface (bgs). That maximum depth of 96½ ft bgs translates to an elevation of approximately 534 ft above sea level (asl) at the property.

The subject school site is located in the south-central portion of the San Fernando Groundwater Basin, the largest of the four groundwater basins in the adjudicated ULARA. Noteworthy for the San Fernando Basin is that the cumulative change in groundwater in storage (and also, in effect, local groundwater levels) has decreased over time, especially in the area east of the 405 Freeway. In terms of the cumulative change in groundwater in storage, the blue line on the attached copy of Plate 13 from the Annual Watermaster Report for the Water Year 2013-14 (not included herein) shows that the volume of groundwater in storage in Fall 2011 in the San Fernando Groundwater Basin was on the order of 750,000 acre feet (AF) lower than that in the Fall of 1944 (the date of the historic maximum volume of groundwater in storage). Specifically, the blue line on Plate 13 shows a cumulative storage change volume of 236,000 AF in Fall 1944, compared to a cumulative change value in Fall 2011 of approximately 520,740 AF.

To compare groundwater levels in the vicinity of your proposed development, I have reviewed the following:

1. Plate 29, "Groundwater Contours, 1944" (published in the Report of Referee, Volume 1, Text and Plates; July, 1962; prepared by the State Water Rights Board for the then-ongoing litigation that led to the Final ULARA Judgment, dated 1/20/79). In the general vicinity of the subject property, the all-time high groundwater elevation near the subject property was at about ±615 ft asl. That would translate to a groundwater depth beneath the school site of about 15 ft bgs at that time.

2. The website of Los Angeles County Department of Public Works (http://dpw.lacounty.gov/general_/wells/), which provides the locations and available water level records for water level observation wells throughout the County. In the vicinity of the subject property, their map and dataset (not provided herein) indicate the nearest observation wells and key respective water level data are as follows:

   a) LACFCD No. 3813J, which lies approximately 800 ft due north of the northeast corner of the subject property. This well has a database extending between November 1956 and August 2016. In November 1956, the initial water level depth was at 66.1 ft bgs, whereas the most recent (August 2016) water level reading was at a depth of 135 ft bgs. The shallowest water level was at a depth of 62.8 ft bgs (4/27/57), whereas the deepest water level was at a depth of 147.3 ft bgs on 4/14/07.

   b) LACFCD No. 3814G, which is located approximately 1,750 ft due south of the southeast corner of the subject property. The database for this observation well dates from November 1956 to August 2016. In November 1956, the initial water level reading was at a depth of 66.1 ft bgs, whereas the latest (most current) reading was at a depth of 116.0 ft bgs. The all-time shallowest and deepest water levels in this observation well were 63.0 ft bgs on 4/25/57 and 117.6 ft bgs on 11/22/04.

   c) LACFCD No. 3813G, which lies about 3,100 ft north of the north boundary of the subject property. The water level database for this observation well dates from December 1958 to August 2016. The shallowest and deepest water levels at this site during its ±58-year database have been at depths of 101.3 ft bgs on 4/14/59, and 156.2 ft bgs on 8/4/16, respectively.

d) LACFDC No. 3834J, which lies approximately 5,600 ft due east-southeast of the southeast boundary of the subject property. This observation well has a database from June 1956 through August 2016. Water levels at the beginning and end of this ±60-year period of available data, have ranged in depth from 100.3 ft to 125.1 ft, respectively. All time high (shallowest) and low (deepest) water levels in this database were 94.2 ft bgs on 3/12/57, and 166.4 ft bgs on 4/12/78.

In addition, I have reviewed the water level records available from two specific hydrographs provided in the Annual Watermaster Report for Water Year 2013-14; these are shown on p. 2-23 in that report, and represent the water level databases for Hydrographs 3 and 4 on p. 2-23 of that report. The locations of the wells represented by these hydrographs are shown on Figure 2.4 on p. 2-22 of that report. In both cases, the hydrographs represent composites of water levels from two or three nearby wells. For Hydrograph 3, the joint wells are Nos. 3753, 3753B and 3762E, whereas for Hydrograph 4, the joint wells include Nos. 3830C and 3841H.

These two hydrographs reveal the following:

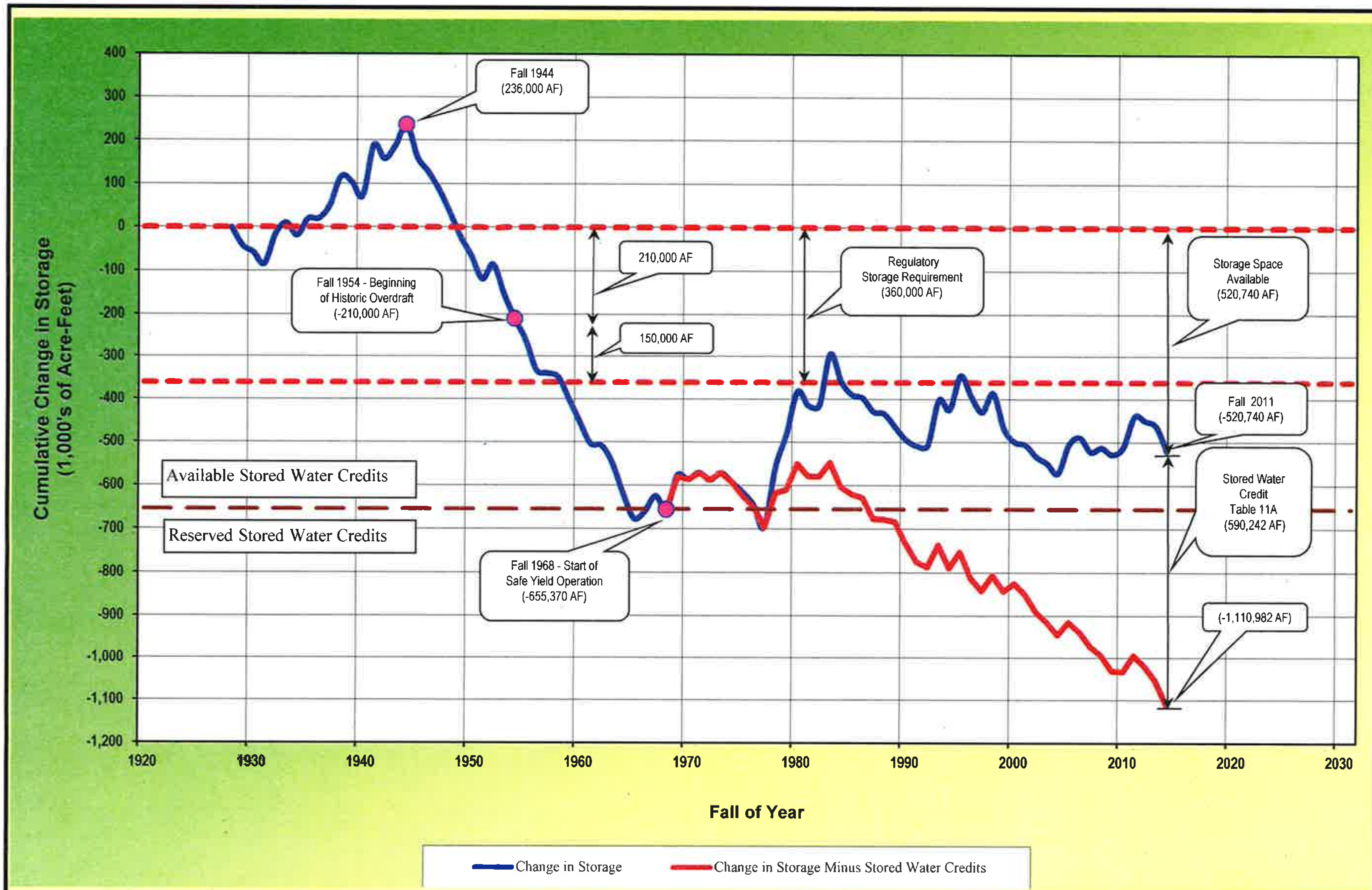
a) The water level highs occurred in the mid-1940s, which is consistent with: the water level elevation contours for 1944 that were previously discussed herein; and the graph of groundwater in storage shown on Plate 13 of the Annual Watermaster Report (also discussed above).

b) Since the mid-1940s, water level depths have: continued to decline over time on Hydrograph 3 from early values at depths of ±25 ft bgs to more current values at depths of ±150 to 160 ft bgs; or declined dramatically on Hydrograph 4 from the mid-1940s, at ±60 ft bgs, to depths of 235 ft bgs in the mid-1960s. From that time to the present, water levels on this hydrograph have fluctuated between depths of ±150 ft bgs and 200 ft bgs.

c) These water level declines and water level decline trends are very similar to the declines and trends in the cumulative change in groundwater in storage shown in the blue-colored line on Plate 13 herein. This is because declines in groundwater in storage in the San Fernando Groundwater Basin are analogous with declines in water levels in the aquifer systems which comprise the San Fernando Groundwater Basin.

Among the key factors affecting groundwater levels in San Fernando Groundwater Basin over time are: groundwater extractions by the three principal Parties to the ULARA Judgment within the basin (the cities of Burbank, Glendale, and Los Angeles), each of which operates its own system of municipal-supply wells; the annual volumes of water that are available for artificial recharge in spreading basins located in the northeast portion of San Fernando Groundwater Basin (for the foreseeable future, the spread water will be either the stormwater captured in and eventually released from storage behind Big Tujunga Dam and Hansen Dam, imported MWD water spread in Pacoima and/or Lopez spreading grounds, or treated recycled water from the Tillman Treatment Plant); and the ULARA Judgment, which has established specific maximum annual volumes of groundwater extractions permitted for each of those three Parties. In addition, there very likely will not be any significant impacts to water levels along the southern edge of the San Fernando Groundwater Basin induced by those future spreading operations, in part, because of the large number of active municipal-supply wells located between the spreading basins and the subject property.

Thus, based on the water level trends discussed above, on the fact that artificial recharge can only occur in the spreading basins that lie several miles from and on the opposite side of virtually all municipal-supply wells in the San Fernando Groundwater Basin, and on the Court-established allowable annual pumping rights of the three main Parties to the Judgment, it is the opinion of this Watermaster that it is highly probable that groundwater levels in the vicinity of the subject property will not be able to rise again to their pre-Judgment, mid-1940s water level depth in the next 50 to 100 years. Further, it is highly unlikely that those water levels will rise (increase) to depths more shallow than ±50 to 75 ft bgs in that same period of time.



2013-14 Water Year
ULARA Watermaster
Report

San Fernando Basin: Cumulative Change in Groundwater Storage

PLATE
13

APPENDIX E

APPENDIX E

LIQUEFACTION ANALYSIS REPORTS

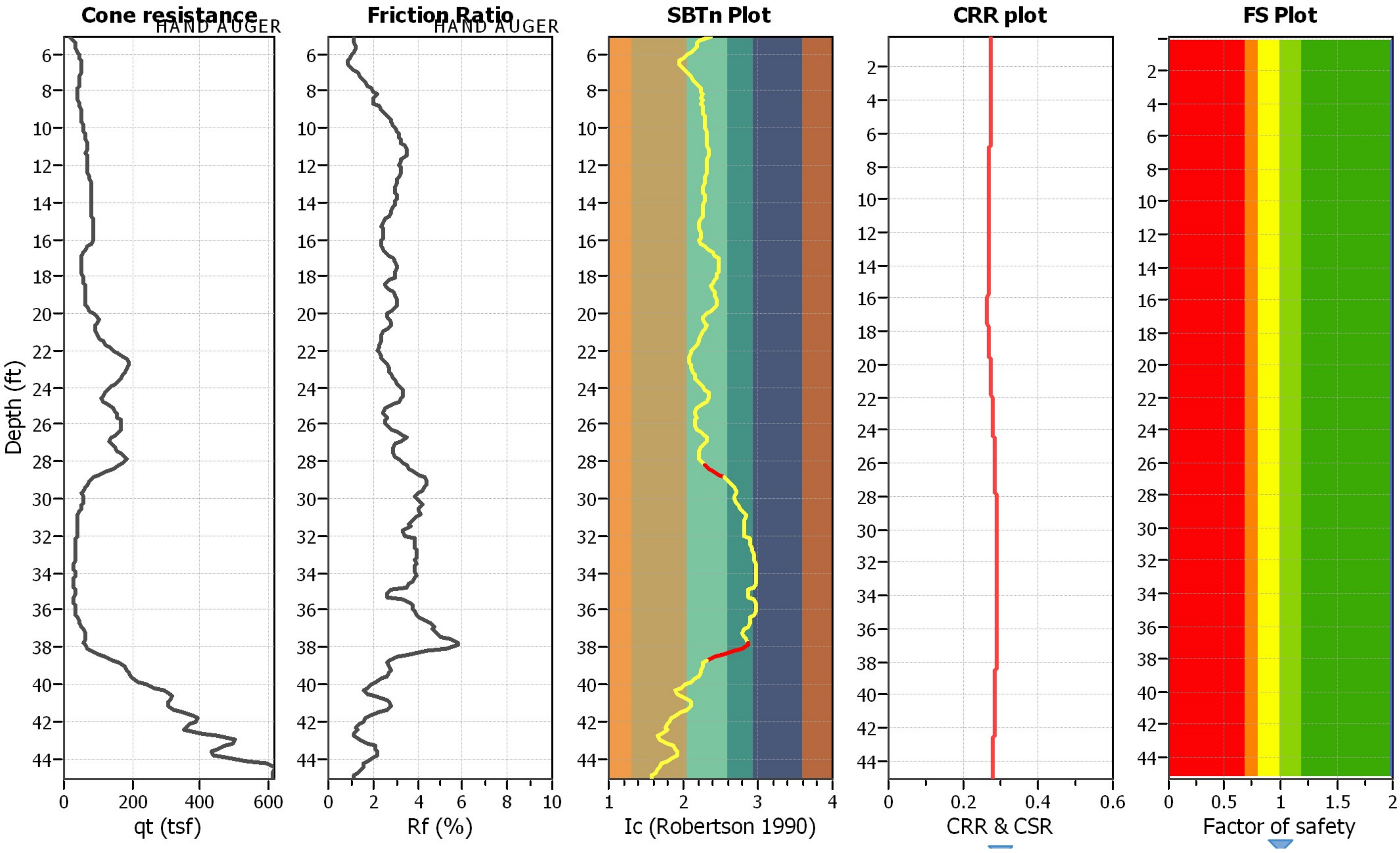
LIQUEFACTION ANALYSIS REPORT

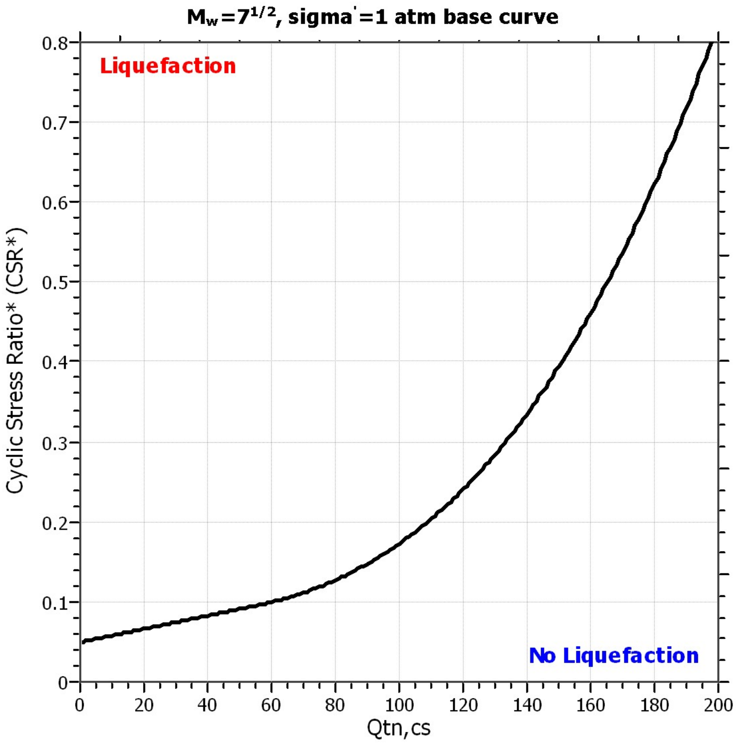
Project title : Colfax Charter Elementary School - DE Analysis Location : A8326-06-69A

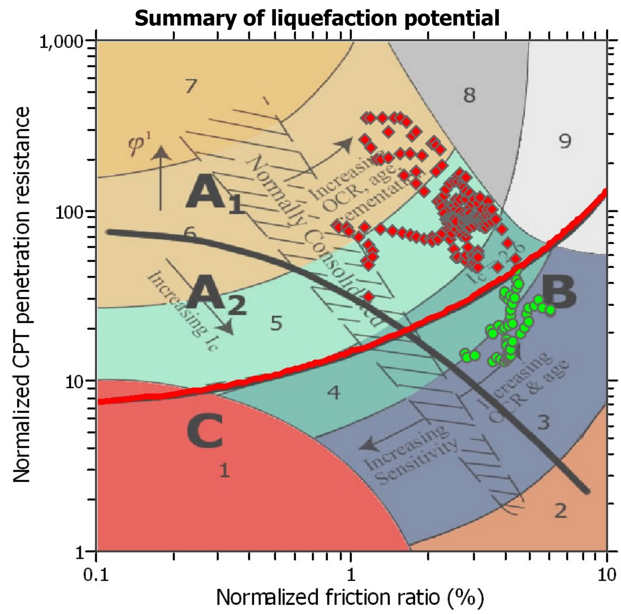
CPT file : CPT-01

Input parameters and analysis data

Analysis method:	NCEER (1998)	G.W.T. (in-situ):	50.00 ft	Use fill:	No	Clay like behavior applied:	Sands only
Fines correction method:	NCEER (1998)	G.W.T. (earthq.):	50.00 ft	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w:	6.72	Ic cut-off value:	2.60	Trans. detect. applied:	Yes	MSF method:	Method based
Peak ground acceleration:	0.56	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

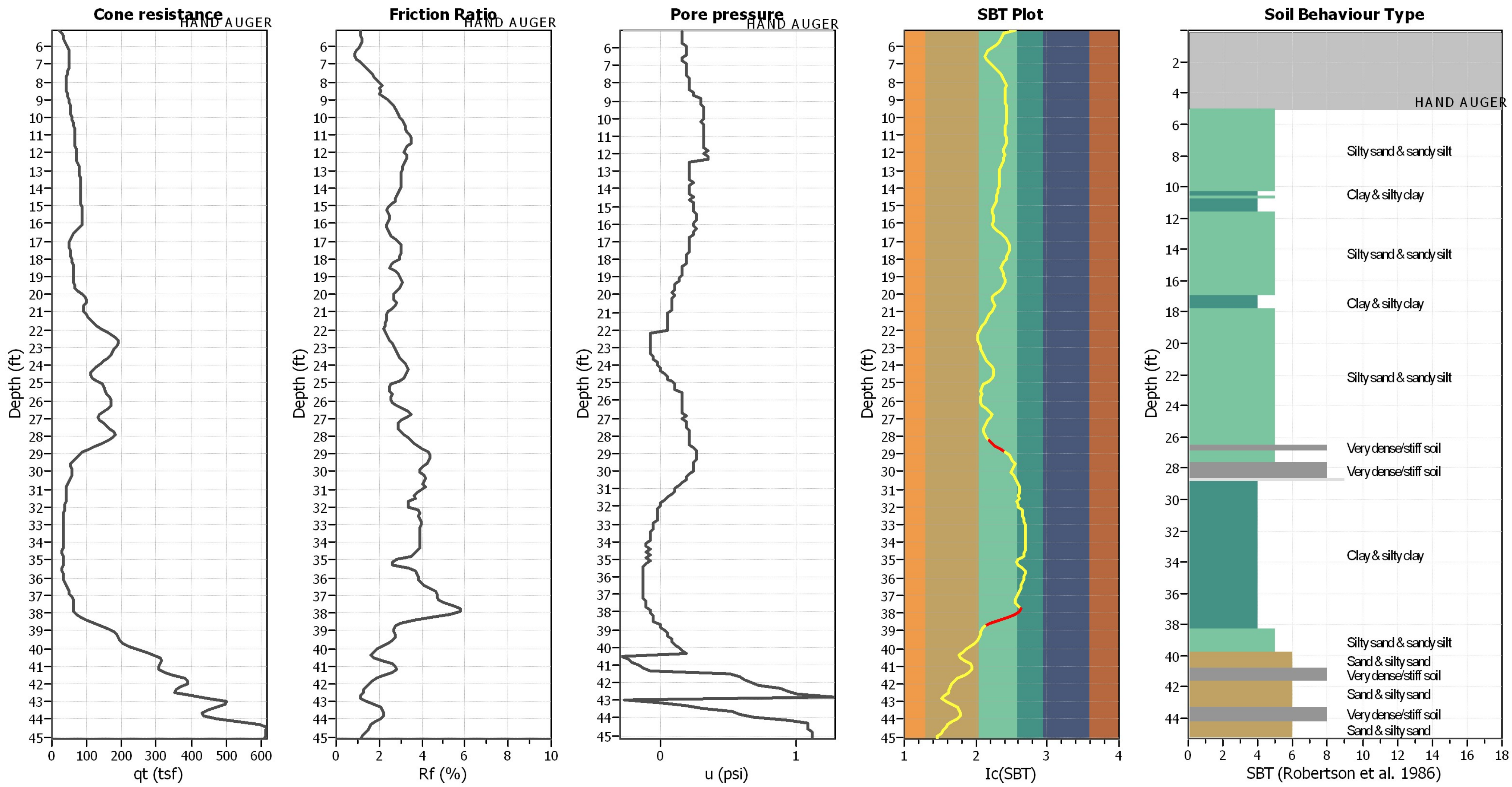






Zone A_1: Cyclic liquefaction likely depending on size and duration of cyclic loading
Zone A_2: Cyclic liquefaction and strength loss likely depending on loading and ground geometry
Zone B: Liquefaction and post-earthquake strength loss unlikely, check cyclic softening
Zone C: Cyclic liquefaction and strength loss possible depending on soil plasticity, brittleness/sensitivity, strain to peak undrained strength and ground geometry

CPT basic interpretation plots



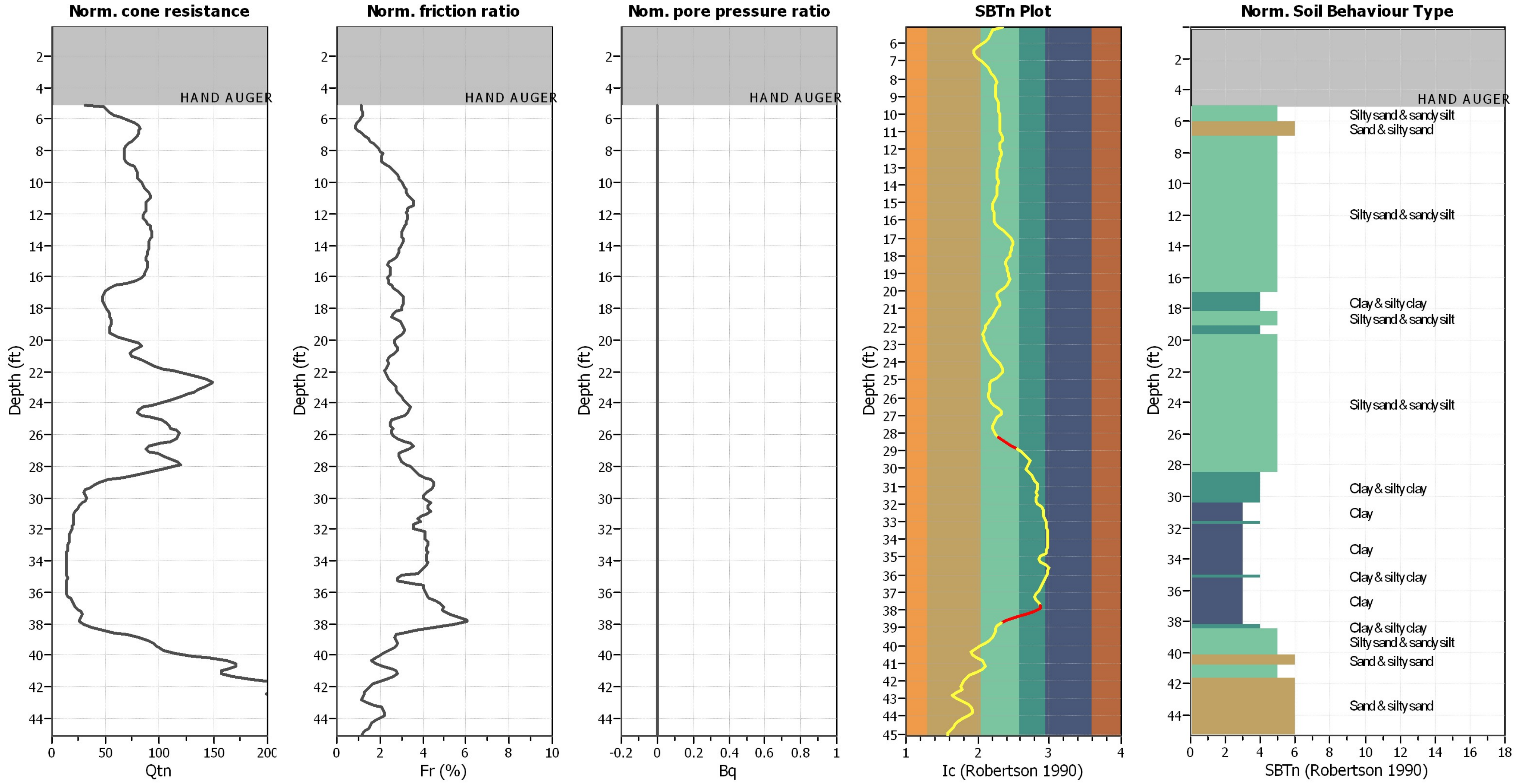
Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	50.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.72	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.56	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	50.00 ft	Fill height:	N/A	Limit depth:	N/A

SBT legend

1. Sensitive fine grained
2. Organic material
3. Clay to silty clay
4. Clayey silt to silty
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to
9. Very stiff fine grained

CPT basic interpretation plots (normalized)



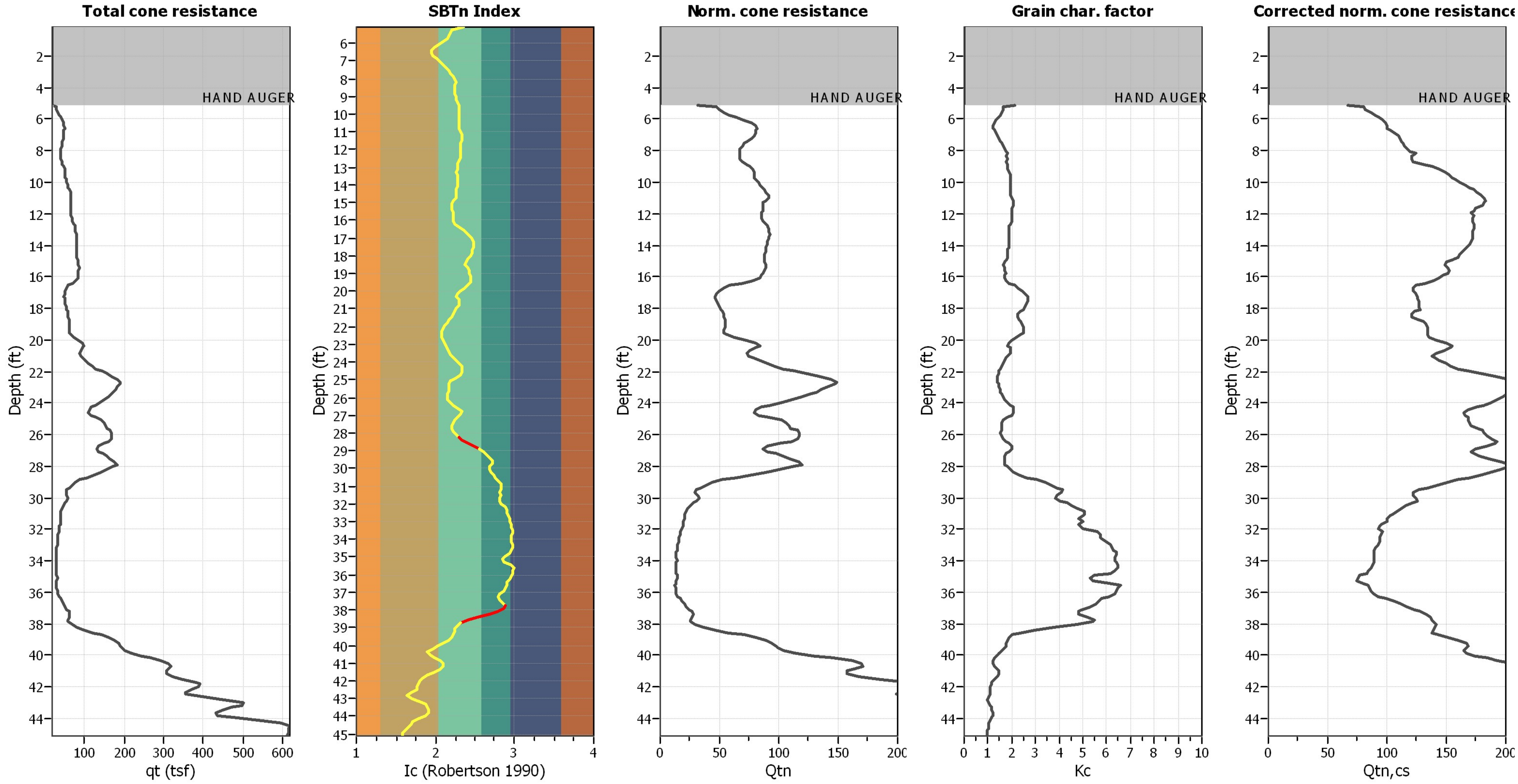
Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	50.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.72	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.56	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	50.00 ft	Fill height:	N/A	Limit depth:	N/A

SBTn legend

1. Sensitive fine grained	4. Clayey silt to silty	7. Gravely sand to sand
2. Organic material	5. Silty sand to sandy silt	8. Very stiff sand to
3. Clay to silty clay	6. Clean sand to silty sand	9. Very stiff fine grained

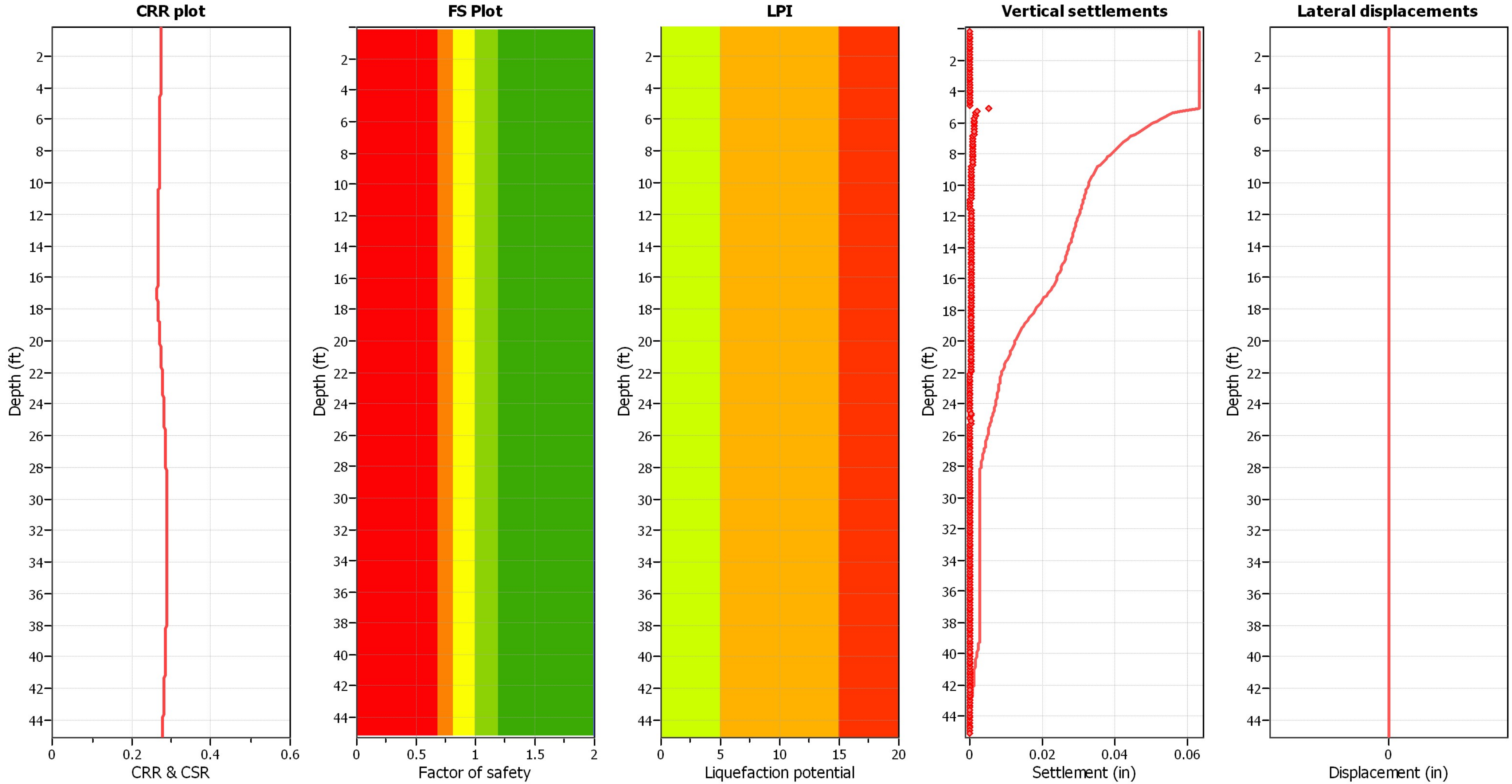
Liquefaction analysis overall plots (intermediate results)



Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	50.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.72	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.56	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	50.00 ft	Fill height:	N/A	Limit depth:	N/A

Liquefaction analysis overall plots



Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	50.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.72	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.56	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	50.00 ft	Fill height:	N/A	Limit depth:	N/A

F.S. color scheme

- Almost certain it will liquefy
- Very likely to liquefy
- Liquefaction and no liq. are equally likely
- Unlike to liquefy
- Almost certain it will not liquefy

LPI color scheme

- Very high risk
- High risk
- Low risk

:: Field input data ::

Point ID	Depth (ft)	q_c (tsf)	f_s (tsf)	u (tsf)	Fines content (%)	Unit weight (pcf)
1	0.16	-9999.00	-9999.00	-9999.00	N/A	120.90
2	0.33	-9999.00	-9999.00	-9999.00	N/A	120.90
3	0.49	-9999.00	-9999.00	-9999.00	N/A	120.90
4	0.66	-9999.00	-9999.00	-9999.00	N/A	120.90
5	0.82	-9999.00	-9999.00	-9999.00	N/A	120.90
6	0.98	-9999.00	-9999.00	-9999.00	N/A	120.90
7	1.15	-9999.00	-9999.00	-9999.00	N/A	120.90
8	1.31	-9999.00	-9999.00	-9999.00	N/A	120.90
9	1.48	-9999.00	-9999.00	-9999.00	N/A	120.90
10	1.64	-9999.00	-9999.00	-9999.00	N/A	120.90
11	1.80	-9999.00	-9999.00	-9999.00	N/A	120.90
12	1.97	-9999.00	-9999.00	-9999.00	N/A	120.90
13	2.13	-9999.00	-9999.00	-9999.00	N/A	120.90
14	2.30	-9999.00	-9999.00	-9999.00	N/A	120.90
15	2.46	-9999.00	-9999.00	-9999.00	N/A	120.90
16	2.63	-9999.00	-9999.00	-9999.00	N/A	120.90
17	2.79	-9999.00	-9999.00	-9999.00	N/A	120.90
18	2.95	-9999.00	-9999.00	-9999.00	N/A	120.90
19	3.12	-9999.00	-9999.00	-9999.00	N/A	120.90
20	3.28	-9999.00	-9999.00	-9999.00	N/A	120.90
21	3.44	-9999.00	-9999.00	-9999.00	N/A	120.90
22	3.61	-9999.00	-9999.00	-9999.00	N/A	120.90
23	3.77	-9999.00	-9999.00	-9999.00	N/A	120.90
24	3.94	-9999.00	-9999.00	-9999.00	N/A	120.90
25	4.10	-9999.00	-9999.00	-9999.00	N/A	120.90
26	4.26	-9999.00	-9999.00	-9999.00	N/A	120.90
27	4.43	-9999.00	-9999.00	-9999.00	N/A	120.90
28	4.59	-9999.00	-9999.00	-9999.00	N/A	120.90
29	4.76	-9999.00	-9999.00	-9999.00	N/A	120.90
30	4.92	-9999.00	-9999.00	-9999.00	N/A	120.90
31	5.08	29.18	0.37	0.16	24.74	106.65
32	5.25	29.89	0.31	0.16	19.08	110.89
33	5.41	31.71	0.37	0.16	18.40	111.26
34	5.58	33.65	0.41	0.16	18.07	112.28
35	5.74	36.43	0.44	0.16	17.22	112.99
36	5.91	39.52	0.46	0.18	15.94	113.50
37	6.07	43.37	0.46	0.18	14.34	113.89
38	6.23	48.71	0.47	0.18	12.76	114.05
39	6.40	51.80	0.45	0.18	11.78	113.97
40	6.56	50.65	0.43	0.16	11.52	113.91
41	6.73	50.56	0.46	0.16	12.23	114.49
42	6.89	50.39	0.56	0.18	13.37	115.57
43	7.05	49.97	0.66	0.18	14.68	116.47
44	7.22	48.06	0.69	0.18	15.93	116.97
45	7.38	45.76	0.72	0.18	17.01	117.17
46	7.55	44.55	0.74	0.18	18.02	117.36
47	7.71	43.57	0.77	0.21	18.91	117.53
48	7.87	42.02	0.79	0.21	19.85	117.79

:: Field input data :: (continued)

Point ID	Depth (ft)	q_c (tsf)	f_s (tsf)	u (tsf)	Fines content (%)	Unit weight (pcf)
49	8.04	41.43	0.84	0.21	20.36	118.22
50	8.20	44.10	0.91	0.21	21.15	118.76
51	8.37	41.99	0.99	0.21	20.69	118.28
52	8.53	40.28	0.67	0.24	20.74	118.31
53	8.69	44.04	0.92	0.24	20.31	118.63
54	8.86	46.85	1.07	0.29	20.74	120.01
55	9.02	49.30	1.16	0.29	20.96	120.94
56	9.19	51.38	1.29	0.29	21.28	121.70
57	9.35	52.39	1.41	0.32	21.80	122.36
58	9.51	52.89	1.49	0.32	22.23	122.78
59	9.68	53.51	1.52	0.32	22.44	123.11
60	9.84	55.08	1.59	0.32	22.44	123.49
61	10.01	57.56	1.69	0.32	22.49	124.03
62	10.17	59.52	1.83	0.29	22.64	124.61
63	10.34	61.18	1.94	0.32	22.76	125.11
64	10.50	63.15	2.01	0.32	22.77	125.50
65	10.66	64.83	2.08	0.32	22.63	125.90
66	10.83	67.89	2.21	0.32	22.70	126.33
67	10.99	68.82	2.33	0.32	23.16	126.65
68	11.15	66.21	2.37	0.32	23.75	126.71
69	11.32	65.03	2.29	0.32	24.05	126.65
70	11.48	66.85	2.30	0.32	24.00	126.68
71	11.65	67.86	2.37	0.32	23.17	126.44
72	11.81	69.27	2.02	0.34	22.97	126.41
73	11.97	69.04	2.26	0.32	22.94	126.30
74	12.14	67.53	2.27	0.34	23.44	126.51
75	12.30	69.02	2.22	0.34	23.41	126.58
76	12.47	71.09	2.30	0.21	22.96	126.75
77	12.63	74.16	2.35	0.21	22.53	127.03
78	12.79	77.28	2.40	0.21	22.08	127.21
79	12.96	78.45	2.40	0.21	21.75	127.28
80	13.12	79.02	2.37	0.21	21.56	127.30
81	13.29	80.39	2.39	0.21	21.47	127.38
82	13.45	81.29	2.45	0.21	21.53	127.50
83	13.62	81.09	2.47	0.24	21.71	127.57
84	13.78	80.84	2.46	0.21	21.79	127.55
85	13.94	81.09	2.43	0.21	21.74	127.49
86	14.11	81.54	2.40	0.21	21.56	127.43
87	14.27	82.64	2.39	0.21	21.34	127.37
88	14.44	83.23	2.35	0.24	21.18	127.28
89	14.60	82.70	2.30	0.21	21.08	127.15
90	14.76	82.53	2.26	0.24	21.00	127.05
91	14.93	83.29	2.25	0.24	20.13	126.57
92	15.09	85.08	1.85	0.24	19.53	126.36
93	15.26	86.54	2.05	0.24	19.10	126.28
94	15.42	87.50	2.15	0.27	19.51	126.68
95	15.58	87.81	2.17	0.27	19.86	126.78
96	15.75	85.31	2.15	0.27	20.01	126.69

:: Field input data :: (continued)

Point ID	Depth (ft)	q_c (tsf)	f_s (tsf)	u (tsf)	Fines content (%)	Unit weight (pcf)
97	15.91	85.20	2.08	0.24	19.88	126.49
98	16.08	86.99	2.01	0.24	19.74	126.15
99	16.24	82.58	1.89	0.27	20.57	125.51
100	16.40	68.51	1.70	0.24	22.19	124.43
101	16.57	59.75	1.44	0.24	24.38	123.37
102	16.73	55.51	1.42	0.21	25.98	122.74
103	16.90	52.95	1.45	0.21	27.66	122.67
104	17.06	50.51	1.48	0.21	29.07	122.73
105	17.22	49.47	1.51	0.21	29.83	122.85
106	17.39	50.87	1.54	0.21	29.93	123.02
107	17.55	52.02	1.57	0.21	29.70	123.19
108	17.72	52.58	1.59	0.18	29.31	123.36
109	17.88	54.86	1.61	0.18	28.90	123.58
110	18.05	56.69	1.67	0.18	28.37	123.92
111	18.21	59.21	1.75	0.18	26.83	123.54
112	18.37	60.42	1.30	0.16	25.99	123.42
113	18.54	61.15	1.56	0.16	25.63	123.44
114	18.70	62.22	1.74	0.16	26.62	124.27
115	18.86	63.45	1.83	0.16	27.18	124.79
116	19.03	63.90	1.91	0.13	27.55	125.09
117	19.19	63.79	1.96	0.13	27.98	125.25
118	19.36	63.15	1.96	0.11	28.21	125.29
119	19.52	63.51	1.95	0.11	27.98	125.32
120	19.68	66.09	1.95	0.11	27.04	125.52
121	19.85	71.97	2.03	0.08	25.27	126.10
122	20.01	83.79	2.24	0.11	22.93	127.18
123	20.18	101.40	2.59	0.08	21.56	128.31
124	20.34	104.63	2.86	0.08	21.36	128.94
125	20.50	97.89	2.80	0.08	22.21	128.83
126	20.67	90.81	2.56	0.08	22.82	128.17
127	20.83	87.89	2.30	0.08	22.49	127.51
128	21.00	91.38	2.21	0.05	21.47	127.24
129	21.16	97.53	2.25	0.05	20.51	127.56
130	21.32	104.13	2.46	0.05	19.73	128.20
131	21.49	112.72	2.66	0.05	19.09	128.92
132	21.65	120.56	2.83	0.05	18.16	129.40
133	21.82	128.17	2.81	0.05	17.25	130.01
134	21.98	141.46	3.16	0.05	16.32	130.80
135	22.15	157.25	3.54	-0.08	15.74	131.88
136	22.31	170.14	3.98	-0.08	15.24	132.92
137	22.47	184.86	4.42	-0.08	15.02	133.84
138	22.64	194.58	4.84	-0.08	15.16	134.51
139	22.80	191.63	5.07	-0.08	15.60	134.80
140	22.97	185.22	4.99	-0.08	16.30	134.74
141	23.13	176.23	4.88	-0.08	16.82	134.53
142	23.29	173.06	4.80	-0.08	17.33	134.39
143	23.46	170.25	4.86	-0.05	17.86	134.28
144	23.62	162.72	4.80	-0.05	18.79	134.09

:: Field input data :: (continued)

Point ID	Depth (ft)	q_c (tsf)	f_s (tsf)	u (tsf)	Fines content (%)	Unit weight (pcf)
145	23.79	149.32	4.64	-0.03	19.89	133.72
146	23.95	140.45	4.45	-0.03	21.14	133.34
147	24.11	132.58	4.40	0.00	22.55	132.75
148	24.28	114.86	3.97	0.00	23.73	132.10
149	24.44	110.81	3.66	0.03	24.20	131.44
150	24.61	113.79	3.56	0.05	24.09	131.22
151	24.77	112.44	3.67	0.05	23.15	131.44
152	24.93	127.16	3.80	0.08	21.40	131.83
153	25.10	146.57	3.83	0.11	18.59	131.91
154	25.26	159.16	3.38	0.11	17.99	132.06
155	25.43	142.61	3.90	0.11	17.75	132.25
156	25.59	157.05	4.03	0.16	18.12	132.83
157	25.75	169.63	4.21	0.16	17.44	133.21
158	25.92	168.12	4.34	0.16	17.31	133.40
159	26.08	166.71	4.28	0.16	17.67	133.65
160	26.25	170.67	4.64	0.16	18.42	134.09
161	26.41	167.81	5.17	0.16	20.04	134.52
162	26.57	149.72	5.29	0.16	21.98	134.41
163	26.74	134.94	4.81	0.16	23.56	133.72
164	26.90	126.26	4.24	0.18	23.25	132.90
165	27.07	134.63	3.95	0.16	21.72	132.64
166	27.23	150.90	4.19	0.18	20.40	132.97
167	27.39	156.26	4.50	0.18	19.75	133.57
168	27.56	163.45	4.74	0.18	19.39	134.32
169	27.72	181.06	5.34	0.21	19.15	135.18
170	27.89	189.55	5.96	0.21	19.62	135.82
171	28.05	176.57	6.07	0.21	20.82	135.79
172	28.21	156.91	5.53	0.21	22.44	135.26
173	28.38	144.80	5.23	0.21	24.06	134.42
174	28.54	128.65	4.79	0.21	26.41	133.50
175	28.71	103.96	4.30	0.24	29.61	132.27
176	28.87	85.70	3.73	0.27	33.30	130.98
177	29.04	76.38	3.37	0.27	36.02	129.73
178	29.20	68.43	2.98	0.27	38.02	128.66
179	29.36	61.71	2.68	0.27	39.77	127.51
180	29.53	55.62	2.33	0.24	41.62	126.38
181	29.69	49.97	2.09	0.24	41.21	125.76
182	29.86	58.01	2.15	0.24	39.80	125.92
183	30.02	63.12	2.38	0.24	39.28	126.44
184	30.18	57.58	2.47	0.21	40.75	126.40
185	30.35	51.85	2.20	0.18	42.88	125.75
186	30.51	49.35	1.96	0.18	44.01	124.90
187	30.68	46.91	1.88	0.16	45.66	124.12
188	30.84	41.01	1.73	0.13	47.79	123.58
189	31.00	39.77	1.69	0.11	47.88	122.86
190	31.17	42.22	1.44	0.11	47.28	122.54
191	31.33	40.81	1.52	0.08	46.39	122.22
192	31.50	40.39	1.48	0.05	47.61	122.21

:: Field input data :: (continued)

Point ID	Depth (ft)	q_c (tsf)	f_s (tsf)	u (tsf)	Fines content (%)	Unit weight (pcf)
193	31.66	39.27	1.47	0.03	46.20	121.38
194	31.82	39.61	1.06	0.00	46.75	121.15
195	31.99	37.92	1.39	0.00	47.64	120.99
196	32.15	36.40	1.42	-0.03	51.26	121.40
197	32.32	33.93	1.35	-0.03	52.25	121.16
198	32.48	34.75	1.29	-0.03	52.33	121.02
199	32.64	35.79	1.35	-0.03	52.75	121.06
200	32.81	33.51	1.38	-0.03	53.92	121.04
201	32.97	32.58	1.31	-0.05	54.89	120.75
202	33.14	32.67	1.23	-0.05	55.22	120.46
203	33.30	31.74	1.25	-0.05	55.68	120.24
204	33.47	30.87	1.22	-0.08	56.37	120.16
205	33.63	31.15	1.21	-0.08	56.49	120.06
206	33.79	31.29	1.21	-0.08	56.16	120.17
207	33.96	32.25	1.25	-0.08	56.05	120.33
208	34.12	32.36	1.27	-0.11	56.24	120.37
209	34.28	31.32	1.23	-0.11	56.60	120.13
210	34.45	30.67	1.16	-0.08	56.74	119.74
211	34.61	30.51	1.11	-0.11	55.99	119.38
212	34.78	31.32	1.06	-0.08	55.05	119.31
213	34.94	32.33	1.11	-0.11	50.82	118.09
214	35.10	32.95	0.58	-0.08	49.31	117.60
215	35.27	32.22	0.87	-0.11	50.40	117.37
216	35.43	29.44	1.05	-0.13	55.40	118.76
217	35.60	30.28	1.13	-0.13	57.49	119.54
218	35.76	31.99	1.22	-0.13	56.85	120.02
219	35.92	33.06	1.24	-0.13	56.36	120.41
220	36.09	33.29	1.29	-0.13	55.89	120.79
221	36.25	35.08	1.38	-0.13	54.42	121.70
222	36.42	41.12	1.65	-0.13	52.48	122.95
223	36.58	45.11	1.92	-0.13	51.65	124.34
224	36.74	46.52	2.24	-0.13	50.91	125.46
225	36.91	51.57	2.44	-0.13	49.63	126.44
226	37.07	57.08	2.67	-0.13	47.12	127.39
227	37.24	63.71	2.96	-0.13	46.08	128.25
228	37.40	64.24	3.23	-0.11	46.36	128.96
229	37.57	63.76	3.46	-0.11	48.48	129.26
230	37.73	58.82	3.45	-0.11	50.63	129.36
231	37.89	57.67	3.49	-0.08	50.28	129.59
232	38.06	67.72	3.71	-0.08	45.70	130.18
233	38.22	84.35	3.86	-0.05	39.08	130.60
234	38.39	97.64	3.49	-0.05	32.36	131.01
235	38.55	121.29	3.62	-0.05	27.11	131.42
236	38.71	141.82	3.83	0.00	23.44	132.30
237	38.88	163.20	4.21	0.00	21.61	133.34
238	39.04	177.64	4.85	0.03	20.75	134.32
239	39.21	187.22	5.26	0.05	20.40	135.05
240	39.37	194.69	5.41	0.05	19.95	135.22

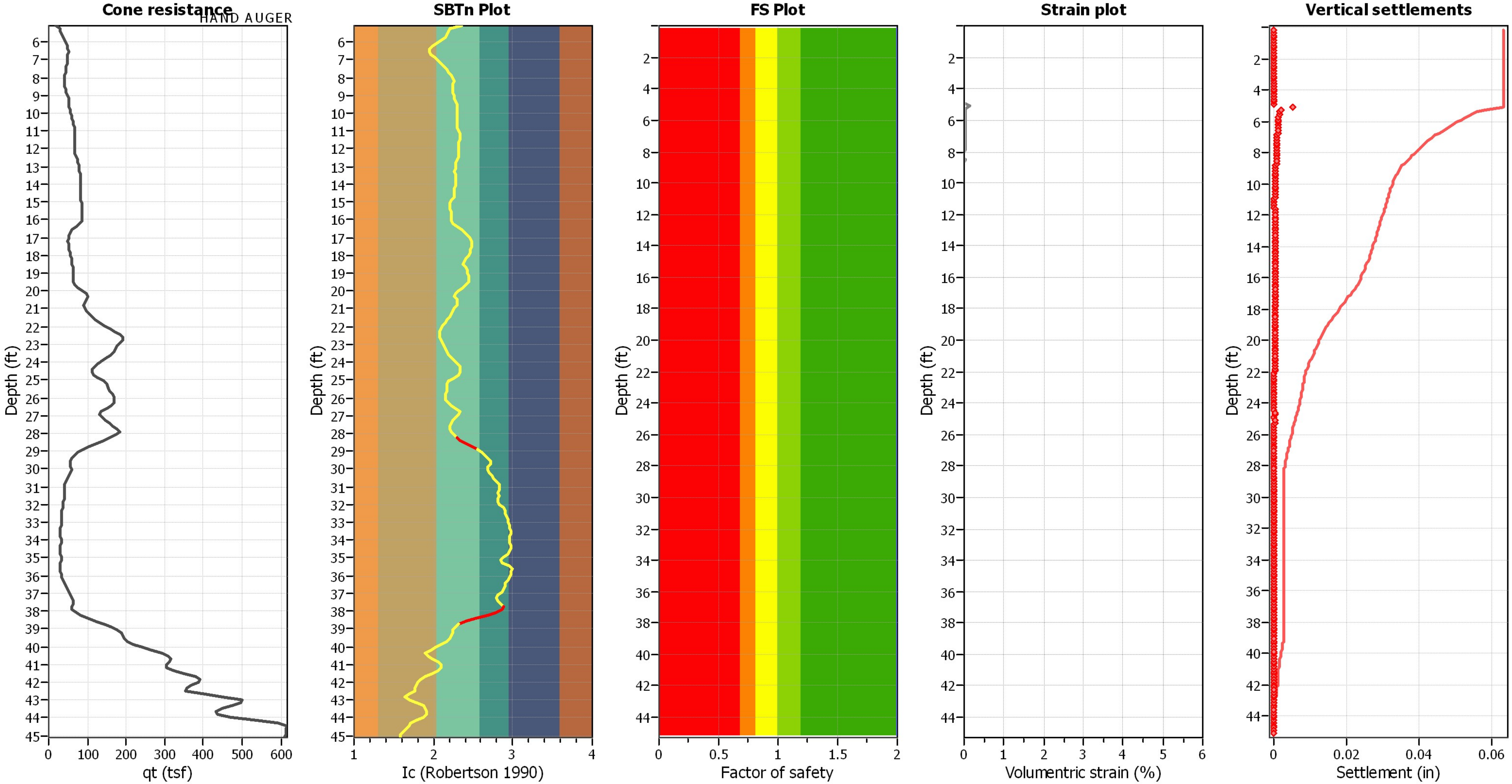
:: Field input data :: (continued)

Point ID	Depth (ft)	q_c (tsf)	f_s (tsf)	u (tsf)	Fines content (%)	Unit weight (pcf)
241	39.53	193.43	5.08	0.08	19.28	135.04
242	39.70	195.93	4.80	0.08	17.80	134.75
243	39.86	218.03	4.63	0.11	15.81	134.72
244	40.03	243.23	4.64	0.13	13.60	134.93
245	40.19	271.49	4.69	0.16	12.13	135.30
246	40.35	287.95	4.90	0.18	10.48	135.35
247	40.52	315.08	4.35	-0.29	11.01	136.72
248	40.68	324.71	7.24	-0.24	12.50	137.28
249	40.85	309.83	8.50	-0.21	14.83	137.28
250	41.01	301.71	8.67	-0.16	15.65	137.28
251	41.17	305.39	8.08	-0.13	15.84	137.28
252	41.34	311.82	8.96	-0.08	14.68	137.28
253	41.50	350.89	8.33	0.50	12.43	137.28
254	41.67	382.16	6.13	0.58	10.14	137.28
255	41.83	407.80	7.02	0.61	8.94	137.28
256	41.99	383.23	6.50	0.66	8.31	137.28
257	42.16	375.02	4.44	0.71	7.85	136.59
258	42.32	345.14	4.34	0.87	7.28	135.51
259	42.49	348.73	4.54	0.93	7.63	135.72
260	42.65	367.41	4.86	1.01	6.11	136.21
261	42.81	488.06	4.69	1.27	5.18	136.96
262	42.98	490.67	5.49	-0.27	6.06	137.28
263	43.14	519.66	10.52	0.00	7.83	137.28
264	43.31	477.63	9.70	0.18	9.74	137.28
265	43.47	421.20	9.27	0.32	10.30	137.28
266	43.63	444.74	9.53	0.53	10.95	137.28
267	43.80	425.98	9.68	0.58	10.88	137.28
268	43.96	437.19	9.60	0.69	9.71	137.28
269	44.13	547.16	9.60	0.93	7.80	137.28
270	44.29	619.01	9.60	1.08	6.40	137.28
271	44.45	616.23	9.60	1.08	5.95	137.28
272	44.62	614.71	9.61	1.08	5.49	137.28
273	44.78	612.27	7.61	1.11	4.84	137.28
274	44.95	610.72	7.00	1.11	4.20	137.28
275	45.11	609.32	7.00	1.11	4.07	137.28

Abbreviations

Depth: Depth from free surface, at which CPT was performed (ft)
q_c: Measured cone resistance (tsf)
f_s: Sleeve friction resistance (tsf)
u: Pore pressure (tsf)
Fines content: Percentage of fines in soil (%)
Unit weight: Bulk soil unit weight (pcf)

Estimation of post-earthquake settlements



Abbreviations

q_t:	Total cone resistance (cone resistance q_c corrected for pore water effects)
I_c:	Soil Behaviour Type Index
FS:	Calculated Factor of Safety against liquefaction
Volumentric strain:	Post-liquefaction volumentric strain

:: Post-earthquake settlement of dry sands ::

Depth (ft)	Ic	Kc	Qc1n	Qc1n,cs	N1,60 (blows)	Vs (ft/s)	Gmax (tsf)	CSR	Shear, γ (%)	Svol,15 (%)	Nc	ev (%)	Settle. (in)
0.16	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.28	0.000	0.00	0.00	0.00	0.000
0.33	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.28	0.000	0.00	0.00	0.00	0.000
0.49	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.28	0.000	0.00	0.00	0.00	0.000
0.66	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
0.82	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
0.98	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
1.15	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
1.31	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
1.48	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
1.64	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
1.80	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
1.97	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
2.13	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
2.30	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
2.46	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
2.63	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
2.79	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
2.95	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
3.12	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
3.28	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
3.44	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
3.61	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
3.77	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
3.94	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
4.10	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
4.26	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
4.43	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
4.59	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
4.76	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
4.92	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
5.08	2.36	2.15	31.15	66.95	16	432.5	310	0.27	0.144	0.19	8.77	0.13	0.005
5.25	2.20	1.67	48.12	80.49	18	487.1	409	0.27	0.059	0.07	8.77	0.05	0.002
5.41	2.18	1.62	50.49	82.00	18	492.5	419	0.27	0.057	0.06	8.77	0.05	0.002
5.58	2.17	1.60	53.98	86.41	19	506.0	447	0.27	0.051	0.05	8.77	0.04	0.001
5.74	2.15	1.54	58.15	89.75	20	516.5	468	0.27	0.047	0.05	8.77	0.03	0.001
5.91	2.10	1.46	63.34	92.65	20	525.2	486	0.27	0.044	0.04	8.77	0.03	0.001
6.07	2.05	1.37	69.90	95.83	20	533.0	503	0.27	0.043	0.04	8.77	0.03	0.001
6.23	1.99	1.29	76.46	98.71	20	537.7	512	0.27	0.042	0.04	8.77	0.03	0.001
6.40	1.96	1.25	80.34	100.13	20	538.4	513	0.27	0.044	0.04	8.77	0.03	0.001
6.56	1.95	1.23	81.32	100.42	20	538.1	512	0.27	0.046	0.04	8.77	0.03	0.001
6.73	1.97	1.27	80.55	101.99	21	544.9	528	0.27	0.044	0.04	8.77	0.03	0.001
6.89	2.02	1.32	80.18	105.91	22	558.6	560	0.27	0.040	0.04	8.77	0.02	0.001
7.05	2.06	1.39	78.82	109.53	23	570.3	588	0.27	0.037	0.03	8.77	0.02	0.001
7.22	2.10	1.46	76.32	111.57	24	576.3	604	0.27	0.036	0.03	8.77	0.02	0.001
7.38	2.14	1.53	73.40	112.31	25	577.9	608	0.27	0.037	0.03	8.77	0.02	0.001
7.55	2.17	1.60	70.98	113.39	25	579.7	613	0.27	0.038	0.03	8.77	0.02	0.001
7.71	2.20	1.66	68.97	114.55	26	581.3	617	0.27	0.038	0.03	8.77	0.02	0.001
7.87	2.23	1.73	67.28	116.47	27	584.3	625	0.27	0.038	0.03	8.77	0.02	0.001

:: Post-earthquake settlement of dry sands :: (continued)

Depth (ft)	Ic	Kc	Qc1n	Qc1n,cs	N1,60 (blows)	Vs (ft/s)	Gmax (tsf)	CSR	Shear, γ (%)	Svol,15 (%)	Nc	ev (%)	Settle. (in)
8.04	2.24	1.77	67.55	119.60	27	591.0	641	0.27	0.037	0.03	8.77	0.02	0.001
8.20	2.26	1.83	67.52	123.80	29	599.3	663	0.27	0.036	0.02	8.77	0.02	0.001
8.37	2.25	1.80	66.89	120.15	28	591.5	643	0.27	0.039	0.03	8.77	0.02	0.001
8.53	2.25	1.80	66.84	120.36	28	591.9	644	0.27	0.040	0.03	8.77	0.02	0.001
8.69	2.24	1.77	69.02	121.93	28	598.6	660	0.27	0.039	0.03	8.77	0.02	0.001
8.86	2.25	1.80	73.04	131.49	30	623.8	725	0.27	0.033	0.02	8.77	0.01	0.001
9.02	2.26	1.82	75.96	138.08	32	642.5	776	0.27	0.030	0.02	8.77	0.01	0.000
9.19	2.27	1.84	77.95	143.77	33	658.3	819	0.27	0.028	0.02	8.77	0.01	0.000
9.35	2.28	1.89	79.00	149.11	35	672.1	859	0.27	0.027	0.01	8.77	0.01	0.000
9.51	2.29	1.92	79.23	152.41	36	681.7	886	0.27	0.026	0.01	8.77	0.01	0.000
9.68	2.30	1.94	79.62	154.56	36	689.9	910	0.27	0.025	0.01	8.77	0.01	0.000
9.84	2.30	1.94	80.82	156.91	37	699.8	940	0.27	0.024	0.01	8.77	0.01	0.000
10.01	2.30	1.95	82.71	160.99	38	713.1	980	0.27	0.023	0.01	8.77	0.01	0.000
10.17	2.30	1.96	84.64	165.78	39	727.5	1025	0.27	0.022	0.01	8.77	0.01	0.000
10.34	2.31	1.97	86.26	169.87	40	740.4	1065	0.27	0.021	0.01	8.77	0.01	0.000
10.50	2.31	1.97	87.67	172.70	41	751.1	1100	0.27	0.021	0.01	8.77	0.01	0.000
10.66	2.30	1.96	89.62	175.47	41	762.6	1138	0.27	0.020	0.01	8.77	0.01	0.000
10.83	2.30	1.96	91.14	179.00	42	774.6	1177	0.27	0.020	0.01	8.77	0.01	0.000
10.99	2.32	2.01	90.87	182.19	43	783.3	1207	0.27	0.019	0.01	8.77	0.00	0.000
11.15	2.33	2.06	88.74	182.62	44	785.3	1214	0.27	0.019	0.01	8.77	0.00	0.000
11.32	2.34	2.09	86.93	181.29	43	785.2	1213	0.27	0.020	0.01	8.77	0.00	0.000
11.48	2.34	2.08	86.61	180.19	43	787.8	1221	0.27	0.020	0.01	8.77	0.01	0.000
11.65	2.32	2.01	87.15	174.76	41	785.2	1211	0.27	0.021	0.01	8.77	0.01	0.000
11.81	2.31	1.99	87.03	173.02	41	786.8	1216	0.27	0.021	0.01	8.77	0.01	0.000
11.97	2.31	1.99	85.92	170.59	40	785.7	1211	0.27	0.021	0.01	8.77	0.01	0.000
12.14	2.32	2.03	85.03	172.59	41	791.7	1232	0.27	0.021	0.01	8.77	0.01	0.000
12.30	2.32	2.03	84.96	172.21	41	795.2	1244	0.27	0.021	0.01	8.77	0.01	0.000
12.47	2.31	1.99	86.63	172.14	41	801.8	1266	0.27	0.021	0.01	8.77	0.01	0.000
12.63	2.30	1.95	88.93	173.33	41	811.2	1299	0.27	0.021	0.01	8.77	0.01	0.000
12.79	2.29	1.91	90.81	173.50	41	818.3	1323	0.27	0.020	0.01	8.77	0.01	0.000
12.96	2.28	1.88	91.72	172.74	40	822.3	1337	0.27	0.020	0.01	8.77	0.01	0.000
13.12	2.27	1.87	91.97	171.69	40	824.9	1346	0.27	0.021	0.01	8.77	0.01	0.000
13.29	2.27	1.86	92.14	171.37	40	828.5	1358	0.27	0.021	0.01	8.77	0.01	0.000
13.45	2.27	1.87	92.06	171.70	40	833.0	1374	0.27	0.021	0.01	8.77	0.01	0.000
13.62	2.28	1.88	91.39	171.77	40	836.3	1386	0.27	0.021	0.01	8.77	0.01	0.000
13.78	2.28	1.89	90.47	170.69	40	837.2	1389	0.27	0.021	0.01	8.77	0.01	0.000
13.94	2.28	1.88	89.78	168.99	39	837.1	1388	0.27	0.021	0.01	8.77	0.01	0.000
14.11	2.27	1.87	89.58	167.27	39	837.5	1389	0.27	0.022	0.01	8.77	0.01	0.000
14.27	2.27	1.85	89.50	165.50	38	837.9	1389	0.27	0.022	0.01	8.77	0.01	0.000
14.44	2.26	1.84	89.09	163.56	38	837.4	1387	0.27	0.022	0.01	8.77	0.01	0.000
14.60	2.26	1.83	88.24	161.31	37	835.7	1380	0.27	0.023	0.01	8.77	0.01	0.000
14.76	2.26	1.82	87.48	159.37	37	834.6	1375	0.27	0.023	0.01	8.77	0.01	0.000
14.93	2.23	1.75	87.45	153.28	35	825.6	1340	0.27	0.024	0.01	8.77	0.01	0.000
15.09	2.22	1.71	88.04	150.22	34	822.9	1329	0.27	0.025	0.01	8.77	0.01	0.000
15.26	2.20	1.67	88.72	148.59	34	823.1	1329	0.27	0.025	0.01	8.77	0.01	0.000
15.42	2.22	1.70	88.99	151.72	34	833.7	1368	0.27	0.024	0.01	8.77	0.01	0.000
15.58	2.23	1.73	87.90	152.17	35	837.1	1380	0.27	0.025	0.01	8.77	0.01	0.000
15.75	2.23	1.74	86.43	150.67	34	835.7	1374	0.27	0.025	0.01	8.77	0.01	0.000

:: Post-earthquake settlement of dry sands :: (continued)

Depth (ft)	Ic	Kc	Qc1n	Qc1n,cs	N1,60 (blows)	Vs (ft/s)	Gmax (tsf)	CSR	Shear, γ (%)	Svol,15 (%)	Nc	ev (%)	Settle. (in)
15.91	2.23	1.73	85.47	148.15	34	832.3	1361	0.27	0.026	0.01	8.77	0.01	0.000
16.08	2.22	1.72	83.88	144.47	33	825.6	1336	0.27	0.027	0.01	8.77	0.01	0.000
16.24	2.25	1.79	77.78	139.00	32	810.0	1279	0.27	0.029	0.02	8.77	0.01	0.000
16.40	2.29	1.92	68.31	131.17	31	783.6	1187	0.27	0.033	0.02	8.77	0.01	0.000
16.57	2.35	2.12	59.01	124.88	30	758.0	1101	0.27	0.038	0.02	8.77	0.01	0.001
16.73	2.39	2.27	53.54	121.54	30	743.4	1054	0.27	0.041	0.03	8.77	0.01	0.001
16.90	2.43	2.44	50.17	122.42	31	741.1	1047	0.27	0.042	0.03	8.77	0.01	0.001
17.06	2.46	2.59	47.85	123.90	31	741.9	1049	0.26	0.043	0.02	8.77	0.01	0.001
17.22	2.48	2.67	46.81	125.12	32	744.8	1059	0.26	0.043	0.02	8.77	0.01	0.001
17.39	2.48	2.68	46.91	125.89	32	749.6	1074	0.26	0.042	0.02	8.77	0.01	0.001
17.55	2.48	2.66	47.51	126.33	32	754.9	1091	0.27	0.042	0.02	8.77	0.01	0.001
17.72	2.47	2.62	48.37	126.52	32	760.2	1108	0.27	0.041	0.02	8.77	0.01	0.001
17.88	2.46	2.57	49.44	127.12	32	766.9	1129	0.27	0.040	0.02	8.77	0.01	0.000
18.05	2.45	2.51	51.09	128.47	32	776.3	1160	0.27	0.039	0.02	8.77	0.01	0.000
18.21	2.41	2.35	52.42	123.45	31	770.9	1141	0.27	0.041	0.02	8.77	0.01	0.001
18.37	2.39	2.27	53.41	121.25	30	770.6	1138	0.27	0.042	0.03	8.77	0.01	0.001
18.54	2.38	2.24	53.93	120.56	29	772.7	1145	0.27	0.042	0.03	8.77	0.01	0.001
18.70	2.41	2.33	54.41	126.96	31	791.2	1208	0.27	0.039	0.02	8.77	0.01	0.000
18.86	2.42	2.39	54.80	130.97	32	803.9	1253	0.27	0.037	0.02	8.77	0.01	0.000
19.03	2.43	2.43	54.85	133.18	33	811.7	1280	0.27	0.036	0.02	8.77	0.01	0.000
19.19	2.44	2.47	54.34	134.39	34	816.3	1297	0.27	0.036	0.02	8.77	0.01	0.000
19.36	2.44	2.50	53.83	134.46	34	818.2	1303	0.27	0.036	0.02	8.77	0.01	0.000
19.52	2.44	2.47	54.12	133.84	33	820.3	1310	0.27	0.036	0.02	8.77	0.01	0.000
19.68	2.42	2.38	56.30	133.80	33	827.4	1335	0.27	0.036	0.02	8.77	0.01	0.000
19.85	2.37	2.20	61.78	135.97	33	845.0	1399	0.27	0.034	0.02	8.77	0.01	0.000
20.01	2.31	1.98	71.54	141.93	34	876.2	1517	0.27	0.030	0.02	8.77	0.01	0.000
20.18	2.27	1.87	80.40	150.09	35	909.2	1648	0.27	0.027	0.01	8.77	0.01	0.000
20.34	2.27	1.85	83.85	155.18	36	928.1	1726	0.27	0.026	0.01	8.77	0.01	0.000
20.50	2.29	1.92	80.26	154.23	36	925.1	1713	0.27	0.026	0.01	8.77	0.01	0.000
20.67	2.31	1.97	75.05	148.19	35	907.3	1639	0.27	0.028	0.01	8.77	0.01	0.000
20.83	2.30	1.95	72.85	141.76	33	891.4	1574	0.27	0.031	0.02	8.77	0.01	0.000
21.00	2.27	1.86	74.37	138.30	32	886.7	1554	0.27	0.032	0.02	8.77	0.01	0.000
21.16	2.24	1.78	78.48	139.88	32	897.2	1595	0.27	0.031	0.02	8.77	0.01	0.000
21.32	2.22	1.72	83.92	144.50	33	916.5	1673	0.28	0.029	0.02	8.77	0.01	0.000
21.49	2.20	1.67	89.76	150.26	34	938.6	1765	0.28	0.027	0.01	8.77	0.01	0.000
21.65	2.17	1.61	95.91	154.11	34	954.6	1832	0.28	0.026	0.01	8.77	0.01	0.000
21.82	2.15	1.55	103.29	159.62	35	974.6	1918	0.28	0.025	0.01	8.77	0.01	0.000
21.98	2.12	1.49	112.78	167.58	37	1000.8	2035	0.28	0.023	0.01	8.77	0.01	0.000
22.15	2.10	1.45	123.52	179.16	39	1036.6	2202	0.28	0.021	0.01	8.77	0.00	0.000
22.31	2.08	1.42	134.54	191.21	41	1072.5	2375	0.28	0.019	0.01	8.77	0.00	0.000
22.47	2.07	1.41	143.76	202.49	43	1105.9	2543	0.28	0.018	0.01	8.77	0.00	0.000
22.64	2.08	1.42	148.55	210.41	45	1130.8	2672	0.28	0.017	0.01	8.77	0.00	0.000
22.80	2.09	1.44	147.62	212.89	46	1141.8	2730	0.28	0.017	0.01	8.77	0.00	0.000
22.97	2.12	1.48	141.72	210.38	46	1139.6	2719	0.28	0.017	0.01	8.77	0.00	0.000
23.13	2.13	1.52	135.94	206.27	45	1132.2	2679	0.28	0.018	0.01	8.77	0.00	0.000
23.29	2.15	1.55	131.14	203.39	45	1127.6	2655	0.28	0.018	0.01	8.77	0.00	0.000
23.46	2.17	1.59	126.77	201.11	45	1124.3	2637	0.28	0.018	0.01	8.77	0.00	0.000
23.62	2.19	1.65	119.71	197.79	44	1117.4	2601	0.28	0.019	0.01	8.77	0.00	0.000

:: Post-earthquake settlement of dry sands :: (continued)

Depth (ft)	Ic	Kc	Qc1n	Qc1n,cs	N1,60 (blows)	Vs (ft/s)	Gmax (tsf)	CSR	Shear, γ (%)	Svol,15 (%)	Nc	ev (%)	Settle. (in)
23.79	2.23	1.73	111.19	192.75	44	1104.2	2533	0.28	0.020	0.01	8.77	0.00	0.000
23.95	2.26	1.83	102.67	188.14	44	1090.8	2464	0.28	0.021	0.01	8.77	0.00	0.000
24.11	2.30	1.95	93.22	181.87	43	1070.7	2364	0.28	0.022	0.01	8.77	0.00	0.000
24.28	2.33	2.06	85.18	175.12	42	1049.1	2259	0.28	0.023	0.01	8.77	0.00	0.000
24.44	2.34	2.10	80.07	168.06	40	1028.7	2161	0.28	0.025	0.01	8.77	0.00	0.000
24.61	2.34	2.09	79.09	165.22	40	1023.2	2134	0.28	0.026	0.01	8.77	0.01	0.000
24.77	2.32	2.00	82.81	165.97	39	1031.8	2174	0.28	0.025	0.01	8.77	0.01	0.000
24.93	2.27	1.85	90.74	168.20	39	1047.0	2245	0.28	0.025	0.01	8.77	0.00	0.000
25.10	2.19	1.64	102.54	167.89	38	1053.5	2274	0.28	0.024	0.01	8.77	0.01	0.000
25.26	2.17	1.60	106.00	169.13	38	1060.0	2305	0.28	0.024	0.01	8.77	0.01	0.000
25.43	2.16	1.58	108.09	170.70	38	1067.4	2341	0.28	0.024	0.01	8.77	0.00	0.000
25.59	2.17	1.60	109.86	176.23	39	1087.3	2440	0.28	0.023	0.01	8.77	0.00	0.000
25.75	2.15	1.56	115.71	180.32	40	1102.1	2514	0.28	0.022	0.01	8.77	0.00	0.000
25.92	2.15	1.55	117.51	182.05	40	1109.9	2553	0.28	0.022	0.01	8.77	0.00	0.000
26.08	2.16	1.57	116.97	184.09	41	1119.1	2600	0.28	0.022	0.01	8.77	0.00	0.000
26.25	2.18	1.63	115.90	188.39	42	1135.1	2684	0.28	0.021	0.01	8.77	0.00	0.000
26.41	2.23	1.75	110.53	192.88	44	1149.9	2763	0.28	0.020	0.01	8.77	0.00	0.000
26.57	2.29	1.90	100.91	191.96	45	1145.5	2740	0.29	0.021	0.01	8.77	0.00	0.000
26.74	2.33	2.04	90.42	184.48	44	1120.6	2609	0.29	0.022	0.01	8.77	0.00	0.000
26.90	2.32	2.01	86.75	174.59	41	1093.9	2471	0.29	0.024	0.01	8.77	0.00	0.000
27.07	2.28	1.88	90.50	170.22	40	1087.3	2436	0.29	0.025	0.01	8.77	0.00	0.000
27.23	2.24	1.77	97.36	172.66	40	1100.4	2501	0.29	0.024	0.01	8.77	0.00	0.000
27.39	2.22	1.72	103.65	178.59	41	1122.6	2615	0.29	0.023	0.01	8.77	0.00	0.000
27.56	2.21	1.70	110.06	186.67	42	1150.7	2763	0.29	0.022	0.01	8.77	0.00	0.000
27.72	2.20	1.68	117.06	196.46	44	1183.4	2941	0.29	0.020	0.01	8.77	0.00	0.000
27.89	2.22	1.71	119.10	204.03	46	1208.4	3081	0.29	0.019	0.01	8.77	0.00	0.000
28.05	2.25	1.81	112.51	203.29	47	1207.3	3075	0.29	0.019	0.01	8.77	0.00	0.000
28.21	2.30	1.94	101.41	196.93	46	1187.1	2961	0.29	0.021	0.01	8.77	0.00	0.000
28.38	2.34	2.09	89.94	187.63	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
28.54	2.40	2.31	77.44	179.04	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
28.71	2.48	2.65	63.83	169.10	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
28.87	2.56	3.07	52.02	159.88	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
29.04	2.61	3.41	44.18	150.68	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
29.20	2.65	3.67	38.94	142.87	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
29.36	2.69	3.90	34.49	134.60	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
29.53	2.72	4.16	30.57	127.09	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
29.69	2.71	4.10	29.76	122.03	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
29.86	2.69	3.91	31.19	121.87	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
30.02	2.68	3.84	32.53	124.79	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
30.18	2.71	4.04	31.02	125.22	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
30.35	2.74	4.33	28.07	121.65	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
30.51	2.77	4.50	25.86	116.26	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
30.68	2.79	4.74	23.61	111.81	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
30.84	2.83	5.05	21.60	109.10	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
31.00	2.83	5.07	20.65	104.60	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
31.17	2.82	4.98	20.56	102.29	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
31.33	2.81	4.84	20.63	99.92	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
31.50	2.83	5.02	19.92	100.06	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000

:: Post-earthquake settlement of dry sands :: (continued)

Depth (ft)	Ic	Kc	Qc1n	Qc1n,cs	N1,60 (blows)	Vs (ft/s)	Gmax (tsf)	CSR	Shear, γ (%)	Svol,15 (%)	Nc	ev (%)	Settle. (in)
31.66	2.80	4.81	19.72	94.94	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
31.82	2.81	4.90	19.15	93.76	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
31.99	2.83	5.03	18.49	93.00	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
32.15	2.89	5.58	17.18	95.92	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
32.32	2.90	5.74	16.50	94.66	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
32.48	2.91	5.75	16.31	93.76	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
32.64	2.91	5.82	16.13	93.81	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
32.81	2.93	6.00	15.61	93.71	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
32.97	2.95	6.16	14.97	92.21	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
33.14	2.95	6.21	14.59	90.62	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
33.30	2.96	6.28	14.24	89.50	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
33.47	2.97	6.40	13.93	89.09	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
33.63	2.97	6.42	13.79	88.47	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
33.79	2.97	6.36	13.93	88.67	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
33.96	2.96	6.35	14.05	89.18	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
34.12	2.97	6.38	13.99	89.19	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
34.28	2.97	6.43	13.68	87.99	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
34.45	2.97	6.46	13.32	86.02	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
34.61	2.96	6.33	13.26	83.98	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
34.78	2.95	6.18	13.46	83.25	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
34.94	2.88	5.51	14.03	77.36	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
35.10	2.86	5.28	14.20	75.01	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
35.27	2.87	5.45	13.62	74.20	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
35.43	2.95	6.24	12.86	80.24	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
35.60	2.99	6.58	12.76	83.99	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
35.76	2.98	6.47	13.25	85.76	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
35.92	2.97	6.40	13.63	87.17	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
36.09	2.96	6.32	14.02	88.61	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
36.25	2.94	6.08	15.20	92.46	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
36.42	2.91	5.77	17.03	98.31	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
36.58	2.89	5.64	18.71	105.61	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
36.74	2.88	5.53	20.24	111.91	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
36.91	2.86	5.33	22.05	117.58	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
37.07	2.82	4.95	24.81	122.81	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
37.24	2.80	4.80	26.73	128.21	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
37.40	2.81	4.84	27.57	133.37	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
37.57	2.84	5.16	26.43	136.28	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
37.73	2.88	5.49	25.08	137.56	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
37.89	2.87	5.43	25.58	138.92	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
38.06	2.79	4.74	29.83	141.43	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
38.22	2.67	3.81	36.91	140.64	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
38.39	2.54	2.96	46.86	138.78	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
38.55	2.42	2.38	57.87	137.90	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
38.71	2.32	2.03	70.37	142.87	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
38.88	2.28	1.87	80.81	151.21	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
39.04	2.25	1.80	88.90	160.15	37	1209.3	3052	0.29	0.029	0.01	8.77	0.00	0.000
39.21	2.24	1.77	94.26	167.17	38	1237.4	3212	0.29	0.027	0.01	8.77	0.00	0.000
39.37	2.23	1.74	97.03	168.72	38	1244.7	3255	0.29	0.027	0.01	8.77	0.00	0.000

:: Post-earthquake settlement of dry sands :: (continued)

Depth (ft)	Ic	Kc	Qc1n	Qc1n,cs	N1,60 (blows)	Vs (ft/s)	Gmax (tsf)	CSR	Shear, γ (%)	Svol,15 (%)	Nc	ev (%)	Settle. (in)
39.53	2.21	1.69	98.83	166.78	38	1238.6	3218	0.29	0.027	0.01	8.77	0.00	0.000
39.70	2.16	1.58	103.99	164.57	37	1228.2	3158	0.29	0.028	0.01	8.77	0.00	0.000
39.86	2.10	1.45	114.63	166.75	36	1227.4	3153	0.29	0.028	0.01	8.77	0.00	0.000
40.03	2.02	1.33	130.81	174.26	37	1235.7	3201	0.29	0.028	0.01	8.77	0.00	0.000
40.19	1.97	1.26	145.61	183.70	38	1249.9	3283	0.29	0.027	0.01	8.77	0.00	0.000
40.35	1.90	1.19	161.79	192.92	39	1252.2	3297	0.28	0.027	0.01	8.77	0.00	0.000
40.52	1.93	1.21	170.04	206.37	42	1307.8	3633	0.28	0.024	0.01	8.77	0.00	0.000
40.68	1.98	1.28	170.27	217.75	45	1372.8	4019	0.28	0.021	0.01	8.77	0.00	0.000
40.85	2.07	1.40	162.73	227.51	49	1437.2	4405	0.28	0.019	0.01	8.77	0.00	0.000
41.01	2.09	1.45	157.39	227.48	49	1447.3	4467	0.28	0.019	0.01	8.77	0.00	0.000
41.17	2.10	1.46	156.93	228.60	50	1454.7	4513	0.28	0.019	0.01	8.77	0.00	0.000
41.34	2.06	1.39	167.14	232.23	50	1456.6	4525	0.28	0.019	0.01	8.77	0.00	0.000
41.50	1.98	1.28	185.06	236.08	49	1438.1	4410	0.28	0.019	0.01	8.77	0.00	0.000
41.67	1.89	1.18	208.09	245.34	49	1418.6	4292	0.28	0.020	0.01	8.77	0.00	0.000
41.83	1.84	1.14	217.34	246.72	48	1392.3	4134	0.28	0.021	0.01	8.77	0.00	0.000
41.99	1.81	1.11	217.65	242.26	47	1362.8	3961	0.28	0.022	0.01	8.77	0.00	0.000
42.16	1.79	1.10	206.93	227.08	44	1307.4	3627	0.28	0.025	0.01	8.77	0.00	0.000
42.32	1.76	1.08	201.87	217.66	41	1264.5	3366	0.28	0.027	0.01	8.77	0.00	0.000
42.49	1.78	1.09	198.78	216.64	42	1273.4	3419	0.28	0.027	0.01	8.77	0.00	0.000
42.65	1.70	1.04	231.44	240.17	45	1292.7	3536	0.28	0.026	0.01	8.77	0.00	0.000
42.81	1.65	1.00	263.11	263.67	48	1323.3	3726	0.28	0.024	0.01	8.77	0.00	0.000
42.98	1.70	1.04	287.39	297.69	55	1440.4	4425	0.28	0.020	0.01	8.77	0.00	0.000
43.14	1.79	1.10	275.77	302.46	58	1518.8	4919	0.28	0.018	0.00	8.77	0.00	0.000
43.31	1.87	1.16	254.18	295.87	59	1565.9	5230	0.28	0.017	0.00	8.77	0.00	0.000
43.47	1.90	1.19	238.04	282.14	56	1546.7	5102	0.28	0.017	0.00	8.77	0.00	0.000
43.63	1.92	1.21	226.05	273.80	55	1542.4	5074	0.28	0.017	0.01	8.77	0.00	0.000
43.80	1.92	1.21	228.55	276.12	56	1548.9	5117	0.28	0.017	0.01	8.77	0.00	0.000
43.96	1.87	1.16	250.40	291.14	58	1559.8	5189	0.28	0.017	0.00	8.77	0.00	0.000
44.13	1.78	1.10	293.37	321.47	62	1575.4	5293	0.28	0.017	0.00	8.77	0.00	0.000
44.29	1.72	1.05	334.08	350.14	66	1589.7	5389	0.28	0.016	0.00	8.77	0.00	0.000
44.45	1.69	1.03	349.17	360.29	67	1595.2	5427	0.28	0.016	0.00	8.77	0.00	0.000
44.62	1.67	1.01	350.49	355.49	66	1566.7	5234	0.28	0.017	0.00	8.77	0.00	0.000
44.78	1.63	1.00	352.20	352.20	64	1528.2	4981	0.28	0.018	0.00	8.77	0.00	0.000
44.95	1.59	1.00	350.73	350.73	63	1489.7	4733	0.28	0.019	0.00	8.77	0.00	0.000
45.11	1.58	1.00	349.19	349.19	63	1480.2	4673	0.28	0.020	0.00	8.77	0.00	0.000

Total estimated settlement: 0.06

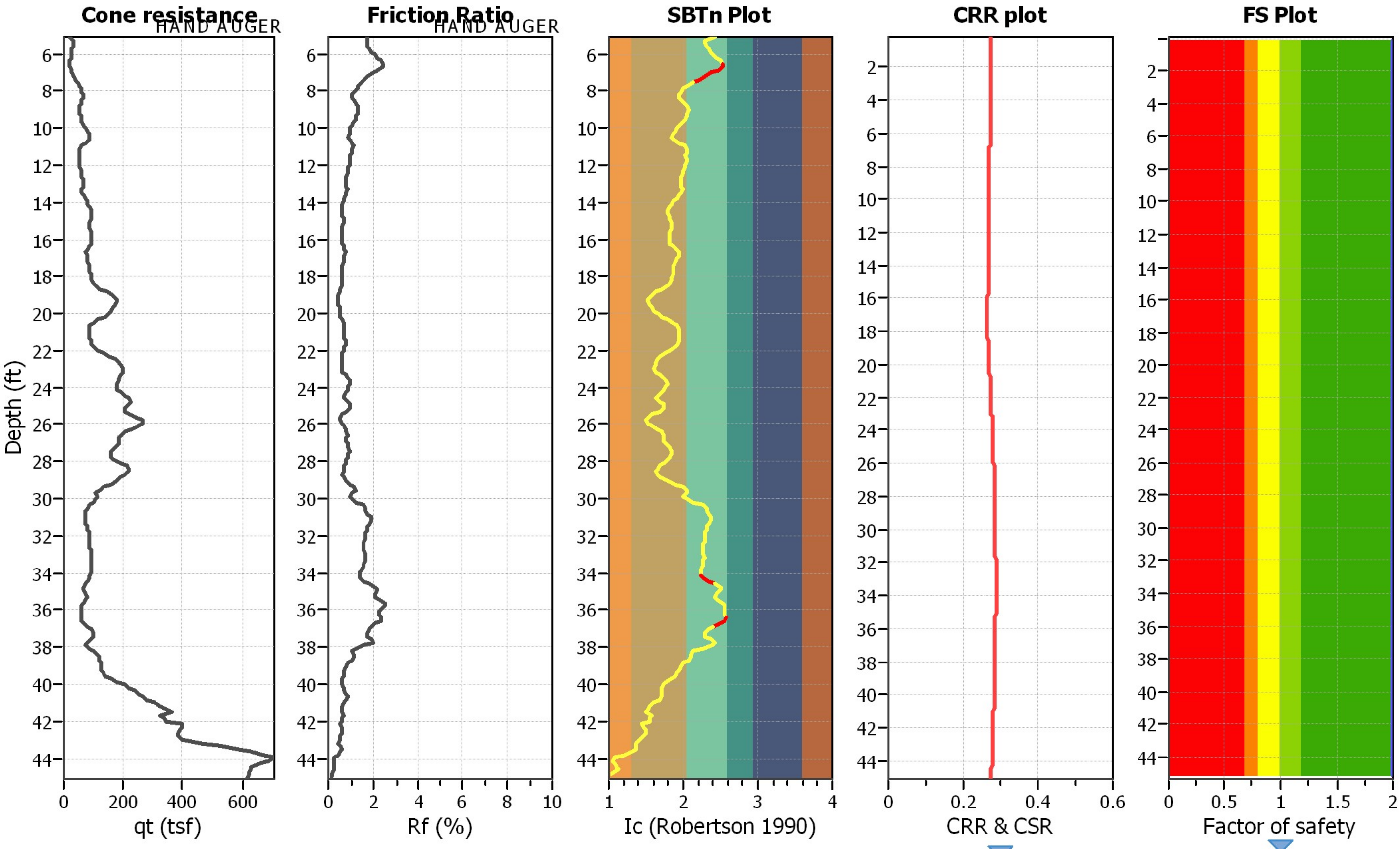
LIQUEFACTION ANALYSIS REPORT

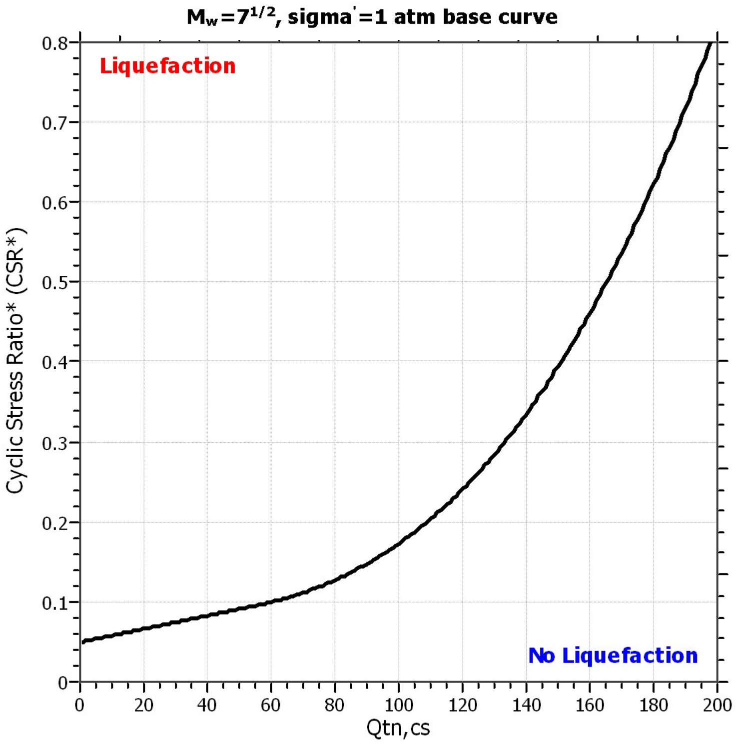
Project title : Colfax Charter Elementary School - DE Analysis   Location : A8326-06-69A

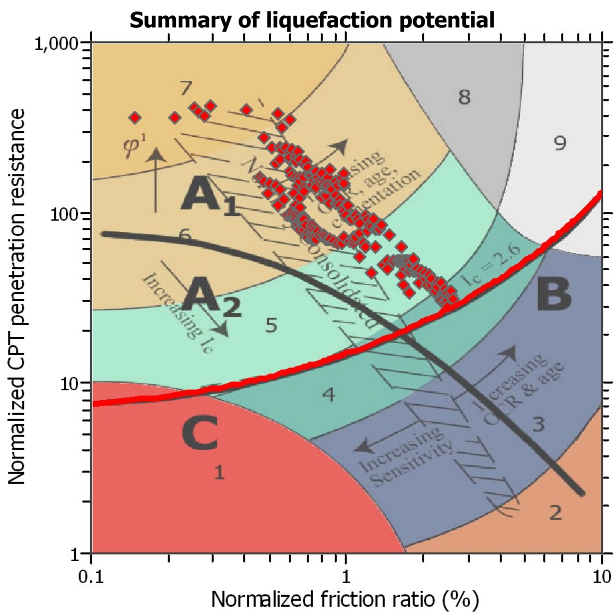
CPT file : CPT-02

Input parameters and analysis data

Analysis method:	NCEER (1998)	G.W.T. (in-situ):	50.00 ft	Use fill:	No	Clay like behavior applied:	Sands only
Fines correction method:	NCEER (1998)	G.W.T. (earthq.):	50.00 ft	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w:	6.72	Ic cut-off value:	2.60	Trans. detect. applied:	Yes	MSF method:	Method based
Peak ground acceleration:	0.56	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

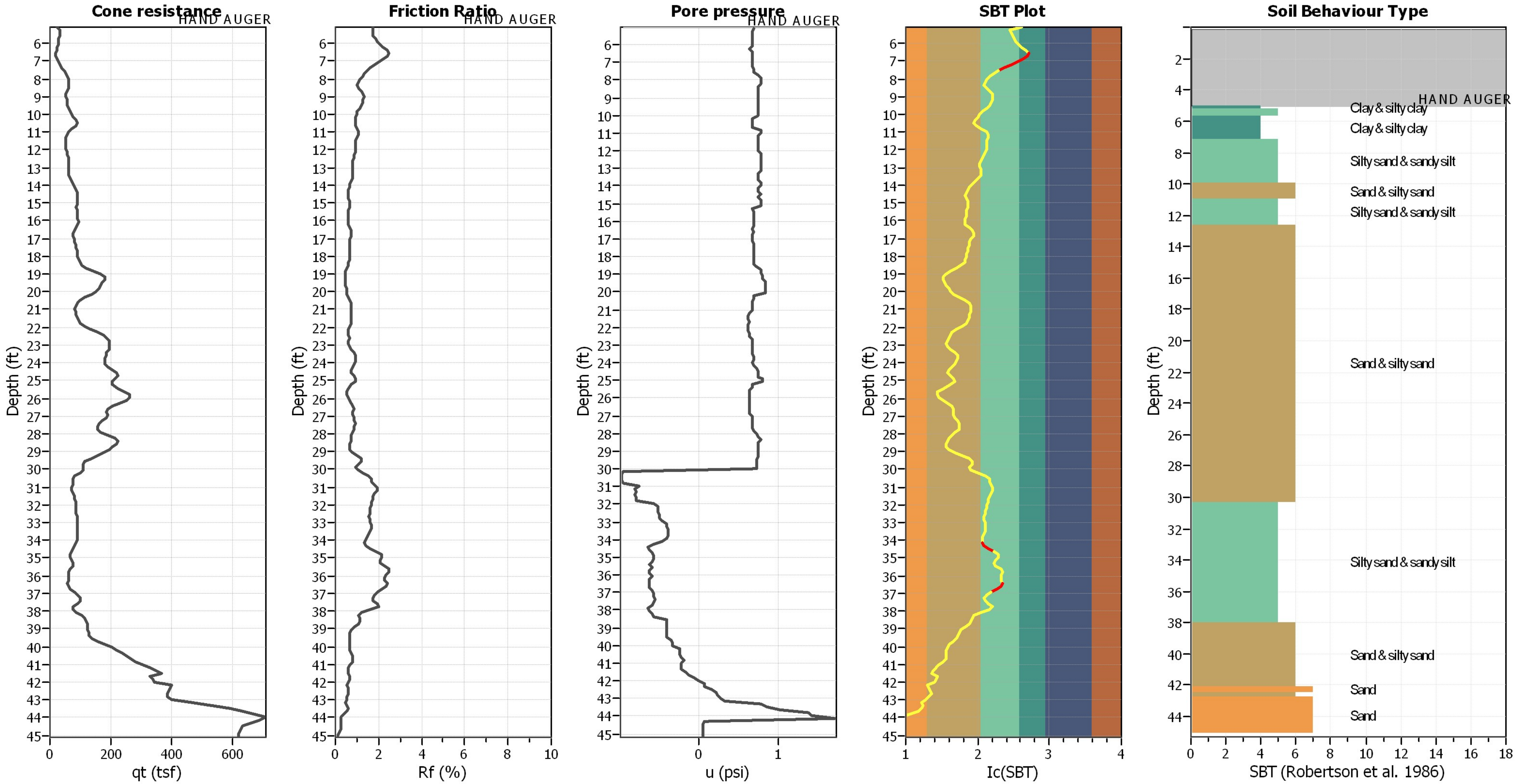






Zone A_1: Cyclic liquefaction likely depending on size and duration of cyclic loading
Zone A_2: Cyclic liquefaction and strength loss likely depending on loading and ground geometry
Zone B: Liquefaction and post-earthquake strength loss unlikely, check cyclic softening
Zone C: Cyclic liquefaction and strength loss possible depending on soil plasticity, brittleness/sensitivity, strain to peak undrained strength and ground geometry

CPT basic interpretation plots



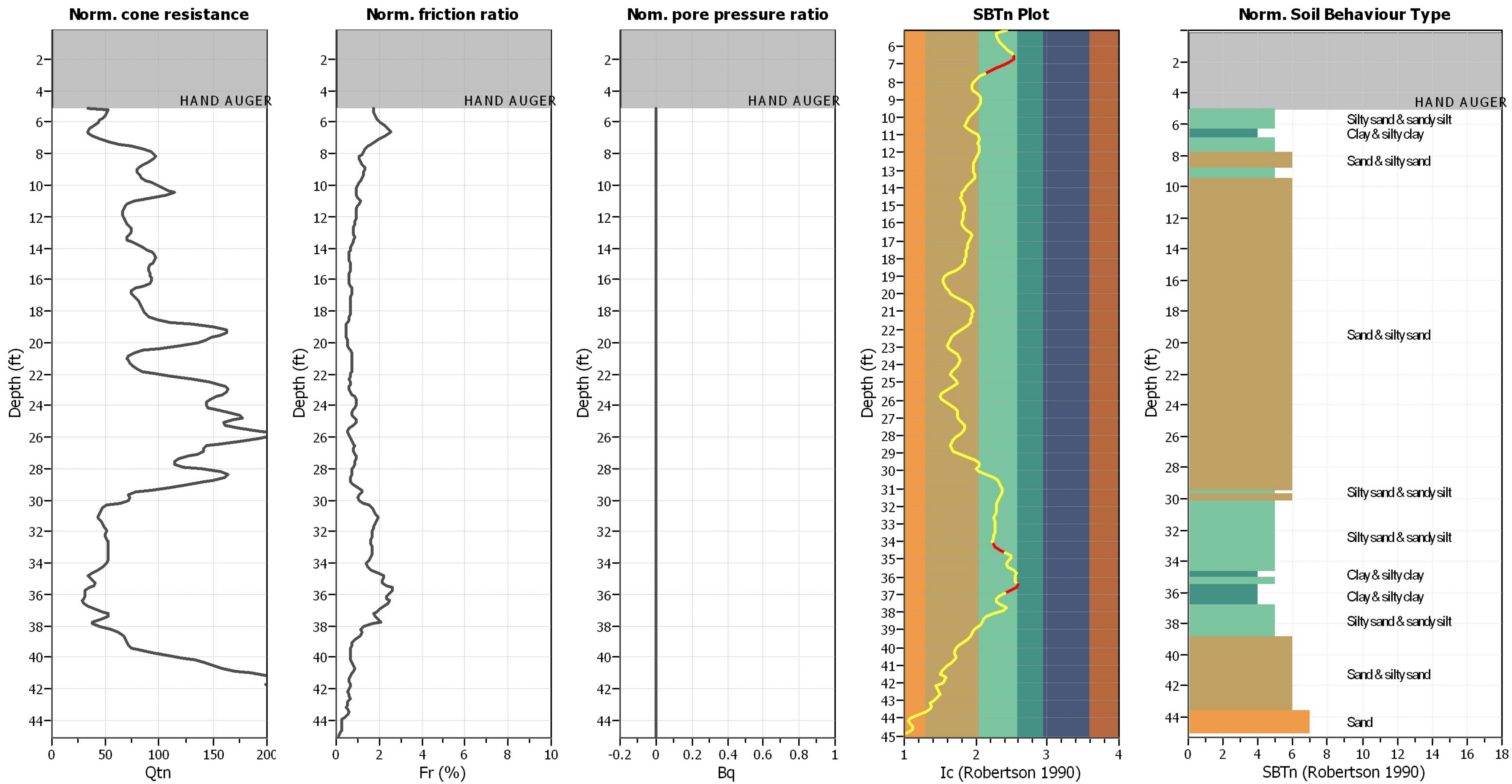
Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	50.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.72	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.56	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	50.00 ft	Fill height:	N/A	Limit depth:	N/A

SBT legend

1. Sensitive fine grained
2. Organic material
3. Clay to silty clay
4. Clayey silt to silty
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to
9. Very stiff fine grained

CPT basic interpretation plots (normalized)



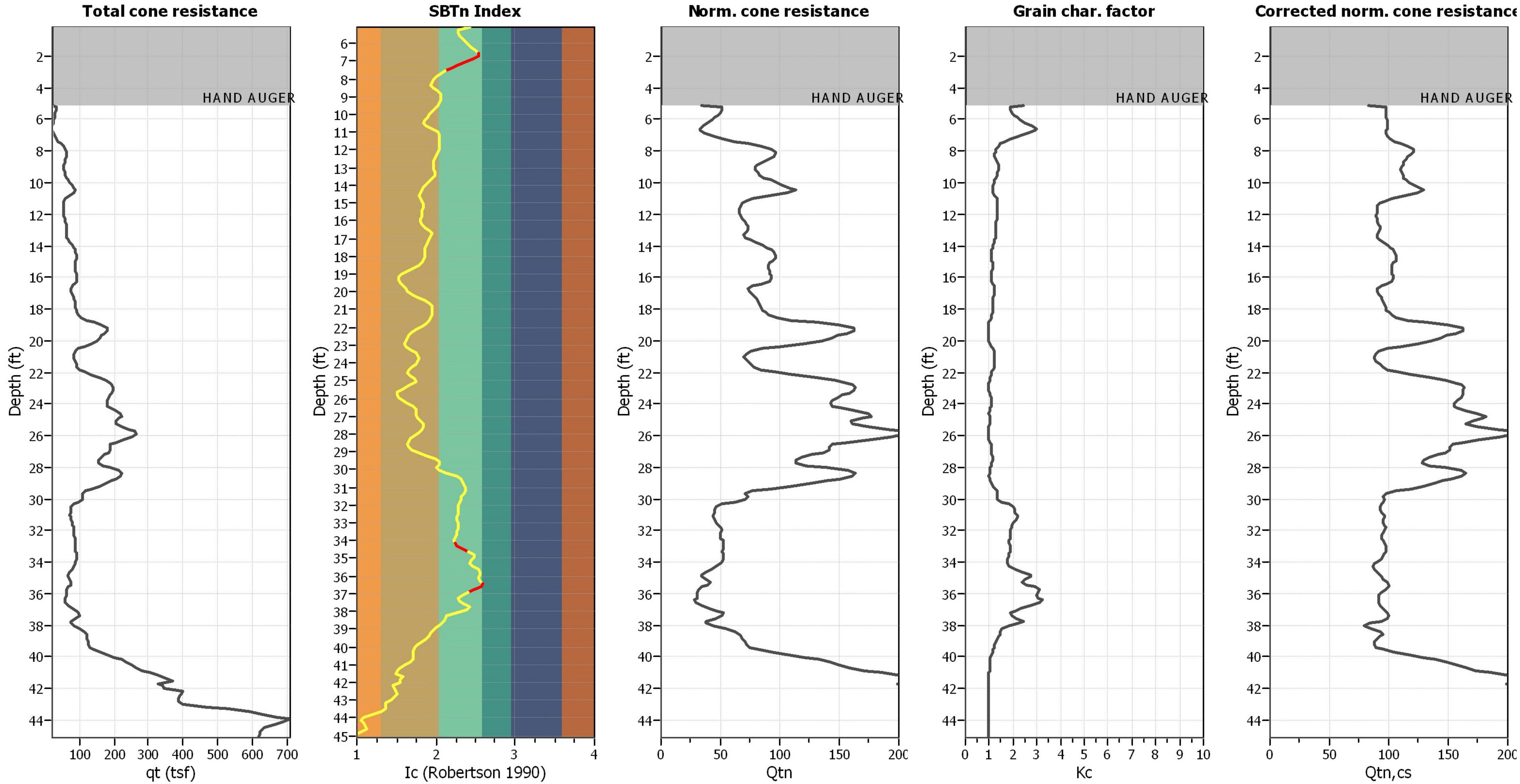
Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	50.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.72	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.56	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	50.00 ft	Fill height:	N/A	Limit depth:	N/A

SBTn legend

1. Sensitive fine grained
2. Organic material
3. Clay to silty clay
4. Clayey silt to silty
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to
9. Very stiff fine grained

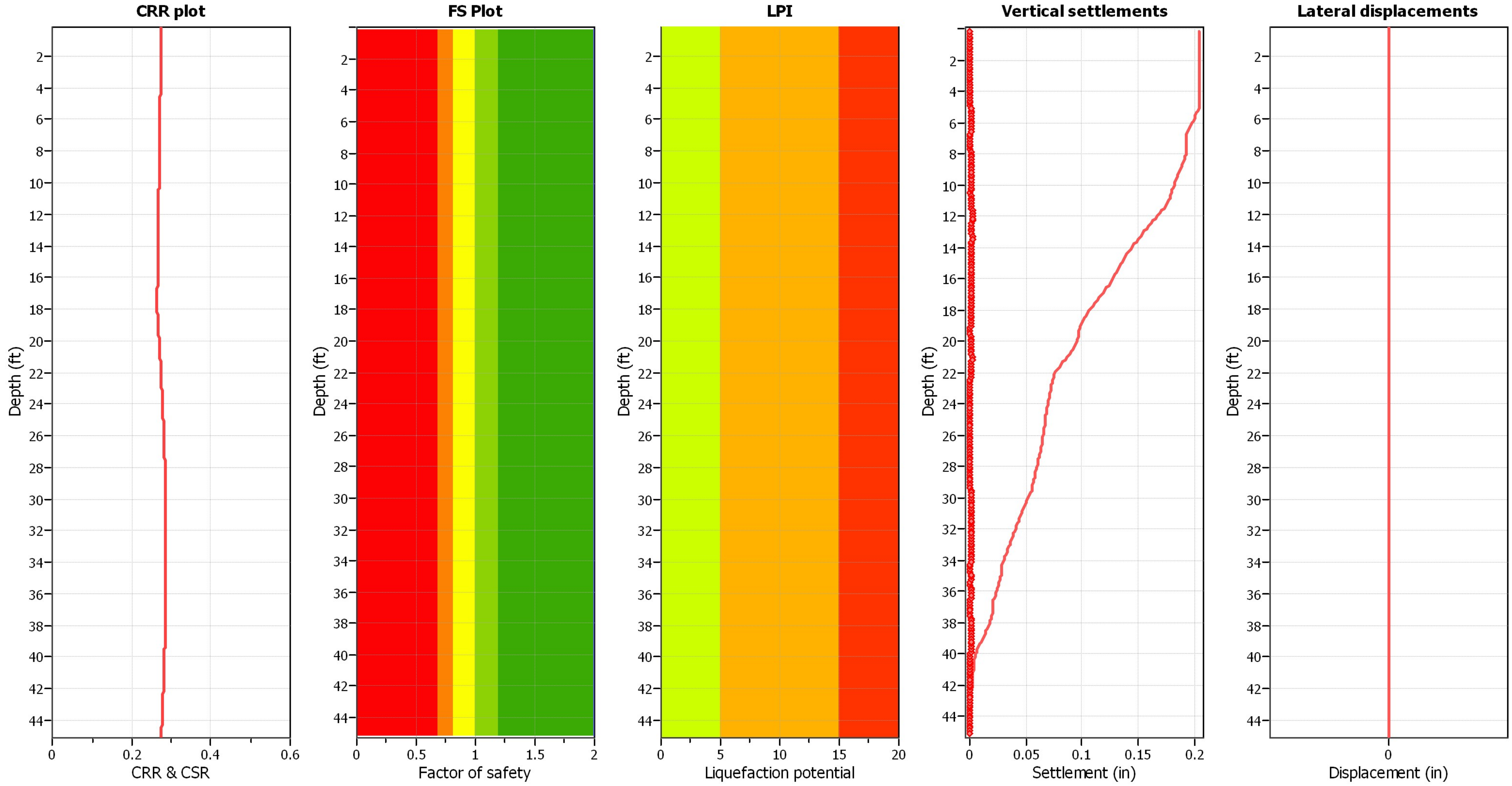
Liquefaction analysis overall plots (intermediate results)



Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	50.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.72	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.56	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	50.00 ft	Fill height:	N/A	Limit depth:	N/A

Liquefaction analysis overall plots



Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	50.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.72	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.56	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	50.00 ft	Fill height:	N/A	Limit depth:	N/A

F.S. color scheme

- Almost certain it will liquefy
- Very likely to liquefy
- Liquefaction and no liq. are equally likely
- Unlike to liquefy
- Almost certain it will not liquefy

LPI color scheme

- Very high risk
- High risk
- Low risk

:: Field input data ::

Point ID	Depth (ft)	q_c (tsf)	f_s (tsf)	u (tsf)	Fines content (%)	Unit weight (pcf)
1	0.16	-9999.00	-9999.00	-9999.00	N/A	120.90
2	0.33	-9999.00	-9999.00	-9999.00	N/A	120.90
3	0.49	-9999.00	-9999.00	-9999.00	N/A	120.90
4	0.66	-9999.00	-9999.00	-9999.00	N/A	120.90
5	0.82	-9999.00	-9999.00	-9999.00	N/A	120.90
6	0.98	-9999.00	-9999.00	-9999.00	N/A	120.90
7	1.15	-9999.00	-9999.00	-9999.00	N/A	120.90
8	1.31	-9999.00	-9999.00	-9999.00	N/A	120.90
9	1.48	-9999.00	-9999.00	-9999.00	N/A	120.90
10	1.64	-9999.00	-9999.00	-9999.00	N/A	120.90
11	1.80	-9999.00	-9999.00	-9999.00	N/A	120.90
12	1.97	-9999.00	-9999.00	-9999.00	N/A	120.90
13	2.13	-9999.00	-9999.00	-9999.00	N/A	120.90
14	2.30	-9999.00	-9999.00	-9999.00	N/A	120.90
15	2.46	-9999.00	-9999.00	-9999.00	N/A	120.90
16	2.63	-9999.00	-9999.00	-9999.00	N/A	120.90
17	2.79	-9999.00	-9999.00	-9999.00	N/A	120.90
18	2.95	-9999.00	-9999.00	-9999.00	N/A	120.90
19	3.12	-9999.00	-9999.00	-9999.00	N/A	120.90
20	3.28	-9999.00	-9999.00	-9999.00	N/A	120.90
21	3.44	-9999.00	-9999.00	-9999.00	N/A	120.90
22	3.61	-9999.00	-9999.00	-9999.00	N/A	120.90
23	3.77	-9999.00	-9999.00	-9999.00	N/A	120.90
24	3.94	-9999.00	-9999.00	-9999.00	N/A	120.90
25	4.10	-9999.00	-9999.00	-9999.00	N/A	120.90
26	4.26	-9999.00	-9999.00	-9999.00	N/A	120.90
27	4.43	-9999.00	-9999.00	-9999.00	N/A	120.90
28	4.59	-9999.00	-9999.00	-9999.00	N/A	120.90
29	4.76	-9999.00	-9999.00	-9999.00	N/A	120.90
30	4.92	-9999.00	-9999.00	-9999.00	N/A	120.90
31	5.08	32.22	0.57	0.69	27.61	110.60
32	5.25	32.53	0.56	0.66	21.89	114.52
33	5.41	32.92	0.55	0.66	22.05	114.40
34	5.58	31.04	0.55	0.66	22.74	114.25
35	5.74	29.33	0.55	0.66	23.91	114.14
36	5.91	28.43	0.55	0.66	25.03	114.07
37	6.07	27.22	0.56	0.66	26.43	113.96
38	6.23	24.83	0.55	0.64	28.45	113.73
39	6.40	22.25	0.54	0.66	30.84	113.37
40	6.56	20.45	0.53	0.66	32.34	113.03
41	6.73	20.67	0.51	0.66	32.00	112.90
42	6.89	22.47	0.51	0.66	29.34	113.27
43	7.05	27.39	0.55	0.66	25.62	114.10
44	7.22	33.68	0.61	0.66	22.10	115.05
45	7.38	38.90	0.63	0.69	19.11	115.97
46	7.55	45.84	0.68	0.69	16.43	116.74
47	7.71	54.02	0.71	0.74	14.44	117.53
48	7.87	59.30	0.76	0.77	13.12	118.05

:: Field input data :: (continued)

Point ID	Depth (ft)	q_c (tsf)	f_s (tsf)	u (tsf)	Fines content (%)	Unit weight (pcf)
49	8.04	62.25	0.77	0.77	12.18	118.00
50	8.20	64.35	0.65	0.77	11.51	117.70
51	8.37	64.92	0.66	0.74	11.40	117.29
52	8.53	60.48	0.66	0.74	12.24	117.33
53	8.69	56.35	0.69	0.74	13.53	117.41
54	8.86	53.73	0.72	0.74	14.55	117.49
55	9.02	52.98	0.71	0.74	14.92	117.47
56	9.19	54.04	0.69	0.74	14.65	117.49
57	9.35	57.13	0.71	0.74	14.15	117.61
58	9.51	59.41	0.72	0.74	13.70	117.82
59	9.68	61.21	0.73	0.74	12.71	117.78
60	9.84	67.70	0.66	0.74	11.63	118.00
61	10.01	75.06	0.73	0.74	10.74	118.27
62	10.17	76.80	0.76	0.66	10.20	118.85
63	10.34	83.45	0.78	0.66	9.54	119.34
64	10.50	92.89	0.83	0.66	9.11	119.69
65	10.66	90.17	0.83	0.66	9.90	119.46
66	10.83	68.06	0.75	0.77	11.55	118.43
67	10.99	57.53	0.62	0.77	13.78	117.23
68	11.15	53.85	0.61	0.74	14.33	116.12
69	11.32	53.93	0.52	0.74	14.31	115.56
70	11.48	53.85	0.50	0.74	13.94	115.07
71	11.65	53.79	0.51	0.74	14.04	115.05
72	11.81	53.68	0.52	0.74	14.10	115.11
73	11.97	54.49	0.51	0.74	14.00	115.15
74	12.14	55.70	0.51	0.77	13.70	115.14
75	12.30	57.13	0.51	0.77	13.24	115.21
76	12.47	60.00	0.51	0.77	12.74	115.31
77	12.63	62.25	0.51	0.77	12.27	115.44
78	12.79	63.96	0.51	0.77	11.93	115.56
79	12.96	65.53	0.52	0.77	11.98	115.59
80	13.12	62.89	0.52	0.77	12.26	115.56
81	13.29	61.32	0.51	0.74	12.68	115.49
82	13.45	61.18	0.52	0.74	12.48	115.51
83	13.62	65.98	0.51	0.74	11.67	115.70
84	13.78	72.92	0.52	0.77	10.58	115.98
85	13.94	78.37	0.53	0.77	9.68	116.28
86	14.11	82.98	0.54	0.74	8.99	116.47
87	14.27	86.88	0.53	0.74	8.43	116.60
88	14.44	90.45	0.54	0.77	8.06	116.75
89	14.60	92.64	0.55	0.74	7.96	116.96
90	14.76	92.47	0.57	0.77	8.26	117.28
91	14.93	89.89	0.61	0.77	8.70	117.51
92	15.09	88.48	0.62	0.77	9.02	117.44
93	15.26	86.68	0.56	0.66	8.96	117.14
94	15.42	87.84	0.55	0.69	8.76	116.95
95	15.58	90.39	0.57	0.69	8.64	117.01
96	15.75	90.48	0.57	0.69	8.57	117.14

:: Field input data :: (continued)

Point ID	Depth (ft)	q_c (tsf)	f_s (tsf)	u (tsf)	Fines content (%)	Unit weight (pcf)
97	15.91	91.83	0.57	0.69	8.35	117.14
98	16.08	95.19	0.56	0.69	8.22	117.12
99	16.24	93.59	0.56	0.69	8.55	117.13
100	16.40	86.57	0.58	0.66	9.62	117.08
101	16.57	76.85	0.58	0.69	10.89	116.89
102	16.73	72.98	0.56	0.66	11.55	116.62
103	16.90	75.53	0.55	0.66	11.26	116.51
104	17.06	80.11	0.55	0.66	10.66	116.60
105	17.22	82.95	0.56	0.69	10.18	116.71
106	17.39	84.58	0.55	0.69	9.88	116.77
107	17.55	86.29	0.55	0.69	9.63	116.81
108	17.72	88.06	0.56	0.69	9.49	116.98
109	17.88	89.86	0.58	0.69	9.39	117.20
110	18.05	91.57	0.59	0.69	9.27	117.39
111	18.21	93.28	0.59	0.69	9.09	117.66
112	18.37	97.47	0.63	0.69	8.73	117.91
113	18.54	102.56	0.63	0.71	7.77	118.15
114	18.70	117.39	0.60	0.77	6.45	118.73
115	18.86	139.94	0.70	0.77	4.91	119.70
116	19.03	170.08	0.78	0.79	3.92	120.86
117	19.19	184.46	0.84	0.79	3.36	121.42
118	19.36	182.36	0.82	0.82	3.38	121.51
119	19.52	172.53	0.81	0.82	3.65	121.17
120	19.68	163.57	0.77	0.82	4.19	121.26
121	19.85	160.73	0.88	0.82	4.63	121.40
122	20.01	158.03	0.88	0.82	5.17	121.21
123	20.18	138.68	0.74	0.69	6.07	120.29
124	20.34	111.57	0.67	0.69	7.64	119.15
125	20.50	95.42	0.66	0.66	9.57	118.37
126	20.67	87.64	0.64	0.66	10.97	117.93
127	20.83	83.12	0.62	0.66	11.62	117.60
128	21.00	82.39	0.60	0.66	11.83	117.40
129	21.16	83.12	0.60	0.64	11.63	117.42
130	21.32	86.71	0.61	0.61	11.44	117.79
131	21.49	90.31	0.68	0.61	11.28	118.41
132	21.65	94.04	0.74	0.64	10.96	118.90
133	21.82	98.96	0.72	0.61	10.05	119.25
134	21.98	111.54	0.73	0.61	8.71	119.75
135	22.15	129.13	0.81	0.61	7.26	120.84
136	22.31	154.72	0.96	0.64	6.02	122.29
137	22.47	181.66	1.12	0.64	5.40	123.61
138	22.64	186.99	1.25	0.66	5.03	124.35
139	22.80	192.53	1.23	0.66	4.78	124.62
140	22.97	202.50	1.21	0.66	4.55	124.54
141	23.13	197.13	1.19	0.66	4.86	124.94
142	23.29	190.56	1.43	0.66	5.79	125.93
143	23.46	192.97	1.79	0.66	6.93	126.83
144	23.62	180.31	1.81	0.69	7.55	127.17

:: Field input data :: (continued)

Point ID	Depth (ft)	q_c (tsf)	f_s (tsf)	u (tsf)	Fines content (%)	Unit weight (pcf)
145	23.79	179.13	1.71	0.69	7.74	126.92
146	23.95	179.72	1.65	0.66	7.45	126.51
147	24.11	178.85	1.54	0.69	7.07	126.20
148	24.28	184.86	1.49	0.71	6.16	125.87
149	24.44	205.76	1.37	0.74	5.30	126.07
150	24.61	224.04	1.54	0.74	5.06	126.90
151	24.77	226.51	1.92	0.74	5.75	128.17
152	24.93	219.44	2.25	0.79	6.70	128.74
153	25.10	202.53	2.07	0.79	6.93	128.10
154	25.26	194.38	1.49	0.66	5.78	126.61
155	25.43	219.29	1.18	0.66	4.08	125.43
156	25.59	250.50	1.26	0.64	3.08	125.56
157	25.75	265.25	1.43	0.64	2.91	126.48
158	25.92	270.31	1.60	0.64	3.29	127.21
159	26.08	253.90	1.71	0.64	4.07	127.56
160	26.25	226.37	1.75	0.64	5.15	127.45
161	26.41	202.44	1.69	0.64	6.30	127.04
162	26.57	185.62	1.60	0.64	6.97	126.54
163	26.74	184.24	1.53	0.64	7.01	126.30
164	26.90	194.01	1.55	0.64	6.97	126.29
165	27.07	187.86	1.59	0.66	7.47	126.34
166	27.23	168.54	1.60	0.66	8.21	126.13
167	27.39	163.62	1.51	0.66	8.93	125.69
168	27.56	154.77	1.42	0.66	8.99	125.09
169	27.72	152.47	1.29	0.66	8.71	124.78
170	27.89	164.38	1.33	0.69	7.73	124.85
171	28.05	186.99	1.36	0.71	6.58	125.74
172	28.21	219.24	1.62	0.74	5.72	126.66
173	28.38	232.13	1.73	0.77	5.35	126.89
174	28.54	214.13	1.46	0.74	5.09	126.25
175	28.71	209.91	1.24	0.74	5.30	125.37
176	28.87	193.06	1.31	0.74	5.94	125.08
177	29.04	178.17	1.38	0.74	7.73	125.61
178	29.20	159.16	1.66	0.74	9.97	126.02
179	29.36	138.31	1.73	0.74	12.67	125.72
180	29.53	109.75	1.43	0.71	14.31	124.28
181	29.69	101.46	1.00	0.71	14.22	122.65
182	29.86	111.85	0.99	0.71	13.27	122.09
183	30.02	115.70	1.16	0.71	14.14	122.64
184	30.18	97.69	1.26	-0.93	16.99	122.99
185	30.35	79.55	1.28	-0.95	20.95	122.84
186	30.51	72.33	1.28	-0.95	22.99	122.58
187	30.68	77.61	1.24	-0.95	23.60	122.65
188	30.84	76.09	1.34	-0.93	24.22	122.93
189	31.00	71.29	1.44	-0.74	25.46	123.23
190	31.17	72.58	1.44	-0.79	25.45	123.29
191	31.33	77.25	1.36	-0.77	24.35	123.17
192	31.50	78.51	1.33	-0.79	23.39	123.26

:: Field input data :: (continued)

Point ID	Depth (ft)	q_c (tsf)	f_s (tsf)	u (tsf)	Fines content (%)	Unit weight (pcf)
193	31.66	81.66	1.43	-0.77	22.83	123.53
194	31.82	85.70	1.47	-0.77	22.40	123.77
195	31.99	85.95	1.43	-0.56	21.86	123.67
196	32.15	85.59	1.35	-0.50	21.84	123.51
197	32.32	84.24	1.38	-0.50	21.77	123.42
198	32.48	85.90	1.38	-0.50	21.57	123.46
199	32.64	88.45	1.35	-0.48	21.01	123.56
200	32.81	91.46	1.41	-0.48	21.08	123.86
201	32.97	89.75	1.53	-0.45	21.48	124.11
202	33.14	88.73	1.50	-0.40	21.70	124.23
203	33.30	91.66	1.48	-0.40	21.65	124.15
204	33.47	89.47	1.48	-0.37	21.30	124.09
205	33.63	91.74	1.45	-0.37	20.92	123.90
206	33.79	93.20	1.36	-0.37	20.40	123.54
207	33.96	90.06	1.27	-0.40	20.15	122.93
208	34.12	86.15	1.15	-0.45	20.36	122.38
209	34.28	84.27	1.13	-0.56	21.45	122.23
210	34.45	78.54	1.25	-0.64	23.65	122.48
211	34.61	71.32	1.35	-0.61	27.02	122.80
212	34.78	64.19	1.41	-0.58	30.21	122.91
213	34.94	60.73	1.43	-0.56	30.24	123.12
214	35.10	73.68	1.45	-0.56	28.16	123.70
215	35.27	83.51	1.63	-0.58	27.28	124.42
216	35.43	75.62	1.79	-0.61	28.87	124.73
217	35.60	67.05	1.72	-0.58	32.09	124.44
218	35.76	61.04	1.60	-0.61	33.58	123.71
219	35.92	60.62	1.42	-0.61	33.33	123.08
220	36.09	62.61	1.36	-0.58	32.73	122.75
221	36.25	61.21	1.40	-0.61	33.12	122.69
222	36.42	58.51	1.40	-0.61	34.61	122.66
223	36.58	55.65	1.40	-0.61	33.69	122.80
224	36.74	67.16	1.44	-0.61	30.20	123.40
225	36.91	83.31	1.57	-0.58	26.63	124.23
226	37.07	88.93	1.68	-0.56	23.81	124.93
227	37.24	99.83	1.69	-0.56	22.06	125.35
228	37.40	106.85	1.72	-0.53	22.37	125.57
229	37.57	89.75	1.83	-0.56	24.72	125.24
230	37.73	73.40	1.62	-0.58	27.73	123.99
231	37.89	67.70	1.15	-0.64	25.76	122.20
232	38.06	83.00	0.87	-0.61	20.84	121.38
233	38.22	103.37	1.10	-0.58	17.14	122.37
234	38.39	121.01	1.38	-0.56	16.27	123.89
235	38.55	119.91	1.49	-0.40	15.67	124.35
236	38.71	121.12	1.29	-0.40	14.80	123.73
237	38.88	123.43	1.03	-0.40	13.18	122.57
238	39.04	125.95	0.92	-0.40	11.93	121.58
239	39.21	126.09	0.87	-0.40	11.32	121.16
240	39.37	127.92	0.86	-0.40	10.86	121.27

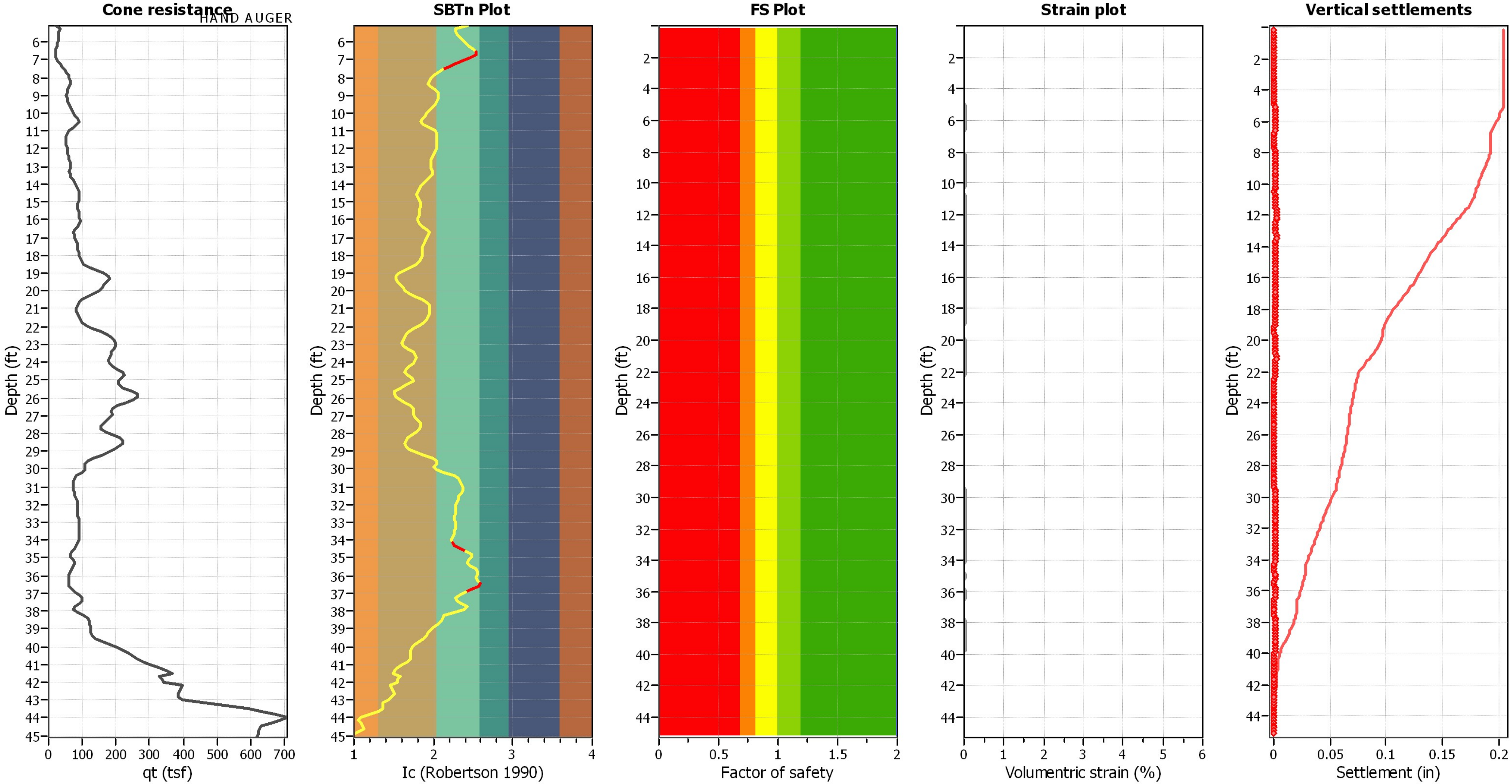
:: Field input data :: (continued)

Point ID	Depth (ft)	q_c (tsf)	f_s (tsf)	u (tsf)	Fines content (%)	Unit weight (pcf)
241	39.53	137.67	0.93	-0.40	10.05	121.86
242	39.70	155.56	1.02	-0.34	8.82	122.91
243	39.86	181.79	1.17	-0.32	7.59	124.17
244	40.03	206.71	1.35	-0.32	6.73	125.32
245	40.19	221.01	1.47	-0.24	6.28	126.37
246	40.35	235.56	1.66	-0.24	6.22	127.56
247	40.52	253.00	2.02	-0.24	6.41	128.85
248	40.68	263.62	2.35	-0.21	6.33	129.70
249	40.85	276.71	2.28	-0.18	5.59	129.86
250	41.01	301.60	2.04	-0.21	4.50	129.69
251	41.17	329.46	2.03	-0.21	3.63	129.74
252	41.34	352.21	2.16	-0.21	3.10	129.96
253	41.50	365.78	2.10	-0.16	2.86	130.44
254	41.67	384.32	2.34	-0.13	4.02	130.24
255	41.83	229.69	2.24	-0.05	3.65	130.26
256	41.99	400.50	2.03	0.00	3.43	130.17
257	42.16	400.33	2.22	0.08	2.16	130.59
258	42.32	397.38	2.29	0.08	2.45	130.92
259	42.49	387.75	2.36	0.16	2.70	131.06
260	42.65	381.06	2.40	0.21	2.98	131.34
261	42.81	383.93	2.58	0.24	2.40	130.38
262	42.98	394.38	1.45	0.27	1.92	130.00
263	43.14	418.73	2.01	0.32	1.09	130.97
264	43.31	578.93	3.10	0.77	1.21	133.47
265	43.47	582.35	3.73	0.85	1.02	135.01
266	43.63	613.34	3.68	1.01	0.48	134.93
267	43.80	698.42	2.77	1.38	0.00	133.49
268	43.96	707.18	1.74	1.40	0.00	131.64
269	44.13	721.57	1.74	1.69	0.00	130.24
270	44.29	636.23	1.74	0.08	0.00	130.16
271	44.45	632.63	1.74	0.05	0.00	130.04
272	44.62	625.58	1.74	0.05	0.00	130.02
273	44.78	622.86	1.73	0.05	0.00	128.01
274	44.95	619.51	0.50	0.05	0.00	125.27
275	45.11	615.89	0.50	0.05	0.00	120.87

Abbreviations

Depth: Depth from free surface, at which CPT was performed (ft)
q_c: Measured cone resistance (tsf)
f_s: Sleeve friction resistance (tsf)
u: Pore pressure (tsf)
Fines content: Percentage of fines in soil (%)
Unit weight: Bulk soil unit weight (pcf)

Estimation of post-earthquake settlements



Abbreviations

q_t:	Total cone resistance (cone resistance q_c corrected for pore water effects)
I_c:	Soil Behaviour Type Index
FS:	Calculated Factor of Safety against liquefaction
Volumentric strain:	Post-liquefaction volumentric strain

:: Post-earthquake settlement of dry sands ::

Depth (ft)	Ic	Kc	Qc1n	Qc1n,cs	N1,60 (blows)	Vs (ft/s)	Gmax (tsf)	CSR	Shear, γ (%)	Svol,15 (%)	Nc	ev (%)	Settle. (in)
0.16	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.28	0.000	0.00	0.00	0.00	0.000
0.33	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.28	0.000	0.00	0.00	0.00	0.000
0.49	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.28	0.000	0.00	0.00	0.00	0.000
0.66	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
0.82	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
0.98	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
1.15	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
1.31	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
1.48	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
1.64	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
1.80	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
1.97	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
2.13	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
2.30	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
2.46	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
2.63	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
2.79	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
2.95	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
3.12	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
3.28	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
3.44	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
3.61	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
3.77	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
3.94	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
4.10	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
4.26	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
4.43	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
4.59	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
4.76	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
4.92	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
5.08	2.43	2.43	34.19	83.24	21	473.9	386	0.27	0.066	0.06	8.77	0.05	0.002
5.25	2.28	1.89	51.81	98.17	23	531.8	503	0.27	0.035	0.03	8.77	0.02	0.001
5.41	2.29	1.91	51.17	97.63	23	529.9	499	0.27	0.037	0.03	8.77	0.02	0.001
5.58	2.31	1.97	49.44	97.27	23	527.1	493	0.27	0.040	0.03	8.77	0.02	0.001
5.74	2.34	2.07	47.01	97.42	23	524.2	487	0.27	0.043	0.04	8.77	0.03	0.001
5.91	2.37	2.18	44.95	97.89	24	522.0	483	0.27	0.045	0.04	8.77	0.03	0.001
6.07	2.40	2.31	42.53	98.44	24	519.1	477	0.27	0.049	0.04	8.77	0.03	0.001
6.23	2.45	2.52	39.21	98.91	25	513.9	467	0.27	0.054	0.04	8.77	0.03	0.001
6.40	2.50	2.79	35.57	99.09	26	506.7	452	0.27	0.061	0.05	8.77	0.03	0.001
6.56	2.54	2.96	33.33	98.64	26	500.8	440	0.27	0.069	0.05	8.77	0.04	0.001
6.73	2.53	2.92	33.43	97.62	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
6.89	2.47	2.62	37.13	97.24	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
7.05	2.38	2.23	44.08	98.50	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
7.22	2.29	1.91	52.87	101.13	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
7.38	2.20	1.67	62.73	105.08	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
7.55	2.12	1.49	73.61	109.89	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
7.71	2.05	1.38	84.52	116.33	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
7.87	2.01	1.31	92.67	121.23	25	599.0	658	0.27	0.034	0.03	8.77	0.02	0.001

:: Post-earthquake settlement of dry sands :: (continued)

Depth (ft)	Ic	Kc	Qc1n	Qc1n,cs	N1,60 (blows)	Vs (ft/s)	Gmax (tsf)	CSR	Shear, γ (%)	Svol,15 (%)	Nc	ev (%)	Settle. (in)
8.04	1.97	1.26	95.86	121.17	25	602.8	666	0.27	0.035	0.03	8.77	0.02	0.001
8.20	1.95	1.23	96.81	119.51	24	601.9	663	0.27	0.036	0.03	8.77	0.02	0.001
8.37	1.94	1.23	94.63	116.37	24	597.4	650	0.27	0.038	0.03	8.77	0.02	0.001
8.53	1.97	1.27	90.36	114.48	24	596.8	649	0.27	0.040	0.03	8.77	0.02	0.001
8.69	2.02	1.33	84.84	112.76	24	595.7	647	0.27	0.041	0.03	8.77	0.02	0.001
8.86	2.06	1.38	80.88	111.83	24	595.8	648	0.27	0.042	0.03	8.77	0.02	0.001
9.02	2.07	1.40	78.97	110.80	24	596.2	649	0.27	0.043	0.04	8.77	0.02	0.001
9.19	2.06	1.39	79.50	110.33	24	598.9	655	0.27	0.043	0.04	8.77	0.02	0.001
9.35	2.04	1.36	81.32	110.66	23	603.9	666	0.27	0.043	0.04	8.77	0.02	0.001
9.51	2.03	1.34	83.48	111.65	23	610.3	682	0.27	0.042	0.03	8.77	0.02	0.001
9.68	1.99	1.29	86.77	111.83	23	614.1	690	0.27	0.042	0.04	8.77	0.02	0.001
9.84	1.95	1.24	92.16	114.26	23	622.8	711	0.27	0.040	0.03	8.77	0.02	0.001
10.01	1.91	1.20	97.47	117.20	24	631.8	733	0.27	0.039	0.03	8.77	0.02	0.001
10.17	1.89	1.18	102.99	121.67	24	645.1	768	0.27	0.036	0.03	8.77	0.02	0.001
10.34	1.86	1.16	109.14	126.23	25	657.4	801	0.27	0.034	0.03	8.77	0.02	0.001
10.50	1.85	1.14	113.43	129.44	25	666.7	826	0.27	0.033	0.02	8.77	0.02	0.001
10.66	1.88	1.17	106.58	124.68	25	661.1	811	0.27	0.035	0.03	8.77	0.02	0.001
10.83	1.95	1.24	91.80	113.50	23	639.1	752	0.27	0.041	0.03	8.77	0.02	0.001
10.99	2.03	1.34	76.68	102.88	22	613.9	686	0.27	0.051	0.05	8.77	0.03	0.001
11.15	2.05	1.37	70.15	96.15	20	596.2	641	0.27	0.061	0.06	8.77	0.04	0.002
11.32	2.05	1.37	67.91	93.00	20	589.1	623	0.27	0.067	0.07	8.77	0.04	0.002
11.48	2.04	1.35	67.10	90.57	19	584.1	610	0.27	0.073	0.08	8.77	0.05	0.002
11.65	2.04	1.36	66.43	90.01	19	584.9	612	0.27	0.074	0.08	8.77	0.05	0.002
11.81	2.04	1.36	66.12	89.81	19	586.9	616	0.27	0.074	0.08	8.77	0.05	0.002
11.97	2.04	1.35	66.27	89.68	19	589.0	621	0.27	0.075	0.08	8.77	0.05	0.002
12.14	2.03	1.34	66.99	89.57	19	591.1	625	0.27	0.075	0.08	8.77	0.05	0.002
12.30	2.01	1.31	68.46	89.98	19	594.6	633	0.27	0.074	0.08	8.77	0.05	0.002
12.47	1.99	1.29	70.31	90.70	19	598.8	642	0.27	0.073	0.08	8.77	0.05	0.002
12.63	1.97	1.27	72.24	91.61	19	603.3	653	0.27	0.071	0.08	8.77	0.05	0.002
12.79	1.96	1.25	73.69	92.34	19	607.3	662	0.27	0.070	0.08	8.77	0.05	0.002
12.96	1.96	1.25	73.38	92.08	19	609.0	666	0.27	0.071	0.08	8.77	0.05	0.002
13.12	1.97	1.27	71.89	91.13	19	608.8	665	0.27	0.072	0.08	8.77	0.05	0.002
13.29	1.99	1.29	69.80	89.85	19	607.8	663	0.27	0.074	0.08	8.77	0.05	0.002
13.45	1.98	1.28	70.37	89.92	19	609.9	668	0.27	0.075	0.08	8.77	0.05	0.002
13.62	1.95	1.24	73.94	91.79	19	616.3	683	0.27	0.072	0.08	8.77	0.05	0.002
13.78	1.91	1.20	79.42	95.02	19	625.1	704	0.27	0.068	0.07	8.77	0.04	0.002
13.94	1.87	1.16	84.78	98.48	20	633.8	726	0.27	0.064	0.07	8.77	0.04	0.002
14.11	1.84	1.14	89.02	101.19	20	640.2	742	0.27	0.062	0.06	8.77	0.04	0.001
14.27	1.81	1.12	92.56	103.42	20	645.3	754	0.27	0.061	0.06	8.77	0.04	0.001
14.44	1.80	1.10	95.27	105.23	20	650.1	767	0.27	0.060	0.06	8.77	0.03	0.001
14.60	1.79	1.10	96.60	106.37	21	654.8	779	0.27	0.059	0.06	8.77	0.03	0.001
14.76	1.81	1.11	95.90	106.59	21	660.0	794	0.27	0.057	0.06	8.77	0.03	0.001
14.93	1.83	1.13	93.98	105.86	21	663.3	803	0.27	0.057	0.05	8.77	0.03	0.001
15.09	1.84	1.14	91.46	104.06	20	662.1	800	0.27	0.058	0.06	8.77	0.03	0.001
15.26	1.84	1.14	90.16	102.40	20	658.4	789	0.27	0.061	0.06	8.77	0.04	0.001
15.42	1.83	1.13	90.21	101.83	20	657.1	784	0.27	0.063	0.06	8.77	0.04	0.001
15.58	1.82	1.12	90.93	102.26	20	659.5	791	0.27	0.063	0.06	8.77	0.04	0.001
15.75	1.82	1.12	91.72	102.91	20	663.0	800	0.27	0.062	0.06	8.77	0.04	0.001

:: Post-earthquake settlement of dry sands :: (continued)

Depth (ft)	Ic	Kc	Qc1n	Qc1n,cs	N1,60 (blows)	Vs (ft/s)	Gmax (tsf)	CSR	Shear, γ (%)	Svol,15 (%)	Nc	ev (%)	Settle. (in)
15.91	1.81	1.11	92.75	103.38	20	664.6	804	0.27	0.062	0.06	8.77	0.04	0.001
16.08	1.80	1.11	93.23	103.50	20	665.8	807	0.27	0.063	0.06	8.77	0.04	0.001
16.24	1.82	1.12	90.99	102.05	20	665.8	807	0.27	0.064	0.06	8.77	0.04	0.001
16.40	1.87	1.16	84.52	98.02	19	662.6	799	0.27	0.066	0.07	8.77	0.04	0.002
16.57	1.92	1.21	77.33	93.47	19	656.8	783	0.27	0.070	0.08	8.77	0.04	0.002
16.73	1.95	1.24	73.28	90.60	18	651.8	770	0.27	0.074	0.08	8.77	0.05	0.002
16.90	1.94	1.22	73.89	90.44	18	651.8	769	0.27	0.076	0.08	8.77	0.05	0.002
17.06	1.91	1.20	76.65	91.95	19	655.9	779	0.26	0.074	0.08	8.77	0.05	0.002
17.22	1.89	1.18	79.10	93.39	19	659.9	790	0.26	0.073	0.08	8.77	0.04	0.002
17.39	1.88	1.17	80.63	94.26	19	662.7	797	0.26	0.073	0.08	8.77	0.04	0.002
17.55	1.87	1.16	81.80	94.89	19	665.0	803	0.26	0.073	0.08	8.77	0.04	0.002
17.72	1.86	1.15	83.02	95.87	19	669.2	814	0.26	0.071	0.08	8.77	0.04	0.002
17.88	1.86	1.15	84.24	96.97	19	674.0	827	0.26	0.070	0.07	8.77	0.04	0.002
18.05	1.85	1.15	85.43	97.98	19	678.4	839	0.26	0.068	0.07	8.77	0.04	0.002
18.21	1.84	1.14	87.35	99.63	20	684.3	856	0.26	0.067	0.07	8.77	0.04	0.001
18.37	1.83	1.13	90.32	101.86	20	690.5	873	0.27	0.065	0.07	8.77	0.04	0.001
18.54	1.78	1.09	97.37	106.60	20	698.6	896	0.27	0.063	0.06	8.77	0.03	0.001
18.70	1.72	1.05	110.08	115.56	22	713.8	940	0.27	0.058	0.05	8.77	0.03	0.001
18.86	1.63	1.00	130.49	130.49	24	737.6	1012	0.27	0.051	0.04	8.77	0.02	0.001
19.03	1.57	1.00	150.45	150.45	27	764.1	1096	0.27	0.044	0.03	8.77	0.02	0.001
19.19	1.54	1.00	162.71	162.71	29	778.4	1143	0.27	0.042	0.03	8.77	0.01	0.001
19.36	1.54	1.00	162.73	162.73	29	780.9	1151	0.27	0.042	0.03	8.77	0.01	0.001
19.52	1.56	1.00	155.70	155.70	28	774.0	1128	0.27	0.044	0.03	8.77	0.02	0.001
19.68	1.59	1.00	148.51	148.51	27	774.1	1129	0.27	0.045	0.03	8.77	0.02	0.001
19.85	1.62	1.00	143.52	143.52	26	775.7	1135	0.27	0.045	0.03	8.77	0.02	0.001
20.01	1.65	1.00	135.43	135.69	25	770.6	1118	0.27	0.047	0.04	8.77	0.02	0.001
20.18	1.70	1.04	119.99	124.33	23	750.9	1054	0.27	0.053	0.04	8.77	0.02	0.001
20.34	1.78	1.09	100.60	109.70	21	726.1	976	0.27	0.063	0.06	8.77	0.03	0.001
20.50	1.87	1.16	84.83	98.20	19	708.0	922	0.27	0.072	0.07	8.77	0.04	0.002
20.67	1.92	1.21	75.93	92.01	19	697.8	892	0.27	0.079	0.09	8.77	0.04	0.002
20.83	1.95	1.24	71.70	88.86	18	691.5	874	0.27	0.084	0.09	8.77	0.05	0.002
21.00	1.96	1.25	70.02	87.41	18	688.7	865	0.27	0.088	0.10	8.77	0.05	0.002
21.16	1.95	1.24	70.73	87.68	18	690.3	869	0.27	0.088	0.10	8.77	0.05	0.002
21.32	1.94	1.23	72.67	89.49	18	697.8	891	0.27	0.084	0.09	8.77	0.05	0.002
21.49	1.94	1.22	75.43	92.40	19	709.8	927	0.27	0.078	0.08	8.77	0.04	0.002
21.65	1.92	1.21	78.58	95.20	19	719.9	957	0.27	0.074	0.08	8.77	0.04	0.002
21.82	1.89	1.18	84.39	99.21	20	729.1	985	0.27	0.070	0.07	8.77	0.04	0.001
21.98	1.83	1.13	94.22	106.18	21	742.4	1025	0.27	0.066	0.06	8.77	0.03	0.001
22.15	1.76	1.08	109.99	118.50	23	767.5	1106	0.27	0.057	0.05	8.77	0.02	0.001
22.31	1.69	1.03	129.82	134.27	25	800.5	1217	0.27	0.048	0.04	8.77	0.02	0.001
22.47	1.66	1.01	145.93	147.53	27	831.1	1326	0.28	0.042	0.03	8.77	0.01	0.001
22.64	1.64	1.00	156.22	156.22	29	849.4	1394	0.28	0.039	0.03	8.77	0.01	0.000
22.80	1.63	1.00	161.44	161.44	29	857.2	1423	0.28	0.039	0.02	8.77	0.01	0.000
22.97	1.61	1.00	163.64	163.64	30	857.2	1422	0.28	0.039	0.02	8.77	0.01	0.000
23.13	1.63	1.00	162.48	162.48	30	865.8	1455	0.28	0.038	0.02	8.77	0.01	0.000
23.29	1.68	1.03	158.55	162.66	30	887.6	1541	0.28	0.035	0.02	8.77	0.01	0.000
23.46	1.74	1.07	152.38	162.46	31	908.2	1625	0.28	0.033	0.02	8.77	0.01	0.000
23.62	1.77	1.09	148.17	161.10	31	916.6	1660	0.28	0.032	0.02	8.77	0.01	0.000

:: Post-earthquake settlement of dry sands :: (continued)

Depth (ft)	Ic	Kc	Qc1n	Qc1n,cs	N1,60 (blows)	Vs (ft/s)	Gmax (tsf)	CSR	Shear, γ (%)	Svol,15 (%)	Nc	ev (%)	Settle. (in)
23.79	1.78	1.09	143.85	157.31	30	910.5	1635	0.28	0.033	0.02	8.77	0.01	0.000
23.95	1.77	1.08	143.09	155.10	30	901.4	1597	0.28	0.035	0.02	8.77	0.01	0.000
24.11	1.75	1.07	144.35	154.58	29	895.3	1571	0.28	0.036	0.02	8.77	0.01	0.000
24.28	1.70	1.04	151.55	157.53	29	890.0	1549	0.28	0.037	0.02	8.77	0.01	0.000
24.44	1.66	1.01	163.98	165.12	30	897.7	1578	0.28	0.037	0.02	8.77	0.01	0.000
24.61	1.64	1.00	174.82	174.35	32	919.8	1668	0.28	0.034	0.02	8.77	0.01	0.000
24.77	1.68	1.02	176.98	181.32	34	952.5	1807	0.28	0.031	0.02	8.77	0.01	0.000
24.93	1.73	1.06	169.53	179.41	34	967.1	1870	0.28	0.029	0.02	8.77	0.01	0.000
25.10	1.74	1.07	160.21	170.83	32	949.7	1795	0.28	0.032	0.02	8.77	0.01	0.000
25.26	1.68	1.03	160.86	164.94	31	913.9	1643	0.28	0.036	0.02	8.77	0.01	0.000
25.43	1.58	1.00	173.84	173.84	31	891.2	1548	0.28	0.040	0.02	8.77	0.01	0.000
25.59	1.52	1.00	191.85	191.85	34	899.7	1579	0.28	0.040	0.02	8.77	0.01	0.000
25.75	1.51	1.00	204.54	204.54	36	923.7	1676	0.28	0.036	0.02	8.77	0.01	0.000
25.92	1.53	1.00	204.73	204.73	36	941.1	1750	0.28	0.034	0.02	8.77	0.01	0.000
26.08	1.58	1.00	193.92	193.92	35	947.6	1779	0.28	0.034	0.02	8.77	0.01	0.000
26.25	1.65	1.00	175.50	175.69	32	941.2	1754	0.28	0.035	0.02	8.77	0.01	0.000
26.41	1.71	1.04	155.80	162.73	30	928.9	1703	0.28	0.037	0.02	8.77	0.01	0.000
26.57	1.74	1.07	143.77	153.47	29	915.7	1648	0.28	0.039	0.03	8.77	0.01	0.000
26.74	1.75	1.07	141.07	150.82	29	910.2	1626	0.28	0.041	0.03	8.77	0.01	0.000
26.90	1.74	1.07	141.18	150.75	29	910.9	1628	0.28	0.041	0.03	8.77	0.01	0.000
27.07	1.77	1.08	136.21	147.73	28	912.1	1633	0.28	0.041	0.03	8.77	0.01	0.000
27.23	1.80	1.11	127.42	141.42	27	906.4	1610	0.28	0.042	0.03	8.77	0.01	0.000
27.39	1.84	1.13	118.16	134.09	26	895.3	1565	0.28	0.045	0.03	8.77	0.01	0.001
27.56	1.84	1.14	113.76	129.30	25	881.4	1510	0.28	0.048	0.04	8.77	0.02	0.001
27.72	1.83	1.13	113.77	128.22	25	875.3	1485	0.28	0.050	0.04	8.77	0.02	0.001
27.89	1.78	1.09	122.15	133.57	26	879.2	1499	0.28	0.050	0.04	8.77	0.02	0.001
28.05	1.72	1.05	139.42	146.98	28	902.9	1592	0.28	0.045	0.03	8.77	0.01	0.000
28.21	1.68	1.02	156.88	160.50	30	927.9	1694	0.28	0.041	0.03	8.77	0.01	0.000
28.38	1.66	1.01	163.68	165.13	30	935.3	1725	0.28	0.041	0.02	8.77	0.01	0.000
28.54	1.64	1.00	161.30	161.03	29	920.1	1660	0.28	0.044	0.03	8.77	0.01	0.000
28.71	1.66	1.01	150.81	151.88	28	898.9	1574	0.28	0.048	0.03	8.77	0.01	0.001
28.87	1.69	1.03	140.59	145.00	27	891.7	1545	0.29	0.050	0.03	8.77	0.01	0.001
29.04	1.78	1.09	125.61	137.35	26	902.1	1588	0.29	0.048	0.03	8.77	0.01	0.001
29.20	1.88	1.17	109.99	129.00	26	910.1	1621	0.29	0.047	0.03	8.77	0.01	0.001
29.36	1.99	1.29	91.73	118.05	24	900.4	1583	0.29	0.049	0.04	8.77	0.02	0.001
29.53	2.05	1.37	77.37	105.95	22	865.1	1445	0.29	0.058	0.05	8.77	0.02	0.001
29.69	2.05	1.36	71.19	97.15	21	829.4	1311	0.29	0.071	0.07	8.77	0.03	0.001
29.86	2.01	1.32	72.75	95.70	20	819.2	1273	0.29	0.076	0.08	8.77	0.03	0.001
30.02	2.04	1.36	71.18	96.84	20	830.8	1315	0.29	0.072	0.07	8.77	0.03	0.001
30.18	2.14	1.53	62.52	95.54	21	836.5	1337	0.29	0.070	0.07	8.77	0.03	0.001
30.35	2.26	1.82	51.59	93.77	22	830.9	1317	0.29	0.073	0.07	8.77	0.03	0.001
30.51	2.31	1.99	46.60	92.73	22	824.5	1295	0.29	0.076	0.07	8.77	0.03	0.001
30.68	2.33	2.04	45.53	93.07	22	826.4	1301	0.29	0.076	0.07	8.77	0.03	0.001
30.84	2.34	2.10	44.97	94.50	23	833.0	1325	0.29	0.074	0.06	8.77	0.02	0.001
31.00	2.38	2.22	43.45	96.40	23	839.9	1350	0.29	0.072	0.06	8.77	0.02	0.001
31.17	2.38	2.22	43.50	96.48	23	842.0	1358	0.29	0.072	0.06	8.77	0.02	0.001
31.33	2.35	2.11	45.03	95.17	23	840.9	1353	0.29	0.073	0.06	8.77	0.02	0.001
31.50	2.32	2.03	46.93	95.05	23	844.3	1365	0.29	0.072	0.06	8.77	0.02	0.001

:: Post-earthquake settlement of dry sands :: (continued)

Depth (ft)	Ic	Kc	Qc1n	Qc1n,cs	N1,60 (blows)	Vs (ft/s)	Gmax (tsf)	CSR	Shear, γ (%)	Svol,15 (%)	Nc	ev (%)	Settle. (in)
31.66	2.31	1.98	48.60	96.03	23	851.5	1391	0.29	0.070	0.06	8.77	0.02	0.001
31.82	2.30	1.94	50.03	96.98	23	858.2	1416	0.29	0.068	0.06	8.77	0.02	0.001
31.99	2.28	1.89	50.79	96.10	22	856.9	1411	0.29	0.069	0.06	8.77	0.02	0.001
32.15	2.28	1.89	50.30	95.09	22	854.1	1400	0.29	0.071	0.06	8.77	0.02	0.001
32.32	2.28	1.88	50.11	94.42	22	852.8	1394	0.29	0.072	0.06	8.77	0.02	0.001
32.48	2.27	1.87	50.55	94.41	22	854.7	1401	0.29	0.072	0.06	8.77	0.02	0.001
32.64	2.26	1.82	51.98	94.69	22	858.2	1414	0.29	0.071	0.06	8.77	0.02	0.001
32.81	2.26	1.83	52.51	96.00	22	865.7	1442	0.29	0.069	0.06	8.77	0.02	0.001
32.97	2.27	1.86	52.23	97.16	23	872.1	1467	0.29	0.068	0.06	8.77	0.02	0.001
33.14	2.28	1.88	51.99	97.65	23	875.7	1480	0.29	0.067	0.06	8.77	0.02	0.001
33.30	2.28	1.87	51.74	97.00	23	874.5	1475	0.29	0.068	0.06	8.77	0.02	0.001
33.47	2.27	1.85	52.25	96.46	22	874.1	1473	0.29	0.069	0.06	8.77	0.02	0.001
33.63	2.26	1.82	52.49	95.27	22	870.7	1459	0.29	0.070	0.06	8.77	0.02	0.001
33.79	2.24	1.77	52.60	93.29	21	863.5	1431	0.29	0.074	0.07	8.77	0.02	0.001
33.96	2.23	1.75	51.41	90.18	21	850.5	1382	0.29	0.079	0.08	8.77	0.03	0.001
34.12	2.24	1.77	49.41	87.45	20	839.0	1338	0.29	0.085	0.09	8.77	0.03	0.001
34.28	2.27	1.86	46.63	86.64	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
34.45	2.33	2.05	42.96	88.03	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
34.61	2.41	2.37	38.18	90.63	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
34.78	2.49	2.72	34.10	92.60	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
34.94	2.49	2.72	34.38	93.45	24	854.8	1397	0.29	0.081	0.07	8.77	0.02	0.001
35.10	2.44	2.49	38.15	95.11	24	869.9	1454	0.29	0.075	0.06	8.77	0.02	0.001
35.27	2.42	2.40	40.90	98.19	24	888.0	1524	0.29	0.069	0.05	8.77	0.02	0.001
35.43	2.46	2.57	39.15	100.56	25	895.9	1555	0.29	0.067	0.05	8.77	0.02	0.001
35.60	2.53	2.93	34.33	100.60	26	888.6	1526	0.29	0.070	0.05	8.77	0.02	0.001
35.76	2.56	3.11	31.32	97.34	26	871.5	1460	0.29	0.077	0.06	8.77	0.02	0.001
35.92	2.56	3.08	30.47	93.79	25	857.9	1407	0.29	0.083	0.06	8.77	0.02	0.001
36.09	2.54	3.01	30.48	91.64	24	851.3	1382	0.29	0.087	0.07	8.77	0.02	0.001
36.25	2.55	3.05	29.93	91.35	24	850.6	1379	0.29	0.088	0.07	8.77	0.02	0.001
36.42	2.58	3.23	28.38	91.76	25	850.2	1377	0.29	0.089	0.07	8.77	0.02	0.001
36.58	2.57	3.12	29.42	91.82	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
36.74	2.49	2.71	34.19	92.77	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
36.91	2.41	2.33	40.69	94.98	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
37.07	2.33	2.06	47.17	97.35	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
37.24	2.29	1.91	51.86	99.01	23	921.6	1654	0.29	0.064	0.05	8.77	0.02	0.001
37.40	2.30	1.94	51.70	100.08	24	927.9	1679	0.29	0.063	0.05	8.77	0.01	0.001
37.57	2.36	2.15	45.98	98.77	24	919.7	1646	0.29	0.066	0.05	8.77	0.02	0.001
37.73	2.43	2.45	38.16	93.41	23	889.3	1523	0.29	0.076	0.06	8.77	0.02	0.001
37.89	2.38	2.25	37.40	84.09	21	849.6	1370	0.29	0.095	0.09	8.77	0.03	0.001
38.06	2.25	1.81	44.08	79.70	18	834.4	1313	0.29	0.105	0.12	8.77	0.03	0.001
38.22	2.14	1.54	55.19	84.90	19	857.8	1399	0.28	0.092	0.10	8.77	0.03	0.001
38.39	2.12	1.48	62.29	92.37	20	893.0	1535	0.28	0.077	0.08	8.77	0.02	0.001
38.55	2.10	1.45	65.76	95.10	21	904.7	1581	0.28	0.073	0.07	8.77	0.02	0.001
38.71	2.07	1.40	66.59	93.00	20	891.1	1526	0.28	0.079	0.08	8.77	0.02	0.001
38.88	2.01	1.31	68.71	90.10	19	866.5	1430	0.28	0.090	0.10	8.77	0.03	0.001
39.04	1.96	1.25	70.45	88.27	18	846.7	1354	0.28	0.102	0.11	8.77	0.03	0.001
39.21	1.94	1.23	71.64	87.87	18	839.0	1325	0.28	0.107	0.12	8.77	0.03	0.001
39.37	1.92	1.21	74.12	89.50	18	842.2	1336	0.28	0.106	0.12	8.77	0.03	0.001

:: Post-earthquake settlement of dry sands :: (continued)

Depth (ft)	Ic	Kc	Qc1n	Qc1n,cs	N1,60 (blows)	Vs (ft/s)	Gmax (tsf)	CSR	Shear, γ (%)	Svol,15 (%)	Nc	ev (%)	Settle. (in)
39.53	1.89	1.18	80.42	94.54	19	855.4	1385	0.28	0.098	0.11	8.77	0.03	0.001
39.70	1.83	1.13	92.18	104.23	20	879.0	1475	0.28	0.087	0.08	8.77	0.02	0.001
39.86	1.77	1.09	107.42	116.96	22	908.2	1591	0.28	0.075	0.07	8.77	0.02	0.001
40.03	1.73	1.06	121.87	129.10	24	936.1	1706	0.28	0.067	0.05	8.77	0.01	0.001
40.19	1.71	1.04	133.42	139.25	26	962.7	1819	0.28	0.060	0.04	8.77	0.01	0.000
40.35	1.71	1.04	142.65	148.58	28	994.1	1958	0.28	0.053	0.04	8.77	0.01	0.000
40.52	1.72	1.05	150.48	157.75	30	1030.2	2125	0.28	0.047	0.03	8.77	0.01	0.000
40.68	1.71	1.05	158.65	165.84	31	1055.4	2244	0.28	0.043	0.03	8.77	0.01	0.000
40.85	1.67	1.02	170.23	173.37	32	1060.6	2269	0.28	0.043	0.02	8.77	0.01	0.000
41.01	1.61	1.00	185.21	185.21	34	1058.4	2257	0.28	0.043	0.02	8.77	0.01	0.000
41.17	1.55	1.00	200.31	200.31	36	1064.6	2285	0.28	0.043	0.02	8.77	0.01	0.000
41.34	1.52	1.00	213.02	213.02	37	1074.6	2331	0.28	0.042	0.02	8.77	0.00	0.000
41.50	1.50	1.00	223.78	223.78	39	1090.7	2410	0.28	0.040	0.02	8.77	0.00	0.000
41.67	1.58	1.00	198.30	198.30	36	1079.3	2357	0.28	0.041	0.02	8.77	0.00	0.000
41.83	1.55	1.00	204.95	204.95	36	1082.1	2369	0.28	0.041	0.02	8.77	0.00	0.000
41.99	1.54	1.00	207.76	207.76	37	1081.0	2363	0.28	0.042	0.02	8.77	0.00	0.000
42.16	1.45	1.00	241.31	241.31	41	1101.4	2461	0.28	0.039	0.02	8.77	0.00	0.000
42.32	1.47	1.00	238.22	238.22	41	1110.5	2508	0.28	0.039	0.02	8.77	0.00	0.000
42.49	1.49	1.00	233.83	233.83	41	1114.1	2527	0.28	0.038	0.02	8.77	0.00	0.000
42.65	1.51	1.00	230.62	230.62	40	1121.7	2567	0.28	0.038	0.02	8.77	0.00	0.000
42.81	1.47	1.00	231.48	231.48	40	1095.7	2432	0.28	0.041	0.02	8.77	0.00	0.000
42.98	1.43	1.00	238.55	238.55	41	1087.9	2390	0.28	0.042	0.02	8.77	0.00	0.000
43.14	1.36	1.00	277.09	277.09	46	1123.4	2568	0.28	0.038	0.01	8.77	0.00	0.000
43.31	1.37	1.00	314.06	314.06	53	1205.7	3014	0.28	0.031	0.01	8.77	0.00	0.000
43.47	1.36	1.00	352.20	352.20	59	1264.5	3354	0.28	0.027	0.01	8.77	0.00	0.000
43.63	1.31	1.00	375.23	375.23	62	1265.9	3359	0.28	0.027	0.01	8.77	0.00	0.000
43.80	1.20	1.00	399.23	399.23	64	1222.2	3098	0.28	0.030	0.01	8.77	0.00	0.000
43.96	1.09	1.00	419.86	419.86	65	1170.7	2803	0.28	0.034	0.01	8.77	0.00	0.000
44.13	1.06	1.00	406.72	406.72	62	1132.5	2595	0.28	0.038	0.01	8.77	0.00	0.000
44.29	1.09	1.00	391.19	391.19	60	1128.3	2574	0.28	0.039	0.01	8.77	0.00	0.000
44.45	1.12	1.00	371.51	371.51	58	1122.3	2544	0.28	0.040	0.01	8.77	0.00	0.000
44.62	1.12	1.00	368.14	368.14	57	1121.7	2541	0.28	0.040	0.01	8.77	0.00	0.000
44.78	1.06	1.00	364.86	364.86	56	1075.7	2301	0.28	0.046	0.01	8.77	0.00	0.000
44.95	0.99	1.00	362.97	362.97	54	1026.4	2050	0.28	0.055	0.02	8.77	0.00	0.000
45.11	0.92	1.00	360.24	360.24	53	981.0	1807	0.27	0.069	0.02	8.77	0.00	0.000

Total estimated settlement: 0.20

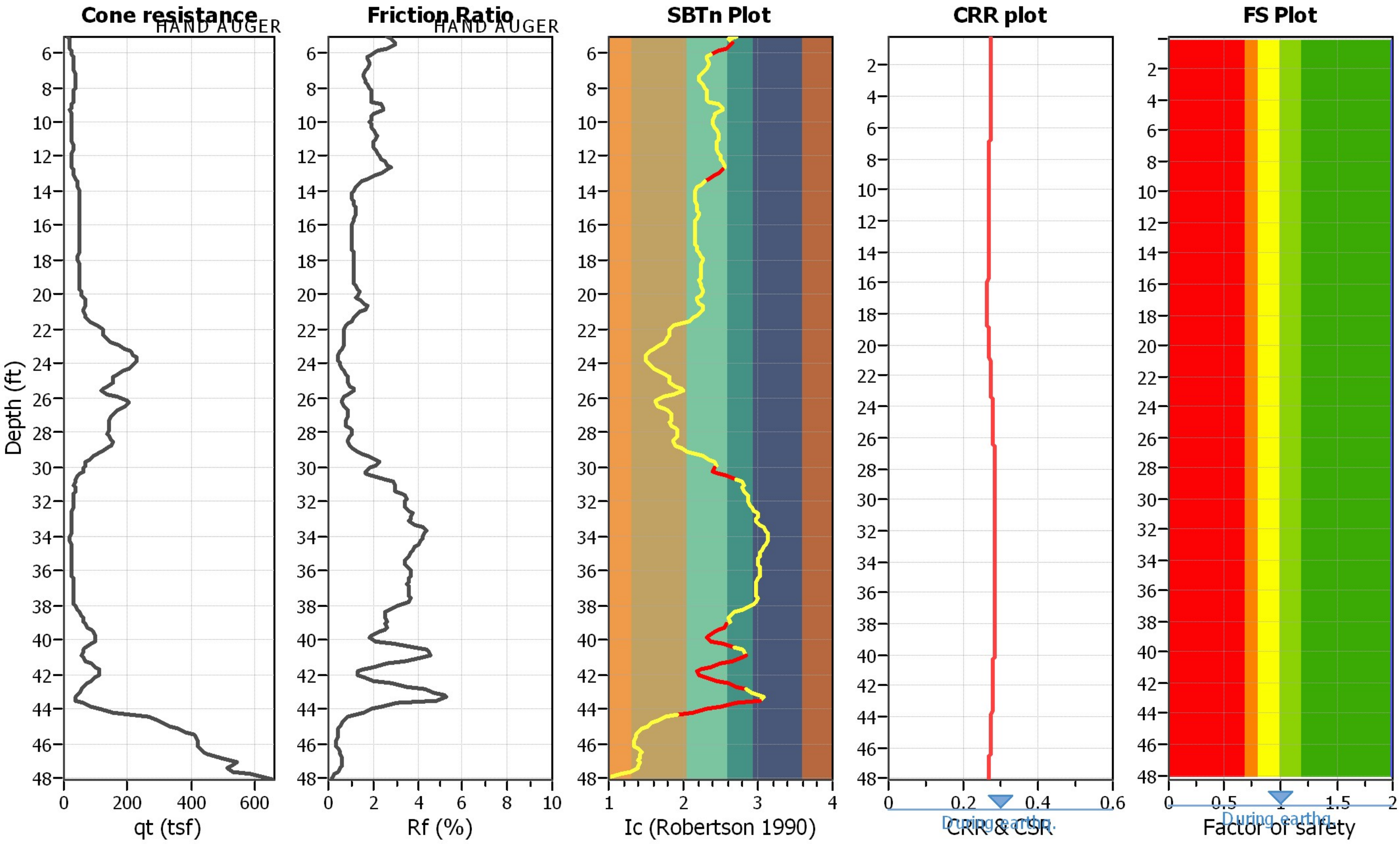
LIQUEFACTION ANALYSIS REPORT

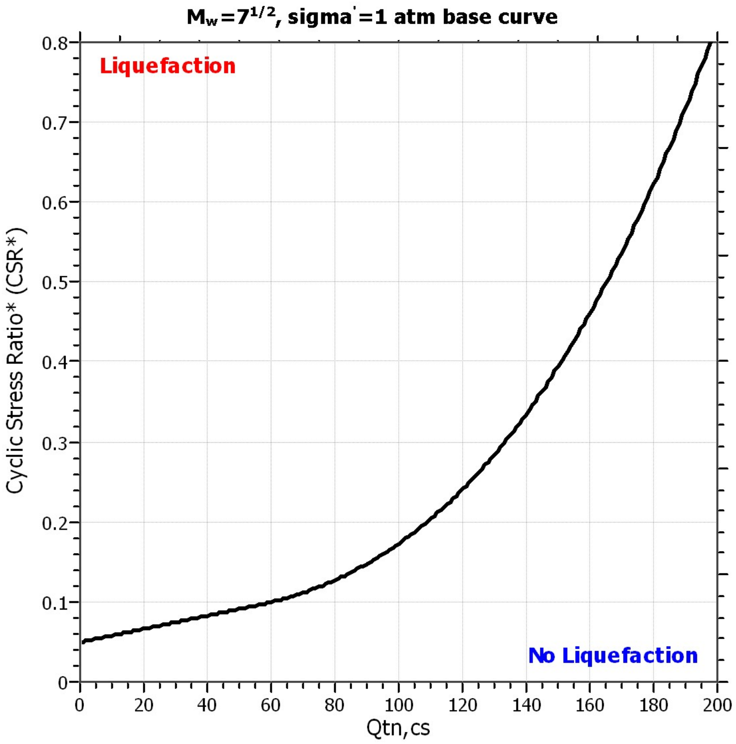
Project title : Colfax Charter Elementary School - DE Analysis   Location : A8326-06-69A

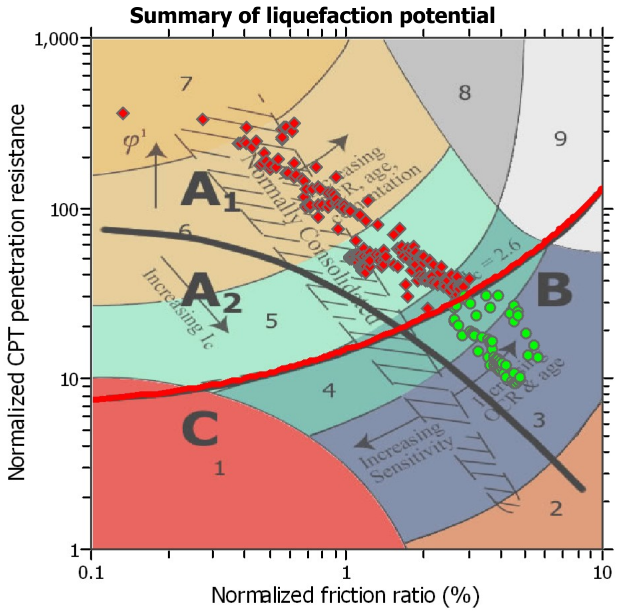
CPT file : CPT-03

Input parameters and analysis data

Analysis method:	NCEER (1998)	G.W.T. (in-situ):	50.00 ft	Use fill:	No	Clay like behavior applied:	Sands only
Fines correction method:	NCEER (1998)	G.W.T. (earthq.):	50.00 ft	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w:	6.72	Ic cut-off value:	2.60	Trans. detect. applied:	Yes	MSF method:	Method based
Peak ground acceleration:	0.56	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

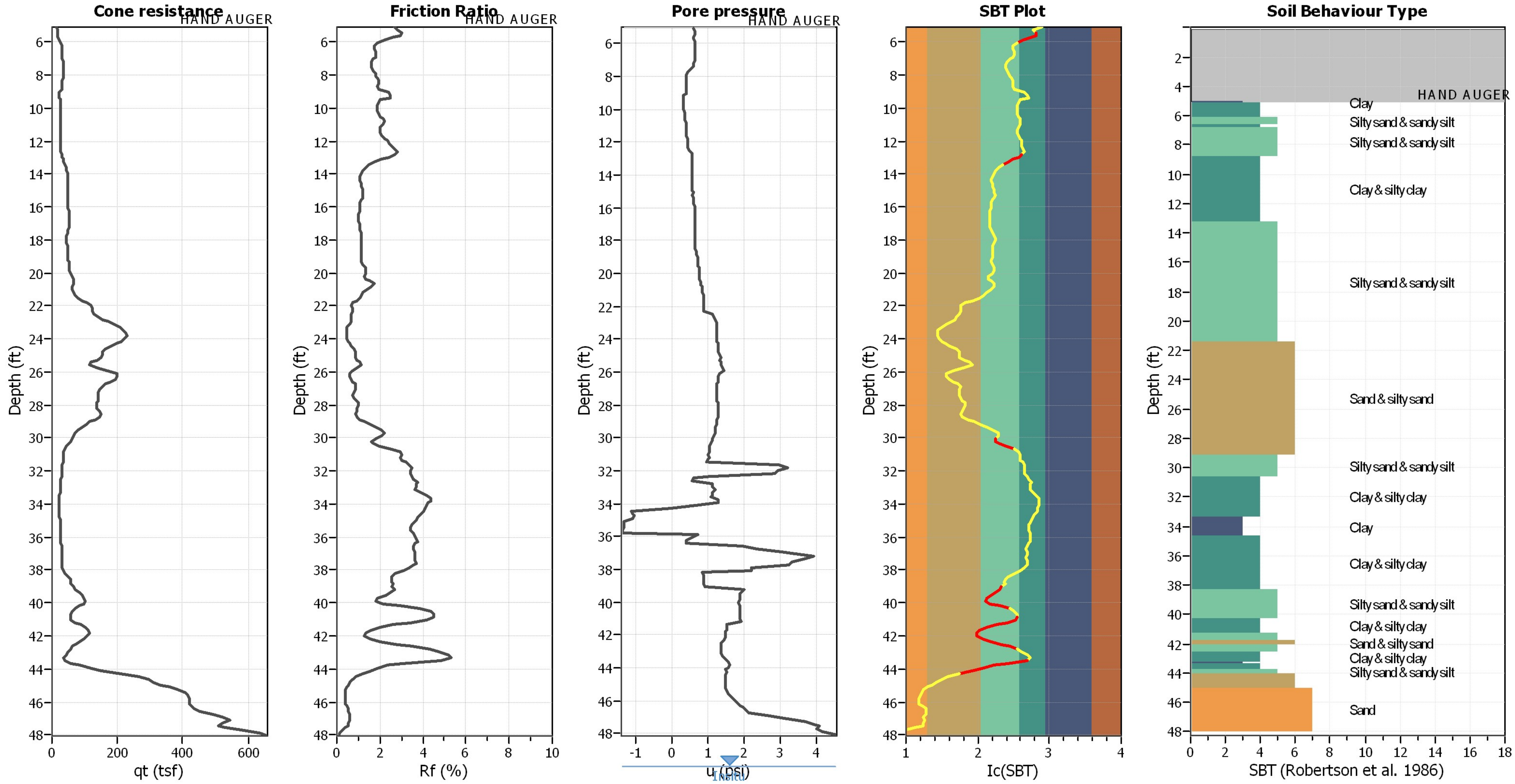






Zone A_1: Cyclic liquefaction likely depending on size and duration of cyclic loading
Zone A_2: Cyclic liquefaction and strength loss likely depending on loading and ground geometry
Zone B: Liquefaction and post-earthquake strength loss unlikely, check cyclic softening
Zone C: Cyclic liquefaction and strength loss possible depending on soil plasticity, brittleness/sensitivity, strain to peak undrained strength and ground geometry

CPT basic interpretation plots



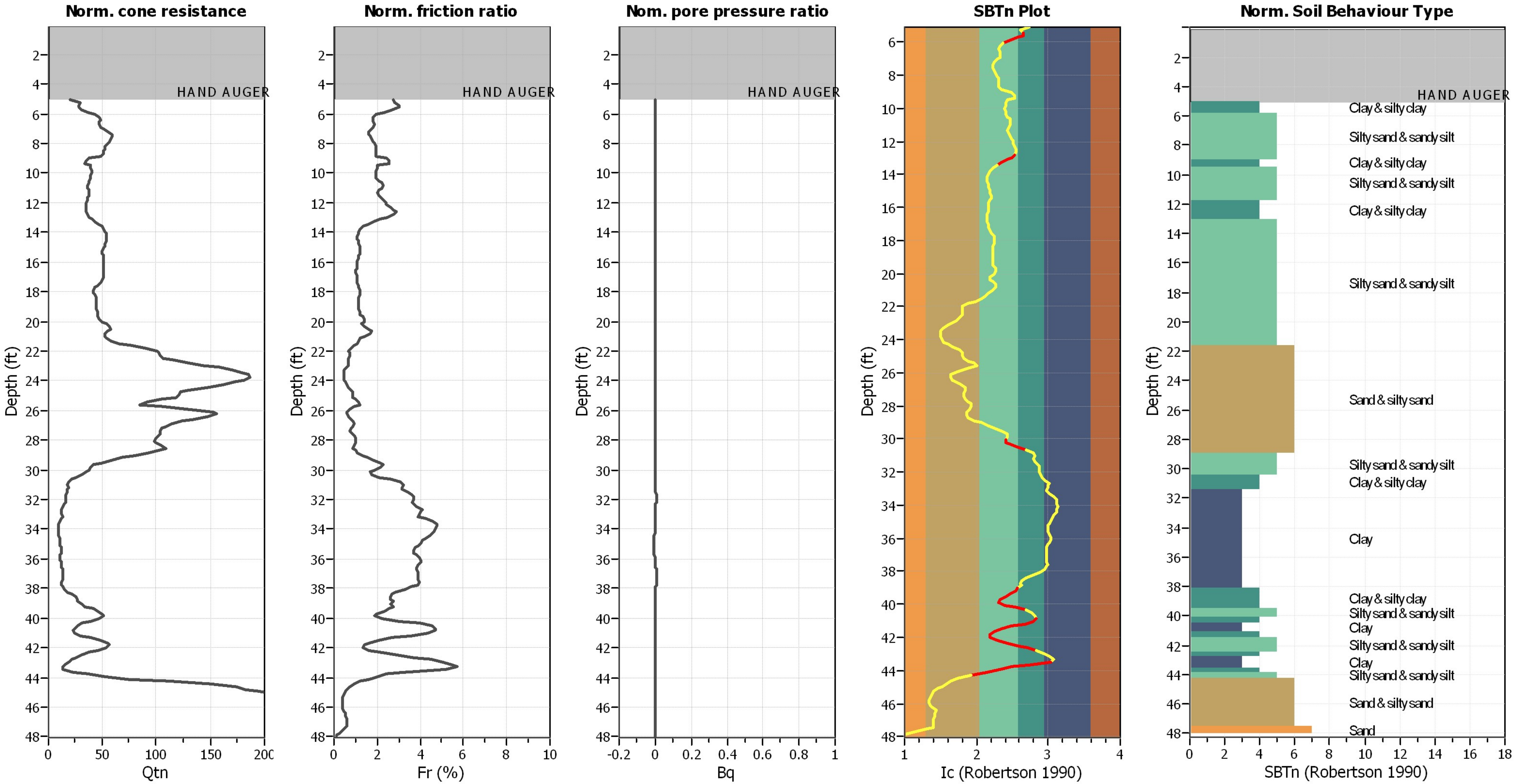
Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	50.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.72	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.56	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	50.00 ft	Fill height:	N/A	Limit depth:	N/A

SBT legend

1. Sensitive fine grained	4. Clayey silt to silty	7. Gravely sand to sand
2. Organic material	5. Silty sand to sandy silt	8. Very stiff sand to
3. Clay to silty clay	6. Clean sand to silty sand	9. Very stiff fine grained

CPT basic interpretation plots (normalized)



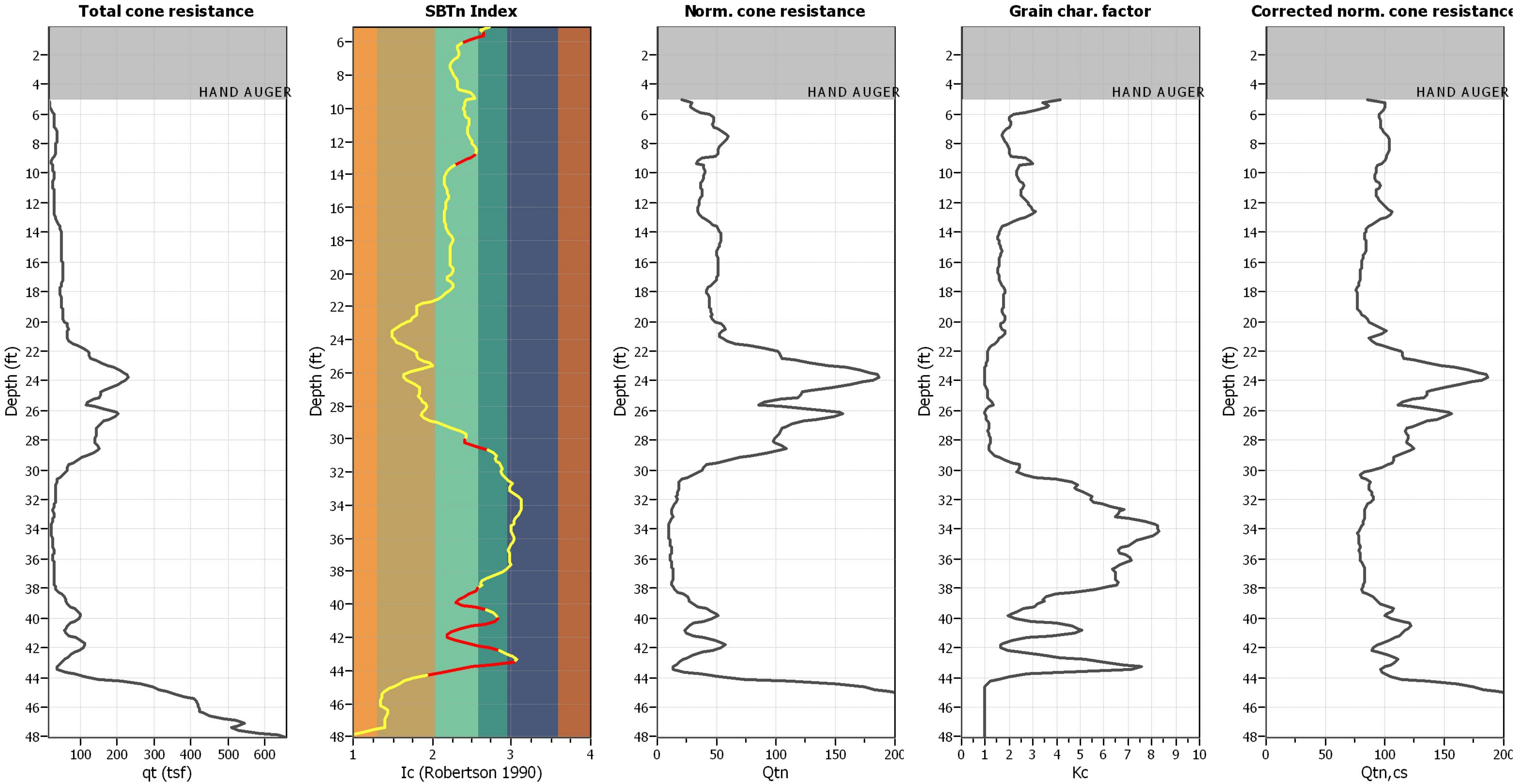
Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	50.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.72	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.56	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	50.00 ft	Fill height:	N/A	Limit depth:	N/A

SBTn legend

- 1. Sensitive fine grained
- 2. Organic material
- 3. Clay to silty clay
- 4. Clayey silt to silty
- 5. Silty sand to sandy silt
- 6. Clean sand to silty sand
- 7. Gravely sand to sand
- 8. Very stiff sand to
- 9. Very stiff fine grained

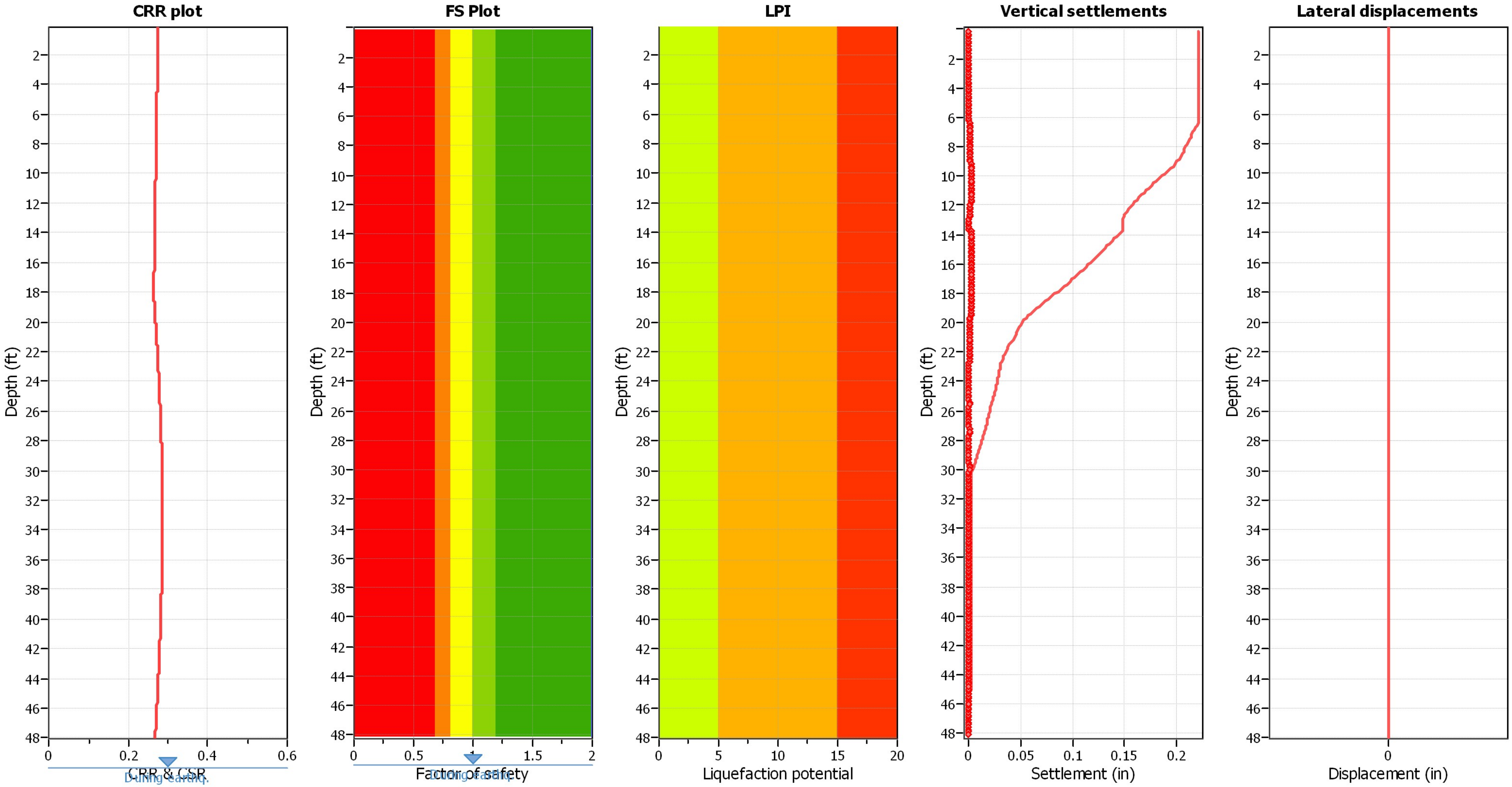
Liquefaction analysis overall plots (intermediate results)



Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	50.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.72	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.56	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	50.00 ft	Fill height:	N/A	Limit depth:	N/A

Liquefaction analysis overall plots



Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	50.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.72	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.56	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	50.00 ft	Fill height:	N/A	Limit depth:	N/A

F.S. color scheme

- Almost certain it will liquefy
- Very likely to liquefy
- Liquefaction and no liq. are equally likely
- Unlike to liquefy
- Almost certain it will not liquefy

LPI color scheme

- Very high risk
- High risk
- Low risk

:: Field input data ::

Point ID	Depth (ft)	q_c (tsf)	f_s (tsf)	u (tsf)	Fines content (%)	Unit weight (pcf)
1	0.16	-9999.00	-9999.00	-9999.00	N/A	120.90
2	0.33	-9999.00	-9999.00	-9999.00	N/A	120.90
3	0.49	-9999.00	-9999.00	-9999.00	N/A	120.90
4	0.66	-9999.00	-9999.00	-9999.00	N/A	120.90
5	0.82	-9999.00	-9999.00	-9999.00	N/A	120.90
6	0.98	-9999.00	-9999.00	-9999.00	N/A	120.90
7	1.15	-9999.00	-9999.00	-9999.00	N/A	120.90
8	1.31	-9999.00	-9999.00	-9999.00	N/A	120.90
9	1.48	-9999.00	-9999.00	-9999.00	N/A	120.90
10	1.64	-9999.00	-9999.00	-9999.00	N/A	120.90
11	1.80	-9999.00	-9999.00	-9999.00	N/A	120.90
12	1.97	-9999.00	-9999.00	-9999.00	N/A	120.90
13	2.13	-9999.00	-9999.00	-9999.00	N/A	120.90
14	2.30	-9999.00	-9999.00	-9999.00	N/A	120.90
15	2.46	-9999.00	-9999.00	-9999.00	N/A	120.90
16	2.63	-9999.00	-9999.00	-9999.00	N/A	120.90
17	2.79	-9999.00	-9999.00	-9999.00	N/A	120.90
18	2.95	-9999.00	-9999.00	-9999.00	N/A	120.90
19	3.12	-9999.00	-9999.00	-9999.00	N/A	120.90
20	3.28	-9999.00	-9999.00	-9999.00	N/A	120.90
21	3.44	-9999.00	-9999.00	-9999.00	N/A	120.90
22	3.61	-9999.00	-9999.00	-9999.00	N/A	120.90
23	3.77	-9999.00	-9999.00	-9999.00	N/A	120.90
24	3.94	-9999.00	-9999.00	-9999.00	N/A	120.90
25	4.10	-9999.00	-9999.00	-9999.00	N/A	120.90
26	4.26	-9999.00	-9999.00	-9999.00	N/A	120.90
27	4.43	-9999.00	-9999.00	-9999.00	N/A	120.90
28	4.59	-9999.00	-9999.00	-9999.00	N/A	120.90
29	4.76	-9999.00	-9999.00	-9999.00	N/A	120.90
30	4.92	-9999.00	-9999.00	-9999.00	N/A	120.90
31	5.08	20.67	0.52	0.58	41.61	108.81
32	5.25	18.43	0.52	0.61	35.86	112.64
33	5.41	16.68	0.52	0.61	37.89	112.49
34	5.58	17.22	0.53	0.58	37.56	112.53
35	5.74	19.05	0.52	0.58	34.15	112.78
36	5.91	22.86	0.52	0.61	29.28	113.16
37	6.07	28.20	0.52	0.64	25.22	113.56
38	6.23	31.09	0.53	0.64	23.28	113.85
39	6.40	30.25	0.53	0.64	23.08	113.98
40	6.56	29.52	0.54	0.61	23.65	113.98
41	6.73	29.21	0.54	0.61	23.84	113.99
42	6.89	29.72	0.54	0.61	23.30	114.07
43	7.05	31.68	0.54	0.61	21.98	114.32
44	7.22	35.17	0.56	0.58	20.49	114.71
45	7.38	37.72	0.58	0.58	19.66	115.16
46	7.55	37.89	0.61	0.50	19.74	115.50
47	7.71	36.94	0.63	0.42	20.45	115.66
48	7.87	35.48	0.64	0.40	21.27	115.64

:: Field input data :: (continued)

Point ID	Depth (ft)	q_c (tsf)	f_s (tsf)	u (tsf)	Fines content (%)	Unit weight (pcf)
49	8.04	34.27	0.63	0.37	22.05	115.53
50	8.20	33.17	0.63	0.40	22.81	115.43
51	8.37	32.05	0.63	0.40	23.15	115.41
52	8.53	32.95	0.63	0.40	23.16	115.33
53	8.69	32.72	0.61	0.40	23.15	115.14
54	8.86	31.12	0.59	0.37	24.11	114.83
55	9.02	28.12	0.59	0.37	29.87	114.01
56	9.19	13.23	0.55	0.29	31.73	113.42
57	9.35	24.94	0.51	0.29	32.46	112.90
58	9.51	24.97	0.50	0.32	27.36	113.12
59	9.68	25.90	0.50	0.32	26.91	113.19
60	9.84	27.02	0.51	0.32	26.46	113.32
61	10.01	27.27	0.51	0.32	26.28	113.42
62	10.17	27.41	0.51	0.34	26.52	113.46
63	10.34	26.97	0.52	0.34	27.00	113.48
64	10.50	26.46	0.52	0.34	27.90	113.67
65	10.66	26.07	0.56	0.34	28.98	113.96
66	10.83	25.67	0.59	0.37	29.44	114.15
67	10.99	26.46	0.57	0.37	29.03	114.09
68	11.15	27.41	0.54	0.37	28.24	114.03
69	11.32	28.06	0.56	0.40	27.96	114.08
70	11.48	28.00	0.57	0.40	28.24	114.27
71	11.65	27.89	0.58	0.40	28.94	114.44
72	11.81	27.22	0.60	0.42	29.94	114.63
73	11.97	26.52	0.63	0.42	30.77	114.90
74	12.14	27.25	0.65	0.42	31.07	115.21
75	12.30	28.20	0.68	0.42	31.94	115.59
76	12.47	26.32	0.73	0.48	32.83	116.04
77	12.63	27.36	0.78	0.53	33.44	116.46
78	12.79	28.96	0.80	0.56	32.24	116.61
79	12.96	30.59	0.74	0.56	30.10	116.46
80	13.12	33.26	0.69	0.56	27.38	116.18
81	13.29	36.85	0.66	0.56	24.46	115.92
82	13.45	40.79	0.60	0.56	21.94	115.67
83	13.62	43.65	0.56	0.56	19.92	115.35
84	13.78	45.84	0.54	0.56	18.72	115.12
85	13.94	46.77	0.53	0.56	17.92	115.01
86	14.11	48.48	0.52	0.56	17.47	115.01
87	14.27	49.33	0.53	0.56	17.23	115.07
88	14.44	49.44	0.53	0.56	17.31	115.20
89	14.60	49.55	0.55	0.56	17.67	115.35
90	14.76	48.57	0.56	0.56	18.08	115.60
91	14.93	49.07	0.59	0.56	18.50	115.75
92	15.09	48.54	0.59	0.58	18.88	115.75
93	15.26	46.69	0.57	0.56	19.20	115.64
94	15.42	46.85	0.57	0.58	19.10	115.55
95	15.58	49.16	0.57	0.58	18.50	115.47
96	15.75	50.42	0.53	0.58	18.03	115.39

:: Field input data :: (continued)

Point ID	Depth (ft)	q_c (tsf)	f_s (tsf)	u (tsf)	Fines content (%)	Unit weight (pcf)
97	15.91	49.86	0.54	0.61	17.93	115.31
98	16.08	49.89	0.55	0.61	17.86	115.34
99	16.24	51.66	0.54	0.64	17.64	115.33
100	16.40	51.88	0.53	0.64	17.36	115.27
101	16.57	51.94	0.53	0.64	17.34	115.22
102	16.73	52.02	0.53	0.61	17.39	115.25
103	16.90	52.25	0.54	0.61	17.54	115.32
104	17.06	51.99	0.54	0.64	17.77	115.41
105	17.22	51.68	0.55	0.61	18.12	115.41
106	17.39	50.34	0.54	0.64	18.72	115.29
107	17.55	47.70	0.53	0.64	19.55	115.06
108	17.72	45.36	0.52	0.64	20.33	114.84
109	17.88	44.75	0.52	0.64	20.84	114.76
110	18.05	44.83	0.53	0.64	20.90	114.88
111	18.21	46.26	0.54	0.64	20.61	115.02
112	18.37	47.81	0.54	0.64	20.15	115.12
113	18.54	48.68	0.53	0.64	19.96	115.24
114	18.70	48.71	0.56	0.66	19.95	115.36
115	18.86	49.21	0.56	0.66	19.97	115.46
116	19.03	49.75	0.55	0.71	19.98	115.58
117	19.19	50.00	0.58	0.71	19.78	115.66
118	19.36	51.57	0.57	0.71	19.89	116.07
119	19.52	52.58	0.64	0.71	20.12	116.46
120	19.68	52.02	0.67	0.74	21.26	117.20
121	19.85	50.70	0.77	0.74	21.06	117.84
122	20.01	59.50	0.80	0.74	20.36	118.20
123	20.18	60.17	0.74	0.74	18.64	118.70
124	20.34	68.37	0.85	0.74	18.74	119.75
125	20.50	69.69	1.11	0.77	19.74	120.94
126	20.67	65.06	1.20	0.79	21.27	121.32
127	20.83	61.12	1.06	0.82	21.33	120.54
128	21.00	61.77	0.81	0.82	19.88	119.38
129	21.16	64.92	0.75	0.82	18.09	118.67
130	21.32	68.93	0.79	0.85	16.88	118.97
131	21.49	76.01	0.86	0.85	15.09	119.58
132	21.65	90.70	0.86	0.87	12.45	120.01
133	21.82	108.45	0.80	0.87	9.92	120.24
134	21.98	122.19	0.81	0.87	8.33	120.63
135	22.15	131.54	0.89	0.87	8.41	121.01
136	22.31	114.58	0.92	0.85	8.39	121.16
137	22.47	126.29	0.85	1.11	8.03	121.14
138	22.64	140.62	0.86	1.14	7.22	121.88
139	22.80	152.25	1.11	1.17	6.61	123.00
140	22.97	171.21	1.21	1.22	5.80	123.97
141	23.13	195.50	1.18	1.22	4.49	123.86
142	23.29	207.05	0.95	1.22	3.45	123.48
143	23.46	216.88	0.96	1.22	2.85	123.30
144	23.62	228.76	1.05	1.22	2.75	123.83

:: Field input data :: (continued)

Point ID	Depth (ft)	q_c (tsf)	f_s (tsf)	u (tsf)	Fines content (%)	Unit weight (pcf)
145	23.79	232.58	1.13	1.22	2.87	124.21
146	23.95	222.97	1.12	1.22	3.15	124.22
147	24.11	211.49	1.08	1.22	3.59	124.16
148	24.28	204.83	1.15	1.24	4.31	124.20
149	24.44	184.88	1.21	1.24	5.54	124.38
150	24.61	159.91	1.27	1.27	7.24	124.49
151	24.77	146.29	1.35	1.27	8.26	124.74
152	24.93	160.31	1.41	1.30	8.42	124.84
153	25.10	158.96	1.33	1.32	8.56	124.64
154	25.26	138.00	1.27	1.30	10.18	124.31
155	25.43	112.11	1.37	1.32	12.24	124.06
156	25.59	112.08	1.36	1.32	13.23	123.88
157	25.75	117.92	1.24	1.38	9.75	123.98
158	25.92	184.60	1.18	1.40	6.81	124.18
159	26.08	202.13	1.21	1.30	4.94	124.56
160	26.25	204.80	1.24	1.27	4.97	124.92
161	26.41	195.19	1.34	1.24	5.54	124.91
162	26.57	177.50	1.27	1.24	6.91	125.19
163	26.74	159.66	1.49	1.22	8.01	125.08
164	26.90	156.46	1.39	1.22	9.03	124.92
165	27.07	144.44	1.27	1.22	8.96	124.07
166	27.23	141.88	1.08	1.22	8.84	123.23
167	27.39	141.38	1.02	1.22	8.71	122.85
168	27.56	140.25	1.11	1.22	9.30	123.54
169	27.72	142.75	1.40	1.22	10.05	124.29
170	27.89	140.45	1.40	1.24	10.87	124.78
171	28.05	133.20	1.40	1.24	11.01	124.66
172	28.21	137.86	1.35	1.24	10.62	124.50
173	28.38	146.32	1.29	1.24	9.78	124.58
174	28.54	155.76	1.37	1.24	9.36	124.79
175	28.71	154.38	1.42	1.24	10.18	125.00
176	28.87	131.21	1.46	1.22	12.04	124.94
177	29.04	113.96	1.48	1.22	14.77	124.93
178	29.20	105.93	1.61	1.22	17.47	124.97
179	29.36	93.99	1.66	1.19	20.77	124.93
180	29.53	76.23	1.67	1.17	24.59	124.51
181	29.69	66.43	1.58	1.17	27.69	123.73
182	29.86	63.23	1.37	1.14	27.83	122.72
183	30.02	65.06	1.15	1.11	26.93	121.37
184	30.18	58.85	0.93	1.08	26.52	119.90
185	30.35	52.50	0.80	1.06	29.10	118.85
186	30.51	43.59	0.87	1.03	33.78	118.62
187	30.68	38.29	0.98	1.01	40.43	118.92
188	30.84	33.45	1.05	1.01	44.97	119.13
189	31.00	33.43	1.05	0.98	46.43	119.01
190	31.17	34.61	0.96	1.01	45.83	119.08
191	31.33	35.45	1.06	0.98	46.21	119.12
192	31.50	33.03	1.07	0.95	48.29	119.36

:: Field input data :: (continued)

Point ID	Depth (ft)	q_c (tsf)	f_s (tsf)	u (tsf)	Fines content (%)	Unit weight (pcf)
193	31.66	31.52	1.10	2.94	49.89	119.45
194	31.82	32.81	1.13	3.18	50.71	119.65
195	31.99	32.56	1.16	2.89	50.35	119.66
196	32.15	32.58	1.09	2.83	51.02	119.34
197	32.32	30.20	1.02	1.03	53.27	118.69
198	32.48	25.76	0.96	0.58	55.74	118.25
199	32.64	26.83	0.98	0.56	58.91	117.96
200	32.81	24.18	0.97	1.11	57.80	118.08
201	32.97	28.15	0.98	1.11	57.40	118.19
202	33.14	28.09	1.01	1.17	56.89	118.26
203	33.30	25.50	0.99	1.11	60.04	118.08
204	33.47	22.72	0.97	1.08	64.04	117.71
205	33.63	21.40	0.94	1.06	66.66	117.45
206	33.79	21.60	0.94	1.27	67.24	117.25
207	33.96	21.60	0.92	1.24	67.14	117.05
208	34.12	21.07	0.87	0.64	67.57	116.77
209	34.28	20.45	0.85	-0.05	67.23	116.66
210	34.45	21.85	0.87	-1.14	66.18	116.80
211	34.61	22.89	0.90	-1.08	63.83	117.07
212	34.78	24.38	0.90	-1.06	62.38	117.26
213	34.94	24.58	0.91	-1.11	61.03	117.41
214	35.10	25.48	0.92	-1.32	59.94	117.54
215	35.27	26.63	0.92	-1.35	58.42	117.68
216	35.43	27.64	0.93	-1.35	57.67	117.71
217	35.60	26.99	0.92	-1.38	57.71	117.78
218	35.76	27.02	0.94	-1.38	59.46	117.73
219	35.92	24.86	0.94	0.69	60.37	117.86
220	36.09	26.23	0.97	0.53	60.65	118.01
221	36.25	27.33	1.00	0.37	59.90	118.38
222	36.42	27.64	1.06	0.37	58.04	118.71
223	36.58	30.79	1.05	1.93	56.92	118.97
224	36.74	30.62	1.07	2.36	56.20	119.15
225	36.91	29.89	1.11	3.02	56.83	119.24
226	37.07	30.22	1.10	3.31	56.68	119.29
227	37.24	31.32	1.09	3.92	56.65	119.35
228	37.40	30.42	1.13	3.63	56.94	119.37
229	37.57	29.97	1.11	3.31	57.67	119.34
230	37.73	30.06	1.09	3.23	57.17	119.22
231	37.89	31.04	1.06	2.17	54.78	119.17
232	38.06	34.47	1.04	2.20	51.47	119.27
233	38.22	37.11	1.06	0.82	45.20	119.83
234	38.39	48.73	1.14	0.85	40.11	121.20
235	38.55	58.76	1.47	0.85	37.14	122.55
236	38.71	58.96	1.60	0.85	36.23	123.11
237	38.88	57.89	1.40	0.87	36.76	123.32
238	39.04	58.62	1.60	0.90	34.32	124.14
239	39.21	78.65	1.97	1.99	32.97	125.60
240	39.37	81.40	2.27	1.93	29.47	126.66

:: Field input data :: (continued)

Point ID	Depth (ft)	q_c (tsf)	f_s (tsf)	u (tsf)	Fines content (%)	Unit weight (pcf)
241	39.53	95.31	2.17	1.88	26.91	126.73
242	39.70	99.94	1.85	1.88	23.66	126.13
243	39.86	101.97	1.64	1.85	22.79	125.91
244	40.03	100.93	1.97	1.83	25.64	126.64
245	40.19	84.86	2.53	1.85	32.15	127.60
246	40.35	65.81	2.82	1.85	40.00	127.89
247	40.52	59.94	2.73	1.85	44.85	127.72
248	40.68	61.77	2.66	1.88	46.75	127.35
249	40.85	55.08	2.56	1.85	47.96	126.95
250	41.01	52.27	2.43	1.85	45.73	126.75
251	41.17	68.29	2.36	1.91	38.68	126.97
252	41.34	87.95	2.36	1.51	30.50	127.09
253	41.50	102.89	2.04	1.51	24.70	126.82
254	41.67	112.69	1.78	1.51	20.68	125.90
255	41.83	115.53	1.48	1.46	18.70	124.92
256	41.99	110.34	1.34	1.46	18.92	124.20
257	42.16	98.23	1.41	1.46	22.44	124.24
258	42.32	78.57	1.68	1.40	27.94	124.88
259	42.49	73.59	1.97	1.35	35.36	125.74
260	42.65	62.50	2.33	1.35	41.59	126.32
261	42.81	55.34	2.43	1.32	48.46	126.45
262	42.98	48.93	2.41	1.35	53.75	125.93
263	43.14	42.41	2.14	1.35	59.12	125.02
264	43.31	34.63	1.93	1.38	63.23	123.89
265	43.47	32.98	1.74	1.48	60.69	123.54
266	43.63	46.09	1.81	1.53	41.70	124.63
267	43.80	97.56	1.94	1.59	30.29	126.22
268	43.96	111.18	2.28	1.53	23.30	127.61
269	44.13	130.00	2.41	1.46	17.04	128.91
270	44.29	213.62	2.49	1.51	11.10	129.98
271	44.45	283.28	2.57	1.48	7.09	130.30
272	44.62	299.77	2.15	1.48	5.16	129.94
273	44.78	304.88	1.90	1.48	4.00	129.05
274	44.95	327.86	1.72	1.48	3.05	128.54
275	45.11	358.96	1.65	1.46	2.23	128.38
276	45.28	384.57	1.66	1.48	1.57	128.37
277	45.44	410.28	1.59	1.51	1.20	128.54
278	45.60	422.58	1.68	1.53	1.11	128.66
279	45.77	407.21	1.71	1.64	0.94	128.45
280	45.93	424.49	1.43	1.72	0.88	128.26
281	46.10	422.07	1.55	1.77	1.00	128.69
282	46.26	417.05	1.98	1.85	1.34	129.61
283	46.42	432.33	2.08	1.93	2.03	131.49
284	46.59	454.63	3.13	2.01	1.93	131.94
285	46.75	465.78	2.34	2.12	1.88	133.33
286	46.92	553.25	3.41	2.65	1.47	133.51
287	47.08	540.67	3.19	3.15	1.62	134.57
288	47.24	539.07	3.58	3.68	1.45	133.54

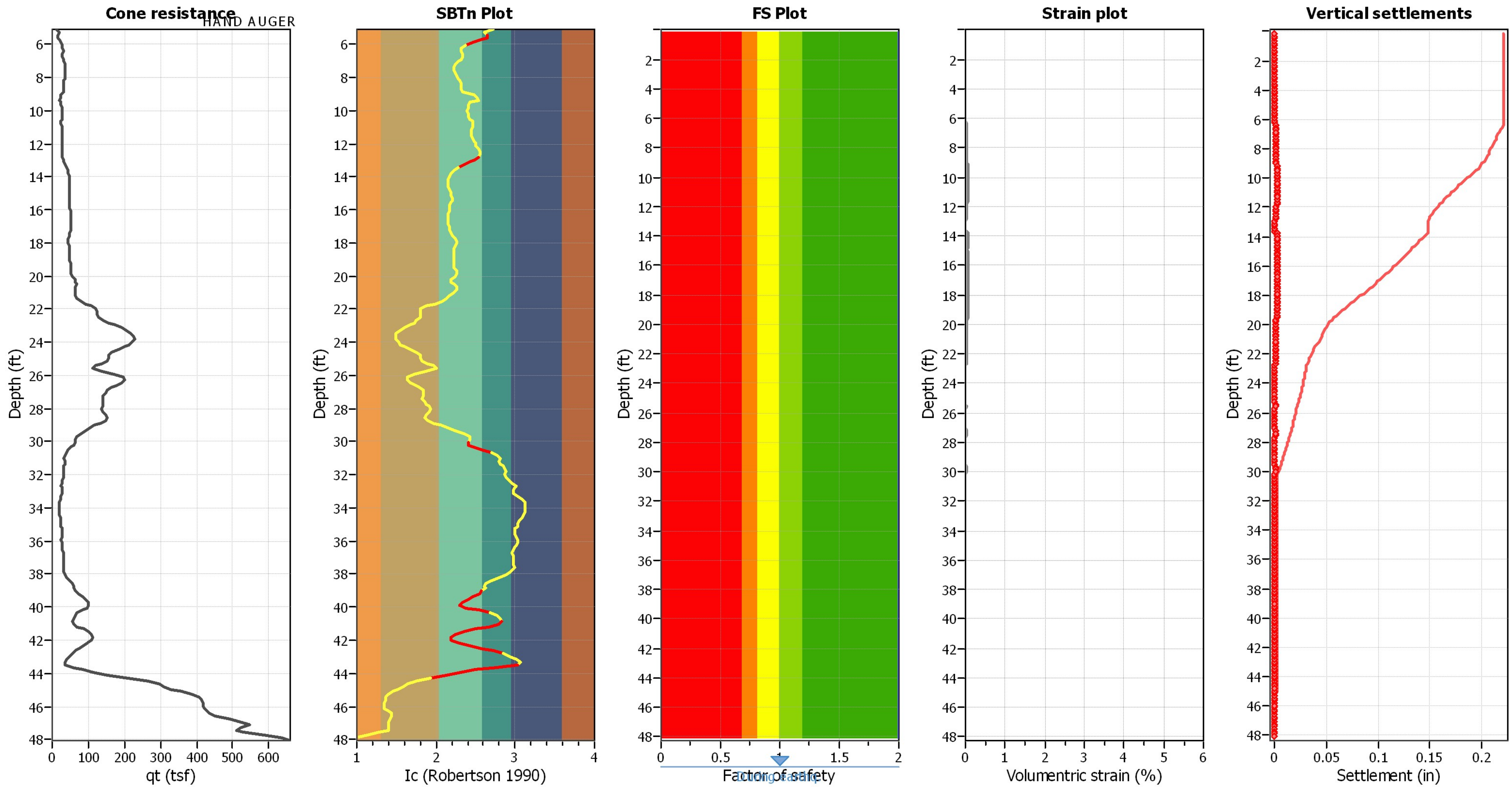
:: Field input data :: (continued)

Point ID	Depth (ft)	q_c (tsf)	f_s (tsf)	u (tsf)	Fines content (%)	Unit weight (pcf)
289	47.41	490.22	2.19	3.92	1.44	133.03
290	47.57	497.19	2.66	4.08	0.32	131.11
291	47.74	595.44	1.55	4.00	0.00	129.11
292	47.90	656.90	0.50	4.16	0.00	124.84
293	48.06	659.49	0.50	4.50	0.00	121.03

Abbreviations

Depth: Depth from free surface, at which CPT was performed (ft)
q_c: Measured cone resistance (tsf)
f_s: Sleeve friction resistance (tsf)
u: Pore pressure (tsf)
Fines content: Percentage of fines in soil (%)
Unit weight: Bulk soil unit weight (pcf)

Estimation of post-earthquake settlements



Abbreviations

q_t:	Total cone resistance (cone resistance q_c corrected for pore water effects)
I_c:	Soil Behaviour Type Index
FS:	Calculated Factor of Safety against liquefaction
Volumentric strain:	Post-liquefaction volumentric strain

:: Post-earthquake settlement of dry sands ::

Depth (ft)	Ic	Kc	Qc1n	Qc1n,cs	N1,60 (blows)	Vs (ft/s)	Gmax (tsf)	CSR	Shear, γ (%)	Svol,15 (%)	Nc	ev (%)	Settle. (in)
0.16	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.28	0.000	0.00	0.00	0.00	0.000
0.33	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.28	0.000	0.00	0.00	0.00	0.000
0.49	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.28	0.000	0.00	0.00	0.00	0.000
0.66	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
0.82	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
0.98	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
1.15	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
1.31	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
1.48	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
1.64	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
1.80	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
1.97	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
2.13	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
2.30	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
2.46	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
2.63	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
2.79	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
2.95	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
3.12	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
3.28	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
3.44	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
3.61	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
3.77	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
3.94	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
4.10	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
4.26	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
4.43	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
4.59	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
4.76	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
4.92	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
5.08	2.72	4.16	20.46	85.00	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
5.25	2.61	3.39	29.38	99.60	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
5.41	2.65	3.65	27.52	100.48	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
5.58	2.64	3.61	27.83	100.44	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
5.74	2.58	3.18	31.13	98.91	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
5.91	2.47	2.61	37.00	96.66	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
6.07	2.37	2.20	43.43	95.35	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
6.23	2.32	2.02	47.38	95.47	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
6.40	2.31	2.00	48.07	96.03	23	522.8	484	0.27	0.051	0.04	8.77	0.03	0.001
6.56	2.33	2.05	47.04	96.39	23	522.1	483	0.27	0.053	0.05	8.77	0.03	0.001
6.73	2.33	2.07	46.74	96.57	23	522.1	483	0.27	0.056	0.05	8.77	0.03	0.001
6.89	2.32	2.02	47.89	96.61	23	523.7	486	0.27	0.057	0.05	8.77	0.03	0.001
7.05	2.29	1.90	51.06	97.15	23	528.8	497	0.27	0.056	0.05	8.77	0.03	0.001
7.22	2.24	1.78	55.33	98.54	23	536.1	512	0.27	0.053	0.05	8.77	0.03	0.001
7.38	2.22	1.72	58.64	100.65	23	543.6	529	0.27	0.051	0.04	8.77	0.03	0.001
7.55	2.22	1.72	59.57	102.59	23	548.7	540	0.27	0.050	0.04	8.77	0.03	0.001
7.71	2.24	1.78	58.35	103.73	24	550.2	544	0.27	0.051	0.04	8.77	0.03	0.001
7.87	2.27	1.84	56.40	103.97	24	548.9	541	0.27	0.053	0.04	8.77	0.03	0.001

:: Post-earthquake settlement of dry sands :: (continued)

Depth (ft)	Ic	Kc	Qc1n	Qc1n,cs	N1,60 (blows)	Vs (ft/s)	Gmax (tsf)	CSR	Shear, γ (%)	Svol,15 (%)	Nc	ev (%)	Settle. (in)
8.04	2.29	1.91	54.36	103.74	24	546.2	536	0.27	0.057	0.04	8.77	0.03	0.001
8.20	2.31	1.97	52.51	103.66	24	543.9	531	0.27	0.060	0.05	8.77	0.03	0.001
8.37	2.32	2.00	51.79	103.79	25	543.3	529	0.27	0.062	0.05	8.77	0.03	0.001
8.53	2.32	2.00	51.54	103.31	24	542.0	526	0.27	0.065	0.05	8.77	0.03	0.001
8.69	2.32	2.00	51.02	102.26	24	539.3	520	0.27	0.069	0.06	8.77	0.04	0.001
8.86	2.34	2.09	48.42	101.23	24	533.7	508	0.27	0.076	0.06	8.77	0.04	0.002
9.02	2.48	2.68	37.97	101.64	26	516.3	472	0.27	0.098	0.07	8.77	0.05	0.002
9.19	2.52	2.89	34.64	100.06	26	506.3	452	0.27	0.117	0.09	8.77	0.06	0.002
9.35	2.54	2.97	32.94	97.95	26	498.7	436	0.27	0.137	0.10	8.77	0.07	0.003
9.51	2.42	2.41	38.87	93.65	23	508.8	455	0.27	0.123	0.10	8.77	0.07	0.003
9.68	2.41	2.36	39.32	92.90	23	512.2	461	0.27	0.121	0.10	8.77	0.07	0.003
9.84	2.40	2.32	39.88	92.43	23	516.3	469	0.27	0.118	0.10	8.77	0.07	0.003
10.01	2.40	2.30	40.09	92.17	23	519.7	476	0.27	0.116	0.10	8.77	0.07	0.003
10.17	2.40	2.32	39.59	91.98	23	521.3	479	0.27	0.117	0.10	8.77	0.07	0.003
10.34	2.41	2.37	38.79	91.99	23	522.4	481	0.27	0.119	0.10	8.77	0.07	0.003
10.50	2.44	2.46	37.82	93.23	23	525.0	487	0.27	0.118	0.10	8.77	0.06	0.002
10.66	2.46	2.58	36.92	95.23	24	528.9	495	0.27	0.115	0.09	8.77	0.06	0.002
10.83	2.47	2.63	36.54	96.10	24	532.4	503	0.27	0.113	0.09	8.77	0.06	0.002
10.99	2.46	2.59	36.66	94.80	24	533.8	505	0.27	0.114	0.09	8.77	0.06	0.002
11.15	2.44	2.50	37.21	93.07	23	535.5	508	0.27	0.115	0.10	8.77	0.06	0.002
11.32	2.44	2.47	37.44	92.52	23	538.3	514	0.27	0.114	0.10	8.77	0.06	0.002
11.48	2.44	2.50	37.27	93.18	23	542.0	522	0.27	0.112	0.09	8.77	0.06	0.002
11.65	2.46	2.58	36.56	94.17	24	544.8	528	0.27	0.110	0.09	8.77	0.06	0.002
11.81	2.48	2.69	35.61	95.64	24	547.6	534	0.27	0.109	0.09	8.77	0.05	0.002
11.97	2.50	2.78	35.03	97.33	25	551.8	543	0.27	0.106	0.08	8.77	0.05	0.002
12.14	2.51	2.81	35.10	98.72	26	557.5	556	0.27	0.101	0.08	8.77	0.05	0.002
12.30	2.53	2.91	34.71	101.11	26	563.4	570	0.27	0.097	0.07	8.77	0.04	0.002
12.47	2.55	3.02	34.46	104.01	27	570.7	587	0.27	0.091	0.06	8.77	0.04	0.002
12.63	2.56	3.09	34.46	106.50	28	578.0	604	0.27	0.086	0.06	8.77	0.03	0.001
12.79	2.53	2.95	35.76	105.43	28	583.5	617	0.27	0.083	0.06	8.77	0.03	0.001
12.96	2.49	2.70	37.60	101.62	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
13.12	2.42	2.41	40.13	96.78	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
13.29	2.35	2.12	43.47	92.31	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
13.45	2.28	1.90	46.81	88.89	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
13.62	2.23	1.74	49.58	86.08	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
13.78	2.19	1.65	51.26	84.42	19	590.6	624	0.27	0.091	0.10	8.77	0.06	0.002
13.94	2.17	1.59	52.53	83.54	19	591.8	626	0.27	0.092	0.10	8.77	0.06	0.002
14.11	2.15	1.56	53.33	83.20	18	593.9	630	0.27	0.092	0.10	8.77	0.06	0.002
14.27	2.15	1.54	53.86	83.15	18	596.5	636	0.27	0.092	0.10	8.77	0.06	0.002
14.44	2.15	1.55	53.84	83.40	18	599.6	643	0.27	0.091	0.10	8.77	0.06	0.002
14.60	2.16	1.57	53.18	83.68	19	602.2	650	0.27	0.090	0.10	8.77	0.06	0.002
14.76	2.17	1.60	52.68	84.38	19	606.3	660	0.27	0.088	0.09	8.77	0.06	0.002
14.93	2.19	1.63	51.95	84.74	19	609.0	667	0.27	0.087	0.09	8.77	0.05	0.002
15.09	2.20	1.66	50.91	84.45	19	609.4	668	0.27	0.088	0.09	8.77	0.05	0.002
15.26	2.21	1.68	49.75	83.69	19	608.2	665	0.27	0.091	0.10	8.77	0.06	0.002
15.42	2.20	1.67	49.57	83.00	19	608.3	664	0.27	0.093	0.10	8.77	0.06	0.002
15.58	2.19	1.63	50.45	82.28	18	609.3	666	0.27	0.094	0.10	8.77	0.06	0.002
15.75	2.17	1.60	51.08	81.64	18	610.1	667	0.27	0.095	0.11	8.77	0.06	0.002

:: Post-earthquake settlement of dry sands :: (continued)

Depth (ft)	Ic	Kc	Qc1n	Qc1n,cs	N1,60 (blows)	Vs (ft/s)	Gmax (tsf)	CSR	Shear, γ (%)	Svol,15 (%)	Nc	ev (%)	Settle. (in)
15.91	2.17	1.59	50.95	81.06	18	610.3	667	0.27	0.097	0.11	8.77	0.06	0.002
16.08	2.17	1.59	51.00	80.90	18	611.9	671	0.27	0.097	0.11	8.77	0.06	0.002
16.24	2.16	1.57	51.30	80.61	18	613.4	674	0.27	0.098	0.11	8.77	0.06	0.003
16.40	2.15	1.55	51.62	80.13	18	614.0	675	0.27	0.099	0.11	8.77	0.06	0.003
16.57	2.15	1.55	51.38	79.69	18	614.5	676	0.27	0.100	0.12	8.77	0.07	0.003
16.73	2.15	1.55	51.15	79.52	18	615.8	679	0.27	0.101	0.12	8.77	0.07	0.003
16.90	2.16	1.56	50.82	79.52	18	617.7	684	0.27	0.100	0.12	8.77	0.07	0.003
17.06	2.16	1.58	50.37	79.59	18	619.7	689	0.26	0.100	0.12	8.77	0.06	0.003
17.22	2.17	1.60	49.41	79.28	18	620.0	689	0.26	0.101	0.12	8.77	0.07	0.003
17.39	2.19	1.65	47.70	78.54	18	618.2	684	0.26	0.105	0.12	8.77	0.07	0.003
17.55	2.22	1.71	45.35	77.44	18	614.1	674	0.26	0.111	0.13	8.77	0.07	0.003
17.72	2.24	1.77	43.26	76.49	18	610.5	665	0.26	0.118	0.14	8.77	0.08	0.003
17.88	2.25	1.81	42.05	76.06	18	609.5	662	0.26	0.121	0.14	8.77	0.08	0.003
18.05	2.26	1.81	42.05	76.26	18	612.1	669	0.26	0.119	0.14	8.77	0.08	0.003
18.21	2.25	1.79	42.73	76.50	18	615.9	678	0.26	0.117	0.14	8.77	0.07	0.003
18.37	2.23	1.75	43.65	76.54	18	619.2	686	0.26	0.115	0.14	8.77	0.07	0.003
18.54	2.23	1.74	44.12	76.75	18	622.5	694	0.27	0.114	0.13	8.77	0.07	0.003
18.70	2.23	1.74	44.27	76.96	18	625.3	701	0.27	0.113	0.13	8.77	0.07	0.003
18.86	2.23	1.74	44.31	77.10	18	627.8	707	0.27	0.113	0.13	8.77	0.07	0.003
19.03	2.23	1.74	44.42	77.32	18	630.6	714	0.27	0.112	0.13	8.77	0.07	0.003
19.19	2.22	1.73	44.86	77.39	18	633.3	721	0.27	0.111	0.13	8.77	0.07	0.003
19.36	2.23	1.73	45.43	78.77	18	640.7	740	0.27	0.106	0.12	8.77	0.06	0.002
19.52	2.23	1.75	45.74	80.13	18	647.6	759	0.27	0.101	0.11	8.77	0.06	0.002
19.68	2.27	1.84	45.15	83.19	19	659.1	791	0.27	0.092	0.10	8.77	0.05	0.002
19.85	2.26	1.83	46.92	85.67	20	671.4	825	0.27	0.085	0.09	8.77	0.04	0.002
20.01	2.24	1.77	49.05	86.83	20	679.8	849	0.27	0.081	0.08	8.77	0.04	0.002
20.18	2.19	1.64	54.01	88.66	20	692.4	884	0.27	0.075	0.08	8.77	0.04	0.002
20.34	2.19	1.65	56.64	93.38	21	712.5	944	0.27	0.066	0.06	8.77	0.03	0.001
20.50	2.22	1.72	57.63	99.28	23	735.0	1015	0.27	0.057	0.05	8.77	0.03	0.001
20.67	2.27	1.84	55.08	101.52	24	741.6	1037	0.27	0.056	0.05	8.77	0.02	0.001
20.83	2.27	1.85	52.48	97.01	23	727.0	990	0.27	0.062	0.05	8.77	0.03	0.001
21.00	2.23	1.73	52.24	90.55	21	707.9	929	0.27	0.072	0.07	8.77	0.04	0.001
21.16	2.17	1.60	54.31	87.01	19	698.6	900	0.27	0.079	0.08	8.77	0.04	0.002
21.32	2.13	1.52	58.14	88.47	19	706.9	924	0.27	0.076	0.08	8.77	0.04	0.002
21.49	2.08	1.41	65.29	92.23	20	722.2	969	0.27	0.069	0.07	8.77	0.04	0.001
21.65	1.98	1.28	76.50	97.64	20	735.9	1010	0.27	0.064	0.06	8.77	0.03	0.001
21.82	1.88	1.17	89.70	105.02	21	746.7	1041	0.27	0.061	0.06	8.77	0.03	0.001
21.98	1.81	1.11	101.29	112.83	22	758.7	1079	0.27	0.058	0.05	8.77	0.03	0.001
22.15	1.81	1.12	102.54	114.49	22	766.7	1105	0.27	0.056	0.05	8.77	0.02	0.001
22.31	1.81	1.12	103.25	115.20	22	770.6	1118	0.27	0.056	0.05	8.77	0.02	0.001
22.47	1.80	1.10	105.47	116.39	22	771.8	1121	0.27	0.056	0.05	8.77	0.02	0.001
22.64	1.76	1.08	115.88	124.69	24	789.5	1180	0.27	0.052	0.04	8.77	0.02	0.001
22.80	1.73	1.06	128.22	135.30	25	815.1	1269	0.28	0.046	0.03	8.77	0.02	0.001
22.97	1.68	1.03	143.48	147.25	27	839.2	1356	0.28	0.042	0.03	8.77	0.01	0.001
23.13	1.61	1.00	158.76	158.76	29	841.8	1363	0.28	0.042	0.03	8.77	0.01	0.001
23.29	1.54	1.00	170.84	170.84	30	839.1	1351	0.28	0.043	0.03	8.77	0.01	0.000
23.46	1.50	1.00	179.40	179.40	31	839.1	1349	0.28	0.043	0.03	8.77	0.01	0.000
23.62	1.49	1.00	185.77	185.77	32	851.9	1396	0.28	0.041	0.02	8.77	0.01	0.000

:: Post-earthquake settlement of dry sands :: (continued)

Depth (ft)	Ic	Kc	Qc1n	Qc1n,cs	N1,60 (blows)	Vs (ft/s)	Gmax (tsf)	CSR	Shear, γ (%)	Svol,15 (%)	Nc	ev (%)	Settle. (in)
23.79	1.50	1.00	186.76	186.76	33	860.4	1428	0.28	0.040	0.02	8.77	0.01	0.000
23.95	1.52	1.00	181.34	181.34	32	859.9	1427	0.28	0.041	0.02	8.77	0.01	0.000
24.11	1.55	1.00	173.12	173.12	31	857.2	1417	0.28	0.042	0.03	8.77	0.01	0.000
24.28	1.60	1.00	162.14	162.14	29	855.6	1413	0.28	0.043	0.03	8.77	0.01	0.000
24.44	1.67	1.02	147.11	149.53	28	855.8	1415	0.28	0.043	0.03	8.77	0.01	0.001
24.61	1.76	1.08	129.47	139.40	27	855.4	1415	0.28	0.043	0.03	8.77	0.01	0.001
24.77	1.81	1.11	121.72	135.30	26	859.8	1433	0.28	0.043	0.03	8.77	0.01	0.001
24.93	1.81	1.12	120.88	134.99	26	862.7	1444	0.28	0.043	0.03	8.77	0.01	0.001
25.10	1.82	1.12	118.13	132.53	26	858.6	1427	0.28	0.044	0.03	8.77	0.01	0.001
25.26	1.89	1.18	104.18	123.02	25	848.8	1391	0.28	0.047	0.04	8.77	0.02	0.001
25.43	1.97	1.27	90.74	114.96	24	840.7	1362	0.28	0.049	0.04	8.77	0.02	0.001
25.59	2.01	1.31	84.86	111.47	23	836.0	1345	0.28	0.051	0.04	8.77	0.02	0.001
25.75	1.87	1.16	104.57	121.75	24	844.6	1374	0.28	0.049	0.04	8.77	0.02	0.001
25.92	1.74	1.06	129.47	137.52	26	855.3	1411	0.28	0.048	0.03	8.77	0.02	0.001
26.08	1.63	1.00	153.49	153.49	28	868.8	1461	0.28	0.045	0.03	8.77	0.01	0.001
26.25	1.64	1.00	155.73	155.73	28	877.7	1495	0.28	0.044	0.03	8.77	0.01	0.000
26.41	1.67	1.02	148.19	150.60	28	877.0	1493	0.28	0.045	0.03	8.77	0.01	0.001
26.57	1.74	1.07	134.58	143.39	27	881.3	1511	0.28	0.044	0.03	8.77	0.01	0.001
26.74	1.79	1.10	123.25	135.91	26	877.6	1497	0.28	0.046	0.03	8.77	0.01	0.001
26.90	1.84	1.14	113.67	129.36	25	872.8	1478	0.28	0.047	0.04	8.77	0.02	0.001
27.07	1.84	1.14	108.87	123.66	24	854.1	1406	0.28	0.052	0.04	8.77	0.02	0.001
27.23	1.83	1.13	104.82	118.62	23	836.4	1339	0.28	0.057	0.05	8.77	0.02	0.001
27.39	1.83	1.13	103.51	116.64	23	829.0	1312	0.28	0.060	0.05	8.77	0.02	0.001
27.56	1.85	1.15	102.90	118.13	23	843.9	1367	0.28	0.056	0.05	8.77	0.02	0.001
27.72	1.89	1.18	101.74	119.63	24	860.3	1429	0.28	0.052	0.04	8.77	0.02	0.001
27.89	1.92	1.21	99.09	119.68	24	871.4	1472	0.28	0.050	0.04	8.77	0.02	0.001
28.05	1.93	1.21	97.44	118.25	24	869.3	1464	0.28	0.051	0.04	8.77	0.02	0.001
28.21	1.91	1.20	98.74	118.29	24	866.9	1453	0.28	0.052	0.04	8.77	0.02	0.001
28.38	1.87	1.17	104.40	121.66	24	870.5	1466	0.28	0.052	0.04	8.77	0.02	0.001
28.54	1.86	1.15	108.32	124.56	25	876.7	1490	0.28	0.051	0.04	8.77	0.02	0.001
28.71	1.89	1.18	103.66	122.38	24	881.3	1508	0.28	0.050	0.04	8.77	0.02	0.001
28.87	1.97	1.26	92.12	115.86	24	878.5	1498	0.28	0.052	0.04	8.77	0.02	0.001
29.04	2.07	1.39	79.03	110.23	24	876.1	1490	0.28	0.053	0.04	8.77	0.02	0.001
29.20	2.15	1.56	69.09	107.79	24	875.3	1487	0.28	0.053	0.04	8.77	0.02	0.001
29.36	2.25	1.80	59.28	106.86	25	872.6	1478	0.28	0.054	0.04	8.77	0.02	0.001
29.53	2.35	2.14	49.43	105.56	25	860.7	1433	0.28	0.058	0.04	8.77	0.02	0.001
29.69	2.43	2.44	42.04	102.70	26	841.2	1360	0.28	0.064	0.05	8.77	0.02	0.001
29.86	2.43	2.46	39.48	97.05	24	819.1	1279	0.29	0.073	0.06	8.77	0.02	0.001
30.02	2.41	2.36	37.89	89.60	22	791.6	1181	0.29	0.087	0.08	8.77	0.03	0.001
30.18	2.40	2.32	35.56	82.62	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
30.35	2.46	2.59	30.58	79.29	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
30.51	2.57	3.13	25.70	80.48	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
30.68	2.70	3.99	21.21	84.70	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
30.84	2.78	4.63	18.82	87.25	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
31.00	2.81	4.85	17.94	86.98	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
31.17	2.80	4.76	18.25	86.90	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
31.33	2.80	4.82	18.06	86.99	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
31.50	2.84	5.13	17.27	88.54	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000

:: Post-earthquake settlement of dry sands :: (continued)

Depth (ft)	Ic	Kc	Qc1n	Qc1n,cs	N1,60 (blows)	Vs (ft/s)	Gmax (tsf)	CSR	Shear, γ (%)	Svol,15 (%)	Nc	ev (%)	Settle. (in)
31.66	2.87	5.37	16.61	89.20	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
31.82	2.88	5.50	16.39	90.10	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
31.99	2.87	5.44	16.51	89.85	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
32.15	2.88	5.55	15.92	88.27	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
32.32	2.92	5.90	14.51	85.58	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
32.48	2.96	6.30	13.32	83.88	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
32.64	3.01	6.81	12.22	83.26	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
32.81	2.99	6.63	12.56	83.31	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
32.97	2.98	6.56	12.71	83.46	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
33.14	2.98	6.48	12.87	83.41	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
33.30	3.02	7.00	11.89	83.22	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
33.47	3.08	7.68	10.70	82.17	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
33.63	3.12	8.13	9.99	81.24	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
33.79	3.12	8.23	9.75	80.29	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
33.96	3.12	8.21	9.64	79.22	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
34.12	3.13	8.29	9.40	77.94	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
34.28	3.12	8.23	9.39	77.27	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
34.45	3.11	8.05	9.63	77.53	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
34.61	3.08	7.64	10.22	78.11	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
34.78	3.06	7.40	10.61	78.46	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
34.94	3.04	7.17	10.97	78.64	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
35.10	3.02	6.98	11.27	78.75	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
35.27	3.00	6.73	11.70	78.81	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
35.43	2.99	6.61	11.89	78.56	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
35.60	2.99	6.62	11.89	78.68	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
35.76	3.01	6.91	11.40	78.71	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
35.92	3.03	7.06	11.23	79.23	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
36.09	3.03	7.10	11.22	79.74	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
36.25	3.02	6.98	11.60	80.95	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
36.42	2.99	6.67	12.25	81.72	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
36.58	2.98	6.49	12.70	82.37	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
36.74	2.97	6.37	12.99	82.73	0	0.0	0	0.28	0.000	0.00	0.00	0.00	0.000
36.91	2.98	6.47	12.84	83.11	0	0.0	0	0.28	0.000	0.00	0.00	0.00	0.000
37.07	2.97	6.45	12.89	83.12	0	0.0	0	0.28	0.000	0.00	0.00	0.00	0.000
37.24	2.97	6.44	12.91	83.19	0	0.0	0	0.28	0.000	0.00	0.00	0.00	0.000
37.40	2.98	6.49	12.81	83.14	0	0.0	0	0.28	0.000	0.00	0.00	0.00	0.000
37.57	2.99	6.61	12.56	83.03	0	0.0	0	0.28	0.000	0.00	0.00	0.00	0.000
37.73	2.98	6.53	12.59	82.17	0	0.0	0	0.28	0.000	0.00	0.00	0.00	0.000
37.89	2.94	6.14	13.22	81.19	0	0.0	0	0.28	0.000	0.00	0.00	0.00	0.000
38.06	2.89	5.62	14.42	80.96	0	0.0	0	0.28	0.000	0.00	0.00	0.00	0.000
38.22	2.79	4.67	17.52	81.78	0	0.0	0	0.28	0.000	0.00	0.00	0.00	0.000
38.39	2.69	3.95	21.75	85.90	0	0.0	0	0.28	0.000	0.00	0.00	0.00	0.000
38.55	2.64	3.55	25.54	90.78	0	0.0	0	0.28	0.000	0.00	0.00	0.00	0.000
38.71	2.62	3.44	27.04	92.92	0	0.0	0	0.28	0.000	0.00	0.00	0.00	0.000
38.88	2.63	3.50	26.82	94.01	0	0.0	0	0.28	0.000	0.00	0.00	0.00	0.000
39.04	2.58	3.20	30.29	96.86	26	894.7	1544	0.28	0.075	0.06	8.77	0.01	0.001
39.21	2.55	3.03	34.23	103.88	0	0.0	0	0.28	0.000	0.00	0.00	0.00	0.000
39.37	2.47	2.63	40.95	107.82	0	0.0	0	0.28	0.000	0.00	0.00	0.00	0.000

:: Post-earthquake settlement of dry sands :: (continued)

Depth (ft)	Ic	Kc	Qc1n	Qc1n,cs	N1,60 (blows)	Vs (ft/s)	Gmax (tsf)	CSR	Shear, γ (%)	Svol,15 (%)	Nc	ev (%)	Settle. (in)
39.53	2.41	2.36	45.11	106.58	0	0.0	0	0.28	0.000	0.00	0.00	0.00	0.000
39.70	2.33	2.05	49.60	101.67	0	0.0	0	0.28	0.000	0.00	0.00	0.00	0.000
39.86	2.31	1.97	50.74	100.07	0	0.0	0	0.28	0.000	0.00	0.00	0.00	0.000
40.03	2.38	2.24	46.91	104.90	0	0.0	0	0.28	0.000	0.00	0.00	0.00	0.000
40.19	2.53	2.94	38.86	114.14	0	0.0	0	0.28	0.000	0.00	0.00	0.00	0.000
40.35	2.69	3.93	30.64	120.54	0	0.0	0	0.28	0.000	0.00	0.00	0.00	0.000
40.52	2.78	4.62	26.32	121.53	0	0.0	0	0.28	0.000	0.00	0.00	0.00	0.000
40.68	2.81	4.90	24.40	119.45	0	0.0	0	0.28	0.000	0.00	0.00	0.00	0.000
40.85	2.83	5.08	23.04	117.00	0	0.0	0	0.28	0.000	0.00	0.00	0.00	0.000
41.01	2.80	4.75	24.16	114.65	0	0.0	0	0.28	0.000	0.00	0.00	0.00	0.000
41.17	2.67	3.76	29.98	112.61	0	0.0	0	0.28	0.000	0.00	0.00	0.00	0.000
41.34	2.50	2.75	39.48	108.47	0	0.0	0	0.28	0.000	0.00	0.00	0.00	0.000
41.50	2.36	2.15	48.39	103.85	0	0.0	0	0.28	0.000	0.00	0.00	0.00	0.000
41.67	2.25	1.80	54.60	98.05	0	0.0	0	0.28	0.000	0.00	0.00	0.00	0.000
41.83	2.19	1.65	56.75	93.38	0	0.0	0	0.28	0.000	0.00	0.00	0.00	0.000
41.99	2.20	1.66	53.99	89.69	0	0.0	0	0.28	0.000	0.00	0.00	0.00	0.000
42.16	2.30	1.94	46.00	89.34	0	0.0	0	0.28	0.000	0.00	0.00	0.00	0.000
42.32	2.44	2.47	38.04	93.93	0	0.0	0	0.28	0.000	0.00	0.00	0.00	0.000
42.49	2.60	3.33	30.63	101.90	0	0.0	0	0.28	0.000	0.00	0.00	0.00	0.000
42.65	2.72	4.15	26.00	107.97	0	0.0	0	0.28	0.000	0.00	0.00	0.00	0.000
42.81	2.84	5.15	21.54	110.99	0	0.0	0	0.28	0.000	0.00	0.00	0.00	0.000
42.98	2.93	5.98	18.20	108.77	0	0.0	0	0.28	0.000	0.00	0.00	0.00	0.000
43.14	3.01	6.85	15.31	104.89	0	0.0	0	0.28	0.000	0.00	0.00	0.00	0.000
43.31	3.07	7.54	13.19	99.49	0	0.0	0	0.28	0.000	0.00	0.00	0.00	0.000
43.47	3.03	7.11	13.61	96.79	0	0.0	0	0.28	0.000	0.00	0.00	0.00	0.000
43.63	2.72	4.17	23.35	97.32	0	0.0	0	0.28	0.000	0.00	0.00	0.00	0.000
43.80	2.49	2.72	36.89	100.51	0	0.0	0	0.28	0.000	0.00	0.00	0.00	0.000
43.96	2.32	2.02	52.25	105.40	0	0.0	0	0.28	0.000	0.00	0.00	0.00	0.000
44.13	2.14	1.53	74.92	114.75	0	0.0	0	0.28	0.000	0.00	0.00	0.00	0.000
44.29	1.93	1.22	111.38	135.58	0	0.0	0	0.28	0.000	0.00	0.00	0.00	0.000
44.45	1.75	1.07	150.73	161.54	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
44.62	1.65	1.00	173.98	174.22	32	1072.5	2322	0.27	0.044	0.03	8.77	0.00	0.000
44.78	1.58	1.00	183.01	183.01	33	1051.7	2217	0.27	0.047	0.03	8.77	0.00	0.000
44.95	1.52	1.00	194.34	194.34	34	1042.9	2172	0.27	0.049	0.03	8.77	0.00	0.000
45.11	1.46	1.00	209.66	209.66	36	1044.1	2174	0.27	0.049	0.02	8.77	0.00	0.000
45.28	1.40	1.00	225.47	225.47	38	1048.9	2194	0.27	0.049	0.02	8.77	0.00	0.000
45.44	1.37	1.00	237.52	237.52	40	1056.8	2230	0.27	0.048	0.02	8.77	0.00	0.000
45.60	1.37	1.00	241.49	241.49	40	1061.4	2252	0.27	0.047	0.02	8.77	0.00	0.000
45.77	1.35	1.00	243.81	243.81	41	1057.5	2231	0.27	0.048	0.02	8.77	0.00	0.000
45.93	1.34	1.00	243.23	243.23	40	1053.4	2211	0.27	0.049	0.02	8.77	0.00	0.000
46.10	1.35	1.00	244.68	244.68	41	1064.6	2266	0.27	0.047	0.02	8.77	0.00	0.000
46.26	1.39	1.00	245.73	245.73	41	1088.4	2385	0.27	0.044	0.02	8.77	0.00	0.000
46.42	1.44	1.00	251.57	251.57	43	1141.4	2661	0.27	0.038	0.01	8.77	0.00	0.000
46.59	1.43	1.00	260.52	260.52	45	1157.0	2744	0.27	0.036	0.01	8.77	0.00	0.000
46.75	1.43	1.00	283.40	283.40	48	1205.0	3007	0.27	0.032	0.01	8.77	0.00	0.000
46.92	1.40	1.00	299.45	299.45	51	1214.4	3059	0.27	0.031	0.01	8.77	0.00	0.000
47.08	1.41	1.00	312.98	312.98	53	1252.6	3280	0.27	0.029	0.01	8.77	0.00	0.000
47.24	1.39	1.00	300.26	300.26	51	1216.8	3072	0.27	0.031	0.01	8.77	0.00	0.000

:: Post-earthquake settlement of dry sands :: (continued)

Depth (ft)	Ic	Kc	Qc1n	Qc1n,cs	N1,60 (blows)	Vs (ft/s)	Gmax (tsf)	CSR	Shear, γ (%)	Svol,15 (%)	Nc	ev (%)	Settle. (in)
47.41	1.39	1.00	291.33	291.33	49	1199.4	2973	0.27	0.033	0.01	8.77	0.00	0.000
47.57	1.29	1.00	301.58	301.58	49	1145.5	2673	0.27	0.038	0.01	8.77	0.00	0.000
47.74	1.15	1.00	332.88	332.88	52	1101.5	2433	0.27	0.044	0.01	8.77	0.00	0.000
47.90	0.97	1.00	362.77	362.77	54	1029.6	2056	0.27	0.057	0.02	8.77	0.00	0.000
48.06	0.90	1.00	374.84	374.84	55	1000.3	1881	0.27	0.066	0.02	8.77	0.00	0.000

Total estimated settlement: 0.22

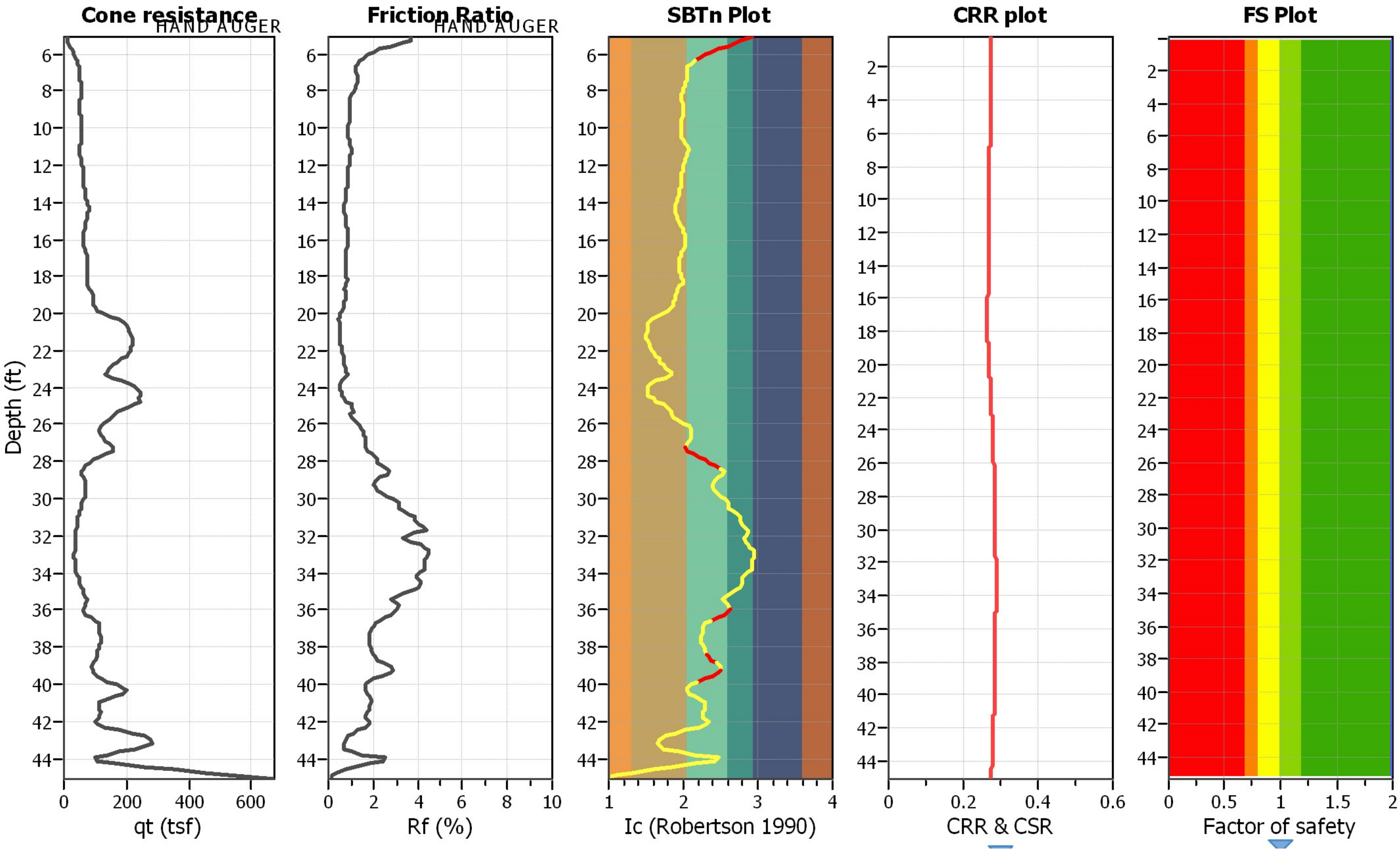
LIQUEFACTION ANALYSIS REPORT

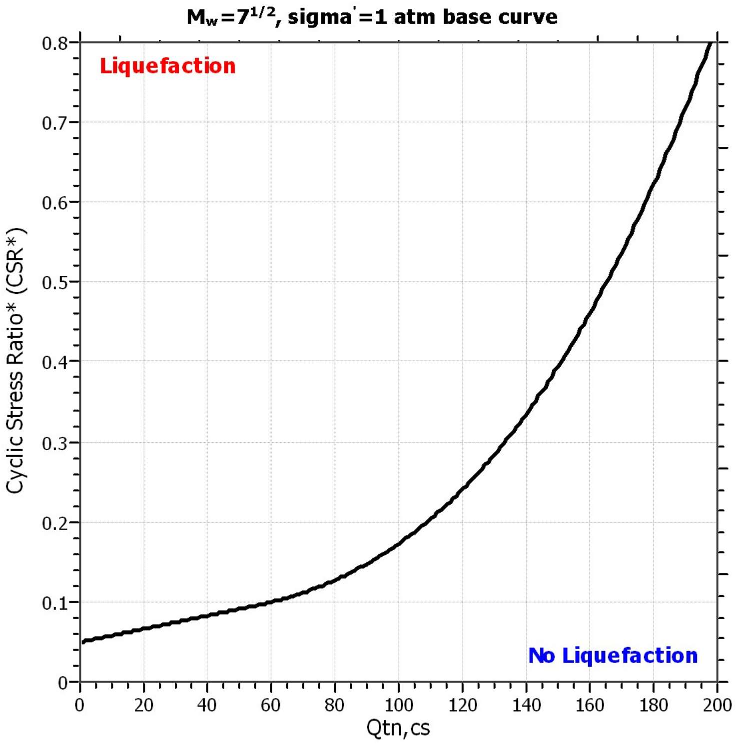
Project title : Colfax Charter Elementary School - DE Analysis   Location : A8326-06-69A

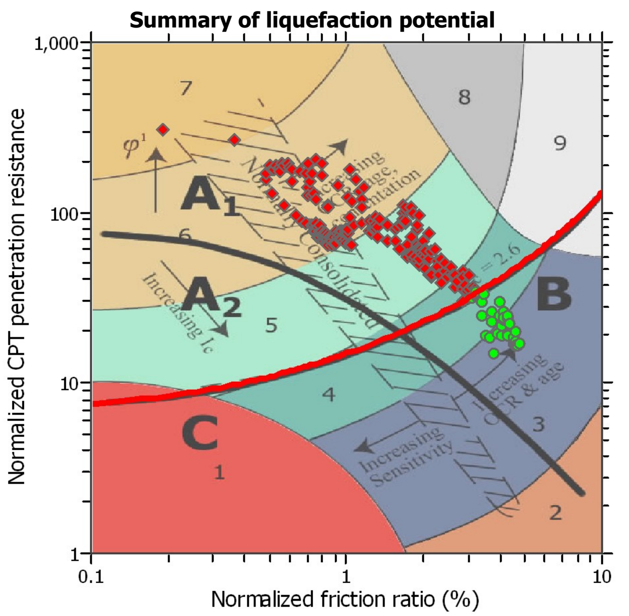
CPT file : CPT-04

Input parameters and analysis data

Analysis method:	NCEER (1998)	G.W.T. (in-situ):	50.00 ft	Use fill:	No	Clay like behavior applied:	Sands only
Fines correction method:	NCEER (1998)	G.W.T. (earthq.):	50.00 ft	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w:	6.72	Ic cut-off value:	2.60	Trans. detect. applied:	Yes	MSF method:	Method based
Peak ground acceleration:	0.56	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

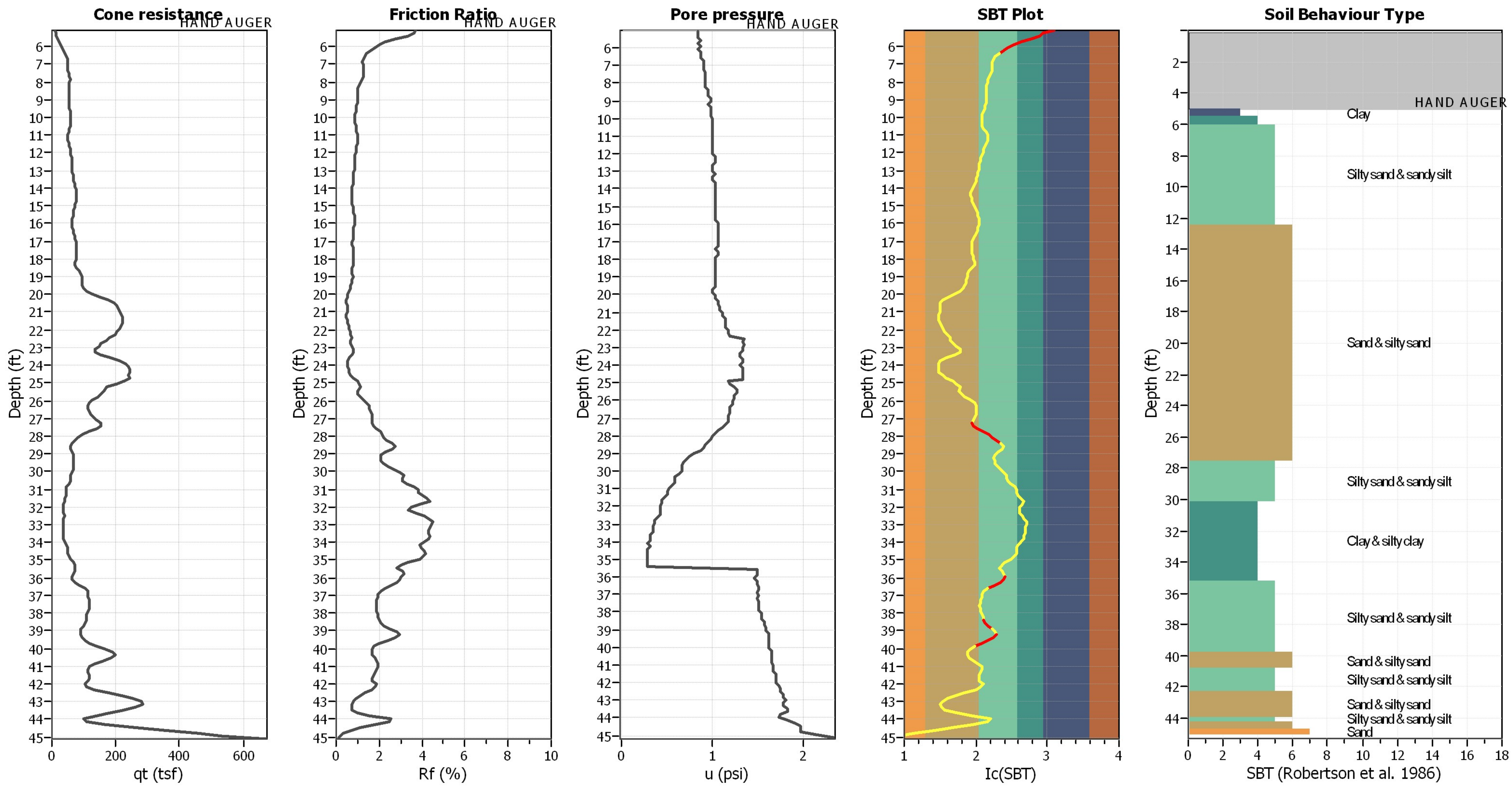






Zone A_1: Cyclic liquefaction likely depending on size and duration of cyclic loading
Zone A_2: Cyclic liquefaction and strength loss likely depending on loading and ground geometry
Zone B: Liquefaction and post-earthquake strength loss unlikely, check cyclic softening
Zone C: Cyclic liquefaction and strength loss possible depending on soil plasticity, brittleness/sensitivity, strain to peak undrained strength and ground geometry

CPT basic interpretation plots



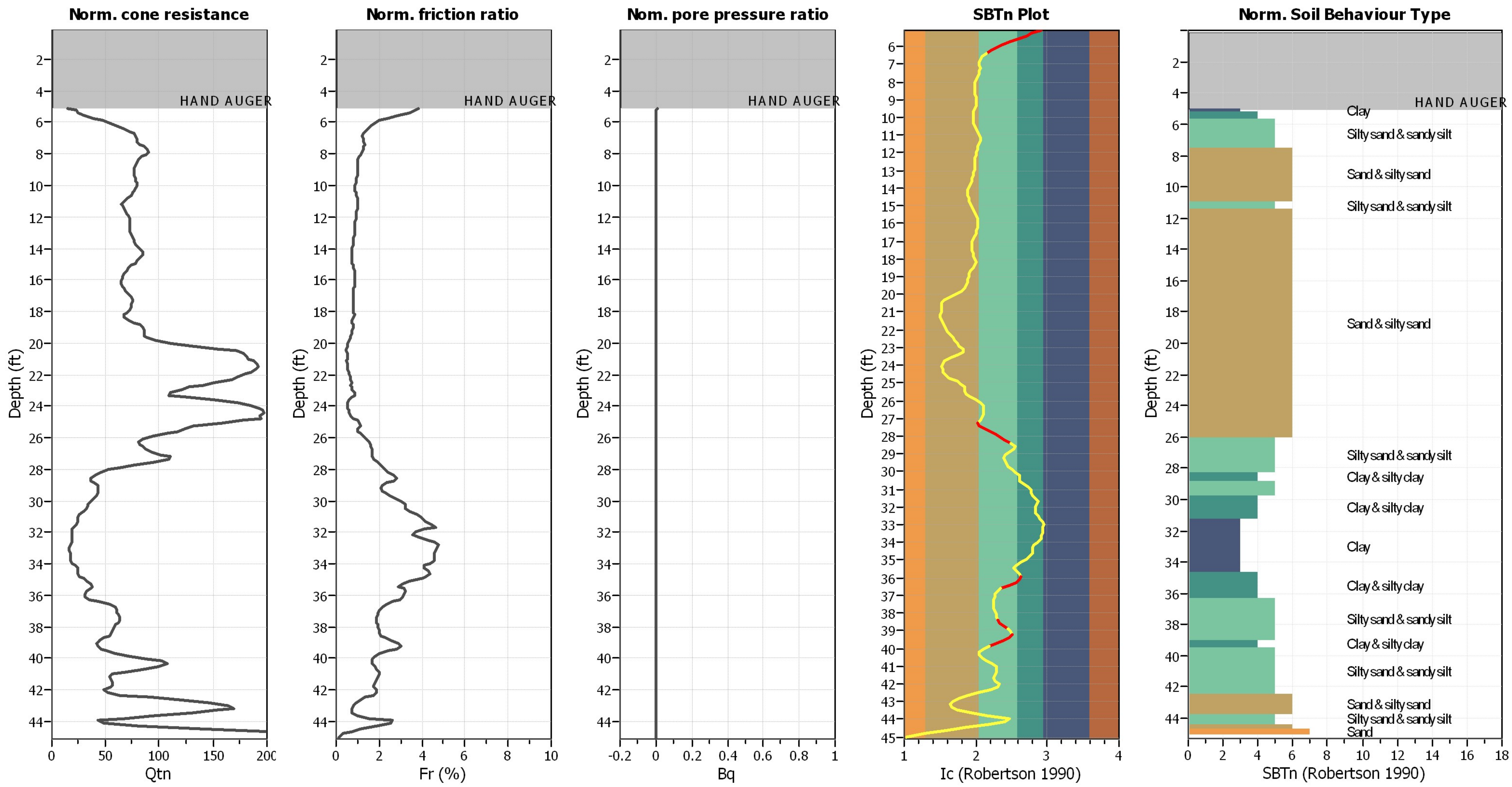
Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	50.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.72	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.56	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	50.00 ft	Fill height:	N/A	Limit depth:	N/A

SBT legend

1. Sensitive fine grained
2. Organic material
3. Clay to silty clay
4. Clayey silt to silty
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to
9. Very stiff fine grained

CPT basic interpretation plots (normalized)



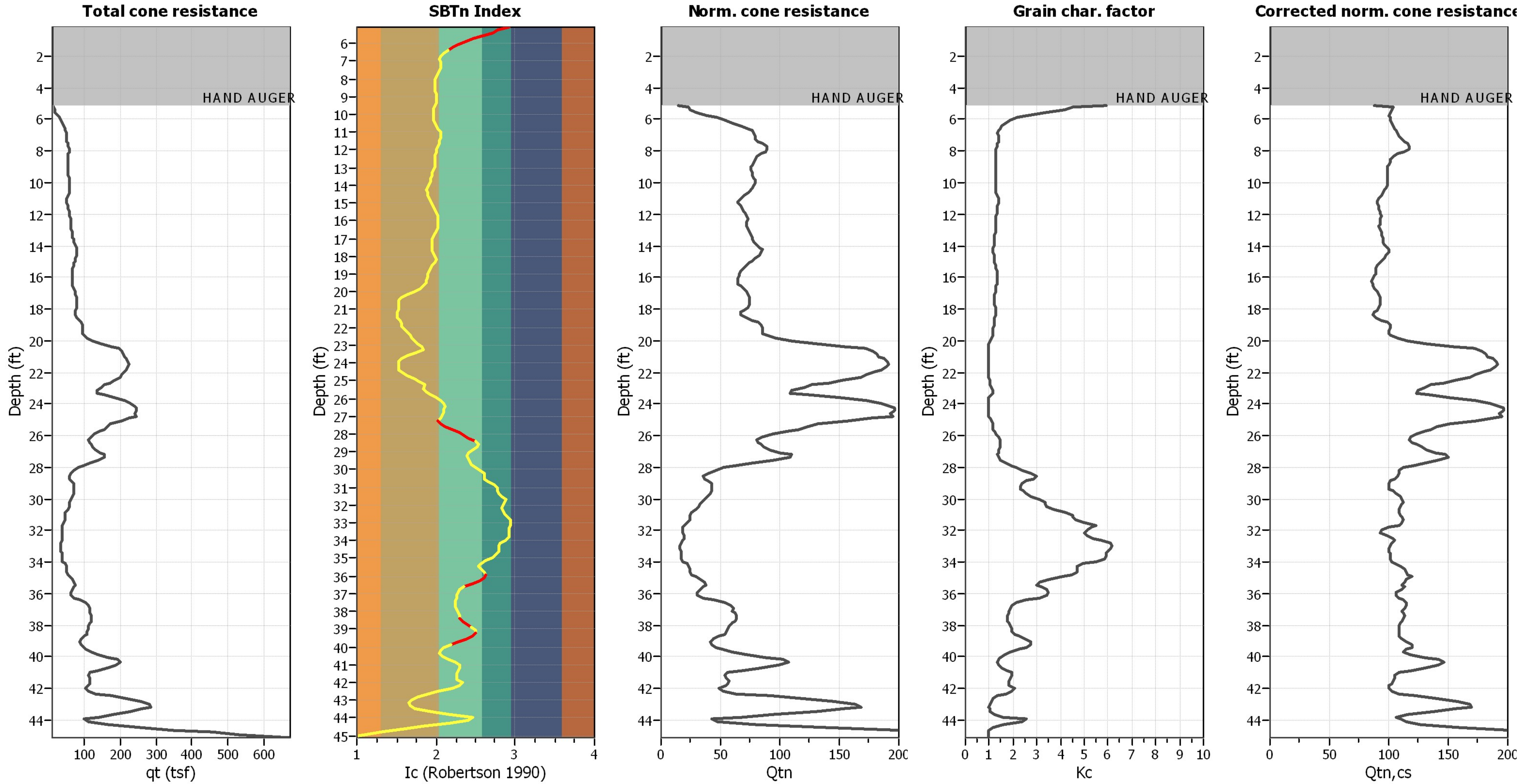
Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	50.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.72	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.56	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	50.00 ft	Fill height:	N/A	Limit depth:	N/A

SBTn legend

1. Sensitive fine grained
2. Organic material
3. Clay to silty clay
4. Clayey silt to silty
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to
9. Very stiff fine grained

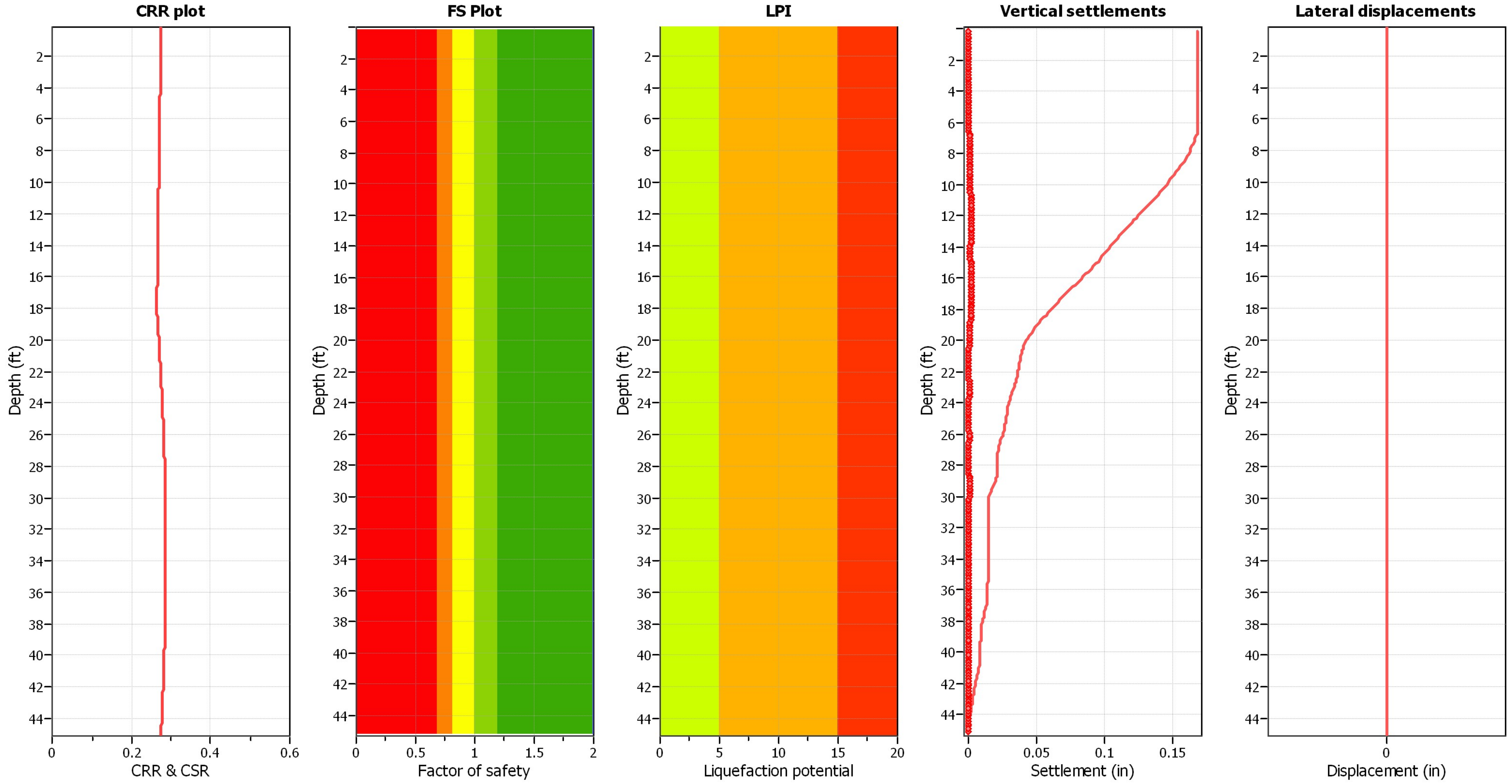
Liquefaction analysis overall plots (intermediate results)



Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	50.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.72	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.56	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	50.00 ft	Fill height:	N/A	Limit depth:	N/A

Liquefaction analysis overall plots



Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	50.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.72	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.56	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	50.00 ft	Fill height:	N/A	Limit depth:	N/A

F.S. color scheme

- Almost certain it will liquefy
- Very likely to liquefy
- Liquefaction and no liq. are equally likely
- Unlike to liquefy
- Almost certain it will not liquefy

LPI color scheme

- Very high risk
- High risk
- Low risk

:: Field input data ::

Point ID	Depth (ft)	q_c (tsf)	f_s (tsf)	u (tsf)	Fines content (%)	Unit weight (pcf)
1	0.16	-9999.00	-9999.00	-9999.00	N/A	120.90
2	0.33	-9999.00	-9999.00	-9999.00	N/A	120.90
3	0.49	-9999.00	-9999.00	-9999.00	N/A	120.90
4	0.66	-9999.00	-9999.00	-9999.00	N/A	120.90
5	0.82	-9999.00	-9999.00	-9999.00	N/A	120.90
6	0.98	-9999.00	-9999.00	-9999.00	N/A	120.90
7	1.15	-9999.00	-9999.00	-9999.00	N/A	120.90
8	1.31	-9999.00	-9999.00	-9999.00	N/A	120.90
9	1.48	-9999.00	-9999.00	-9999.00	N/A	120.90
10	1.64	-9999.00	-9999.00	-9999.00	N/A	120.90
11	1.80	-9999.00	-9999.00	-9999.00	N/A	120.90
12	1.97	-9999.00	-9999.00	-9999.00	N/A	120.90
13	2.13	-9999.00	-9999.00	-9999.00	N/A	120.90
14	2.30	-9999.00	-9999.00	-9999.00	N/A	120.90
15	2.46	-9999.00	-9999.00	-9999.00	N/A	120.90
16	2.63	-9999.00	-9999.00	-9999.00	N/A	120.90
17	2.79	-9999.00	-9999.00	-9999.00	N/A	120.90
18	2.95	-9999.00	-9999.00	-9999.00	N/A	120.90
19	3.12	-9999.00	-9999.00	-9999.00	N/A	120.90
20	3.28	-9999.00	-9999.00	-9999.00	N/A	120.90
21	3.44	-9999.00	-9999.00	-9999.00	N/A	120.90
22	3.61	-9999.00	-9999.00	-9999.00	N/A	120.90
23	3.77	-9999.00	-9999.00	-9999.00	N/A	120.90
24	3.94	-9999.00	-9999.00	-9999.00	N/A	120.90
25	4.10	-9999.00	-9999.00	-9999.00	N/A	120.90
26	4.26	-9999.00	-9999.00	-9999.00	N/A	120.90
27	4.43	-9999.00	-9999.00	-9999.00	N/A	120.90
28	4.59	-9999.00	-9999.00	-9999.00	N/A	120.90
29	4.76	-9999.00	-9999.00	-9999.00	N/A	120.90
30	4.92	-9999.00	-9999.00	-9999.00	N/A	120.90
31	5.08	15.00	0.54	0.85	53.37	108.17
32	5.25	13.60	0.53	0.85	44.25	112.12
33	5.41	14.86	0.52	0.85	41.48	112.30
34	5.58	18.62	0.53	0.87	35.11	112.98
35	5.74	24.61	0.56	0.85	29.08	113.87
36	5.91	30.00	0.59	0.87	24.96	114.64
37	6.07	33.20	0.61	0.85	21.96	115.16
38	6.23	37.75	0.61	0.87	19.45	115.50
39	6.40	42.72	0.61	0.87	17.21	115.74
40	6.56	46.23	0.60	0.87	15.67	115.86
41	6.73	47.95	0.59	0.90	14.70	115.93
42	6.89	49.72	0.59	0.90	14.33	116.07
43	7.05	50.00	0.62	0.90	14.42	116.34
44	7.22	49.49	0.65	0.90	14.63	116.66
45	7.38	50.81	0.67	0.93	14.45	116.99
46	7.55	54.04	0.69	0.93	13.98	117.31
47	7.71	55.95	0.72	0.93	13.42	117.50
48	7.87	57.19	0.70	0.93	13.03	117.35

:: Field input data :: (continued)

Point ID	Depth (ft)	q_c (tsf)	f_s (tsf)	u (tsf)	Fines content (%)	Unit weight (pcf)
49	8.04	56.77	0.64	0.93	12.72	116.75
50	8.20	54.49	0.56	0.93	12.57	115.96
51	8.37	52.70	0.52	0.95	12.48	115.36
52	8.53	53.43	0.52	0.95	12.56	115.15
53	8.69	53.01	0.52	0.95	12.69	115.14
54	8.86	52.36	0.52	0.98	12.87	115.15
55	9.02	52.75	0.52	0.98	13.02	115.17
56	9.19	52.75	0.53	0.95	13.04	115.22
57	9.35	53.45	0.53	0.98	12.87	115.30
58	9.51	55.87	0.53	0.98	12.59	115.35
59	9.68	56.77	0.52	0.98	12.27	115.40
60	9.84	57.89	0.52	0.98	12.07	115.41
61	10.01	58.88	0.52	1.01	12.00	115.43
62	10.17	58.59	0.52	1.01	12.05	115.43
63	10.34	58.31	0.52	1.01	12.22	115.44
64	10.50	57.95	0.52	1.01	12.52	115.42
65	10.66	56.29	0.53	1.01	12.97	115.35
66	10.83	54.30	0.52	1.01	13.76	115.25
67	10.99	50.62	0.52	1.01	14.47	115.11
68	11.15	50.00	0.52	1.01	14.87	115.06
69	11.32	51.35	0.52	1.01	14.73	115.11
70	11.48	52.89	0.53	1.01	14.27	115.23
71	11.65	55.48	0.53	1.01	13.92	115.35
72	11.81	56.21	0.53	1.01	13.55	115.54
73	11.97	58.59	0.55	1.01	13.29	115.73
74	12.14	60.22	0.55	1.03	12.93	115.77
75	12.30	61.04	0.53	1.03	12.62	115.73
76	12.47	62.05	0.53	1.03	12.50	115.64
77	12.63	61.40	0.53	1.01	12.52	115.65
78	12.79	61.74	0.53	1.01	12.55	115.68
79	12.96	62.84	0.53	1.01	12.38	115.81
80	13.12	65.14	0.55	1.03	12.14	116.01
81	13.29	67.11	0.56	1.01	11.80	116.14
82	13.45	68.79	0.55	1.01	11.60	116.18
83	13.62	68.76	0.55	1.03	11.43	116.20
84	13.78	70.11	0.55	1.03	11.18	116.26
85	13.94	73.31	0.55	1.03	10.68	116.37
86	14.11	77.25	0.55	1.03	10.19	116.60
87	14.27	80.25	0.58	1.03	10.00	116.81
88	14.44	79.44	0.58	1.03	10.15	116.94
89	14.60	77.36	0.58	1.03	10.44	116.87
90	14.76	75.95	0.57	1.03	10.74	116.65
91	14.93	73.76	0.55	1.03	11.08	116.46
92	15.09	71.46	0.55	1.03	11.58	116.33
93	15.26	68.93	0.56	1.03	12.17	116.28
94	15.42	66.94	0.55	1.03	12.77	116.29
95	15.58	65.56	0.57	1.03	13.23	116.39
96	15.75	65.59	0.59	1.03	13.60	116.47

:: Field input data :: (continued)

Point ID	Depth (ft)	q_c (tsf)	f_s (tsf)	u (tsf)	Fines content (%)	Unit weight (pcf)
97	15.91	64.58	0.58	1.06	13.61	116.34
98	16.08	64.78	0.54	1.06	13.57	116.12
99	16.24	64.61	0.54	1.06	13.45	116.00
100	16.40	65.36	0.55	1.06	13.37	116.11
101	16.57	67.33	0.56	1.06	13.03	116.27
102	16.73	70.48	0.56	1.06	12.48	116.46
103	16.90	74.21	0.57	1.06	11.94	116.65
104	17.06	76.46	0.58	1.06	11.60	116.88
105	17.22	78.03	0.60	1.06	11.54	117.14
106	17.39	78.57	0.62	1.03	11.65	117.33
107	17.55	77.95	0.62	1.06	11.78	117.45
108	17.72	78.48	0.63	1.06	11.82	117.46
109	17.88	78.88	0.62	1.03	12.00	117.43
110	18.05	75.90	0.62	1.03	12.53	117.27
111	18.21	70.73	0.61	1.03	13.10	117.06
112	18.37	70.56	0.59	1.03	12.83	116.89
113	18.54	77.89	0.57	1.03	11.83	117.04
114	18.70	85.39	0.61	1.03	10.99	117.66
115	18.86	90.20	0.70	1.03	10.63	118.53
116	19.03	95.31	0.76	1.03	10.52	119.02
117	19.19	94.66	0.73	1.03	10.16	118.93
118	19.36	95.62	0.66	1.03	9.94	118.60
119	19.52	95.20	0.67	1.03	9.66	118.41
120	19.68	97.67	0.67	1.01	9.16	118.51
121	19.85	106.99	0.66	1.01	8.16	118.84
122	20.01	121.43	0.70	1.03	6.65	119.41
123	20.18	144.75	0.73	1.03	5.03	120.38
124	20.34	178.54	0.82	1.06	3.84	121.59
125	20.50	201.51	0.96	1.06	3.31	122.70
126	20.67	204.52	1.04	1.08	3.31	123.47
127	20.83	203.51	1.09	1.08	3.32	123.84
128	21.00	213.93	1.10	1.11	3.24	123.93
129	21.16	213.65	1.07	1.11	2.97	123.96
130	21.32	222.25	1.07	1.14	2.94	124.16
131	21.49	224.35	1.18	1.14	3.08	124.61
132	21.65	221.35	1.27	1.14	3.45	125.06
133	21.82	216.01	1.30	1.14	3.76	125.26
134	21.98	213.71	1.30	1.17	3.97	125.17
135	22.15	207.19	1.25	1.17	4.49	125.34
136	22.31	194.60	1.44	1.19	4.94	125.47
137	22.47	196.43	1.41	1.35	5.71	124.88
138	22.64	155.73	1.05	1.32	6.04	124.04
139	22.80	158.85	1.10	1.35	6.79	123.20
140	22.97	149.66	1.12	1.32	7.54	123.23
141	23.13	134.18	1.12	1.32	8.82	123.13
142	23.29	122.75	1.14	1.30	8.90	123.13
143	23.46	148.76	1.13	1.30	7.12	123.43
144	23.62	191.66	1.10	1.32	4.94	123.83

:: Field input data :: (continued)

Point ID	Depth (ft)	q_c (tsf)	f_s (tsf)	u (tsf)	Fines content (%)	Unit weight (pcf)
145	23.79	215.76	1.12	1.32	3.77	124.46
146	23.95	229.91	1.27	1.30	3.35	125.07
147	24.11	239.88	1.32	1.32	3.29	125.72
148	24.28	245.17	1.41	1.32	3.39	126.22
149	24.44	243.79	1.53	1.32	3.37	126.30
150	24.61	245.78	1.35	1.32	4.24	127.46
151	24.77	235.08	2.17	1.32	4.88	128.60
152	24.93	252.67	2.35	1.17	6.81	129.65
153	25.10	190.59	2.44	1.19	7.85	128.99
154	25.26	167.53	1.80	1.24	9.31	127.57
155	25.43	158.17	1.50	1.27	9.14	126.24
156	25.59	159.16	1.58	1.27	9.72	125.91
157	25.75	143.88	1.66	1.24	11.01	125.92
158	25.92	127.30	1.61	1.24	13.03	125.78
159	26.08	114.77	1.67	1.22	14.84	125.63
160	26.25	109.97	1.71	1.22	16.00	125.70
161	26.41	111.66	1.74	1.19	16.08	126.07
162	26.57	121.15	1.90	1.19	16.00	126.69
163	26.74	124.13	2.11	1.19	15.97	127.28
164	26.90	124.77	2.15	1.17	15.43	127.79
165	27.07	141.94	2.23	1.17	14.56	128.55
166	27.23	158.62	2.62	1.17	13.77	129.45
167	27.39	165.25	2.83	1.14	14.43	129.88
168	27.56	140.34	2.71	1.11	16.39	129.38
169	27.72	108.48	2.37	1.06	19.50	128.06
170	27.89	90.28	1.98	1.03	22.47	126.49
171	28.05	80.17	1.73	1.01	24.57	125.22
172	28.21	71.88	1.64	0.98	27.09	124.55
173	28.38	63.73	1.70	0.95	30.35	124.21
174	28.54	56.83	1.70	0.93	32.61	123.70
175	28.71	55.28	1.44	0.90	31.71	123.35
176	28.87	65.42	1.46	0.87	29.00	123.07
177	29.04	69.02	1.43	0.79	26.79	123.19
178	29.20	70.42	1.40	0.74	26.28	123.26
179	29.36	69.92	1.47	0.71	26.62	123.46
180	29.53	69.55	1.55	0.69	27.47	123.89
181	29.69	70.11	1.67	0.66	28.59	124.30
182	29.86	67.81	1.75	0.66	30.70	124.63
183	30.02	61.04	1.85	0.66	33.38	124.67
184	30.18	56.52	1.82	0.64	35.45	124.66
185	30.35	58.06	1.84	0.58	35.72	124.45
186	30.51	58.34	1.73	0.58	36.14	124.25
187	30.68	53.20	1.72	0.58	38.48	123.93
188	30.84	45.95	1.74	0.56	42.15	123.62
189	31.00	42.98	1.68	0.53	44.23	123.57
190	31.17	46.60	1.77	0.50	44.02	123.77
191	31.33	48.40	1.85	0.50	45.11	124.01
192	31.50	41.71	1.87	0.48	47.49	123.72

:: Field input data :: (continued)

Point ID	Depth (ft)	q_c (tsf)	f_s (tsf)	u (tsf)	Fines content (%)	Unit weight (pcf)
193	31.66	38.03	1.67	0.45	50.48	123.10
194	31.82	37.02	1.57	0.45	49.58	121.68
195	31.99	35.67	1.04	0.42	48.33	120.76
196	32.15	36.04	1.19	0.42	47.42	120.60
197	32.32	38.54	1.47	0.42	48.33	121.76
198	32.48	40.45	1.62	0.42	50.03	122.58
199	32.64	37.13	1.68	0.40	51.87	122.67
200	32.81	35.08	1.57	0.37	54.40	122.36
201	32.97	33.51	1.52	0.37	55.05	121.96
202	33.14	33.99	1.48	0.34	54.53	121.89
203	33.30	35.95	1.51	0.34	53.68	122.04
204	33.47	36.35	1.57	0.34	53.45	122.24
205	33.63	35.81	1.58	0.32	53.41	122.37
206	33.79	37.05	1.58	0.32	52.95	122.45
207	33.96	38.06	1.60	0.32	50.50	122.82
208	34.12	43.90	1.71	0.29	47.06	123.56
209	34.28	51.24	1.91	0.32	45.30	124.50
210	34.45	50.53	2.13	0.29	45.57	125.03
211	34.61	47.56	2.09	0.29	45.51	125.30
212	34.78	53.96	2.10	0.29	43.49	125.66
213	34.94	60.90	2.30	0.29	41.01	126.41
214	35.10	64.58	2.56	0.29	36.79	126.26
215	35.27	71.94	1.74	0.29	33.69	126.33
216	35.43	78.59	2.19	0.29	32.41	126.09
217	35.60	69.55	2.30	1.48	34.11	126.42
218	35.76	66.38	2.08	1.48	35.91	125.86
219	35.92	63.09	1.86	1.48	36.39	125.13
220	36.09	60.08	1.80	1.46	36.12	125.04
221	36.25	67.05	2.00	1.48	33.55	125.77
222	36.42	84.66	2.23	1.48	28.98	126.90
223	36.58	104.41	2.38	1.51	24.73	127.78
224	36.74	117.44	2.41	1.51	22.55	127.94
225	36.91	110.98	2.19	1.48	21.56	127.72
226	37.07	112.33	2.13	1.51	21.29	127.47
227	37.24	116.46	2.18	1.48	20.84	127.60
228	37.40	119.58	2.26	1.51	20.50	127.78
229	37.57	120.67	2.24	1.51	20.39	127.80
230	37.73	118.82	2.19	1.51	20.58	127.61
231	37.89	113.90	2.12	1.51	21.24	127.39
232	38.06	108.93	2.11	1.53	21.90	127.25
233	38.22	109.13	2.13	1.53	22.36	127.24
234	38.39	109.07	2.15	1.53	22.73	127.30
235	38.55	106.38	2.18	1.56	23.65	127.28
236	38.71	99.69	2.18	1.56	25.65	127.15
237	38.88	87.95	2.18	1.59	28.25	127.26
238	39.04	86.26	2.43	1.59	30.51	127.81
239	39.21	90.95	2.79	1.61	30.71	128.47
240	39.37	96.71	2.79	1.61	29.04	128.61

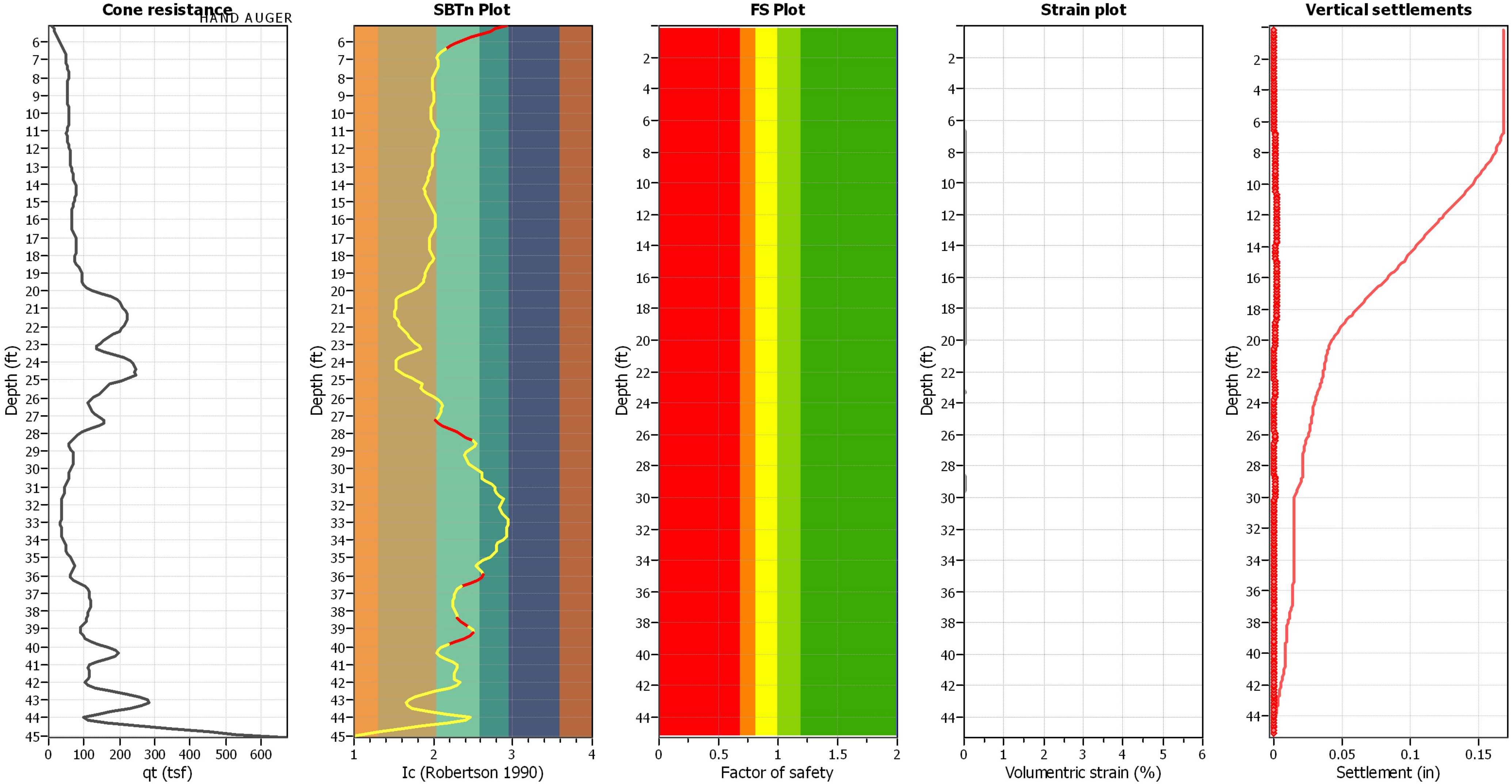
:: Field input data :: (continued)

Point ID	Depth (ft)	q_c (tsf)	f_s (tsf)	u (tsf)	Fines content (%)	Unit weight (pcf)
241	39.53	102.19	2.44	1.61	25.84	128.29
242	39.70	114.80	2.25	1.61	21.99	128.19
243	39.86	136.94	2.39	1.61	18.43	128.99
244	40.03	169.13	2.81	1.61	15.76	130.34
245	40.19	199.30	3.24	1.64	14.52	131.49
246	40.35	201.15	3.44	1.64	14.20	132.06
247	40.52	196.96	3.40	1.64	15.41	131.85
248	40.68	163.09	3.16	1.64	17.36	130.83
249	40.85	129.86	2.55	1.64	20.20	129.28
250	41.01	111.21	2.14	1.67	22.22	127.84
251	41.17	107.75	2.09	1.67	22.41	127.17
252	41.34	115.76	2.04	1.67	21.90	127.14
253	41.50	116.97	2.08	1.69	21.03	127.09
254	41.67	117.67	1.99	1.69	20.94	126.78
255	41.83	111.57	1.81	1.69	21.31	126.56
256	41.99	108.96	1.95	1.69	23.63	126.39
257	42.16	90.20	2.02	1.72	22.64	126.89
258	42.32	131.04	2.10	1.75	19.45	127.94
259	42.49	169.49	2.50	1.75	13.61	129.12
260	42.65	226.85	2.44	1.77	10.16	129.92
261	42.81	255.28	2.38	1.77	7.37	129.98
262	42.98	283.40	2.17	1.80	5.87	129.90
263	43.14	301.37	2.16	1.77	5.21	129.36
264	43.31	269.46	1.87	1.77	5.65	128.35
265	43.47	214.35	1.52	1.83	6.89	127.28
266	43.63	200.57	1.63	1.83	11.36	127.31
267	43.80	120.93	2.32	1.75	17.83	127.76
268	43.96	94.61	2.38	1.72	29.00	128.18
269	44.13	80.70	2.80	1.83	27.13	129.08
270	44.29	153.62	3.01	1.91	17.76	130.97
271	44.45	265.78	3.41	1.96	9.07	131.73
272	44.62	354.71	2.42	1.96	4.27	131.61
273	44.78	432.89	2.03	1.96	0.44	128.87
274	44.95	581.00	0.50	2.14	0.00	125.64
275	45.11	719.85	0.50	2.33	0.00	121.08

Abbreviations

Depth:	Depth from free surface, at which CPT was performed (ft)
q_c:	Measured cone resistance (tsf)
f_s:	Sleeve friction resistance (tsf)
u:	Pore pressure (tsf)
Fines content:	Percentage of fines in soil (%)
Unit weight:	Bulk soil unit weight (pcf)

Estimation of post-earthquake settlements



Abbreviations

q_t:	Total cone resistance (cone resistance q_c corrected for pore water effects)
I_c:	Soil Behaviour Type Index
FS:	Calculated Factor of Safety against liquefaction
Volumentric strain:	Post-liquefaction volumentric strain

:: Post-earthquake settlement of dry sands ::

Depth (ft)	Ic	Kc	Qc1n	Qc1n,cs	N1,60 (blows)	Vs (ft/s)	Gmax (tsf)	CSR	Shear, γ (%)	Svol,15 (%)	Nc	ev (%)	Settle. (in)
0.16	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.28	0.000	0.00	0.00	0.00	0.000
0.33	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.28	0.000	0.00	0.00	0.00	0.000
0.49	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.28	0.000	0.00	0.00	0.00	0.000
0.66	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
0.82	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
0.98	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
1.15	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
1.31	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
1.48	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
1.64	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
1.80	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
1.97	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
2.13	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
2.30	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
2.46	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
2.63	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
2.79	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
2.95	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
3.12	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
3.28	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
3.44	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
3.61	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
3.77	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
3.94	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
4.10	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
4.26	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
4.43	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
4.59	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
4.76	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
4.92	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
5.08	2.92	5.92	14.84	87.75	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
5.25	2.77	4.53	22.79	103.21	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
5.41	2.72	4.14	24.71	102.25	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
5.58	2.59	3.30	30.59	100.84	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
5.74	2.46	2.59	38.69	100.22	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
5.91	2.36	2.17	46.48	100.90	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
6.07	2.28	1.90	53.50	101.67	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
6.23	2.21	1.70	60.30	102.53	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
6.40	2.15	1.54	67.27	103.81	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
6.56	2.10	1.45	72.71	105.17	0	0.0	0	0.27	0.000	0.00	0.00	0.00	0.000
6.73	2.06	1.39	76.44	106.32	23	561.9	569	0.27	0.038	0.03	8.77	0.02	0.001
6.89	2.05	1.37	78.45	107.51	23	564.6	575	0.27	0.038	0.03	8.77	0.02	0.001
7.05	2.05	1.38	79.26	109.01	23	568.6	584	0.27	0.038	0.03	8.77	0.02	0.001
7.22	2.06	1.39	79.83	110.72	24	573.3	596	0.27	0.038	0.03	8.77	0.02	0.001
7.38	2.05	1.38	81.98	112.90	24	578.7	609	0.27	0.037	0.03	8.77	0.02	0.001
7.55	2.04	1.35	85.42	115.51	24	584.6	623	0.27	0.036	0.03	8.77	0.02	0.001
7.71	2.02	1.32	88.82	117.51	25	588.5	632	0.27	0.036	0.03	8.77	0.02	0.001
7.87	2.00	1.30	89.47	116.65	24	587.9	630	0.27	0.038	0.03	8.77	0.02	0.001

:: Post-earthquake settlement of dry sands :: (continued)

Depth (ft)	Ic	Kc	Qc1n	Qc1n,cs	N1,60 (blows)	Vs (ft/s)	Gmax (tsf)	CSR	Shear, γ (%)	Svol,15 (%)	Nc	ev (%)	Settle. (in)
8.04	1.99	1.29	87.25	112.46	23	581.1	612	0.27	0.041	0.03	8.77	0.02	0.001
8.20	1.99	1.28	83.70	107.28	22	571.1	588	0.27	0.047	0.04	8.77	0.03	0.001
8.37	1.98	1.28	80.91	103.39	21	564.0	570	0.27	0.052	0.05	8.77	0.03	0.001
8.53	1.99	1.28	79.26	101.56	21	562.3	566	0.27	0.054	0.05	8.77	0.03	0.001
8.69	1.99	1.29	78.21	100.71	21	563.5	568	0.27	0.056	0.05	8.77	0.04	0.001
8.86	2.00	1.30	77.11	99.96	21	564.6	570	0.27	0.057	0.05	8.77	0.04	0.001
9.02	2.00	1.30	76.21	99.34	21	566.1	573	0.27	0.058	0.06	8.77	0.04	0.001
9.19	2.00	1.30	75.89	99.01	21	568.3	578	0.27	0.058	0.06	8.77	0.04	0.001
9.35	2.00	1.30	76.41	99.04	21	571.5	585	0.27	0.058	0.06	8.77	0.04	0.001
9.51	1.99	1.28	77.27	99.13	21	574.7	592	0.27	0.058	0.06	8.77	0.04	0.001
9.68	1.97	1.27	78.29	99.27	20	577.9	599	0.27	0.058	0.06	8.77	0.04	0.001
9.84	1.97	1.26	78.71	99.11	20	580.3	604	0.27	0.058	0.06	8.77	0.04	0.001
10.01	1.96	1.26	78.69	98.81	20	582.2	608	0.27	0.059	0.06	8.77	0.04	0.001
10.17	1.97	1.26	78.12	98.28	20	583.6	611	0.27	0.059	0.06	8.77	0.04	0.002
10.34	1.97	1.27	77.05	97.54	20	584.5	613	0.27	0.060	0.06	8.77	0.04	0.002
10.50	1.98	1.28	75.45	96.55	20	584.7	613	0.27	0.062	0.06	8.77	0.04	0.002
10.66	2.00	1.30	73.20	95.22	20	583.8	611	0.27	0.064	0.06	8.77	0.04	0.002
10.83	2.03	1.34	69.70	93.42	20	581.3	605	0.27	0.067	0.07	8.77	0.04	0.002
10.99	2.05	1.38	66.61	91.78	20	578.7	599	0.27	0.071	0.07	8.77	0.05	0.002
11.15	2.07	1.40	64.86	90.82	19	578.2	598	0.27	0.073	0.08	8.77	0.05	0.002
11.32	2.06	1.39	65.15	90.71	19	580.7	603	0.27	0.073	0.08	8.77	0.05	0.002
11.48	2.05	1.37	66.68	91.18	19	585.1	613	0.27	0.071	0.07	8.77	0.05	0.002
11.65	2.04	1.35	67.96	91.64	19	589.3	622	0.27	0.070	0.07	8.77	0.05	0.002
11.81	2.02	1.33	69.55	92.47	19	594.4	634	0.27	0.068	0.07	8.77	0.04	0.002
11.97	2.01	1.32	70.78	93.21	19	599.3	646	0.27	0.067	0.07	8.77	0.04	0.002
12.14	2.00	1.30	71.98	93.49	19	602.3	653	0.27	0.067	0.07	8.77	0.04	0.002
12.30	1.99	1.28	72.63	93.28	19	603.8	655	0.27	0.067	0.07	8.77	0.04	0.002
12.47	1.98	1.28	72.45	92.65	19	604.0	655	0.27	0.069	0.07	8.77	0.04	0.002
12.63	1.98	1.28	72.13	92.30	19	605.3	658	0.27	0.069	0.07	8.77	0.05	0.002
12.79	1.99	1.28	71.87	92.07	19	607.1	662	0.27	0.070	0.07	8.77	0.05	0.002
12.96	1.98	1.27	72.68	92.54	19	610.7	671	0.27	0.069	0.07	8.77	0.04	0.002
13.12	1.97	1.26	74.08	93.50	19	615.7	683	0.27	0.067	0.07	8.77	0.04	0.002
13.29	1.96	1.25	75.66	94.35	19	619.9	693	0.27	0.066	0.07	8.77	0.04	0.002
13.45	1.95	1.24	76.38	94.58	19	622.4	699	0.27	0.066	0.07	8.77	0.04	0.002
13.62	1.94	1.23	76.88	94.65	19	624.3	704	0.27	0.066	0.07	8.77	0.04	0.002
13.78	1.93	1.22	77.91	95.09	19	627.1	710	0.27	0.066	0.07	8.77	0.04	0.002
13.94	1.91	1.20	80.31	96.38	19	631.5	721	0.27	0.065	0.07	8.77	0.04	0.002
14.11	1.89	1.18	83.29	98.38	20	637.8	737	0.27	0.063	0.06	8.77	0.04	0.002
14.27	1.88	1.17	84.86	99.60	20	642.9	750	0.27	0.061	0.06	8.77	0.04	0.001
14.44	1.89	1.18	84.37	99.51	20	645.6	757	0.27	0.061	0.06	8.77	0.04	0.001
14.60	1.90	1.19	82.34	98.06	20	644.7	755	0.27	0.063	0.06	8.77	0.04	0.001
14.76	1.91	1.20	79.84	96.00	19	641.5	746	0.27	0.066	0.07	8.77	0.04	0.002
14.93	1.93	1.22	77.30	94.02	19	638.5	738	0.27	0.069	0.07	8.77	0.04	0.002
15.09	1.95	1.24	74.41	92.09	19	636.1	731	0.27	0.071	0.08	8.77	0.04	0.002
15.26	1.97	1.26	71.63	90.50	19	634.8	728	0.27	0.073	0.08	8.77	0.05	0.002
15.42	1.99	1.29	69.19	89.34	19	634.5	727	0.27	0.075	0.08	8.77	0.05	0.002
15.58	2.01	1.31	67.63	88.83	19	635.9	731	0.27	0.075	0.08	8.77	0.05	0.002
15.75	2.02	1.33	66.40	88.46	19	637.5	735	0.27	0.075	0.08	8.77	0.05	0.002

:: Post-earthquake settlement of dry sands :: (continued)

Depth (ft)	Ic	Kc	Qc1n	Qc1n,cs	N1,60 (blows)	Vs (ft/s)	Gmax (tsf)	CSR	Shear, γ (%)	Svol,15 (%)	Nc	ev (%)	Settle. (in)
15.91	2.02	1.33	65.69	87.56	18	636.3	732	0.27	0.077	0.09	8.77	0.05	0.002
16.08	2.02	1.33	64.91	86.39	18	634.1	725	0.27	0.080	0.09	8.77	0.05	0.002
16.24	2.02	1.32	64.73	85.75	18	633.5	723	0.27	0.082	0.09	8.77	0.05	0.002
16.40	2.02	1.32	65.16	86.07	18	636.6	731	0.27	0.081	0.09	8.77	0.05	0.002
16.57	2.00	1.30	66.67	86.92	18	640.9	742	0.27	0.080	0.09	8.77	0.05	0.002
16.73	1.98	1.28	69.13	88.32	18	646.4	756	0.27	0.077	0.09	8.77	0.05	0.002
16.90	1.96	1.25	71.66	89.81	18	651.8	770	0.27	0.075	0.08	8.77	0.05	0.002
17.06	1.95	1.24	73.66	91.23	19	657.5	785	0.26	0.073	0.08	8.77	0.04	0.002
17.22	1.95	1.24	74.63	92.24	19	662.8	799	0.26	0.071	0.08	8.77	0.04	0.002
17.39	1.95	1.24	74.67	92.64	19	666.7	810	0.26	0.070	0.07	8.77	0.04	0.002
17.55	1.96	1.25	74.38	92.69	19	669.4	818	0.26	0.069	0.07	8.77	0.04	0.002
17.72	1.96	1.25	74.03	92.39	19	670.4	820	0.26	0.070	0.07	8.77	0.04	0.002
17.88	1.96	1.26	72.95	91.63	19	670.4	820	0.26	0.071	0.08	8.77	0.04	0.002
18.05	1.98	1.28	70.09	89.72	19	667.4	812	0.26	0.073	0.08	8.77	0.04	0.002
18.21	2.01	1.31	67.07	87.68	18	663.6	801	0.26	0.077	0.09	8.77	0.05	0.002
18.37	2.00	1.29	67.30	87.11	18	662.5	797	0.27	0.079	0.09	8.77	0.05	0.002
18.54	1.96	1.25	71.49	89.26	18	668.4	812	0.27	0.077	0.09	8.77	0.05	0.002
18.70	1.92	1.21	77.17	93.60	19	681.7	849	0.27	0.071	0.08	8.77	0.04	0.002
18.86	1.91	1.20	82.11	98.37	20	698.3	898	0.27	0.064	0.06	8.77	0.03	0.001
19.03	1.91	1.19	84.51	100.87	20	708.3	927	0.27	0.061	0.06	8.77	0.03	0.001
19.19	1.89	1.18	85.73	101.16	20	708.5	927	0.27	0.062	0.06	8.77	0.03	0.001
19.36	1.88	1.17	85.27	99.90	20	704.1	914	0.27	0.065	0.07	8.77	0.03	0.001
19.52	1.87	1.16	85.77	99.59	20	702.6	908	0.27	0.067	0.07	8.77	0.04	0.001
19.68	1.85	1.14	88.80	101.49	20	706.5	919	0.27	0.066	0.07	8.77	0.03	0.001
19.85	1.80	1.11	96.35	106.73	21	716.1	947	0.27	0.063	0.06	8.77	0.03	0.001
20.01	1.73	1.06	110.20	116.44	22	731.6	993	0.27	0.058	0.05	8.77	0.03	0.001
20.18	1.64	1.00	131.42	131.42	24	755.8	1068	0.27	0.051	0.04	8.77	0.02	0.001
20.34	1.57	1.00	154.62	154.62	28	784.9	1164	0.27	0.044	0.03	8.77	0.02	0.001
20.50	1.53	1.00	171.62	171.62	30	810.6	1252	0.27	0.040	0.02	8.77	0.01	0.000
20.67	1.53	1.00	178.24	178.24	31	827.5	1313	0.27	0.037	0.02	8.77	0.01	0.000
20.83	1.53	1.00	181.12	181.12	32	836.3	1346	0.27	0.036	0.02	8.77	0.01	0.000
21.00	1.53	1.00	183.03	183.03	32	839.7	1357	0.27	0.036	0.02	8.77	0.01	0.000
21.16	1.51	1.00	187.71	187.71	33	842.3	1366	0.27	0.036	0.02	8.77	0.01	0.000
21.32	1.51	1.00	189.96	189.96	33	847.8	1386	0.27	0.036	0.02	8.77	0.01	0.000
21.49	1.52	1.00	191.39	191.39	34	858.1	1425	0.27	0.035	0.02	8.77	0.01	0.000
21.65	1.54	1.00	188.82	188.82	33	867.5	1462	0.27	0.034	0.02	8.77	0.01	0.000
21.82	1.56	1.00	185.02	185.02	33	871.5	1478	0.27	0.034	0.02	8.77	0.01	0.000
21.98	1.58	1.00	180.24	180.24	32	869.4	1470	0.27	0.035	0.02	8.77	0.01	0.000
22.15	1.61	1.00	173.45	173.45	31	872.1	1481	0.27	0.035	0.02	8.77	0.01	0.000
22.31	1.63	1.00	167.89	167.89	31	874.2	1490	0.27	0.035	0.02	8.77	0.01	0.000
22.47	1.68	1.02	152.25	155.71	29	858.8	1431	0.28	0.037	0.02	8.77	0.01	0.000
22.64	1.70	1.04	141.43	146.38	27	839.5	1358	0.28	0.041	0.03	8.77	0.01	0.001
22.80	1.74	1.06	127.41	135.25	26	820.0	1287	0.28	0.046	0.03	8.77	0.02	0.001
22.97	1.77	1.09	120.53	131.02	25	819.7	1286	0.28	0.046	0.04	8.77	0.02	0.001
23.13	1.83	1.13	109.51	123.84	24	815.4	1272	0.28	0.048	0.04	8.77	0.02	0.001
23.29	1.84	1.13	108.76	123.28	24	816.2	1274	0.28	0.048	0.04	8.77	0.02	0.001
23.46	1.75	1.07	124.87	133.93	25	827.4	1313	0.28	0.046	0.03	8.77	0.02	0.001
23.62	1.63	1.00	151.35	151.35	28	842.6	1366	0.28	0.044	0.03	8.77	0.01	0.001

:: Post-earthquake settlement of dry sands :: (continued)

Depth (ft)	Ic	Kc	Qc1n	Qc1n,cs	N1,60 (blows)	Vs (ft/s)	Gmax (tsf)	CSR	Shear, γ (%)	Svol,15 (%)	Nc	ev (%)	Settle. (in)
23.79	1.56	1.00	172.96	172.96	31	862.5	1438	0.28	0.041	0.02	8.77	0.01	0.000
23.95	1.54	1.00	185.45	185.45	33	879.2	1502	0.28	0.038	0.02	8.77	0.01	0.000
24.11	1.53	1.00	192.74	192.74	34	895.6	1567	0.28	0.036	0.02	8.77	0.01	0.000
24.28	1.54	1.00	195.79	195.79	35	908.2	1617	0.28	0.035	0.02	8.77	0.01	0.000
24.44	1.54	1.00	196.67	196.67	35	911.0	1629	0.28	0.035	0.02	8.77	0.01	0.000
24.61	1.59	1.00	193.25	193.25	35	937.4	1740	0.28	0.032	0.02	8.77	0.01	0.000
24.77	1.63	1.00	194.92	194.92	36	966.4	1866	0.28	0.029	0.01	8.77	0.01	0.000
24.93	1.74	1.06	177.31	188.33	36	992.9	1985	0.28	0.027	0.01	8.77	0.01	0.000
25.10	1.79	1.10	157.86	173.26	33	972.8	1897	0.28	0.029	0.02	8.77	0.01	0.000
25.26	1.85	1.15	131.57	151.05	30	932.1	1722	0.28	0.034	0.02	8.77	0.01	0.000
25.43	1.85	1.14	123.11	140.61	28	898.9	1585	0.28	0.039	0.03	8.77	0.01	0.000
25.59	1.87	1.16	116.17	135.15	27	890.7	1552	0.28	0.041	0.03	8.77	0.01	0.001
25.75	1.93	1.21	107.07	129.94	26	889.7	1548	0.28	0.041	0.03	8.77	0.01	0.001
25.92	2.00	1.30	94.45	123.15	26	884.4	1528	0.28	0.043	0.03	8.77	0.01	0.001
26.08	2.07	1.40	84.88	118.70	25	879.2	1509	0.28	0.044	0.03	8.77	0.01	0.001
26.25	2.11	1.47	80.23	117.62	26	880.6	1514	0.28	0.044	0.03	8.77	0.01	0.001
26.41	2.11	1.47	81.36	119.70	26	890.5	1553	0.28	0.043	0.03	8.77	0.01	0.001
26.57	2.11	1.47	84.42	123.76	27	907.3	1620	0.28	0.040	0.03	8.77	0.01	0.000
26.74	2.11	1.46	87.18	127.68	28	923.6	1687	0.28	0.038	0.03	8.77	0.01	0.000
26.90	2.09	1.43	91.99	131.76	28	938.7	1749	0.28	0.037	0.02	8.77	0.01	0.000
27.07	2.06	1.38	100.24	138.65	30	961.5	1846	0.28	0.034	0.02	8.77	0.01	0.000
27.23	2.03	1.34	109.91	147.36	31	989.0	1967	0.28	0.031	0.02	8.77	0.01	0.000
27.39	2.05	1.38	108.63	149.46	0	0.0	0	0.28	0.000	0.00	0.00	0.00	0.000
27.56	2.12	1.49	95.29	142.03	0	0.0	0	0.28	0.000	0.00	0.00	0.00	0.000
27.72	2.22	1.70	76.22	129.91	0	0.0	0	0.28	0.000	0.00	0.00	0.00	0.000
27.89	2.30	1.94	61.32	119.20	0	0.0	0	0.28	0.000	0.00	0.00	0.00	0.000
28.05	2.35	2.13	52.36	111.72	0	0.0	0	0.28	0.000	0.00	0.00	0.00	0.000
28.21	2.42	2.38	45.77	108.97	0	0.0	0	0.28	0.000	0.00	0.00	0.00	0.000
28.38	2.49	2.73	39.94	109.06	0	0.0	0	0.28	0.000	0.00	0.00	0.00	0.000
28.54	2.54	2.99	35.89	107.38	0	0.0	0	0.28	0.000	0.00	0.00	0.00	0.000
28.71	2.52	2.89	36.18	104.41	27	826.3	1309	0.28	0.067	0.05	8.77	0.02	0.001
28.87	2.46	2.58	39.00	100.71	25	822.7	1294	0.29	0.069	0.05	8.77	0.02	0.001
29.04	2.41	2.35	42.41	99.69	25	827.7	1311	0.29	0.068	0.05	8.77	0.02	0.001
29.20	2.40	2.30	43.26	99.48	24	830.3	1320	0.29	0.068	0.05	8.77	0.02	0.001
29.36	2.41	2.33	43.10	100.56	25	835.7	1339	0.29	0.066	0.05	8.77	0.02	0.001
29.53	2.43	2.42	42.66	103.25	26	846.0	1377	0.29	0.064	0.05	8.77	0.02	0.001
29.69	2.45	2.54	41.80	106.10	27	855.8	1414	0.29	0.061	0.04	8.77	0.02	0.001
29.86	2.50	2.77	39.47	109.32	28	863.4	1443	0.29	0.059	0.04	8.77	0.02	0.001
30.02	2.56	3.08	36.08	111.24	29	863.8	1445	0.29	0.060	0.04	8.77	0.01	0.001
30.18	2.60	3.34	33.66	112.38	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
30.35	2.61	3.37	32.92	111.00	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
30.51	2.62	3.43	32.05	109.79	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
30.68	2.66	3.73	29.25	109.11	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
30.84	2.73	4.23	25.78	109.07	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
31.00	2.77	4.53	24.21	109.60	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
31.17	2.77	4.50	24.55	110.41	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
31.33	2.78	4.65	24.09	112.11	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
31.50	2.83	5.01	22.19	111.12	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000

:: Post-earthquake settlement of dry sands :: (continued)

Depth (ft)	Ic	Kc	Qc1n	Qc1n,cs	N1,60 (blows)	Vs (ft/s)	Gmax (tsf)	CSR	Shear, γ (%)	Svol,15 (%)	Nc	ev (%)	Settle. (in)
31.66	2.88	5.46	19.80	108.16	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
31.82	2.86	5.32	18.69	99.49	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
31.99	2.84	5.13	18.32	94.06	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
32.15	2.82	5.00	18.56	92.73	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
32.32	2.84	5.13	19.24	98.77	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
32.48	2.87	5.39	19.21	103.58	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
32.64	2.90	5.68	18.38	104.35	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
32.81	2.94	6.08	16.93	102.93	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
32.97	2.95	6.18	16.27	100.61	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
33.14	2.94	6.10	16.36	99.80	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
33.30	2.93	5.96	16.80	100.18	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
33.47	2.92	5.93	17.04	100.98	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
33.63	2.92	5.92	17.13	101.44	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
33.79	2.92	5.85	17.36	101.50	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
33.96	2.88	5.46	18.78	102.65	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
34.12	2.82	4.94	21.34	105.47	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
34.28	2.79	4.68	23.50	110.05	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
34.45	2.79	4.72	23.97	113.20	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
34.61	2.79	4.71	24.32	114.61	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
34.78	2.76	4.42	26.16	115.66	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
34.94	2.71	4.07	29.22	118.98	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
35.10	2.63	3.51	32.79	115.07	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
35.27	2.57	3.12	36.30	113.29	30	934.2	1713	0.29	0.056	0.03	8.77	0.01	0.000
35.43	2.54	2.97	37.28	110.64	29	929.0	1691	0.29	0.058	0.04	8.77	0.01	0.000
35.60	2.57	3.17	35.81	113.59	30	938.1	1728	0.29	0.056	0.03	8.77	0.01	0.000
35.76	2.61	3.40	32.67	110.98	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
35.92	2.62	3.46	30.85	106.66	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
36.09	2.62	3.42	30.88	105.69	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
36.25	2.56	3.10	34.86	108.23	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
36.42	2.46	2.58	43.42	112.02	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
36.58	2.36	2.15	53.50	114.96	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
36.74	2.30	1.95	58.92	114.96	0	0.0	0	0.29	0.000	0.00	0.00	0.00	0.000
36.91	2.27	1.87	60.59	113.16	26	982.7	1916	0.29	0.050	0.04	8.77	0.01	0.000
37.07	2.27	1.85	60.33	111.31	26	976.5	1888	0.29	0.051	0.04	8.77	0.01	0.000
37.24	2.25	1.81	61.89	111.93	26	981.1	1908	0.29	0.051	0.04	8.77	0.01	0.000
37.40	2.24	1.78	63.36	112.84	26	986.8	1933	0.29	0.050	0.04	8.77	0.01	0.000
37.57	2.24	1.77	63.62	112.76	26	988.1	1939	0.29	0.050	0.04	8.77	0.01	0.000
37.73	2.25	1.79	62.28	111.35	26	983.6	1918	0.29	0.051	0.04	8.77	0.01	0.000
37.89	2.26	1.84	59.64	109.80	25	978.2	1894	0.29	0.052	0.04	8.77	0.01	0.000
38.06	2.28	1.90	57.40	108.81	25	975.1	1880	0.29	0.053	0.04	8.77	0.01	0.000
38.22	2.30	1.94	56.14	108.64	26	975.5	1881	0.28	0.054	0.04	8.77	0.01	0.000
38.39	2.31	1.97	55.33	108.84	26	977.7	1890	0.28	0.053	0.04	8.77	0.01	0.000
38.55	2.33	2.05	53.11	108.82	0	0.0	0	0.28	0.000	0.00	0.00	0.00	0.000
38.71	2.38	2.24	48.54	108.60	0	0.0	0	0.28	0.000	0.00	0.00	0.00	0.000
38.88	2.44	2.50	44.13	110.40	0	0.0	0	0.28	0.000	0.00	0.00	0.00	0.000
39.04	2.50	2.75	41.85	115.05	0	0.0	0	0.28	0.000	0.00	0.00	0.00	0.000
39.21	2.50	2.77	43.05	119.30	31	1013.8	2051	0.28	0.048	0.03	8.77	0.01	0.000
39.37	2.46	2.59	45.99	118.93	0	0.0	0	0.28	0.000	0.00	0.00	0.00	0.000

:: Post-earthquake settlement of dry sands :: (continued)

Depth (ft)	Ic	Kc	Qc1n	Qc1n,cs	N1,60 (blows)	Vs (ft/s)	Gmax (tsf)	CSR	Shear, γ (%)	Svol,15 (%)	Nc	ev (%)	Settle. (in)
39.53	2.39	2.26	50.88	114.78	0	0.0	0	0.28	0.000	0.00	0.00	0.00	0.000
39.70	2.29	1.90	59.18	112.62	0	0.0	0	0.28	0.000	0.00	0.00	0.00	0.000
39.86	2.18	1.63	72.67	118.16	0	0.0	0	0.28	0.000	0.00	0.00	0.00	0.000
40.03	2.10	1.45	89.61	130.07	0	0.0	0	0.28	0.000	0.00	0.00	0.00	0.000
40.19	2.06	1.38	102.21	141.11	30	1110.7	2520	0.28	0.036	0.02	8.77	0.01	0.000
40.35	2.05	1.36	107.33	146.34	31	1129.8	2619	0.28	0.035	0.02	8.77	0.01	0.000
40.52	2.09	1.43	99.12	141.84	31	1123.8	2587	0.28	0.035	0.02	8.77	0.01	0.000
40.68	2.15	1.55	84.36	130.99	29	1091.9	2423	0.28	0.039	0.03	8.77	0.01	0.000
40.85	2.24	1.76	67.26	118.26	27	1045.2	2194	0.28	0.045	0.03	8.77	0.01	0.000
41.01	2.29	1.92	56.65	108.92	26	1004.8	2005	0.28	0.053	0.04	8.77	0.01	0.000
41.17	2.30	1.94	54.04	104.78	25	986.9	1924	0.28	0.056	0.04	8.77	0.01	0.000
41.34	2.28	1.90	55.07	104.37	24	986.7	1923	0.28	0.057	0.04	8.77	0.01	0.000
41.50	2.26	1.82	56.98	103.91	24	986.1	1920	0.28	0.057	0.05	8.77	0.01	0.000
41.67	2.26	1.82	56.16	101.99	24	978.5	1886	0.28	0.059	0.05	8.77	0.01	0.000
41.83	2.27	1.85	54.47	100.59	23	973.2	1862	0.28	0.061	0.05	8.77	0.01	0.000
41.99	2.33	2.05	48.75	99.78	24	969.5	1846	0.28	0.062	0.05	8.77	0.01	0.000
42.16	2.30	1.96	52.18	102.22	24	983.7	1908	0.28	0.059	0.05	8.77	0.01	0.000
42.32	2.21	1.70	63.68	108.29	25	1012.8	2039	0.28	0.053	0.04	8.77	0.01	0.000
42.49	2.02	1.33	91.86	122.44	26	1046.4	2196	0.28	0.047	0.03	8.77	0.01	0.000
42.65	1.89	1.18	118.82	140.20	28	1070.1	2311	0.28	0.044	0.03	8.77	0.01	0.000
42.81	1.76	1.08	145.68	157.49	30	1071.5	2318	0.28	0.044	0.03	8.77	0.01	0.000
42.98	1.69	1.03	163.95	168.66	31	1069.3	2307	0.28	0.044	0.03	8.77	0.01	0.000
43.14	1.65	1.00	168.51	169.06	31	1053.6	2231	0.28	0.047	0.03	8.77	0.01	0.000
43.31	1.67	1.02	153.13	156.26	29	1025.5	2097	0.28	0.052	0.03	8.77	0.01	0.000
43.47	1.74	1.06	129.98	138.41	26	997.3	1967	0.28	0.058	0.04	8.77	0.01	0.000
43.63	1.94	1.23	94.39	115.94	24	999.5	1976	0.28	0.057	0.05	8.77	0.01	0.000
43.80	2.16	1.58	67.25	106.56	24	1013.6	2039	0.28	0.055	0.04	8.77	0.01	0.000
43.96	2.46	2.58	42.64	110.11	28	1028.1	2105	0.28	0.052	0.04	8.77	0.01	0.000
44.13	2.42	2.39	48.07	114.67	28	1054.9	2231	0.28	0.048	0.03	8.77	0.01	0.000
44.29	2.16	1.58	80.47	127.12	28	1111.4	2513	0.28	0.040	0.03	8.77	0.01	0.000
44.45	1.84	1.14	140.06	159.60	31	1132.8	2626	0.28	0.038	0.02	8.77	0.00	0.000
44.62	1.59	1.00	205.26	205.26	37	1130.4	2613	0.28	0.038	0.02	8.77	0.00	0.000
44.78	1.30	1.00	266.63	266.63	44	1072.8	2304	0.28	0.046	0.02	8.77	0.00	0.000
44.95	1.10	1.00	310.39	310.39	48	1017.5	2021	0.28	0.057	0.02	8.77	0.00	0.000
45.11	0.88	1.00	392.96	392.96	57	998.1	1874	0.27	0.065	0.02	8.77	0.00	0.000

Total estimated settlement: 0.17

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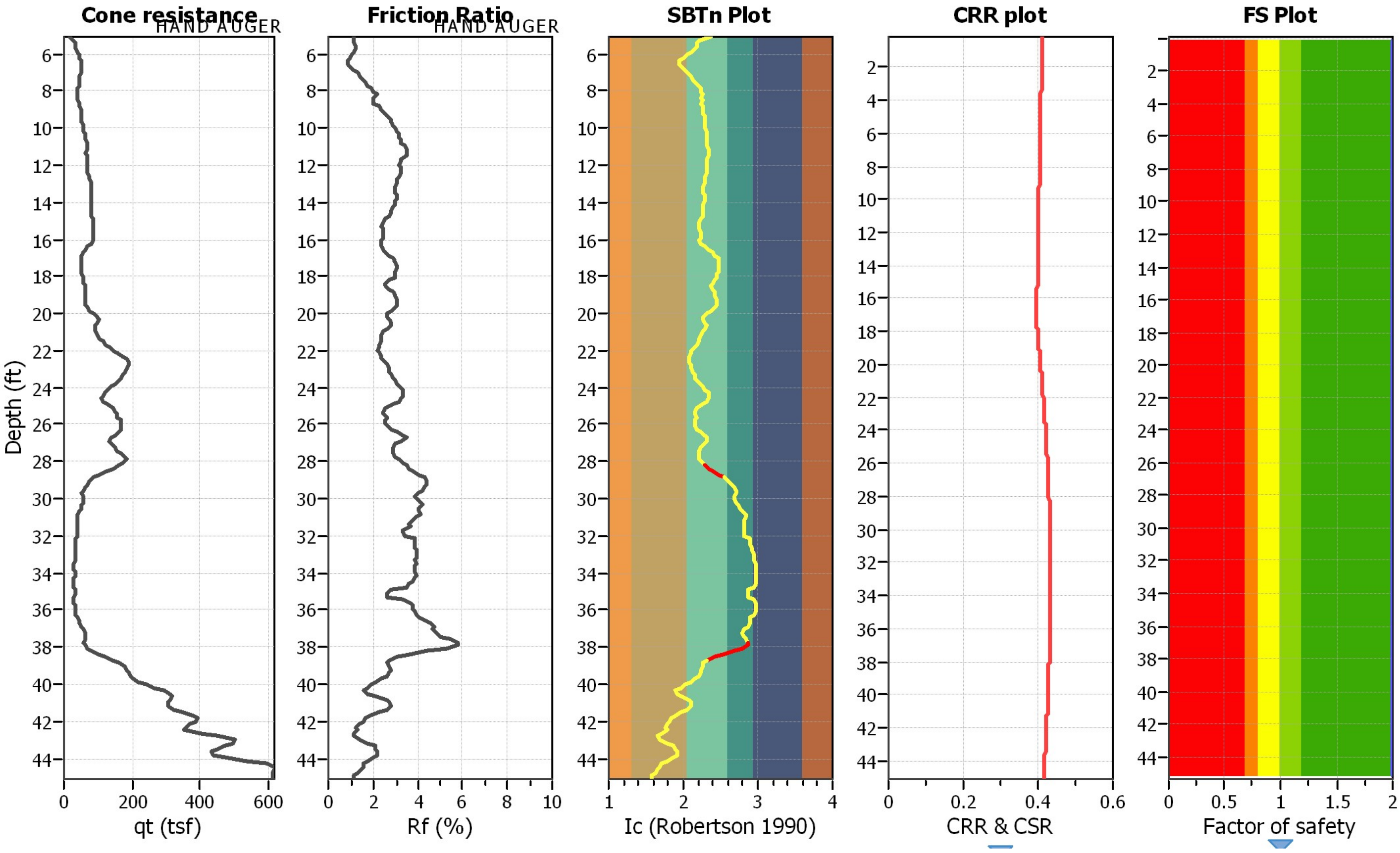
LIQUEFACTION ANALYSIS REPORT

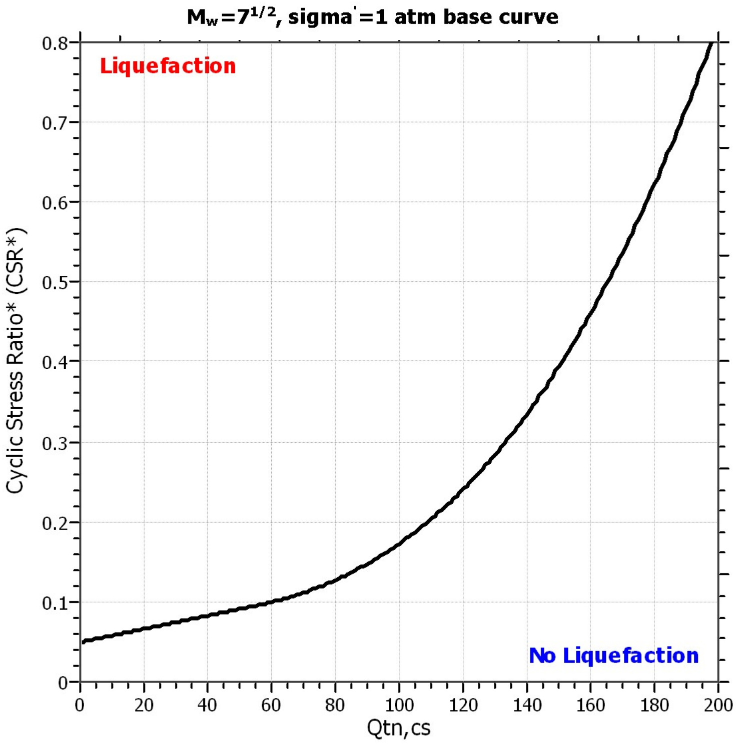
Project title : Colfax Charter Elementary School - MCE Analysis **Location : A8326-06-69A**

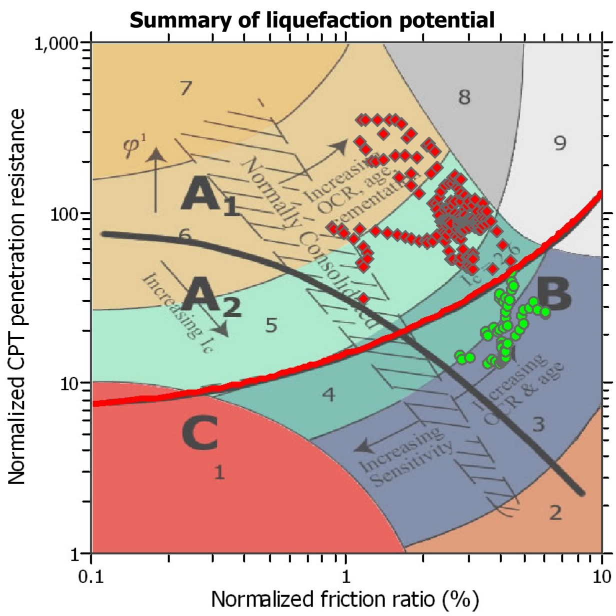
CPT file : CPT-01

Input parameters and analysis data

Analysis method:	NCEER (1998)	G.W.T. (in-situ):	50.00 ft	Use fill:	No	Clay like behavior applied:	Sands only
Fines correction method:	NCEER (1998)	G.W.T. (earthq.):	50.00 ft	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w:	6.74	Ic cut-off value:	2.60	Trans. detect. applied:	Yes	MSF method:	Method based
Peak ground acceleration:	0.83	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

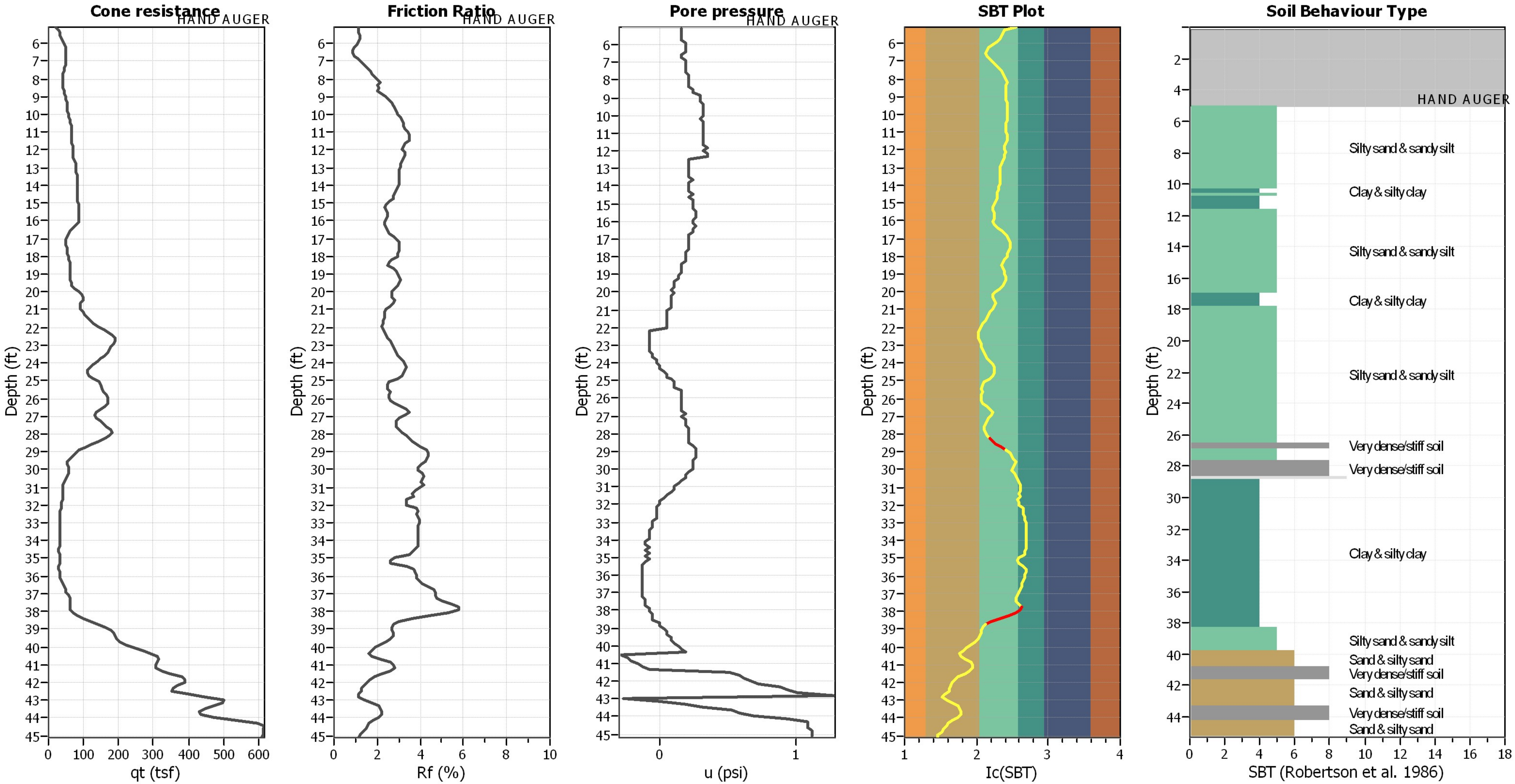






Zone A_1: Cyclic liquefaction likely depending on size and duration of cyclic loading
Zone A_2: Cyclic liquefaction and strength loss likely depending on loading and ground geometry
Zone B: Liquefaction and post-earthquake strength loss unlikely, check cyclic softening
Zone C: Cyclic liquefaction and strength loss possible depending on soil plasticity, brittleness/sensitivity, strain to peak undrained strength and ground geometry

CPT basic interpretation plots



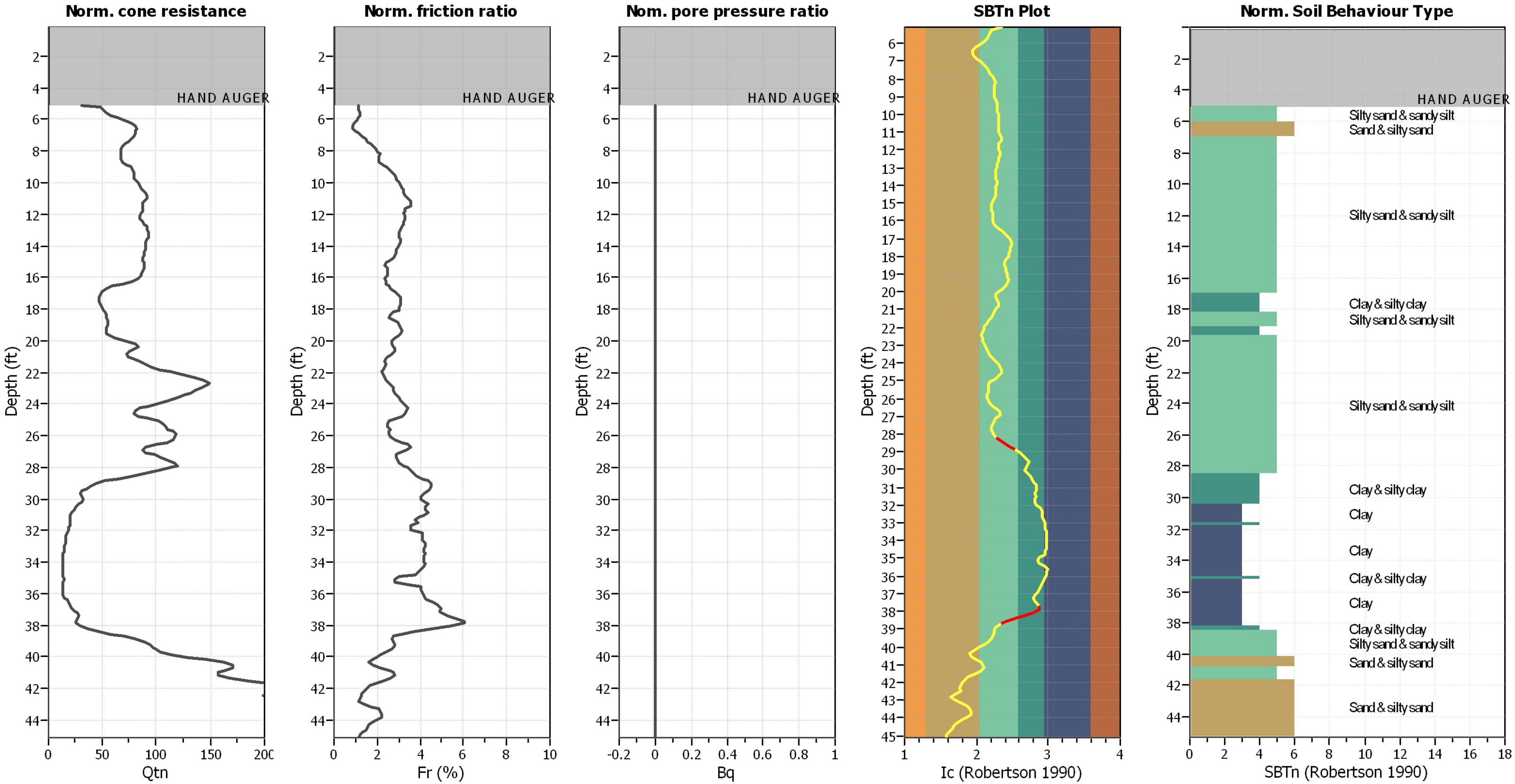
Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	50.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.74	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.83	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	50.00 ft	Fill height:	N/A	Limit depth:	N/A

SBT legend

1. Sensitive fine grained	4. Clayey silt to silty	7. Gravely sand to sand
2. Organic material	5. Silty sand to sandy silt	8. Very stiff sand to
3. Clay to silty clay	6. Clean sand to silty sand	9. Very stiff fine grained

CPT basic interpretation plots (normalized)



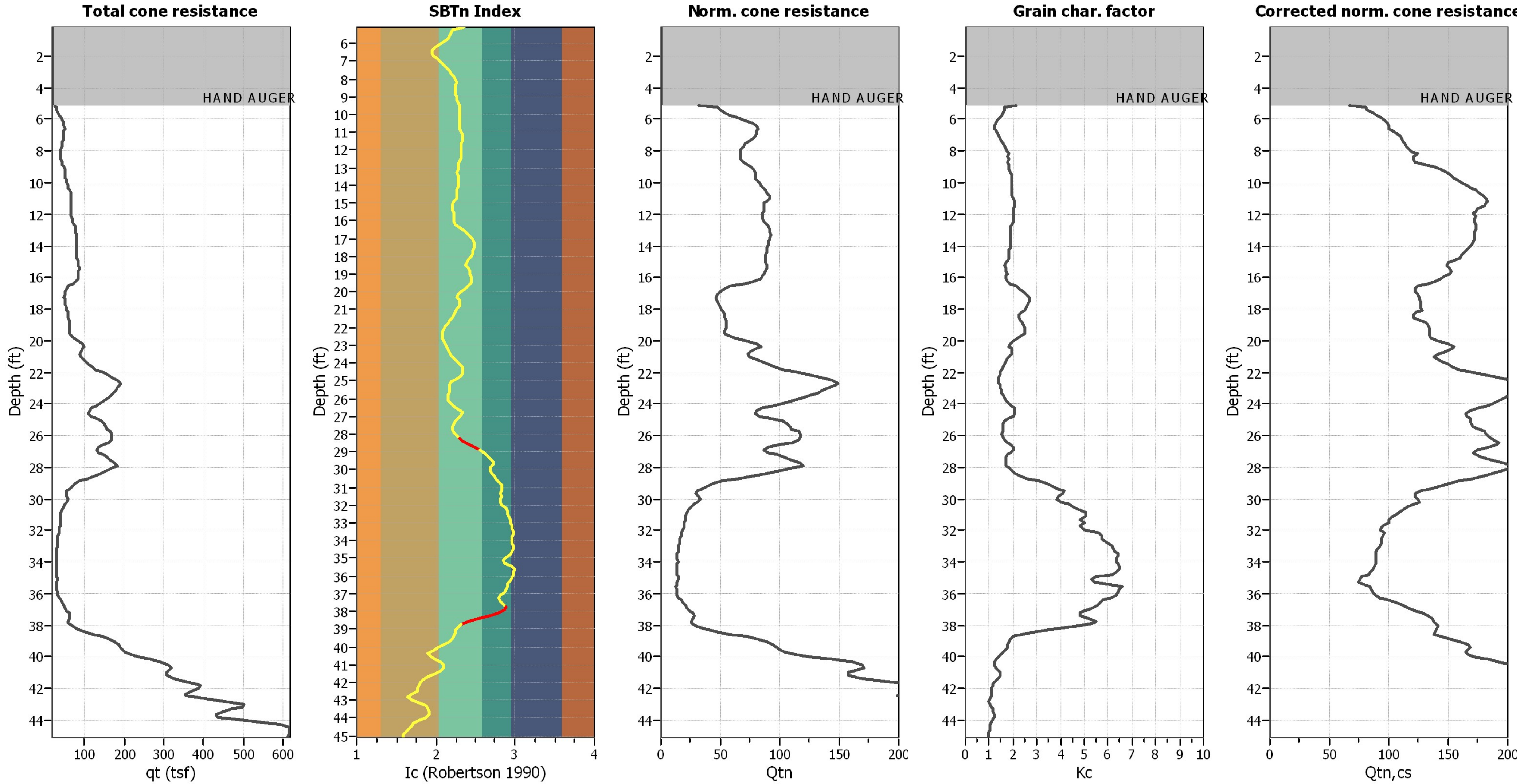
Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	50.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.74	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.83	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	50.00 ft	Fill height:	N/A	Limit depth:	N/A

SBTn legend

1. Sensitive fine grained
2. Organic material
3. Clay to silty clay
4. Clayey silt to silty
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to
9. Very stiff fine grained

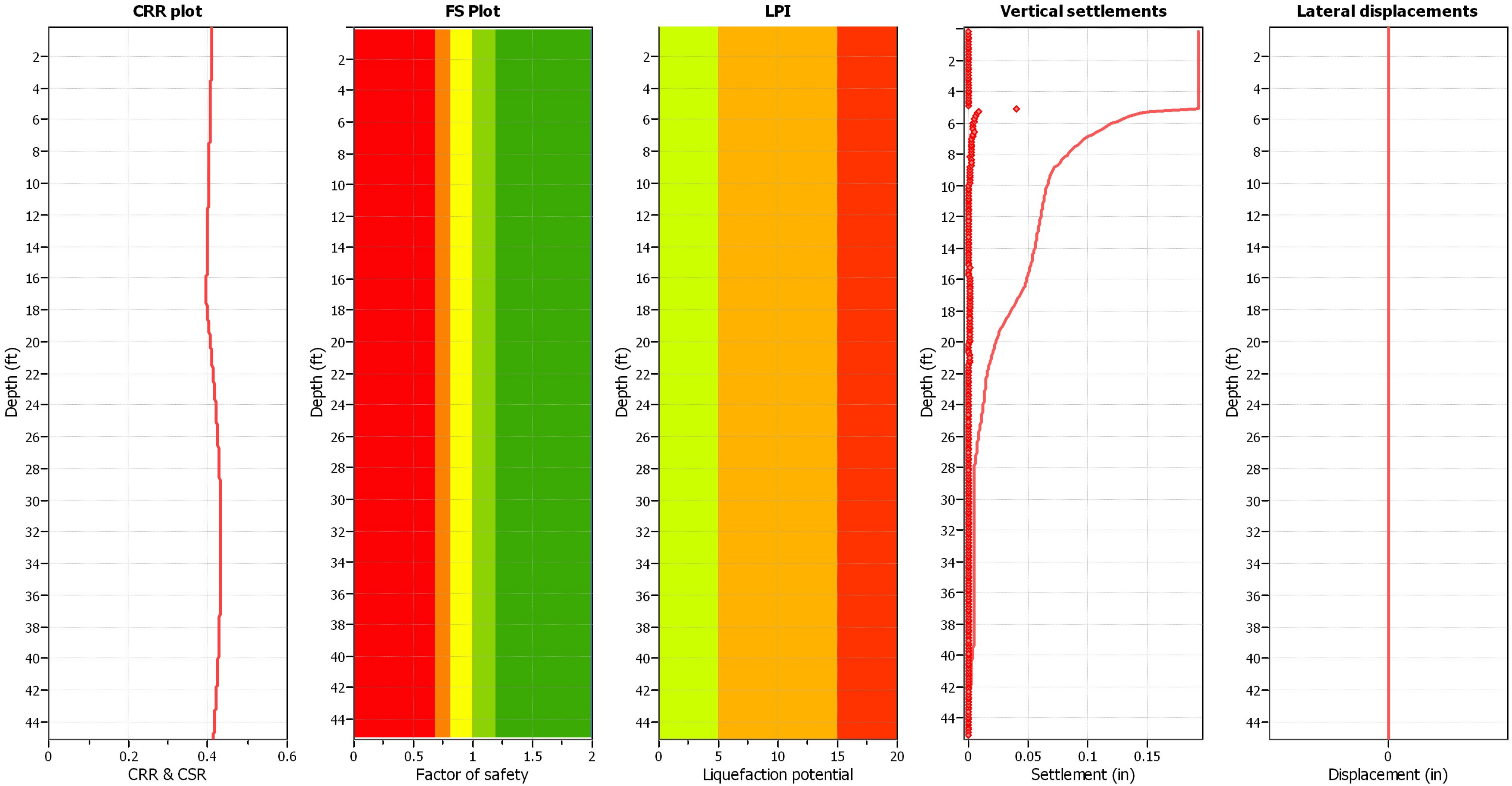
Liquefaction analysis overall plots (intermediate results)



Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	50.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.74	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.83	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	50.00 ft	Fill height:	N/A	Limit depth:	N/A

Liquefaction analysis overall plots



Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	50.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.74	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.83	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	50.00 ft	Fill height:	N/A	Limit depth:	N/A

F.S. color scheme

- Almost certain it will liquefy
- Very likely to liquefy
- Liquefaction and no liq. are equally likely
- Unlike to liquefy
- Almost certain it will not liquefy

LPI color scheme

- Very high risk
- High risk
- Low risk

:: Field input data ::

Point ID	Depth (ft)	q_c (tsf)	f_s (tsf)	u (tsf)	Fines content (%)	Unit weight (pcf)
1	0.16	-9999.00	-9999.00	-9999.00	N/A	120.90
2	0.33	-9999.00	-9999.00	-9999.00	N/A	120.90
3	0.49	-9999.00	-9999.00	-9999.00	N/A	120.90
4	0.66	-9999.00	-9999.00	-9999.00	N/A	120.90
5	0.82	-9999.00	-9999.00	-9999.00	N/A	120.90
6	0.98	-9999.00	-9999.00	-9999.00	N/A	120.90
7	1.15	-9999.00	-9999.00	-9999.00	N/A	120.90
8	1.31	-9999.00	-9999.00	-9999.00	N/A	120.90
9	1.48	-9999.00	-9999.00	-9999.00	N/A	120.90
10	1.64	-9999.00	-9999.00	-9999.00	N/A	120.90
11	1.80	-9999.00	-9999.00	-9999.00	N/A	120.90
12	1.97	-9999.00	-9999.00	-9999.00	N/A	120.90
13	2.13	-9999.00	-9999.00	-9999.00	N/A	120.90
14	2.30	-9999.00	-9999.00	-9999.00	N/A	120.90
15	2.46	-9999.00	-9999.00	-9999.00	N/A	120.90
16	2.63	-9999.00	-9999.00	-9999.00	N/A	120.90
17	2.79	-9999.00	-9999.00	-9999.00	N/A	120.90
18	2.95	-9999.00	-9999.00	-9999.00	N/A	120.90
19	3.12	-9999.00	-9999.00	-9999.00	N/A	120.90
20	3.28	-9999.00	-9999.00	-9999.00	N/A	120.90
21	3.44	-9999.00	-9999.00	-9999.00	N/A	120.90
22	3.61	-9999.00	-9999.00	-9999.00	N/A	120.90
23	3.77	-9999.00	-9999.00	-9999.00	N/A	120.90
24	3.94	-9999.00	-9999.00	-9999.00	N/A	120.90
25	4.10	-9999.00	-9999.00	-9999.00	N/A	120.90
26	4.26	-9999.00	-9999.00	-9999.00	N/A	120.90
27	4.43	-9999.00	-9999.00	-9999.00	N/A	120.90
28	4.59	-9999.00	-9999.00	-9999.00	N/A	120.90
29	4.76	-9999.00	-9999.00	-9999.00	N/A	120.90
30	4.92	-9999.00	-9999.00	-9999.00	N/A	120.90
31	5.08	29.18	0.37	0.16	24.74	106.65
32	5.25	29.89	0.31	0.16	19.08	110.89
33	5.41	31.71	0.37	0.16	18.40	111.26
34	5.58	33.65	0.41	0.16	18.07	112.28
35	5.74	36.43	0.44	0.16	17.22	112.99
36	5.91	39.52	0.46	0.18	15.94	113.50
37	6.07	43.37	0.46	0.18	14.34	113.89
38	6.23	48.71	0.47	0.18	12.76	114.05
39	6.40	51.80	0.45	0.18	11.78	113.97
40	6.56	50.65	0.43	0.16	11.52	113.91
41	6.73	50.56	0.46	0.16	12.23	114.49
42	6.89	50.39	0.56	0.18	13.37	115.57
43	7.05	49.97	0.66	0.18	14.68	116.47
44	7.22	48.06	0.69	0.18	15.93	116.97
45	7.38	45.76	0.72	0.18	17.01	117.17
46	7.55	44.55	0.74	0.18	18.02	117.36
47	7.71	43.57	0.77	0.21	18.91	117.53
48	7.87	42.02	0.79	0.21	19.85	117.79

:: Field input data :: (continued)

Point ID	Depth (ft)	q_c (tsf)	f_s (tsf)	u (tsf)	Fines content (%)	Unit weight (pcf)
49	8.04	41.43	0.84	0.21	20.36	118.22
50	8.20	44.10	0.91	0.21	21.15	118.76
51	8.37	41.99	0.99	0.21	20.69	118.28
52	8.53	40.28	0.67	0.24	20.74	118.31
53	8.69	44.04	0.92	0.24	20.31	118.63
54	8.86	46.85	1.07	0.29	20.74	120.01
55	9.02	49.30	1.16	0.29	20.96	120.94
56	9.19	51.38	1.29	0.29	21.28	121.70
57	9.35	52.39	1.41	0.32	21.80	122.36
58	9.51	52.89	1.49	0.32	22.23	122.78
59	9.68	53.51	1.52	0.32	22.44	123.11
60	9.84	55.08	1.59	0.32	22.44	123.49
61	10.01	57.56	1.69	0.32	22.49	124.03
62	10.17	59.52	1.83	0.29	22.64	124.61
63	10.34	61.18	1.94	0.32	22.76	125.11
64	10.50	63.15	2.01	0.32	22.77	125.50
65	10.66	64.83	2.08	0.32	22.63	125.90
66	10.83	67.89	2.21	0.32	22.70	126.33
67	10.99	68.82	2.33	0.32	23.16	126.65
68	11.15	66.21	2.37	0.32	23.75	126.71
69	11.32	65.03	2.29	0.32	24.05	126.65
70	11.48	66.85	2.30	0.32	24.00	126.68
71	11.65	67.86	2.37	0.32	23.17	126.44
72	11.81	69.27	2.02	0.34	22.97	126.41
73	11.97	69.04	2.26	0.32	22.94	126.30
74	12.14	67.53	2.27	0.34	23.44	126.51
75	12.30	69.02	2.22	0.34	23.41	126.58
76	12.47	71.09	2.30	0.21	22.96	126.75
77	12.63	74.16	2.35	0.21	22.53	127.03
78	12.79	77.28	2.40	0.21	22.08	127.21
79	12.96	78.45	2.40	0.21	21.75	127.28
80	13.12	79.02	2.37	0.21	21.56	127.30
81	13.29	80.39	2.39	0.21	21.47	127.38
82	13.45	81.29	2.45	0.21	21.53	127.50
83	13.62	81.09	2.47	0.24	21.71	127.57
84	13.78	80.84	2.46	0.21	21.79	127.55
85	13.94	81.09	2.43	0.21	21.74	127.49
86	14.11	81.54	2.40	0.21	21.56	127.43
87	14.27	82.64	2.39	0.21	21.34	127.37
88	14.44	83.23	2.35	0.24	21.18	127.28
89	14.60	82.70	2.30	0.21	21.08	127.15
90	14.76	82.53	2.26	0.24	21.00	127.05
91	14.93	83.29	2.25	0.24	20.13	126.57
92	15.09	85.08	1.85	0.24	19.53	126.36
93	15.26	86.54	2.05	0.24	19.10	126.28
94	15.42	87.50	2.15	0.27	19.51	126.68
95	15.58	87.81	2.17	0.27	19.86	126.78
96	15.75	85.31	2.15	0.27	20.01	126.69

:: Field input data :: (continued)

Point ID	Depth (ft)	q_c (tsf)	f_s (tsf)	u (tsf)	Fines content (%)	Unit weight (pcf)
97	15.91	85.20	2.08	0.24	19.88	126.49
98	16.08	86.99	2.01	0.24	19.74	126.15
99	16.24	82.58	1.89	0.27	20.57	125.51
100	16.40	68.51	1.70	0.24	22.19	124.43
101	16.57	59.75	1.44	0.24	24.38	123.37
102	16.73	55.51	1.42	0.21	25.98	122.74
103	16.90	52.95	1.45	0.21	27.66	122.67
104	17.06	50.51	1.48	0.21	29.07	122.73
105	17.22	49.47	1.51	0.21	29.83	122.85
106	17.39	50.87	1.54	0.21	29.93	123.02
107	17.55	52.02	1.57	0.21	29.70	123.19
108	17.72	52.58	1.59	0.18	29.31	123.36
109	17.88	54.86	1.61	0.18	28.90	123.58
110	18.05	56.69	1.67	0.18	28.37	123.92
111	18.21	59.21	1.75	0.18	26.83	123.54
112	18.37	60.42	1.30	0.16	25.99	123.42
113	18.54	61.15	1.56	0.16	25.63	123.44
114	18.70	62.22	1.74	0.16	26.62	124.27
115	18.86	63.45	1.83	0.16	27.18	124.79
116	19.03	63.90	1.91	0.13	27.55	125.09
117	19.19	63.79	1.96	0.13	27.98	125.25
118	19.36	63.15	1.96	0.11	28.21	125.29
119	19.52	63.51	1.95	0.11	27.98	125.32
120	19.68	66.09	1.95	0.11	27.04	125.52
121	19.85	71.97	2.03	0.08	25.27	126.10
122	20.01	83.79	2.24	0.11	22.93	127.18
123	20.18	101.40	2.59	0.08	21.56	128.31
124	20.34	104.63	2.86	0.08	21.36	128.94
125	20.50	97.89	2.80	0.08	22.21	128.83
126	20.67	90.81	2.56	0.08	22.82	128.17
127	20.83	87.89	2.30	0.08	22.49	127.51
128	21.00	91.38	2.21	0.05	21.47	127.24
129	21.16	97.53	2.25	0.05	20.51	127.56
130	21.32	104.13	2.46	0.05	19.73	128.20
131	21.49	112.72	2.66	0.05	19.09	128.92
132	21.65	120.56	2.83	0.05	18.16	129.40
133	21.82	128.17	2.81	0.05	17.25	130.01
134	21.98	141.46	3.16	0.05	16.32	130.80
135	22.15	157.25	3.54	-0.08	15.74	131.88
136	22.31	170.14	3.98	-0.08	15.24	132.92
137	22.47	184.86	4.42	-0.08	15.02	133.84
138	22.64	194.58	4.84	-0.08	15.16	134.51
139	22.80	191.63	5.07	-0.08	15.60	134.80
140	22.97	185.22	4.99	-0.08	16.30	134.74
141	23.13	176.23	4.88	-0.08	16.82	134.53
142	23.29	173.06	4.80	-0.08	17.33	134.39
143	23.46	170.25	4.86	-0.05	17.86	134.28
144	23.62	162.72	4.80	-0.05	18.79	134.09

:: Field input data :: (continued)

Point ID	Depth (ft)	q_c (tsf)	f_s (tsf)	u (tsf)	Fines content (%)	Unit weight (pcf)
145	23.79	149.32	4.64	-0.03	19.89	133.72
146	23.95	140.45	4.45	-0.03	21.14	133.34
147	24.11	132.58	4.40	0.00	22.55	132.75
148	24.28	114.86	3.97	0.00	23.73	132.10
149	24.44	110.81	3.66	0.03	24.20	131.44
150	24.61	113.79	3.56	0.05	24.09	131.22
151	24.77	112.44	3.67	0.05	23.15	131.44
152	24.93	127.16	3.80	0.08	21.40	131.83
153	25.10	146.57	3.83	0.11	18.59	131.91
154	25.26	159.16	3.38	0.11	17.99	132.06
155	25.43	142.61	3.90	0.11	17.75	132.25
156	25.59	157.05	4.03	0.16	18.12	132.83
157	25.75	169.63	4.21	0.16	17.44	133.21
158	25.92	168.12	4.34	0.16	17.31	133.40
159	26.08	166.71	4.28	0.16	17.67	133.65
160	26.25	170.67	4.64	0.16	18.42	134.09
161	26.41	167.81	5.17	0.16	20.04	134.52
162	26.57	149.72	5.29	0.16	21.98	134.41
163	26.74	134.94	4.81	0.16	23.56	133.72
164	26.90	126.26	4.24	0.18	23.25	132.90
165	27.07	134.63	3.95	0.16	21.72	132.64
166	27.23	150.90	4.19	0.18	20.40	132.97
167	27.39	156.26	4.50	0.18	19.75	133.57
168	27.56	163.45	4.74	0.18	19.39	134.32
169	27.72	181.06	5.34	0.21	19.15	135.18
170	27.89	189.55	5.96	0.21	19.62	135.82
171	28.05	176.57	6.07	0.21	20.82	135.79
172	28.21	156.91	5.53	0.21	22.44	135.26
173	28.38	144.80	5.23	0.21	24.06	134.42
174	28.54	128.65	4.79	0.21	26.41	133.50
175	28.71	103.96	4.30	0.24	29.61	132.27
176	28.87	85.70	3.73	0.27	33.30	130.98
177	29.04	76.38	3.37	0.27	36.02	129.73
178	29.20	68.43	2.98	0.27	38.02	128.66
179	29.36	61.71	2.68	0.27	39.77	127.51
180	29.53	55.62	2.33	0.24	41.62	126.38
181	29.69	49.97	2.09	0.24	41.21	125.76
182	29.86	58.01	2.15	0.24	39.80	125.92
183	30.02	63.12	2.38	0.24	39.28	126.44
184	30.18	57.58	2.47	0.21	40.75	126.40
185	30.35	51.85	2.20	0.18	42.88	125.75
186	30.51	49.35	1.96	0.18	44.01	124.90
187	30.68	46.91	1.88	0.16	45.66	124.12
188	30.84	41.01	1.73	0.13	47.79	123.58
189	31.00	39.77	1.69	0.11	47.88	122.86
190	31.17	42.22	1.44	0.11	47.28	122.54
191	31.33	40.81	1.52	0.08	46.39	122.22
192	31.50	40.39	1.48	0.05	47.61	122.21

:: Field input data :: (continued)

Point ID	Depth (ft)	q_c (tsf)	f_s (tsf)	u (tsf)	Fines content (%)	Unit weight (pcf)
193	31.66	39.27	1.47	0.03	46.20	121.38
194	31.82	39.61	1.06	0.00	46.75	121.15
195	31.99	37.92	1.39	0.00	47.64	120.99
196	32.15	36.40	1.42	-0.03	51.26	121.40
197	32.32	33.93	1.35	-0.03	52.25	121.16
198	32.48	34.75	1.29	-0.03	52.33	121.02
199	32.64	35.79	1.35	-0.03	52.75	121.06
200	32.81	33.51	1.38	-0.03	53.92	121.04
201	32.97	32.58	1.31	-0.05	54.89	120.75
202	33.14	32.67	1.23	-0.05	55.22	120.46
203	33.30	31.74	1.25	-0.05	55.68	120.24
204	33.47	30.87	1.22	-0.08	56.37	120.16
205	33.63	31.15	1.21	-0.08	56.49	120.06
206	33.79	31.29	1.21	-0.08	56.16	120.17
207	33.96	32.25	1.25	-0.08	56.05	120.33
208	34.12	32.36	1.27	-0.11	56.24	120.37
209	34.28	31.32	1.23	-0.11	56.60	120.13
210	34.45	30.67	1.16	-0.08	56.74	119.74
211	34.61	30.51	1.11	-0.11	55.99	119.38
212	34.78	31.32	1.06	-0.08	55.05	119.31
213	34.94	32.33	1.11	-0.11	50.82	118.09
214	35.10	32.95	0.58	-0.08	49.31	117.60
215	35.27	32.22	0.87	-0.11	50.40	117.37
216	35.43	29.44	1.05	-0.13	55.40	118.76
217	35.60	30.28	1.13	-0.13	57.49	119.54
218	35.76	31.99	1.22	-0.13	56.85	120.02
219	35.92	33.06	1.24	-0.13	56.36	120.41
220	36.09	33.29	1.29	-0.13	55.89	120.79
221	36.25	35.08	1.38	-0.13	54.42	121.70
222	36.42	41.12	1.65	-0.13	52.48	122.95
223	36.58	45.11	1.92	-0.13	51.65	124.34
224	36.74	46.52	2.24	-0.13	50.91	125.46
225	36.91	51.57	2.44	-0.13	49.63	126.44
226	37.07	57.08	2.67	-0.13	47.12	127.39
227	37.24	63.71	2.96	-0.13	46.08	128.25
228	37.40	64.24	3.23	-0.11	46.36	128.96
229	37.57	63.76	3.46	-0.11	48.48	129.26
230	37.73	58.82	3.45	-0.11	50.63	129.36
231	37.89	57.67	3.49	-0.08	50.28	129.59
232	38.06	67.72	3.71	-0.08	45.70	130.18
233	38.22	84.35	3.86	-0.05	39.08	130.60
234	38.39	97.64	3.49	-0.05	32.36	131.01
235	38.55	121.29	3.62	-0.05	27.11	131.42
236	38.71	141.82	3.83	0.00	23.44	132.30
237	38.88	163.20	4.21	0.00	21.61	133.34
238	39.04	177.64	4.85	0.03	20.75	134.32
239	39.21	187.22	5.26	0.05	20.40	135.05
240	39.37	194.69	5.41	0.05	19.95	135.22

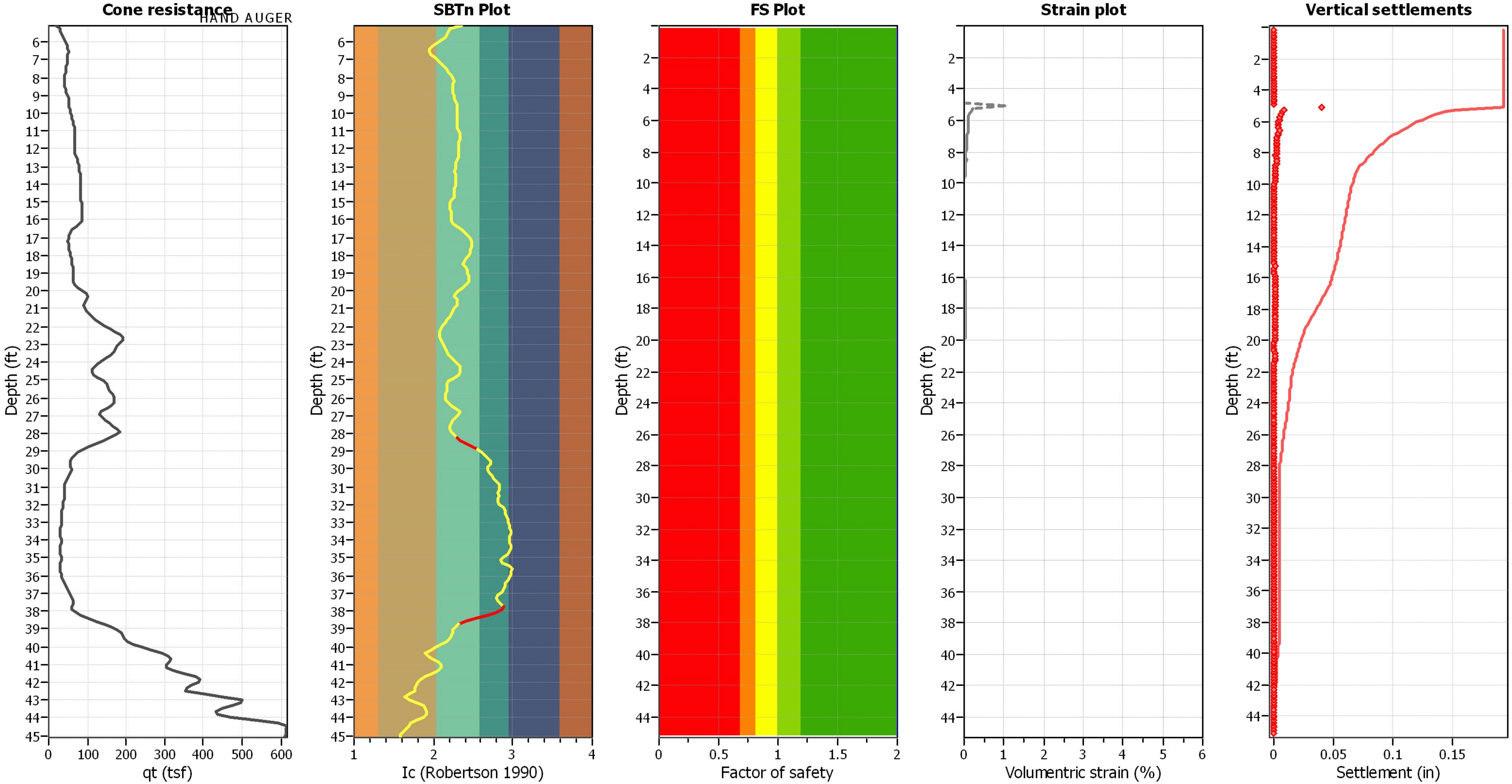
:: Field input data :: (continued)

Point ID	Depth (ft)	q_c (tsf)	f_s (tsf)	u (tsf)	Fines content (%)	Unit weight (pcf)
241	39.53	193.43	5.08	0.08	19.28	135.04
242	39.70	195.93	4.80	0.08	17.80	134.75
243	39.86	218.03	4.63	0.11	15.81	134.72
244	40.03	243.23	4.64	0.13	13.60	134.93
245	40.19	271.49	4.69	0.16	12.13	135.30
246	40.35	287.95	4.90	0.18	10.48	135.35
247	40.52	315.08	4.35	-0.29	11.01	136.72
248	40.68	324.71	7.24	-0.24	12.50	137.28
249	40.85	309.83	8.50	-0.21	14.83	137.28
250	41.01	301.71	8.67	-0.16	15.65	137.28
251	41.17	305.39	8.08	-0.13	15.84	137.28
252	41.34	311.82	8.96	-0.08	14.68	137.28
253	41.50	350.89	8.33	0.50	12.43	137.28
254	41.67	382.16	6.13	0.58	10.14	137.28
255	41.83	407.80	7.02	0.61	8.94	137.28
256	41.99	383.23	6.50	0.66	8.31	137.28
257	42.16	375.02	4.44	0.71	7.85	136.59
258	42.32	345.14	4.34	0.87	7.28	135.51
259	42.49	348.73	4.54	0.93	7.63	135.72
260	42.65	367.41	4.86	1.01	6.11	136.21
261	42.81	488.06	4.69	1.27	5.18	136.96
262	42.98	490.67	5.49	-0.27	6.06	137.28
263	43.14	519.66	10.52	0.00	7.83	137.28
264	43.31	477.63	9.70	0.18	9.74	137.28
265	43.47	421.20	9.27	0.32	10.30	137.28
266	43.63	444.74	9.53	0.53	10.95	137.28
267	43.80	425.98	9.68	0.58	10.88	137.28
268	43.96	437.19	9.60	0.69	9.71	137.28
269	44.13	547.16	9.60	0.93	7.80	137.28
270	44.29	619.01	9.60	1.08	6.40	137.28
271	44.45	616.23	9.60	1.08	5.95	137.28
272	44.62	614.71	9.61	1.08	5.49	137.28
273	44.78	612.27	7.61	1.11	4.84	137.28
274	44.95	610.72	7.00	1.11	4.20	137.28
275	45.11	609.32	7.00	1.11	4.07	137.28

Abbreviations

Depth:	Depth from free surface, at which CPT was performed (ft)
q_c:	Measured cone resistance (tsf)
f_s:	Sleeve friction resistance (tsf)
u:	Pore pressure (tsf)
Fines content:	Percentage of fines in soil (%)
Unit weight:	Bulk soil unit weight (pcf)

Estimation of post-earthquake settlements



Abbreviations

q_t:	Total cone resistance (cone resistance q_c corrected for pore water effects)
I_c:	Soil Behaviour Type Index
FS:	Calculated Factor of Safety against liquefaction
Volumentric strain:	Post-liquefaction volumentric strain

:: Post-earthquake settlement of dry sands ::

Depth (ft)	Ic	Kc	Qc1n	Qc1n,cs	N1,60 (blows)	Vs (ft/s)	Gmax (tsf)	CSR	Shear, γ (%)	Svol,15 (%)	Nc	ev (%)	Settle. (in)
0.16	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
0.33	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
0.49	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
0.66	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
0.82	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
0.98	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
1.15	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
1.31	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
1.48	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
1.64	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
1.80	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
1.97	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
2.13	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
2.30	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
2.46	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
2.63	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
2.79	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
2.95	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
3.12	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
3.28	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
3.44	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
3.61	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
3.77	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
3.94	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
4.10	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
4.26	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
4.43	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
4.59	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
4.76	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
4.92	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
5.08	2.36	2.15	31.15	66.95	16	432.5	310	0.41	1.105	1.43	8.91	1.03	0.041
5.25	2.20	1.67	48.12	80.49	18	487.1	409	0.41	0.265	0.30	8.91	0.21	0.008
5.41	2.18	1.62	50.49	82.00	18	492.5	419	0.41	0.252	0.28	8.91	0.20	0.008
5.58	2.17	1.60	53.98	86.41	19	506.0	447	0.41	0.203	0.21	8.91	0.15	0.006
5.74	2.15	1.54	58.15	89.75	20	516.5	468	0.41	0.176	0.18	8.91	0.13	0.005
5.91	2.10	1.46	63.34	92.65	20	525.2	486	0.41	0.160	0.16	8.91	0.11	0.005
6.07	2.05	1.37	69.90	95.83	20	533.0	503	0.41	0.149	0.15	8.91	0.10	0.004
6.23	1.99	1.29	76.46	98.71	20	537.7	512	0.41	0.146	0.14	8.91	0.10	0.004
6.40	1.96	1.25	80.34	100.13	20	538.4	513	0.41	0.153	0.15	8.91	0.11	0.004
6.56	1.95	1.23	81.32	100.42	20	538.1	512	0.41	0.163	0.16	8.91	0.11	0.004
6.73	1.97	1.27	80.55	101.99	21	544.9	528	0.40	0.152	0.14	8.91	0.10	0.004
6.89	2.02	1.32	80.18	105.91	22	558.6	560	0.40	0.128	0.11	8.91	0.08	0.003
7.05	2.06	1.39	78.82	109.53	23	570.3	588	0.40	0.113	0.09	8.91	0.07	0.003
7.22	2.10	1.46	76.32	111.57	24	576.3	604	0.40	0.108	0.09	8.91	0.06	0.002
7.38	2.14	1.53	73.40	112.31	25	577.9	608	0.40	0.110	0.09	8.91	0.06	0.002
7.55	2.17	1.60	70.98	113.39	25	579.7	613	0.40	0.112	0.08	8.91	0.06	0.002
7.71	2.20	1.66	68.97	114.55	26	581.3	617	0.40	0.114	0.08	8.91	0.06	0.002
7.87	2.23	1.73	67.28	116.47	27	584.3	625	0.40	0.114	0.08	8.91	0.06	0.002

:: Post-earthquake settlement of dry sands :: (continued)

Depth (ft)	Ic	Kc	Qc1n	Qc1n,cs	N1,60 (blows)	Vs (ft/s)	Gmax (tsf)	CSR	Shear, γ (%)	Svol,15 (%)	Nc	ev (%)	Settle. (in)
8.04	2.24	1.77	67.55	119.60	27	591.0	641	0.40	0.108	0.07	8.91	0.05	0.002
8.20	2.26	1.83	67.52	123.80	29	599.3	663	0.40	0.101	0.07	8.91	0.04	0.002
8.37	2.25	1.80	66.89	120.15	28	591.5	643	0.40	0.116	0.08	8.91	0.05	0.002
8.53	2.25	1.80	66.84	120.36	28	591.9	644	0.40	0.120	0.08	8.91	0.05	0.002
8.69	2.24	1.77	69.02	121.93	28	598.6	660	0.40	0.115	0.08	8.91	0.05	0.002
8.86	2.25	1.80	73.04	131.49	30	623.8	725	0.40	0.088	0.05	8.91	0.04	0.001
9.02	2.26	1.82	75.96	138.08	32	642.5	776	0.40	0.075	0.04	8.91	0.03	0.001
9.19	2.27	1.84	77.95	143.77	33	658.3	819	0.40	0.067	0.04	8.91	0.02	0.001
9.35	2.28	1.89	79.00	149.11	35	672.1	859	0.40	0.061	0.03	8.91	0.02	0.001
9.51	2.29	1.92	79.23	152.41	36	681.7	886	0.40	0.058	0.03	8.91	0.02	0.001
9.68	2.30	1.94	79.62	154.56	36	689.9	910	0.40	0.056	0.03	8.91	0.02	0.001
9.84	2.30	1.94	80.82	156.91	37	699.8	940	0.40	0.053	0.03	8.91	0.02	0.001
10.01	2.30	1.95	82.71	160.99	38	713.1	980	0.40	0.050	0.02	8.91	0.02	0.001
10.17	2.30	1.96	84.64	165.78	39	727.5	1025	0.40	0.046	0.02	8.91	0.01	0.001
10.34	2.31	1.97	86.26	169.87	40	740.4	1065	0.40	0.043	0.02	8.91	0.01	0.000
10.50	2.31	1.97	87.67	172.70	41	751.1	1100	0.40	0.042	0.02	8.91	0.01	0.000
10.66	2.30	1.96	89.62	175.47	41	762.6	1138	0.40	0.040	0.02	8.91	0.01	0.000
10.83	2.30	1.96	91.14	179.00	42	774.6	1177	0.40	0.038	0.02	8.91	0.01	0.000
10.99	2.32	2.01	90.87	182.19	43	783.3	1207	0.40	0.037	0.01	8.91	0.01	0.000
11.15	2.33	2.06	88.74	182.62	44	785.3	1214	0.40	0.038	0.01	8.91	0.01	0.000
11.32	2.34	2.09	86.93	181.29	43	785.2	1213	0.40	0.038	0.02	8.91	0.01	0.000
11.48	2.34	2.08	86.61	180.19	43	787.8	1221	0.40	0.039	0.02	8.91	0.01	0.000
11.65	2.32	2.01	87.15	174.76	41	785.2	1211	0.40	0.040	0.02	8.91	0.01	0.000
11.81	2.31	1.99	87.03	173.02	41	786.8	1216	0.40	0.041	0.02	8.91	0.01	0.000
11.97	2.31	1.99	85.92	170.59	40	785.7	1211	0.40	0.042	0.02	8.91	0.01	0.000
12.14	2.32	2.03	85.03	172.59	41	791.7	1232	0.40	0.041	0.02	8.91	0.01	0.000
12.30	2.32	2.03	84.96	172.21	41	795.2	1244	0.40	0.041	0.02	8.91	0.01	0.000
12.47	2.31	1.99	86.63	172.14	41	801.8	1266	0.40	0.041	0.02	8.91	0.01	0.000
12.63	2.30	1.95	88.93	173.33	41	811.2	1299	0.40	0.040	0.02	8.91	0.01	0.000
12.79	2.29	1.91	90.81	173.50	41	818.3	1323	0.40	0.039	0.02	8.91	0.01	0.000
12.96	2.28	1.88	91.72	172.74	40	822.3	1337	0.40	0.039	0.02	8.91	0.01	0.000
13.12	2.27	1.87	91.97	171.69	40	824.9	1346	0.40	0.039	0.02	8.91	0.01	0.000
13.29	2.27	1.86	92.14	171.37	40	828.5	1358	0.40	0.039	0.02	8.91	0.01	0.000
13.45	2.27	1.87	92.06	171.70	40	833.0	1374	0.40	0.039	0.02	8.91	0.01	0.000
13.62	2.28	1.88	91.39	171.77	40	836.3	1386	0.40	0.039	0.02	8.91	0.01	0.000
13.78	2.28	1.89	90.47	170.69	40	837.2	1389	0.40	0.040	0.02	8.91	0.01	0.000
13.94	2.28	1.88	89.78	168.99	39	837.1	1388	0.40	0.040	0.02	8.91	0.01	0.000
14.11	2.27	1.87	89.58	167.27	39	837.5	1389	0.40	0.041	0.02	8.91	0.01	0.000
14.27	2.27	1.85	89.50	165.50	38	837.9	1389	0.40	0.042	0.02	8.91	0.01	0.000
14.44	2.26	1.84	89.09	163.56	38	837.4	1387	0.40	0.042	0.02	8.91	0.01	0.000
14.60	2.26	1.83	88.24	161.31	37	835.7	1380	0.40	0.043	0.02	8.91	0.01	0.000
14.76	2.26	1.82	87.48	159.37	37	834.6	1375	0.40	0.044	0.02	8.91	0.01	0.000
14.93	2.23	1.75	87.45	153.28	35	825.6	1340	0.40	0.047	0.02	8.91	0.01	0.001
15.09	2.22	1.71	88.04	150.22	34	822.9	1329	0.40	0.049	0.03	8.91	0.02	0.001
15.26	2.20	1.67	88.72	148.59	34	823.1	1329	0.40	0.050	0.03	8.91	0.02	0.001
15.42	2.22	1.70	88.99	151.72	34	833.7	1368	0.40	0.048	0.02	8.91	0.01	0.001
15.58	2.23	1.73	87.90	152.17	35	837.1	1380	0.40	0.048	0.02	8.91	0.01	0.001
15.75	2.23	1.74	86.43	150.67	34	835.7	1374	0.40	0.049	0.03	8.91	0.01	0.001

:: Post-earthquake settlement of dry sands :: (continued)

Depth (ft)	Ic	Kc	Qc1n	Qc1n,cs	N1,60 (blows)	Vs (ft/s)	Gmax (tsf)	CSR	Shear, γ (%)	Svol,15 (%)	Nc	ev (%)	Settle. (in)
15.91	2.23	1.73	85.47	148.15	34	832.3	1361	0.40	0.051	0.03	8.91	0.02	0.001
16.08	2.22	1.72	83.88	144.47	33	825.6	1336	0.40	0.053	0.03	8.91	0.02	0.001
16.24	2.25	1.79	77.78	139.00	32	810.0	1279	0.40	0.059	0.03	8.91	0.02	0.001
16.40	2.29	1.92	68.31	131.17	31	783.6	1187	0.40	0.071	0.04	8.91	0.02	0.001
16.57	2.35	2.12	59.01	124.88	30	758.0	1101	0.40	0.086	0.05	8.91	0.03	0.001
16.73	2.39	2.27	53.54	121.54	30	743.4	1054	0.40	0.099	0.06	8.91	0.03	0.001
16.90	2.43	2.44	50.17	122.42	31	741.1	1047	0.40	0.102	0.06	8.91	0.03	0.001
17.06	2.46	2.59	47.85	123.90	31	741.9	1049	0.40	0.103	0.06	8.91	0.03	0.001
17.22	2.48	2.67	46.81	125.12	32	744.8	1059	0.40	0.102	0.06	8.91	0.03	0.001
17.39	2.48	2.68	46.91	125.89	32	749.6	1074	0.40	0.100	0.06	8.91	0.03	0.001
17.55	2.48	2.66	47.51	126.33	32	754.9	1091	0.40	0.098	0.06	8.91	0.03	0.001
17.72	2.47	2.62	48.37	126.52	32	760.2	1108	0.40	0.096	0.05	8.91	0.03	0.001
17.88	2.46	2.57	49.44	127.12	32	766.9	1129	0.40	0.094	0.05	8.91	0.03	0.001
18.05	2.45	2.51	51.09	128.47	32	776.3	1160	0.40	0.089	0.05	8.91	0.03	0.001
18.21	2.41	2.35	52.42	123.45	31	770.9	1141	0.40	0.095	0.06	8.91	0.03	0.001
18.37	2.39	2.27	53.41	121.25	30	770.6	1138	0.40	0.097	0.06	8.91	0.03	0.001
18.54	2.38	2.24	53.93	120.56	29	772.7	1145	0.40	0.098	0.06	8.91	0.03	0.001
18.70	2.41	2.33	54.41	126.96	31	791.2	1208	0.40	0.087	0.05	8.91	0.03	0.001
18.86	2.42	2.39	54.80	130.97	32	803.9	1253	0.40	0.082	0.05	8.91	0.02	0.001
19.03	2.43	2.43	54.85	133.18	33	811.7	1280	0.40	0.079	0.04	8.91	0.02	0.001
19.19	2.44	2.47	54.34	134.39	34	816.3	1297	0.40	0.078	0.04	8.91	0.02	0.001
19.36	2.44	2.50	53.83	134.46	34	818.2	1303	0.40	0.079	0.04	8.91	0.02	0.001
19.52	2.44	2.47	54.12	133.84	33	820.3	1310	0.40	0.079	0.04	8.91	0.02	0.001
19.68	2.42	2.38	56.30	133.80	33	827.4	1335	0.40	0.077	0.04	8.91	0.02	0.001
19.85	2.37	2.20	61.78	135.97	33	845.0	1399	0.41	0.071	0.04	8.91	0.02	0.001
20.01	2.31	1.98	71.54	141.93	34	876.2	1517	0.41	0.060	0.03	8.91	0.02	0.001
20.18	2.27	1.87	80.40	150.09	35	909.2	1648	0.41	0.052	0.03	8.91	0.01	0.001
20.34	2.27	1.85	83.85	155.18	36	928.1	1726	0.41	0.049	0.02	8.91	0.01	0.000
20.50	2.29	1.92	80.26	154.23	36	925.1	1713	0.41	0.050	0.02	8.91	0.01	0.000
20.67	2.31	1.97	75.05	148.19	35	907.3	1639	0.41	0.055	0.03	8.91	0.01	0.001
20.83	2.30	1.95	72.85	141.76	33	891.4	1574	0.41	0.061	0.03	8.91	0.02	0.001
21.00	2.27	1.86	74.37	138.30	32	886.7	1554	0.41	0.063	0.04	8.91	0.02	0.001
21.16	2.24	1.78	78.48	139.88	32	897.2	1595	0.41	0.061	0.03	8.91	0.02	0.001
21.32	2.22	1.72	83.92	144.50	33	916.5	1673	0.41	0.056	0.03	8.91	0.02	0.001
21.49	2.20	1.67	89.76	150.26	34	938.6	1765	0.41	0.052	0.03	8.91	0.01	0.001
21.65	2.17	1.61	95.91	154.11	34	954.6	1832	0.41	0.049	0.03	8.91	0.01	0.001
21.82	2.15	1.55	103.29	159.62	35	974.6	1918	0.41	0.046	0.02	8.91	0.01	0.000
21.98	2.12	1.49	112.78	167.58	37	1000.8	2035	0.41	0.042	0.02	8.91	0.01	0.000
22.15	2.10	1.45	123.52	179.16	39	1036.6	2202	0.41	0.037	0.02	8.91	0.01	0.000
22.31	2.08	1.42	134.54	191.21	41	1072.5	2375	0.41	0.034	0.01	8.91	0.01	0.000
22.47	2.07	1.41	143.76	202.49	43	1105.9	2543	0.41	0.031	0.01	8.91	0.01	0.000
22.64	2.08	1.42	148.55	210.41	45	1130.8	2672	0.42	0.029	0.01	8.91	0.01	0.000
22.80	2.09	1.44	147.62	212.89	46	1141.8	2730	0.42	0.028	0.01	8.91	0.01	0.000
22.97	2.12	1.48	141.72	210.38	46	1139.6	2719	0.42	0.029	0.01	8.91	0.01	0.000
23.13	2.13	1.52	135.94	206.27	45	1132.2	2679	0.42	0.030	0.01	8.91	0.01	0.000
23.29	2.15	1.55	131.14	203.39	45	1127.6	2655	0.42	0.031	0.01	8.91	0.01	0.000
23.46	2.17	1.59	126.77	201.11	45	1124.3	2637	0.42	0.031	0.01	8.91	0.01	0.000
23.62	2.19	1.65	119.71	197.79	44	1117.4	2601	0.42	0.032	0.01	8.91	0.01	0.000

:: Post-earthquake settlement of dry sands :: (continued)

Depth (ft)	Ic	Kc	Qc1n	Qc1n,cs	N1,60 (blows)	Vs (ft/s)	Gmax (tsf)	CSR	Shear, γ (%)	Svol,15 (%)	Nc	ev (%)	Settle. (in)
23.79	2.23	1.73	111.19	192.75	44	1104.2	2533	0.42	0.034	0.01	8.91	0.01	0.000
23.95	2.26	1.83	102.67	188.14	44	1090.8	2464	0.42	0.036	0.01	8.91	0.01	0.000
24.11	2.30	1.95	93.22	181.87	43	1070.7	2364	0.42	0.038	0.02	8.91	0.01	0.000
24.28	2.33	2.06	85.18	175.12	42	1049.1	2259	0.42	0.042	0.02	8.91	0.01	0.000
24.44	2.34	2.10	80.07	168.06	40	1028.7	2161	0.42	0.046	0.02	8.91	0.01	0.000
24.61	2.34	2.09	79.09	165.22	40	1023.2	2134	0.42	0.047	0.02	8.91	0.01	0.000
24.77	2.32	2.00	82.81	165.97	39	1031.8	2174	0.42	0.046	0.02	8.91	0.01	0.000
24.93	2.27	1.85	90.74	168.20	39	1047.0	2245	0.42	0.044	0.02	8.91	0.01	0.000
25.10	2.19	1.64	102.54	167.89	38	1053.5	2274	0.42	0.044	0.02	8.91	0.01	0.000
25.26	2.17	1.60	106.00	169.13	38	1060.0	2305	0.42	0.043	0.02	8.91	0.01	0.000
25.43	2.16	1.58	108.09	170.70	38	1067.4	2341	0.42	0.043	0.02	8.91	0.01	0.000
25.59	2.17	1.60	109.86	176.23	39	1087.3	2440	0.42	0.040	0.02	8.91	0.01	0.000
25.75	2.15	1.56	115.71	180.32	40	1102.1	2514	0.42	0.039	0.02	8.91	0.01	0.000
25.92	2.15	1.55	117.51	182.05	40	1109.9	2553	0.42	0.038	0.02	8.91	0.01	0.000
26.08	2.16	1.57	116.97	184.09	41	1119.1	2600	0.42	0.038	0.02	8.91	0.01	0.000
26.25	2.18	1.63	115.90	188.39	42	1135.1	2684	0.43	0.036	0.01	8.91	0.01	0.000
26.41	2.23	1.75	110.53	192.88	44	1149.9	2763	0.43	0.035	0.01	8.91	0.01	0.000
26.57	2.29	1.90	100.91	191.96	45	1145.5	2740	0.43	0.036	0.01	8.91	0.01	0.000
26.74	2.33	2.04	90.42	184.48	44	1120.6	2609	0.43	0.039	0.02	8.91	0.01	0.000
26.90	2.32	2.01	86.75	174.59	41	1093.9	2471	0.43	0.043	0.02	8.91	0.01	0.000
27.07	2.28	1.88	90.50	170.22	40	1087.3	2436	0.43	0.044	0.02	8.91	0.01	0.000
27.23	2.24	1.77	97.36	172.66	40	1100.4	2501	0.43	0.043	0.02	8.91	0.01	0.000
27.39	2.22	1.72	103.65	178.59	41	1122.6	2615	0.43	0.040	0.02	8.91	0.01	0.000
27.56	2.21	1.70	110.06	186.67	42	1150.7	2763	0.43	0.038	0.02	8.91	0.01	0.000
27.72	2.20	1.68	117.06	196.46	44	1183.4	2941	0.43	0.035	0.01	8.91	0.01	0.000
27.89	2.22	1.71	119.10	204.03	46	1208.4	3081	0.43	0.033	0.01	8.91	0.00	0.000
28.05	2.25	1.81	112.51	203.29	47	1207.3	3075	0.43	0.033	0.01	8.91	0.00	0.000
28.21	2.30	1.94	101.41	196.93	46	1187.1	2961	0.43	0.035	0.01	8.91	0.01	0.000
28.38	2.34	2.09	89.94	187.63	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
28.54	2.40	2.31	77.44	179.04	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
28.71	2.48	2.65	63.83	169.10	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
28.87	2.56	3.07	52.02	159.88	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
29.04	2.61	3.41	44.18	150.68	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
29.20	2.65	3.67	38.94	142.87	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
29.36	2.69	3.90	34.49	134.60	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
29.53	2.72	4.16	30.57	127.09	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
29.69	2.71	4.10	29.76	122.03	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
29.86	2.69	3.91	31.19	121.87	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
30.02	2.68	3.84	32.53	124.79	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
30.18	2.71	4.04	31.02	125.22	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
30.35	2.74	4.33	28.07	121.65	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
30.51	2.77	4.50	25.86	116.26	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
30.68	2.79	4.74	23.61	111.81	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
30.84	2.83	5.05	21.60	109.10	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
31.00	2.83	5.07	20.65	104.60	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
31.17	2.82	4.98	20.56	102.29	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
31.33	2.81	4.84	20.63	99.92	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
31.50	2.83	5.02	19.92	100.06	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000

:: Post-earthquake settlement of dry sands :: (continued)

Depth (ft)	Ic	Kc	Qc1n	Qc1n,cs	N1,60 (blows)	Vs (ft/s)	Gmax (tsf)	CSR	Shear, γ (%)	Svol,15 (%)	Nc	ev (%)	Settle. (in)
31.66	2.80	4.81	19.72	94.94	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
31.82	2.81	4.90	19.15	93.76	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
31.99	2.83	5.03	18.49	93.00	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
32.15	2.89	5.58	17.18	95.92	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
32.32	2.90	5.74	16.50	94.66	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
32.48	2.91	5.75	16.31	93.76	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
32.64	2.91	5.82	16.13	93.81	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
32.81	2.93	6.00	15.61	93.71	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
32.97	2.95	6.16	14.97	92.21	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
33.14	2.95	6.21	14.59	90.62	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
33.30	2.96	6.28	14.24	89.50	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
33.47	2.97	6.40	13.93	89.09	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
33.63	2.97	6.42	13.79	88.47	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
33.79	2.97	6.36	13.93	88.67	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
33.96	2.96	6.35	14.05	89.18	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
34.12	2.97	6.38	13.99	89.19	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
34.28	2.97	6.43	13.68	87.99	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
34.45	2.97	6.46	13.32	86.02	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
34.61	2.96	6.33	13.26	83.98	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
34.78	2.95	6.18	13.46	83.25	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
34.94	2.88	5.51	14.03	77.36	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
35.10	2.86	5.28	14.20	75.01	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
35.27	2.87	5.45	13.62	74.20	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
35.43	2.95	6.24	12.86	80.24	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
35.60	2.99	6.58	12.76	83.99	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
35.76	2.98	6.47	13.25	85.76	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
35.92	2.97	6.40	13.63	87.17	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
36.09	2.96	6.32	14.02	88.61	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
36.25	2.94	6.08	15.20	92.46	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
36.42	2.91	5.77	17.03	98.31	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
36.58	2.89	5.64	18.71	105.61	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
36.74	2.88	5.53	20.24	111.91	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
36.91	2.86	5.33	22.05	117.58	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
37.07	2.82	4.95	24.81	122.81	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
37.24	2.80	4.80	26.73	128.21	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
37.40	2.81	4.84	27.57	133.37	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
37.57	2.84	5.16	26.43	136.28	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
37.73	2.88	5.49	25.08	137.56	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
37.89	2.87	5.43	25.58	138.92	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
38.06	2.79	4.74	29.83	141.43	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
38.22	2.67	3.81	36.91	140.64	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
38.39	2.54	2.96	46.86	138.78	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
38.55	2.42	2.38	57.87	137.90	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
38.71	2.32	2.03	70.37	142.87	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
38.88	2.28	1.87	80.81	151.21	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
39.04	2.25	1.80	88.90	160.15	37	1209.3	3052	0.43	0.051	0.02	8.91	0.01	0.000
39.21	2.24	1.77	94.26	167.17	38	1237.4	3212	0.43	0.047	0.02	8.91	0.01	0.000
39.37	2.23	1.74	97.03	168.72	38	1244.7	3255	0.43	0.046	0.02	8.91	0.01	0.000

:: Post-earthquake settlement of dry sands :: (continued)

Depth (ft)	Ic	Kc	Qc1n	Qc1n,cs	N1,60 (blows)	Vs (ft/s)	Gmax (tsf)	CSR	Shear, γ (%)	Svol,15 (%)	Nc	ev (%)	Settle. (in)
39.53	2.21	1.69	98.83	166.78	38	1238.6	3218	0.43	0.047	0.02	8.91	0.01	0.000
39.70	2.16	1.58	103.99	164.57	37	1228.2	3158	0.43	0.049	0.02	8.91	0.01	0.000
39.86	2.10	1.45	114.63	166.75	36	1227.4	3153	0.43	0.050	0.02	8.91	0.01	0.000
40.03	2.02	1.33	130.81	174.26	37	1235.7	3201	0.43	0.049	0.02	8.91	0.01	0.000
40.19	1.97	1.26	145.61	183.70	38	1249.9	3283	0.43	0.047	0.02	8.91	0.01	0.000
40.35	1.90	1.19	161.79	192.92	39	1252.2	3297	0.43	0.047	0.02	8.91	0.01	0.000
40.52	1.93	1.21	170.04	206.37	42	1307.8	3633	0.43	0.041	0.02	8.91	0.00	0.000
40.68	1.98	1.28	170.27	217.75	45	1372.8	4019	0.42	0.035	0.01	8.91	0.00	0.000
40.85	2.07	1.40	162.73	227.51	49	1437.2	4405	0.42	0.031	0.01	8.91	0.00	0.000
41.01	2.09	1.45	157.39	227.48	49	1447.3	4467	0.42	0.031	0.01	8.91	0.00	0.000
41.17	2.10	1.46	156.93	228.60	50	1454.7	4513	0.42	0.031	0.01	8.91	0.00	0.000
41.34	2.06	1.39	167.14	232.23	50	1456.6	4525	0.42	0.031	0.01	8.91	0.00	0.000
41.50	1.98	1.28	185.06	236.08	49	1438.1	4410	0.42	0.032	0.01	8.91	0.00	0.000
41.67	1.89	1.18	208.09	245.34	49	1418.6	4292	0.42	0.033	0.01	8.91	0.00	0.000
41.83	1.84	1.14	217.34	246.72	48	1392.3	4134	0.42	0.035	0.01	8.91	0.00	0.000
41.99	1.81	1.11	217.65	242.26	47	1362.8	3961	0.42	0.037	0.01	8.91	0.00	0.000
42.16	1.79	1.10	206.93	227.08	44	1307.4	3627	0.42	0.043	0.02	8.91	0.00	0.000
42.32	1.76	1.08	201.87	217.66	41	1264.5	3366	0.42	0.048	0.02	8.91	0.00	0.000
42.49	1.78	1.09	198.78	216.64	42	1273.4	3419	0.42	0.047	0.02	8.91	0.00	0.000
42.65	1.70	1.04	231.44	240.17	45	1292.7	3536	0.42	0.045	0.02	8.91	0.00	0.000
42.81	1.65	1.00	263.11	263.67	48	1323.3	3726	0.42	0.042	0.01	8.91	0.00	0.000
42.98	1.70	1.04	287.39	297.69	55	1440.4	4425	0.42	0.033	0.01	8.91	0.00	0.000
43.14	1.79	1.10	275.77	302.46	58	1518.8	4919	0.42	0.029	0.01	8.91	0.00	0.000
43.31	1.87	1.16	254.18	295.87	59	1565.9	5230	0.42	0.027	0.01	8.91	0.00	0.000
43.47	1.90	1.19	238.04	282.14	56	1546.7	5102	0.42	0.028	0.01	8.91	0.00	0.000
43.63	1.92	1.21	226.05	273.80	55	1542.4	5074	0.42	0.028	0.01	8.91	0.00	0.000
43.80	1.92	1.21	228.55	276.12	56	1548.9	5117	0.42	0.028	0.01	8.91	0.00	0.000
43.96	1.87	1.16	250.40	291.14	58	1559.8	5189	0.42	0.027	0.01	8.91	0.00	0.000
44.13	1.78	1.10	293.37	321.47	62	1575.4	5293	0.42	0.027	0.01	8.91	0.00	0.000
44.29	1.72	1.05	334.08	350.14	66	1589.7	5389	0.42	0.026	0.01	8.91	0.00	0.000
44.45	1.69	1.03	349.17	360.29	67	1595.2	5427	0.42	0.026	0.01	8.91	0.00	0.000
44.62	1.67	1.01	350.49	355.49	66	1566.7	5234	0.42	0.027	0.01	8.91	0.00	0.000
44.78	1.63	1.00	352.20	352.20	64	1528.2	4981	0.41	0.029	0.01	8.91	0.00	0.000
44.95	1.59	1.00	350.73	350.73	63	1489.7	4733	0.41	0.031	0.01	8.91	0.00	0.000
45.11	1.58	1.00	349.19	349.19	63	1480.2	4673	0.41	0.032	0.01	8.91	0.00	0.000

Total estimated settlement: 0.19

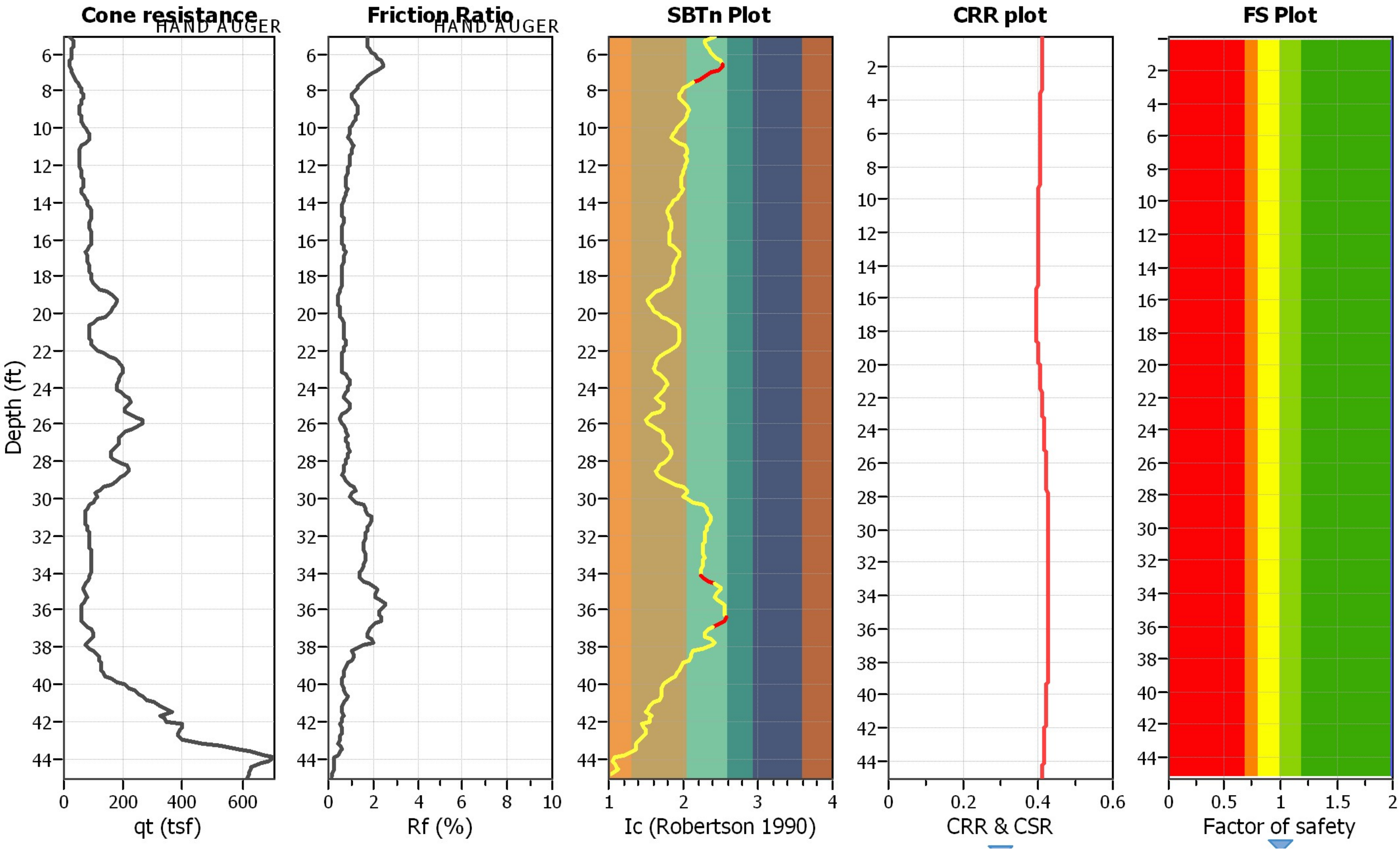
LIQUEFACTION ANALYSIS REPORT

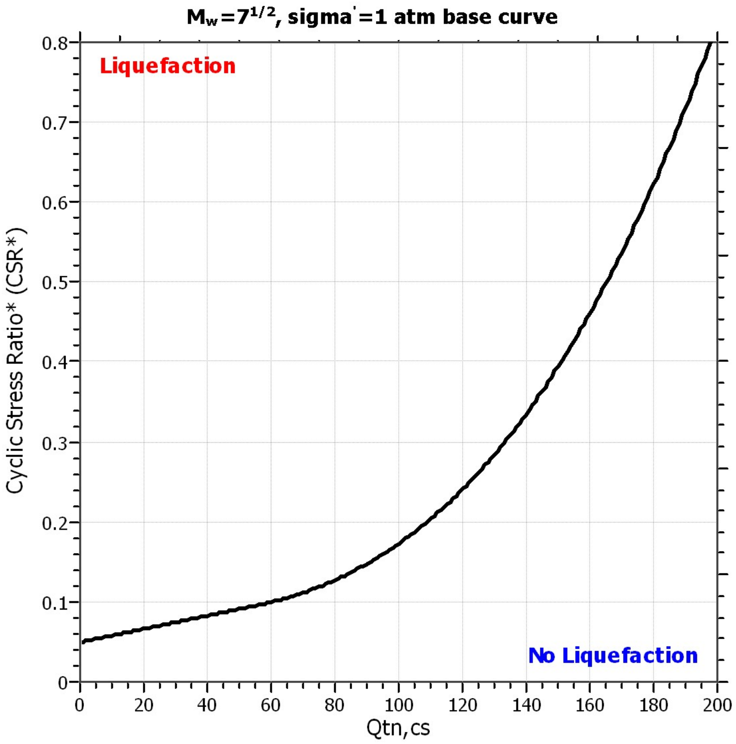
Project title : Colfax Charter Elementary School - MCE Analysis **Location : A8326-06-69A**

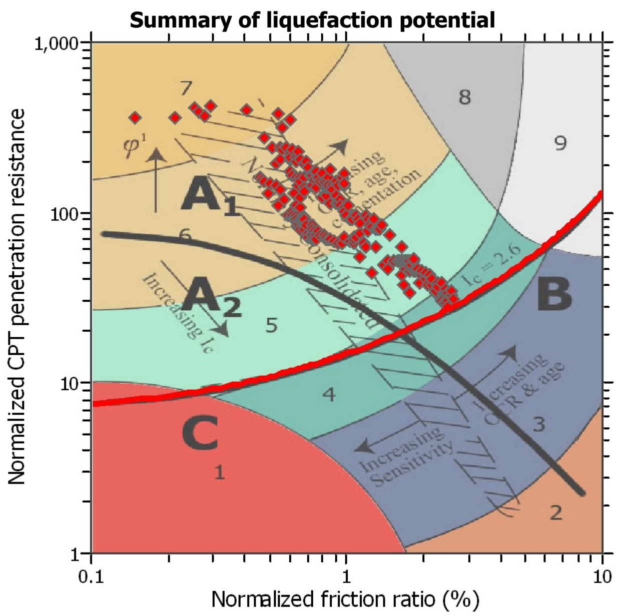
CPT file : CPT-02

Input parameters and analysis data

Analysis method:	NCEER (1998)	G.W.T. (in-situ):	50.00 ft	Use fill:	No	Clay like behavior applied:	Sands only
Fines correction method:	NCEER (1998)	G.W.T. (earthq.):	50.00 ft	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w:	6.74	Ic cut-off value:	2.60	Trans. detect. applied:	Yes	MSF method:	Method based
Peak ground acceleration:	0.83	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

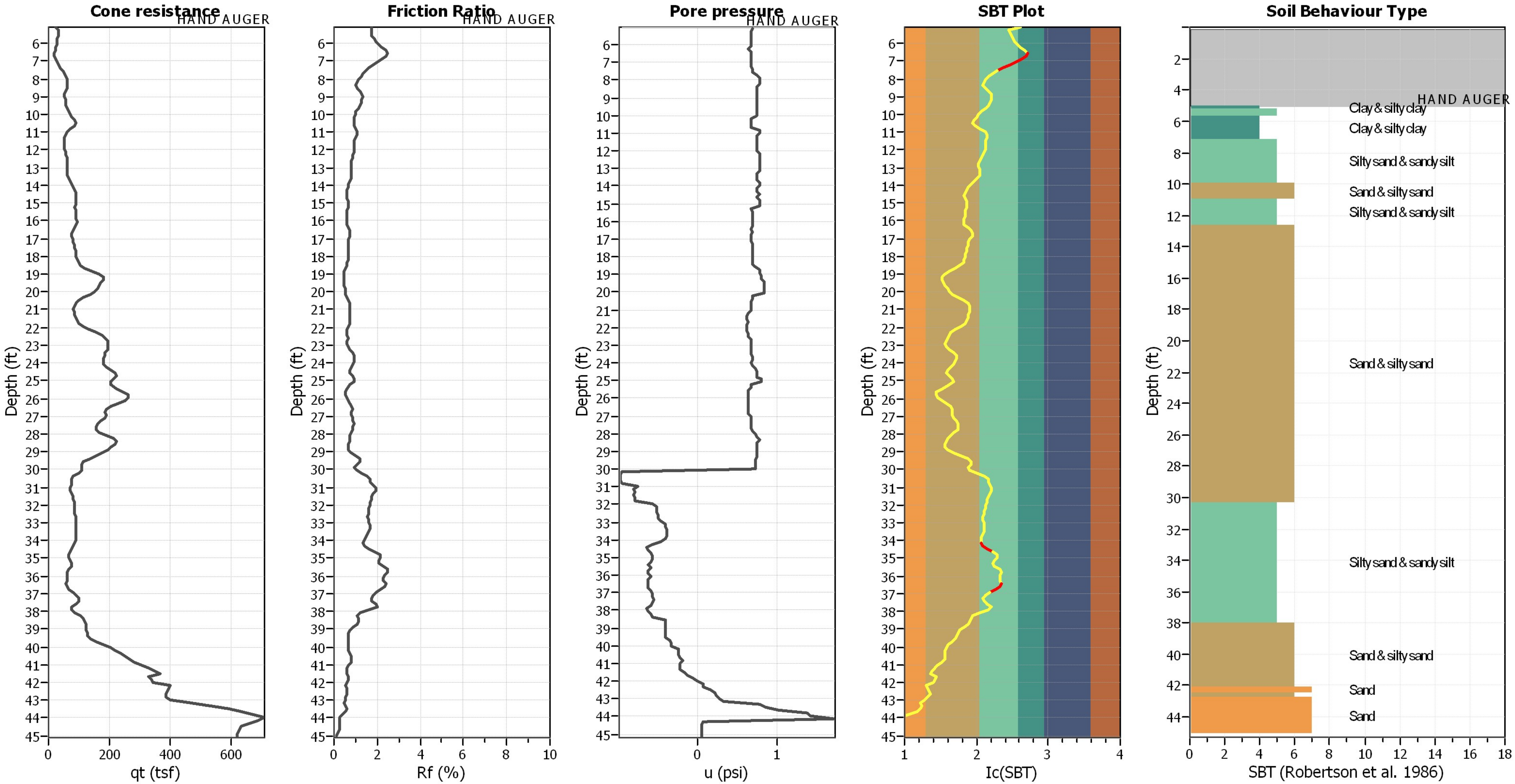






Zone A_1: Cyclic liquefaction likely depending on size and duration of cyclic loading
Zone A_2: Cyclic liquefaction and strength loss likely depending on loading and ground geometry
Zone B: Liquefaction and post-earthquake strength loss unlikely, check cyclic softening
Zone C: Cyclic liquefaction and strength loss possible depending on soil plasticity, brittleness/sensitivity, strain to peak undrained strength and ground geometry

CPT basic interpretation plots



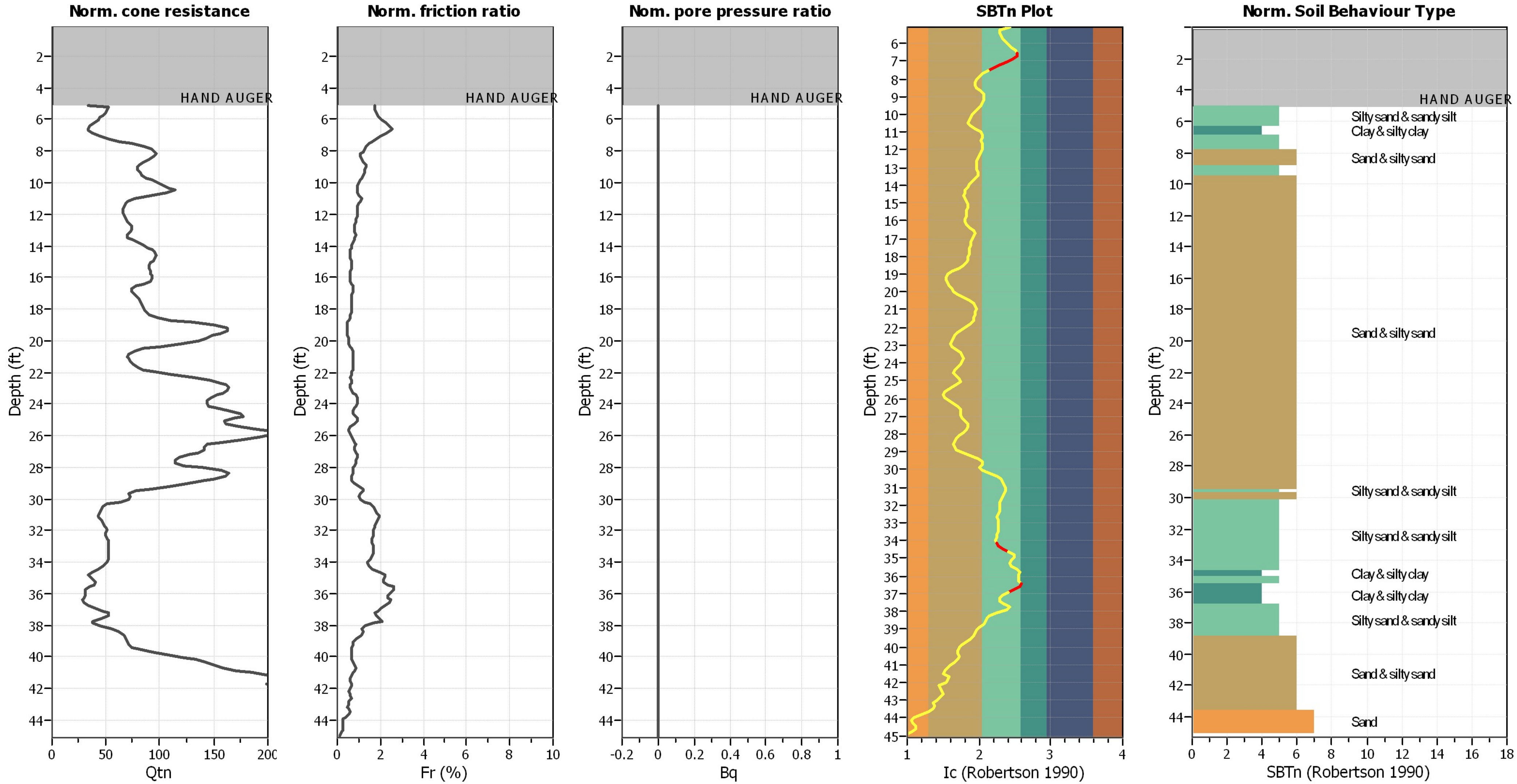
Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	50.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.74	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.83	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	50.00 ft	Fill height:	N/A	Limit depth:	N/A

SBT legend

1. Sensitive fine grained	4. Clayey silt to silty	7. Gravely sand to sand
2. Organic material	5. Silty sand to sandy silt	8. Very stiff sand to
3. Clay to silty clay	6. Clean sand to silty sand	9. Very stiff fine grained

CPT basic interpretation plots (normalized)



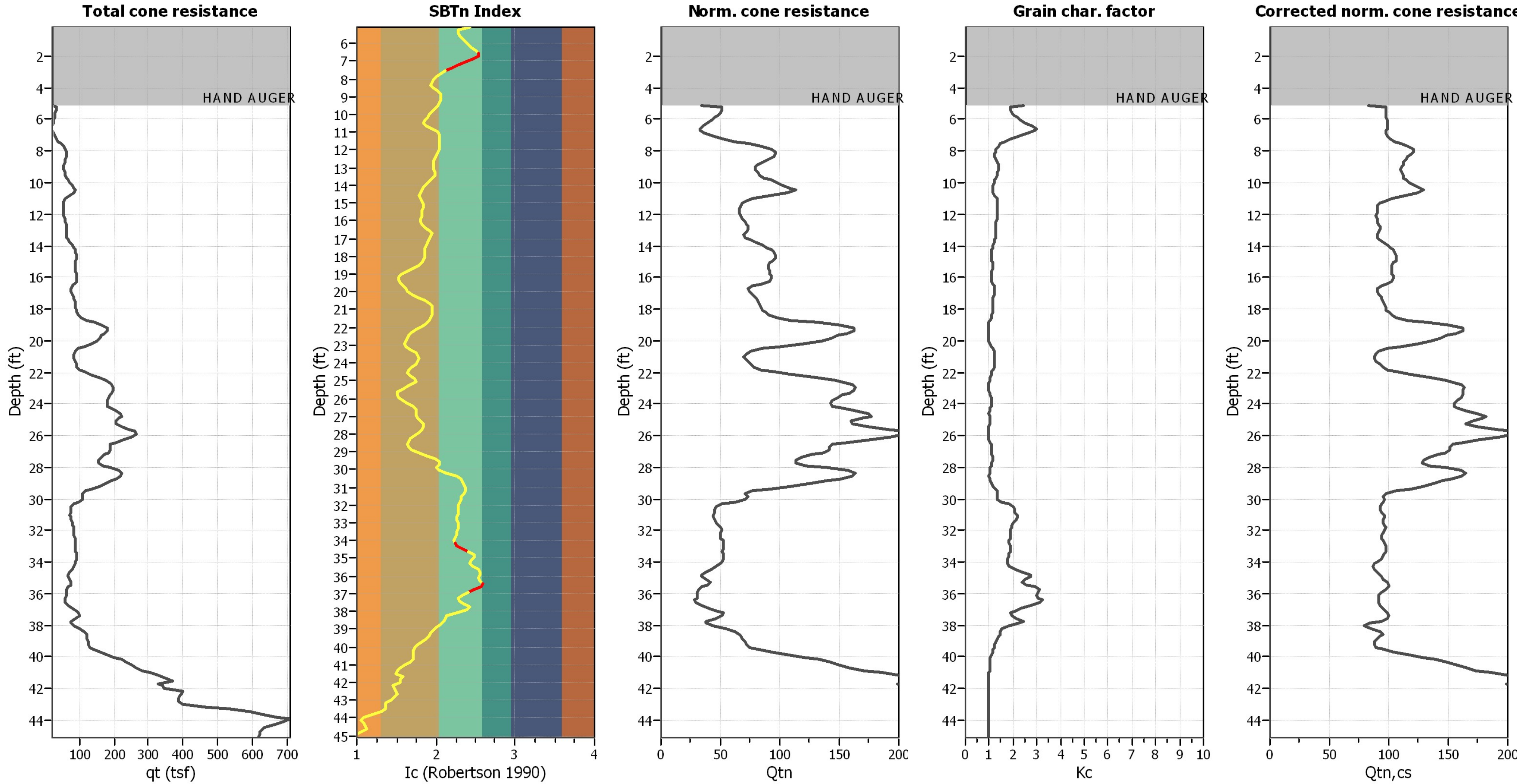
Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	50.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.74	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.83	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	50.00 ft	Fill height:	N/A	Limit depth:	N/A

SBTn legend

- 1. Sensitive fine grained
- 2. Organic material
- 3. Clay to silty clay
- 4. Clayey silt to silty
- 5. Silty sand to sandy silt
- 6. Clean sand to silty sand
- 7. Gravely sand to sand
- 8. Very stiff sand to
- 9. Very stiff fine grained

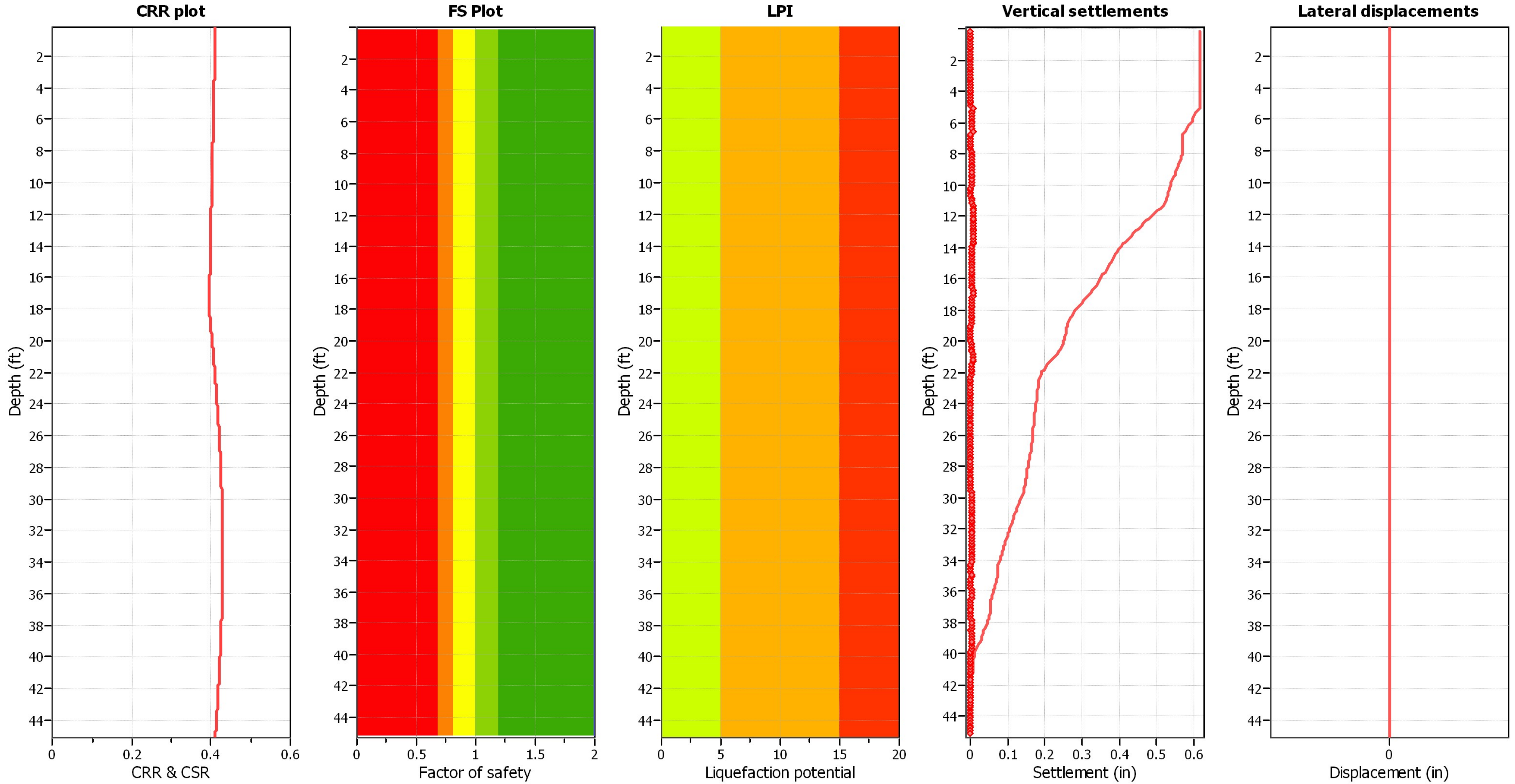
Liquefaction analysis overall plots (intermediate results)



Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	50.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.74	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.83	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	50.00 ft	Fill height:	N/A	Limit depth:	N/A

Liquefaction analysis overall plots



Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	50.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.74	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.83	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	50.00 ft	Fill height:	N/A	Limit depth:	N/A

F.S. color scheme

- Almost certain it will liquefy
- Very likely to liquefy
- Liquefaction and no liq. are equally likely
- Unlike to liquefy
- Almost certain it will not liquefy

LPI color scheme

- Very high risk
- High risk
- Low risk

:: Field input data ::

Point ID	Depth (ft)	q_c (tsf)	f_s (tsf)	u (tsf)	Fines content (%)	Unit weight (pcf)
1	0.16	-9999.00	-9999.00	-9999.00	N/A	120.90
2	0.33	-9999.00	-9999.00	-9999.00	N/A	120.90
3	0.49	-9999.00	-9999.00	-9999.00	N/A	120.90
4	0.66	-9999.00	-9999.00	-9999.00	N/A	120.90
5	0.82	-9999.00	-9999.00	-9999.00	N/A	120.90
6	0.98	-9999.00	-9999.00	-9999.00	N/A	120.90
7	1.15	-9999.00	-9999.00	-9999.00	N/A	120.90
8	1.31	-9999.00	-9999.00	-9999.00	N/A	120.90
9	1.48	-9999.00	-9999.00	-9999.00	N/A	120.90
10	1.64	-9999.00	-9999.00	-9999.00	N/A	120.90
11	1.80	-9999.00	-9999.00	-9999.00	N/A	120.90
12	1.97	-9999.00	-9999.00	-9999.00	N/A	120.90
13	2.13	-9999.00	-9999.00	-9999.00	N/A	120.90
14	2.30	-9999.00	-9999.00	-9999.00	N/A	120.90
15	2.46	-9999.00	-9999.00	-9999.00	N/A	120.90
16	2.63	-9999.00	-9999.00	-9999.00	N/A	120.90
17	2.79	-9999.00	-9999.00	-9999.00	N/A	120.90
18	2.95	-9999.00	-9999.00	-9999.00	N/A	120.90
19	3.12	-9999.00	-9999.00	-9999.00	N/A	120.90
20	3.28	-9999.00	-9999.00	-9999.00	N/A	120.90
21	3.44	-9999.00	-9999.00	-9999.00	N/A	120.90
22	3.61	-9999.00	-9999.00	-9999.00	N/A	120.90
23	3.77	-9999.00	-9999.00	-9999.00	N/A	120.90
24	3.94	-9999.00	-9999.00	-9999.00	N/A	120.90
25	4.10	-9999.00	-9999.00	-9999.00	N/A	120.90
26	4.26	-9999.00	-9999.00	-9999.00	N/A	120.90
27	4.43	-9999.00	-9999.00	-9999.00	N/A	120.90
28	4.59	-9999.00	-9999.00	-9999.00	N/A	120.90
29	4.76	-9999.00	-9999.00	-9999.00	N/A	120.90
30	4.92	-9999.00	-9999.00	-9999.00	N/A	120.90
31	5.08	32.22	0.57	0.69	27.61	110.60
32	5.25	32.53	0.56	0.66	21.89	114.52
33	5.41	32.92	0.55	0.66	22.05	114.40
34	5.58	31.04	0.55	0.66	22.74	114.25
35	5.74	29.33	0.55	0.66	23.91	114.14
36	5.91	28.43	0.55	0.66	25.03	114.07
37	6.07	27.22	0.56	0.66	26.43	113.96
38	6.23	24.83	0.55	0.64	28.45	113.73
39	6.40	22.25	0.54	0.66	30.84	113.37
40	6.56	20.45	0.53	0.66	32.34	113.03
41	6.73	20.67	0.51	0.66	32.00	112.90
42	6.89	22.47	0.51	0.66	29.34	113.27
43	7.05	27.39	0.55	0.66	25.62	114.10
44	7.22	33.68	0.61	0.66	22.10	115.05
45	7.38	38.90	0.63	0.69	19.11	115.97
46	7.55	45.84	0.68	0.69	16.43	116.74
47	7.71	54.02	0.71	0.74	14.44	117.53
48	7.87	59.30	0.76	0.77	13.12	118.05

:: Field input data :: (continued)

Point ID	Depth (ft)	q_c (tsf)	f_s (tsf)	u (tsf)	Fines content (%)	Unit weight (pcf)
49	8.04	62.25	0.77	0.77	12.18	118.00
50	8.20	64.35	0.65	0.77	11.51	117.70
51	8.37	64.92	0.66	0.74	11.40	117.29
52	8.53	60.48	0.66	0.74	12.24	117.33
53	8.69	56.35	0.69	0.74	13.53	117.41
54	8.86	53.73	0.72	0.74	14.55	117.49
55	9.02	52.98	0.71	0.74	14.92	117.47
56	9.19	54.04	0.69	0.74	14.65	117.49
57	9.35	57.13	0.71	0.74	14.15	117.61
58	9.51	59.41	0.72	0.74	13.70	117.82
59	9.68	61.21	0.73	0.74	12.71	117.78
60	9.84	67.70	0.66	0.74	11.63	118.00
61	10.01	75.06	0.73	0.74	10.74	118.27
62	10.17	76.80	0.76	0.66	10.20	118.85
63	10.34	83.45	0.78	0.66	9.54	119.34
64	10.50	92.89	0.83	0.66	9.11	119.69
65	10.66	90.17	0.83	0.66	9.90	119.46
66	10.83	68.06	0.75	0.77	11.55	118.43
67	10.99	57.53	0.62	0.77	13.78	117.23
68	11.15	53.85	0.61	0.74	14.33	116.12
69	11.32	53.93	0.52	0.74	14.31	115.56
70	11.48	53.85	0.50	0.74	13.94	115.07
71	11.65	53.79	0.51	0.74	14.04	115.05
72	11.81	53.68	0.52	0.74	14.10	115.11
73	11.97	54.49	0.51	0.74	14.00	115.15
74	12.14	55.70	0.51	0.77	13.70	115.14
75	12.30	57.13	0.51	0.77	13.24	115.21
76	12.47	60.00	0.51	0.77	12.74	115.31
77	12.63	62.25	0.51	0.77	12.27	115.44
78	12.79	63.96	0.51	0.77	11.93	115.56
79	12.96	65.53	0.52	0.77	11.98	115.59
80	13.12	62.89	0.52	0.77	12.26	115.56
81	13.29	61.32	0.51	0.74	12.68	115.49
82	13.45	61.18	0.52	0.74	12.48	115.51
83	13.62	65.98	0.51	0.74	11.67	115.70
84	13.78	72.92	0.52	0.77	10.58	115.98
85	13.94	78.37	0.53	0.77	9.68	116.28
86	14.11	82.98	0.54	0.74	8.99	116.47
87	14.27	86.88	0.53	0.74	8.43	116.60
88	14.44	90.45	0.54	0.77	8.06	116.75
89	14.60	92.64	0.55	0.74	7.96	116.96
90	14.76	92.47	0.57	0.77	8.26	117.28
91	14.93	89.89	0.61	0.77	8.70	117.51
92	15.09	88.48	0.62	0.77	9.02	117.44
93	15.26	86.68	0.56	0.66	8.96	117.14
94	15.42	87.84	0.55	0.69	8.76	116.95
95	15.58	90.39	0.57	0.69	8.64	117.01
96	15.75	90.48	0.57	0.69	8.57	117.14

:: Field input data :: (continued)

Point ID	Depth (ft)	q_c (tsf)	f_s (tsf)	u (tsf)	Fines content (%)	Unit weight (pcf)
97	15.91	91.83	0.57	0.69	8.35	117.14
98	16.08	95.19	0.56	0.69	8.22	117.12
99	16.24	93.59	0.56	0.69	8.55	117.13
100	16.40	86.57	0.58	0.66	9.62	117.08
101	16.57	76.85	0.58	0.69	10.89	116.89
102	16.73	72.98	0.56	0.66	11.55	116.62
103	16.90	75.53	0.55	0.66	11.26	116.51
104	17.06	80.11	0.55	0.66	10.66	116.60
105	17.22	82.95	0.56	0.69	10.18	116.71
106	17.39	84.58	0.55	0.69	9.88	116.77
107	17.55	86.29	0.55	0.69	9.63	116.81
108	17.72	88.06	0.56	0.69	9.49	116.98
109	17.88	89.86	0.58	0.69	9.39	117.20
110	18.05	91.57	0.59	0.69	9.27	117.39
111	18.21	93.28	0.59	0.69	9.09	117.66
112	18.37	97.47	0.63	0.69	8.73	117.91
113	18.54	102.56	0.63	0.71	7.77	118.15
114	18.70	117.39	0.60	0.77	6.45	118.73
115	18.86	139.94	0.70	0.77	4.91	119.70
116	19.03	170.08	0.78	0.79	3.92	120.86
117	19.19	184.46	0.84	0.79	3.36	121.42
118	19.36	182.36	0.82	0.82	3.38	121.51
119	19.52	172.53	0.81	0.82	3.65	121.17
120	19.68	163.57	0.77	0.82	4.19	121.26
121	19.85	160.73	0.88	0.82	4.63	121.40
122	20.01	158.03	0.88	0.82	5.17	121.21
123	20.18	138.68	0.74	0.69	6.07	120.29
124	20.34	111.57	0.67	0.69	7.64	119.15
125	20.50	95.42	0.66	0.66	9.57	118.37
126	20.67	87.64	0.64	0.66	10.97	117.93
127	20.83	83.12	0.62	0.66	11.62	117.60
128	21.00	82.39	0.60	0.66	11.83	117.40
129	21.16	83.12	0.60	0.64	11.63	117.42
130	21.32	86.71	0.61	0.61	11.44	117.79
131	21.49	90.31	0.68	0.61	11.28	118.41
132	21.65	94.04	0.74	0.64	10.96	118.90
133	21.82	98.96	0.72	0.61	10.05	119.25
134	21.98	111.54	0.73	0.61	8.71	119.75
135	22.15	129.13	0.81	0.61	7.26	120.84
136	22.31	154.72	0.96	0.64	6.02	122.29
137	22.47	181.66	1.12	0.64	5.40	123.61
138	22.64	186.99	1.25	0.66	5.03	124.35
139	22.80	192.53	1.23	0.66	4.78	124.62
140	22.97	202.50	1.21	0.66	4.55	124.54
141	23.13	197.13	1.19	0.66	4.86	124.94
142	23.29	190.56	1.43	0.66	5.79	125.93
143	23.46	192.97	1.79	0.66	6.93	126.83
144	23.62	180.31	1.81	0.69	7.55	127.17

:: Field input data :: (continued)

Point ID	Depth (ft)	q_c (tsf)	f_s (tsf)	u (tsf)	Fines content (%)	Unit weight (pcf)
145	23.79	179.13	1.71	0.69	7.74	126.92
146	23.95	179.72	1.65	0.66	7.45	126.51
147	24.11	178.85	1.54	0.69	7.07	126.20
148	24.28	184.86	1.49	0.71	6.16	125.87
149	24.44	205.76	1.37	0.74	5.30	126.07
150	24.61	224.04	1.54	0.74	5.06	126.90
151	24.77	226.51	1.92	0.74	5.75	128.17
152	24.93	219.44	2.25	0.79	6.70	128.74
153	25.10	202.53	2.07	0.79	6.93	128.10
154	25.26	194.38	1.49	0.66	5.78	126.61
155	25.43	219.29	1.18	0.66	4.08	125.43
156	25.59	250.50	1.26	0.64	3.08	125.56
157	25.75	265.25	1.43	0.64	2.91	126.48
158	25.92	270.31	1.60	0.64	3.29	127.21
159	26.08	253.90	1.71	0.64	4.07	127.56
160	26.25	226.37	1.75	0.64	5.15	127.45
161	26.41	202.44	1.69	0.64	6.30	127.04
162	26.57	185.62	1.60	0.64	6.97	126.54
163	26.74	184.24	1.53	0.64	7.01	126.30
164	26.90	194.01	1.55	0.64	6.97	126.29
165	27.07	187.86	1.59	0.66	7.47	126.34
166	27.23	168.54	1.60	0.66	8.21	126.13
167	27.39	163.62	1.51	0.66	8.93	125.69
168	27.56	154.77	1.42	0.66	8.99	125.09
169	27.72	152.47	1.29	0.66	8.71	124.78
170	27.89	164.38	1.33	0.69	7.73	124.85
171	28.05	186.99	1.36	0.71	6.58	125.74
172	28.21	219.24	1.62	0.74	5.72	126.66
173	28.38	232.13	1.73	0.77	5.35	126.89
174	28.54	214.13	1.46	0.74	5.09	126.25
175	28.71	209.91	1.24	0.74	5.30	125.37
176	28.87	193.06	1.31	0.74	5.94	125.08
177	29.04	178.17	1.38	0.74	7.73	125.61
178	29.20	159.16	1.66	0.74	9.97	126.02
179	29.36	138.31	1.73	0.74	12.67	125.72
180	29.53	109.75	1.43	0.71	14.31	124.28
181	29.69	101.46	1.00	0.71	14.22	122.65
182	29.86	111.85	0.99	0.71	13.27	122.09
183	30.02	115.70	1.16	0.71	14.14	122.64
184	30.18	97.69	1.26	-0.93	16.99	122.99
185	30.35	79.55	1.28	-0.95	20.95	122.84
186	30.51	72.33	1.28	-0.95	22.99	122.58
187	30.68	77.61	1.24	-0.95	23.60	122.65
188	30.84	76.09	1.34	-0.93	24.22	122.93
189	31.00	71.29	1.44	-0.74	25.46	123.23
190	31.17	72.58	1.44	-0.79	25.45	123.29
191	31.33	77.25	1.36	-0.77	24.35	123.17
192	31.50	78.51	1.33	-0.79	23.39	123.26

:: Field input data :: (continued)

Point ID	Depth (ft)	q_c (tsf)	f_s (tsf)	u (tsf)	Fines content (%)	Unit weight (pcf)
193	31.66	81.66	1.43	-0.77	22.83	123.53
194	31.82	85.70	1.47	-0.77	22.40	123.77
195	31.99	85.95	1.43	-0.56	21.86	123.67
196	32.15	85.59	1.35	-0.50	21.84	123.51
197	32.32	84.24	1.38	-0.50	21.77	123.42
198	32.48	85.90	1.38	-0.50	21.57	123.46
199	32.64	88.45	1.35	-0.48	21.01	123.56
200	32.81	91.46	1.41	-0.48	21.08	123.86
201	32.97	89.75	1.53	-0.45	21.48	124.11
202	33.14	88.73	1.50	-0.40	21.70	124.23
203	33.30	91.66	1.48	-0.40	21.65	124.15
204	33.47	89.47	1.48	-0.37	21.30	124.09
205	33.63	91.74	1.45	-0.37	20.92	123.90
206	33.79	93.20	1.36	-0.37	20.40	123.54
207	33.96	90.06	1.27	-0.40	20.15	122.93
208	34.12	86.15	1.15	-0.45	20.36	122.38
209	34.28	84.27	1.13	-0.56	21.45	122.23
210	34.45	78.54	1.25	-0.64	23.65	122.48
211	34.61	71.32	1.35	-0.61	27.02	122.80
212	34.78	64.19	1.41	-0.58	30.21	122.91
213	34.94	60.73	1.43	-0.56	30.24	123.12
214	35.10	73.68	1.45	-0.56	28.16	123.70
215	35.27	83.51	1.63	-0.58	27.28	124.42
216	35.43	75.62	1.79	-0.61	28.87	124.73
217	35.60	67.05	1.72	-0.58	32.09	124.44
218	35.76	61.04	1.60	-0.61	33.58	123.71
219	35.92	60.62	1.42	-0.61	33.33	123.08
220	36.09	62.61	1.36	-0.58	32.73	122.75
221	36.25	61.21	1.40	-0.61	33.12	122.69
222	36.42	58.51	1.40	-0.61	34.61	122.66
223	36.58	55.65	1.40	-0.61	33.69	122.80
224	36.74	67.16	1.44	-0.61	30.20	123.40
225	36.91	83.31	1.57	-0.58	26.63	124.23
226	37.07	88.93	1.68	-0.56	23.81	124.93
227	37.24	99.83	1.69	-0.56	22.06	125.35
228	37.40	106.85	1.72	-0.53	22.37	125.57
229	37.57	89.75	1.83	-0.56	24.72	125.24
230	37.73	73.40	1.62	-0.58	27.73	123.99
231	37.89	67.70	1.15	-0.64	25.76	122.20
232	38.06	83.00	0.87	-0.61	20.84	121.38
233	38.22	103.37	1.10	-0.58	17.14	122.37
234	38.39	121.01	1.38	-0.56	16.27	123.89
235	38.55	119.91	1.49	-0.40	15.67	124.35
236	38.71	121.12	1.29	-0.40	14.80	123.73
237	38.88	123.43	1.03	-0.40	13.18	122.57
238	39.04	125.95	0.92	-0.40	11.93	121.58
239	39.21	126.09	0.87	-0.40	11.32	121.16
240	39.37	127.92	0.86	-0.40	10.86	121.27

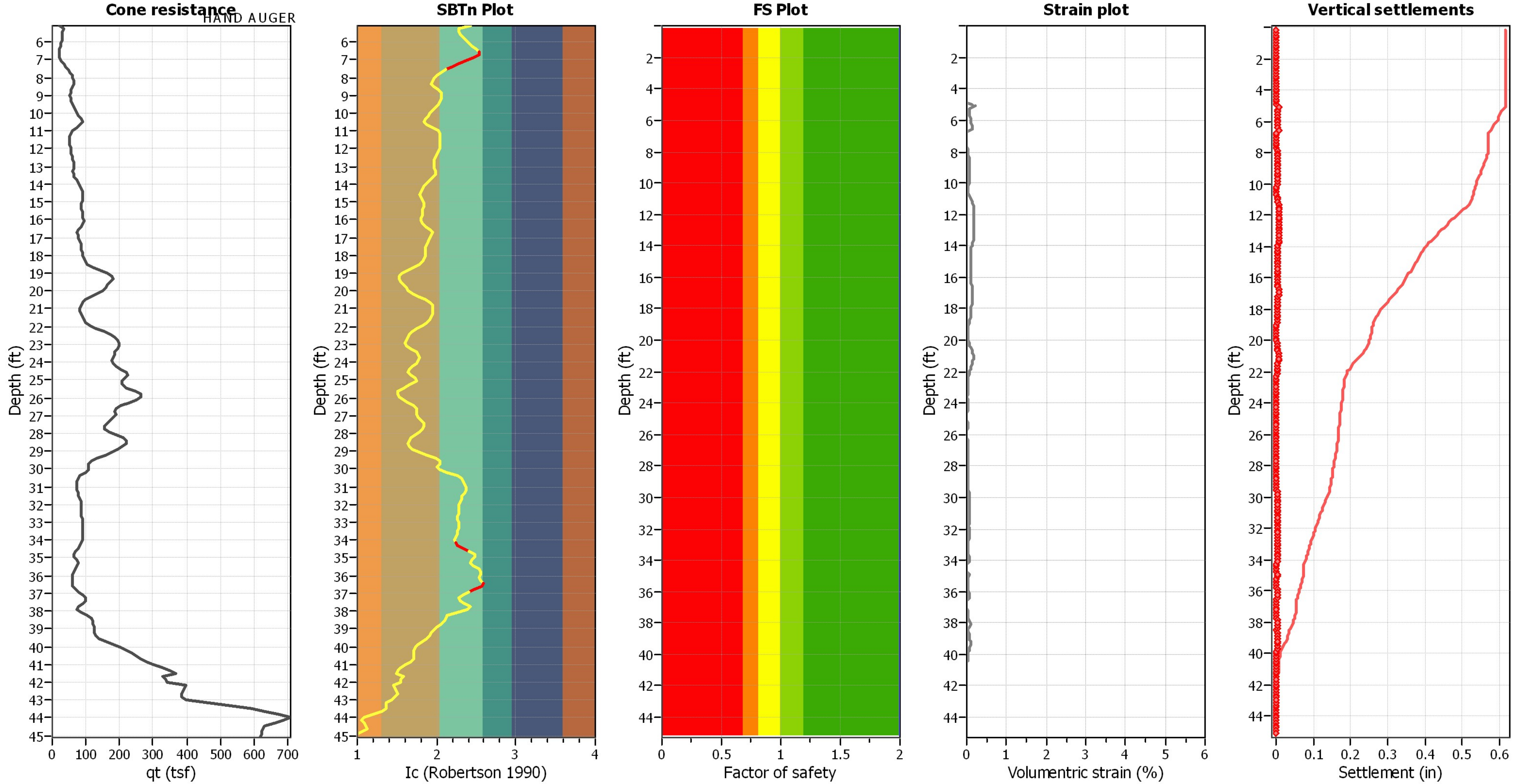
:: Field input data :: (continued)

Point ID	Depth (ft)	q_c (tsf)	f_s (tsf)	u (tsf)	Fines content (%)	Unit weight (pcf)
241	39.53	137.67	0.93	-0.40	10.05	121.86
242	39.70	155.56	1.02	-0.34	8.82	122.91
243	39.86	181.79	1.17	-0.32	7.59	124.17
244	40.03	206.71	1.35	-0.32	6.73	125.32
245	40.19	221.01	1.47	-0.24	6.28	126.37
246	40.35	235.56	1.66	-0.24	6.22	127.56
247	40.52	253.00	2.02	-0.24	6.41	128.85
248	40.68	263.62	2.35	-0.21	6.33	129.70
249	40.85	276.71	2.28	-0.18	5.59	129.86
250	41.01	301.60	2.04	-0.21	4.50	129.69
251	41.17	329.46	2.03	-0.21	3.63	129.74
252	41.34	352.21	2.16	-0.21	3.10	129.96
253	41.50	365.78	2.10	-0.16	2.86	130.44
254	41.67	384.32	2.34	-0.13	4.02	130.24
255	41.83	229.69	2.24	-0.05	3.65	130.26
256	41.99	400.50	2.03	0.00	3.43	130.17
257	42.16	400.33	2.22	0.08	2.16	130.59
258	42.32	397.38	2.29	0.08	2.45	130.92
259	42.49	387.75	2.36	0.16	2.70	131.06
260	42.65	381.06	2.40	0.21	2.98	131.34
261	42.81	383.93	2.58	0.24	2.40	130.38
262	42.98	394.38	1.45	0.27	1.92	130.00
263	43.14	418.73	2.01	0.32	1.09	130.97
264	43.31	578.93	3.10	0.77	1.21	133.47
265	43.47	582.35	3.73	0.85	1.02	135.01
266	43.63	613.34	3.68	1.01	0.48	134.93
267	43.80	698.42	2.77	1.38	0.00	133.49
268	43.96	707.18	1.74	1.40	0.00	131.64
269	44.13	721.57	1.74	1.69	0.00	130.24
270	44.29	636.23	1.74	0.08	0.00	130.16
271	44.45	632.63	1.74	0.05	0.00	130.04
272	44.62	625.58	1.74	0.05	0.00	130.02
273	44.78	622.86	1.73	0.05	0.00	128.01
274	44.95	619.51	0.50	0.05	0.00	125.27
275	45.11	615.89	0.50	0.05	0.00	120.87

Abbreviations

Depth:	Depth from free surface, at which CPT was performed (ft)
q_c:	Measured cone resistance (tsf)
f_s:	Sleeve friction resistance (tsf)
u:	Pore pressure (tsf)
Fines content:	Percentage of fines in soil (%)
Unit weight:	Bulk soil unit weight (pcf)

Estimation of post-earthquake settlements



Abbreviations

q_t:	Total cone resistance (cone resistance q_c corrected for pore water effects)
I_c:	Soil Behaviour Type Index
FS:	Calculated Factor of Safety against liquefaction
Volumentric strain:	Post-liquefaction volumentric strain

:: Post-earthquake settlement of dry sands ::

Depth (ft)	Ic	Kc	Qc1n	Qc1n,cs	N1,60 (blows)	Vs (ft/s)	Gmax (tsf)	CSR	Shear, γ (%)	Svol,15 (%)	Nc	ev (%)	Settle. (in)
0.16	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
0.33	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
0.49	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
0.66	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
0.82	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
0.98	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
1.15	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
1.31	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
1.48	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
1.64	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
1.80	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
1.97	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
2.13	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
2.30	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
2.46	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
2.63	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
2.79	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
2.95	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
3.12	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
3.28	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
3.44	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
3.61	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
3.77	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
3.94	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
4.10	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
4.26	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
4.43	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
4.59	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
4.76	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
4.92	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
5.08	2.43	2.43	34.19	83.24	21	473.9	386	0.41	0.325	0.31	8.91	0.22	0.009
5.25	2.28	1.89	51.81	98.17	23	531.8	503	0.41	0.111	0.09	8.91	0.07	0.003
5.41	2.29	1.91	51.17	97.63	23	529.9	499	0.41	0.122	0.10	8.91	0.07	0.003
5.58	2.31	1.97	49.44	97.27	23	527.1	493	0.41	0.136	0.12	8.91	0.08	0.003
5.74	2.34	2.07	47.01	97.42	23	524.2	487	0.41	0.151	0.13	8.91	0.09	0.004
5.91	2.37	2.18	44.95	97.89	24	522.0	483	0.41	0.166	0.14	8.91	0.10	0.004
6.07	2.40	2.31	42.53	98.44	24	519.1	477	0.41	0.186	0.15	8.91	0.10	0.004
6.23	2.45	2.52	39.21	98.91	25	513.9	467	0.41	0.217	0.17	8.91	0.12	0.005
6.40	2.50	2.79	35.57	99.09	26	506.7	452	0.41	0.265	0.20	8.91	0.14	0.005
6.56	2.54	2.96	33.33	98.64	26	500.8	440	0.41	0.317	0.23	8.91	0.16	0.006
6.73	2.53	2.92	33.43	97.62	0	0.0	0	0.40	0.000	0.00	0.00	0.00	0.000
6.89	2.47	2.62	37.13	97.24	0	0.0	0	0.40	0.000	0.00	0.00	0.00	0.000
7.05	2.38	2.23	44.08	98.50	0	0.0	0	0.40	0.000	0.00	0.00	0.00	0.000
7.22	2.29	1.91	52.87	101.13	0	0.0	0	0.40	0.000	0.00	0.00	0.00	0.000
7.38	2.20	1.67	62.73	105.08	0	0.0	0	0.40	0.000	0.00	0.00	0.00	0.000
7.55	2.12	1.49	73.61	109.89	0	0.0	0	0.40	0.000	0.00	0.00	0.00	0.000
7.71	2.05	1.38	84.52	116.33	0	0.0	0	0.40	0.000	0.00	0.00	0.00	0.000
7.87	2.01	1.31	92.67	121.23	25	599.0	658	0.40	0.096	0.07	8.91	0.05	0.002

:: Post-earthquake settlement of dry sands :: (continued)

Depth (ft)	Ic	Kc	Qc1n	Qc1n,cs	N1,60 (blows)	Vs (ft/s)	Gmax (tsf)	CSR	Shear, γ (%)	Svol,15 (%)	Nc	ev (%)	Settle. (in)
8.04	1.97	1.26	95.86	121.17	25	602.8	666	0.40	0.096	0.07	8.91	0.05	0.002
8.20	1.95	1.23	96.81	119.51	24	601.9	663	0.40	0.101	0.08	8.91	0.05	0.002
8.37	1.94	1.23	94.63	116.37	24	597.4	650	0.40	0.112	0.09	8.91	0.06	0.002
8.53	1.97	1.27	90.36	114.48	24	596.8	649	0.40	0.117	0.10	8.91	0.06	0.003
8.69	2.02	1.33	84.84	112.76	24	595.7	647	0.40	0.123	0.10	8.91	0.07	0.003
8.86	2.06	1.38	80.88	111.83	24	595.8	648	0.40	0.127	0.10	8.91	0.07	0.003
9.02	2.07	1.40	78.97	110.80	24	596.2	649	0.40	0.131	0.11	8.91	0.07	0.003
9.19	2.06	1.39	79.50	110.33	24	598.9	655	0.40	0.132	0.11	8.91	0.07	0.003
9.35	2.04	1.36	81.32	110.66	23	603.9	666	0.40	0.128	0.11	8.91	0.07	0.003
9.51	2.03	1.34	83.48	111.65	23	610.3	682	0.40	0.123	0.10	8.91	0.07	0.003
9.68	1.99	1.29	86.77	111.83	23	614.1	690	0.40	0.122	0.10	8.91	0.07	0.003
9.84	1.95	1.24	92.16	114.26	23	622.8	711	0.40	0.114	0.09	8.91	0.06	0.002
10.01	1.91	1.20	97.47	117.20	24	631.8	733	0.40	0.107	0.09	8.91	0.06	0.002
10.17	1.89	1.18	102.99	121.67	24	645.1	768	0.40	0.095	0.08	8.91	0.05	0.002
10.34	1.86	1.16	109.14	126.23	25	657.4	801	0.40	0.087	0.07	8.91	0.04	0.002
10.50	1.85	1.14	113.43	129.44	25	666.7	826	0.40	0.082	0.06	8.91	0.04	0.002
10.66	1.88	1.17	106.58	124.68	25	661.1	811	0.40	0.088	0.07	8.91	0.04	0.002
10.83	1.95	1.24	91.80	113.50	23	639.1	752	0.40	0.115	0.10	8.91	0.06	0.002
10.99	2.03	1.34	76.68	102.88	22	613.9	686	0.40	0.160	0.15	8.91	0.09	0.004
11.15	2.05	1.37	70.15	96.15	20	596.2	641	0.40	0.213	0.21	8.91	0.13	0.005
11.32	2.05	1.37	67.91	93.00	20	589.1	623	0.40	0.247	0.25	8.91	0.16	0.006
11.48	2.04	1.35	67.10	90.57	19	584.1	610	0.40	0.279	0.29	8.91	0.19	0.007
11.65	2.04	1.36	66.43	90.01	19	584.9	612	0.40	0.284	0.30	8.91	0.19	0.008
11.81	2.04	1.36	66.12	89.81	19	586.9	616	0.40	0.285	0.30	8.91	0.19	0.008
11.97	2.04	1.35	66.27	89.68	19	589.0	621	0.40	0.285	0.30	8.91	0.19	0.008
12.14	2.03	1.34	66.99	89.57	19	591.1	625	0.40	0.285	0.31	8.91	0.19	0.008
12.30	2.01	1.31	68.46	89.98	19	594.6	633	0.40	0.279	0.30	8.91	0.19	0.007
12.47	1.99	1.29	70.31	90.70	19	598.8	642	0.40	0.270	0.29	8.91	0.18	0.007
12.63	1.97	1.27	72.24	91.61	19	603.3	653	0.40	0.260	0.28	8.91	0.17	0.007
12.79	1.96	1.25	73.69	92.34	19	607.3	662	0.40	0.252	0.27	8.91	0.17	0.007
12.96	1.96	1.25	73.38	92.08	19	609.0	666	0.40	0.254	0.27	8.91	0.17	0.007
13.12	1.97	1.27	71.89	91.13	19	608.8	665	0.40	0.261	0.28	8.91	0.17	0.007
13.29	1.99	1.29	69.80	89.85	19	607.8	663	0.40	0.273	0.30	8.91	0.18	0.007
13.45	1.98	1.28	70.37	89.92	19	609.9	668	0.40	0.272	0.30	8.91	0.18	0.007
13.62	1.95	1.24	73.94	91.79	19	616.3	683	0.40	0.256	0.28	8.91	0.17	0.007
13.78	1.91	1.20	79.42	95.02	19	625.1	704	0.40	0.233	0.25	8.91	0.15	0.006
13.94	1.87	1.16	84.78	98.48	20	633.8	726	0.40	0.213	0.22	8.91	0.13	0.005
14.11	1.84	1.14	89.02	101.19	20	640.2	742	0.40	0.201	0.20	8.91	0.12	0.005
14.27	1.81	1.12	92.56	103.42	20	645.3	754	0.40	0.193	0.19	8.91	0.12	0.005
14.44	1.80	1.10	95.27	105.23	20	650.1	767	0.40	0.187	0.18	8.91	0.11	0.004
14.60	1.79	1.10	96.60	106.37	21	654.8	779	0.40	0.181	0.18	8.91	0.10	0.004
14.76	1.81	1.11	95.90	106.59	21	660.0	794	0.40	0.173	0.17	8.91	0.10	0.004
14.93	1.83	1.13	93.98	105.86	21	663.3	803	0.40	0.170	0.16	8.91	0.10	0.004
15.09	1.84	1.14	91.46	104.06	20	662.1	800	0.40	0.176	0.17	8.91	0.10	0.004
15.26	1.84	1.14	90.16	102.40	20	658.4	789	0.40	0.189	0.19	8.91	0.11	0.004
15.42	1.83	1.13	90.21	101.83	20	657.1	784	0.40	0.197	0.20	8.91	0.12	0.005
15.58	1.82	1.12	90.93	102.26	20	659.5	791	0.40	0.196	0.20	8.91	0.11	0.004
15.75	1.82	1.12	91.72	102.91	20	663.0	800	0.40	0.192	0.19	8.91	0.11	0.004

:: Post-earthquake settlement of dry sands :: (continued)

Depth (ft)	Ic	Kc	Qc1n	Qc1n,cs	N1,60 (blows)	Vs (ft/s)	Gmax (tsf)	CSR	Shear, γ (%)	Svol,15 (%)	Nc	ev (%)	Settle. (in)
15.91	1.81	1.11	92.75	103.38	20	664.6	804	0.40	0.192	0.19	8.91	0.11	0.004
16.08	1.80	1.11	93.23	103.50	20	665.8	807	0.40	0.194	0.19	8.91	0.11	0.004
16.24	1.82	1.12	90.99	102.05	20	665.8	807	0.40	0.198	0.20	8.91	0.11	0.005
16.40	1.87	1.16	84.52	98.02	19	662.6	799	0.40	0.209	0.22	8.91	0.12	0.005
16.57	1.92	1.21	77.33	93.47	19	656.8	783	0.40	0.229	0.25	8.91	0.14	0.006
16.73	1.95	1.24	73.28	90.60	18	651.8	770	0.40	0.250	0.27	8.91	0.16	0.006
16.90	1.94	1.22	73.89	90.44	18	651.8	769	0.40	0.256	0.28	8.91	0.16	0.006
17.06	1.91	1.20	76.65	91.95	19	655.9	779	0.40	0.249	0.27	8.91	0.15	0.006
17.22	1.89	1.18	79.10	93.39	19	659.9	790	0.40	0.241	0.26	8.91	0.15	0.006
17.39	1.88	1.17	80.63	94.26	19	662.7	797	0.40	0.238	0.26	8.91	0.14	0.006
17.55	1.87	1.16	81.80	94.89	19	665.0	803	0.40	0.236	0.25	8.91	0.14	0.006
17.72	1.86	1.15	83.02	95.87	19	669.2	814	0.40	0.229	0.24	8.91	0.14	0.005
17.88	1.86	1.15	84.24	96.97	19	674.0	827	0.39	0.220	0.23	8.91	0.13	0.005
18.05	1.85	1.15	85.43	97.98	19	678.4	839	0.40	0.213	0.22	8.91	0.12	0.005
18.21	1.84	1.14	87.35	99.63	20	684.3	856	0.40	0.204	0.21	8.91	0.11	0.005
18.37	1.83	1.13	90.32	101.86	20	690.5	873	0.40	0.195	0.20	8.91	0.11	0.004
18.54	1.78	1.09	97.37	106.60	20	698.6	896	0.40	0.183	0.18	8.91	0.10	0.004
18.70	1.72	1.05	110.08	115.56	22	713.8	940	0.40	0.160	0.15	8.91	0.08	0.003
18.86	1.63	1.00	130.49	130.49	24	737.6	1012	0.40	0.131	0.11	8.91	0.06	0.002
19.03	1.57	1.00	150.45	150.45	27	764.1	1096	0.40	0.107	0.07	8.91	0.04	0.002
19.19	1.54	1.00	162.71	162.71	29	778.4	1143	0.40	0.098	0.06	8.91	0.03	0.001
19.36	1.54	1.00	162.73	162.73	29	780.9	1151	0.40	0.098	0.06	8.91	0.03	0.001
19.52	1.56	1.00	155.70	155.70	28	774.0	1128	0.40	0.105	0.07	8.91	0.04	0.001
19.68	1.59	1.00	148.51	148.51	27	774.1	1129	0.40	0.107	0.08	8.91	0.04	0.002
19.85	1.62	1.00	143.52	143.52	26	775.7	1135	0.40	0.108	0.08	8.91	0.04	0.002
20.01	1.65	1.00	135.43	135.69	25	770.6	1118	0.40	0.114	0.09	8.91	0.05	0.002
20.18	1.70	1.04	119.99	124.33	23	750.9	1054	0.40	0.138	0.12	8.91	0.06	0.002
20.34	1.78	1.09	100.60	109.70	21	726.1	976	0.40	0.178	0.17	8.91	0.09	0.003
20.50	1.87	1.16	84.83	98.20	19	708.0	922	0.40	0.221	0.23	8.91	0.12	0.005
20.67	1.92	1.21	75.93	92.01	19	697.8	892	0.41	0.254	0.28	8.91	0.14	0.006
20.83	1.95	1.24	71.70	88.86	18	691.5	874	0.41	0.281	0.32	8.91	0.16	0.006
21.00	1.96	1.25	70.02	87.41	18	688.7	865	0.41	0.298	0.34	8.91	0.17	0.007
21.16	1.95	1.24	70.73	87.68	18	690.3	869	0.41	0.299	0.34	8.91	0.17	0.007
21.32	1.94	1.23	72.67	89.49	18	697.8	891	0.41	0.279	0.31	8.91	0.16	0.006
21.49	1.94	1.22	75.43	92.40	19	709.8	927	0.41	0.247	0.27	8.91	0.13	0.005
21.65	1.92	1.21	78.58	95.20	19	719.9	957	0.41	0.225	0.24	8.91	0.12	0.005
21.82	1.89	1.18	84.39	99.21	20	729.1	985	0.41	0.208	0.21	8.91	0.11	0.004
21.98	1.83	1.13	94.22	106.18	21	742.4	1025	0.41	0.186	0.18	8.91	0.09	0.003
22.15	1.76	1.08	109.99	118.50	23	767.5	1106	0.41	0.150	0.13	8.91	0.06	0.003
22.31	1.69	1.03	129.82	134.27	25	800.5	1217	0.41	0.116	0.09	8.91	0.04	0.002
22.47	1.66	1.01	145.93	147.53	27	831.1	1326	0.41	0.095	0.07	8.91	0.03	0.001
22.64	1.64	1.00	156.22	156.22	29	849.4	1394	0.41	0.086	0.06	8.91	0.03	0.001
22.80	1.63	1.00	161.44	161.44	29	857.2	1423	0.41	0.083	0.05	8.91	0.03	0.001
22.97	1.61	1.00	163.64	163.64	30	857.2	1422	0.41	0.084	0.05	8.91	0.03	0.001
23.13	1.63	1.00	162.48	162.48	30	865.8	1455	0.41	0.081	0.05	8.91	0.02	0.001
23.29	1.68	1.03	158.55	162.66	30	887.6	1541	0.41	0.073	0.04	8.91	0.02	0.001
23.46	1.74	1.07	152.38	162.46	31	908.2	1625	0.41	0.066	0.04	8.91	0.02	0.001
23.62	1.77	1.09	148.17	161.10	31	916.6	1660	0.41	0.064	0.04	8.91	0.02	0.001

:: Post-earthquake settlement of dry sands :: (continued)

Depth (ft)	Ic	Kc	Qc1n	Qc1n,cs	N1,60 (blows)	Vs (ft/s)	Gmax (tsf)	CSR	Shear, γ (%)	Svol,15 (%)	Nc	ev (%)	Settle. (in)
23.79	1.78	1.09	143.85	157.31	30	910.5	1635	0.41	0.067	0.04	8.91	0.02	0.001
23.95	1.77	1.08	143.09	155.10	30	901.4	1597	0.42	0.071	0.04	8.91	0.02	0.001
24.11	1.75	1.07	144.35	154.58	29	895.3	1571	0.42	0.075	0.05	8.91	0.02	0.001
24.28	1.70	1.04	151.55	157.53	29	890.0	1549	0.42	0.078	0.05	8.91	0.02	0.001
24.44	1.66	1.01	163.98	165.12	30	897.7	1578	0.42	0.076	0.05	8.91	0.02	0.001
24.61	1.64	1.00	174.82	174.35	32	919.8	1668	0.42	0.069	0.04	8.91	0.02	0.001
24.77	1.68	1.02	176.98	181.32	34	952.5	1807	0.42	0.059	0.03	8.91	0.01	0.001
24.93	1.73	1.06	169.53	179.41	34	967.1	1870	0.42	0.056	0.03	8.91	0.01	0.001
25.10	1.74	1.07	160.21	170.83	32	949.7	1795	0.42	0.062	0.03	8.91	0.02	0.001
25.26	1.68	1.03	160.86	164.94	31	913.9	1643	0.42	0.075	0.04	8.91	0.02	0.001
25.43	1.58	1.00	173.84	173.84	31	891.2	1548	0.42	0.086	0.05	8.91	0.02	0.001
25.59	1.52	1.00	191.85	191.85	34	899.7	1579	0.42	0.084	0.04	8.91	0.02	0.001
25.75	1.51	1.00	204.54	204.54	36	923.7	1676	0.42	0.074	0.04	8.91	0.02	0.001
25.92	1.53	1.00	204.73	204.73	36	941.1	1750	0.42	0.069	0.03	8.91	0.02	0.001
26.08	1.58	1.00	193.92	193.92	35	947.6	1779	0.42	0.068	0.03	8.91	0.02	0.001
26.25	1.65	1.00	175.50	175.69	32	941.2	1754	0.42	0.070	0.04	8.91	0.02	0.001
26.41	1.71	1.04	155.80	162.73	30	928.9	1703	0.42	0.076	0.05	8.91	0.02	0.001
26.57	1.74	1.07	143.77	153.47	29	915.7	1648	0.42	0.082	0.05	8.91	0.02	0.001
26.74	1.75	1.07	141.07	150.82	29	910.2	1626	0.42	0.086	0.06	8.91	0.02	0.001
26.90	1.74	1.07	141.18	150.75	29	910.9	1628	0.42	0.087	0.06	8.91	0.02	0.001
27.07	1.77	1.08	136.21	147.73	28	912.1	1633	0.42	0.087	0.06	8.91	0.02	0.001
27.23	1.80	1.11	127.42	141.42	27	906.4	1610	0.42	0.091	0.06	8.91	0.03	0.001
27.39	1.84	1.13	118.16	134.09	26	895.3	1565	0.42	0.098	0.07	8.91	0.03	0.001
27.56	1.84	1.14	113.76	129.30	25	881.4	1510	0.42	0.109	0.08	8.91	0.03	0.001
27.72	1.83	1.13	113.77	128.22	25	875.3	1485	0.42	0.114	0.09	8.91	0.04	0.001
27.89	1.78	1.09	122.15	133.57	26	879.2	1499	0.42	0.113	0.08	8.91	0.04	0.001
28.05	1.72	1.05	139.42	146.98	28	902.9	1592	0.42	0.099	0.07	8.91	0.03	0.001
28.21	1.68	1.02	156.88	160.50	30	927.9	1694	0.42	0.087	0.05	8.91	0.02	0.001
28.38	1.66	1.01	163.68	165.13	30	935.3	1725	0.42	0.085	0.05	8.91	0.02	0.001
28.54	1.64	1.00	161.30	161.03	29	920.1	1660	0.43	0.093	0.06	8.91	0.02	0.001
28.71	1.66	1.01	150.81	151.88	28	898.9	1574	0.43	0.107	0.07	8.91	0.03	0.001
28.87	1.69	1.03	140.59	145.00	27	891.7	1545	0.43	0.113	0.08	8.91	0.03	0.001
29.04	1.78	1.09	125.61	137.35	26	902.1	1588	0.43	0.107	0.08	8.91	0.03	0.001
29.20	1.88	1.17	109.99	129.00	26	910.1	1621	0.43	0.103	0.08	8.91	0.03	0.001
29.36	1.99	1.29	91.73	118.05	24	900.4	1583	0.43	0.110	0.09	8.91	0.03	0.001
29.53	2.05	1.37	77.37	105.95	22	865.1	1445	0.43	0.141	0.12	8.91	0.05	0.002
29.69	2.05	1.36	71.19	97.15	21	829.4	1311	0.43	0.188	0.18	8.91	0.07	0.003
29.86	2.01	1.32	72.75	95.70	20	819.2	1273	0.43	0.208	0.21	8.91	0.08	0.003
30.02	2.04	1.36	71.18	96.84	20	830.8	1315	0.43	0.191	0.19	8.91	0.07	0.003
30.18	2.14	1.53	62.52	95.54	21	836.5	1337	0.43	0.184	0.17	8.91	0.07	0.003
30.35	2.26	1.82	51.59	93.77	22	830.9	1317	0.43	0.195	0.18	8.91	0.07	0.003
30.51	2.31	1.99	46.60	92.73	22	824.5	1295	0.43	0.208	0.19	8.91	0.07	0.003
30.68	2.33	2.04	45.53	93.07	22	826.4	1301	0.43	0.207	0.18	8.91	0.07	0.003
30.84	2.34	2.10	44.97	94.50	23	833.0	1325	0.43	0.198	0.17	8.91	0.06	0.003
31.00	2.38	2.22	43.45	96.40	23	839.9	1350	0.43	0.190	0.16	8.91	0.06	0.002
31.17	2.38	2.22	43.50	96.48	23	842.0	1358	0.43	0.189	0.16	8.91	0.06	0.002
31.33	2.35	2.11	45.03	95.17	23	840.9	1353	0.43	0.193	0.16	8.91	0.06	0.002
31.50	2.32	2.03	46.93	95.05	23	844.3	1365	0.43	0.190	0.16	8.91	0.06	0.002

:: Post-earthquake settlement of dry sands :: (continued)

Depth (ft)	Ic	Kc	Qc1n	Qc1n,cs	N1,60 (blows)	Vs (ft/s)	Gmax (tsf)	CSR	Shear, γ (%)	Svol,15 (%)	Nc	ev (%)	Settle. (in)
31.66	2.31	1.98	48.60	96.03	23	851.5	1391	0.43	0.182	0.16	8.91	0.06	0.002
31.82	2.30	1.94	50.03	96.98	23	858.2	1416	0.43	0.174	0.15	8.91	0.05	0.002
31.99	2.28	1.89	50.79	96.10	22	856.9	1411	0.43	0.178	0.16	8.91	0.06	0.002
32.15	2.28	1.89	50.30	95.09	22	854.1	1400	0.43	0.185	0.16	8.91	0.06	0.002
32.32	2.28	1.88	50.11	94.42	22	852.8	1394	0.43	0.189	0.17	8.91	0.06	0.002
32.48	2.27	1.87	50.55	94.41	22	854.7	1401	0.43	0.188	0.17	8.91	0.06	0.002
32.64	2.26	1.82	51.98	94.69	22	858.2	1414	0.43	0.185	0.17	8.91	0.06	0.002
32.81	2.26	1.83	52.51	96.00	22	865.7	1442	0.43	0.177	0.16	8.91	0.05	0.002
32.97	2.27	1.86	52.23	97.16	23	872.1	1467	0.43	0.170	0.15	8.91	0.05	0.002
33.14	2.28	1.88	51.99	97.65	23	875.7	1480	0.43	0.167	0.14	8.91	0.05	0.002
33.30	2.28	1.87	51.74	97.00	23	874.5	1475	0.43	0.171	0.15	8.91	0.05	0.002
33.47	2.27	1.85	52.25	96.46	22	874.1	1473	0.43	0.173	0.15	8.91	0.05	0.002
33.63	2.26	1.82	52.49	95.27	22	870.7	1459	0.43	0.179	0.16	8.91	0.05	0.002
33.79	2.24	1.77	52.60	93.29	21	863.5	1431	0.43	0.192	0.18	8.91	0.06	0.002
33.96	2.23	1.75	51.41	90.18	21	850.5	1382	0.43	0.215	0.21	8.91	0.07	0.003
34.12	2.24	1.77	49.41	87.45	20	839.0	1338	0.43	0.240	0.24	8.91	0.08	0.003
34.28	2.27	1.86	46.63	86.64	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
34.45	2.33	2.05	42.96	88.03	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
34.61	2.41	2.37	38.18	90.63	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
34.78	2.49	2.72	34.10	92.60	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
34.94	2.49	2.72	34.38	93.45	24	854.8	1397	0.43	0.220	0.18	8.91	0.06	0.002
35.10	2.44	2.49	38.15	95.11	24	869.9	1454	0.43	0.197	0.16	8.91	0.05	0.002
35.27	2.42	2.40	40.90	98.19	24	888.0	1524	0.43	0.174	0.14	8.91	0.04	0.002
35.43	2.46	2.57	39.15	100.56	25	895.9	1555	0.43	0.166	0.12	8.91	0.04	0.002
35.60	2.53	2.93	34.33	100.60	26	888.6	1526	0.43	0.176	0.13	8.91	0.04	0.002
35.76	2.56	3.11	31.32	97.34	26	871.5	1460	0.43	0.202	0.15	8.91	0.05	0.002
35.92	2.56	3.08	30.47	93.79	25	857.9	1407	0.43	0.227	0.18	8.91	0.05	0.002
36.09	2.54	3.01	30.48	91.64	24	851.3	1382	0.43	0.243	0.19	8.91	0.06	0.002
36.25	2.55	3.05	29.93	91.35	24	850.6	1379	0.43	0.247	0.20	8.91	0.06	0.002
36.42	2.58	3.23	28.38	91.76	25	850.2	1377	0.43	0.250	0.19	8.91	0.06	0.002
36.58	2.57	3.12	29.42	91.82	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
36.74	2.49	2.71	34.19	92.77	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
36.91	2.41	2.33	40.69	94.98	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
37.07	2.33	2.06	47.17	97.35	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
37.24	2.29	1.91	51.86	99.01	23	921.6	1654	0.43	0.153	0.13	8.91	0.04	0.001
37.40	2.30	1.94	51.70	100.08	24	927.9	1679	0.43	0.148	0.12	8.91	0.04	0.001
37.57	2.36	2.15	45.98	98.77	24	919.7	1646	0.43	0.157	0.13	8.91	0.04	0.001
37.73	2.43	2.45	38.16	93.41	23	889.3	1523	0.43	0.196	0.16	8.91	0.05	0.002
37.89	2.38	2.25	37.40	84.09	21	849.6	1370	0.43	0.274	0.27	8.91	0.08	0.003
38.06	2.25	1.81	44.08	79.70	18	834.4	1313	0.43	0.318	0.35	8.91	0.10	0.004
38.22	2.14	1.54	55.19	84.90	19	857.8	1399	0.43	0.260	0.28	8.91	0.08	0.003
38.39	2.12	1.48	62.29	92.37	20	893.0	1535	0.43	0.198	0.20	8.91	0.05	0.002
38.55	2.10	1.45	65.76	95.10	21	904.7	1581	0.42	0.183	0.18	8.91	0.05	0.002
38.71	2.07	1.40	66.59	93.00	20	891.1	1526	0.42	0.204	0.21	8.91	0.06	0.002
38.88	2.01	1.31	68.71	90.10	19	866.5	1430	0.42	0.250	0.27	8.91	0.07	0.003
39.04	1.96	1.25	70.45	88.27	18	846.7	1354	0.42	0.300	0.34	8.91	0.09	0.004
39.21	1.94	1.23	71.64	87.87	18	839.0	1325	0.42	0.325	0.37	8.91	0.10	0.004
39.37	1.92	1.21	74.12	89.50	18	842.2	1336	0.42	0.318	0.36	8.91	0.09	0.004

:: Post-earthquake settlement of dry sands :: (continued)

Depth (ft)	Ic	Kc	Qc1n	Qc1n,cs	N1,60 (blows)	Vs (ft/s)	Gmax (tsf)	CSR	Shear, γ (%)	Svol,15 (%)	Nc	ev (%)	Settle. (in)
39.53	1.89	1.18	80.42	94.54	19	855.4	1385	0.42	0.284	0.31	8.91	0.08	0.003
39.70	1.83	1.13	92.18	104.23	20	879.0	1475	0.42	0.234	0.23	8.91	0.06	0.002
39.86	1.77	1.09	107.42	116.96	22	908.2	1591	0.42	0.189	0.17	8.91	0.04	0.002
40.03	1.73	1.06	121.87	129.10	24	936.1	1706	0.42	0.158	0.12	8.91	0.03	0.001
40.19	1.71	1.04	133.42	139.25	26	962.7	1819	0.42	0.135	0.10	8.91	0.02	0.001
40.35	1.71	1.04	142.65	148.58	28	994.1	1958	0.42	0.114	0.08	8.91	0.02	0.001
40.52	1.72	1.05	150.48	157.75	30	1030.2	2125	0.42	0.096	0.06	8.91	0.01	0.001
40.68	1.71	1.05	158.65	165.84	31	1055.4	2244	0.42	0.086	0.05	8.91	0.01	0.000
40.85	1.67	1.02	170.23	173.37	32	1060.6	2269	0.42	0.085	0.05	8.91	0.01	0.000
41.01	1.61	1.00	185.21	185.21	34	1058.4	2257	0.42	0.086	0.05	8.91	0.01	0.000
41.17	1.55	1.00	200.31	200.31	36	1064.6	2285	0.42	0.085	0.04	8.91	0.01	0.000
41.34	1.52	1.00	213.02	213.02	37	1074.6	2331	0.42	0.082	0.04	8.91	0.01	0.000
41.50	1.50	1.00	223.78	223.78	39	1090.7	2410	0.42	0.077	0.03	8.91	0.01	0.000
41.67	1.58	1.00	198.30	198.30	36	1079.3	2357	0.42	0.081	0.04	8.91	0.01	0.000
41.83	1.55	1.00	204.95	204.95	36	1082.1	2369	0.42	0.080	0.04	8.91	0.01	0.000
41.99	1.54	1.00	207.76	207.76	37	1081.0	2363	0.42	0.081	0.04	8.91	0.01	0.000
42.16	1.45	1.00	241.31	241.31	41	1101.4	2461	0.42	0.076	0.03	8.91	0.01	0.000
42.32	1.47	1.00	238.22	238.22	41	1110.5	2508	0.42	0.073	0.03	8.91	0.01	0.000
42.49	1.49	1.00	233.83	233.83	41	1114.1	2527	0.42	0.073	0.03	8.91	0.01	0.000
42.65	1.51	1.00	230.62	230.62	40	1121.7	2567	0.42	0.071	0.03	8.91	0.01	0.000
42.81	1.47	1.00	231.48	231.48	40	1095.7	2432	0.42	0.079	0.03	8.91	0.01	0.000
42.98	1.43	1.00	238.55	238.55	41	1087.9	2390	0.42	0.082	0.03	8.91	0.01	0.000
43.14	1.36	1.00	277.09	277.09	46	1123.4	2568	0.42	0.072	0.03	8.91	0.01	0.000
43.31	1.37	1.00	314.06	314.06	53	1205.7	3014	0.42	0.055	0.02	8.91	0.00	0.000
43.47	1.36	1.00	352.20	352.20	59	1264.5	3354	0.41	0.047	0.01	8.91	0.00	0.000
43.63	1.31	1.00	375.23	375.23	62	1265.9	3359	0.41	0.047	0.01	8.91	0.00	0.000
43.80	1.20	1.00	399.23	399.23	64	1222.2	3098	0.41	0.053	0.01	8.91	0.00	0.000
43.96	1.09	1.00	419.86	419.86	65	1170.7	2803	0.41	0.063	0.02	8.91	0.00	0.000
44.13	1.06	1.00	406.72	406.72	62	1132.5	2595	0.41	0.072	0.02	8.91	0.00	0.000
44.29	1.09	1.00	391.19	391.19	60	1128.3	2574	0.41	0.074	0.02	8.91	0.00	0.000
44.45	1.12	1.00	371.51	371.51	58	1122.3	2544	0.41	0.075	0.02	8.91	0.00	0.000
44.62	1.12	1.00	368.14	368.14	57	1121.7	2541	0.41	0.076	0.02	8.91	0.00	0.000
44.78	1.06	1.00	364.86	364.86	56	1075.7	2301	0.41	0.092	0.03	8.91	0.01	0.000
44.95	0.99	1.00	362.97	362.97	54	1026.4	2050	0.41	0.118	0.04	8.91	0.01	0.000
45.11	0.92	1.00	360.24	360.24	53	981.0	1807	0.41	0.160	0.05	8.91	0.01	0.000

Total estimated settlement: 0.62

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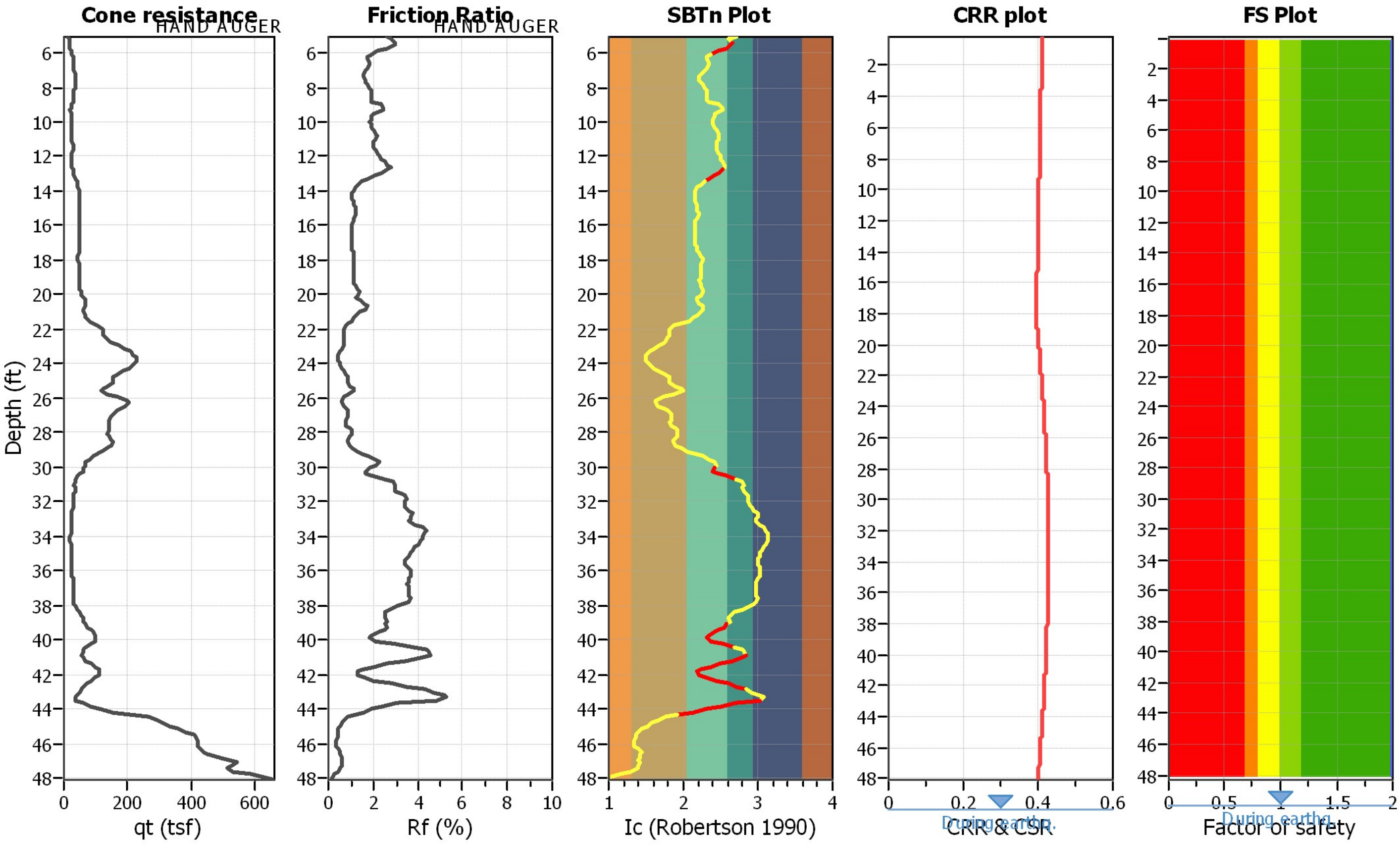
LIQUEFACTION ANALYSIS REPORT

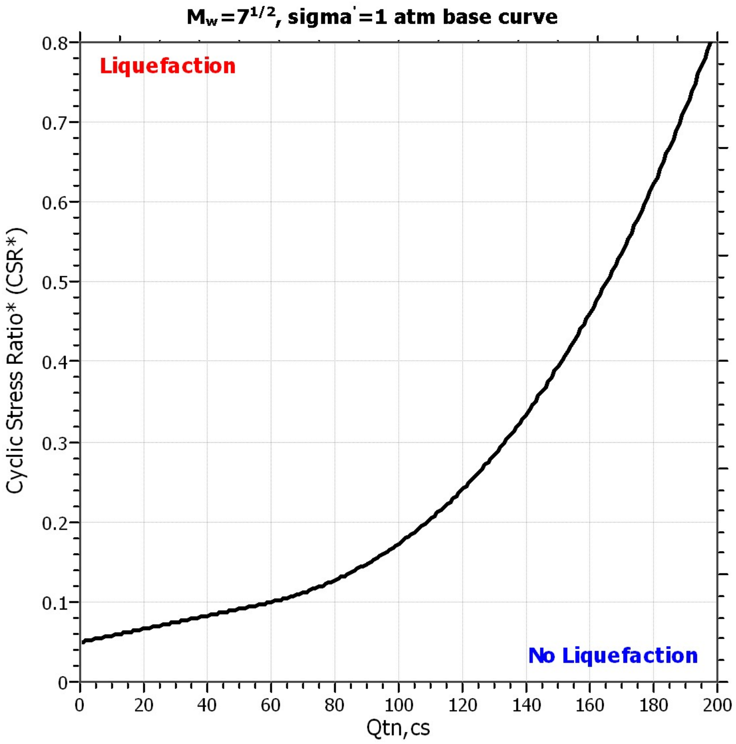
Project title : Colfax Charter Elementary School - MCE Analysis **Location : A8326-06-69A**

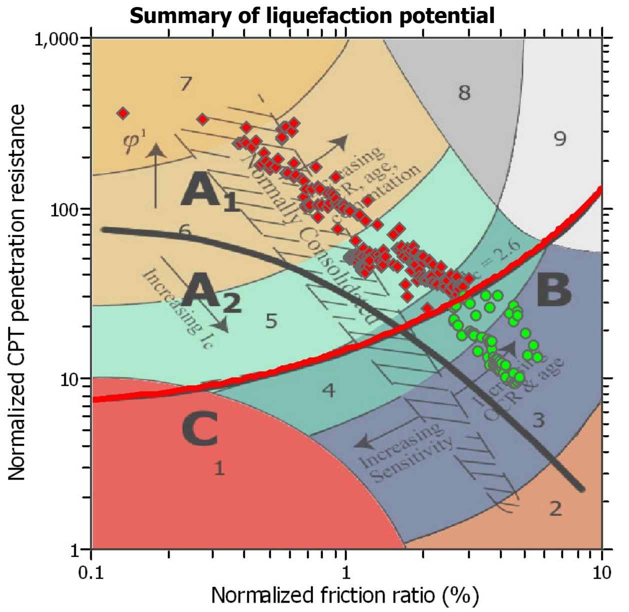
CPT file : CPT-03

Input parameters and analysis data

Analysis method:	NCEER (1998)	G.W.T. (in-situ):	50.00 ft	Use fill:	No	Clay like behavior applied:	Sands only
Fines correction method:	NCEER (1998)	G.W.T. (earthq.):	50.00 ft	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w:	6.74	Ic cut-off value:	2.60	Trans. detect. applied:	Yes	MSF method:	Method based
Peak ground acceleration:	0.83	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		

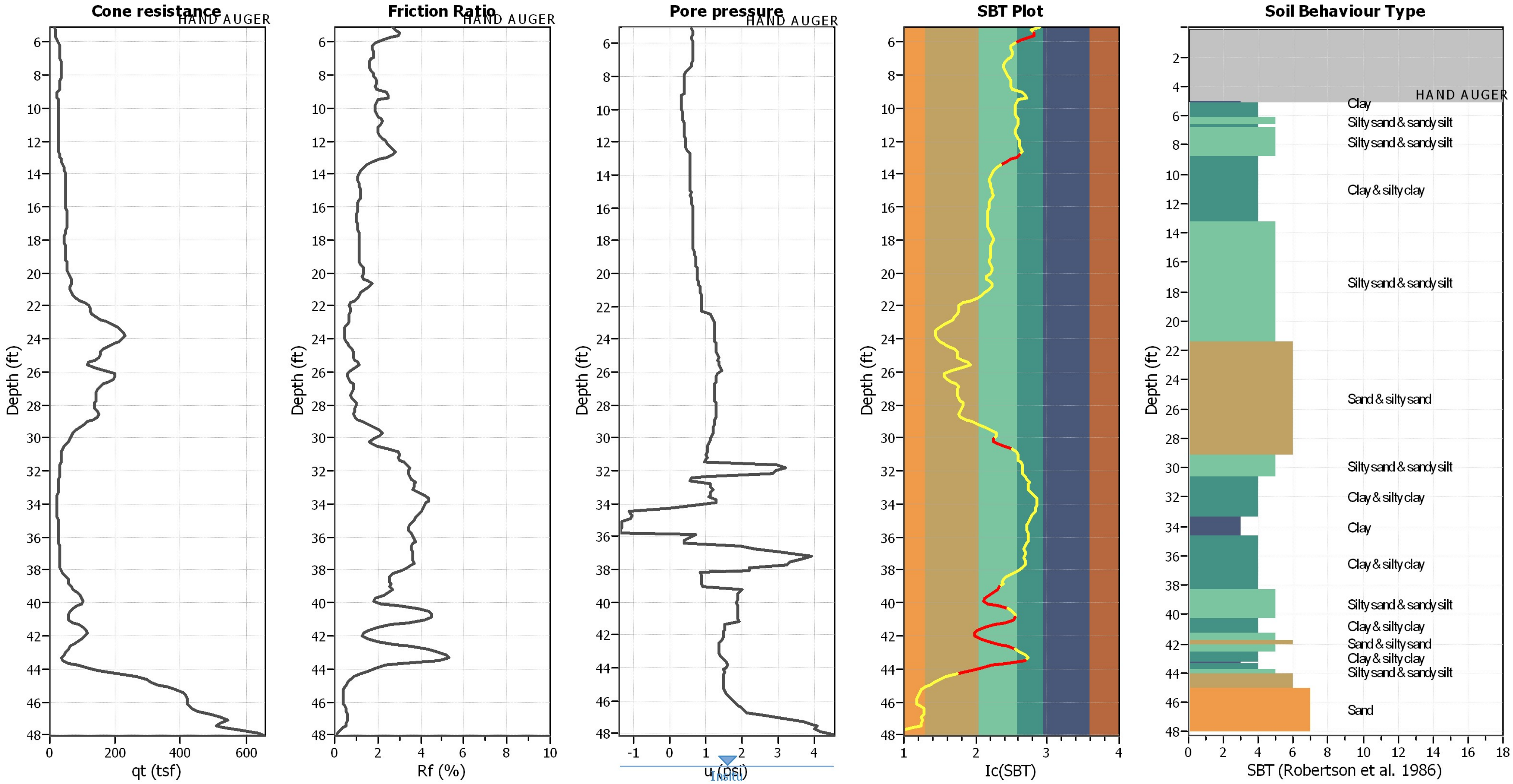






Zone A_1: Cyclic liquefaction likely depending on size and duration of cyclic loading
Zone A_2: Cyclic liquefaction and strength loss likely depending on loading and ground geometry
Zone B: Liquefaction and post-earthquake strength loss unlikely, check cyclic softening
Zone C: Cyclic liquefaction and strength loss possible depending on soil plasticity, brittleness/sensitivity, strain to peak undrained strength and ground geometry

CPT basic interpretation plots



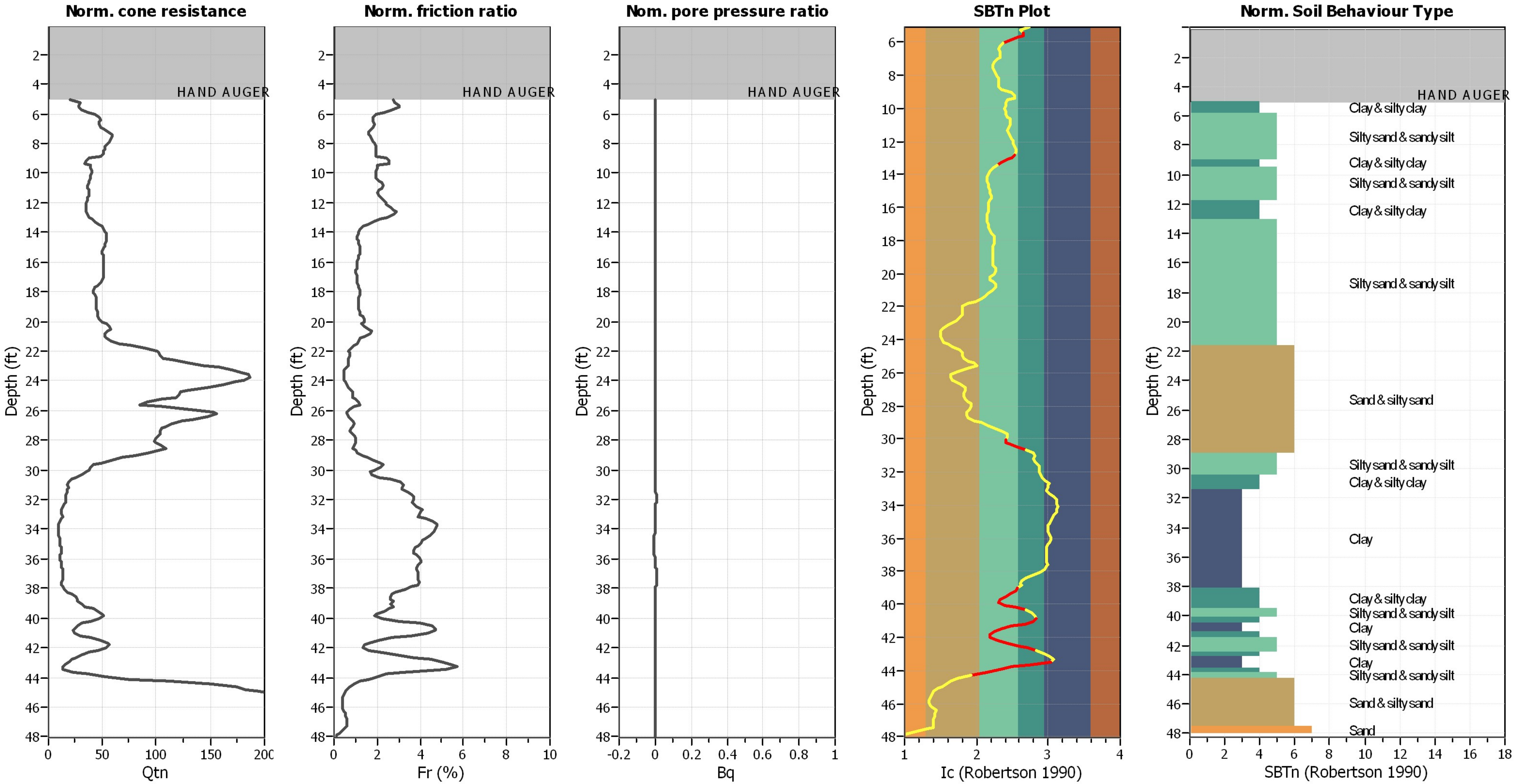
Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	50.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.74	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.83	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	50.00 ft	Fill height:	N/A	Limit depth:	N/A

SBT legend

1. Sensitive fine grained	4. Clayey silt to silty	7. Gravely sand to sand
2. Organic material	5. Silty sand to sandy silt	8. Very stiff sand to
3. Clay to silty clay	6. Clean sand to silty sand	9. Very stiff fine grained

CPT basic interpretation plots (normalized)



Input parameters and analysis data

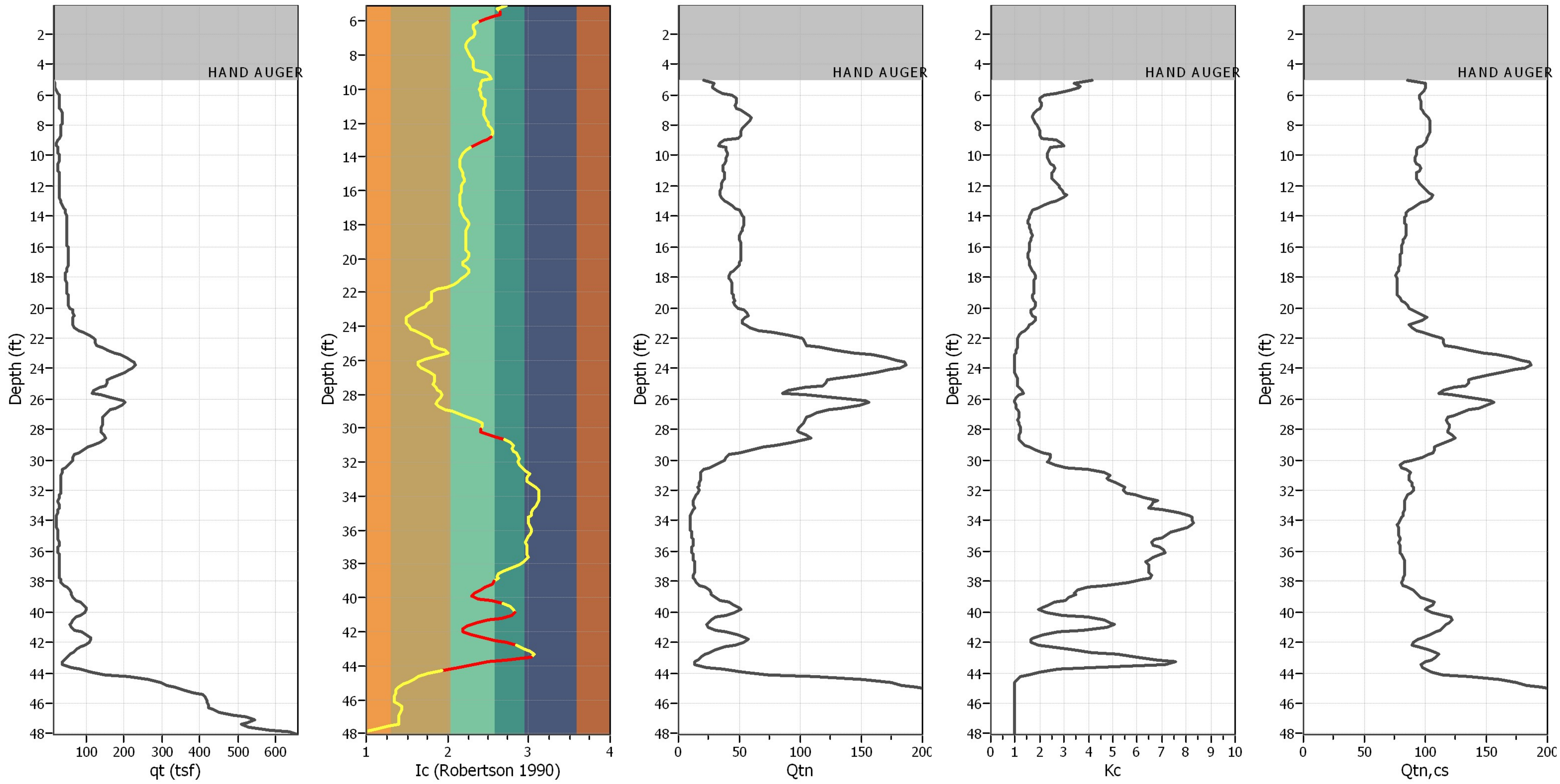
Analysis method:	NCEER (1998)	Depth to water table (erthq.):	50.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.74	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.83	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	50.00 ft	Fill height:	N/A	Limit depth:	N/A

SBTn legend

1. Sensitive fine grained	4. Clayey silt to silty	7. Gravely sand to sand
2. Organic material	5. Silty sand to sandy silt	8. Very stiff sand to
3. Clay to silty clay	6. Clean sand to silty sand	9. Very stiff fine grained

Liquefaction analysis overall plots (intermediate results)

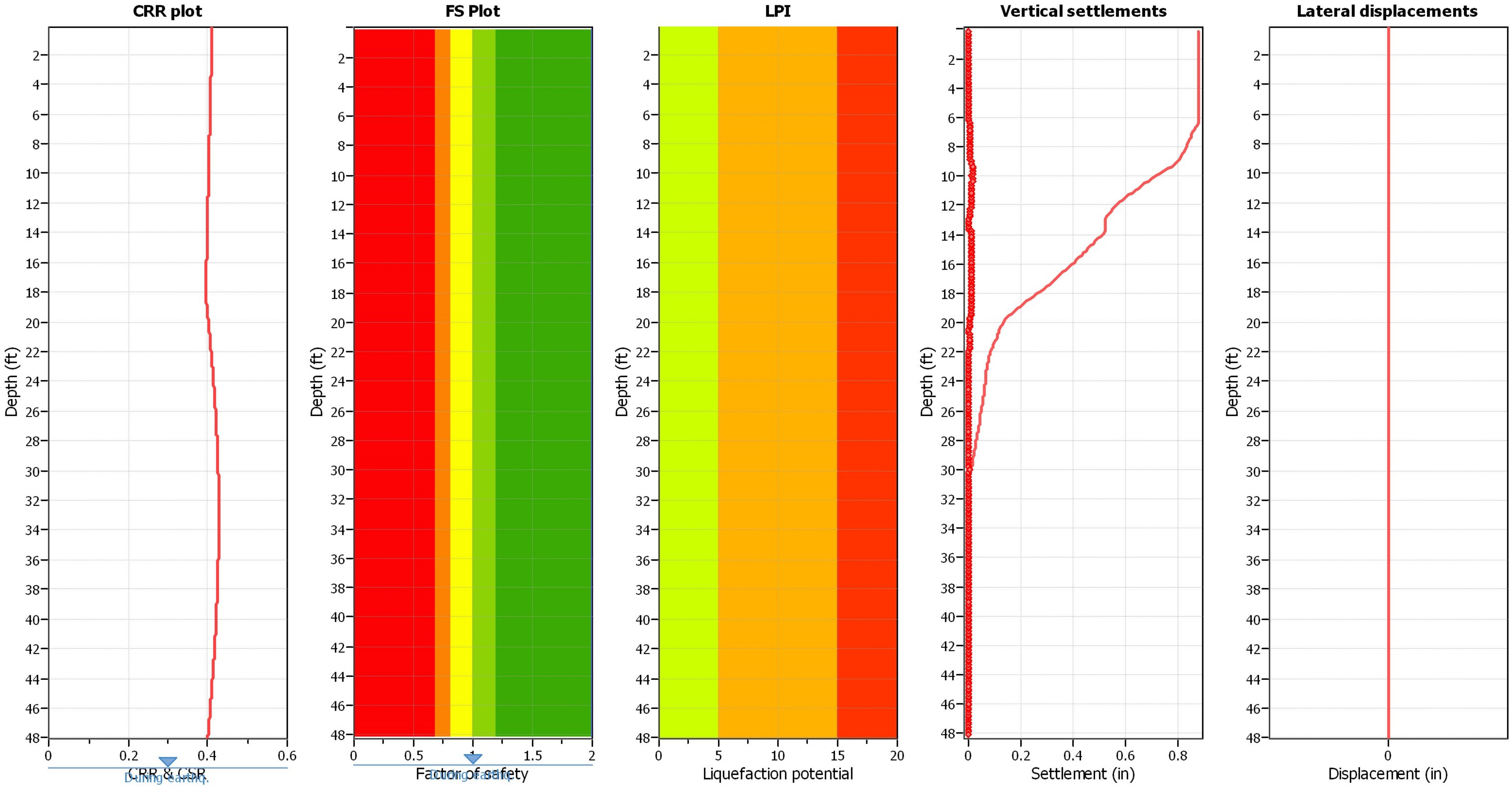
Total cone resistance | **SBTn Index** | **Norm. cone resistance** | **Grain char. factor** | **Corrected norm. cone resistance**



Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	50.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.74	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.83	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	50.00 ft	Fill height:	N/A	Limit depth:	N/A

Liquefaction analysis overall plots



Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	50.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.74	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.83	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	50.00 ft	Fill height:	N/A	Limit depth:	N/A

F.S. color scheme

- Almost certain it will liquefy
- Very likely to liquefy
- Liquefaction and no liq. are equally likely
- Unlike to liquefy
- Almost certain it will not liquefy

LPI color scheme

- Very high risk
- High risk
- Low risk

:: Field input data ::

Point ID	Depth (ft)	q_c (tsf)	f_s (tsf)	u (tsf)	Fines content (%)	Unit weight (pcf)
1	0.16	-9999.00	-9999.00	-9999.00	N/A	120.90
2	0.33	-9999.00	-9999.00	-9999.00	N/A	120.90
3	0.49	-9999.00	-9999.00	-9999.00	N/A	120.90
4	0.66	-9999.00	-9999.00	-9999.00	N/A	120.90
5	0.82	-9999.00	-9999.00	-9999.00	N/A	120.90
6	0.98	-9999.00	-9999.00	-9999.00	N/A	120.90
7	1.15	-9999.00	-9999.00	-9999.00	N/A	120.90
8	1.31	-9999.00	-9999.00	-9999.00	N/A	120.90
9	1.48	-9999.00	-9999.00	-9999.00	N/A	120.90
10	1.64	-9999.00	-9999.00	-9999.00	N/A	120.90
11	1.80	-9999.00	-9999.00	-9999.00	N/A	120.90
12	1.97	-9999.00	-9999.00	-9999.00	N/A	120.90
13	2.13	-9999.00	-9999.00	-9999.00	N/A	120.90
14	2.30	-9999.00	-9999.00	-9999.00	N/A	120.90
15	2.46	-9999.00	-9999.00	-9999.00	N/A	120.90
16	2.63	-9999.00	-9999.00	-9999.00	N/A	120.90
17	2.79	-9999.00	-9999.00	-9999.00	N/A	120.90
18	2.95	-9999.00	-9999.00	-9999.00	N/A	120.90
19	3.12	-9999.00	-9999.00	-9999.00	N/A	120.90
20	3.28	-9999.00	-9999.00	-9999.00	N/A	120.90
21	3.44	-9999.00	-9999.00	-9999.00	N/A	120.90
22	3.61	-9999.00	-9999.00	-9999.00	N/A	120.90
23	3.77	-9999.00	-9999.00	-9999.00	N/A	120.90
24	3.94	-9999.00	-9999.00	-9999.00	N/A	120.90
25	4.10	-9999.00	-9999.00	-9999.00	N/A	120.90
26	4.26	-9999.00	-9999.00	-9999.00	N/A	120.90
27	4.43	-9999.00	-9999.00	-9999.00	N/A	120.90
28	4.59	-9999.00	-9999.00	-9999.00	N/A	120.90
29	4.76	-9999.00	-9999.00	-9999.00	N/A	120.90
30	4.92	-9999.00	-9999.00	-9999.00	N/A	120.90
31	5.08	20.67	0.52	0.58	41.61	108.81
32	5.25	18.43	0.52	0.61	35.86	112.64
33	5.41	16.68	0.52	0.61	37.89	112.49
34	5.58	17.22	0.53	0.58	37.56	112.53
35	5.74	19.05	0.52	0.58	34.15	112.78
36	5.91	22.86	0.52	0.61	29.28	113.16
37	6.07	28.20	0.52	0.64	25.22	113.56
38	6.23	31.09	0.53	0.64	23.28	113.85
39	6.40	30.25	0.53	0.64	23.08	113.98
40	6.56	29.52	0.54	0.61	23.65	113.98
41	6.73	29.21	0.54	0.61	23.84	113.99
42	6.89	29.72	0.54	0.61	23.30	114.07
43	7.05	31.68	0.54	0.61	21.98	114.32
44	7.22	35.17	0.56	0.58	20.49	114.71
45	7.38	37.72	0.58	0.58	19.66	115.16
46	7.55	37.89	0.61	0.50	19.74	115.50
47	7.71	36.94	0.63	0.42	20.45	115.66
48	7.87	35.48	0.64	0.40	21.27	115.64

:: Field input data :: (continued)

Point ID	Depth (ft)	q_c (tsf)	f_s (tsf)	u (tsf)	Fines content (%)	Unit weight (pcf)
49	8.04	34.27	0.63	0.37	22.05	115.53
50	8.20	33.17	0.63	0.40	22.81	115.43
51	8.37	32.05	0.63	0.40	23.15	115.41
52	8.53	32.95	0.63	0.40	23.16	115.33
53	8.69	32.72	0.61	0.40	23.15	115.14
54	8.86	31.12	0.59	0.37	24.11	114.83
55	9.02	28.12	0.59	0.37	29.87	114.01
56	9.19	13.23	0.55	0.29	31.73	113.42
57	9.35	24.94	0.51	0.29	32.46	112.90
58	9.51	24.97	0.50	0.32	27.36	113.12
59	9.68	25.90	0.50	0.32	26.91	113.19
60	9.84	27.02	0.51	0.32	26.46	113.32
61	10.01	27.27	0.51	0.32	26.28	113.42
62	10.17	27.41	0.51	0.34	26.52	113.46
63	10.34	26.97	0.52	0.34	27.00	113.48
64	10.50	26.46	0.52	0.34	27.90	113.67
65	10.66	26.07	0.56	0.34	28.98	113.96
66	10.83	25.67	0.59	0.37	29.44	114.15
67	10.99	26.46	0.57	0.37	29.03	114.09
68	11.15	27.41	0.54	0.37	28.24	114.03
69	11.32	28.06	0.56	0.40	27.96	114.08
70	11.48	28.00	0.57	0.40	28.24	114.27
71	11.65	27.89	0.58	0.40	28.94	114.44
72	11.81	27.22	0.60	0.42	29.94	114.63
73	11.97	26.52	0.63	0.42	30.77	114.90
74	12.14	27.25	0.65	0.42	31.07	115.21
75	12.30	28.20	0.68	0.42	31.94	115.59
76	12.47	26.32	0.73	0.48	32.83	116.04
77	12.63	27.36	0.78	0.53	33.44	116.46
78	12.79	28.96	0.80	0.56	32.24	116.61
79	12.96	30.59	0.74	0.56	30.10	116.46
80	13.12	33.26	0.69	0.56	27.38	116.18
81	13.29	36.85	0.66	0.56	24.46	115.92
82	13.45	40.79	0.60	0.56	21.94	115.67
83	13.62	43.65	0.56	0.56	19.92	115.35
84	13.78	45.84	0.54	0.56	18.72	115.12
85	13.94	46.77	0.53	0.56	17.92	115.01
86	14.11	48.48	0.52	0.56	17.47	115.01
87	14.27	49.33	0.53	0.56	17.23	115.07
88	14.44	49.44	0.53	0.56	17.31	115.20
89	14.60	49.55	0.55	0.56	17.67	115.35
90	14.76	48.57	0.56	0.56	18.08	115.60
91	14.93	49.07	0.59	0.56	18.50	115.75
92	15.09	48.54	0.59	0.58	18.88	115.75
93	15.26	46.69	0.57	0.56	19.20	115.64
94	15.42	46.85	0.57	0.58	19.10	115.55
95	15.58	49.16	0.57	0.58	18.50	115.47
96	15.75	50.42	0.53	0.58	18.03	115.39

:: Field input data :: (continued)

Point ID	Depth (ft)	q_c (tsf)	f_s (tsf)	u (tsf)	Fines content (%)	Unit weight (pcf)
97	15.91	49.86	0.54	0.61	17.93	115.31
98	16.08	49.89	0.55	0.61	17.86	115.34
99	16.24	51.66	0.54	0.64	17.64	115.33
100	16.40	51.88	0.53	0.64	17.36	115.27
101	16.57	51.94	0.53	0.64	17.34	115.22
102	16.73	52.02	0.53	0.61	17.39	115.25
103	16.90	52.25	0.54	0.61	17.54	115.32
104	17.06	51.99	0.54	0.64	17.77	115.41
105	17.22	51.68	0.55	0.61	18.12	115.41
106	17.39	50.34	0.54	0.64	18.72	115.29
107	17.55	47.70	0.53	0.64	19.55	115.06
108	17.72	45.36	0.52	0.64	20.33	114.84
109	17.88	44.75	0.52	0.64	20.84	114.76
110	18.05	44.83	0.53	0.64	20.90	114.88
111	18.21	46.26	0.54	0.64	20.61	115.02
112	18.37	47.81	0.54	0.64	20.15	115.12
113	18.54	48.68	0.53	0.64	19.96	115.24
114	18.70	48.71	0.56	0.66	19.95	115.36
115	18.86	49.21	0.56	0.66	19.97	115.46
116	19.03	49.75	0.55	0.71	19.98	115.58
117	19.19	50.00	0.58	0.71	19.78	115.66
118	19.36	51.57	0.57	0.71	19.89	116.07
119	19.52	52.58	0.64	0.71	20.12	116.46
120	19.68	52.02	0.67	0.74	21.26	117.20
121	19.85	50.70	0.77	0.74	21.06	117.84
122	20.01	59.50	0.80	0.74	20.36	118.20
123	20.18	60.17	0.74	0.74	18.64	118.70
124	20.34	68.37	0.85	0.74	18.74	119.75
125	20.50	69.69	1.11	0.77	19.74	120.94
126	20.67	65.06	1.20	0.79	21.27	121.32
127	20.83	61.12	1.06	0.82	21.33	120.54
128	21.00	61.77	0.81	0.82	19.88	119.38
129	21.16	64.92	0.75	0.82	18.09	118.67
130	21.32	68.93	0.79	0.85	16.88	118.97
131	21.49	76.01	0.86	0.85	15.09	119.58
132	21.65	90.70	0.86	0.87	12.45	120.01
133	21.82	108.45	0.80	0.87	9.92	120.24
134	21.98	122.19	0.81	0.87	8.33	120.63
135	22.15	131.54	0.89	0.87	8.41	121.01
136	22.31	114.58	0.92	0.85	8.39	121.16
137	22.47	126.29	0.85	1.11	8.03	121.14
138	22.64	140.62	0.86	1.14	7.22	121.88
139	22.80	152.25	1.11	1.17	6.61	123.00
140	22.97	171.21	1.21	1.22	5.80	123.97
141	23.13	195.50	1.18	1.22	4.49	123.86
142	23.29	207.05	0.95	1.22	3.45	123.48
143	23.46	216.88	0.96	1.22	2.85	123.30
144	23.62	228.76	1.05	1.22	2.75	123.83

:: Field input data :: (continued)

Point ID	Depth (ft)	q_c (tsf)	f_s (tsf)	u (tsf)	Fines content (%)	Unit weight (pcf)
145	23.79	232.58	1.13	1.22	2.87	124.21
146	23.95	222.97	1.12	1.22	3.15	124.22
147	24.11	211.49	1.08	1.22	3.59	124.16
148	24.28	204.83	1.15	1.24	4.31	124.20
149	24.44	184.88	1.21	1.24	5.54	124.38
150	24.61	159.91	1.27	1.27	7.24	124.49
151	24.77	146.29	1.35	1.27	8.26	124.74
152	24.93	160.31	1.41	1.30	8.42	124.84
153	25.10	158.96	1.33	1.32	8.56	124.64
154	25.26	138.00	1.27	1.30	10.18	124.31
155	25.43	112.11	1.37	1.32	12.24	124.06
156	25.59	112.08	1.36	1.32	13.23	123.88
157	25.75	117.92	1.24	1.38	9.75	123.98
158	25.92	184.60	1.18	1.40	6.81	124.18
159	26.08	202.13	1.21	1.30	4.94	124.56
160	26.25	204.80	1.24	1.27	4.97	124.92
161	26.41	195.19	1.34	1.24	5.54	124.91
162	26.57	177.50	1.27	1.24	6.91	125.19
163	26.74	159.66	1.49	1.22	8.01	125.08
164	26.90	156.46	1.39	1.22	9.03	124.92
165	27.07	144.44	1.27	1.22	8.96	124.07
166	27.23	141.88	1.08	1.22	8.84	123.23
167	27.39	141.38	1.02	1.22	8.71	122.85
168	27.56	140.25	1.11	1.22	9.30	123.54
169	27.72	142.75	1.40	1.22	10.05	124.29
170	27.89	140.45	1.40	1.24	10.87	124.78
171	28.05	133.20	1.40	1.24	11.01	124.66
172	28.21	137.86	1.35	1.24	10.62	124.50
173	28.38	146.32	1.29	1.24	9.78	124.58
174	28.54	155.76	1.37	1.24	9.36	124.79
175	28.71	154.38	1.42	1.24	10.18	125.00
176	28.87	131.21	1.46	1.22	12.04	124.94
177	29.04	113.96	1.48	1.22	14.77	124.93
178	29.20	105.93	1.61	1.22	17.47	124.97
179	29.36	93.99	1.66	1.19	20.77	124.93
180	29.53	76.23	1.67	1.17	24.59	124.51
181	29.69	66.43	1.58	1.17	27.69	123.73
182	29.86	63.23	1.37	1.14	27.83	122.72
183	30.02	65.06	1.15	1.11	26.93	121.37
184	30.18	58.85	0.93	1.08	26.52	119.90
185	30.35	52.50	0.80	1.06	29.10	118.85
186	30.51	43.59	0.87	1.03	33.78	118.62
187	30.68	38.29	0.98	1.01	40.43	118.92
188	30.84	33.45	1.05	1.01	44.97	119.13
189	31.00	33.43	1.05	0.98	46.43	119.01
190	31.17	34.61	0.96	1.01	45.83	119.08
191	31.33	35.45	1.06	0.98	46.21	119.12
192	31.50	33.03	1.07	0.95	48.29	119.36

:: Field input data :: (continued)

Point ID	Depth (ft)	q_c (tsf)	f_s (tsf)	u (tsf)	Fines content (%)	Unit weight (pcf)
193	31.66	31.52	1.10	2.94	49.89	119.45
194	31.82	32.81	1.13	3.18	50.71	119.65
195	31.99	32.56	1.16	2.89	50.35	119.66
196	32.15	32.58	1.09	2.83	51.02	119.34
197	32.32	30.20	1.02	1.03	53.27	118.69
198	32.48	25.76	0.96	0.58	55.74	118.25
199	32.64	26.83	0.98	0.56	58.91	117.96
200	32.81	24.18	0.97	1.11	57.80	118.08
201	32.97	28.15	0.98	1.11	57.40	118.19
202	33.14	28.09	1.01	1.17	56.89	118.26
203	33.30	25.50	0.99	1.11	60.04	118.08
204	33.47	22.72	0.97	1.08	64.04	117.71
205	33.63	21.40	0.94	1.06	66.66	117.45
206	33.79	21.60	0.94	1.27	67.24	117.25
207	33.96	21.60	0.92	1.24	67.14	117.05
208	34.12	21.07	0.87	0.64	67.57	116.77
209	34.28	20.45	0.85	-0.05	67.23	116.66
210	34.45	21.85	0.87	-1.14	66.18	116.80
211	34.61	22.89	0.90	-1.08	63.83	117.07
212	34.78	24.38	0.90	-1.06	62.38	117.26
213	34.94	24.58	0.91	-1.11	61.03	117.41
214	35.10	25.48	0.92	-1.32	59.94	117.54
215	35.27	26.63	0.92	-1.35	58.42	117.68
216	35.43	27.64	0.93	-1.35	57.67	117.71
217	35.60	26.99	0.92	-1.38	57.71	117.78
218	35.76	27.02	0.94	-1.38	59.46	117.73
219	35.92	24.86	0.94	0.69	60.37	117.86
220	36.09	26.23	0.97	0.53	60.65	118.01
221	36.25	27.33	1.00	0.37	59.90	118.38
222	36.42	27.64	1.06	0.37	58.04	118.71
223	36.58	30.79	1.05	1.93	56.92	118.97
224	36.74	30.62	1.07	2.36	56.20	119.15
225	36.91	29.89	1.11	3.02	56.83	119.24
226	37.07	30.22	1.10	3.31	56.68	119.29
227	37.24	31.32	1.09	3.92	56.65	119.35
228	37.40	30.42	1.13	3.63	56.94	119.37
229	37.57	29.97	1.11	3.31	57.67	119.34
230	37.73	30.06	1.09	3.23	57.17	119.22
231	37.89	31.04	1.06	2.17	54.78	119.17
232	38.06	34.47	1.04	2.20	51.47	119.27
233	38.22	37.11	1.06	0.82	45.20	119.83
234	38.39	48.73	1.14	0.85	40.11	121.20
235	38.55	58.76	1.47	0.85	37.14	122.55
236	38.71	58.96	1.60	0.85	36.23	123.11
237	38.88	57.89	1.40	0.87	36.76	123.32
238	39.04	58.62	1.60	0.90	34.32	124.14
239	39.21	78.65	1.97	1.99	32.97	125.60
240	39.37	81.40	2.27	1.93	29.47	126.66

:: Field input data :: (continued)

Point ID	Depth (ft)	q_c (tsf)	f_s (tsf)	u (tsf)	Fines content (%)	Unit weight (pcf)
241	39.53	95.31	2.17	1.88	26.91	126.73
242	39.70	99.94	1.85	1.88	23.66	126.13
243	39.86	101.97	1.64	1.85	22.79	125.91
244	40.03	100.93	1.97	1.83	25.64	126.64
245	40.19	84.86	2.53	1.85	32.15	127.60
246	40.35	65.81	2.82	1.85	40.00	127.89
247	40.52	59.94	2.73	1.85	44.85	127.72
248	40.68	61.77	2.66	1.88	46.75	127.35
249	40.85	55.08	2.56	1.85	47.96	126.95
250	41.01	52.27	2.43	1.85	45.73	126.75
251	41.17	68.29	2.36	1.91	38.68	126.97
252	41.34	87.95	2.36	1.51	30.50	127.09
253	41.50	102.89	2.04	1.51	24.70	126.82
254	41.67	112.69	1.78	1.51	20.68	125.90
255	41.83	115.53	1.48	1.46	18.70	124.92
256	41.99	110.34	1.34	1.46	18.92	124.20
257	42.16	98.23	1.41	1.46	22.44	124.24
258	42.32	78.57	1.68	1.40	27.94	124.88
259	42.49	73.59	1.97	1.35	35.36	125.74
260	42.65	62.50	2.33	1.35	41.59	126.32
261	42.81	55.34	2.43	1.32	48.46	126.45
262	42.98	48.93	2.41	1.35	53.75	125.93
263	43.14	42.41	2.14	1.35	59.12	125.02
264	43.31	34.63	1.93	1.38	63.23	123.89
265	43.47	32.98	1.74	1.48	60.69	123.54
266	43.63	46.09	1.81	1.53	41.70	124.63
267	43.80	97.56	1.94	1.59	30.29	126.22
268	43.96	111.18	2.28	1.53	23.30	127.61
269	44.13	130.00	2.41	1.46	17.04	128.91
270	44.29	213.62	2.49	1.51	11.10	129.98
271	44.45	283.28	2.57	1.48	7.09	130.30
272	44.62	299.77	2.15	1.48	5.16	129.94
273	44.78	304.88	1.90	1.48	4.00	129.05
274	44.95	327.86	1.72	1.48	3.05	128.54
275	45.11	358.96	1.65	1.46	2.23	128.38
276	45.28	384.57	1.66	1.48	1.57	128.37
277	45.44	410.28	1.59	1.51	1.20	128.54
278	45.60	422.58	1.68	1.53	1.11	128.66
279	45.77	407.21	1.71	1.64	0.94	128.45
280	45.93	424.49	1.43	1.72	0.88	128.26
281	46.10	422.07	1.55	1.77	1.00	128.69
282	46.26	417.05	1.98	1.85	1.34	129.61
283	46.42	432.33	2.08	1.93	2.03	131.49
284	46.59	454.63	3.13	2.01	1.93	131.94
285	46.75	465.78	2.34	2.12	1.88	133.33
286	46.92	553.25	3.41	2.65	1.47	133.51
287	47.08	540.67	3.19	3.15	1.62	134.57
288	47.24	539.07	3.58	3.68	1.45	133.54

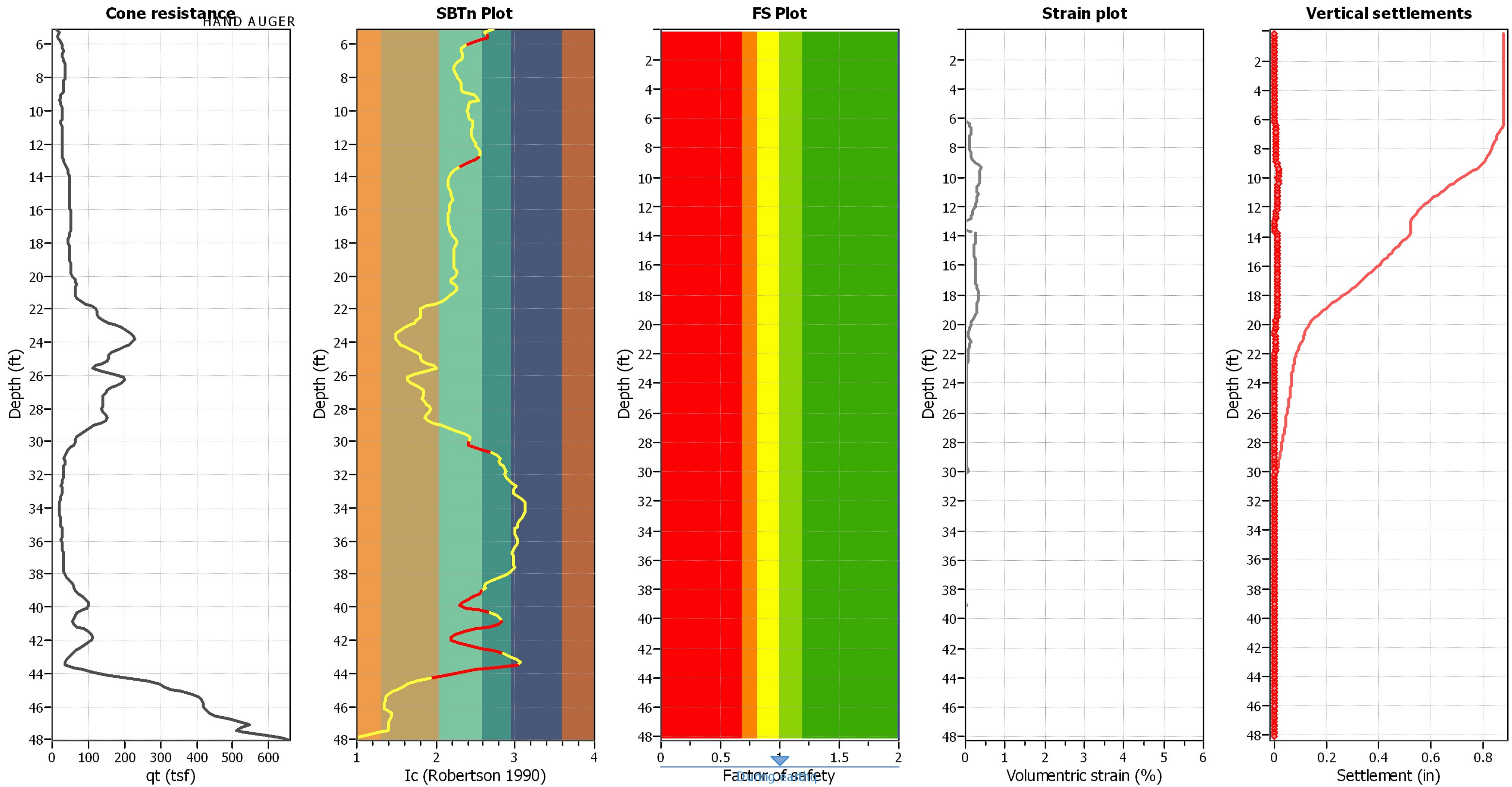
:: Field input data :: (continued)

Point ID	Depth (ft)	q_c (tsf)	f_s (tsf)	u (tsf)	Fines content (%)	Unit weight (pcf)
289	47.41	490.22	2.19	3.92	1.44	133.03
290	47.57	497.19	2.66	4.08	0.32	131.11
291	47.74	595.44	1.55	4.00	0.00	129.11
292	47.90	656.90	0.50	4.16	0.00	124.84
293	48.06	659.49	0.50	4.50	0.00	121.03

Abbreviations

Depth:	Depth from free surface, at which CPT was performed (ft)
q_c:	Measured cone resistance (tsf)
f_s:	Sleeve friction resistance (tsf)
u:	Pore pressure (tsf)
Fines content:	Percentage of fines in soil (%)
Unit weight:	Bulk soil unit weight (pcf)

Estimation of post-earthquake settlements



Abbreviations

q_t:	Total cone resistance (cone resistance q_c corrected for pore water effects)
I_c:	Soil Behaviour Type Index
FS:	Calculated Factor of Safety against liquefaction
Volumentric strain:	Post-liquefaction volumentric strain

:: Post-earthquake settlement of dry sands ::

Depth (ft)	Ic	Kc	Qc1n	Qc1n,cs	N1,60 (blows)	Vs (ft/s)	Gmax (tsf)	CSR	Shear, γ (%)	Svol,15 (%)	Nc	ev (%)	Settle. (in)
0.16	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
0.33	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
0.49	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
0.66	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
0.82	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
0.98	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
1.15	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
1.31	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
1.48	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
1.64	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
1.80	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
1.97	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
2.13	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
2.30	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
2.46	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
2.63	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
2.79	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
2.95	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
3.12	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
3.28	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
3.44	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
3.61	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
3.77	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
3.94	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
4.10	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
4.26	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
4.43	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
4.59	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
4.76	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
4.92	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
5.08	2.72	4.16	20.46	85.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
5.25	2.61	3.39	29.38	99.60	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
5.41	2.65	3.65	27.52	100.48	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
5.58	2.64	3.61	27.83	100.44	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
5.74	2.58	3.18	31.13	98.91	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
5.91	2.47	2.61	37.00	96.66	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
6.07	2.37	2.20	43.43	95.35	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
6.23	2.32	2.02	47.38	95.47	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
6.40	2.31	2.00	48.07	96.03	23	522.8	484	0.41	0.195	0.17	8.91	0.12	0.005
6.56	2.33	2.05	47.04	96.39	23	522.1	483	0.41	0.209	0.18	8.91	0.12	0.005
6.73	2.33	2.07	46.74	96.57	23	522.1	483	0.40	0.221	0.19	8.91	0.13	0.005
6.89	2.32	2.02	47.89	96.61	23	523.7	486	0.40	0.226	0.19	8.91	0.13	0.005
7.05	2.29	1.90	51.06	97.15	23	528.8	497	0.40	0.217	0.19	8.91	0.13	0.005
7.22	2.24	1.78	55.33	98.54	23	536.1	512	0.40	0.201	0.17	8.91	0.12	0.005
7.38	2.22	1.72	58.64	100.65	23	543.6	529	0.40	0.185	0.16	8.91	0.11	0.004
7.55	2.22	1.72	59.57	102.59	23	548.7	540	0.40	0.178	0.15	8.91	0.10	0.004
7.71	2.24	1.78	58.35	103.73	24	550.2	544	0.40	0.181	0.15	8.91	0.10	0.004
7.87	2.27	1.84	56.40	103.97	24	548.9	541	0.40	0.194	0.15	8.91	0.11	0.004

:: Post-earthquake settlement of dry sands :: (continued)

Depth (ft)	Ic	Kc	Qc1n	Qc1n,cs	N1,60 (blows)	Vs (ft/s)	Gmax (tsf)	CSR	Shear, γ (%)	Svol,15 (%)	Nc	ev (%)	Settle. (in)
8.04	2.29	1.91	54.36	103.74	24	546.2	536	0.40	0.212	0.17	8.91	0.11	0.005
8.20	2.31	1.97	52.51	103.66	24	543.9	531	0.40	0.230	0.18	8.91	0.12	0.005
8.37	2.32	2.00	51.79	103.79	25	543.3	529	0.40	0.244	0.19	8.91	0.13	0.005
8.53	2.32	2.00	51.54	103.31	24	542.0	526	0.40	0.261	0.20	8.91	0.14	0.005
8.69	2.32	2.00	51.02	102.26	24	539.3	520	0.40	0.287	0.23	8.91	0.15	0.006
8.86	2.34	2.09	48.42	101.23	24	533.7	508	0.40	0.333	0.26	8.91	0.18	0.007
9.02	2.48	2.68	37.97	101.64	26	516.3	472	0.40	0.497	0.36	8.91	0.24	0.010
9.19	2.52	2.89	34.64	100.06	26	506.3	452	0.40	0.655	0.48	8.91	0.32	0.013
9.35	2.54	2.97	32.94	97.95	26	498.7	436	0.40	0.829	0.61	8.91	0.41	0.016
9.51	2.42	2.41	38.87	93.65	23	508.8	455	0.40	0.691	0.58	8.91	0.38	0.015
9.68	2.41	2.36	39.32	92.90	23	512.2	461	0.40	0.671	0.57	8.91	0.38	0.015
9.84	2.40	2.32	39.88	92.43	23	516.3	469	0.40	0.641	0.55	8.91	0.36	0.014
10.01	2.40	2.30	40.09	92.17	23	519.7	476	0.40	0.622	0.54	8.91	0.35	0.014
10.17	2.40	2.32	39.59	91.98	23	521.3	479	0.40	0.627	0.54	8.91	0.35	0.014
10.34	2.41	2.37	38.79	91.99	23	522.4	481	0.40	0.639	0.55	8.91	0.36	0.014
10.50	2.44	2.46	37.82	93.23	23	525.0	487	0.40	0.627	0.52	8.91	0.34	0.013
10.66	2.46	2.58	36.92	95.23	24	528.9	495	0.40	0.597	0.48	8.91	0.31	0.012
10.83	2.47	2.63	36.54	96.10	24	532.4	503	0.40	0.576	0.45	8.91	0.29	0.012
10.99	2.46	2.59	36.66	94.80	24	533.8	505	0.40	0.584	0.47	8.91	0.30	0.012
11.15	2.44	2.50	37.21	93.07	23	535.5	508	0.40	0.588	0.49	8.91	0.31	0.012
11.32	2.44	2.47	37.44	92.52	23	538.3	514	0.40	0.578	0.49	8.91	0.31	0.012
11.48	2.44	2.50	37.27	93.18	23	542.0	522	0.40	0.555	0.46	8.91	0.29	0.012
11.65	2.46	2.58	36.56	94.17	24	544.8	528	0.40	0.543	0.44	8.91	0.28	0.011
11.81	2.48	2.69	35.61	95.64	24	547.6	534	0.40	0.531	0.42	8.91	0.26	0.010
11.97	2.50	2.78	35.03	97.33	25	551.8	543	0.40	0.505	0.38	8.91	0.24	0.010
12.14	2.51	2.81	35.10	98.72	26	557.5	556	0.40	0.467	0.35	8.91	0.22	0.009
12.30	2.53	2.91	34.71	101.11	26	563.4	570	0.40	0.430	0.31	8.91	0.19	0.008
12.47	2.55	3.02	34.46	104.01	27	570.7	587	0.40	0.388	0.27	8.91	0.17	0.007
12.63	2.56	3.09	34.46	106.50	28	578.0	604	0.40	0.351	0.23	8.91	0.14	0.006
12.79	2.53	2.95	35.76	105.43	28	583.5	617	0.40	0.331	0.22	8.91	0.14	0.005
12.96	2.49	2.70	37.60	101.62	0	0.0	0	0.40	0.000	0.00	0.00	0.00	0.000
13.12	2.42	2.41	40.13	96.78	0	0.0	0	0.40	0.000	0.00	0.00	0.00	0.000
13.29	2.35	2.12	43.47	92.31	0	0.0	0	0.40	0.000	0.00	0.00	0.00	0.000
13.45	2.28	1.90	46.81	88.89	0	0.0	0	0.40	0.000	0.00	0.00	0.00	0.000
13.62	2.23	1.74	49.58	86.08	0	0.0	0	0.40	0.000	0.00	0.00	0.00	0.000
13.78	2.19	1.65	51.26	84.42	19	590.6	624	0.40	0.375	0.40	8.91	0.24	0.010
13.94	2.17	1.59	52.53	83.54	19	591.8	626	0.40	0.380	0.42	8.91	0.25	0.010
14.11	2.15	1.56	53.33	83.20	18	593.9	630	0.40	0.379	0.42	8.91	0.25	0.010
14.27	2.15	1.54	53.86	83.15	18	596.5	636	0.40	0.374	0.42	8.91	0.25	0.010
14.44	2.15	1.55	53.84	83.40	18	599.6	643	0.40	0.365	0.40	8.91	0.24	0.009
14.60	2.16	1.57	53.18	83.68	19	602.2	650	0.40	0.359	0.39	8.91	0.23	0.009
14.76	2.17	1.60	52.68	84.38	19	606.3	660	0.40	0.344	0.37	8.91	0.22	0.009
14.93	2.19	1.63	51.95	84.74	19	609.0	667	0.40	0.338	0.36	8.91	0.21	0.008
15.09	2.20	1.66	50.91	84.45	19	609.4	668	0.40	0.345	0.37	8.91	0.22	0.008
15.26	2.21	1.68	49.75	83.69	19	608.2	665	0.40	0.361	0.39	8.91	0.23	0.009
15.42	2.20	1.67	49.57	83.00	19	608.3	664	0.40	0.371	0.40	8.91	0.23	0.009
15.58	2.19	1.63	50.45	82.28	18	609.3	666	0.40	0.376	0.41	8.91	0.24	0.009
15.75	2.17	1.60	51.08	81.64	18	610.1	667	0.40	0.382	0.43	8.91	0.25	0.010

:: Post-earthquake settlement of dry sands :: (continued)

Depth (ft)	Ic	Kc	Qc1n	Qc1n,cs	N1,60 (blows)	Vs (ft/s)	Gmax (tsf)	CSR	Shear, γ (%)	Svol,15 (%)	Nc	ev (%)	Settle. (in)
15.91	2.17	1.59	50.95	81.06	18	610.3	667	0.40	0.391	0.44	8.91	0.26	0.010
16.08	2.17	1.59	51.00	80.90	18	611.9	671	0.40	0.391	0.44	8.91	0.26	0.010
16.24	2.16	1.57	51.30	80.61	18	613.4	674	0.40	0.392	0.45	8.91	0.26	0.010
16.40	2.15	1.55	51.62	80.13	18	614.0	675	0.40	0.398	0.46	8.91	0.26	0.010
16.57	2.15	1.55	51.38	79.69	18	614.5	676	0.40	0.406	0.47	8.91	0.27	0.011
16.73	2.15	1.55	51.15	79.52	18	615.8	679	0.40	0.407	0.48	8.91	0.27	0.011
16.90	2.16	1.56	50.82	79.52	18	617.7	684	0.40	0.404	0.47	8.91	0.27	0.010
17.06	2.16	1.58	50.37	79.59	18	619.7	689	0.40	0.400	0.46	8.91	0.26	0.010
17.22	2.17	1.60	49.41	79.28	18	620.0	689	0.40	0.407	0.47	8.91	0.26	0.010
17.39	2.19	1.65	47.70	78.54	18	618.2	684	0.40	0.430	0.50	8.91	0.28	0.011
17.55	2.22	1.71	45.35	77.44	18	614.1	674	0.40	0.470	0.55	8.91	0.30	0.012
17.72	2.24	1.77	43.26	76.49	18	610.5	665	0.40	0.511	0.60	8.91	0.33	0.013
17.88	2.25	1.81	42.05	76.06	18	609.5	662	0.39	0.532	0.62	8.91	0.34	0.014
18.05	2.26	1.81	42.05	76.26	18	612.1	669	0.39	0.520	0.61	8.91	0.33	0.013
18.21	2.25	1.79	42.73	76.50	18	615.9	678	0.39	0.500	0.58	8.91	0.32	0.013
18.37	2.23	1.75	43.65	76.54	18	619.2	686	0.40	0.489	0.57	8.91	0.31	0.012
18.54	2.23	1.74	44.12	76.75	18	622.5	694	0.40	0.479	0.56	8.91	0.30	0.012
18.70	2.23	1.74	44.27	76.96	18	625.3	701	0.40	0.471	0.55	8.91	0.30	0.012
18.86	2.23	1.74	44.31	77.10	18	627.8	707	0.40	0.467	0.54	8.91	0.29	0.012
19.03	2.23	1.74	44.42	77.32	18	630.6	714	0.40	0.460	0.53	8.91	0.29	0.011
19.19	2.22	1.73	44.86	77.39	18	633.3	721	0.40	0.454	0.53	8.91	0.28	0.011
19.36	2.23	1.73	45.43	78.77	18	640.7	740	0.40	0.416	0.47	8.91	0.25	0.010
19.52	2.23	1.75	45.74	80.13	18	647.6	759	0.40	0.385	0.43	8.91	0.23	0.009
19.68	2.27	1.84	45.15	83.19	19	659.1	791	0.40	0.334	0.35	8.91	0.18	0.007
19.85	2.26	1.83	46.92	85.67	20	671.4	825	0.40	0.290	0.29	8.91	0.15	0.006
20.01	2.24	1.77	49.05	86.83	20	679.8	849	0.40	0.267	0.27	8.91	0.14	0.006
20.18	2.19	1.64	54.01	88.66	20	692.4	884	0.40	0.236	0.24	8.91	0.12	0.005
20.34	2.19	1.65	56.64	93.38	21	712.5	944	0.40	0.192	0.18	8.91	0.09	0.004
20.50	2.22	1.72	57.63	99.28	23	735.0	1015	0.40	0.155	0.13	8.91	0.07	0.003
20.67	2.27	1.84	55.08	101.52	24	741.6	1037	0.40	0.149	0.12	8.91	0.06	0.002
20.83	2.27	1.85	52.48	97.01	23	727.0	990	0.40	0.176	0.15	8.91	0.08	0.003
21.00	2.23	1.73	52.24	90.55	21	707.9	929	0.41	0.222	0.21	8.91	0.11	0.004
21.16	2.17	1.60	54.31	87.01	19	698.6	900	0.41	0.254	0.26	8.91	0.13	0.005
21.32	2.13	1.52	58.14	88.47	19	706.9	924	0.41	0.236	0.24	8.91	0.12	0.005
21.49	2.08	1.41	65.29	92.23	20	722.2	969	0.41	0.205	0.21	8.91	0.10	0.004
21.65	1.98	1.28	76.50	97.64	20	735.9	1010	0.41	0.182	0.18	8.91	0.09	0.004
21.82	1.88	1.17	89.70	105.02	21	746.7	1041	0.41	0.169	0.16	8.91	0.08	0.003
21.98	1.81	1.11	101.29	112.83	22	758.7	1079	0.41	0.154	0.14	8.91	0.07	0.003
22.15	1.81	1.12	102.54	114.49	22	766.7	1105	0.41	0.146	0.13	8.91	0.06	0.003
22.31	1.81	1.12	103.25	115.20	22	770.6	1118	0.41	0.144	0.13	8.91	0.06	0.002
22.47	1.80	1.10	105.47	116.39	22	771.8	1121	0.41	0.146	0.13	8.91	0.06	0.002
22.64	1.76	1.08	115.88	124.69	24	789.5	1180	0.41	0.128	0.10	8.91	0.05	0.002
22.80	1.73	1.06	128.22	135.30	25	815.1	1269	0.41	0.107	0.08	8.91	0.04	0.002
22.97	1.68	1.03	143.48	147.25	27	839.2	1356	0.41	0.092	0.06	8.91	0.03	0.001
23.13	1.61	1.00	158.76	158.76	29	841.8	1363	0.41	0.093	0.06	8.91	0.03	0.001
23.29	1.54	1.00	170.84	170.84	30	839.1	1351	0.41	0.096	0.06	8.91	0.03	0.001
23.46	1.50	1.00	179.40	179.40	31	839.1	1349	0.41	0.098	0.06	8.91	0.03	0.001
23.62	1.49	1.00	185.77	185.77	32	851.9	1396	0.41	0.092	0.05	8.91	0.02	0.001

:: Post-earthquake settlement of dry sands :: (continued)

Depth (ft)	Ic	Kc	Qc1n	Qc1n,cs	N1,60 (blows)	Vs (ft/s)	Gmax (tsf)	CSR	Shear, γ (%)	Svol,15 (%)	Nc	ev (%)	Settle. (in)
23.79	1.50	1.00	186.76	186.76	33	860.4	1428	0.41	0.088	0.05	8.91	0.02	0.001
23.95	1.52	1.00	181.34	181.34	32	859.9	1427	0.41	0.090	0.05	8.91	0.02	0.001
24.11	1.55	1.00	173.12	173.12	31	857.2	1417	0.41	0.092	0.06	8.91	0.03	0.001
24.28	1.60	1.00	162.14	162.14	29	855.6	1413	0.42	0.094	0.06	8.91	0.03	0.001
24.44	1.67	1.02	147.11	149.53	28	855.8	1415	0.42	0.095	0.06	8.91	0.03	0.001
24.61	1.76	1.08	129.47	139.40	27	855.4	1415	0.42	0.097	0.07	8.91	0.03	0.001
24.77	1.81	1.11	121.72	135.30	26	859.8	1433	0.42	0.095	0.07	8.91	0.03	0.001
24.93	1.81	1.12	120.88	134.99	26	862.7	1444	0.42	0.095	0.07	8.91	0.03	0.001
25.10	1.82	1.12	118.13	132.53	26	858.6	1427	0.42	0.099	0.07	8.91	0.03	0.001
25.26	1.89	1.18	104.18	123.02	25	848.8	1391	0.42	0.107	0.08	8.91	0.04	0.001
25.43	1.97	1.27	90.74	114.96	24	840.7	1362	0.42	0.115	0.09	8.91	0.04	0.002
25.59	2.01	1.31	84.86	111.47	23	836.0	1345	0.42	0.120	0.10	8.91	0.04	0.002
25.75	1.87	1.16	104.57	121.75	24	844.6	1374	0.42	0.115	0.09	8.91	0.04	0.002
25.92	1.74	1.06	129.47	137.52	26	855.3	1411	0.42	0.109	0.08	8.91	0.04	0.001
26.08	1.63	1.00	153.49	153.49	28	868.8	1461	0.42	0.102	0.07	8.91	0.03	0.001
26.25	1.64	1.00	155.73	155.73	28	877.7	1495	0.42	0.098	0.06	8.91	0.03	0.001
26.41	1.67	1.02	148.19	150.60	28	877.0	1493	0.42	0.099	0.07	8.91	0.03	0.001
26.57	1.74	1.07	134.58	143.39	27	881.3	1511	0.42	0.098	0.07	8.91	0.03	0.001
26.74	1.79	1.10	123.25	135.91	26	877.6	1497	0.42	0.101	0.07	8.91	0.03	0.001
26.90	1.84	1.14	113.67	129.36	25	872.8	1478	0.42	0.106	0.08	8.91	0.03	0.001
27.07	1.84	1.14	108.87	123.66	24	854.1	1406	0.42	0.122	0.10	8.91	0.04	0.002
27.23	1.83	1.13	104.82	118.62	23	836.4	1339	0.42	0.140	0.12	8.91	0.05	0.002
27.39	1.83	1.13	103.51	116.64	23	829.0	1312	0.42	0.151	0.13	8.91	0.05	0.002
27.56	1.85	1.15	102.90	118.13	23	843.9	1367	0.42	0.136	0.11	8.91	0.05	0.002
27.72	1.89	1.18	101.74	119.63	24	860.3	1429	0.42	0.123	0.10	8.91	0.04	0.002
27.89	1.92	1.21	99.09	119.68	24	871.4	1472	0.42	0.115	0.09	8.91	0.04	0.002
28.05	1.93	1.21	97.44	118.25	24	869.3	1464	0.42	0.118	0.10	8.91	0.04	0.002
28.21	1.91	1.20	98.74	118.29	24	866.9	1453	0.42	0.122	0.10	8.91	0.04	0.002
28.38	1.87	1.17	104.40	121.66	24	870.5	1466	0.42	0.121	0.10	8.91	0.04	0.002
28.54	1.86	1.15	108.32	124.56	25	876.7	1490	0.42	0.118	0.09	8.91	0.04	0.001
28.71	1.89	1.18	103.66	122.38	24	881.3	1508	0.42	0.115	0.09	8.91	0.04	0.001
28.87	1.97	1.26	92.12	115.86	24	878.5	1498	0.42	0.119	0.10	8.91	0.04	0.002
29.04	2.07	1.39	79.03	110.23	24	876.1	1490	0.42	0.122	0.10	8.91	0.04	0.002
29.20	2.15	1.56	69.09	107.79	24	875.3	1487	0.42	0.124	0.10	8.91	0.04	0.002
29.36	2.25	1.80	59.28	106.86	25	872.6	1478	0.43	0.128	0.10	8.91	0.04	0.002
29.53	2.35	2.14	49.43	105.56	25	860.7	1433	0.43	0.140	0.10	8.91	0.04	0.002
29.69	2.43	2.44	42.04	102.70	26	841.2	1360	0.43	0.164	0.12	8.91	0.05	0.002
29.86	2.43	2.46	39.48	97.05	24	819.1	1279	0.43	0.199	0.16	8.91	0.06	0.002
30.02	2.41	2.36	37.89	89.60	22	791.6	1181	0.43	0.261	0.23	8.91	0.09	0.004
30.18	2.40	2.32	35.56	82.62	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
30.35	2.46	2.59	30.58	79.29	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
30.51	2.57	3.13	25.70	80.48	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
30.68	2.70	3.99	21.21	84.70	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
30.84	2.78	4.63	18.82	87.25	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
31.00	2.81	4.85	17.94	86.98	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
31.17	2.80	4.76	18.25	86.90	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
31.33	2.80	4.82	18.06	86.99	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
31.50	2.84	5.13	17.27	88.54	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000

:: Post-earthquake settlement of dry sands :: (continued)

Depth (ft)	Ic	Kc	Qc1n	Qc1n,cs	N1,60 (blows)	Vs (ft/s)	Gmax (tsf)	CSR	Shear, γ (%)	Svol,15 (%)	Nc	ev (%)	Settle. (in)
31.66	2.87	5.37	16.61	89.20	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
31.82	2.88	5.50	16.39	90.10	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
31.99	2.87	5.44	16.51	89.85	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
32.15	2.88	5.55	15.92	88.27	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
32.32	2.92	5.90	14.51	85.58	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
32.48	2.96	6.30	13.32	83.88	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
32.64	3.01	6.81	12.22	83.26	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
32.81	2.99	6.63	12.56	83.31	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
32.97	2.98	6.56	12.71	83.46	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
33.14	2.98	6.48	12.87	83.41	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
33.30	3.02	7.00	11.89	83.22	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
33.47	3.08	7.68	10.70	82.17	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
33.63	3.12	8.13	9.99	81.24	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
33.79	3.12	8.23	9.75	80.29	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
33.96	3.12	8.21	9.64	79.22	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
34.12	3.13	8.29	9.40	77.94	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
34.28	3.12	8.23	9.39	77.27	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
34.45	3.11	8.05	9.63	77.53	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
34.61	3.08	7.64	10.22	78.11	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
34.78	3.06	7.40	10.61	78.46	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
34.94	3.04	7.17	10.97	78.64	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
35.10	3.02	6.98	11.27	78.75	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
35.27	3.00	6.73	11.70	78.81	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
35.43	2.99	6.61	11.89	78.56	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
35.60	2.99	6.62	11.89	78.68	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
35.76	3.01	6.91	11.40	78.71	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
35.92	3.03	7.06	11.23	79.23	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
36.09	3.03	7.10	11.22	79.74	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
36.25	3.02	6.98	11.60	80.95	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
36.42	2.99	6.67	12.25	81.72	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
36.58	2.98	6.49	12.70	82.37	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
36.74	2.97	6.37	12.99	82.73	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
36.91	2.98	6.47	12.84	83.11	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
37.07	2.97	6.45	12.89	83.12	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
37.24	2.97	6.44	12.91	83.19	0	0.0	0	0.42	0.000	0.00	0.00	0.00	0.000
37.40	2.98	6.49	12.81	83.14	0	0.0	0	0.42	0.000	0.00	0.00	0.00	0.000
37.57	2.99	6.61	12.56	83.03	0	0.0	0	0.42	0.000	0.00	0.00	0.00	0.000
37.73	2.98	6.53	12.59	82.17	0	0.0	0	0.42	0.000	0.00	0.00	0.00	0.000
37.89	2.94	6.14	13.22	81.19	0	0.0	0	0.42	0.000	0.00	0.00	0.00	0.000
38.06	2.89	5.62	14.42	80.96	0	0.0	0	0.42	0.000	0.00	0.00	0.00	0.000
38.22	2.79	4.67	17.52	81.78	0	0.0	0	0.42	0.000	0.00	0.00	0.00	0.000
38.39	2.69	3.95	21.75	85.90	0	0.0	0	0.42	0.000	0.00	0.00	0.00	0.000
38.55	2.64	3.55	25.54	90.78	0	0.0	0	0.42	0.000	0.00	0.00	0.00	0.000
38.71	2.62	3.44	27.04	92.92	0	0.0	0	0.42	0.000	0.00	0.00	0.00	0.000
38.88	2.63	3.50	26.82	94.01	0	0.0	0	0.42	0.000	0.00	0.00	0.00	0.000
39.04	2.58	3.20	30.29	96.86	26	894.7	1544	0.42	0.191	0.14	8.91	0.04	0.001
39.21	2.55	3.03	34.23	103.88	0	0.0	0	0.42	0.000	0.00	0.00	0.00	0.000
39.37	2.47	2.63	40.95	107.82	0	0.0	0	0.42	0.000	0.00	0.00	0.00	0.000

:: Post-earthquake settlement of dry sands :: (continued)

Depth (ft)	Ic	Kc	Qc1n	Qc1n,cs	N1,60 (blows)	Vs (ft/s)	Gmax (tsf)	CSR	Shear, γ (%)	Svol,15 (%)	Nc	ev (%)	Settle. (in)
39.53	2.41	2.36	45.11	106.58	0	0.0	0	0.42	0.000	0.00	0.00	0.00	0.000
39.70	2.33	2.05	49.60	101.67	0	0.0	0	0.42	0.000	0.00	0.00	0.00	0.000
39.86	2.31	1.97	50.74	100.07	0	0.0	0	0.42	0.000	0.00	0.00	0.00	0.000
40.03	2.38	2.24	46.91	104.90	0	0.0	0	0.42	0.000	0.00	0.00	0.00	0.000
40.19	2.53	2.94	38.86	114.14	0	0.0	0	0.42	0.000	0.00	0.00	0.00	0.000
40.35	2.69	3.93	30.64	120.54	0	0.0	0	0.42	0.000	0.00	0.00	0.00	0.000
40.52	2.78	4.62	26.32	121.53	0	0.0	0	0.42	0.000	0.00	0.00	0.00	0.000
40.68	2.81	4.90	24.40	119.45	0	0.0	0	0.42	0.000	0.00	0.00	0.00	0.000
40.85	2.83	5.08	23.04	117.00	0	0.0	0	0.42	0.000	0.00	0.00	0.00	0.000
41.01	2.80	4.75	24.16	114.65	0	0.0	0	0.42	0.000	0.00	0.00	0.00	0.000
41.17	2.67	3.76	29.98	112.61	0	0.0	0	0.42	0.000	0.00	0.00	0.00	0.000
41.34	2.50	2.75	39.48	108.47	0	0.0	0	0.42	0.000	0.00	0.00	0.00	0.000
41.50	2.36	2.15	48.39	103.85	0	0.0	0	0.42	0.000	0.00	0.00	0.00	0.000
41.67	2.25	1.80	54.60	98.05	0	0.0	0	0.42	0.000	0.00	0.00	0.00	0.000
41.83	2.19	1.65	56.75	93.38	0	0.0	0	0.42	0.000	0.00	0.00	0.00	0.000
41.99	2.20	1.66	53.99	89.69	0	0.0	0	0.42	0.000	0.00	0.00	0.00	0.000
42.16	2.30	1.94	46.00	89.34	0	0.0	0	0.42	0.000	0.00	0.00	0.00	0.000
42.32	2.44	2.47	38.04	93.93	0	0.0	0	0.42	0.000	0.00	0.00	0.00	0.000
42.49	2.60	3.33	30.63	101.90	0	0.0	0	0.42	0.000	0.00	0.00	0.00	0.000
42.65	2.72	4.15	26.00	107.97	0	0.0	0	0.42	0.000	0.00	0.00	0.00	0.000
42.81	2.84	5.15	21.54	110.99	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
42.98	2.93	5.98	18.20	108.77	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
43.14	3.01	6.85	15.31	104.89	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
43.31	3.07	7.54	13.19	99.49	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
43.47	3.03	7.11	13.61	96.79	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
43.63	2.72	4.17	23.35	97.32	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
43.80	2.49	2.72	36.89	100.51	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
43.96	2.32	2.02	52.25	105.40	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
44.13	2.14	1.53	74.92	114.75	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
44.29	1.93	1.22	111.38	135.58	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
44.45	1.75	1.07	150.73	161.54	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
44.62	1.65	1.00	173.98	174.22	32	1072.5	2322	0.41	0.087	0.05	8.91	0.01	0.000
44.78	1.58	1.00	183.01	183.01	33	1051.7	2217	0.41	0.096	0.05	8.91	0.01	0.000
44.95	1.52	1.00	194.34	194.34	34	1042.9	2172	0.41	0.100	0.05	8.91	0.01	0.000
45.11	1.46	1.00	209.66	209.66	36	1044.1	2174	0.41	0.101	0.05	8.91	0.01	0.000
45.28	1.40	1.00	225.47	225.47	38	1048.9	2194	0.41	0.099	0.05	8.91	0.01	0.000
45.44	1.37	1.00	237.52	237.52	40	1056.8	2230	0.41	0.096	0.04	8.91	0.01	0.000
45.60	1.37	1.00	241.49	241.49	40	1061.4	2252	0.41	0.095	0.04	8.91	0.01	0.000
45.77	1.35	1.00	243.81	243.81	41	1057.5	2231	0.41	0.097	0.04	8.91	0.01	0.000
45.93	1.34	1.00	243.23	243.23	40	1053.4	2211	0.41	0.099	0.04	8.91	0.01	0.000
46.10	1.35	1.00	244.68	244.68	41	1064.6	2266	0.41	0.095	0.04	8.91	0.01	0.000
46.26	1.39	1.00	245.73	245.73	41	1088.4	2385	0.41	0.086	0.04	8.91	0.01	0.000
46.42	1.44	1.00	251.57	251.57	43	1141.4	2661	0.40	0.070	0.03	8.91	0.00	0.000
46.59	1.43	1.00	260.52	260.52	45	1157.0	2744	0.40	0.067	0.03	8.91	0.00	0.000
46.75	1.43	1.00	283.40	283.40	48	1205.0	3007	0.40	0.057	0.02	8.91	0.00	0.000
46.92	1.40	1.00	299.45	299.45	51	1214.4	3059	0.40	0.056	0.02	8.91	0.00	0.000
47.08	1.41	1.00	312.98	312.98	53	1252.6	3280	0.40	0.050	0.02	8.91	0.00	0.000
47.24	1.39	1.00	300.26	300.26	51	1216.8	3072	0.40	0.056	0.02	8.91	0.00	0.000

:: Post-earthquake settlement of dry sands :: (continued)

Depth (ft)	Ic	Kc	Qc1n	Qc1n,cs	N1,60 (blows)	Vs (ft/s)	Gmax (tsf)	CSR	Shear, γ (%)	Svol,15 (%)	Nc	ev (%)	Settle. (in)
47.41	1.39	1.00	291.33	291.33	49	1199.4	2973	0.40	0.059	0.02	8.91	0.00	0.000
47.57	1.29	1.00	301.58	301.58	49	1145.5	2673	0.40	0.071	0.02	8.91	0.00	0.000
47.74	1.15	1.00	332.88	332.88	52	1101.5	2433	0.40	0.085	0.03	8.91	0.00	0.000
47.90	0.97	1.00	362.77	362.77	54	1029.6	2056	0.40	0.121	0.04	8.91	0.01	0.000
48.06	0.90	1.00	374.84	374.84	55	1000.3	1881	0.40	0.149	0.04	8.91	0.01	0.000

Total estimated settlement: 0.88

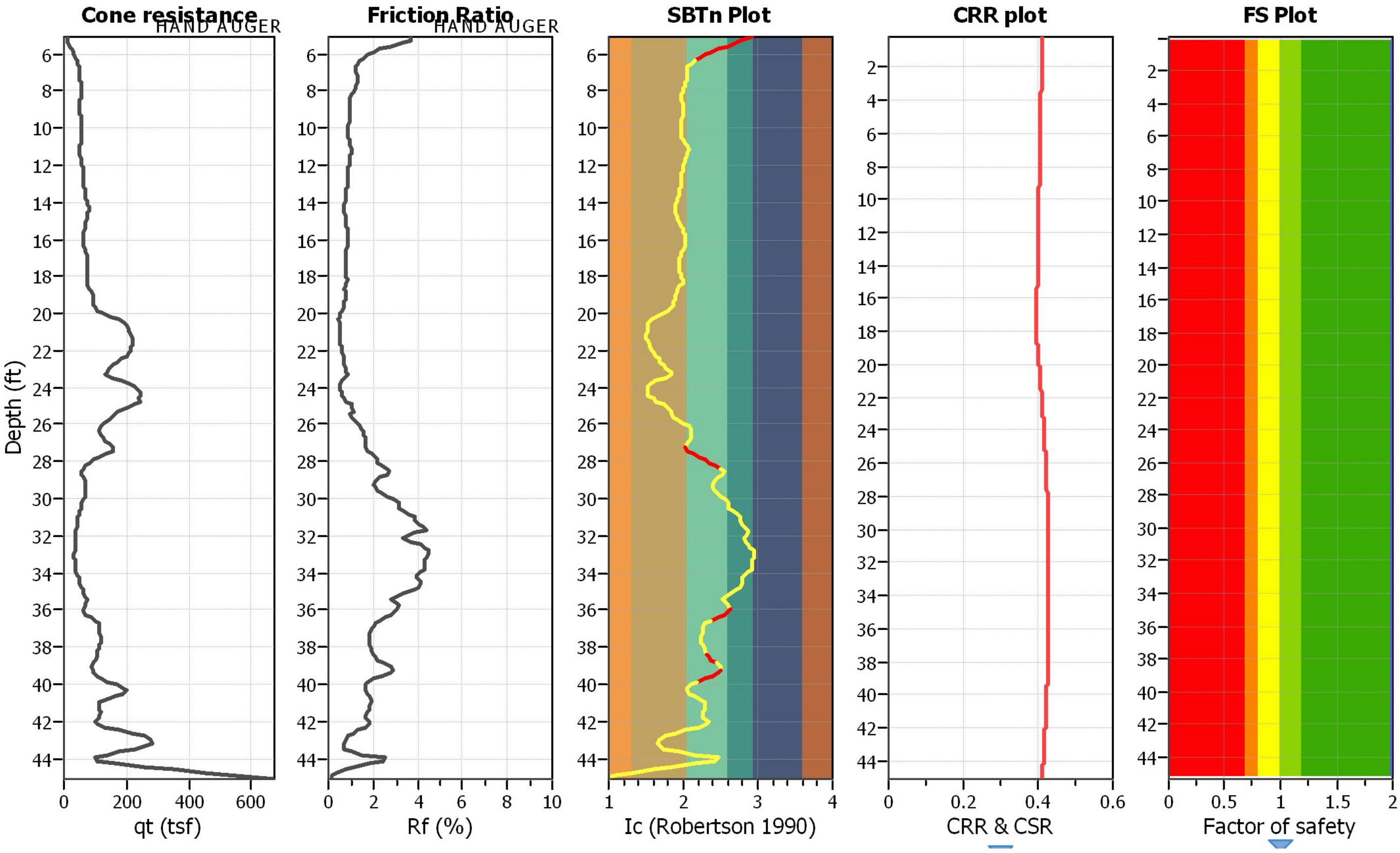
LIQUEFACTION ANALYSIS REPORT

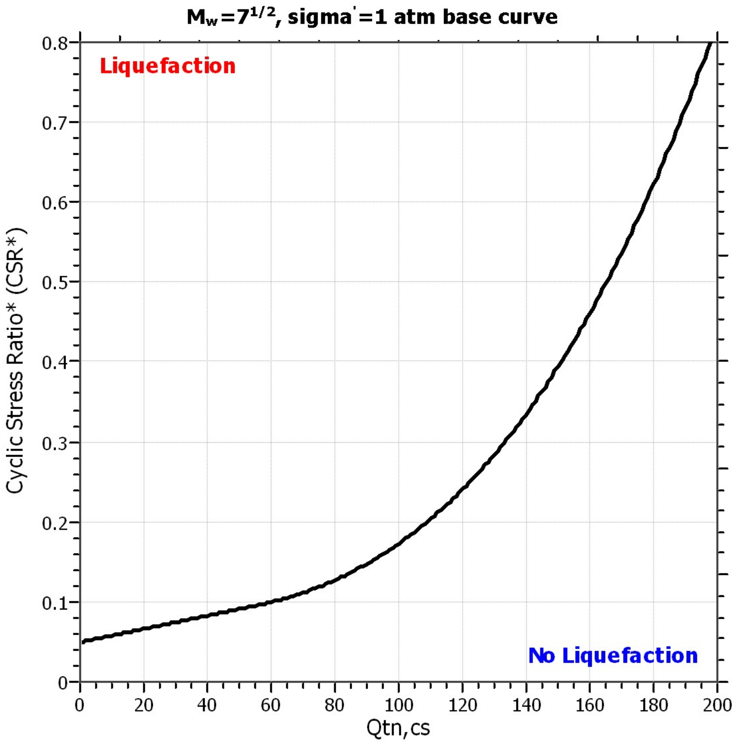
Project title : Colfax Charter Elementary School - MCE Analysis **Location : A8326-06-69A**

CPT file : CPT-04

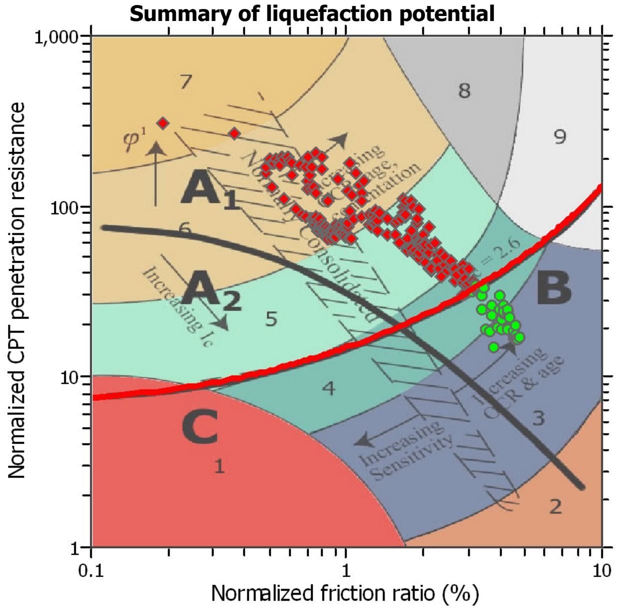
Input parameters and analysis data

Analysis method:	NCEER (1998)	G.W.T. (in-situ):	50.00 ft	Use fill:	No	Clay like behavior applied:	Sands only
Fines correction method:	NCEER (1998)	G.W.T. (earthq.):	50.00 ft	Fill height:	N/A	Limit depth applied:	No
Points to test:	Based on Ic value	Average results interval:	3	Fill weight:	N/A	Limit depth:	N/A
Earthquake magnitude M_w:	6.74	Ic cut-off value:	2.60	Trans. detect. applied:	Yes	MSF method:	Method based
Peak ground acceleration:	0.83	Unit weight calculation:	Based on SBT	K_σ applied:	Yes		



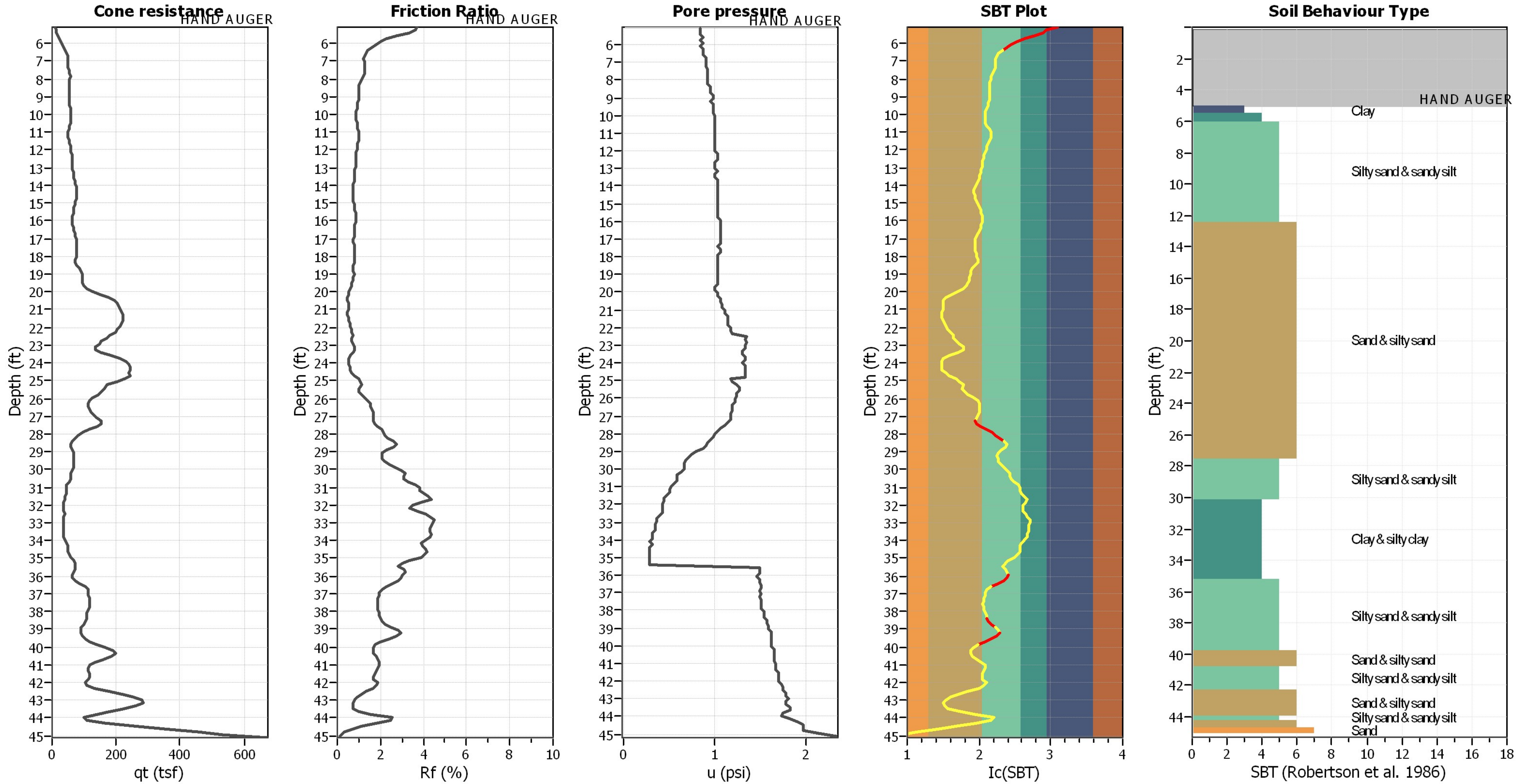


Summary of liquefaction potential



Zone A_1: Cyclic liquefaction likely depending on size and duration of cyclic loading
Zone A_2: Cyclic liquefaction and strength loss likely depending on loading and ground geometry
Zone B: Liquefaction and post-earthquake strength loss unlikely, check cyclic softening
Zone C: Cyclic liquefaction and strength loss possible depending on soil plasticity, brittleness/sensitivity, strain to peak undrained strength and ground geometry

CPT basic interpretation plots



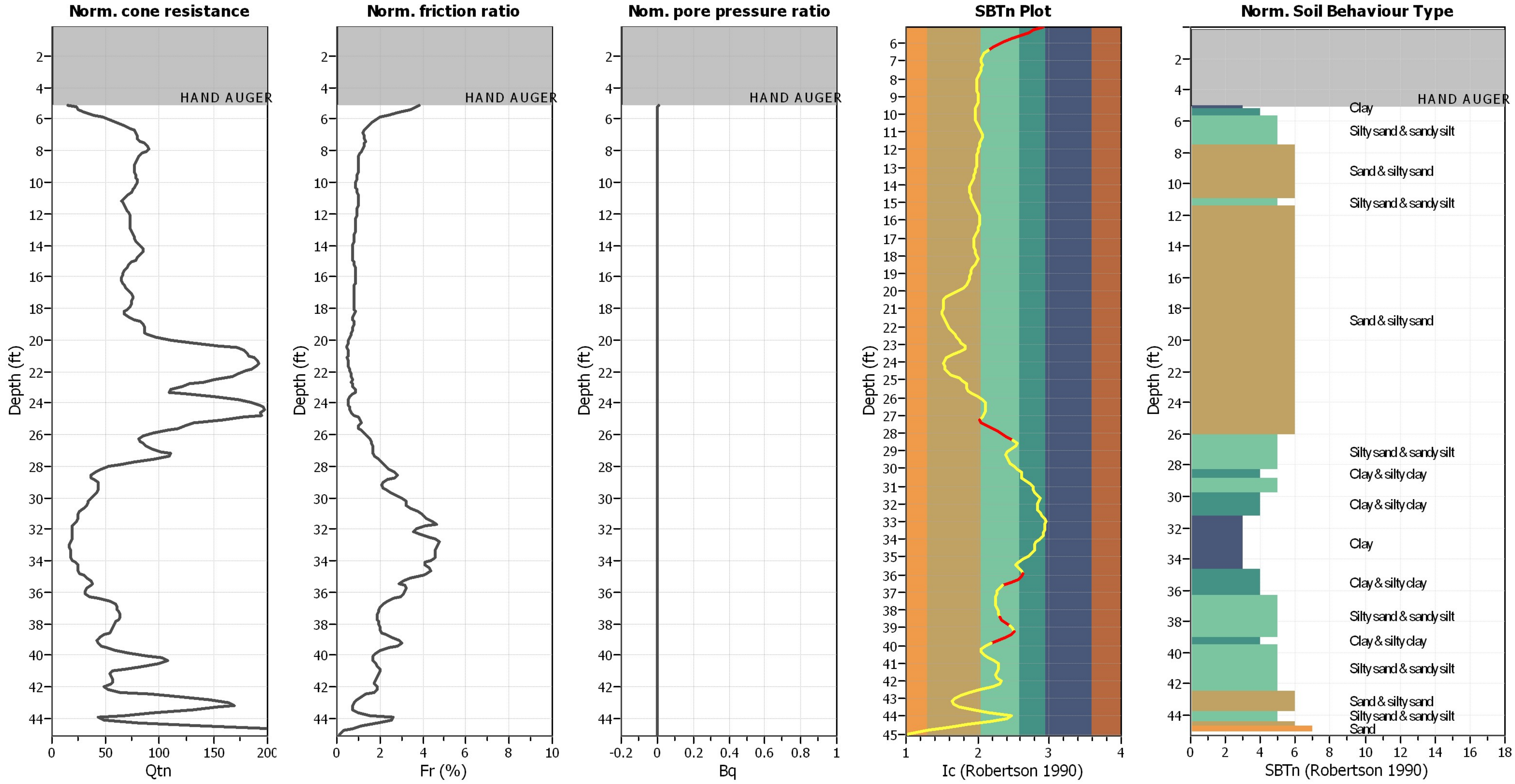
Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	50.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.74	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.83	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	50.00 ft	Fill height:	N/A	Limit depth:	N/A

SBT legend

1. Sensitive fine grained
2. Organic material
3. Clay to silty clay
4. Clayey silt to silty
5. Silty sand to sandy silt
6. Clean sand to silty sand
7. Gravely sand to sand
8. Very stiff sand to
9. Very stiff fine grained

CPT basic interpretation plots (normalized)



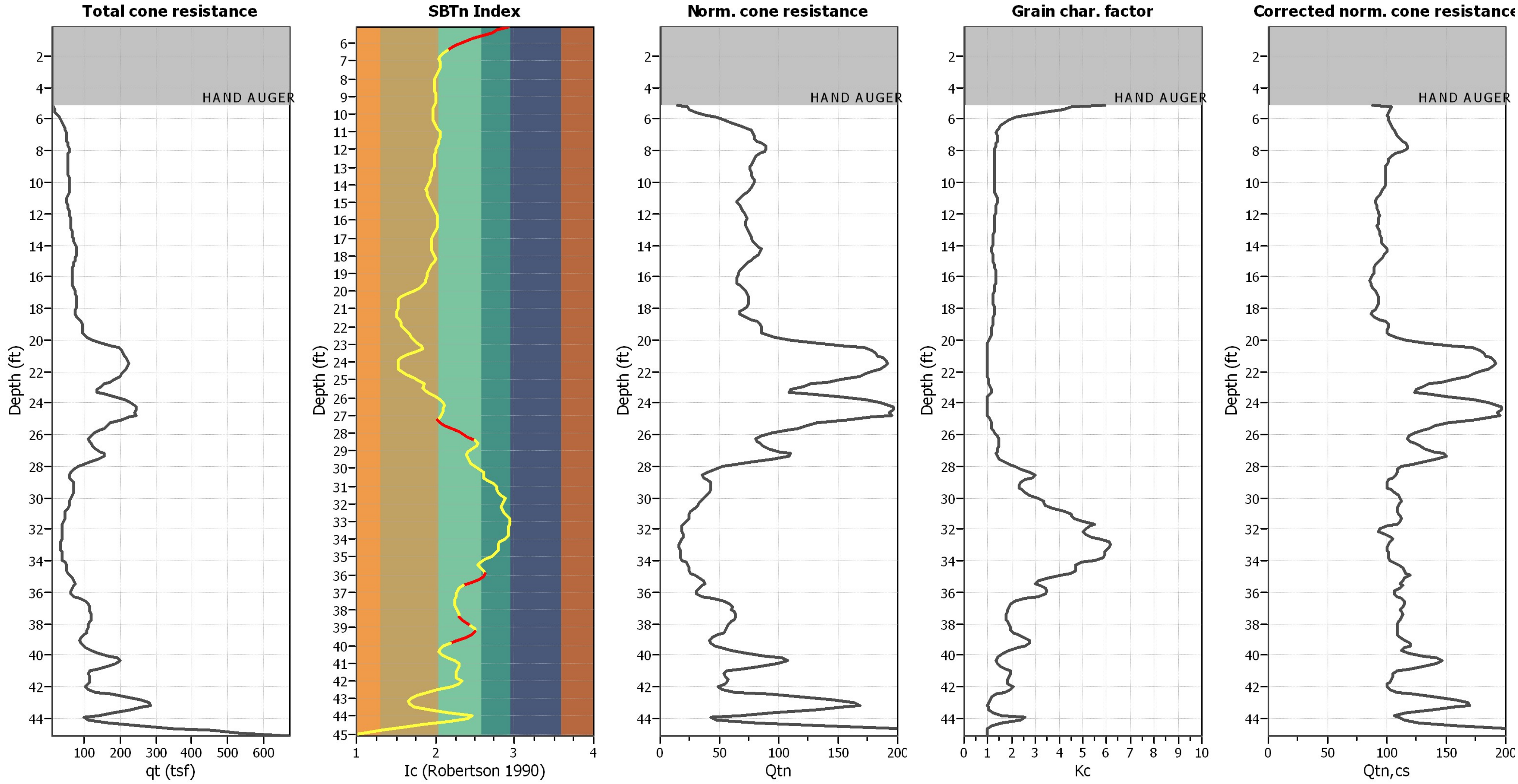
Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	50.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.74	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.83	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	50.00 ft	Fill height:	N/A	Limit depth:	N/A

SBTn legend

- 1. Sensitive fine grained
- 2. Organic material
- 3. Clay to silty clay
- 4. Clayey silt to silty
- 5. Silty sand to sandy silt
- 6. Clean sand to silty sand
- 7. Gravely sand to sand
- 8. Very stiff sand to
- 9. Very stiff fine grained

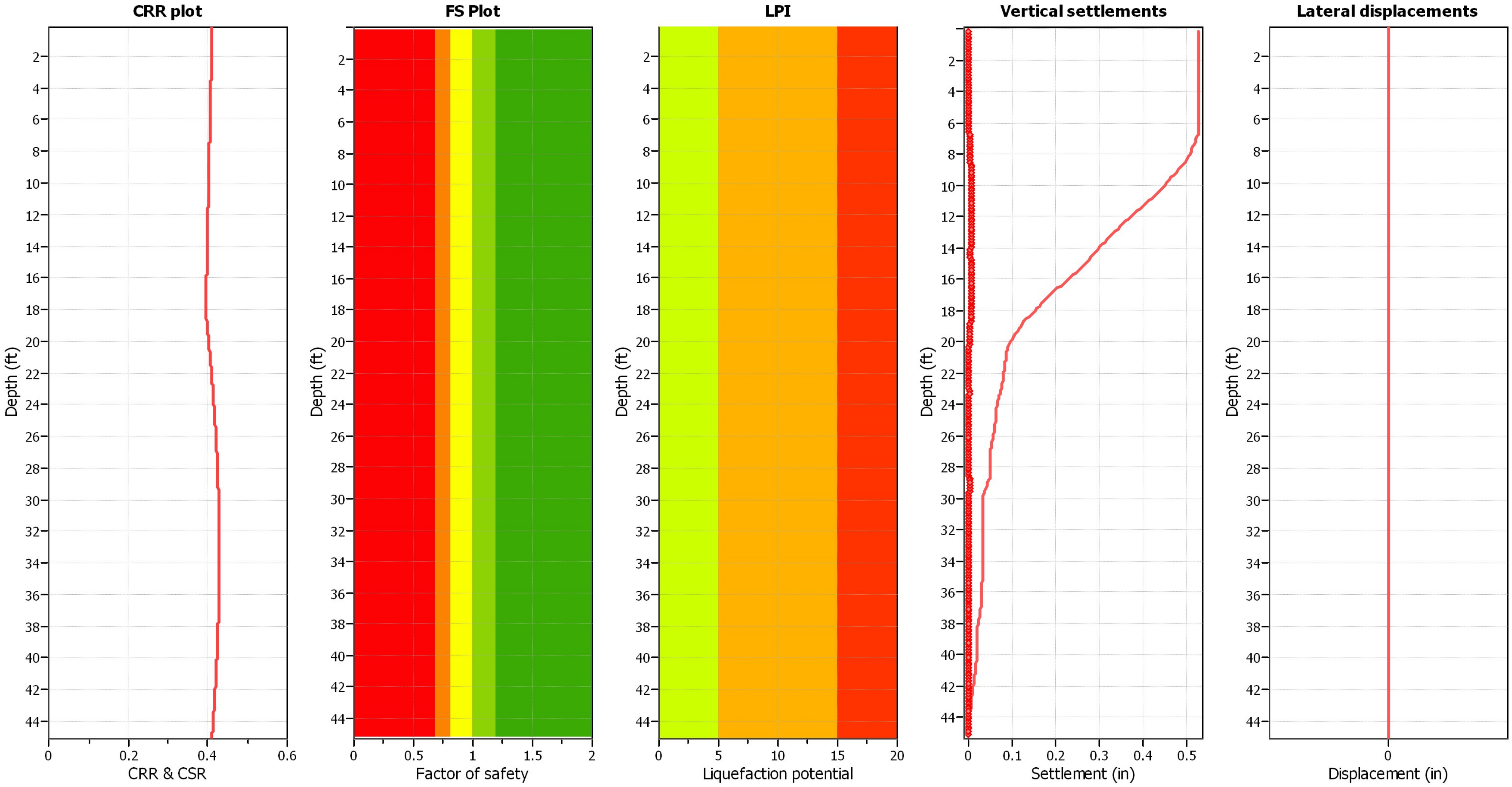
Liquefaction analysis overall plots (intermediate results)



Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	50.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.74	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.83	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	50.00 ft	Fill height:	N/A	Limit depth:	N/A

Liquefaction analysis overall plots



Input parameters and analysis data

Analysis method:	NCEER (1998)	Depth to water table (erthq.):	50.00 ft	Fill weight:	N/A
Fines correction method:	NCEER (1998)	Average results interval:	3	Transition detect. applied:	Yes
Points to test:	Based on Ic value	Ic cut-off value:	2.60	K_σ applied:	Yes
Earthquake magnitude M_w:	6.74	Unit weight calculation:	Based on SBT	Clay like behavior applied:	Sands only
Peak ground acceleration:	0.83	Use fill:	No	Limit depth applied:	No
Depth to water table (insitu):	50.00 ft	Fill height:	N/A	Limit depth:	N/A

F.S. color scheme

- Almost certain it will liquefy
- Very likely to liquefy
- Liquefaction and no liq. are equally likely
- Unlike to liquefy
- Almost certain it will not liquefy

LPI color scheme

- Very high risk
- High risk
- Low risk

:: Field input data ::

Point ID	Depth (ft)	q_c (tsf)	f_s (tsf)	u (tsf)	Fines content (%)	Unit weight (pcf)
1	0.16	-9999.00	-9999.00	-9999.00	N/A	120.90
2	0.33	-9999.00	-9999.00	-9999.00	N/A	120.90
3	0.49	-9999.00	-9999.00	-9999.00	N/A	120.90
4	0.66	-9999.00	-9999.00	-9999.00	N/A	120.90
5	0.82	-9999.00	-9999.00	-9999.00	N/A	120.90
6	0.98	-9999.00	-9999.00	-9999.00	N/A	120.90
7	1.15	-9999.00	-9999.00	-9999.00	N/A	120.90
8	1.31	-9999.00	-9999.00	-9999.00	N/A	120.90
9	1.48	-9999.00	-9999.00	-9999.00	N/A	120.90
10	1.64	-9999.00	-9999.00	-9999.00	N/A	120.90
11	1.80	-9999.00	-9999.00	-9999.00	N/A	120.90
12	1.97	-9999.00	-9999.00	-9999.00	N/A	120.90
13	2.13	-9999.00	-9999.00	-9999.00	N/A	120.90
14	2.30	-9999.00	-9999.00	-9999.00	N/A	120.90
15	2.46	-9999.00	-9999.00	-9999.00	N/A	120.90
16	2.63	-9999.00	-9999.00	-9999.00	N/A	120.90
17	2.79	-9999.00	-9999.00	-9999.00	N/A	120.90
18	2.95	-9999.00	-9999.00	-9999.00	N/A	120.90
19	3.12	-9999.00	-9999.00	-9999.00	N/A	120.90
20	3.28	-9999.00	-9999.00	-9999.00	N/A	120.90
21	3.44	-9999.00	-9999.00	-9999.00	N/A	120.90
22	3.61	-9999.00	-9999.00	-9999.00	N/A	120.90
23	3.77	-9999.00	-9999.00	-9999.00	N/A	120.90
24	3.94	-9999.00	-9999.00	-9999.00	N/A	120.90
25	4.10	-9999.00	-9999.00	-9999.00	N/A	120.90
26	4.26	-9999.00	-9999.00	-9999.00	N/A	120.90
27	4.43	-9999.00	-9999.00	-9999.00	N/A	120.90
28	4.59	-9999.00	-9999.00	-9999.00	N/A	120.90
29	4.76	-9999.00	-9999.00	-9999.00	N/A	120.90
30	4.92	-9999.00	-9999.00	-9999.00	N/A	120.90
31	5.08	15.00	0.54	0.85	53.37	108.17
32	5.25	13.60	0.53	0.85	44.25	112.12
33	5.41	14.86	0.52	0.85	41.48	112.30
34	5.58	18.62	0.53	0.87	35.11	112.98
35	5.74	24.61	0.56	0.85	29.08	113.87
36	5.91	30.00	0.59	0.87	24.96	114.64
37	6.07	33.20	0.61	0.85	21.96	115.16
38	6.23	37.75	0.61	0.87	19.45	115.50
39	6.40	42.72	0.61	0.87	17.21	115.74
40	6.56	46.23	0.60	0.87	15.67	115.86
41	6.73	47.95	0.59	0.90	14.70	115.93
42	6.89	49.72	0.59	0.90	14.33	116.07
43	7.05	50.00	0.62	0.90	14.42	116.34
44	7.22	49.49	0.65	0.90	14.63	116.66
45	7.38	50.81	0.67	0.93	14.45	116.99
46	7.55	54.04	0.69	0.93	13.98	117.31
47	7.71	55.95	0.72	0.93	13.42	117.50
48	7.87	57.19	0.70	0.93	13.03	117.35

:: Field input data :: (continued)

Point ID	Depth (ft)	q_c (tsf)	f_s (tsf)	u (tsf)	Fines content (%)	Unit weight (pcf)
49	8.04	56.77	0.64	0.93	12.72	116.75
50	8.20	54.49	0.56	0.93	12.57	115.96
51	8.37	52.70	0.52	0.95	12.48	115.36
52	8.53	53.43	0.52	0.95	12.56	115.15
53	8.69	53.01	0.52	0.95	12.69	115.14
54	8.86	52.36	0.52	0.98	12.87	115.15
55	9.02	52.75	0.52	0.98	13.02	115.17
56	9.19	52.75	0.53	0.95	13.04	115.22
57	9.35	53.45	0.53	0.98	12.87	115.30
58	9.51	55.87	0.53	0.98	12.59	115.35
59	9.68	56.77	0.52	0.98	12.27	115.40
60	9.84	57.89	0.52	0.98	12.07	115.41
61	10.01	58.88	0.52	1.01	12.00	115.43
62	10.17	58.59	0.52	1.01	12.05	115.43
63	10.34	58.31	0.52	1.01	12.22	115.44
64	10.50	57.95	0.52	1.01	12.52	115.42
65	10.66	56.29	0.53	1.01	12.97	115.35
66	10.83	54.30	0.52	1.01	13.76	115.25
67	10.99	50.62	0.52	1.01	14.47	115.11
68	11.15	50.00	0.52	1.01	14.87	115.06
69	11.32	51.35	0.52	1.01	14.73	115.11
70	11.48	52.89	0.53	1.01	14.27	115.23
71	11.65	55.48	0.53	1.01	13.92	115.35
72	11.81	56.21	0.53	1.01	13.55	115.54
73	11.97	58.59	0.55	1.01	13.29	115.73
74	12.14	60.22	0.55	1.03	12.93	115.77
75	12.30	61.04	0.53	1.03	12.62	115.73
76	12.47	62.05	0.53	1.03	12.50	115.64
77	12.63	61.40	0.53	1.01	12.52	115.65
78	12.79	61.74	0.53	1.01	12.55	115.68
79	12.96	62.84	0.53	1.01	12.38	115.81
80	13.12	65.14	0.55	1.03	12.14	116.01
81	13.29	67.11	0.56	1.01	11.80	116.14
82	13.45	68.79	0.55	1.01	11.60	116.18
83	13.62	68.76	0.55	1.03	11.43	116.20
84	13.78	70.11	0.55	1.03	11.18	116.26
85	13.94	73.31	0.55	1.03	10.68	116.37
86	14.11	77.25	0.55	1.03	10.19	116.60
87	14.27	80.25	0.58	1.03	10.00	116.81
88	14.44	79.44	0.58	1.03	10.15	116.94
89	14.60	77.36	0.58	1.03	10.44	116.87
90	14.76	75.95	0.57	1.03	10.74	116.65
91	14.93	73.76	0.55	1.03	11.08	116.46
92	15.09	71.46	0.55	1.03	11.58	116.33
93	15.26	68.93	0.56	1.03	12.17	116.28
94	15.42	66.94	0.55	1.03	12.77	116.29
95	15.58	65.56	0.57	1.03	13.23	116.39
96	15.75	65.59	0.59	1.03	13.60	116.47

:: Field input data :: (continued)

Point ID	Depth (ft)	q_c (tsf)	f_s (tsf)	u (tsf)	Fines content (%)	Unit weight (pcf)
97	15.91	64.58	0.58	1.06	13.61	116.34
98	16.08	64.78	0.54	1.06	13.57	116.12
99	16.24	64.61	0.54	1.06	13.45	116.00
100	16.40	65.36	0.55	1.06	13.37	116.11
101	16.57	67.33	0.56	1.06	13.03	116.27
102	16.73	70.48	0.56	1.06	12.48	116.46
103	16.90	74.21	0.57	1.06	11.94	116.65
104	17.06	76.46	0.58	1.06	11.60	116.88
105	17.22	78.03	0.60	1.06	11.54	117.14
106	17.39	78.57	0.62	1.03	11.65	117.33
107	17.55	77.95	0.62	1.06	11.78	117.45
108	17.72	78.48	0.63	1.06	11.82	117.46
109	17.88	78.88	0.62	1.03	12.00	117.43
110	18.05	75.90	0.62	1.03	12.53	117.27
111	18.21	70.73	0.61	1.03	13.10	117.06
112	18.37	70.56	0.59	1.03	12.83	116.89
113	18.54	77.89	0.57	1.03	11.83	117.04
114	18.70	85.39	0.61	1.03	10.99	117.66
115	18.86	90.20	0.70	1.03	10.63	118.53
116	19.03	95.31	0.76	1.03	10.52	119.02
117	19.19	94.66	0.73	1.03	10.16	118.93
118	19.36	95.62	0.66	1.03	9.94	118.60
119	19.52	95.20	0.67	1.03	9.66	118.41
120	19.68	97.67	0.67	1.01	9.16	118.51
121	19.85	106.99	0.66	1.01	8.16	118.84
122	20.01	121.43	0.70	1.03	6.65	119.41
123	20.18	144.75	0.73	1.03	5.03	120.38
124	20.34	178.54	0.82	1.06	3.84	121.59
125	20.50	201.51	0.96	1.06	3.31	122.70
126	20.67	204.52	1.04	1.08	3.31	123.47
127	20.83	203.51	1.09	1.08	3.32	123.84
128	21.00	213.93	1.10	1.11	3.24	123.93
129	21.16	213.65	1.07	1.11	2.97	123.96
130	21.32	222.25	1.07	1.14	2.94	124.16
131	21.49	224.35	1.18	1.14	3.08	124.61
132	21.65	221.35	1.27	1.14	3.45	125.06
133	21.82	216.01	1.30	1.14	3.76	125.26
134	21.98	213.71	1.30	1.17	3.97	125.17
135	22.15	207.19	1.25	1.17	4.49	125.34
136	22.31	194.60	1.44	1.19	4.94	125.47
137	22.47	196.43	1.41	1.35	5.71	124.88
138	22.64	155.73	1.05	1.32	6.04	124.04
139	22.80	158.85	1.10	1.35	6.79	123.20
140	22.97	149.66	1.12	1.32	7.54	123.23
141	23.13	134.18	1.12	1.32	8.82	123.13
142	23.29	122.75	1.14	1.30	8.90	123.13
143	23.46	148.76	1.13	1.30	7.12	123.43
144	23.62	191.66	1.10	1.32	4.94	123.83

:: Field input data :: (continued)

Point ID	Depth (ft)	q_c (tsf)	f_s (tsf)	u (tsf)	Fines content (%)	Unit weight (pcf)
145	23.79	215.76	1.12	1.32	3.77	124.46
146	23.95	229.91	1.27	1.30	3.35	125.07
147	24.11	239.88	1.32	1.32	3.29	125.72
148	24.28	245.17	1.41	1.32	3.39	126.22
149	24.44	243.79	1.53	1.32	3.37	126.30
150	24.61	245.78	1.35	1.32	4.24	127.46
151	24.77	235.08	2.17	1.32	4.88	128.60
152	24.93	252.67	2.35	1.17	6.81	129.65
153	25.10	190.59	2.44	1.19	7.85	128.99
154	25.26	167.53	1.80	1.24	9.31	127.57
155	25.43	158.17	1.50	1.27	9.14	126.24
156	25.59	159.16	1.58	1.27	9.72	125.91
157	25.75	143.88	1.66	1.24	11.01	125.92
158	25.92	127.30	1.61	1.24	13.03	125.78
159	26.08	114.77	1.67	1.22	14.84	125.63
160	26.25	109.97	1.71	1.22	16.00	125.70
161	26.41	111.66	1.74	1.19	16.08	126.07
162	26.57	121.15	1.90	1.19	16.00	126.69
163	26.74	124.13	2.11	1.19	15.97	127.28
164	26.90	124.77	2.15	1.17	15.43	127.79
165	27.07	141.94	2.23	1.17	14.56	128.55
166	27.23	158.62	2.62	1.17	13.77	129.45
167	27.39	165.25	2.83	1.14	14.43	129.88
168	27.56	140.34	2.71	1.11	16.39	129.38
169	27.72	108.48	2.37	1.06	19.50	128.06
170	27.89	90.28	1.98	1.03	22.47	126.49
171	28.05	80.17	1.73	1.01	24.57	125.22
172	28.21	71.88	1.64	0.98	27.09	124.55
173	28.38	63.73	1.70	0.95	30.35	124.21
174	28.54	56.83	1.70	0.93	32.61	123.70
175	28.71	55.28	1.44	0.90	31.71	123.35
176	28.87	65.42	1.46	0.87	29.00	123.07
177	29.04	69.02	1.43	0.79	26.79	123.19
178	29.20	70.42	1.40	0.74	26.28	123.26
179	29.36	69.92	1.47	0.71	26.62	123.46
180	29.53	69.55	1.55	0.69	27.47	123.89
181	29.69	70.11	1.67	0.66	28.59	124.30
182	29.86	67.81	1.75	0.66	30.70	124.63
183	30.02	61.04	1.85	0.66	33.38	124.67
184	30.18	56.52	1.82	0.64	35.45	124.66
185	30.35	58.06	1.84	0.58	35.72	124.45
186	30.51	58.34	1.73	0.58	36.14	124.25
187	30.68	53.20	1.72	0.58	38.48	123.93
188	30.84	45.95	1.74	0.56	42.15	123.62
189	31.00	42.98	1.68	0.53	44.23	123.57
190	31.17	46.60	1.77	0.50	44.02	123.77
191	31.33	48.40	1.85	0.50	45.11	124.01
192	31.50	41.71	1.87	0.48	47.49	123.72

:: Field input data :: (continued)

Point ID	Depth (ft)	q_c (tsf)	f_s (tsf)	u (tsf)	Fines content (%)	Unit weight (pcf)
193	31.66	38.03	1.67	0.45	50.48	123.10
194	31.82	37.02	1.57	0.45	49.58	121.68
195	31.99	35.67	1.04	0.42	48.33	120.76
196	32.15	36.04	1.19	0.42	47.42	120.60
197	32.32	38.54	1.47	0.42	48.33	121.76
198	32.48	40.45	1.62	0.42	50.03	122.58
199	32.64	37.13	1.68	0.40	51.87	122.67
200	32.81	35.08	1.57	0.37	54.40	122.36
201	32.97	33.51	1.52	0.37	55.05	121.96
202	33.14	33.99	1.48	0.34	54.53	121.89
203	33.30	35.95	1.51	0.34	53.68	122.04
204	33.47	36.35	1.57	0.34	53.45	122.24
205	33.63	35.81	1.58	0.32	53.41	122.37
206	33.79	37.05	1.58	0.32	52.95	122.45
207	33.96	38.06	1.60	0.32	50.50	122.82
208	34.12	43.90	1.71	0.29	47.06	123.56
209	34.28	51.24	1.91	0.32	45.30	124.50
210	34.45	50.53	2.13	0.29	45.57	125.03
211	34.61	47.56	2.09	0.29	45.51	125.30
212	34.78	53.96	2.10	0.29	43.49	125.66
213	34.94	60.90	2.30	0.29	41.01	126.41
214	35.10	64.58	2.56	0.29	36.79	126.26
215	35.27	71.94	1.74	0.29	33.69	126.33
216	35.43	78.59	2.19	0.29	32.41	126.09
217	35.60	69.55	2.30	1.48	34.11	126.42
218	35.76	66.38	2.08	1.48	35.91	125.86
219	35.92	63.09	1.86	1.48	36.39	125.13
220	36.09	60.08	1.80	1.46	36.12	125.04
221	36.25	67.05	2.00	1.48	33.55	125.77
222	36.42	84.66	2.23	1.48	28.98	126.90
223	36.58	104.41	2.38	1.51	24.73	127.78
224	36.74	117.44	2.41	1.51	22.55	127.94
225	36.91	110.98	2.19	1.48	21.56	127.72
226	37.07	112.33	2.13	1.51	21.29	127.47
227	37.24	116.46	2.18	1.48	20.84	127.60
228	37.40	119.58	2.26	1.51	20.50	127.78
229	37.57	120.67	2.24	1.51	20.39	127.80
230	37.73	118.82	2.19	1.51	20.58	127.61
231	37.89	113.90	2.12	1.51	21.24	127.39
232	38.06	108.93	2.11	1.53	21.90	127.25
233	38.22	109.13	2.13	1.53	22.36	127.24
234	38.39	109.07	2.15	1.53	22.73	127.30
235	38.55	106.38	2.18	1.56	23.65	127.28
236	38.71	99.69	2.18	1.56	25.65	127.15
237	38.88	87.95	2.18	1.59	28.25	127.26
238	39.04	86.26	2.43	1.59	30.51	127.81
239	39.21	90.95	2.79	1.61	30.71	128.47
240	39.37	96.71	2.79	1.61	29.04	128.61

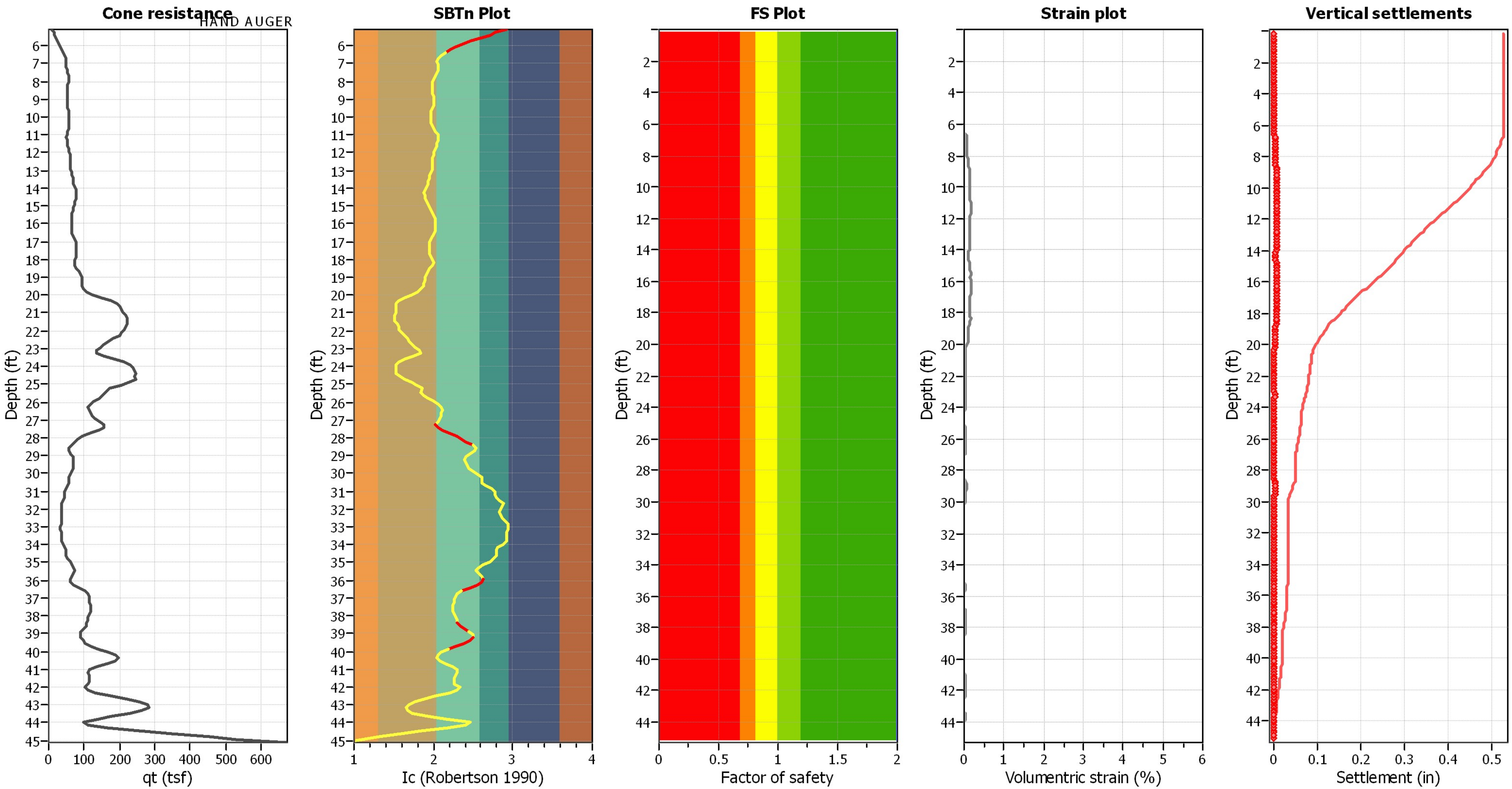
:: Field input data :: (continued)

Point ID	Depth (ft)	q_c (tsf)	f_s (tsf)	u (tsf)	Fines content (%)	Unit weight (pcf)
241	39.53	102.19	2.44	1.61	25.84	128.29
242	39.70	114.80	2.25	1.61	21.99	128.19
243	39.86	136.94	2.39	1.61	18.43	128.99
244	40.03	169.13	2.81	1.61	15.76	130.34
245	40.19	199.30	3.24	1.64	14.52	131.49
246	40.35	201.15	3.44	1.64	14.20	132.06
247	40.52	196.96	3.40	1.64	15.41	131.85
248	40.68	163.09	3.16	1.64	17.36	130.83
249	40.85	129.86	2.55	1.64	20.20	129.28
250	41.01	111.21	2.14	1.67	22.22	127.84
251	41.17	107.75	2.09	1.67	22.41	127.17
252	41.34	115.76	2.04	1.67	21.90	127.14
253	41.50	116.97	2.08	1.69	21.03	127.09
254	41.67	117.67	1.99	1.69	20.94	126.78
255	41.83	111.57	1.81	1.69	21.31	126.56
256	41.99	108.96	1.95	1.69	23.63	126.39
257	42.16	90.20	2.02	1.72	22.64	126.89
258	42.32	131.04	2.10	1.75	19.45	127.94
259	42.49	169.49	2.50	1.75	13.61	129.12
260	42.65	226.85	2.44	1.77	10.16	129.92
261	42.81	255.28	2.38	1.77	7.37	129.98
262	42.98	283.40	2.17	1.80	5.87	129.90
263	43.14	301.37	2.16	1.77	5.21	129.36
264	43.31	269.46	1.87	1.77	5.65	128.35
265	43.47	214.35	1.52	1.83	6.89	127.28
266	43.63	200.57	1.63	1.83	11.36	127.31
267	43.80	120.93	2.32	1.75	17.83	127.76
268	43.96	94.61	2.38	1.72	29.00	128.18
269	44.13	80.70	2.80	1.83	27.13	129.08
270	44.29	153.62	3.01	1.91	17.76	130.97
271	44.45	265.78	3.41	1.96	9.07	131.73
272	44.62	354.71	2.42	1.96	4.27	131.61
273	44.78	432.89	2.03	1.96	0.44	128.87
274	44.95	581.00	0.50	2.14	0.00	125.64
275	45.11	719.85	0.50	2.33	0.00	121.08

Abbreviations

Depth:	Depth from free surface, at which CPT was performed (ft)
q_c:	Measured cone resistance (tsf)
f_s:	Sleeve friction resistance (tsf)
u:	Pore pressure (tsf)
Fines content:	Percentage of fines in soil (%)
Unit weight:	Bulk soil unit weight (pcf)

Estimation of post-earthquake settlements



Abbreviations

q_t:	Total cone resistance (cone resistance q_c corrected for pore water effects)
I_c:	Soil Behaviour Type Index
FS:	Calculated Factor of Safety against liquefaction
Volumentric strain:	Post-liquefaction volumentric strain

:: Post-earthquake settlement of dry sands ::

Depth (ft)	Ic	Kc	Qc1n	Qc1n,cs	N1,60 (blows)	Vs (ft/s)	Gmax (tsf)	CSR	Shear, γ (%)	Svol,15 (%)	Nc	ev (%)	Settle. (in)
0.16	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
0.33	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
0.49	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
0.66	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
0.82	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
0.98	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
1.15	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
1.31	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
1.48	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
1.64	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
1.80	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
1.97	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
2.13	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
2.30	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
2.46	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
2.63	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
2.79	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
2.95	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
3.12	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
3.28	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
3.44	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
3.61	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
3.77	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
3.94	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
4.10	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
4.26	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
4.43	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
4.59	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
4.76	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
4.92	-1.00	1.00	-1.00	-1.00	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
5.08	2.92	5.92	14.84	87.75	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
5.25	2.77	4.53	22.79	103.21	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
5.41	2.72	4.14	24.71	102.25	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
5.58	2.59	3.30	30.59	100.84	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
5.74	2.46	2.59	38.69	100.22	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
5.91	2.36	2.17	46.48	100.90	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
6.07	2.28	1.90	53.50	101.67	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
6.23	2.21	1.70	60.30	102.53	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
6.40	2.15	1.54	67.27	103.81	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
6.56	2.10	1.45	72.71	105.17	0	0.0	0	0.41	0.000	0.00	0.00	0.00	0.000
6.73	2.06	1.39	76.44	106.32	23	561.9	569	0.40	0.116	0.10	8.91	0.07	0.003
6.89	2.05	1.37	78.45	107.51	23	564.6	575	0.40	0.117	0.10	8.91	0.07	0.003
7.05	2.05	1.38	79.26	109.01	23	568.6	584	0.40	0.116	0.10	8.91	0.07	0.003
7.22	2.06	1.39	79.83	110.72	24	573.3	596	0.40	0.113	0.09	8.91	0.06	0.003
7.38	2.05	1.38	81.98	112.90	24	578.7	609	0.40	0.110	0.09	8.91	0.06	0.002
7.55	2.04	1.35	85.42	115.51	24	584.6	623	0.40	0.106	0.08	8.91	0.06	0.002
7.71	2.02	1.32	88.82	117.51	25	588.5	632	0.40	0.105	0.08	8.91	0.06	0.002
7.87	2.00	1.30	89.47	116.65	24	587.9	630	0.40	0.111	0.09	8.91	0.06	0.002

:: Post-earthquake settlement of dry sands :: (continued)

Depth (ft)	Ic	Kc	Qc1n	Qc1n,cs	N1,60 (blows)	Vs (ft/s)	Gmax (tsf)	CSR	Shear, γ (%)	Svol,15 (%)	Nc	ev (%)	Settle. (in)
8.04	1.99	1.29	87.25	112.46	23	581.1	612	0.40	0.128	0.11	8.91	0.07	0.003
8.20	1.99	1.28	83.70	107.28	22	571.1	588	0.40	0.155	0.14	8.91	0.09	0.004
8.37	1.98	1.28	80.91	103.39	21	564.0	570	0.40	0.181	0.17	8.91	0.11	0.004
8.53	1.99	1.28	79.26	101.56	21	562.3	566	0.40	0.195	0.18	8.91	0.12	0.005
8.69	1.99	1.29	78.21	100.71	21	563.5	568	0.40	0.200	0.19	8.91	0.13	0.005
8.86	2.00	1.30	77.11	99.96	21	564.6	570	0.40	0.205	0.20	8.91	0.13	0.005
9.02	2.00	1.30	76.21	99.34	21	566.1	573	0.40	0.208	0.20	8.91	0.13	0.005
9.19	2.00	1.30	75.89	99.01	21	568.3	578	0.40	0.209	0.20	8.91	0.13	0.005
9.35	2.00	1.30	76.41	99.04	21	571.5	585	0.40	0.207	0.20	8.91	0.13	0.005
9.51	1.99	1.28	77.27	99.13	21	574.7	592	0.40	0.206	0.20	8.91	0.13	0.005
9.68	1.97	1.27	78.29	99.27	20	577.9	599	0.40	0.204	0.20	8.91	0.13	0.005
9.84	1.97	1.26	78.71	99.11	20	580.3	604	0.40	0.205	0.20	8.91	0.13	0.005
10.01	1.96	1.26	78.69	98.81	20	582.2	608	0.40	0.206	0.20	8.91	0.13	0.005
10.17	1.97	1.26	78.12	98.28	20	583.6	611	0.40	0.210	0.21	8.91	0.14	0.005
10.34	1.97	1.27	77.05	97.54	20	584.5	613	0.40	0.214	0.21	8.91	0.14	0.005
10.50	1.98	1.28	75.45	96.55	20	584.7	613	0.40	0.221	0.22	8.91	0.14	0.006
10.66	2.00	1.30	73.20	95.22	20	583.8	611	0.40	0.232	0.23	8.91	0.15	0.006
10.83	2.03	1.34	69.70	93.42	20	581.3	605	0.40	0.250	0.25	8.91	0.16	0.006
10.99	2.05	1.38	66.61	91.78	20	578.7	599	0.40	0.269	0.28	8.91	0.18	0.007
11.15	2.07	1.40	64.86	90.82	19	578.2	598	0.40	0.281	0.29	8.91	0.19	0.007
11.32	2.06	1.39	65.15	90.71	19	580.7	603	0.40	0.280	0.29	8.91	0.19	0.007
11.48	2.05	1.37	66.68	91.18	19	585.1	613	0.40	0.270	0.28	8.91	0.18	0.007
11.65	2.04	1.35	67.96	91.64	19	589.3	622	0.40	0.262	0.27	8.91	0.17	0.007
11.81	2.02	1.33	69.55	92.47	19	594.4	634	0.40	0.249	0.26	8.91	0.16	0.006
11.97	2.01	1.32	70.78	93.21	19	599.3	646	0.40	0.239	0.25	8.91	0.16	0.006
12.14	2.00	1.30	71.98	93.49	19	602.3	653	0.40	0.236	0.24	8.91	0.15	0.006
12.30	1.99	1.28	72.63	93.28	19	603.8	655	0.40	0.239	0.25	8.91	0.16	0.006
12.47	1.98	1.28	72.45	92.65	19	604.0	655	0.40	0.246	0.26	8.91	0.16	0.006
12.63	1.98	1.28	72.13	92.30	19	605.3	658	0.40	0.249	0.26	8.91	0.16	0.006
12.79	1.99	1.28	71.87	92.07	19	607.1	662	0.40	0.250	0.26	8.91	0.16	0.006
12.96	1.98	1.27	72.68	92.54	19	610.7	671	0.40	0.244	0.26	8.91	0.16	0.006
13.12	1.97	1.26	74.08	93.50	19	615.7	683	0.40	0.233	0.24	8.91	0.15	0.006
13.29	1.96	1.25	75.66	94.35	19	619.9	693	0.40	0.226	0.24	8.91	0.14	0.006
13.45	1.95	1.24	76.38	94.58	19	622.4	699	0.40	0.225	0.23	8.91	0.14	0.006
13.62	1.94	1.23	76.88	94.65	19	624.3	704	0.40	0.225	0.24	8.91	0.14	0.006
13.78	1.93	1.22	77.91	95.09	19	627.1	710	0.40	0.223	0.23	8.91	0.14	0.006
13.94	1.91	1.20	80.31	96.38	19	631.5	721	0.40	0.216	0.22	8.91	0.14	0.005
14.11	1.89	1.18	83.29	98.38	20	637.8	737	0.40	0.204	0.21	8.91	0.13	0.005
14.27	1.88	1.17	84.86	99.60	20	642.9	750	0.40	0.196	0.20	8.91	0.12	0.005
14.44	1.89	1.18	84.37	99.51	20	645.6	757	0.40	0.194	0.20	8.91	0.12	0.005
14.60	1.90	1.19	82.34	98.06	20	644.7	755	0.40	0.201	0.21	8.91	0.12	0.005
14.76	1.91	1.20	79.84	96.00	19	641.5	746	0.40	0.215	0.22	8.91	0.13	0.005
14.93	1.93	1.22	77.30	94.02	19	638.5	738	0.40	0.229	0.24	8.91	0.14	0.006
15.09	1.95	1.24	74.41	92.09	19	636.1	731	0.40	0.242	0.26	8.91	0.15	0.006
15.26	1.97	1.26	71.63	90.50	19	634.8	728	0.40	0.252	0.27	8.91	0.16	0.006
15.42	1.99	1.29	69.19	89.34	19	634.5	727	0.40	0.259	0.28	8.91	0.17	0.007
15.58	2.01	1.31	67.63	88.83	19	635.9	731	0.40	0.260	0.28	8.91	0.17	0.007
15.75	2.02	1.33	66.40	88.46	19	637.5	735	0.40	0.260	0.28	8.91	0.16	0.006

:: Post-earthquake settlement of dry sands :: (continued)

Depth (ft)	Ic	Kc	Qc1n	Qc1n,cs	N1,60 (blows)	Vs (ft/s)	Gmax (tsf)	CSR	Shear, γ (%)	Svol,15 (%)	Nc	ev (%)	Settle. (in)
15.91	2.02	1.33	65.69	87.56	18	636.3	732	0.40	0.271	0.30	8.91	0.17	0.007
16.08	2.02	1.33	64.91	86.39	18	634.1	725	0.40	0.287	0.32	8.91	0.19	0.007
16.24	2.02	1.32	64.73	85.75	18	633.5	723	0.40	0.296	0.34	8.91	0.19	0.008
16.40	2.02	1.32	65.16	86.07	18	636.6	731	0.40	0.290	0.33	8.91	0.19	0.007
16.57	2.00	1.30	66.67	86.92	18	640.9	742	0.40	0.280	0.32	8.91	0.18	0.007
16.73	1.98	1.28	69.13	88.32	18	646.4	756	0.40	0.265	0.30	8.91	0.17	0.007
16.90	1.96	1.25	71.66	89.81	18	651.8	770	0.40	0.253	0.28	8.91	0.16	0.006
17.06	1.95	1.24	73.66	91.23	19	657.5	785	0.40	0.240	0.26	8.91	0.15	0.006
17.22	1.95	1.24	74.63	92.24	19	662.8	799	0.40	0.229	0.25	8.91	0.14	0.005
17.39	1.95	1.24	74.67	92.64	19	666.7	810	0.40	0.222	0.24	8.91	0.13	0.005
17.55	1.96	1.25	74.38	92.69	19	669.4	818	0.40	0.219	0.23	8.91	0.13	0.005
17.72	1.96	1.25	74.03	92.39	19	670.4	820	0.40	0.221	0.24	8.91	0.13	0.005
17.88	1.96	1.26	72.95	91.63	19	670.4	820	0.39	0.225	0.24	8.91	0.13	0.005
18.05	1.98	1.28	70.09	89.72	19	667.4	812	0.39	0.238	0.26	8.91	0.14	0.006
18.21	2.01	1.31	67.07	87.68	18	663.6	801	0.40	0.257	0.29	8.91	0.16	0.006
18.37	2.00	1.29	67.30	87.11	18	662.5	797	0.40	0.269	0.30	8.91	0.17	0.006
18.54	1.96	1.25	71.49	89.26	18	668.4	812	0.40	0.257	0.29	8.91	0.16	0.006
18.70	1.92	1.21	77.17	93.60	19	681.7	849	0.40	0.224	0.24	8.91	0.13	0.005
18.86	1.91	1.20	82.11	98.37	20	698.3	898	0.40	0.189	0.19	8.91	0.10	0.004
19.03	1.91	1.19	84.51	100.87	20	708.3	927	0.40	0.174	0.17	8.91	0.09	0.004
19.19	1.89	1.18	85.73	101.16	20	708.5	927	0.40	0.178	0.18	8.91	0.09	0.004
19.36	1.88	1.17	85.27	99.90	20	704.1	914	0.40	0.191	0.19	8.91	0.10	0.004
19.52	1.87	1.16	85.77	99.59	20	702.6	908	0.40	0.200	0.20	8.91	0.11	0.004
19.68	1.85	1.14	88.80	101.49	20	706.5	919	0.40	0.196	0.20	8.91	0.10	0.004
19.85	1.80	1.11	96.35	106.73	21	716.1	947	0.40	0.182	0.18	8.91	0.09	0.004
20.01	1.73	1.06	110.20	116.44	22	731.6	993	0.40	0.160	0.14	8.91	0.07	0.003
20.18	1.64	1.00	131.42	131.42	24	755.8	1068	0.40	0.131	0.10	8.91	0.05	0.002
20.34	1.57	1.00	154.62	154.62	28	784.9	1164	0.40	0.105	0.07	8.91	0.04	0.001
20.50	1.53	1.00	171.62	171.62	30	810.6	1252	0.40	0.089	0.05	8.91	0.03	0.001
20.67	1.53	1.00	178.24	178.24	31	827.5	1313	0.40	0.081	0.05	8.91	0.02	0.001
20.83	1.53	1.00	181.12	181.12	32	836.3	1346	0.41	0.078	0.04	8.91	0.02	0.001
21.00	1.53	1.00	183.03	183.03	32	839.7	1357	0.41	0.078	0.04	8.91	0.02	0.001
21.16	1.51	1.00	187.71	187.71	33	842.3	1366	0.41	0.078	0.04	8.91	0.02	0.001
21.32	1.51	1.00	189.96	189.96	33	847.8	1386	0.41	0.076	0.04	8.91	0.02	0.001
21.49	1.52	1.00	191.39	191.39	34	858.1	1425	0.41	0.073	0.04	8.91	0.02	0.001
21.65	1.54	1.00	188.82	188.82	33	867.5	1462	0.41	0.070	0.04	8.91	0.02	0.001
21.82	1.56	1.00	185.02	185.02	33	871.5	1478	0.41	0.070	0.04	8.91	0.02	0.001
21.98	1.58	1.00	180.24	180.24	32	869.4	1470	0.41	0.072	0.04	8.91	0.02	0.001
22.15	1.61	1.00	173.45	173.45	31	872.1	1481	0.41	0.072	0.04	8.91	0.02	0.001
22.31	1.63	1.00	167.89	167.89	31	874.2	1490	0.41	0.072	0.04	8.91	0.02	0.001
22.47	1.68	1.02	152.25	155.71	29	858.8	1431	0.41	0.080	0.05	8.91	0.03	0.001
22.64	1.70	1.04	141.43	146.38	27	839.5	1358	0.41	0.091	0.06	8.91	0.03	0.001
22.80	1.74	1.06	127.41	135.25	26	820.0	1287	0.41	0.106	0.08	8.91	0.04	0.002
22.97	1.77	1.09	120.53	131.02	25	819.7	1286	0.41	0.108	0.08	8.91	0.04	0.002
23.13	1.83	1.13	109.51	123.84	24	815.4	1272	0.41	0.113	0.09	8.91	0.04	0.002
23.29	1.84	1.13	108.76	123.28	24	816.2	1274	0.41	0.114	0.09	8.91	0.04	0.002
23.46	1.75	1.07	124.87	133.93	25	827.4	1313	0.41	0.107	0.08	8.91	0.04	0.002
23.62	1.63	1.00	151.35	151.35	28	842.6	1366	0.41	0.099	0.07	8.91	0.03	0.001

:: Post-earthquake settlement of dry sands :: (continued)

Depth (ft)	Ic	Kc	Qc1n	Qc1n,cs	N1,60 (blows)	Vs (ft/s)	Gmax (tsf)	CSR	Shear, γ (%)	Svol,15 (%)	Nc	ev (%)	Settle. (in)
23.79	1.56	1.00	172.96	172.96	31	862.5	1438	0.41	0.089	0.05	8.91	0.02	0.001
23.95	1.54	1.00	185.45	185.45	33	879.2	1502	0.42	0.081	0.05	8.91	0.02	0.001
24.11	1.53	1.00	192.74	192.74	34	895.6	1567	0.42	0.075	0.04	8.91	0.02	0.001
24.28	1.54	1.00	195.79	195.79	35	908.2	1617	0.42	0.071	0.04	8.91	0.02	0.001
24.44	1.54	1.00	196.67	196.67	35	911.0	1629	0.42	0.071	0.04	8.91	0.02	0.001
24.61	1.59	1.00	193.25	193.25	35	937.4	1740	0.42	0.063	0.03	8.91	0.01	0.001
24.77	1.63	1.00	194.92	194.92	36	966.4	1866	0.42	0.056	0.03	8.91	0.01	0.001
24.93	1.74	1.06	177.31	188.33	36	992.9	1985	0.42	0.050	0.03	8.91	0.01	0.000
25.10	1.79	1.10	157.86	173.26	33	972.8	1897	0.42	0.056	0.03	8.91	0.01	0.001
25.26	1.85	1.15	131.57	151.05	30	932.1	1722	0.42	0.068	0.04	8.91	0.02	0.001
25.43	1.85	1.14	123.11	140.61	28	898.9	1585	0.42	0.082	0.06	8.91	0.03	0.001
25.59	1.87	1.16	116.17	135.15	27	890.7	1552	0.42	0.087	0.06	8.91	0.03	0.001
25.75	1.93	1.21	107.07	129.94	26	889.7	1548	0.42	0.089	0.06	8.91	0.03	0.001
25.92	2.00	1.30	94.45	123.15	26	884.4	1528	0.42	0.092	0.07	8.91	0.03	0.001
26.08	2.07	1.40	84.88	118.70	25	879.2	1509	0.42	0.097	0.07	8.91	0.03	0.001
26.25	2.11	1.47	80.23	117.62	26	880.6	1514	0.42	0.097	0.07	8.91	0.03	0.001
26.41	2.11	1.47	81.36	119.70	26	890.5	1553	0.42	0.093	0.07	8.91	0.03	0.001
26.57	2.11	1.47	84.42	123.76	27	907.3	1620	0.42	0.085	0.06	8.91	0.03	0.001
26.74	2.11	1.46	87.18	127.68	28	923.6	1687	0.42	0.079	0.05	8.91	0.02	0.001
26.90	2.09	1.43	91.99	131.76	28	938.7	1749	0.42	0.074	0.05	8.91	0.02	0.001
27.07	2.06	1.38	100.24	138.65	30	961.5	1846	0.42	0.067	0.04	8.91	0.02	0.001
27.23	2.03	1.34	109.91	147.36	31	989.0	1967	0.42	0.060	0.04	8.91	0.02	0.001
27.39	2.05	1.38	108.63	149.46	0	0.0	0	0.42	0.000	0.00	0.00	0.00	0.000
27.56	2.12	1.49	95.29	142.03	0	0.0	0	0.42	0.000	0.00	0.00	0.00	0.000
27.72	2.22	1.70	76.22	129.91	0	0.0	0	0.42	0.000	0.00	0.00	0.00	0.000
27.89	2.30	1.94	61.32	119.20	0	0.0	0	0.42	0.000	0.00	0.00	0.00	0.000
28.05	2.35	2.13	52.36	111.72	0	0.0	0	0.42	0.000	0.00	0.00	0.00	0.000
28.21	2.42	2.38	45.77	108.97	0	0.0	0	0.42	0.000	0.00	0.00	0.00	0.000
28.38	2.49	2.73	39.94	109.06	0	0.0	0	0.42	0.000	0.00	0.00	0.00	0.000
28.54	2.54	2.99	35.89	107.38	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
28.71	2.52	2.89	36.18	104.41	27	826.3	1309	0.43	0.175	0.12	8.91	0.05	0.002
28.87	2.46	2.58	39.00	100.71	25	822.7	1294	0.43	0.183	0.14	8.91	0.06	0.002
29.04	2.41	2.35	42.41	99.69	25	827.7	1311	0.43	0.178	0.14	8.91	0.06	0.002
29.20	2.40	2.30	43.26	99.48	24	830.3	1320	0.43	0.177	0.14	8.91	0.06	0.002
29.36	2.41	2.33	43.10	100.56	25	835.7	1339	0.43	0.172	0.13	8.91	0.05	0.002
29.53	2.43	2.42	42.66	103.25	26	846.0	1377	0.43	0.161	0.12	8.91	0.05	0.002
29.69	2.45	2.54	41.80	106.10	27	855.8	1414	0.43	0.151	0.11	8.91	0.04	0.002
29.86	2.50	2.77	39.47	109.32	28	863.4	1443	0.43	0.145	0.10	8.91	0.04	0.001
30.02	2.56	3.08	36.08	111.24	29	863.8	1445	0.43	0.146	0.09	8.91	0.04	0.001
30.18	2.60	3.34	33.66	112.38	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
30.35	2.61	3.37	32.92	111.00	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
30.51	2.62	3.43	32.05	109.79	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
30.68	2.66	3.73	29.25	109.11	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
30.84	2.73	4.23	25.78	109.07	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
31.00	2.77	4.53	24.21	109.60	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
31.17	2.77	4.50	24.55	110.41	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
31.33	2.78	4.65	24.09	112.11	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
31.50	2.83	5.01	22.19	111.12	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000

:: Post-earthquake settlement of dry sands :: (continued)

Depth (ft)	Ic	Kc	Qc1n	Qc1n,cs	N1,60 (blows)	Vs (ft/s)	Gmax (tsf)	CSR	Shear, γ (%)	Svol,15 (%)	Nc	ev (%)	Settle. (in)
31.66	2.88	5.46	19.80	108.16	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
31.82	2.86	5.32	18.69	99.49	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
31.99	2.84	5.13	18.32	94.06	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
32.15	2.82	5.00	18.56	92.73	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
32.32	2.84	5.13	19.24	98.77	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
32.48	2.87	5.39	19.21	103.58	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
32.64	2.90	5.68	18.38	104.35	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
32.81	2.94	6.08	16.93	102.93	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
32.97	2.95	6.18	16.27	100.61	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
33.14	2.94	6.10	16.36	99.80	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
33.30	2.93	5.96	16.80	100.18	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
33.47	2.92	5.93	17.04	100.98	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
33.63	2.92	5.92	17.13	101.44	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
33.79	2.92	5.85	17.36	101.50	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
33.96	2.88	5.46	18.78	102.65	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
34.12	2.82	4.94	21.34	105.47	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
34.28	2.79	4.68	23.50	110.05	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
34.45	2.79	4.72	23.97	113.20	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
34.61	2.79	4.71	24.32	114.61	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
34.78	2.76	4.42	26.16	115.66	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
34.94	2.71	4.07	29.22	118.98	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
35.10	2.63	3.51	32.79	115.07	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
35.27	2.57	3.12	36.30	113.29	30	934.2	1713	0.43	0.128	0.08	8.91	0.02	0.001
35.43	2.54	2.97	37.28	110.64	29	929.0	1691	0.43	0.133	0.09	8.91	0.03	0.001
35.60	2.57	3.17	35.81	113.59	30	938.1	1728	0.43	0.127	0.08	8.91	0.02	0.001
35.76	2.61	3.40	32.67	110.98	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
35.92	2.62	3.46	30.85	106.66	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
36.09	2.62	3.42	30.88	105.69	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
36.25	2.56	3.10	34.86	108.23	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
36.42	2.46	2.58	43.42	112.02	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
36.58	2.36	2.15	53.50	114.96	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
36.74	2.30	1.95	58.92	114.96	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
36.91	2.27	1.87	60.59	113.16	26	982.7	1916	0.43	0.106	0.08	8.91	0.02	0.001
37.07	2.27	1.85	60.33	111.31	26	976.5	1888	0.43	0.110	0.08	8.91	0.02	0.001
37.24	2.25	1.81	61.89	111.93	26	981.1	1908	0.43	0.108	0.08	8.91	0.02	0.001
37.40	2.24	1.78	63.36	112.84	26	986.8	1933	0.43	0.106	0.08	8.91	0.02	0.001
37.57	2.24	1.77	63.62	112.76	26	988.1	1939	0.43	0.106	0.08	8.91	0.02	0.001
37.73	2.25	1.79	62.28	111.35	26	983.6	1918	0.43	0.109	0.08	8.91	0.02	0.001
37.89	2.26	1.84	59.64	109.80	25	978.2	1894	0.43	0.113	0.08	8.91	0.02	0.001
38.06	2.28	1.90	57.40	108.81	25	975.1	1880	0.43	0.116	0.09	8.91	0.02	0.001
38.22	2.30	1.94	56.14	108.64	26	975.5	1881	0.43	0.117	0.09	8.91	0.02	0.001
38.39	2.31	1.97	55.33	108.84	26	977.7	1890	0.43	0.116	0.09	8.91	0.02	0.001
38.55	2.33	2.05	53.11	108.82	0	0.0	0	0.43	0.000	0.00	0.00	0.00	0.000
38.71	2.38	2.24	48.54	108.60	0	0.0	0	0.42	0.000	0.00	0.00	0.00	0.000
38.88	2.44	2.50	44.13	110.40	0	0.0	0	0.42	0.000	0.00	0.00	0.00	0.000
39.04	2.50	2.75	41.85	115.05	0	0.0	0	0.42	0.000	0.00	0.00	0.00	0.000
39.21	2.50	2.77	43.05	119.30	31	1013.8	2051	0.42	0.100	0.06	8.91	0.02	0.001
39.37	2.46	2.59	45.99	118.93	0	0.0	0	0.42	0.000	0.00	0.00	0.00	0.000

:: Post-earthquake settlement of dry sands :: (continued)

Depth (ft)	Ic	Kc	Qc1n	Qc1n,cs	N1,60 (blows)	Vs (ft/s)	Gmax (tsf)	CSR	Shear, γ (%)	Svol,15 (%)	Nc	ev (%)	Settle. (in)
39.53	2.39	2.26	50.88	114.78	0	0.0	0	0.42	0.000	0.00	0.00	0.00	0.000
39.70	2.29	1.90	59.18	112.62	0	0.0	0	0.42	0.000	0.00	0.00	0.00	0.000
39.86	2.18	1.63	72.67	118.16	0	0.0	0	0.42	0.000	0.00	0.00	0.00	0.000
40.03	2.10	1.45	89.61	130.07	0	0.0	0	0.42	0.000	0.00	0.00	0.00	0.000
40.19	2.06	1.38	102.21	141.11	30	1110.7	2520	0.42	0.069	0.04	8.91	0.01	0.000
40.35	2.05	1.36	107.33	146.34	31	1129.8	2619	0.42	0.065	0.04	8.91	0.01	0.000
40.52	2.09	1.43	99.12	141.84	31	1123.8	2587	0.42	0.066	0.04	8.91	0.01	0.000
40.68	2.15	1.55	84.36	130.99	29	1091.9	2423	0.42	0.075	0.05	8.91	0.01	0.000
40.85	2.24	1.76	67.26	118.26	27	1045.2	2194	0.42	0.092	0.06	8.91	0.02	0.001
41.01	2.29	1.92	56.65	108.92	26	1004.8	2005	0.42	0.112	0.08	8.91	0.02	0.001
41.17	2.30	1.94	54.04	104.78	25	986.9	1924	0.42	0.123	0.10	8.91	0.02	0.001
41.34	2.28	1.90	55.07	104.37	24	986.7	1923	0.42	0.124	0.10	8.91	0.02	0.001
41.50	2.26	1.82	56.98	103.91	24	986.1	1920	0.42	0.125	0.10	8.91	0.02	0.001
41.67	2.26	1.82	56.16	101.99	24	978.5	1886	0.42	0.131	0.11	8.91	0.03	0.001
41.83	2.27	1.85	54.47	100.59	23	973.2	1862	0.42	0.136	0.11	8.91	0.03	0.001
41.99	2.33	2.05	48.75	99.78	24	969.5	1846	0.42	0.140	0.11	8.91	0.03	0.001
42.16	2.30	1.96	52.18	102.22	24	983.7	1908	0.42	0.130	0.10	8.91	0.02	0.001
42.32	2.21	1.70	63.68	108.29	25	1012.8	2039	0.42	0.112	0.09	8.91	0.02	0.001
42.49	2.02	1.33	91.86	122.44	26	1046.4	2196	0.42	0.096	0.07	8.91	0.02	0.001
42.65	1.89	1.18	118.82	140.20	28	1070.1	2311	0.42	0.087	0.06	8.91	0.01	0.001
42.81	1.76	1.08	145.68	157.49	30	1071.5	2318	0.42	0.087	0.05	8.91	0.01	0.000
42.98	1.69	1.03	163.95	168.66	31	1069.3	2307	0.42	0.088	0.05	8.91	0.01	0.000
43.14	1.65	1.00	168.51	169.06	31	1053.6	2231	0.42	0.095	0.06	8.91	0.01	0.000
43.31	1.67	1.02	153.13	156.26	29	1025.5	2097	0.42	0.108	0.07	8.91	0.01	0.001
43.47	1.74	1.06	129.98	138.41	26	997.3	1967	0.42	0.126	0.09	8.91	0.02	0.001
43.63	1.94	1.23	94.39	115.94	24	999.5	1976	0.41	0.125	0.10	8.91	0.02	0.001
43.80	2.16	1.58	67.25	106.56	24	1013.6	2039	0.41	0.117	0.10	8.91	0.02	0.001
43.96	2.46	2.58	42.64	110.11	28	1028.1	2105	0.41	0.109	0.07	8.91	0.01	0.001
44.13	2.42	2.39	48.07	114.67	28	1054.9	2231	0.41	0.097	0.06	8.91	0.01	0.000
44.29	2.16	1.58	80.47	127.12	28	1111.4	2513	0.41	0.077	0.05	8.91	0.01	0.000
44.45	1.84	1.14	140.06	159.60	31	1132.8	2626	0.41	0.072	0.04	8.91	0.01	0.000
44.62	1.59	1.00	205.26	205.26	37	1130.4	2613	0.41	0.072	0.03	8.91	0.01	0.000
44.78	1.30	1.00	266.63	266.63	44	1072.8	2304	0.41	0.092	0.04	8.91	0.01	0.000
44.95	1.10	1.00	310.39	310.39	48	1017.5	2021	0.41	0.123	0.04	8.91	0.01	0.000
45.11	0.88	1.00	392.96	392.96	57	998.1	1874	0.41	0.147	0.04	8.91	0.01	0.000

Total estimated settlement: 0.53

Appendix D.2
Geotechnical Investigation

GEOTECHNICAL EVALUATION
COLFAX CHARTER ELEMENTARY SCHOOL MODERNIZATION
11724 ADDISON STREET
VALLEY VILLAGE, CALIFORNIA
LOS ANGELES UNIFIED SCHOOL DISTRICT

PREPARED FOR:

Los Angeles Unified School District
333 South Beaudry Avenue, 23rd Floor
Los Angeles, California 90017

PREPARED BY:

Ninyo & Moore
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May 3, 2016
Project No. 209381010

May 3, 2016
Project No. 209381010

Mr. Peyman Soroosh Moghadam
Design and Architectural/Engineering Technical Support
Los Angeles Unified School District
333 South Beaudry Avenue, 23rd Floor
Los Angeles, California 90017

Subject: Geotechnical Evaluation
Colfax Charter Elementary School Modernization
11724 Addison Street
Valley Village, California
Los Angeles Unified School District

Dear Mr. Moghadam:

In accordance with your request, we have performed a geotechnical evaluation for the proposed modernization improvements to the Colfax Charter Elementary School located at 11724 Addison Street in Valley Village, California. This report summarizes our findings and conclusions regarding the site geotechnical conditions and provides foundation design criteria and geotechnical recommendations for construction of the planned improvements. Our study was conducted in general accordance with the scope of services presented in our revised proposal dated February 23, 2016. Our report was prepared in accordance with the California Geological Survey – Note 48 guidelines.

Ninyo & Moore appreciates the opportunity to be of service to you on this project.

Respectfully submitted,
NINYO & MOORE

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1. INTRODUCTION

In accordance with your request, we have performed a geotechnical evaluation for the Colfax Charter Elementary School Modernization project located at 11724 Addison Street in Valley Village, California (Figure 1). The purpose of this study was to supplement our previous preliminary evaluation of the soil, seismic hazards, and geologic conditions and to provide geotechnical design recommendations for the design of the proposed improvements. This report presents our findings, conclusions, and recommendations regarding the subject project.

2. SCOPE OF SERVICES

Our scope of services for this project included the following:

- Project planning and coordination with representatives of Los Angeles Unified School District (LAUSD) personnel to perform the work.
- Performance of a site reconnaissance to evaluate the existing site conditions and mark proposed boring locations for utility clearance.
- Review of background data, including in-house geotechnical data, State of California Earthquake Fault Zone (EFZ) maps, State of California Seismic Hazard Zones Maps, topographic maps, geologic maps and literature, and stereoscopic aerial photographs.
- Utility clearance at the boring locations using a private utility locator service.
- Subsurface evaluation consisting of the drilling, sampling and logging a total of nine small-diameter borings and advancing four cone penetration test (CPT) soundings. The borings were excavated to depths ranging from approximately 6½ to 96½ feet. The CPT soundings were advanced to refusal that occurred at depths ranging from approximately 45 to 48 feet. The borings were logged by a representative from our firm, and bulk and relatively undisturbed soil samples were collected at selected intervals for laboratory testing. The borings were backfilled with on-site soils and capped with concrete in paved areas.
- Percolation testing performed in three additional borings to evaluate the infiltration rates of the near surface soils on site.
- Laboratory testing of selected samples to evaluate in-place moisture and density, percentage of particles finer than the No. 200 sieve, gradation, Atterberg limits, expansion index (EI), direct shear, consolidation potential, collapse potential, R-Value, and soil corrosivity.
- Compilation and geotechnical analysis of background information and field and laboratory data.

- Preparation of this geotechnical report presenting our findings, conclusions, and preliminary recommendations for the design of the proposed improvements.

3. SITE DESCRIPTION

The project is situated at the southwest corner of the intersection of Colfax Avenue and Addison Street in Valley Village, California (Figure 1). The campus is bounded by Colfax Avenue to the east, Addison Street to the north, Morella Avenue to the west, and Huston Street to the south. Topographically, the site is relatively flat with an elevation of approximately 630 feet above mean sea level (United States Geological Survey [USGS], 1966). The site latitude and longitude are approximately 34.160 degrees north and 118.389 degrees west, respectively (Google, 2015).

The northern half of the campus consists of classroom buildings, an administrative office building, auditorium/cafeteria building, and faculty/staff asphalt concrete (AC) paved parking lots (Figure 2). The southern half of the campus consists of an AC-paved playground area, a turf field, garden/livestock areas, a LAUSD transportation trailer, and portable classrooms.

4. PROPOSED CONSTRUCTION

We understand that the proposed improvements will include the construction of a new two-story administration and classrooms building, a new single-story kindergarten classrooms building, seismic upgrades to existing buildings, and new AC paved parking lot (Figure 3). In addition, existing portable storage and sheds will be relocated or removed. The existing play equipment pad on the west side of the campus will be relocated south to make room for the new kindergarten classrooms building. We understand that surficial infiltration systems associated with permeable pavements and vegetated bioswales are being considered for use at the site, however, exact details of planned infiltration systems were not available at the time of this report. We anticipate that other miscellaneous improvements will include walkways, underground utilities, and landscaping.

5. SUBSURFACE EVALUATION AND LABORATORY TESTING

Our subsurface evaluation was originally conducted on June 10, 2015, and consisted of the drilling, logging, and sampling of five small-diameter borings (Ninyo & Moore, 2015b). A supplemental subsurface evaluation was conducted on March 23, 2016, and consisted of the drilling, logging, and sampling of four small-diameter borings and four CPT soundings. The borings were drilled to depths ranging from approximately 6½ to 96½ feet. The CPT soundings were advanced to depths ranging from approximately 45 to 48 feet where refusal occurred. The exploratory borings were drilled using truck-mounted drilling equipment utilizing 8-inch-diameter hollow-stem augers. The purposes of the borings and CPT soundings were to evaluate the soil and geologic conditions of the site and to collect bulk and relatively undisturbed soil samples for laboratory testing. Logs of the exploratory borings are presented in Appendix A. The CPT soundings are presented in Appendix C. The approximate locations of the borings are presented on Figure 2.

Laboratory testing was performed to evaluate in-place moisture and density, percentage of particles finer than the No. 200 sieve, gradation, Atterberg limits, EI, direct shear, consolidation potential, collapse potential, R-value, and soil corrosivity (soil pH, electrical resistivity, water-soluble sulfate content, and chloride content). Our laboratory test results are presented on the boring logs in Appendix A and in Appendix B.

6. GEOLOGY AND SUBSURFACE CONDITIONS

The project site is situated in the San Fernando Valley, which is located in the Los Angeles Basin of the Transverse Ranges Geomorphic Province (Norris and Webb, 1990). The province encompasses an area approximately 40- to 60-mile-wide (north to south) by 320 mile long (west to east) between Point Arguello and San Miguel Island on the west and Eagle and Pinto Mountains of the Mojave Desert on the east (Norris and Webb, 1990). The province consists of a region of generally east to west-trending mountain ranges considered atypical to the predominant northwest to southeast structural fabric of California. The atypical trend of the ranges is the result of a restraining bend (“the Big Bend”) on the San Andreas fault that has rotated and compressed the region to its current configuration. The compression has resulted folding and reverse/thrust faulting with similar east to west trends as the topography that have created broad synclinal valleys bounded by anticlinal hills. The San Fernando Valley is a synclinal valley infilled with variable thicknesses of alluvial sediment over thick sequences of marine and non-marine sedimentary rock. According to geologic maps by Dibblee (1991) and Yerkes and Campbell (2005), the subject site is underlain by unconsolidated Holocene- and Late Pleistocene-age alluvial fan deposits consisting of gravel, sand, and silt (Figure 4).

During our subsurface evaluation, we encountered pavement, undocumented fill and alluvial deposits in our borings to the total depths explored of approximately 96½ feet. Pavement was present on the ground surface at borings B-2 through B-9 that consisted of approximately 2 to 4 inches AC over approximately 0 to 9 inches of aggregate base (AB). Undocumented fill was encountered beneath the pavement sections to depths of up to approximately 2½ feet. Fill was not encountered underlying the pavement section in boring B-8. The fill generally consisted of grey to greyish brown, brown, and black, dry to moist, loose to medium dense, silty sand and sandy silt with organics. Alluvial deposits were encountered beneath the pavement and fill, to the total depths explored. The alluvial deposits generally consisted of light brown, yellowish brown, reddish brown, brown and reddish gray, moist, loose to very dense, silty sand, clayey sand, sandy silt, and sand with variable amounts of gravel, and very stiff to hard, clay with variable amounts of silt and sand. Detailed descriptions of the materials encountered in our borings are presented on the boring logs in Appendix A.

7. GROUNDWATER

Groundwater was not encountered in our borings at the time of drilling. Based on our review of the State of California Seismic Hazard Zone report (1997), the historical high depth to groundwater is mapped at the site as approximately 10 feet below the ground surface. Our review of data available on the State of California Water Resources Control Board's GeoTracker website (GeoTracker, 2015), for a site located approximately 0.25 miles northwest of the school, indicates that the depth to groundwater is approximately 135 feet. It should be noted that fluctuations in the level of groundwater at the subject site may occur due to variations in ground surface topography, groundwater pumping, subsurface stratification, rainfall, irrigation practices, and other factors which may not have been evident at the time of our evaluation.

8. FIELD PERCOLATION TESTING

Percolation testing was performed on March 23, 2016, at the locations of Borings P-1 through P-3 to evaluate the infiltration rate of the on-site soils in the vicinity of the proposed bioswale retention area (Figure 2). Conceptual plans/drawings and/or designs for future infiltration system(s) were not available at the time of this report. The infiltration tests were performed between depths as indicated in Table 1. The tests were performed in general accordance with the Los Angeles County Department of Public Works (LACDPW) guidelines (LACDPW, 2014).

Preparation of the borings for percolation testing included installation of a 2-inch-diameter slotted polyvinyl chloride (PVC) pipe in each boring and backfilling the annular space between the pipe and the boring with gravel. The infiltration zones were pre-soaked with water for approximately four hours prior to performing percolation testing. Percolation testing was conducted by placing water in the PVC pipe to establish a head of water and measuring the drop in water during time intervals ranging from approximately 10 minutes to 30 minutes. The measured rates of infiltration were adjusted based on the methods described by the LACDPW guidelines (LACDPW, 2014). At the end of the testing, the PVC pipes were removed, and the borings were backfilled with on-site soil.

The results of our percolation testing are presented in Table 1.

Table 1 – Percolation Test Results

Boring Location	Depth Interval (ft)	Percolation Rate (in/hr)
P-1	7.0 – 8.0	2.7[3]
P-2	2.0 – 3.0	2.2[1,2]
P-3	1.8 – 2.8	3.7[3]

Notes:
[1] Adjusted Percolation Rate (LACDPW, 2014)
[2] Assumes reduction factor R_f estimate based on LACDPW (2014) guidelines.
[3] High Flowrate Percolation Rate Test (LACDPW, 2014)
ft – feet
in/hr – inches per hour

9. FAULTING, SEISMICITY, AND GEOLOGIC HAZARDS

The site is located in a seismically active area, as is the majority of southern California. The numerous faults in southern California include active, potentially active, and inactive faults. As defined by the California Geological Survey (CGS), active faults are faults that have ruptured within Holocene time, or within approximately the last 11,000 years. Potentially active faults are those that show evidence of movement during Quaternary time (approximately the last 1.6 million years) but for which evidence of Holocene movement has not been established. Inactive faults have not ruptured in the last approximately 1.6 million years. The approximate locations of major faults in the site vicinity and their geographic relationship to the site are shown on Figure 5. Historical earthquakes with a magnitude of 6.5 or greater, or that caused significant loss of life and property within approximately 62 miles (100 kilometers) of the subject site were obtained from the CGS Regional Geologic Hazards and Mapping Program website (CGS, 2015) and are presented in Table 2.

Table 2 – Historical Earthquakes

Date	Name, Location, or Region Affected	Approximate Earthquake Epicenter to Site Distance in miles (km)	Earthquake Magnitude
January 17, 1994	Northridge	9.3 (15.0)	6.7
February 9, 1971	San Fernando	17.3 (27.8)	6.6
October 1, 1987	Whittier Narrows	18.7 (30.2)	6.0
March 11, 1933	Long Beach	38.8 (62.5)	6.4
December 21, 1812	Los Angeles, Ventura and Santa Barbara	42.5 (68.4)	7.1
December 8, 1812	Wrightwood	44.6 (71.8)	7.3
July 22, 1899	Wrightwood	51.7 (83.2)	6.4
Note: CGS, 2007.			

The site is not located within a State of California EFZ (formerly known as Alquist-Priolo Special Studies Zone). However, the site is located in a seismically active area, as is the majority of southern California, and the potential for strong ground motion in the project area is considered significant during the design life of the proposed structure. Figure 5 shows the approximate site location relative to the major faults in the region.

9.1. Fault Parameters

Table 3 lists selected principal known active faults that may affect the site, the maximum moment magnitude (M_{max}), and the calculated approximate fault-to-site distances using the USGS fault database (USGS, 2008).

Table 3 – Principal Active Faults

Fault	Fault to Site Distance miles (kilometers)	Maximum Moment Magnitude (M_{max})
Hollywood	4.3 (6.9)	6.7
Verdugo	4.5 (7.2)	6.9
Santa Monica	5.6 (8.9)	7.4
Elysian Park (Upper)	6.2 (9.9)	6.7
Newport-Inglewood (Los Angeles Basin)	8.1 (13.0)	7.2
Sierra Madre (San Fernando)	8.6 (13.8)	6.7
Sierra Madre	9.2 (14.8)	7.2
Puente Hills (LA)	9.3 (15.0)	7.0
Raymond	9.8 (15.8)	6.8
Northridge	10.3 (16.6)	6.9
Malibu Coast	12.0 (19.3)	6.7
San Gabriel	12.5 (20.1)	7.3
Santa Susana	12.6 (20.3)	6.9
Anacapa-Dume	13.5 (21.7)	7.2
Palos Verdes	16.3 (26.2)	7.3
Holser	20.0 (32.1)	6.8

9.2. Surface Fault Rupture

Based on our review of the referenced literature and our site reconnaissance, no active faults are known to cross the project site. Therefore, the probability of damage from surface fault rupture is considered to be low. However, lurching or cracking of the ground surface as a result of nearby seismic events is possible.

9.3. Ground Motion

The 2013 California Building Code (CBC) specifies that the Risk-Targeted, Maximum Considered Earthquake (MCE_R) ground motion response accelerations be used to evaluate seismic loads for design of buildings and other structures. The MCE_R ground motion response accelerations are based on the spectral response accelerations for 5 percent damping in the direction of maximum horizontal response and incorporate a target risk for structural collapse equivalent to 1 percent in 50 years with deterministic limits for near-source effects. The horizontal peak ground acceleration (PGA) that corresponds to the MCE_R for the site was calculated as 0.89g using the USGS (USGS, 2015) seismic design tool (web-based). Spectral response acceleration parameters, consistent with the 2013 CBC, are also provided in Section 11.2 for the evaluation of seismic loads on buildings and other structures.

The 2013 CBC specifies that the potential for liquefaction and soil strength loss be evaluated, where applicable, for the mapped Maximum Considered Earthquake Geometric Mean (MCE_G) PGA (PGA_M) with adjustment for site class effects in accordance with the American Society of Civil Engineers (ASCE) 7-10 Standard.

Since the mapped spectral response acceleration parameter at 1-second period, S_1, is greater than or equal to 0.75, the site should be assigned to seismic design category E in accordance with CBC Section 1613A.3.5. Accordingly, a site-specific ground motion analysis in accordance with ASCE 7-10 Chapter 21 is performed per CBC Section 1616A.1.3. The result of our analysis presented on Figure 6. Our analysis indicated a site-specific mapped PGA_M of 0.76g. Based on our site-specific ground motion analysis a mapped PGA_M of 0.76g can be used for liquefaction analysis.

9.4. Liquefaction Potential

Liquefaction is the phenomenon in which loosely deposited granular soils and low-plastic fine-grained soils located below the water table undergo rapid loss of shear strength due to excess pore pressure generation when subjected to strong earthquake-induced ground shaking. Sufficient ground shaking duration results in the loss of grain-to-grain contact due to a rapid rise in pore water pressure. This causes the soil to behave as a fluid for a short period of time. Liquefaction is known generally to occur in saturated or near-saturated cohesionless soils at depths shallower than 50 feet below the ground surface. Factors known to influence liquefaction potential include composition and thickness of soil layers, grain size, relative density, groundwater level, degree of saturation, and both intensity and duration of ground shaking.

The State of California Seismic Hazard Zones Map (Figure 7) indicates the project area is located within an area mapped as subject to seismically induced liquefaction hazards. Accordingly, liquefaction potential of subsurface soils was evaluated using the soil sampler blow counts recorded at various depths in exploratory borings and our laboratory test results as well as using the CPT soundings CPT-1 through CPT-4. The liquefaction analysis was based on the National Center for Earthquake Engineering Research (NCEER) procedure (Youd, et al., 2001) developed from the methods originally recommended by Seed and Idriss (Seed, H.B. and Idriss, I.M., 1982) using the computer program LiquefyPro (CivilTech Software, 2007). A design earthquake moment magnitude of 6.7 and an associated ground acceleration of 0.76g were used in the analysis. In accordance with the 2013 Division of State Architect (DSA) checklist for evaluation of schools, a historic high depth to groundwater of 10 feet below the existing ground surface, as indicated by CGS (CGS, 1997), was used in our liquefaction evaluation. Please note that this historically highest depth to groundwater was based on data from monitoring wells recorded in 1944 (CGS, 1997). Wells monitored by the Upper Los Angeles River Watermaster (Blevins, 1995) indicate that the depth to groundwater in the Central San Fernando Valley, including the Van Nuys Quadrangle, have not recovered to the levels of the 1940s. Our liquefaction analysis, based the CPT data, indicates that the granular soil layers below the historic high depth to groundwater level and between depths of approximately 10 and 45 feet below the ground surface are susceptible to liquefaction during the design seismic event.

9.5. Dynamic Settlement of Saturated Soils

As a result of liquefaction, the proposed structures may be subject to several hazards, including liquefaction-induced settlement. In order to estimate the amount of post-earthquake settlement, the method proposed by Tokimatsu and Seed (Tokimatsu, K. and Seed, H.B., 1987) was used in which the seismically induced cyclic stress ratios and corrected N-values are related to the volumetric strain of the soil. The amount of soil settlement during a strong seismic event depends on the thickness of the liquefiable layers and the density and/or consistency of the soils.

Under the current conditions, a post-earthquake total settlement of up to approximately 5½ inches is calculated for the site. Based on the guidelines presented in CGS Special Publication 117A (CGS, 2008) and assuming relatively uniform subsurface stratigraphy across the site, we estimate differential settlement on the order of 2¾ inches over a horizontal distance of 40 feet. Results of our analysis are presented in Appendix D.

9.6. Hydro-collapse Potential and Stormwater Infiltration

The potential for settlement due to inundation of the underlying soils induced by the infiltration of storm runoff was evaluated using the hydro-collapse potential test performed in general accordance with the American Society for Testing and Materials (ASTM) test method D 5333. Our testing was performed on samples representing the granular soils from 15 feet to 16 ½ feet in B-1 and fine grained soils from 15 feet to 16 ½ feet in B-6.

Based on our test results, the hydro-collapse is 3.5 percent and 5.9 percent for the layers tested at B-1 and B-6, respectively. This classifies the layer as having a moderate to high degree of collapse potential. The results of the hydro-collapse potential tests are presented in Appendix B. Due to the potential for soil hydro-collapse that could adversely affect other site improvements or nearby improvements; we do not recommend on-site storm water infiltration and/or retention systems that would percolate storm water to the subsurface soils. Additionally, City of Los Angeles Department of Building and Safety Guidelines for Storm Water Infiltration (LADBS, 2014) stipulate a minimum clearance of 10 feet from the bottom of the infiltration system to the historical high groundwater table. The historical high depth to groundwater is approximately 10 feet below the ground surface for the subject site. Therefore infiltrating storm water into the subsurface soil should not be allowed at the site. However, surficial storm water collection systems, such as permeable pavements, and bioswales may be utilized at the site provided that these systems are designed with an impermeable bottom and do not allow the storm water to infiltrate into the subsurface soils below 10 feet. Storm water should be collected and stored as may be required for Best Management Practice (BMP), and then discharged to an existing storm water system.

9.7. Landsliding

The site is located in an area of relatively gently sloping terrain. There are no mapped landslides on site or in the vicinity, and landsliding is not considered to be a potential hazard at the site.

9.8. Flood Hazards, Tsunamis, and Seiches

Flood Insurance Rate Maps (Federal Emergency Management Agency, 2008) indicate that the site is located in a Zone X area where the area is considered outside the 0.2 percent annual chance of flood plain. The site is mapped as having a potential for inundation from Hansen and Pacoima Dams located approximately 7 and 12 miles north, respectively (County of Los Angeles, Department of Regional Planning, 1990 and City of Los Angeles, 1996).

Tsunamis are long wavelength, seismic, sea waves (long compared to ocean depth) generated by the sudden movements of the ocean floor during submarine earthquakes, landslides, or volcanic activity. Seiches are waves generated in a large, enclosed body of water. The project area is not mapped within an area considered susceptible to tsunamis or seiches.

9.9. Oil Fields of Methane Potential

Based on a review of the Safety Element for the City of Los Angeles (1996), the site is not located within an oil field and no oil wells are known to exist at the site. In addition, the site is not located within the boundaries of a methane or methane buffer zone, as mapped by the City of Los Angeles (LADBS, 2004).

10. CONCLUSIONS

Based on our subsurface evaluation, and our experience in the area, it is our opinion that the proposed project is feasible from a geotechnical standpoint, provided that the following recommendations are incorporated into the design and construction of the proposed project. In general, the following conclusions were made:

- The site is underlain by shallow fill and alluvial soils generally consisting of loose to very dense, sandy silt, clayey sand, silty sand, and sand, and stiff to very stiff, clay. Details regarding the original ground preparation and the placement and compaction of the fill soils are unknown. Unless documentation can be provided regarding the placement and compaction of the fill soils, these soils are considered not suitable for support of the proposed foundations. Fills deeper than those encountered in our borings are anticipated at the site in association with existing building construction and other site improvements.

- Excavations during site grading should be feasible with earthmoving equipment in good working order. We anticipate that the existing fill and alluvial materials may be reused as compacted fill.

- On-site soils should be considered as Type C soils in accordance with Occupational Safety and Health Administration (OSHA) soil classifications. Sandy soil may be prone to caving during earthwork operations. Temporary shoring should be provided in accordance with OSHA regulations.

- Laboratory testing indicates that the near-surface granular soils on site have a very low potential for expansion.

- Based on the results of our laboratory corrosion tests, the near-surface site soils can be classified as non-corrosive per the California Department of Transportation (Caltrans, 2012) corrosion guidelines.

- The historical high depth to groundwater at the site is mapped at approximately 10 feet (CGS, 1997); however, groundwater was not encountered in our exploratory borings to the total depths explored of up to approximately 96.5 feet. Fluctuations in the groundwater level may occur as a result of variations in seasonal precipitation, irrigation practices, and other factors. Seepage should be anticipated.

- We estimated a PGA_{MCE} of 0.89g at the subject site. Our site-specific ground motion analysis in accordance with ASCE 7-10 indicated that the mapped PGA was estimated to be 0.76g.

- The subject site is not located within a State of California Earthquake Fault Zone (formerly Alquist-Priolo Special Studies Zone). The probability of surface fault rupture at the site is considered low.

- The site is mapped within a State of California Seismic Hazard Zone as being potentially liquefiable (CGS, 1998). Our site-specific evaluation using the historic high groundwater level indicates that the granular soil layers from approximately 10 to 45 feet are susceptible to liquefaction during the design seismic event.

- Liquefaction-induced ground settlement is estimated to be on the order of approximately 5½ inches. A differential settlement on the order of 2¾ inches over a horizontal distance of 40 feet may be anticipated.

- Our laboratory test result indicated that on-site alluvial deposits have a moderate to high degree of collapse potential if they become saturated. Accordingly, it is our opinion that the site is not suitable for storm water infiltration in accordance with City of Los Angeles Department of Building and Safety Guideline (LADBS, 2014).

- The site is not located in an area considered susceptible to landsliding or tsunamis.

- The area of the proposed improvements is not located within a designated flood zone; however may be susceptible to inundation associated with failure of the Hansen and/or Pacoima Dams.

11. RECOMMENDATIONS

The following sections include our geotechnical recommendations for construction of the proposed improvements. These recommendations are based on our evaluation of the site geotechnical conditions and our understanding of the planned construction. The proposed site improvements should be constructed in accordance with the requirements of the DSA for school facilities and other applicable governing agencies.

11.1. Earthwork

Earthwork at the site is anticipated to consist of site clearing, shallow site grading for the preparation of pavements, removal and recompaction of existing fill soils below the proposed structures, and deep excavations for drilled pier footing foundations. Earthwork will also include trenching for new pipelines, grading for the new hardscape areas, and finish grading for establishment of site drainage. Earthwork should be performed in accordance with the requirements of applicable governing agencies and the recommendations presented in the following sections.

11.1.1. Construction Plan Review and Pre-Construction Conference

We recommend that the grading and foundation plans be submitted to Ninyo & Moore for review to evaluate conformance to the geotechnical recommendations provided in this report. We further recommend that a pre-construction conference be held in order to discuss the grading recommendations presented in this report. The owner and/or their representative, the governing agencies' representatives, the civil engineer, Ninyo & Moore, and the contractor should be in attendance to discuss the work plan, project schedule, and earthwork requirements.

11.1.2. Site Preparation

Prior to excavation and fill placement, the site should be cleared of existing site improvements, surface obstructions and other deleterious materials, and abandoned utilities and stripped of rubble, debris, and vegetation, as well as surface soils containing organic materials. Existing utilities to remain in place (if any) should be located and protected from damage by construction activities. Obstructions that extend below the finished grade, if any, should be removed and the resulting holes filled with compacted soil. The materials generated from the clearing operations should be removed from the site and disposed of at a legal dump site.

11.1.3. Excavations

We anticipate that excavations in the fill and/or alluvium should be feasible with earthmoving equipment in good working order. The near-surface soils encountered in the exploratory borings are comprised predominantly of loose to medium dense, silty sand, sandy silt, and sand. In our opinion, temporary slopes should generally be stable at inclinations up to approximately 1½:1 (horizontal to vertical). Some surficial sloughing may occur, and temporary excavations should be evaluated in the field in accordance with OSHA guidelines. The surficial soils should be considered as OSHA Soil Type C, and temporary excavations should conform with OSHA regulations.

Trenching will be performed for planned underground utilities. In general, dry utilities are anticipated to be relatively shallow (less than 5 feet deep). Some utilities, such as storm drain and sewer trenches, may be deeper, and shoring requirements may vary depending on trench depths, materials encountered, and adjacent improvements. Shoring should conform to OSHA requirements. Spoils should not be placed near the edge of open cut excavations. For open cut excavations, the spoil pile should be placed a distance more than the depth of excavation from the top of the excavation. OSHA and other applicable agency requirements pertaining to worker safety should be met during the excavation activities.

11.1.4. Overexcavation of Existing Fill and Native Soils

It is our opinion that suitable support for the pavements subject to vehicle traffic may be provided by the removal and recompaction of the existing fill and near-surface alluvial soils in order to provide 2 feet or more compacted fill below the bottom of the proposed pavement subgrade. The lateral limits of overexcavation should extend beyond the outside edges of the pavement a distance of approximately 2 feet or more. The actual depths and limits of overexcavation should be evaluated by our representative based on the materials exposed at the time of construction. The bottom of the excavation should expose relatively competent alluvial deposits. Additional excavation of loose, soft, and/or wet areas may be appropriate, depending on observations made by Ninyo & Moore during grading. The bottom of the overexcavation should be scarified to a depth of 8 inches, moisture conditioned to slightly above the laboratory optimum moisture content, and compacted to a relative compaction of 90 percent as evaluated by ASTM International (ASTM) D 1557. The excavation should be backfilled with on-site soils compacted to a relative compaction of 90 percent as evaluated by ASTM D 1557.

Exterior flatwork may be supported on compacted, low-expansion potential, granular soil. Subgrade for exterior flatwork areas should be prepared by scarifying the upper approximately 12 inches of exposed subgrade, moisture conditioning to slightly over optimum moisture content, and compacting the subgrade to a relative compaction of 90 percent as evaluated by ASTM D 1557.

11.1.5. Fill Characteristics

In general, the on-site materials should be suitable for reuse as fill provided they are free of trash, debris, roots, vegetation, contaminated material, and/or other deleterious materials. The suitability of fill soils should be evaluated at the time of construction. Fill should generally be free of rocks or hard lumps of material larger than approximately

4 inches in diameter. Rocks or hard lumps larger than about 4 inches in diameter should be broken into smaller pieces or should be removed from the site.

Imported materials should consist of clean, non-expansive granular material. Non-expansive is defined as material with an EI of 20 or less as evaluated by ASTM D4829. Imported soils should also be tested for corrosive properties prior to importing. We recommend that imported materials satisfy the Caltrans (2012) criteria for non-corrosive soils (i.e., soils having a chloride concentration of 500 parts per million [ppm] or less, a soluble sulfate content of approximately 0.20 percent [2,000 ppm] or less, and a pH value of 5.5 or higher). It should be understood that the resistance to corrosion of the structural elements in contact with site soils may vary significantly due to variations in manufacturing concrete during construction. The contractor should be responsible for the uniformity of import material brought to the site. Import material should be submitted to Ninyo & Moore for review prior to importing to the site.

11.1.6. Fill Placement and Compaction

Fill soils placed should be compacted in horizontal lifts to a relative compaction of 90 percent as evaluated by ASTM D 1557. The lift thickness for fill soils will vary depending on the type of compaction equipment used but should generally be placed in horizontal lifts not exceeding 8 inches in loose thickness. Fill soils should be placed at slightly above the optimum moisture content as evaluated by ASTM D 1557. Special care should be taken to avoid damage to wet and dry utility lines when compacting fill and subgrade materials.

11.2. Seismic Design Considerations

Design of the proposed new improvements should be performed in accordance with the requirements of governing jurisdictions and applicable building codes. Table 3 presents the seismic design parameters for the site in accordance with the CBC (CBC, 2013) guidelines and adjusted MCE_R spectral response acceleration parameters.

Table 4 – 2013 California Building Code Seismic Design Criteria

Seismic Design Factors	Value
Seismic Design Category	E
Site Class	D
Site Coefficient, F_a	1.0
Site Coefficient, F_v	1.5
Mapped Spectral Acceleration at 0.2-second Period, S_s	2.225 g
Mapped Spectral Acceleration at 1.0-second Period, S_1	0.750 g
Spectral Acceleration at 0.2-second Period Adjusted for Site Class, S_{MS}	2.225 g
Spectral Acceleration at 1.0-second Period Adjusted for Site Class, S_{M1}	1.124 g
Site-Specific Design Spectral Acceleration at 0.2-second Period, S_{DS}	1.484 g
Site-Specific Design Spectral Acceleration at 1.0-second Period, S_{D1}	0.750 g

Since the site is in Seismic Design Category E, a site-specific ground motion analysis in accordance with CBC was performed and the result is presented on Figure 6.

For the proposed seismic retrofit of existing buildings, the general spectral response acceleration parameters for the BSE-2N, BSE-1N, BSE-2E and BSE-1E Seismic Hazard Levels in accordance with ASCE 41-13 procedures are presented in Tables 3, 4, 5, and 6, respectively.

Table 5 – ASCE 41-13 General Procedure for BSE-2N Hazard

Site Coefficients and Spectral Response Acceleration Parameters	Values
Site Class	D
Site Coefficient, F_a	1.0
Site Coefficient, F_v	1.5
Mapped Spectral Response Acceleration at 0.2-second Period, S_s	2.225 g
Mapped Spectral Response Acceleration at 1.0-second Period, S_1	0.750 g
Spectral Response Acceleration at 0.2-second Period Adjusted for Site Class, S_{XS}	2.225 g
Spectral Response Acceleration at 1.0-second Period Adjusted for Site Class, S_{X1}	1.125 g
Site-Specific Design Spectral Response Acceleration at 0.2-second Period, S_{DS}	1.483 g
Site-Specific Design Spectral Response Acceleration at 1.0-second Period, S_{D1}	0.750 g

Table 6 – ASCE 41-13 General Procedure for BSE-1N Hazard

Site Coefficients and Spectral Response Acceleration Parameters	Values
Site Class	D
Site Coefficient, F_a	1.0
Site Coefficient, F_v	1.5
Mapped Spectral Response Acceleration at 0.2-second Period, S_s	2.225 g
Mapped Spectral Response Acceleration at 1.0-second Period, S_1	0.750 g
Spectral Response Acceleration at 0.2-second Period Adjusted for Site Class, S_{XS}	1.484 g
Spectral Response Acceleration at 1.0-second Period Adjusted for Site Class, S_{X1}	0.750 g
Site-Specific Design Spectral Response Acceleration at 0.2-second Period, S_{DS}	0.989 g
Site-Specific Design Spectral Response Acceleration at 1.0-second Period, S_{D1}	0.500 g

Table 7 – ASCE 41-13 General Procedure for BSE-2E Hazard

Site Coefficients and Spectral Response Acceleration Parameters	Values
Site Class	D
Site Coefficient, F_a	1.0
Site Coefficient, F_v	1.5
Mapped Spectral Response Acceleration at 0.2-second Period, S_s	1.744 g
Mapped Spectral Response Acceleration at 1.0-second Period, S_1	0.592 g
Spectral Response Acceleration at 0.2-second Period Adjusted for Site Class, S_{XS}	1.744 g
Spectral Response Acceleration at 1.0-second Period Adjusted for Site Class, S_{X1}	0.887 g
Site-Specific Design Spectral Response Acceleration at 0.2-second Period, S_{DS}	1.163 g
Site-Specific Design Spectral Response Acceleration at 1.0-second Period, S_{D1}	0.592 g

Table 8 – ASCE 41-13 General Procedure for BSE-1E Hazard

Site Coefficients and Spectral Response Acceleration Parameters	Values
Site Class	D
Site Coefficient, F_a	1.145
Site Coefficient, F_v	1.778
Mapped Spectral Response Acceleration at 0.2-second Period, S_s	0.887 g
Mapped Spectral Response Acceleration at 1.0-second Period, S_1	0.311 g
Spectral Response Acceleration at 0.2-second Period Adjusted for Site Class, S_{XS}	1.016 g
Spectral Response Acceleration at 1.0-second Period Adjusted for Site Class, S_{X1}	0.553 g
Site-Specific Design Spectral Response Acceleration at 0.2-second Period, S_{DS}	0.677 g
Site-Specific Design Spectral Response Acceleration at 1.0-second Period, S_{D1}	0.369 g

11.3. Foundations

The proposed buildings may be supported by drilled piers. Foundations should be designed in accordance with structural considerations and the following recommendations. In addition, requirements of the appropriate governing jurisdictions and applicable building codes should be considered in the design of the structures.

11.3.1. Drilled Piers

Drilled piers may be utilized to support the proposed structures. Negative skin friction caused by liquefaction and subsequent settlement of layers above the liquefaction zone were considered in our pile capacity analysis. For design purposes, the length of the pile is referenced from the existing ground surface elevation.

11.3.1.1. Axial Capacity

The allowable loads and recommended lengths for the drilled piers were analyzed using the computer program SHAFT Version 6 (Ensoft, 2007). The axial capacities for 24-inch-diameter and 36-inch-diameter drilled piers were evaluated. Our analysis included evaluation of the vertical downward and uplift capacities for the drilled piers. The uplift capacities represent two-third of the axial capacity. Pier weight could be added to these uplift capacities. The following Tables 9 and 10 presents the vertical downward pile capacities for 24-inch and 36-inch-diameter drilled piers, respectively.

11.3.1.2. Lateral Capacity

The lateral pile capacities were evaluated for the free-head condition at lateral head deflection of ¼ inch and ½ inch using the computer program LPILE Version 6 (Ensoft, Inc., 2010). Maximum moments generated by the indicated deflections are based on geotechnical considerations. We recommend that the maximum moment capacities of the piles be evaluated by the structural engineer. Lateral capacities for pile lengths and embedment conditions that are different from those assumed in our analyses may be different from those indicated. Results of our lateral pile capacity evaluation for 24-inch and 36-inch-diameter drilled piers are summarized in Tables 9 and 10, respectively.

Table 9 – Lateral Load Capacity of 24-Inch-Diameter Drilled Piers

Pile Design Parameters	Pile Response Based on Head Deflection			
	Fixed Head		Free Head	
Diameter (feet)	2.0		2.0	
Design Shaft Length (feet)	55		55	
Pile Axial Capacity at Shaft Head (kips)	110		110	
Lateral Deflection of Pile Head (inch)	0.25	0.50	0.25	0.50
Maximum Shear Force (kips)	39	56	20	27
Moment at Shaft Head, (kips-foot)	-160	-239	0.0	0.0
Maximum Positive Moment (kips-foot)	50	83	83	117
Maximum Negative Moment (kips-foot)	-160	-239	-8	-15
Depth to Maximum Positive Moment (feet)	10	10	7	7
Depth to Maximum Negative Moment (feet)	0.0	0.0	35	35
Depth to Zero Deflection (feet)	22	24	12	10

Table 10 – Lateral Load Capacity of 36-Inch-Diameter Drilled Piers

Pile Design Parameters	Pile Response Based on Head Deflection			
	Fixed Head		Free Head	
Diameter (feet)	3.0		3.0	
Design Shaft Length (feet)	55		55	
Pile Axial Capacity at Shaft Head (kips)	160		160	
Lateral Deflection of Pile Head (inch)	0.25	0.50	0.25	0.50
Maximum Shear Force (kips)	58	99	34	54
Moment at Shaft Head, (kips-foot)	-330	-535	0.0	0.0
Maximum Positive Moment (kips-foot)	83	170	171	267
Maximum Negative Moment (kips-foot)	-330	-535	-7	-13
Depth to Maximum Positive Moment (feet)	27	23	8	8
Depth to Maximum Negative Moment (feet)	0.0	0.0	47	45
Depth to Zero Deflection (feet)	40	40	26	23

11.3.1.3. Construction Considerations for Drilled Pier

The drilled pier construction should be observed by Ninyo & Moore during excavation to evaluate if the piles have been extended to the recommended depths. The excavations should be cleaned of loose soil and gravel. It is the Contractor's responsibility to take the appropriate measures to provide for the integrity of the excavation and to see that the excavations are cleaned and straight and that sloughed loose soil is removed from the bottom of the excavation prior to the placement of concrete. Drilled piers should be checked for alignment and plumbness during installation. The amount of acceptable misalignment of a pile is approximately 3 inches from the plan location. It is usually acceptable for a pile to be out of plumb by one percent of the depth of the pile.

Groundwater was not encountered in our exploratory borings at a depth of approximately 96½ feet. Accordingly, we don't anticipate that groundwater will be encountered in the drilled holes for the drilled piers. Seepage should be anticipated in excavations above the groundwater table. We recommend that the contractor be prepared to take appropriate measures during construction to reduce the potential for caving of the drilled holes, including the use of casing and/or drilling mud. In addition, we recommend that special measures, such as placement of concrete by tremie method, are implemented to see that the aggregate and cement do not segregate during concrete placement.

11.3.2. Slabs-On-Grade

Building floor slabs should be designed by the project structural engineer based on the anticipated loading conditions. Building floor slabs may be supported by grade beams and drilled piers.

11.3.3. Exterior Sidewalks

Exterior flatwork may be supported on compacted on-site soils provided the soils are moisture conditioned as indicated in the Earthwork section of this report. Exterior slabs-on-grade may be 4 inches thick and reinforced with No. 3 reinforcing bars at a spacing of 24 inches. The vapor retarder and 2 inches of sand may be excluded beneath exterior slabs unless tile, paint, or other potentially moisture-sensitive surface treatments are used.

11.4. Underground Utilities

We anticipate that utility pipelines will be supported on alluvial deposits. The depths of the pipelines are not known; however, we anticipate that the pipe invert depths will not exceed 10 feet. Trenches should not be excavated parallel to building footings. If needed, trenches can be excavated adjacent to a continuous footing, provided that the bottom of the trench is located above a 1:1 (horizontal to vertical) plane projected downward from the outside edge of the adjacent footing at a point 6 inches above the bottom of the footing. Utility lines that cross beneath footings should be encased in concrete below the footing.

11.4.1. Pipe Bedding

We recommend that pipelines be supported on 4 inches or more of granular bedding material. Bedding material should be placed around pipe zones to 1 foot or more above the top of the pipe. The bedding material should be classified as sand, be free of organic material, and have a sand equivalent of 30 or more. We do not recommend gravel be used for bedding material because of the nature of the subsurface material. It has been our experience that the voids within gravel material are sufficiently large to allow fines to migrate into the voids, thereby creating the potential for sinkholes and depressions to develop at the ground surface.

Special care should be taken not to allow voids beneath and around the pipe. Compaction of the bedding material and backfill should proceed along both sides of the pipe concurrently. Trench backfill, including bedding material, should be placed in accordance with the recommendations presented in the following section.

11.4.2. Trench Backfill

Based on our subsurface evaluation, the on-site soils should generally be suitable for re-use as trench backfill provided they are free of trash, debris, roots, vegetation, contaminated material, deleterious materials and rock/lumps of material larger than approximately 4 inches in diameter. We recommend that trench backfilling be in general conformance with the Standard Specifications for Public Works Construction ("Greenbook") (Building News, 2012). Fill should be moisture-conditioned to at or slightly above the laboratory optimum. Wet soils should be allowed to dry to a moisture content near the optimum prior to their placement as trench backfill. Trench backfill should be compacted to a relative compaction of 90 percent as evaluated by ASTM D 1557. Lift thickness for backfill will depend on the type of compaction equipment utilized, but fill should generally be placed in horizontal lifts not exceeding 8 inches in loose thickness. Special care should be exercised to avoid damaging the pipe during compaction of the backfill.

11.4.3. Modulus of Soil Reaction

The modulus of soil reaction is used to characterize the stiffness of soil backfill placed along the sides of buried flexible pipelines for the purpose of evaluating deflection caused by the weight of the backfill above the pipe. We recommend that a modulus of soil reaction of 1,000 pounds per square inch (psi) be used for design, provided that granular bedding material be placed adjacent to the pipe, as recommended in the previous section.

11.5. Preliminary Pavement Recommendations

We understand that the proposed improvements may include new AC pavements for parking lots and driveways. The shallow subgrade soils encountered in our exploratory borings generally consisted of moist, silty sand and sand. Laboratory testing performed on a representative near-surface soil sample indicated an R-value of 76. Due to variable site materials, a design R-value of 60 was assumed in our analysis.

For the design of AC pavements, we used the methodology presented in the Caltrans Highway Design Manual (Caltrans, 2008b) and the computer program CalFP Version 1.1 (Caltrans, 2008a). We evaluated structural pavement sections assuming a traffic index (TI) of 4 for light-duty pavements, such as parking stalls for passenger cars, and TIs of 5 and 6 were assumed for heavy-duty pavements, such as driveways and areas subject to periodic heavy truck traffic. Based on our analysis, our preliminary AC pavement sections are provided in Table 11.

Table 11 – Preliminary Flexible Pavement Structural Section

Traffic Index	Design R-Value	AC over CAB or AC over CMB (inches)	Full-Depth AC (inches)
4.0	60	3 over 4	4
5.0	60	3 over 4½	4½
6.0	60	3½ over 4½	5
Notes: AC – Asphalt Concrete CAB – Crushed Aggregate Base CMB – Crushed Miscellaneous Base			

Subgrade soils in areas to be paved should be prepared as recommended in the Earthwork section of this report. The subgrade should be maintained in a moist, compact condition until AB or AC is placed over the subgrade. The subgrade in areas to receive AB should be compacted to a relative compaction of 90 percent as evaluated by ASTM D 1557. If full-depth AC is used for the project, the upper approximately 12 inches of subgrade should be compacted to a relative compaction of 95 percent as evaluated by ASTM D 1557. AB material should conform to the latest specifications in Section 200-2.2 for crushed AB or Section 200-2.4 for crushed miscellaneous base of the Greenbook and should be compacted to a relative compaction of 95 percent in accordance with ASTM D 1557. AC should conform to Section 203-1 of the Greenbook and should be compacted to a relative compaction of 95 percent per appropriate ASTM methods.

Pavement sections should be selected based on actual anticipated traffic loading conditions and evaluation of the subgrade materials at the time of construction. We recommend that the paving operations be observed and tested by Ninyo & Moore. We further recommend that mix designs be made for the AC by an engineering company specialized in this type of work.

11.6. Corrosivity

Laboratory testing was performed on representative near-surface soil samples to evaluate pH, electrical resistive, water-soluble chloride content, and water-soluble sulfate content. The soil pH and electrical resistivity tests were performed in general accordance with California Test Method (CT) 643. Chloride content tests were performed in general accordance with CT 422. Sulfate testing was performed in general accordance with CT 417. The laboratory test results are presented in Appendix B.

The pH of the soil samples was measured to be approximately 6.5 and 6.7, and the electrical resistivity was measured to be approximately 7,417 and 13,925 ohm-centimeters. The chloride content of the samples were each measured to be approximately 50 ppm. The sulfate content of the tested samples were approximately 0.001 and 0.003 percent (i.e., 10 and 30 ppm, respectively). Based on the laboratory test results and Caltrans criteria, the project site can be classified as a non-corrosive site, which is defined as having earth materials with less than 500 ppm chlorides, less that 0.20 percent sulfates, and a pH of 5.5 or more.

11.7. Concrete Placement

Concrete in contact with soil or water that contains high concentrations of water-soluble sulfates can be subject to premature chemical and/or physical deterioration. The samples tested during this evaluation indicated a water-soluble sulfate content of approximately 0.001 and 0.008 percent by weight (i.e., 10 and 80 ppm, respectively). Based on the CBC criteria (CBC, 2013), the potential for sulfate attack is negligible for water-soluble sulfate contents in soils ranging from 0.00 percent to 0.10 percent by weight (0 to 1,000 ppm), indicating that the on-site soils may be considered to have a negligible potential for sulfate attack. Therefore, based on a CBC criteria (CBC, 2013), Type II cement may be used for concrete construction. The concrete should have a water-cement ratio no higher than 0.50 by weight for normal weight aggregate concrete and a 28-day compressive strength of 4,000 psi or more.

In order to reduce the potential for shrinkage cracks in the concrete during curing, we recommend that the concrete for the proposed structures be placed with a slump of 4 inches based on ASTM C 143. The slump should be checked periodically at the site prior to concrete placement. We also recommend that crack control joints be provided in slabs in accordance with the recommendations of the structural engineer to reduce the potential for distress due to minor soil movement and concrete shrinkage. We further recommend that concrete cover over reinforcing steel for slabs-on-grade and foundations be provided in accordance with CBC (CBC, 2013). The structural engineer should be consulted for additional concrete specifications.

11.8. Drainage

Good surface drainage is imperative for satisfactory site performance. Positive drainage should be provided and maintained to channel surface water away from foundations and off-site. Positive drainage is defined as a slope of 2 percent or more for a distance of 5 feet or more away from foundations and tops of slopes. Runoff should then be transported by the use of swales or pipes into a collective drainage system. Surface waters should not be allowed to pond adjacent to footings or on pavements. Concentrated runoff should not be allowed to flow over asphalt pavement as this can result in early deterioration of the pavement. We recommend that the structure have roof drains and downspouts installed to collect runoff. Area drains for landscaped and paved areas are recommended.

11.9. Landscaping

Project landscaping should consist of drought tolerant plants. Landscape irrigation should be kept to a level just sufficient to maintain plant vigor. Overwatering should not be permitted.

12. CONSTRUCTION OBSERVATION

The recommendations provided in this report are based on our understanding of the proposed project and on our evaluation of the data collected based on subsurface conditions disclosed by widely spaced exploratory borings. It is imperative that the interpolated subsurface conditions be checked by our representative during construction. Observation and testing of compacted fill and backfill should also be performed by our representative during construction. We further recommend that the project plans and specifications be reviewed by this office prior to construction. In addition, we should review the plans and specifications prior to construction. It should be noted that, upon review of these documents, some recommendations presented in this report might be revised or modified.

During construction, we recommend that the duties of the geotechnical consultant include, but not be limited to:

- Observing clearing, grubbing, and removals.
- Observing excavation bottoms and the placement and compaction of fill, including trench backfill.
- Evaluating imported materials prior to their use as fill.
- Performing field tests to evaluate fill compaction.
- Observing foundation excavations for bearing materials and cleaning prior to placement of reinforcing steel or concrete.

The recommendations provided in this report assume that Ninyo & Moore will be retained as the geotechnical consultant during the construction phase of this project. If another geotechnical consultant is selected, we request that the selected consultant indicate to LAUSD and to our firm in writing that our recommendations are understood and that they are in full agreement with our recommendations.

13. LIMITATIONS

The field evaluation, laboratory testing, and geotechnical analyses presented in this geotechnical report have been conducted in general accordance with current practice and the standard of care exercised by geotechnical consultants performing similar tasks in the project area. No warranty, expressed or implied, is made regarding the conclusions, recommendations, and opinions presented in this report. There is no evaluation detailed enough to reveal every subsurface condition. Variations may exist and conditions not observed or described in this report may be encountered during construction. Uncertainties relative to subsurface conditions can be reduced through additional subsurface exploration. Additional subsurface evaluation will be performed upon request. Please also note that our evaluation was limited to assessment of the geotechnical aspects of the project, and did not include evaluation of structural issues, environmental concerns, or the presence of hazardous materials.

This document is intended to be used only in its entirety. No portion of the document, by itself, is designed to completely represent any aspect of the project described herein. Ninyo & Moore should be contacted if the reader requires additional information or has questions regarding the content, interpretations presented, or completeness of this document.

This report is intended for design purposes only. It does not provide sufficient data to prepare an accurate bid by contractors. It is suggested that the bidders and their geotechnical consultant perform an independent evaluation of the subsurface conditions in the project areas. The independent evaluations may include, but not be limited to, review of other geotechnical reports prepared for the adjacent areas, site reconnaissance, and additional exploration and laboratory testing.

Our conclusions, recommendations, and opinions are based on an analysis of the observed site conditions. If geotechnical conditions different from those described in this report are encountered, our office should be notified, and additional recommendations, if warranted, will be provided upon request. It should be understood that the conditions of a site could change with time as a result of natural processes or the activities of man at the subject site or nearby sites. In addition, changes to the applicable laws, regulations, codes, and standards of practice may occur due to government action or the broadening of knowledge. The findings of this report may, therefore, be invalidated over time, in part or in whole, by changes over which Ninyo & Moore has no control.

This report is intended exclusively for use by the client. Any use or reuse of the findings, conclusions, and/or recommendations of this report by parties other than the client is undertaken at said parties' sole risk.

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AERIAL PHOTOGRAPHS

Source	Date	Flight	Numbers	Scale
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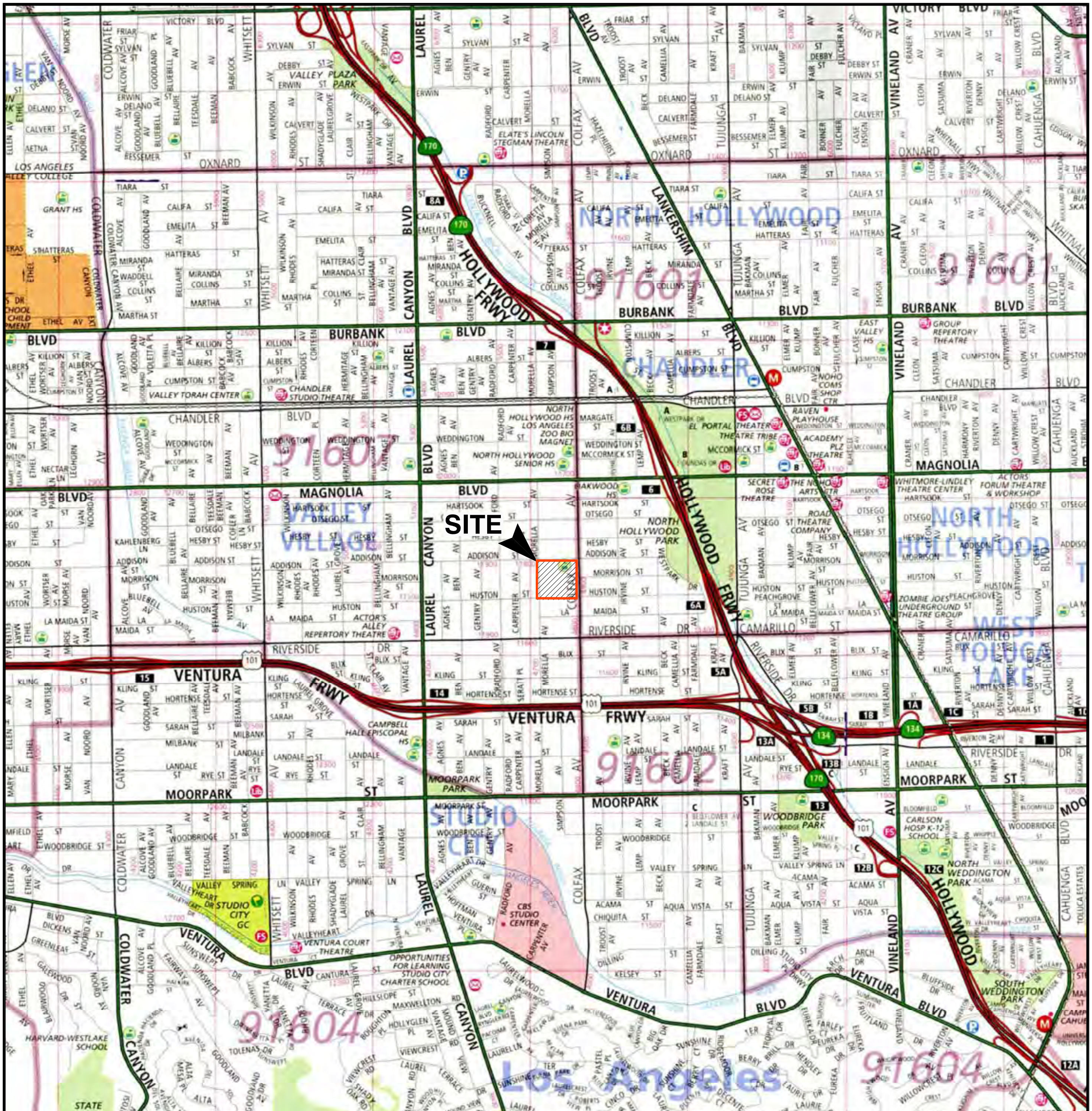

REFERENCE: 52ND EDITION, THOMAS GUIDE FOR LOS ANGELES/ORANGE COUNTIES, STREET GUIDE AND DIRECTORY.

N

SCALE IN FEET

0 2,400 4,800

NOTE: DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

Map © Rand McNally, R.L.07-S-129

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Ninyo & Moore		SITE LOCATION	FIGURE
PROJECT NO.	DATE	COLFAX CHARTER ELEMENTARY SCHOOL MODERNIZATION 11724 ADDISON STREET VALLEY VILLAGE, CALIFORNIA	1
209381010	5/16		

REFERENCE: GOOGLE EARTH AERIAL PHOTO, 2015.

LEGEND

B-5 TD=11.5	PREVIOUS BORING; (JUNE 2015) TD=TOTAL DEPTH IN FEET	P-3 TD=2.8	PERCOLATION TEST; TD=TOTAL DEPTH IN FEET
B-9 TD=6.5	BORING; TD=TOTAL DEPTH IN FEET	CPT-4 TD=45.0	CONE PENETRATION TEST; TD=TOTAL DEPTH IN FEET

N

SCALE IN FEET

0 120 240

NOTE: DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

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Ninyo & Moore

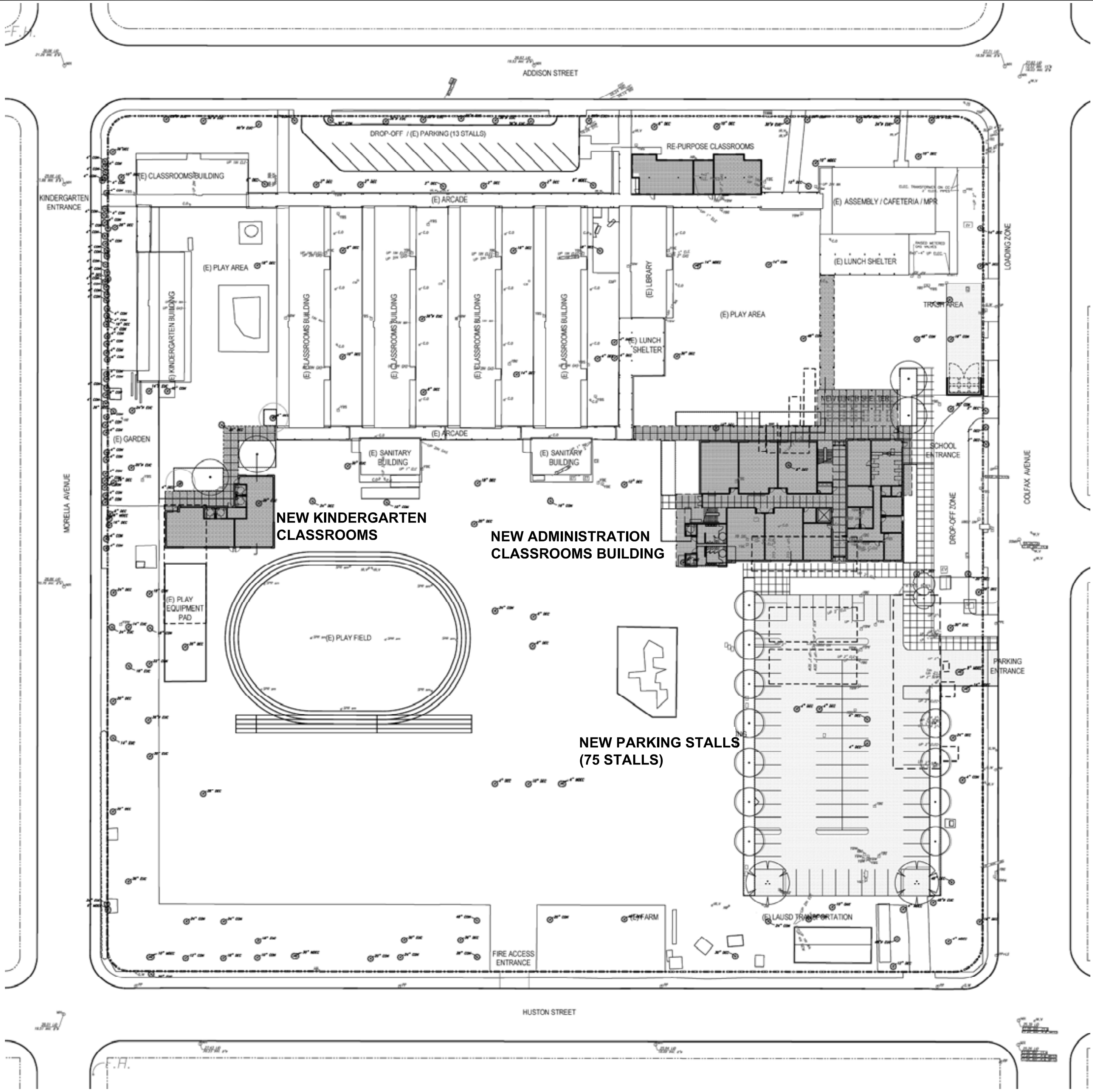
PROJECT NO.	DATE
209381010	5/16

BORING LOCATIONS

COLFAX CHARTER ELEMENTARY SCHOOL MODERNIZATION
11724 ADDISON STREET
VALLEY VILLAGE, CALIFORNIA

FIGURE

2



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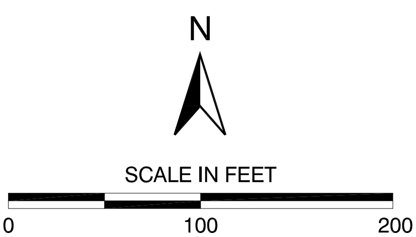

NOTE: DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

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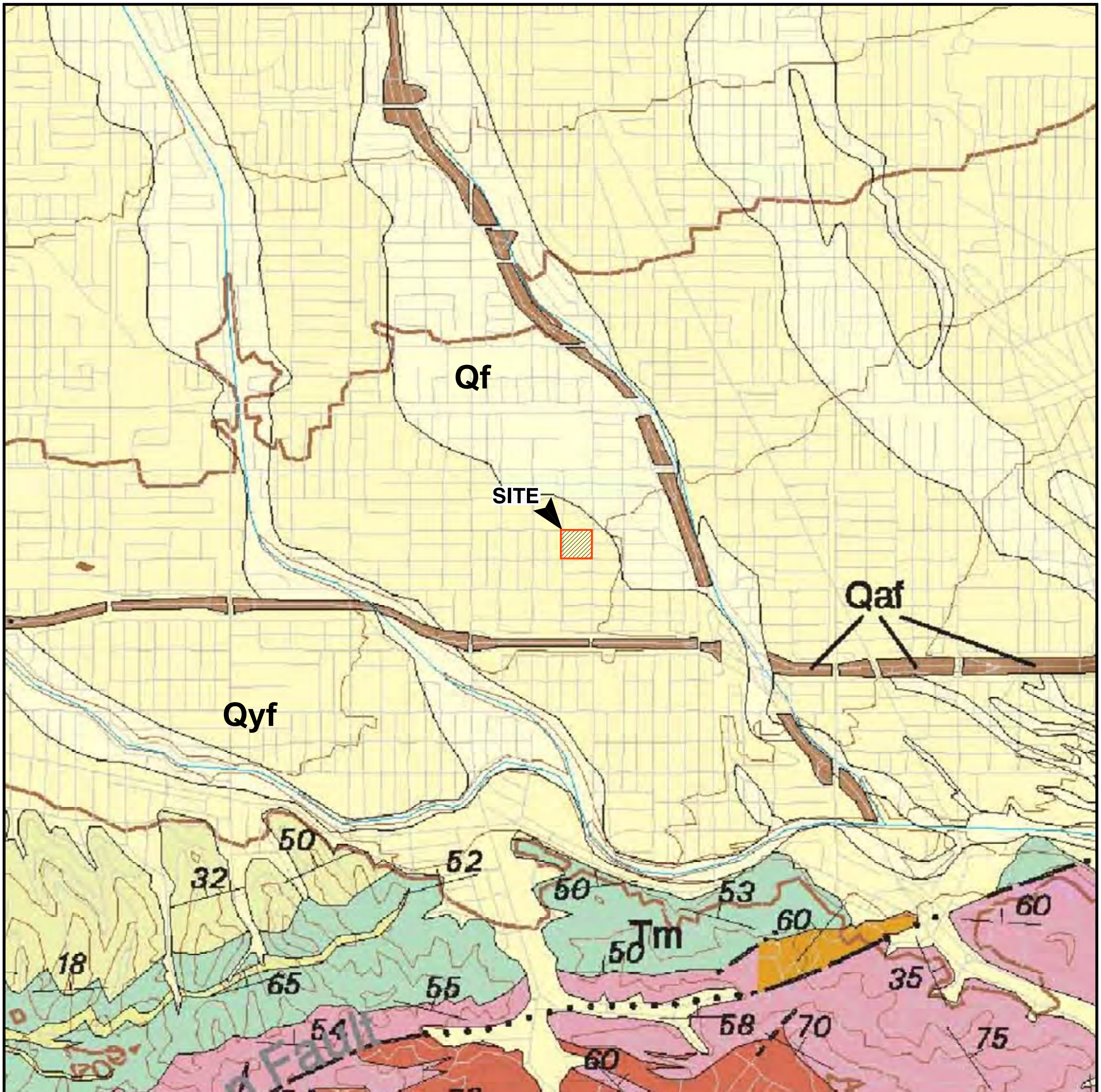
Ninyo & Moore	PROPOSED SITE IMPROVEMENTS	FIGURE
PROJECT NO. 209381010 / DATE 5/16	COLFAX CHARTER ELEMENTARY SCHOOL MODERNIZATION 11724 ADDISON STREET VALLEY VILLAGE, CALIFORNIA	3



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N

SCALE IN FEET

0 3,000 6,000

NOTE: DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

LEGEND

Qf	ALLUVIAL FAN DEPOSITS
Qyf	OLD ALLUVIAL FAN DEPOSITS
Tta / Ttz	TOPANGA FORMATION
Tm	OLD ALLUVIAL FAN DEPOSITS
Qaf	ARTIFICIAL FILL
	GEOLOGIC CONTACT
	FAULT; DOTTED WHERE CONCEALED

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Ninyo & Moore

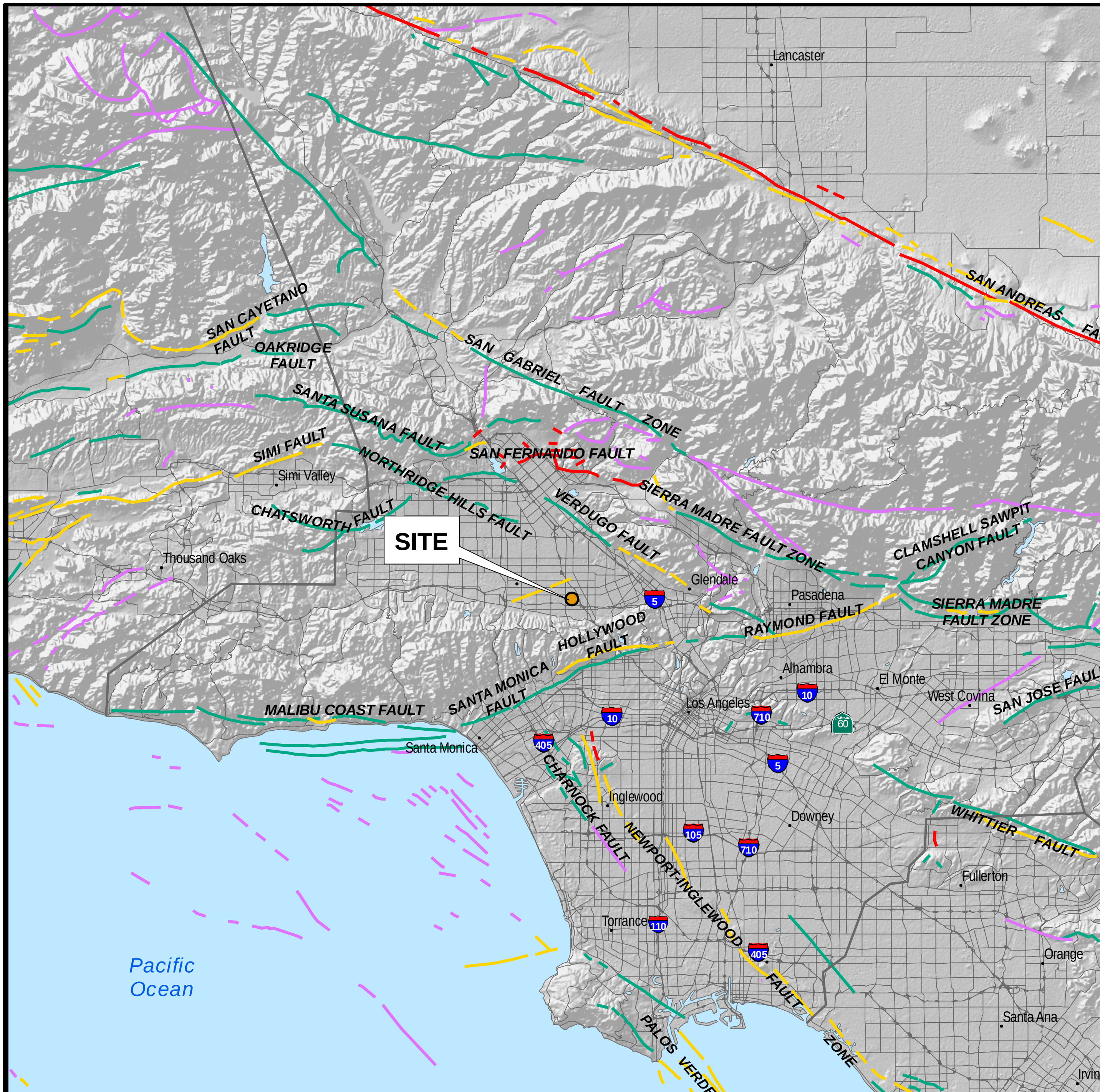
REGIONAL GEOLOGY

PROJECT NO.	DATE
209381010	5/16

COLFAX CHARTER ELEMENTARY SCHOOL MODERNIZATION
11724 ADDISON STREET
VALLEY VILLAGE, CALIFORNIA

FIGURE

4



GIS DATA SOURCE: CALIFORNIA GEOLOGICAL SURVEY (CGS); ENVIRONMENTAL SYSTEMS RESEARCH INSTITUTE (ESRI)
REFERENCE: JENNINGS, 1994, FAULT ACTIVITY MAP OF CALIFORNIA AND ADJACENT AREAS

LEGEND

FAULT ACTIVITY:

- HISTORICALLY ACTIVE
- HOLOCENE ACTIVE
- COUNTY BOUNDARIES
- LATE QUATERNARY
- QUATERNARY

N

10 0 10

Miles

NOTE: DIMENSIONS, DIRECTIONS, AND LOCATIONS ARE APPROXIMATE

Ninyo & Moore

FAULT LOCATIONS

PROJECT NO.	DATE	COLFAX CHARTER ELEMENTARY SCHOOL MODERNIZATION 11724 ADDISON STREET VALLEY VILLAGE, CALIFORNIA	FIGURE
209381010	5/16		5

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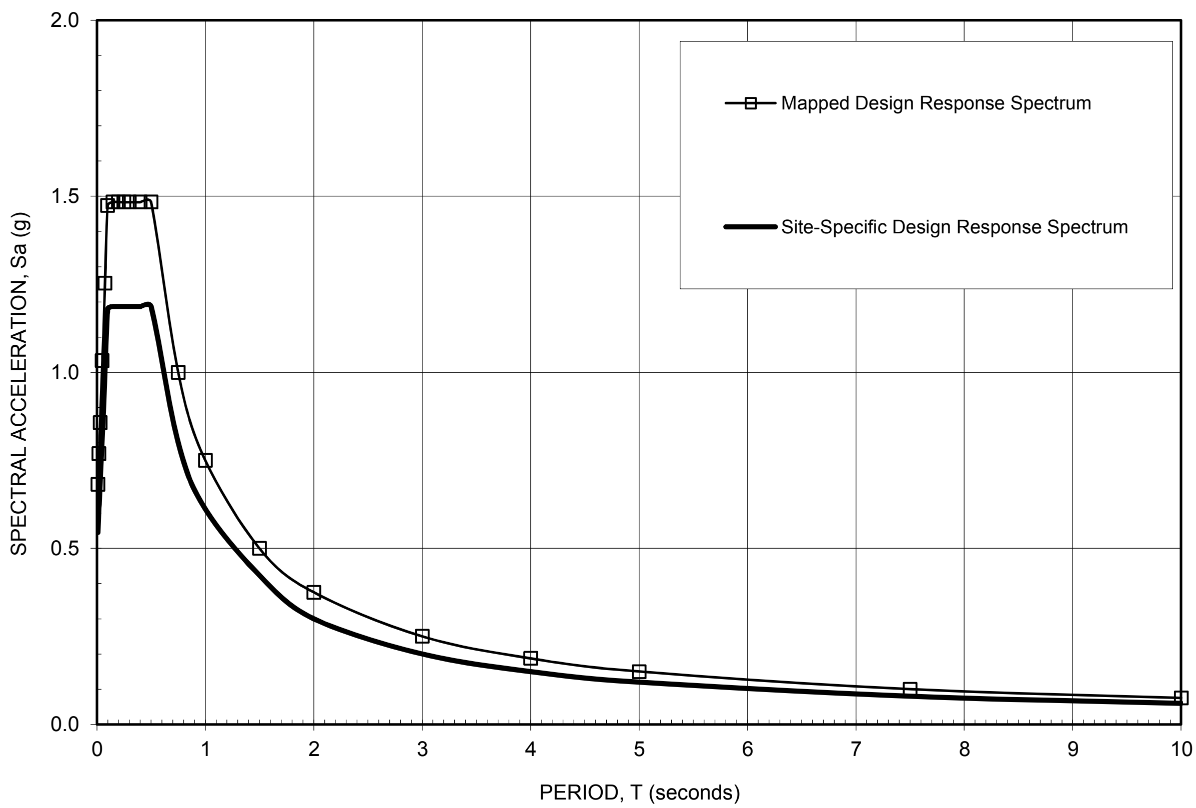
PERIOD (seconds)	SITE-SPECIFIC DESIGN RESPONSE SPECTRUM Sa, (g)
0.010	0.545
0.020	0.615
0.030	0.686
0.050	0.827
0.075	1.003
0.100	1.179
0.150	1.187
0.200	1.187
0.250	1.187
0.300	1.187
0.400	1.187

PERIOD (seconds)	SITE-SPECIFIC DESIGN RESPONSE SPECTRUM Sa, (g)
0.500	1.187
0.750	0.800
1.000	0.612
1.500	0.423
2.000	0.300
3.000	0.200
4.000	0.150
5.000	0.120
7.500	0.080
10.000	0.060

S_{DS} = 1.187 S_{D1} = 0.612 PGA_M = 0.758



NOTES:

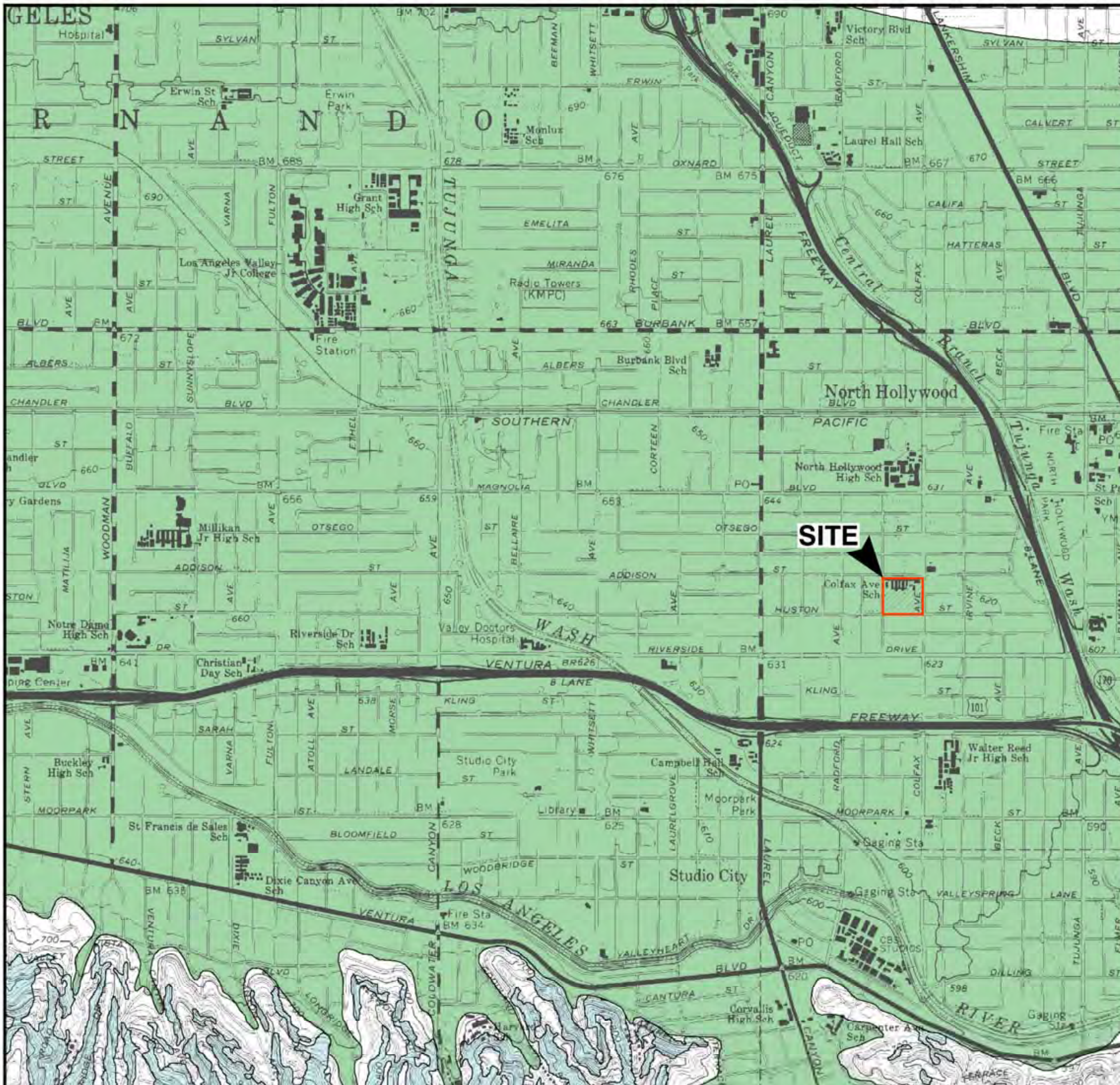
1 Probabilistic Ground Motion is for Risk-targeted Maximum Considered Earthquake (MCE_R) with ground motion having 2% probability of exceedance In 50 years using Chiou & Youngs (2008), Campbell & Bozorgnia (2008), and Boore & Atkinson (2008) attenuation relationships and the risk coeff.

2 Deterministic ARS is 84th percentile of the median values from attenuation relationships by Chiou & Youngs (2008), Campbell & Bozorgnia (2008), and Boore & Atkinson (2008) for deep soils considering a Mw 6.7 event on the Hollywood fault located 6.9 kilometers from the site. It conforms with the lower bound limit per ASCE 7-10 Section 21.2.2 as modified by 2009 NEHRP Recommended Seismic Provisions.

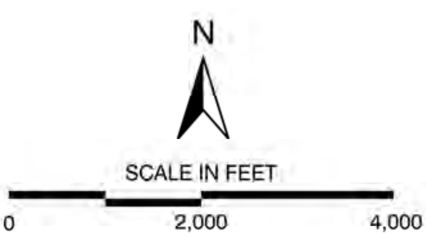
3 Site-Specific MCE_R is the lesser of spectral ordinates of deterministic and probabilistic ARS at each period per ASCE 7-10 Section 21.2.3. Site-Specific Design Response Spectrum conforms with lower bound limit per ASCE 7-10 Section 21.3.

4 Mapped Design Response Spectrum is computed from mapped spectral ordinates modified for Site Class D (stiff soil profile) per ASCE 7-10 Section 11.4. It is presented for comparison.

Ninyo & Moore		ACCELERATION RESPONSE SPECTRA	FIGURE
PROJECT NO.	DATE	COLFAX CHARTER ELEMENTARY SCHOOL MODERNIZATION 11724 COLFAX AVENUE VAN NUYS, CALIFORNIA	6
209381010	5/16		



REFERENCE: CALIFORNIA DEPARTMENT OF CONSERVATION, DIVISION OF MAPS AND GEOLOGY, STATE OF CALIFORNIA, 1998, SEISMIC HAZARD ZONES MAP OFFICIAL REVISED MAP VAN NUYS QUADRANGLE, 7.5-MINUTE SERIES: SCALE 1:24,000.



NOTE: DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

LEGEND

LIQUEFACTION:
Areas where historic occurrence of liquefaction, or local geological, geotechnical and groundwater conditions indicate a potential for permanent ground displacements such that mitigation as defined in Public Resources Code Section 2693(c) would be required.

EARTHQUAKE-INDUCED LANDSLIDES
Areas where previous occurrence of landslide movement, or local topographic, geological, geotechnical and subsurface water conditions indicate a potential for permanent ground displacements such that mitigation as defined in Public Resources Code Section 2693(c) would be required.

Ninyo & Moore		SEISMIC HAZARD ZONES	FIGURE
PROJECT NO.	DATE	COLFAX CHARTER ELEMENTARY SCHOOL MODERNIZATION 11724 ADDISON STREET VALLEY VILLAGE, CALIFORNIA	7
209381010	5/16		

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APPENDIX A

BORING LOGS

Field Procedure for the Collection of Disturbed Samples
Disturbed soil samples were obtained in the field using the following methods.

Bulk Samples
Bulk samples of representative earth materials were obtained from the exploratory borings. The samples were bagged and transported to the laboratory for testing.

The Standard Penetration Test (SPT) Spoon
Disturbed drive samples of earth materials were obtained by means of a Standard Penetration Test spoon sampler. The sampler is composed of a split barrel with an external diameter of 2 inches and an unlined internal diameter of $1^3/_8$ inches. The spoon was driven into the ground 12 to 18 inches with a 140-pound hammer free-falling from a height of 30 inches in general accordance with ASTM D 1586. The blow counts were recorded for every 6 inches of penetration; the blow counts reported on the logs are those for the last 12 inches of penetration. Soil samples were observed and removed from the spoon, bagged, sealed, and transported to the laboratory for testing.

Field Procedure for the Collection of Relatively Undisturbed Samples
Relatively undisturbed soil samples were obtained in the field using the following method.

The Modified Split-Barrel Drive Sampler
The sampler, with an external diameter of 3 inches, was lined with 1-inch-long, thin brass rings with inside diameters of approximately 2.4 inches. The sample barrel was driven into the ground with the weight of a hammer of the drill rig in general accordance with ASTM D 3550. The driving weight was permitted to fall freely. The approximate length of the fall, the weight of the hammer or bar, and the number of blows per foot of driving are presented on the boring logs as an index to the relative resistance of the materials sampled. The samples were removed from the sample barrel in the brass rings, sealed, and transported to the laboratory for testing.

DATE DRILLED	6/10/15
BORING NO.	B-1
GROUND ELEVATION	630' ± (MSL)
SHEET	1 OF 2
METHOD OF DRILLING	8" Hollow-Stem Auger (Geoboden)
DRIVE WEIGHT	140 lbs. (Auto. Trip Hammer)
DROP	30"
SAMPLED BY	SCM
LOGGED BY	SCM
REVIEWED BY	GMC

DEPTH (feet)	SAMPLES Bulk	SAMPLES Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
0							ML	FILL: Black to grown, moist, loose, sandy SILT with organics; grass; approximately 2 inches thick.
							ML	ALLUVIUM: Brown, moist, medium dense, sandy SILT; trace gravel; few organics.
			21	5.0	104.0			
							SP-SM	Light brown, moist, medium dense, poorly graded SAND with silt.
							SM	Yellowish brown, moist, medium dense, silty SAND; pinhole porosity.
10			11					
							SC	Yellowish brown, moist, medium dense, clayey SAND; caliche stringers; trace organics.
			22	6.2	94.1			
							SM	Yellowish brown, moist, medium dense, silty SAND; trace organics.
20			17					
			44	9.4	107.1			Dense; pinhole porosity.
							ML	Reddish gray, moist, medium dense, sandy SILT; caliche stringers; pinhole porosity.
30			11					
							CL	Yellowish brown, moist, very stiff, CLAY with sand; trace gravel; oxidation staining.
			24					
							SP-SM	Reddish gray, moist, very dense, poorly graded SAND with silt; few to little gravel.
40								

Ninyo & Moore

BORING LOG

COLFAX CHARTER ELEMENTARY SCHOOL MODERNIZATION
11724 ADDISON STREET, VALLEY VILLAGE, CALIFORNIA

PROJECT NO.	DATE	FIGURE
209381010	5/16	A-1

DEPTH (feet)	SAMPLES Bulk	SAMPLES Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	CLASSIFICATION U.S.C.S.
40		◣	71				SP-SM
50							
60							
70							
80							

DATE DRILLED 6/10/15 BORING NO. B-1

GROUND ELEVATION 630' ± (MSL) SHEET 2 OF 2

METHOD OF DRILLING 8" Hollow-Stem Auger (Geoboden)

DRIVE WEIGHT 140 lbs. (Auto. Trip Hammer) DROP 30"

SAMPLED BY SCM LOGGED BY SCM REVIEWED BY GMC

DESCRIPTION/INTERPRETATION

ALLUVIUM: (Continued)
Reddish gray, moist, very dense, poorly graded SAND with silt; few to little gravel.
Total Depth = 41.5 feet.
Groundwater was not encountered during drilling.
Backfilled with on-site soil on 6/10/15.

Note:
Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.

The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.

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BORING LOG

COLFAX CHARTER ELEMENTARY SCHOOL MODERNIZATION
11724 ADDISON STREET, VALLEY VILLAGE, CALIFORNIA

PROJECT NO.	DATE	FIGURE
209381010	5/16	A-2

DATE DRILLED 6/10/15 BORING NO. B-2

GROUND ELEVATION 630' ± (MSL) SHEET 1 OF 2

METHOD OF DRILLING 8" Hollow-Stem Auger (Geoboden)

DRIVE WEIGHT 140 lbs. (Auto. Trip Hammer) DROP 30"

SAMPLED BY SCM LOGGED BY SCM REVIEWED BY GMC

DEPTH (feet)	SAMPLES Bulk	SAMPLES Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
0							GP	ASPHALT CONCRETE: Approximately 2 inches thick.
							SM	AGGREGATE BASE: Brown, moist, medium dense, poorly graded GRAVEL with sand; approximately 3 inches thick.
							SM	FILL: Light brown, moist, medium dense, silty SAND.
								ALLUVIUM: Light brown, moist, loose, silty SAND; trace organics.
			8					Medium dense.
							SC	ALLUVIUM: Yellowish brown, moist, medium dense, clayey SAND; trace organics; caliche stringers.
							ML	Yellowish brown, moist, medium dense, sandy SILT; pinhole porosity.
10			17	6.8	94.3			
			14					Interbeds of silty sand with trace gravel.
20							SC	Yellowish brown, moist, medium dense, clayey SAND.
							ML	Yellowish brown, moist, dense, SILT with sand; trace gravel.
			52	3.3	102.9			
			18					Medium dense; oxidation staining.
							CL	Reddish brown, moist, hard, sandy CLAY; trace gravel; caliche stringers.
30			38	14.4	112.5			
								@ 32': Gravel bed encountered.
							SC	Reddish brown, moist, very dense, clayey SAND; trace gravel.
			52				SM	Brown, moist, very dense, silty SAND; few gravel.
							SP-SM	Reddish gray, moist, very dense, poorly graded SAND with silt; few gravel.
40								

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COLFAX CHARTER ELEMENTARY SCHOOL MODERNIZATION
11724 ADDISON STREET, VALLEY VILLAGE, CALIFORNIA

PROJECT NO.	DATE	FIGURE
209381010	5/16	A-3

DEPTH (feet)	SAMPLES Bulk	SAMPLES Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
40		■	80				SP-SM	ALLUVIUM: (Continued) Reddish gray, moist, very dense, poorly graded SAND with silt; few gravel.
								Total Depth = 41.5 feet. Groundwater was not encountered during drilling. Backfilled with on-site soil and capped with rapid-set concrete on 6/10/15.
50								Note: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
60								
70								
80								

DATE DRILLED 6/10/15 BORING NO. B-2

GROUND ELEVATION 630' ± (MSL) SHEET 2 OF 2

METHOD OF DRILLING 8" Hollow-Stem Auger (Geoboden)

DRIVE WEIGHT 140 lbs. (Auto. Trip Hammer) DROP 30"

SAMPLED BY SCM LOGGED BY SCM REVIEWED BY GMC

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COLFAX CHARTER ELEMENTARY SCHOOL MODERNIZATION
11724 ADDISON STREET, VALLEY VILLAGE, CALIFORNIA

PROJECT NO.	DATE	FIGURE
209381010	5/16	A-4

DATE DRILLED 6/10/15 BORING NO. B-3

GROUND ELEVATION 630' ± (MSL) SHEET 1 OF 2

METHOD OF DRILLING 8" Hollow-Stem Auger (Geoboden)

DRIVE WEIGHT 140 lbs. (Auto. Trip Hammer) DROP 30"

SAMPLED BY SCM LOGGED BY SCM REVIEWED BY GMC

DEPTH (feet)	SAMPLES Bulk	SAMPLES Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
0							GP	ASPHALT CONCRETE: Approximately 4 inches thick.
							SM	AGGREGATE BASE: Brown, moist, medium dense, poorly graded GRAVEL with sand; approximately 6 inches thick.
							SM	FILL: Brown, moist, medium dense, silty SAND.
								ALLUVIUM: Brown, moist, loose, silty SAND; trace gravel.
			30	5.9	103.6			Medium dense.
							ML	Yellowish brown, moist, medium dense, sandy SILT; pinhole porosity; caliche stringers.
10			11					
			26	5.8	99.6			
							SM	Light yellowish brown, moist, dense, silty SAND; trace gravel.
20			24					
			56	3.4	103.4			Yellowish brown.
							SC	Yellowish brown, moist, dense, clayey SAND; trace gravel; oxidation staining; caliche stringers.
30			22					
			46	5.5	112.8			
							SP-SM	Reddish gray, moist, very dense, poorly graded SAND with silt; few to little gravel.
40								

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COLFAX CHARTER ELEMENTARY SCHOOL MODERNIZATION
11724 ADDISON STREET, VALLEY VILLAGE, CALIFORNIA

PROJECT NO.	DATE	FIGURE
209381010	5/16	A-5

DATE DRILLED	6/10/15	BORING NO.	B-3
GROUND ELEVATION	630' ± (MSL)	SHEET 2 OF 2	
METHOD OF DRILLING	8" Hollow-Stem Auger (Geoboden)		
DRIVE WEIGHT	140 lbs. (Auto. Trip Hammer)	DROP	30"
SAMPLED BY	SCM	LOGGED BY SCM	REVIEWED BY GMC

DEPTH (feet)	SAMPLES Bulk	SAMPLES Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
40			61				SP-SM	ALLUVIUM: (Continued) Reddish gray, moist, very dense, poorly graded SAND with silt; few to little gravel.
			34				ML	Reddish gray, moist, medium dense, SILT with sand; trace gravel; oxidation staining.
50			60					Very dense; few to little gravel; interbeds of silty clay; oxidation staining.
								Total Depth = 51.5 feet. Groundwater was not encountered during drilling. Backfilled with on-site soil and capped with rapid-set concrete on 6/10/15. Note: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
60								
70								
80								

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COLFAX CHARTER ELEMENTARY SCHOOL MODERNIZATION
11724 ADDISON STREET, VALLEY VILLAGE, CALIFORNIA

PROJECT NO.	DATE	FIGURE
209381010	5/16	A-6

DATE DRILLED 6/10/15 BORING NO. B-4

GROUND ELEVATION 632' ± (MSL) SHEET 1 OF 3

METHOD OF DRILLING 8" Hollow-Stem Auger (Geoboden)

DRIVE WEIGHT 140 lbs. (Auto. Trip Hammer) DROP 30"

SAMPLED BY FR LOGGED BY FR REVIEWED BY GMC

DEPTH (feet)	SAMPLES Bulk	SAMPLES Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
0							GP	ASPHALT CONCRETE: Approximately 3 inches thick.
							SM	AGGREGATE BASE: Reddish brown, moist, medium dense, poorly graded GRAVEL with clay; approximately 4 inches thick.
							SM	FILL: Yellowish brown, moist, medium dense, silty SAND.
			8	2.6	90.5		SP-SM	ALLUVIUM: Yellowish brown, moist, loose, silty SAND; pockets of clay.
								Dark brown, moist, loose, poorly graded SAND with silt; trace gravel.
10			12					Yellowish brown; medium dense.
			22	5.5	98.4		SM	Dark brown, moist, medium dense, silty SAND; oxidation staining.
20			24				ML	Light brown, moist, dense, sandy SILT.
			34	3.1	100.7			Yellowish light brown; medium dense.
30			38					Light brown; very dense; decrease in silt content.
			30					Brown; dense.
40								

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COLFAX CHARTER ELEMENTARY SCHOOL MODERNIZATION
11724 ADDISON STREET, VALLEY VILLAGE, CALIFORNIA

PROJECT NO.	DATE	FIGURE
209381010	5/16	A-7

DATE DRILLED 6/10/15	BORING NO. B-4	
GROUND ELEVATION 632' ± (MSL)	SHEET 2 OF 3	
METHOD OF DRILLING 8" Hollow-Stem Auger (Geoboden)		
DRIVE WEIGHT 140 lbs. (Auto. Trip Hammer)	DROP 30"	
SAMPLED BY FR	LOGGED BY FR	REVIEWED BY GMC

DEPTH (feet)	SAMPLES Bulk	SAMPLES Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
40		■	20				SM	ALLUVIUM: (Continued) Light brown, moist, medium dense, silty SAND; caliche.
		■	50/6"					Brown; very dense; oxidation staining.
50		■	50/6"				SP-SM	Yellowish brown, moist, very dense, poorly graded SAND with silt and gravel.
								Difficult drilling; gravel interbed.
		■	50/6"					Light grayish brown; few gravel.
								Gravel.
60		■	50/6"				CL	Brown, moist, hard, silty CLAY; few gravel; increase in moisture. @60': Switched to downhole hammer with spooling head.
		■	23					Very stiff.
70		■	17					Mottled brown and gray.
		■	14				SM	Yellowish brown, moist, medium dense, silty SAND; trace gravel.
80								

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COLFAX CHARTER ELEMENTARY SCHOOL MODERNIZATION
11724 ADDISON STREET, VALLEY VILLAGE, CALIFORNIA

PROJECT NO.	DATE	FIGURE
209381010	5/16	A-8

DATE DRILLED 6/10/15 BORING NO. B-4

GROUND ELEVATION 632' ± (MSL) SHEET 3 OF 3

METHOD OF DRILLING 8" Hollow-Stem Auger (Geoboden)

DRIVE WEIGHT 140 lbs. (Auto. Trip Hammer) DROP 30"

SAMPLED BY FR LOGGED BY FR REVIEWED BY GMC

DEPTH (feet)	SAMPLES Bulk	SAMPLES Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
80		◣	23				SM	ALLUVIUM: (Continued) Yellowish brown, moist, medium dense, silty SAND; trace gravel.
		◣	30					Brown; oxidation staining.
90		◣	33					Mottled gray and brown; dense.
		◣	31					
100								
110								
120								

Total Depth = 96.5 feet.
Groundwater was not encountered during drilling.
Backfilled with on-site soil and capped with rapid-set concrete on 6/10/15.

Note:
Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.

The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.

DATE DRILLED 6/10/15 BORING NO. B-5

GROUND ELEVATION 630' ± (MSL) SHEET 1 OF 1

METHOD OF DRILLING 8" Hollow-Stem Auger (Geoboden)

DRIVE WEIGHT 140 lbs. (Auto. Trip Hammer) DROP 30"

SAMPLED BY FR LOGGED BY FR REVIEWED BY GMC

DEPTH (feet)	SAMPLES Bulk	SAMPLES Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
0							SM	ASPHALT CONCRETE: Approximately 3½ inches thick.
							SM	FILL: Brown, moist, medium dense, silty SAND.
								ALLUVIUM: Brown, moist, loose, silty SAND.
			4	6.1	90.5		SP	Light brown, moist, loose, poorly graded SAND.
10			9				ML	Brown, moist, medium dense, sandy SILT.
								Total Depth = 11.5 feet. Groundwater was not encountered during drilling. Backfilled with on-site soil on 6/10/15.
								Note: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
20								The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
30								
40								

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COLFAX CHARTER ELEMENTARY SCHOOL MODERNIZATION
11724 ADDISON STREET, VALLEY VILLAGE, CALIFORNIA

PROJECT NO.	DATE	FIGURE
209381010	5/16	A-10

DEPTH (feet)	SAMPLES Bulk	SAMPLES Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
0							SM	ASPHALT CONCRETE: Approximately 3.5 inches thick.
							SM	FILL: Grayish brown, moist, loose to medium dense, silty SAND; few gravel.
								ALLUVIUM: Brown, dry to moist, loose, silty SAND; fine sand.
			14					
							ML	Light brown, moist, loose, sandy SILT; fine sand.
10			5					
			11	10.1	93.7			Pockets of sand.
20			17					Medium dense.
								Brown.
			36					
								Oxidation staining.
30			19					Dark brown; very stiff; clayey.
			40					Hard.
							SP	Yellow, moist, dense, poorly graded SAND; trace gravel.
40								

DATE DRILLED 3/23/16 BORING NO. B-6

GROUND ELEVATION ± (MSL) SHEET 1 OF 2

METHOD OF DRILLING 8" Hollow-Stem Auger (Geoboden)

DRIVE WEIGHT 140 lbs. (Auto. Trip Hammer) DROP 30"

SAMPLED BY FR LOGGED BY FR REVIEWED BY RDH

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BORING LOG

COLFAX CHARTER ELEMENTARY SCHOOL MODERNIZATION
11724 ADDISON STREET, VALLEY VILLAGE, CALIFORNIA

PROJECT NO.	DATE	FIGURE
209381010	5/16	A-11

DEPTH (feet)	SAMPLES Bulk	SAMPLES Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 3/23/16 BORING NO. B-6 GROUND ELEVATION ± (MSL) SHEET 2 OF 2 METHOD OF DRILLING 8" Hollow-Stem Auger (Geoboden) DRIVE WEIGHT 140 lbs. (Auto. Trip Hammer) DROP 30" SAMPLED BY FR LOGGED BY FR REVIEWED BY RDH DESCRIPTION/INTERPRETATION
40			31				SP	ALLUVIUM (Continued): Yellow, moist, dense, poorly graded SAND; trace gravel.
								Total Depth = 41.5 feet. Groundwater was not encountered during drilling. Backfilled with on-site soil and capped with rapid set concrete on 3/23/ 16. NOTES: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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60								
70								
80								

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COLFAX CHARTER ELEMENTARY SCHOOL MODERNIZATION
11724 ADDISON STREET, VALLEY VILLAGE, CALIFORNIA

PROJECT NO.	DATE	FIGURE
209381010	5/16	A-12

DATE DRILLED 3/23/16	BORING NO. B-7	
GROUND ELEVATION ± (MSL)	SHEET 1 OF 2	
METHOD OF DRILLING 8" Hollow-Stem Auger (Geoboden)		
DRIVE WEIGHT 140 lbs. (Auto. Trip Hammer)	DROP 30"	
SAMPLED BY FR	LOGGED BY FR	REVIEWED BY RDH

DEPTH (feet)	SAMPLES Bulk	SAMPLES Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
0							SM	ASPHALT CONCRETE: Approximately 3 inches thick.
							SM	FILL: Grayish brown, moist, medium dense, silty SAND; few gravel.
	X							ALLUVIUM: Brown, moist, loose, silty SAND; fine sand content.
		X	7	4.7	105.8			
10		X	5				ML	Light brown, moist, loose, sandy silt.
		X	15				SM	Light brown, moist, medium dense, silty SAND.
20		X	12					Trace clay.
		X	28				ML	Yellowish brown, moist, medium dense, sandy SILT; fine to medium SAND.
30		X	24					Brown; hard; clayey.
		X	22	21.8	101.9			Very stiff; interbedded clay.
40								

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COLFAX CHARTER ELEMENTARY SCHOOL MODERNIZATION
11724 ADDISON STREET, VALLEY VILLAGE, CALIFORNIA

PROJECT NO.	DATE	FIGURE
209381010	5/16	A-13

DATE DRILLED	3/23/16	BORING NO.	B-7
GROUND ELEVATION	± (MSL)	SHEET 2	OF 2
METHOD OF DRILLING	8" Hollow-Stem Auger (Geoboden)		
DRIVE WEIGHT	140 lbs. (Auto. Trip Hammer)	DROP	30"
SAMPLED BY	FR	LOGGED BY FR	REVIEWED BY RDH

DEPTH (feet)	SAMPLES Bulk	SAMPLES Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
40		◣	17				ML	ALLUVIUM (Continued): Reddish brown, moist, very stiff, clayey SILT; pockets of sand; oxidation staining.
								Total Depth = 41.5 feet. Groundwater was not encountered during drilling. Backfilled with on-site soil and capped with rapid-set concrete on 3/26 16.
								NOTES: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report.
50								The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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COLFAX CHARTER ELEMENTARY SCHOOL MODERNIZATION
11724 ADDISON STREET, VALLEY VILLAGE, CALIFORNIA

PROJECT NO.	DATE	FIGURE
209381010	5/16	A-14

DATE DRILLED	3/23/16	BORING NO.	B-8
GROUND ELEVATION	± (MSL)	SHEET 1 OF 2	
METHOD OF DRILLING	8" Hollow-Stem Auger (Geoboden)		
DRIVE WEIGHT	140 lbs. (Auto. Trip Hammer)	DROP	30"
SAMPLED BY FR	LOGGED BY FR	REVIEWED BY RDH	

DEPTH (feet)	SAMPLES Bulk	SAMPLES Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
0								ASPHALT CONCRETE: Approximately 4 inches thick.
							GP	BASE: Gray, dry, loose, poorly graded GRAVEL with sand; approximately 4 inches thick.
	X						SM	ALLUVIUM: Yellowish brown, moist, loose, silty SAND; trace gravel; fine sand.
		X	9					
10		X	13					Medium dense.
		X	20	3.6	97.4			Roots; pinhole porosity; increase in silt.
20		X	34					Very dense; no roots observed; no pinhole porosity observed.
		X	66				ML	Yellowish brown, dry, dense, sandy SILT.
								Pale brown; hard; clayey; trace oxidation staining.
30		X	38					
		X	37	6.9	97.3		ML	Light brown, dry, dense, sandy SILT.
							SP	Yellow, dry, very dense, poorly graded SAND; trace gravel.
40								

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COLFAX CHARTER ELEMENTARY SCHOOL MODERNIZATION
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PROJECT NO.	DATE	FIGURE
209381010	5/16	A-15

DEPTH (feet)	SAMPLES Bulk	SAMPLES Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
40		◤	48				SP	ALLUVIUM (Continued): Yellow, dry, very dense, poorly graded SAND; few gravel.
								Total Depth = 41.5 feet. Groundwater was not encountered during drilling. Backfilled with on-site soil and capped with rapid-set concrete on 3/23 16. NOTES: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
50								
60								
70								
80								

DATE DRILLED 3/23/16 BORING NO. B-8

GROUND ELEVATION ± (MSL) SHEET 2 OF 2

METHOD OF DRILLING 8" Hollow-Stem Auger (Geoboden)

DRIVE WEIGHT 140 lbs. (Auto. Trip Hammer) DROP 30"

SAMPLED BY FR LOGGED BY FR REVIEWED BY RDH

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COLFAX CHARTER ELEMENTARY SCHOOL MODERNIZATION
11724 ADDISON STREET, VALLEY VILLAGE, CALIFORNIA

PROJECT NO.	DATE	FIGURE
209381010	5/16	A-16

DATE DRILLED	3/23/16	BORING NO.	B-9
GROUND ELEVATION	± (MSL)	SHEET	1 OF 1
METHOD OF DRILLING	8" Hollow-Stem Auger (Geoboden)		
DRIVE WEIGHT	140 lbs. (Auto. Trip Hammer)	DROP	30"
SAMPLED BY	FR	LOGGED BY	FR
REVIEWED BY	RDH		

DEPTH (feet)	SAMPLES Bulk	SAMPLES Driven	BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
0							SM	ASPHALT CONCRETE: Approximately 2 inches thick.
							SM	BASE: Grayish brown, moist, loose to medium dense, silty SAND; few gravel; approximately 9 inches thick.
							SM	FILL: Yellowish brown, moist, medium dense, silty SAND.
			8	6.6	88.1			ALLUVIUM: Brown, moist, loose, silty SAND; fine sand content.
								Total Depth = 6.5 feet. Groundwater was not encountered during drilling. Backfilled with on-site soil and capped with rapid-set concrete on 3/23/16.
10								NOTES: Groundwater, though not encountered at the time of drilling, may rise to a higher level due to seasonal variations in precipitation and several other factors as discussed in the report. The ground elevation shown above is an estimation only. It is based on our interpretations of published maps and other documents reviewed for the purposes of this evaluation. It is not sufficiently accurate for preparing construction bids and design documents.
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30								
40								

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COLFAX CHARTER ELEMENTARY SCHOOL MODERNIZATION
11724 ADDISON STREET, VALLEY VILLAGE, CALIFORNIA

PROJECT NO.	DATE	FIGURE
209381010	5/16	A-17

APPENDIX B

LABORATORY TESTING

In-Place Moisture and Density Tests
The moisture content and dry density of relatively undisturbed samples obtained from the exploratory excavations were evaluated in general accordance with ASTM D 2937. The test results are presented on the logs of the exploratory excavations in Appendix A.

Classification
Soils were visually and texturally classified in accordance with the Unified Soil Classification System (USCS) in general accordance with ASTM D 2488. Soil classifications are indicated on the logs of the exploratory excavations in Appendix A.

200 Wash
An evaluation of the percentage of particles finer than the No. 200 sieve in selected soil samples was performed in general accordance with ASTM D 1140. The results of the tests are presented on Figure B-1. These test results were utilized in evaluating the soil classifications in accordance with the Unified Soil Classification System (USCS).

Gradation Analysis
Gradation analysis testing was performed on selected representative soil samples in general accordance with ASTM D 422. The grain-size distribution curves are shown on Figures B-2 through B-9. The test results were utilized in evaluating the soil classifications in accordance with the Unified Soil Classification System (USCS).

Atterberg Limits
Testing was performed on selected representative fine-grained soil samples to evaluate the liquid limit, plastic limit, and plasticity index in general accordance with ASTM D 4318. The test results were utilized to evaluate the soil classification in accordance with the Unified Soil Classification System (USCS). The test results and classifications are shown on Figures B-10 and B-11.

Expansion Index Tests
The expansion index of selected materials was evaluated in general accordance with Uniform Building Code (UBC) Standard No. 18-2 (ASTM D 4829). A specimen was molded under a specified compactive energy at approximately 50 percent saturation (plus or minus 1 percent). The prepared 1-inch thick by 4-inch diameter specimen was loaded with a surcharge of 144 pounds per square foot and were inundated with tap water. Readings of volumetric swell were made for a period of 24 hours. The results of this test are presented on Figure B-12.

Direct Shear Tests
Direct shear tests were performed on undisturbed samples in general accordance with ASTM D 3080 to evaluate the shear strength characteristics of selected materials. The samples were

inundated during shearing to represent adverse field conditions. The results are shown on Figures B-13 through B-17.

Consolidation Test

A consolidation test was performed on a selected relatively undisturbed soil sample in general accordance with ASTM D 2435. The sample was inundated during testing to represent adverse field conditions. The percent of consolidation for each load cycle was recorded as a ratio of the amount of vertical compression to the original height of the sample. The results of the test are summarized on Figure B-18.

Hydro-Collapse Potential Test

Collapse potential tests were performed on a selected relatively undisturbed soil samples in general accordance with ASTM D 5333. The sample was inundated during testing to represent adverse field conditions. The percent of consolidation for each load cycle was recorded as a ratio of the amount of vertical compression to the original height of the sample. The results of the test are summarized on Figures B-19 and B-20.

R-Value

The resistance value, or R-value, for site soils was evaluated in general accordance with California Test (CT) 301. Samples were prepared and evaluated for exudation pressure and expansion pressure. The equilibrium R-value is reported as the lesser or more conservative of the two calculated results. The test results are shown on Figure B-21.

Soil Corrosivity Tests

Soil pH, and resistivity tests were performed on a representative samples in general accordance with CT 643. The soluble sulfate and chloride content of the selected sample was evaluated in general accordance with CT 417 and CT 422, respectively. The test results are presented on Figure B-22.

SAMPLE LOCATION	SAMPLE DEPTH (FT)	DESCRIPTION	PERCENT PASSING NO. 4	PERCENT PASSING NO. 200	USCS (TOTAL SAMPLE)
B-1	35.0-36.5	CLAY WITH SAND	100	75	CL
B-2	25.0-26.5	SILT WITH SAND	100	71	ML
B-3	20.0-21.5	SILTY SAND	100	25	SM
B-3	45.0-46.5	SILT WITH SAND	100	74	ML
B-4	10.0-11.5	POORLY GRADED SAND WITH SILT	93	6	SP-SM
B-4	20.0-21.5	SANDY SILT	100	59	ML
B-4	30.0-31.5	SILT WITH SAND	100	84	ML
B-4	40.0-41.5	SILTY SAND	99	37	SM
B-4	50.0-51.5	POORLY GRADED SAND WITH SILT AND GRAVEL	79	10	SP-SM

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 1140

Ninyo & Moore

NO. 200 SIEVE ANALYSIS

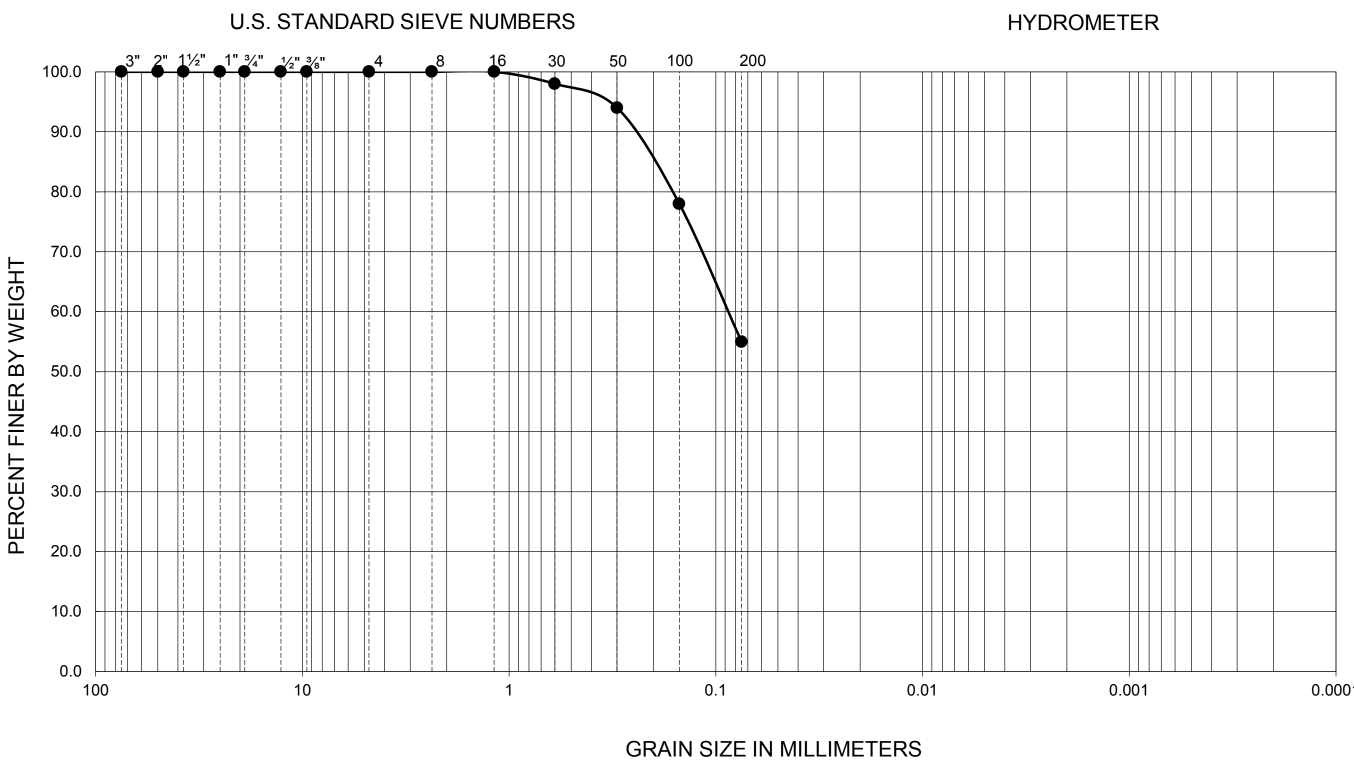
FIGURE

B-1

PROJECT NO.	DATE
209381010	5/16

COLFAX CHARTER ELEMENTARY SCHOOL MODERNIZATION
11724 ADDISON STREET
VALLEY VILLAGE, CALIFORNIA

GRAVEL		SAND			FINES	
Coarse	Fine	Coarse	Medium	Fine	SILT	CLAY

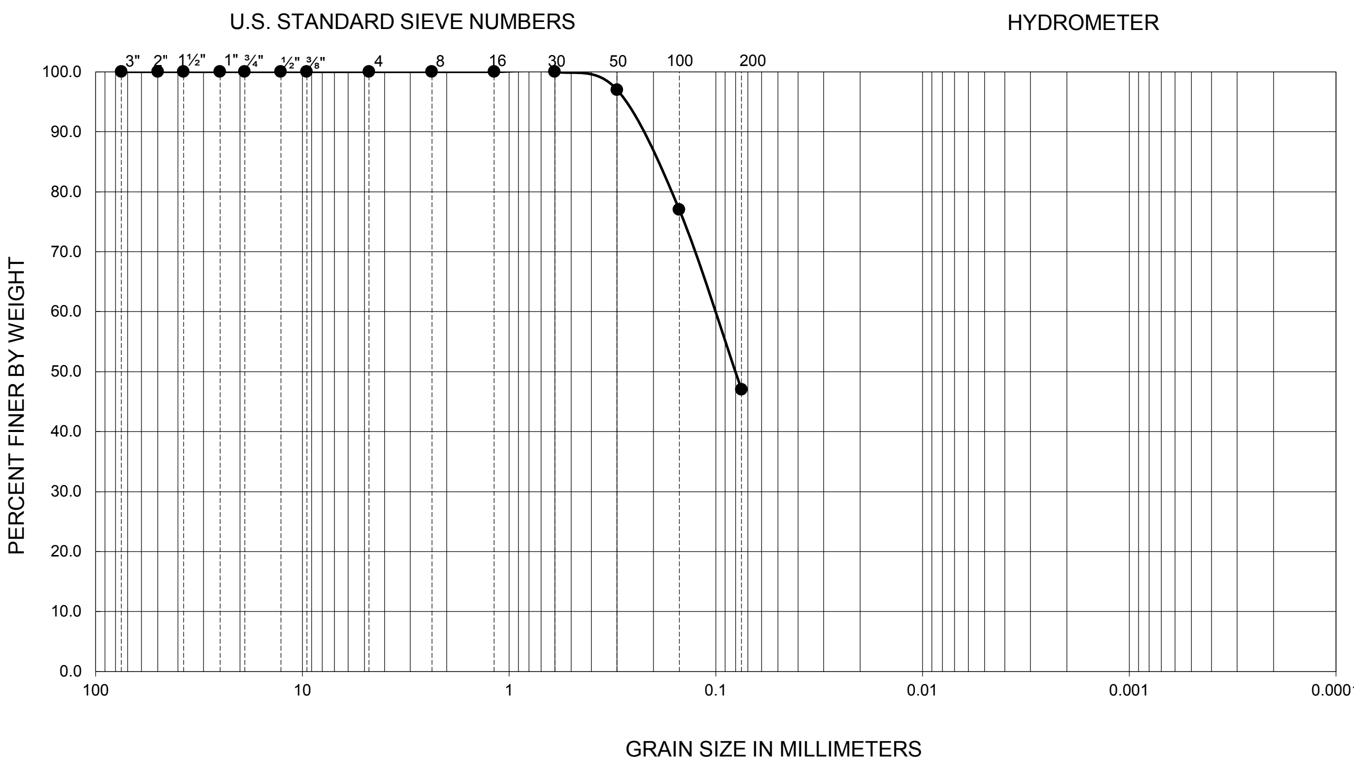


Symbol	Sample Location	Depth (ft)	Liquid Limit	Plastic Limit	Plasticity Index	D_{10}	D_{30}	D_{60}	C_u	C_c	Passing No. 200 (%)	USCS
●	B-3	15.0-16.5	--	--	--	--	--	--	--	--	55	ML

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 422

Ninyo & Moore	GRADATION TEST RESULTS	FIGURE
PROJECT NO. / DATE	COLFAX CHARTER ELEMENTARY SCHOOL MODERNIZATION 11724 ADDISON STREET VALLEY VILLAGE, CALIFORNIA	B-2
209381010 / 5/16		

GRAVEL		SAND			FINES	
Coarse	Fine	Coarse	Medium	Fine	SILT	CLAY



Symbol	Sample Location	Depth (ft)	Liquid Limit	Plastic Limit	Plasticity Index	D_{10}	D_{30}	D_{60}	C_u	C_c	Passing No. 200 (%)	USCS
●	B-3	25.0-26.5	--	--	--	--	--	--	--	--	47	SM

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 422

Ninyo & Moore

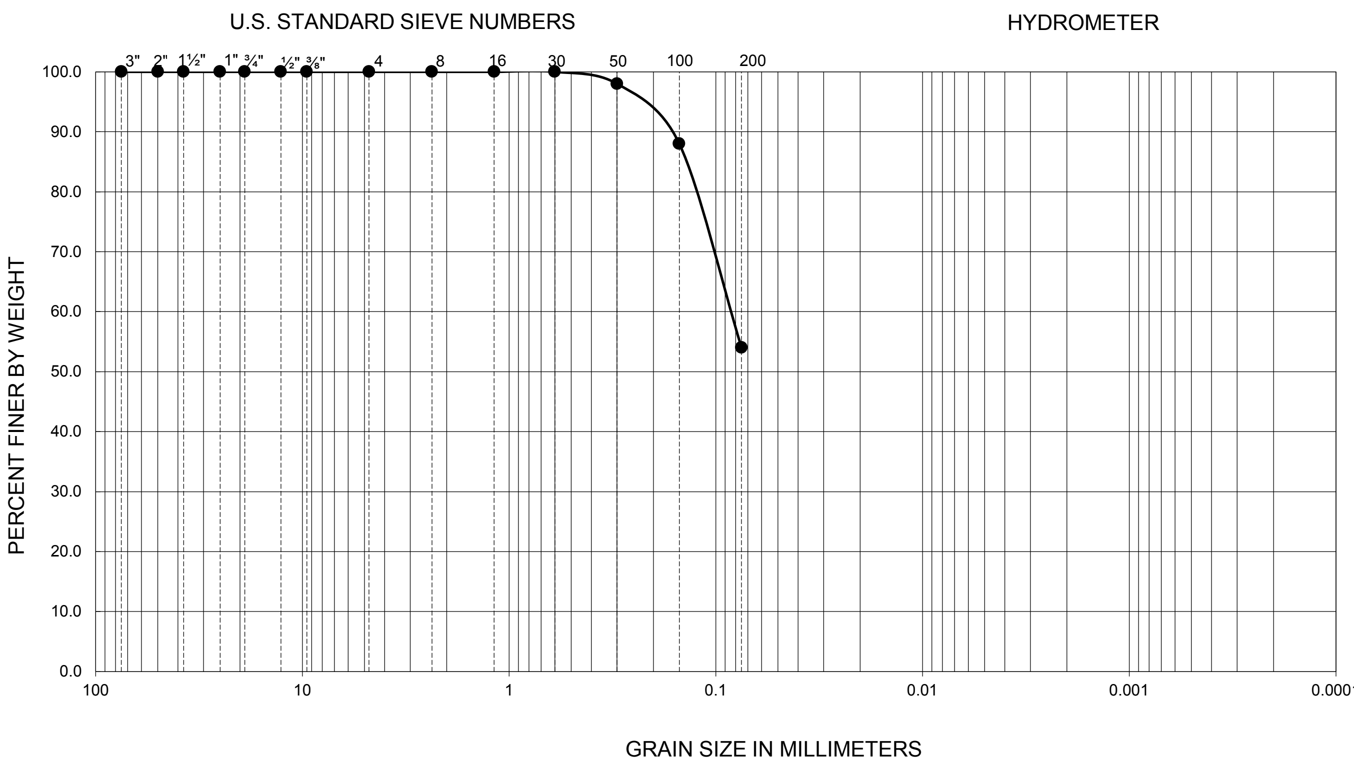
GRADATION TEST RESULTS

PROJECT NO.	DATE
209381010	5/16

COLFAX CHARTER ELEMENTARY SCHOOL MODERNIZATION
11724 ADDISON STREET
VALLEY VILLAGE, CALIFORNIA

FIGURE
B-3

GRAVEL		SAND			FINES	
Coarse	Fine	Coarse	Medium	Fine	SILT	CLAY

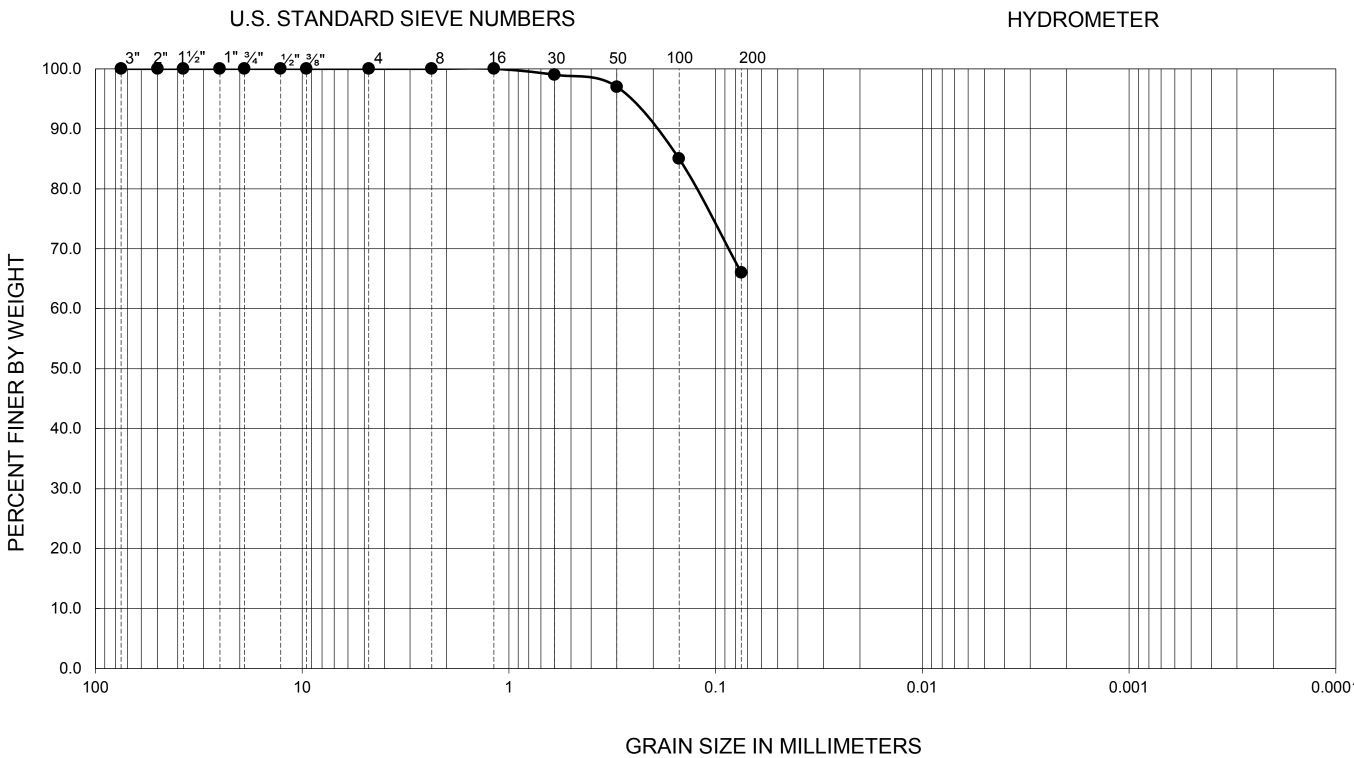


Symbol	Sample Location	Depth (ft)	Liquid Limit	Plastic Limit	Plasticity Index	D_{10}	D_{30}	D_{60}	C_u	C_c	Passing No. 200 (%)	USCS
●	B-4	25.0-26.5	--	--	--	--	--	--	--	--	54	ML

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 422

Ninyo & Moore	GRADATION TEST RESULTS	FIGURE
PROJECT NO. / DATE	COLFAX CHARTER ELEMENTARY SCHOOL MODERNIZATION 11724 ADDISON STREET VALLEY VILLAGE, CALIFORNIA	B-4
209381010 / 5/16		

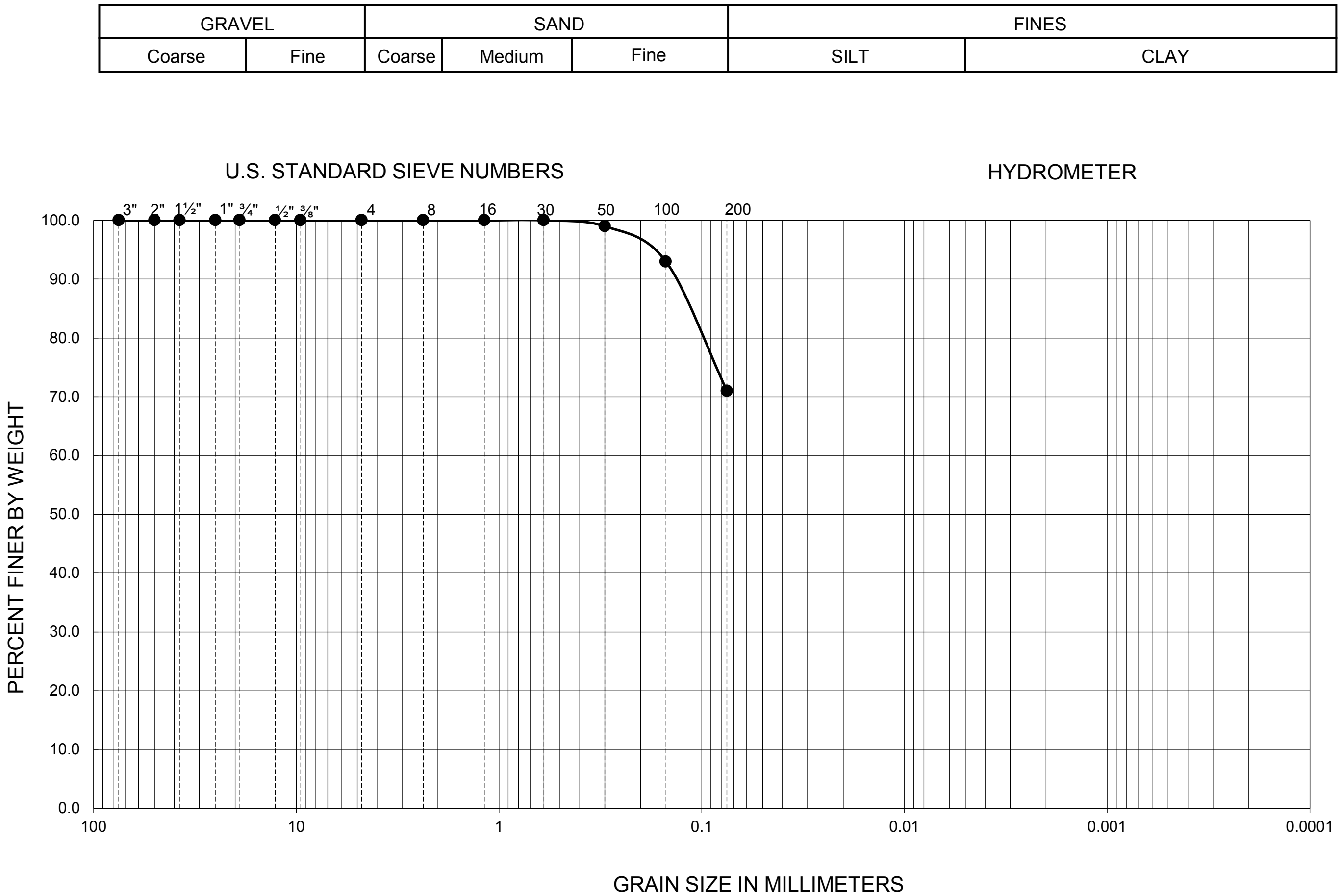
GRAVEL		SAND			FINES	
Coarse	Fine	Coarse	Medium	Fine	SILT	CLAY



Symbol	Sample Location	Depth (ft)	Liquid Limit	Plastic Limit	Plasticity Index	D_{10}	D_{30}	D_{60}	C_u	C_c	Passing No. 200 (%)	USCS
●	B-6	10.0-11.5	--	--	--	--	--	--	--	--	66	ML

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 422

Ninyo & Moore		GRADATION TEST RESULTS	FIGURE
PROJECT NO.	DATE	COLFAX CHARTER ELEMENTARY SCHOOL MODERNIZATION 11724 ADDISON STREET VALLEY VILLAGE, CALIFORNIA	B-5
209381010	5/16		

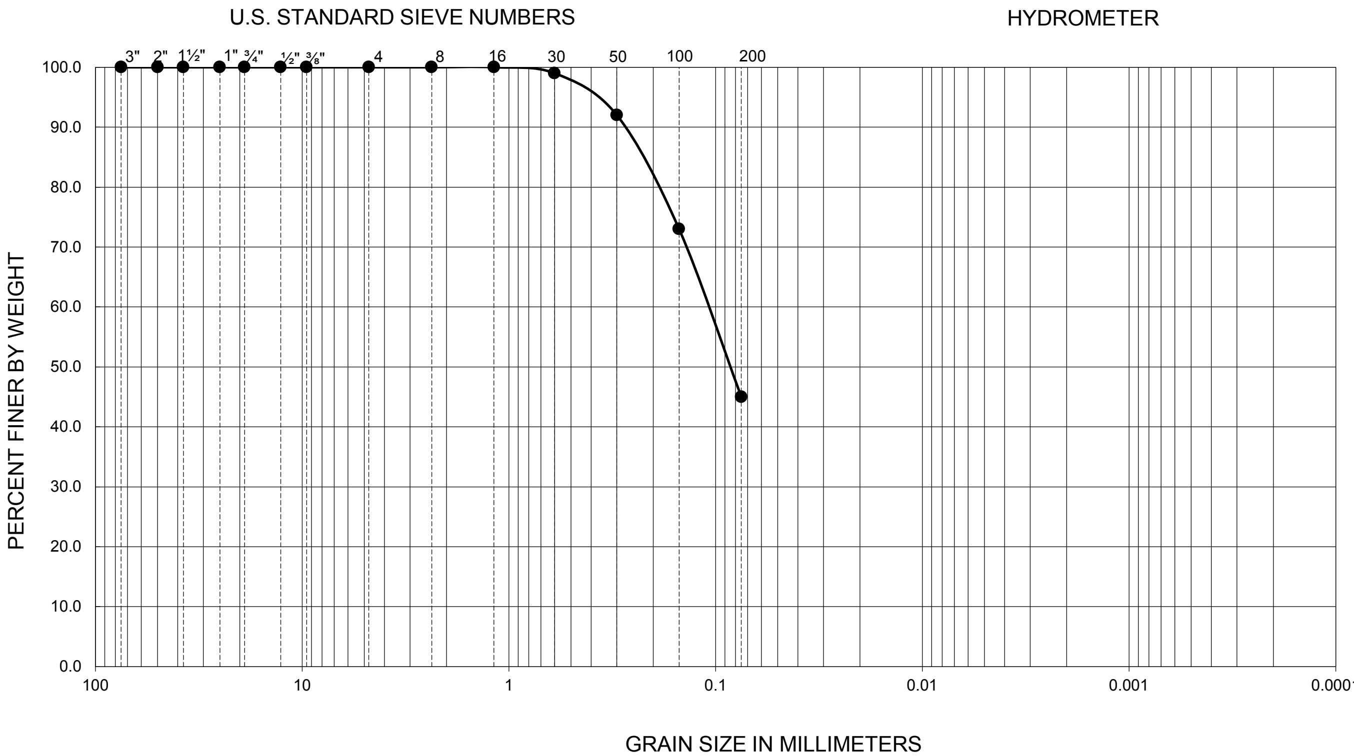


Symbol	Sample Location	Depth (ft)	Liquid Limit	Plastic Limit	Plasticity Index	D_{10}	D_{30}	D_{60}	C_u	C_c	Passing No. 200 (%)	USCS
●	B-6	25.0-26.5	--	--	--	--	--	--	--	--	71	ML

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 422

Ninyo & Moore		GRADATION TEST RESULTS	FIGURE
PROJECT NO.	DATE	COLFAX CHARTER ELEMENTARY SCHOOL MODERNIZATION 11724 ADDISON STREET VALLEY VILLAGE, CALIFORNIA	B-6
209381010	5/16		

GRAVEL		SAND			FINES	
Coarse	Fine	Coarse	Medium	Fine	SILT	CLAY

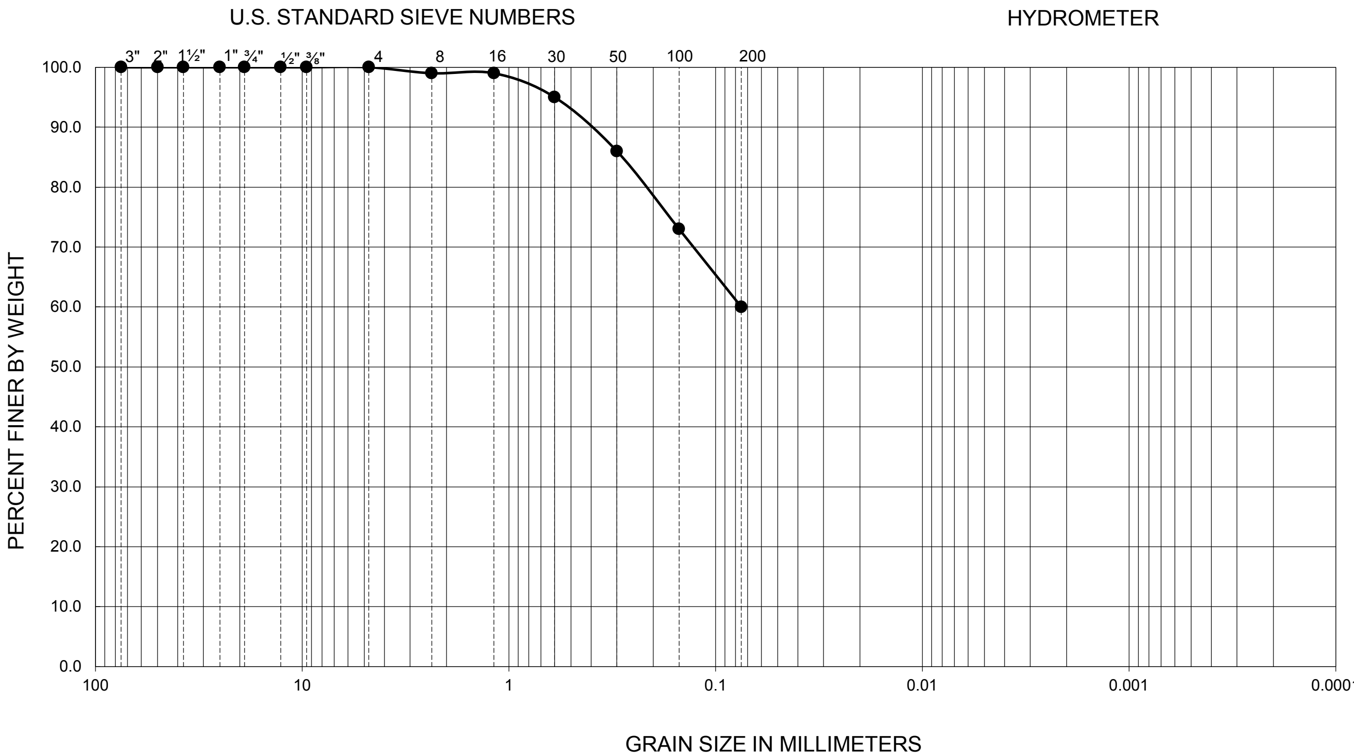


Symbol	Sample Location	Depth (ft)	Liquid Limit	Plastic Limit	Plasticity Index	D_{10}	D_{30}	D_{60}	C_u	C_c	Passing No. 200 (%)	USCS
●	B-7	15.0-16.5	23	23	0	--	--	--	--	--	45	SM

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 422

Ninyo & Moore		GRADATION TEST RESULTS	FIGURE
PROJECT NO.	DATE	COLFAX CHARTER ELEMENTARY SCHOOL MODERNIZATION 11724 ADDISON STREET VALLEY VILLAGE, CALIFORNIA	B-7
209381010	5/16		

GRAVEL		SAND			FINES	
Coarse	Fine	Coarse	Medium	Fine	SILT	CLAY

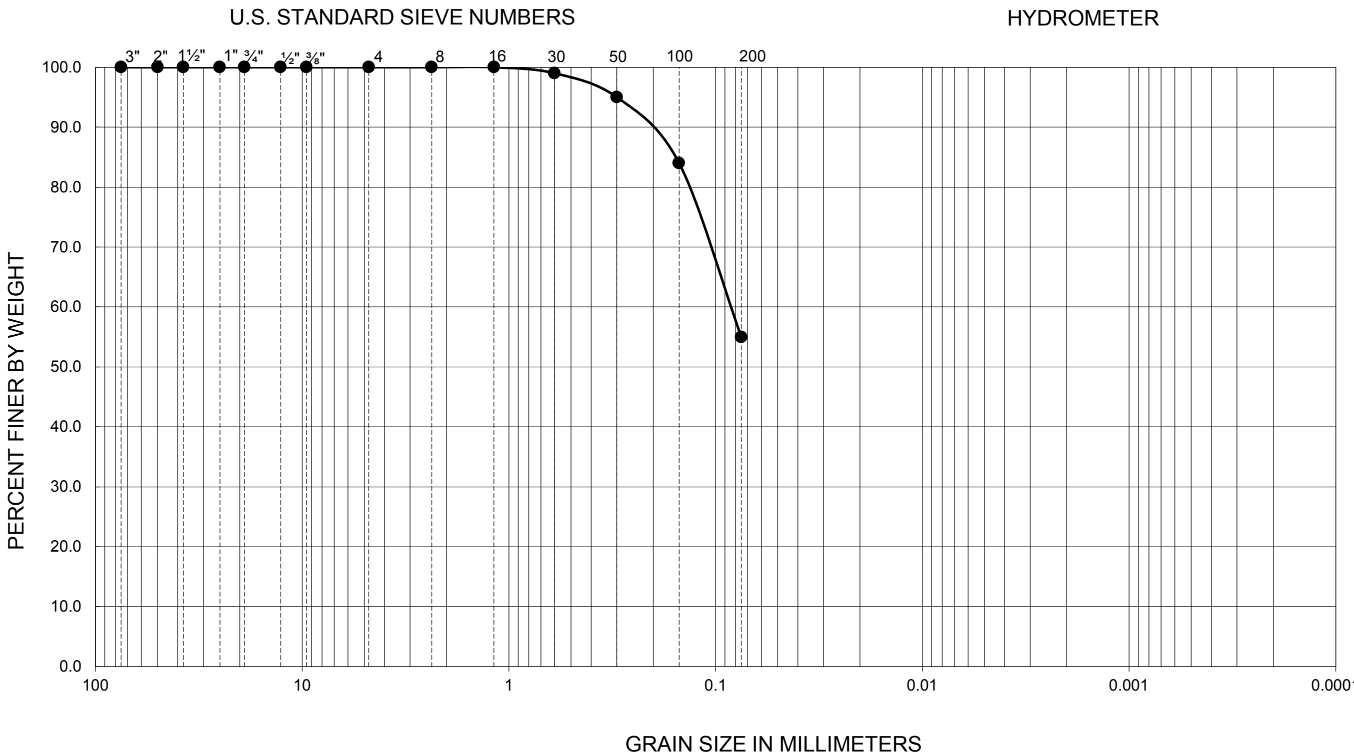


Symbol	Sample Location	Depth (ft)	Liquid Limit	Plastic Limit	Plasticity Index	D_{10}	D_{30}	D_{60}	C_u	C_c	Passing No. 200 (%)	USCS
●	B-7	25.0-26.5	--	--	--	--	--	--	--	--	60	ML

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 422

Ninyo & Moore		GRADATION TEST RESULTS	FIGURE
PROJECT NO.	DATE	COLFAX CHARTER ELEMENTARY SCHOOL MODERNIZATION 11724 ADDISON STREET VALLEY VILLAGE, CALIFORNIA	B-8
209381010	5/16		

GRAVEL		SAND			FINES	
Coarse	Fine	Coarse	Medium	Fine	SILT	CLAY



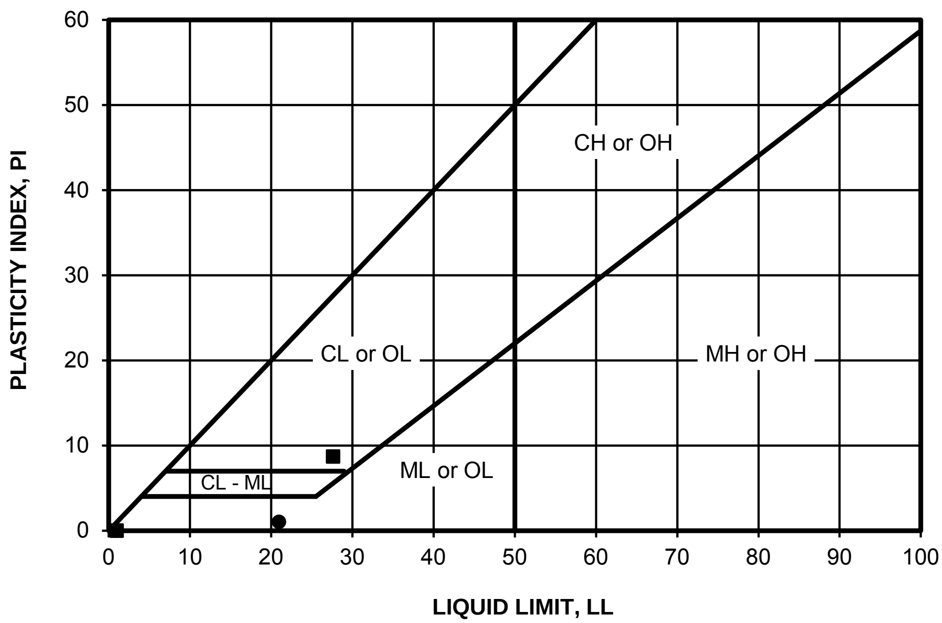
Symbol	Sample Location	Depth (ft)	Liquid Limit	Plastic Limit	Plasticity Index	D_{10}	D_{30}	D_{60}	C_u	C_c	Passing No. 200 (%)	USCS
●	B-8	25.0-26.5	--	--	--	--	--	--	--	--	55	ML

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 422

Ninyo & Moore		GRADATION TEST RESULTS	FIGURE
PROJECT NO.	DATE	COLFAX CHARTER ELEMENTARY SCHOOL MODERNAZTION 11724 ADDISON STREET VALLEY VILLAGE , CALIFORNIA	B-9
209381010	5/16		

SYMBOL	LOCATION	DEPTH (FT)	LIQUID LIMIT, LL	PLASTIC LIMIT, PL	PLASTICITY INDEX, PI	USCS CLASSIFICATION (Fraction Finer Than No. 40 Sieve)	USCS (Entire Sample)
●	B-3	15.0-16.5	21	20	1	ML	ML
■	B-3	30.0-31.5	28	19	9	CL	SC
◆	B-4	15.0-16.5				NP	SM
○	B-4	40.0-41.5				NP	SM

NP - INDICATES NON-PLASTIC



PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 4318

Ninyo & Moore

PROJECT NO. 209381010

DATE 5/16

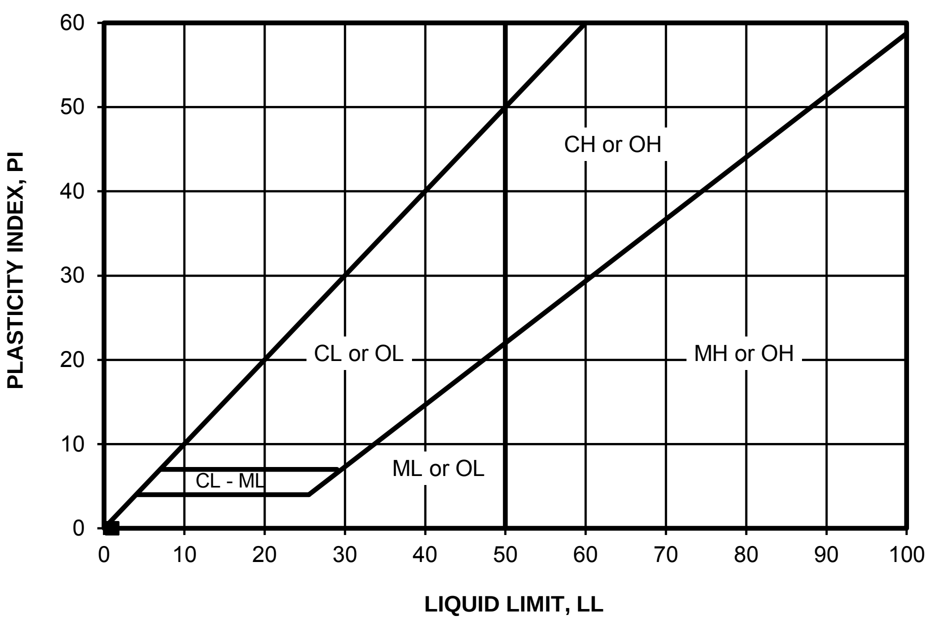
ATTERBERG LIMITS TEST RESULTS

COLFAX CHARTER ELEMENTARY SCHOOL MODERNIZATION
11724 ADDISON STREET
VALLEY VILLAGE, CALIFORNIA

FIGURE **B-10**

SYMBOL	LOCATION	DEPTH (FT)	LIQUID LIMIT, LL	PLASTIC LIMIT, PL	PLASTICITY INDEX, PI	USCS CLASSIFICATION (Fraction Finer Than No. 40 Sieve)	USCS (Entire Sample)
●	B-7	15.0-16.5	23	23	0	ML	SM

NP - INDICATES NON-PLASTIC



PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 4318

Ninyo & Moore	ATTERBERG LIMITS TEST RESULTS	FIGURE
PROJECT NO. 209381010 / DATE 5/16	COLFAX CHARTER ELEMENTARY SCHOOL MODERNIZATION 11724 ADDISON STREET VALLEY VILLAGE, CALIFORNIA	B-11

SAMPLE LOCATION	SAMPLE DEPTH (FT)	INITIAL MOISTURE (%)	COMPACTED DRY DENSITY (PCF)	FINAL MOISTURE (%)	VOLUMETRIC SWELL (IN)	EXPANSION INDEX	POTENTIAL EXPANSION
B-4	0.5-5.0	9.5	111.0	21.3	0.000	0	Very Low
B-7	2.0-5.0	10.0	108.8	24.7	0.000	0	Very Low

PERFORMED IN GENERAL ACCORDANCE WITH ☐ UBC STANDARD 18-2 ☑ ASTM D 4829

Ninyo & Moore

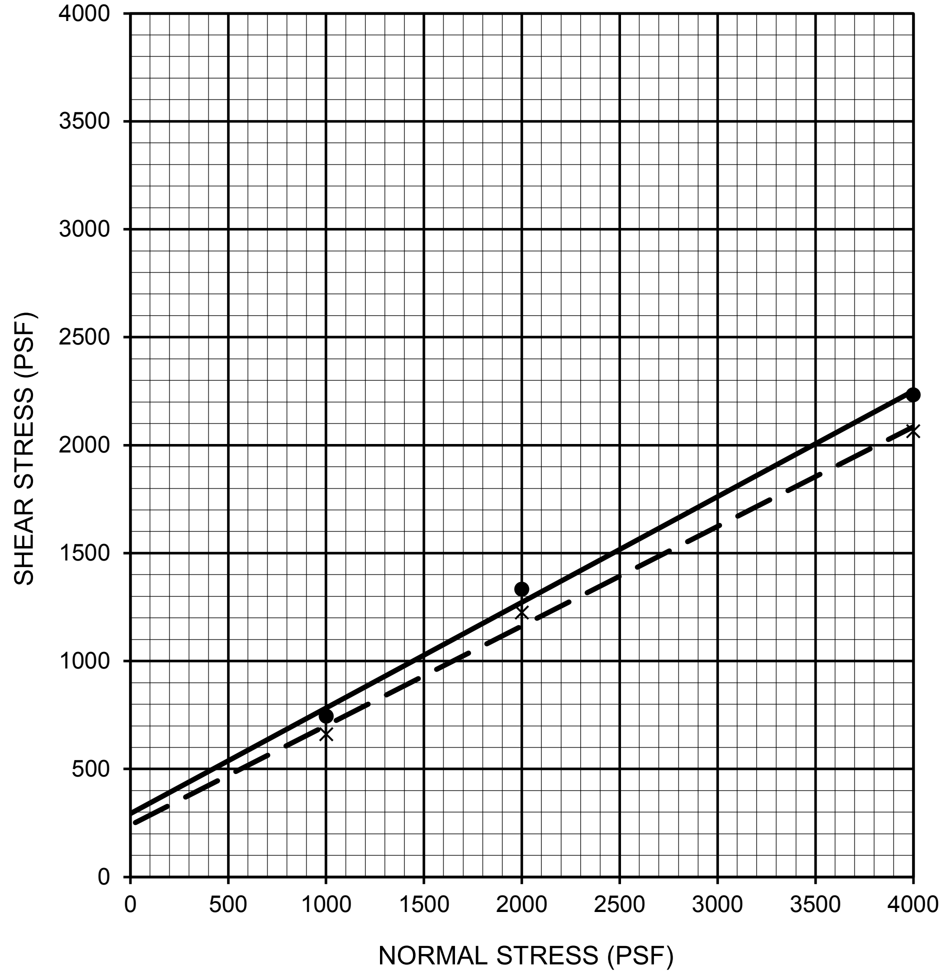
EXPANSION INDEX TEST RESULTS

PROJECT NO.	DATE
209381010	5/16

COLFAX CHARTER ELEMENTARY SCHOOL MODERNIZATION
11724 ADDISON STREET
VALLEY VILLAGE, CALIFORNIA

FIGURE
B-12

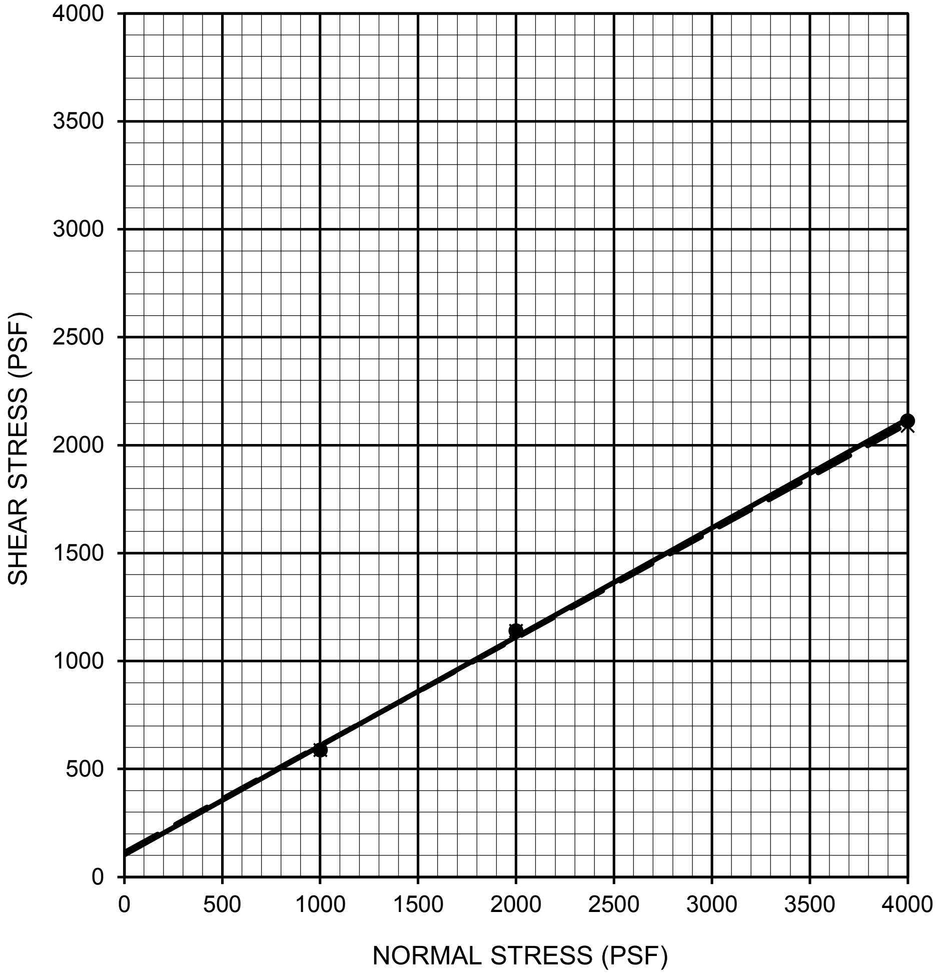
209381010 Fig B-12_EXPANSION B-4 0.5- 5.0_



Description	Symbol	Sample Location	Depth (ft)	Shear Strength	Cohesion, c (psf)	Friction Angle, ϕ (degrees)	Soil Type
SANDY SILT	—●—	B-1	5.0-6.5	Peak	295	26	ML
SANDY SILT	- - x - -	B-1	5.0-6.5	Ultimate	240	25	ML

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 3080

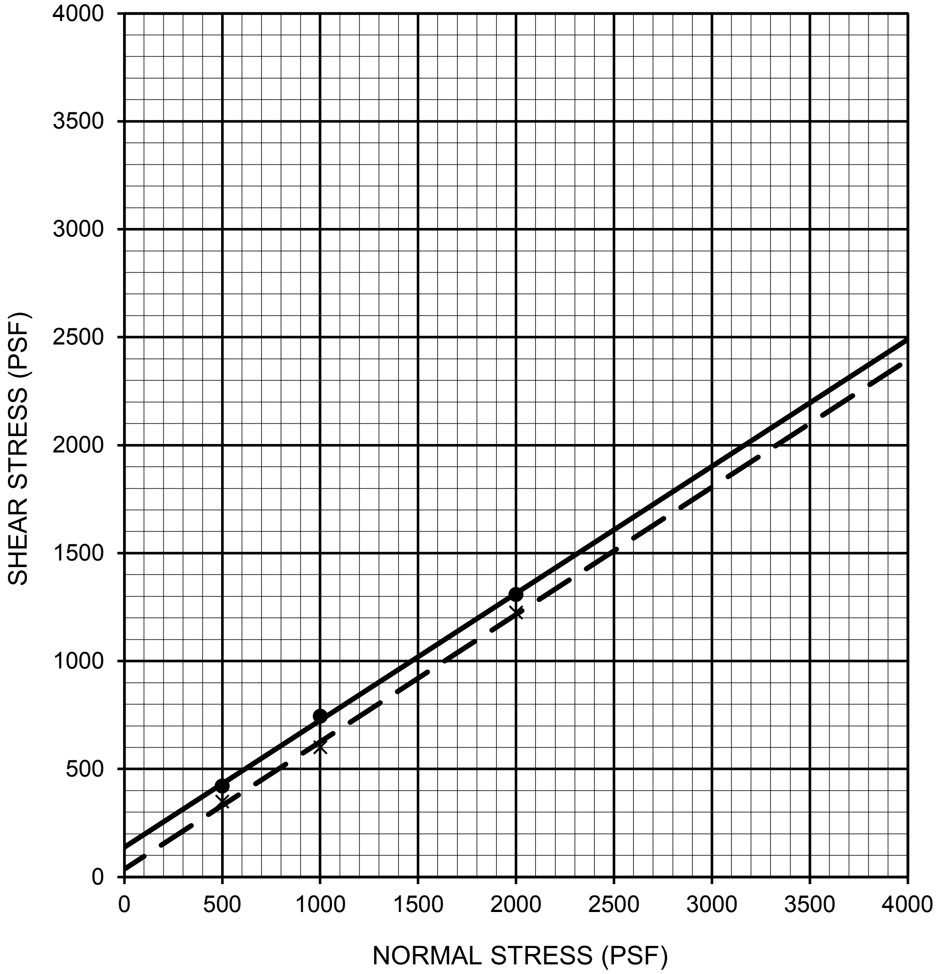
Ninyo & Moore		DIRECT SHEAR TEST RESULTS	FIGURE
PROJECT NO.	DATE	COLFAX CHARTER ELEMENTARY SCHOOL MODERNIZATION 11724 ADDISON STREET VALLEY VILLAGE, CALIFORNIA	B-13
209381010	5/16		



Description	Symbol	Sample Location	Depth (ft)	Shear Strength	Cohesion, c (psf)	Friction Angle, ϕ (degrees)	Soil Type
SANDY SILT	—●—	B-2	10.0-11.5	Peak	100	27	ML
SANDY SILT	- - x - -	B-2	10.0-11.5	Ultimate	115	26	ML

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 3080

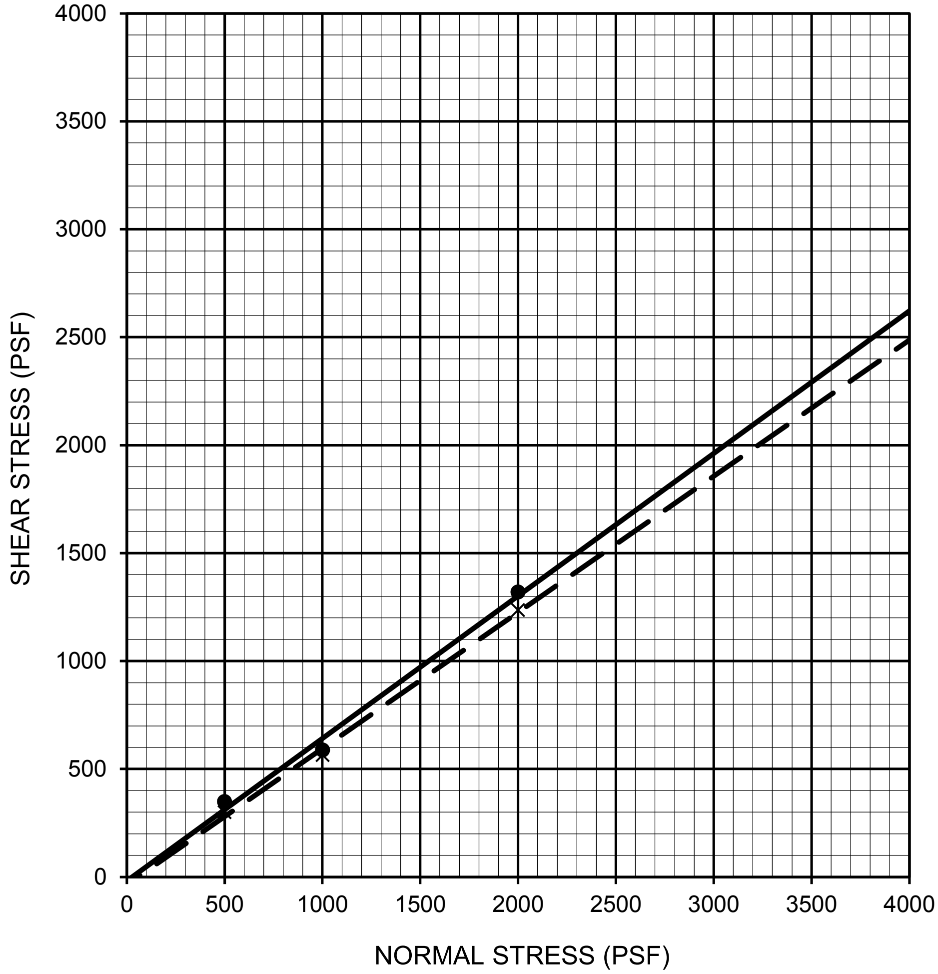
Ninyo & Moore		DIRECT SHEAR TEST RESULTS	FIGURE
PROJECT NO.	DATE	COLFAX CHARTER ELEMENTARY SCHOOL MODERNIZATION 11724 ADDISON STREET VALLEY VILLAGE, CALIFORNIA	B-14
209381010	5/16		



Description	Symbol	Sample Location	Depth (ft)	Shear Strength	Cohesion, c (psf)	Friction Angle, ϕ (degrees)	Soil Type
POORLRY GRADED SAND WITH SILT	—●—	B-4	5.0-6.5	Peak	140	30	SP-SM
POORLRY GRADED SAND WITH SILT	- - x - -	B-4	5.0-6.5	Ultimate	35	31	SP-SM

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 3080

Ninyo & Moore	DIRECT SHEAR TEST RESULTS	FIGURE
PROJECT NO. 209381010 / DATE 5/16	COLFAX CHARTER ELEMENTARY SCHOOL MODERNIZATION 11724 ADDISON STREET VALLEY VILLAGE, CALIFORNIA	B-15



Description	Symbol	Sample Location	Depth (ft)	Shear Strength	Cohesion, c (psf)	Friction Angle, φ (degrees)	Soil Type
SILTY SAND	—●—	B-7	5.0-6.5	Peak	0	33	SM
SILTY SAND	- - x - -	B-7	5.0-6.5	Ultimate	0	32	SM

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 3080

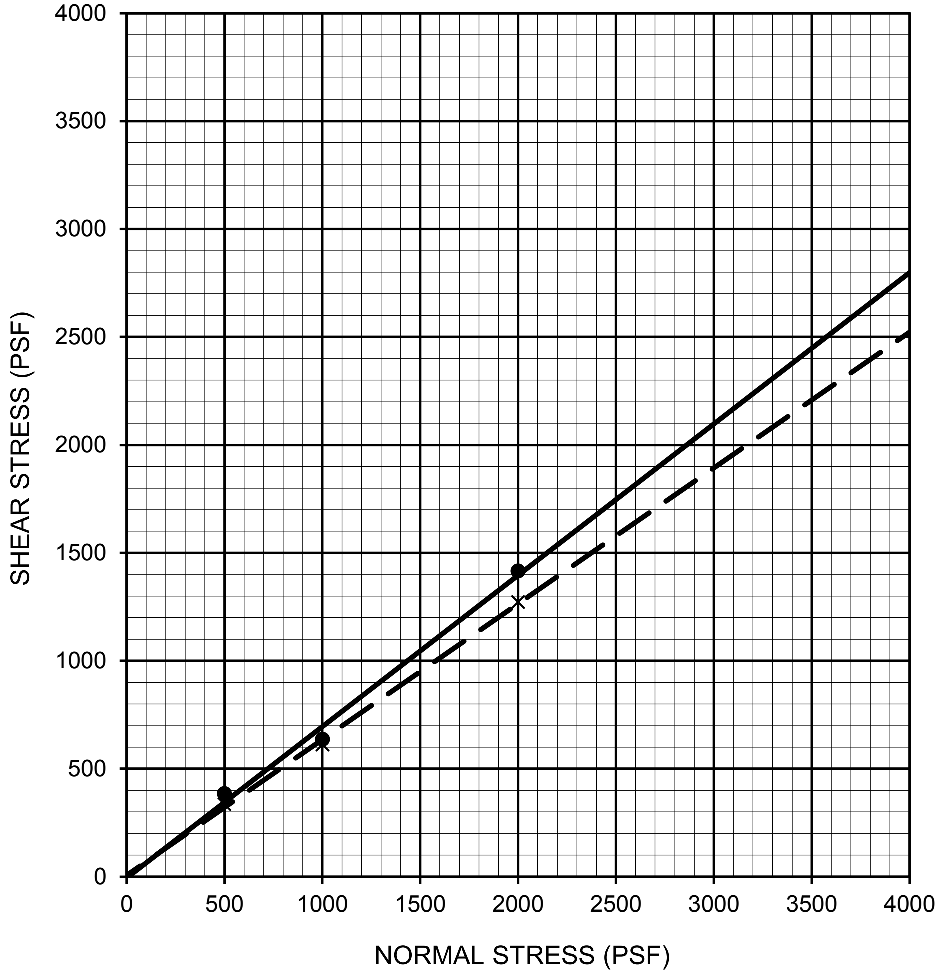
Ninyo & Moore

DIRECT SHEAR TEST RESULTS

COLFAX CHARTER ELEMENTARY SCHOOL MODERNIZATION
11724 ADDISON STREET
VALLEY VILLAGE, CALIFORNIA

PROJECT NO.	DATE
209381010	5/16

FIGURE
B-16



Description	Symbol	Sample Location	Depth (ft)	Shear Strength	Cohesion, c (psf)	Friction Angle, ϕ (degrees)	Soil Type
POORLY GRADED SAND	——●——	B-8	5.0-6.5	Peak	0	35	SP
POORLY GRADED SAND	- - x - -	B-8	5.0-6.5	Ultimate	6	32	SP

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 3080

Ninyo & Moore

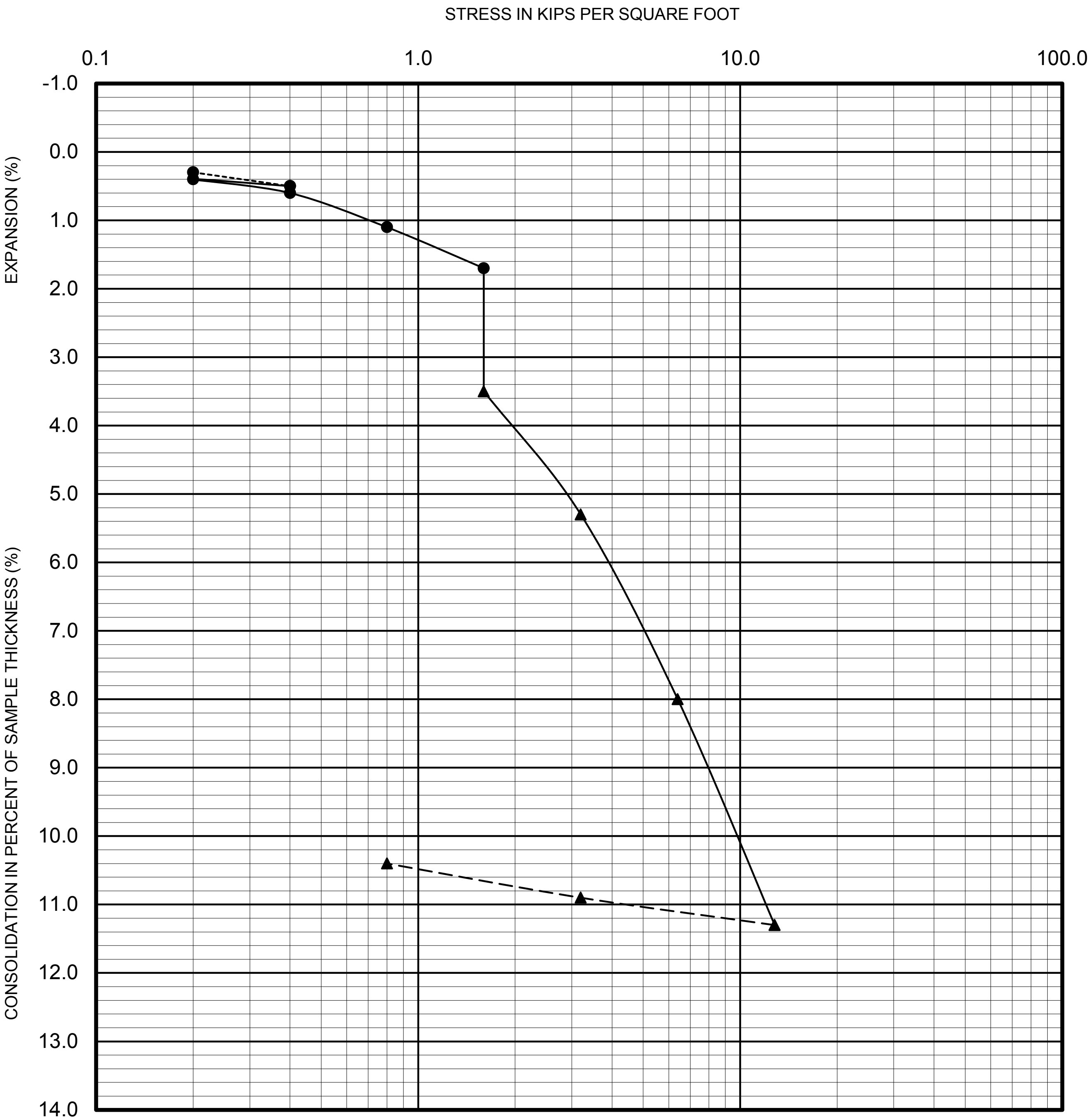
DIRECT SHEAR TEST RESULTS

COLFAX CHARTER ELEMENTARY SCHOOL MODERNIZATION
11724 ADDISON STREET
VALLEY VILLAGE, CALIFORNIA

PROJECT NO.	DATE
209381010	5/16

FIGURE

B-17

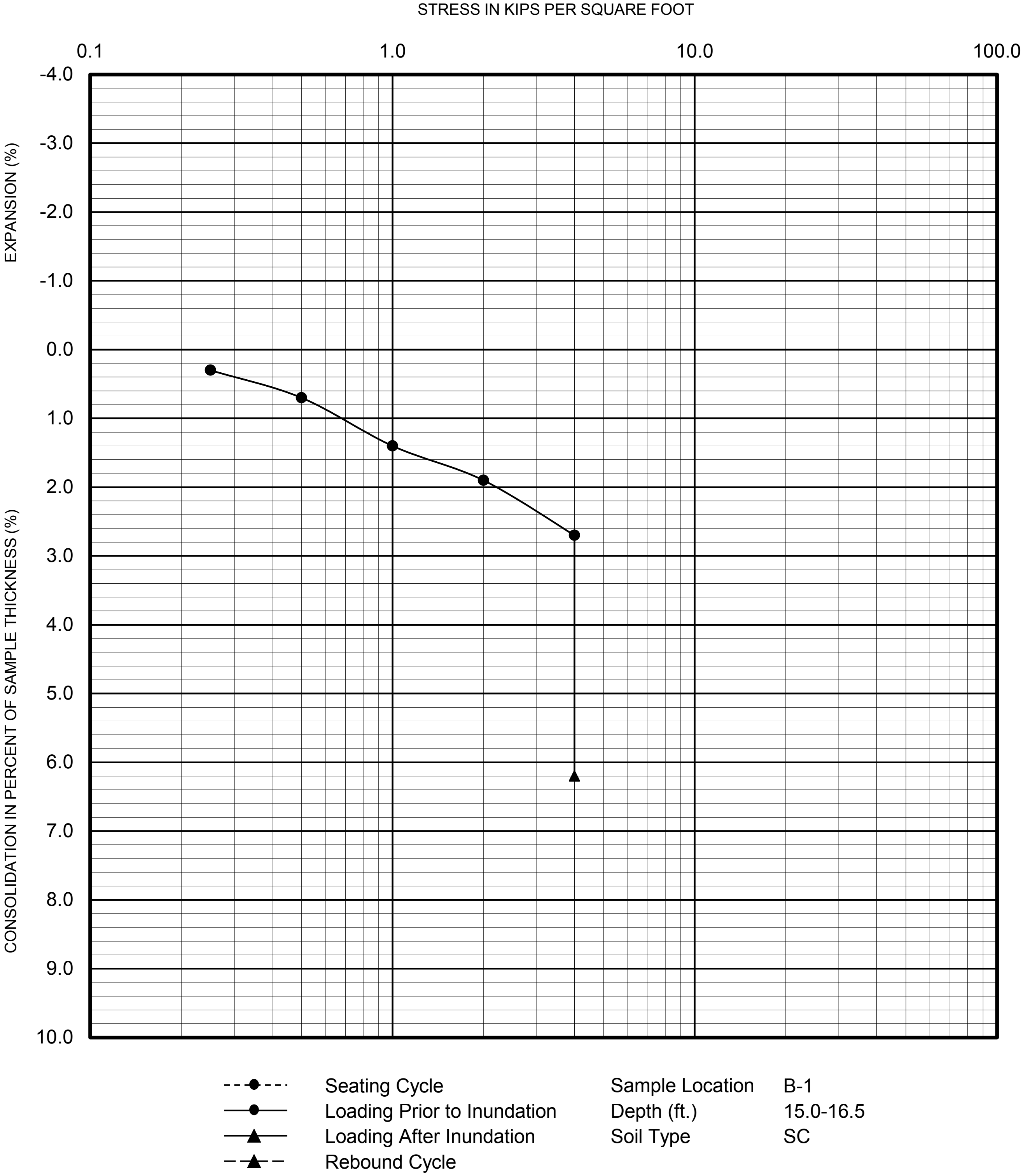


Seating Cycle
Loading Prior to Inundation
Loading After Inundation
Rebound Cycle

Sample Location	B-4
Depth (ft.)	15.0-16.5
Soil Type	SM

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 2435

Ninyo & Moore		CONSOLIDATION TEST RESULTS	FIGURE
PROJECT NO.	DATE	COLFAX CHARTER ELEMENTARY SCHOOL MODERNIZATION 11724 ADDISON STREET VALLEY VILLAGE, CALIFORNIA	B-18
209381010	5/16		



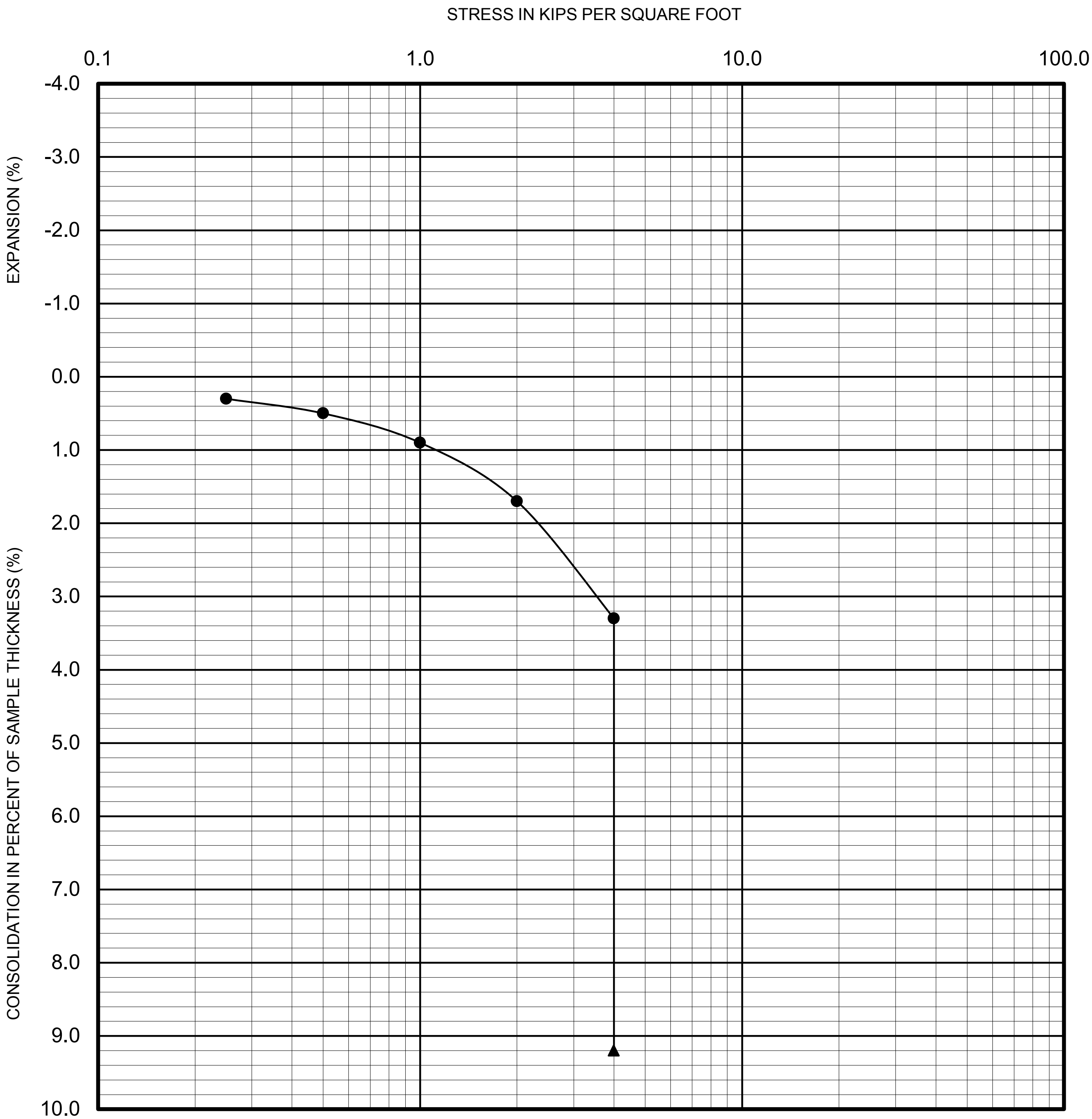
Sample Location	B-1
Depth (ft.)	15.0-16.5
Soil Type	SC

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 5333

Ninyo & Moore

HYDRO-COLLAPSE POTENTIAL TEST RESULTS

PROJECT NO.	DATE		FIGURE
209381010	5/16	COLFAX CHARTER ELEMENTARY SCHOOL MODERNIZATION 11724 ADDISON STREET VALLEY VILLAGE, CALIFORNIA	**B-19**



- - ● - -	Seating Cycle	Sample Location	B-6
—●—	Loading Prior to Inundation	Depth (ft.)	15.0-16.5
—▲—	Loading After Inundation	Soil Type	ML
– ▲ –	Rebound Cycle		

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 2435

Ninyo & Moore		HYDROCOLLAPSE TEST RESULTS	FIGURE
PROJECT NO.	DATE	COLFAX CHARTER ELEMENTARY SCHOOL MODERNIZATION 11724 ADDISON STREET VALLEY VILLAGE, CALIFORNIA	B-20
209381010	5/16		

SAMPLE LOCATION	SAMPLE DEPTH (FT)	SOIL TYPE	R-VALUE
B-5	1.5-5.0	SM	76

PERFORMED IN GENERAL ACCORDANCE WITH ASTM D 2844/CT 301

SAMPLE LOCATION	SAMPLE DEPTH (FT)	pH [1]	RESISTIVITY [1] (Ohm-cm)	SULFATE CONTENT [2]		CHLORIDE CONTENT [3] (ppm)
				(ppm)	(%)	
B-5	5.0-6.5	6.7	13,925	30	0.003	50
B-6	1.0-5.0	6.5	7,417	10	0.001	50

[1] PERFORMED IN GENERAL ACCORDANCE WITH CALIFORNIA TEST METHOD 643

[2] PERFORMED IN GENERAL ACCORDANCE WITH CALIFORNIA TEST METHOD 417

[3] PERFORMED IN GENERAL ACCORDANCE WITH CALIFORNIA TEST METHOD 422

Ninyo & Moore

CORROSIVITY TEST RESULTS

FIGURE

B-22

PROJECT NO.	DATE
209381010	5/16

COLFAX CHARTER ELEMENTARY SCHOOL MODERNIZATION
11724 ADDISON STREET
VALLEY VILLAGE, CALIFORNIA

APPENDIX C

CONE PENETRATION TEST SOUNDINGS

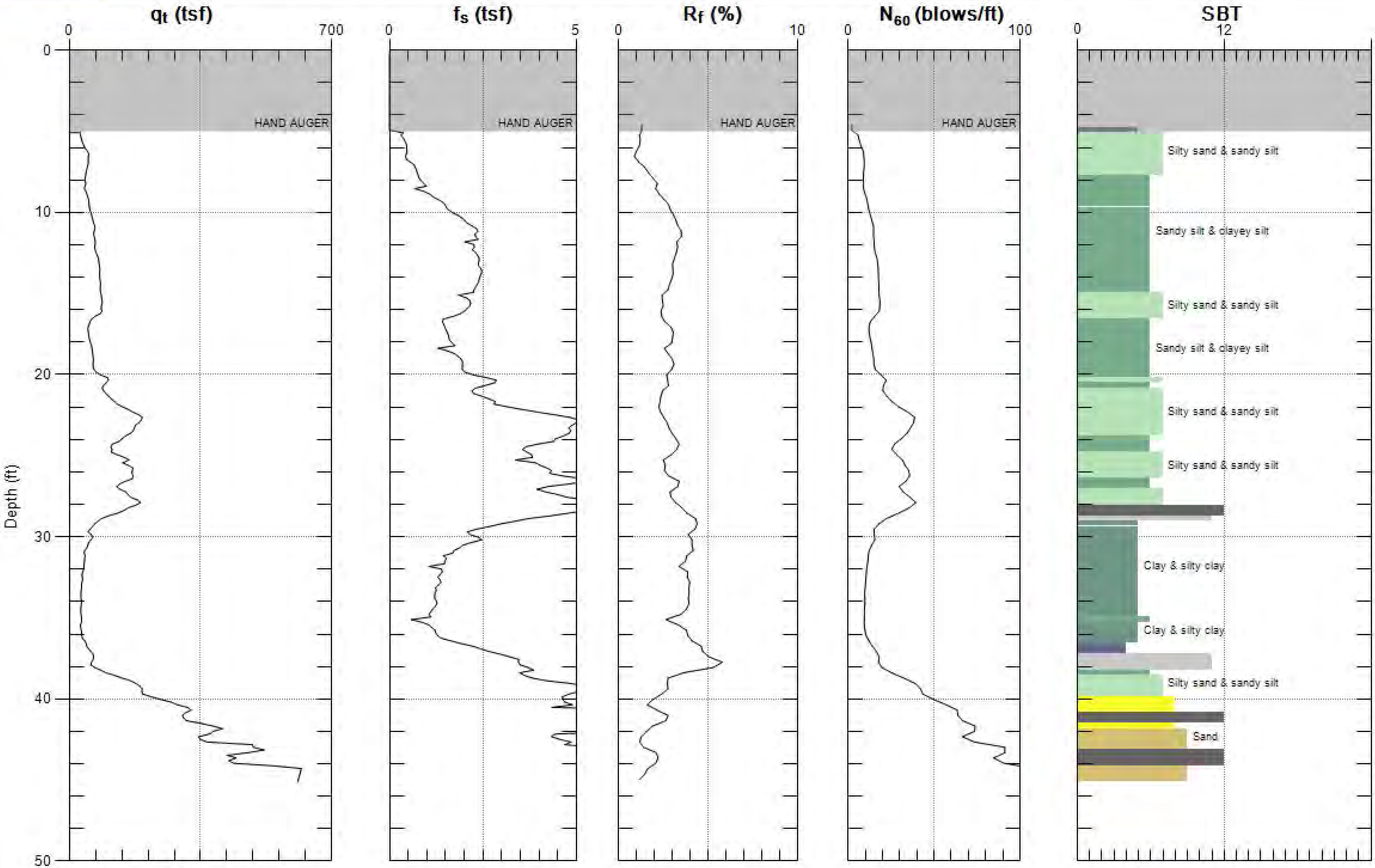
NINYO & MOORE

Site: COLFAX SCHOOL

Sounding: CPT-1

Engineer: F.RUIZ

Date: 3/23/2016 08:35



Max. Depth: 45.112 (ft)
Avg. Interval: 0.328 (ft)

SBT: Soil Behavior Type (Robertson 1990)

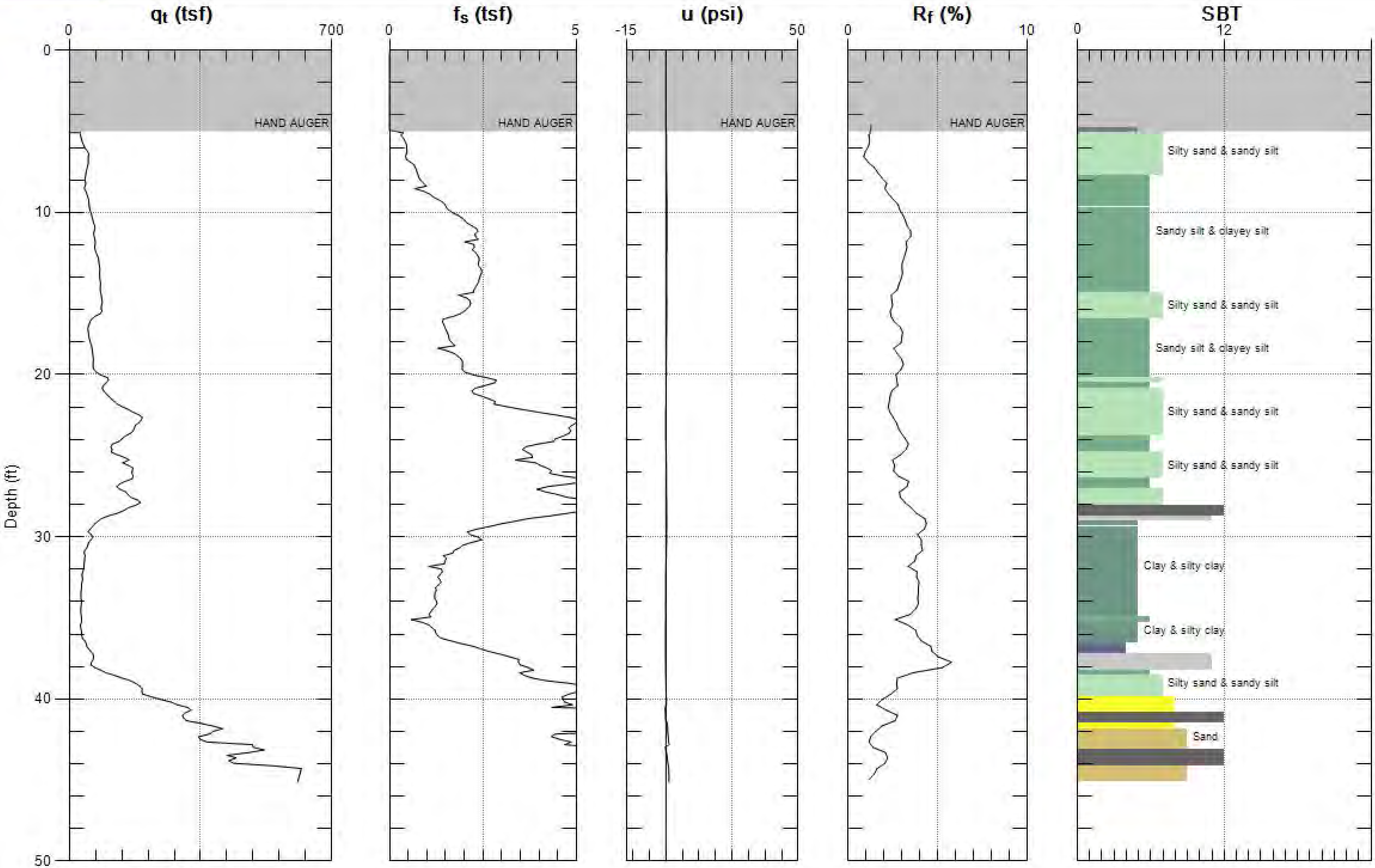
GREGG NINYO & MOORE

Site: COLFAX SCHOOL

Sounding: CPT-1

Engineer: F.RUIZ

Date: 3/23/2016 08:35



Max. Depth: 45.112 (ft)
Avg. Interval: 0.328 (ft)

SBT: Soil Behavior Type (Robertson 1990)

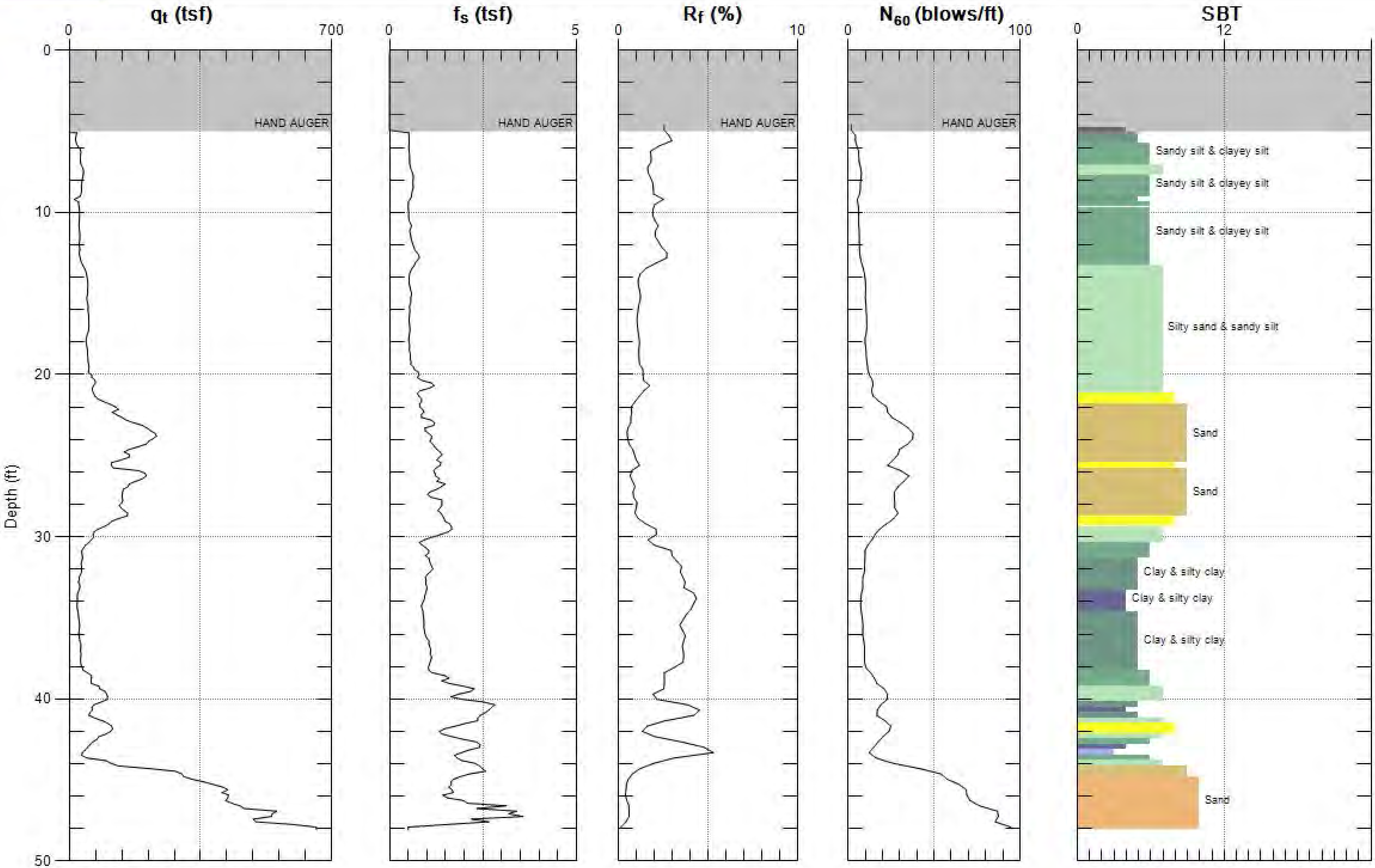
NINYO & MOORE

Site: COLFAX SCHOOL

Sounding: CPT-3

Engineer: F.RUIZ

Date: 3/23/2016 09:36



Max. Depth: 48.064 (ft)

Avg. Interval: 0.328 (ft)

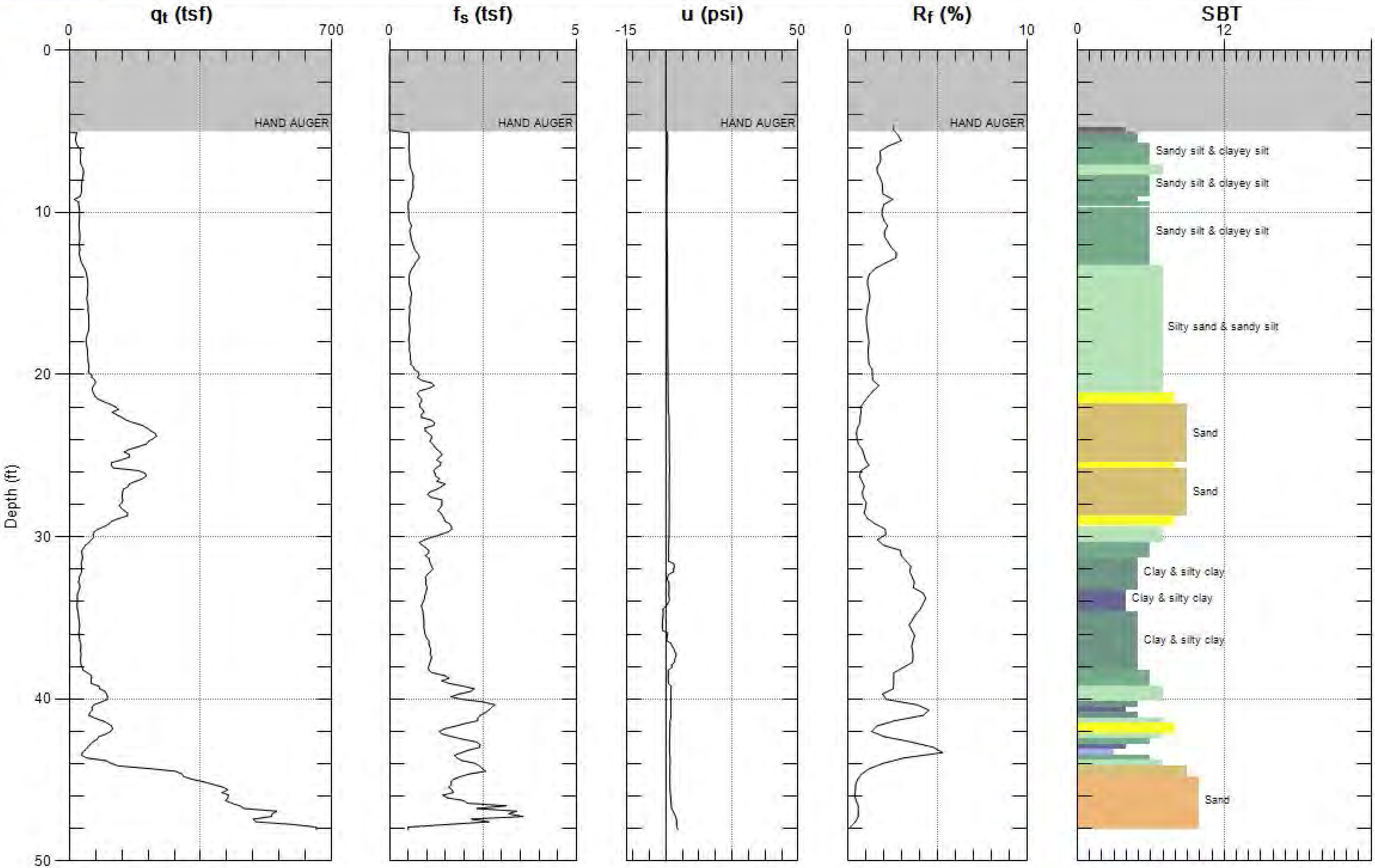
SBT: Soil Behavior Type (Robertson 1990)

GREGG

NINYO & MOORE

Site: COLFAX SCHOOL
Sounding: CPT-3

Engineer: F.RUIZ
Date: 3/23/2016 09:36



Max. Depth: 48.064 (ft)
Avg. Interval: 0.328 (ft)

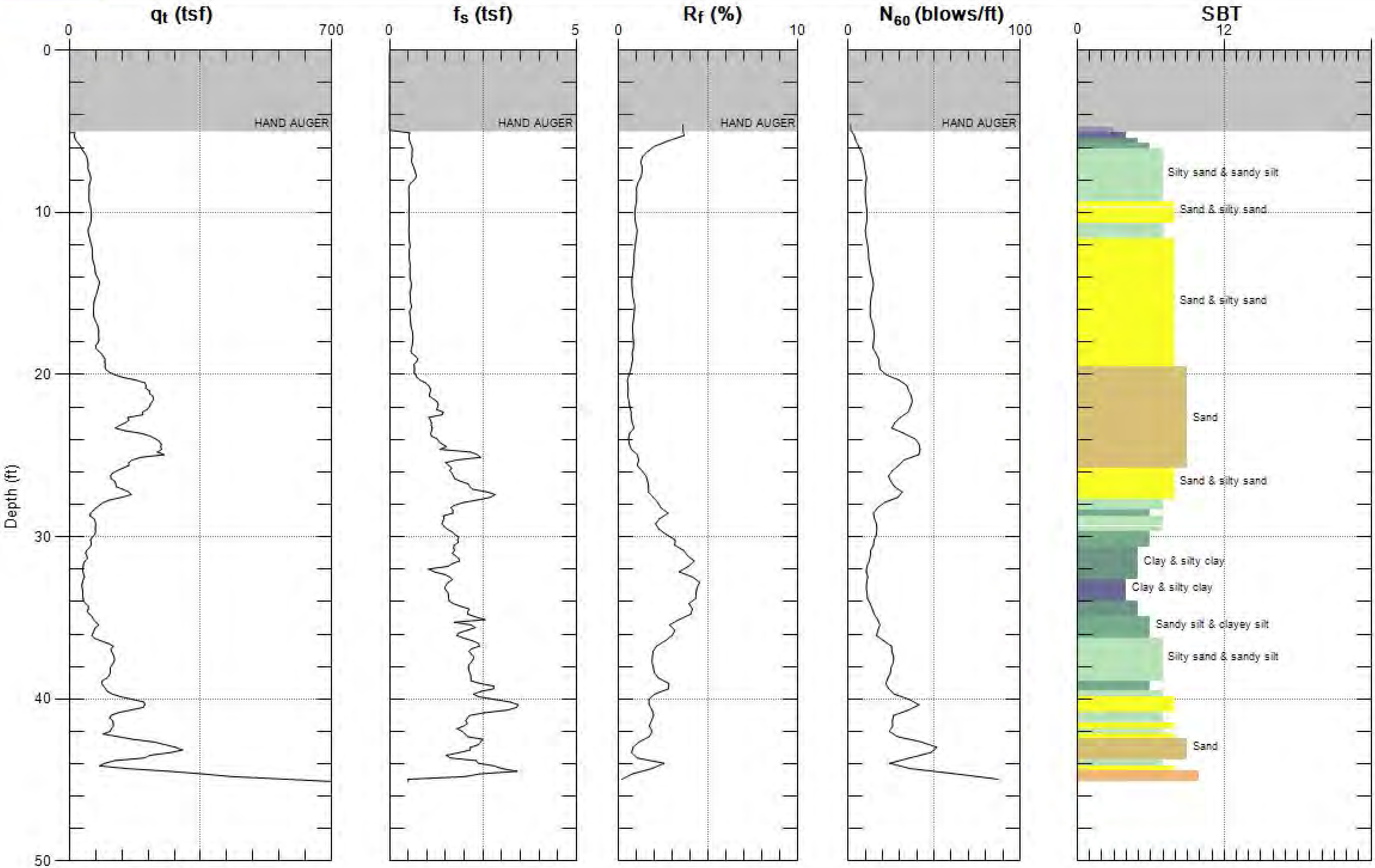
SBT: Soil Behavior Type (Robertson 1990)

GREGG

NINYO & MOORE

Site: COLFAX SCHOOL
Sounding: CPT-4

Engineer: F.RUIZ
Date: 3/23/2016 07:24



Max. Depth: 45.112 (ft)
Avg. Interval: 0.328 (ft)

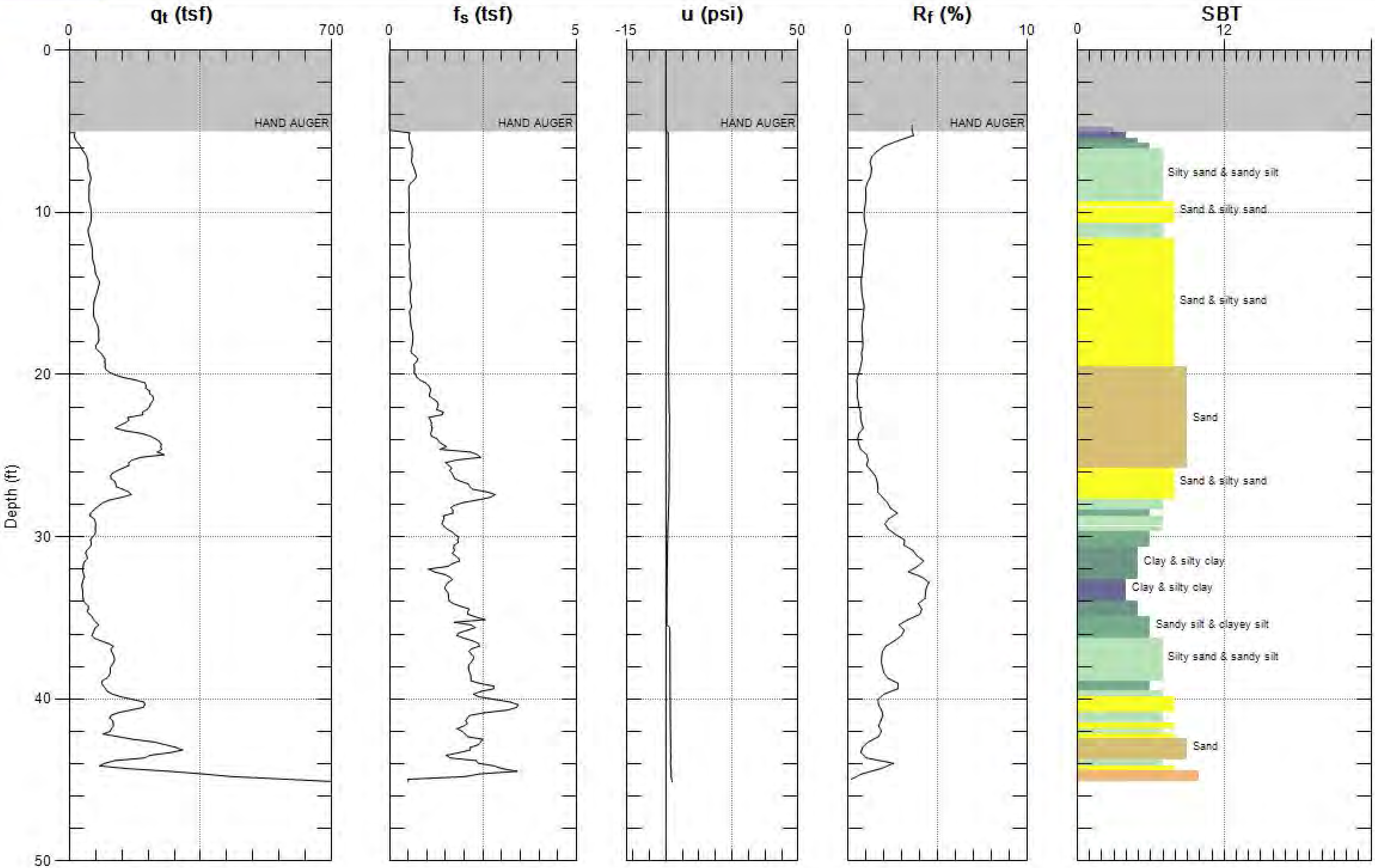
SBT: Soil Behavior Type (Robertson 1990)

GREGG

NINYO & MOORE

Site: COLFAX SCHOOL
Sounding: CPT-4

Engineer: F.RUIZ
Date: 3/23/2016 07:24



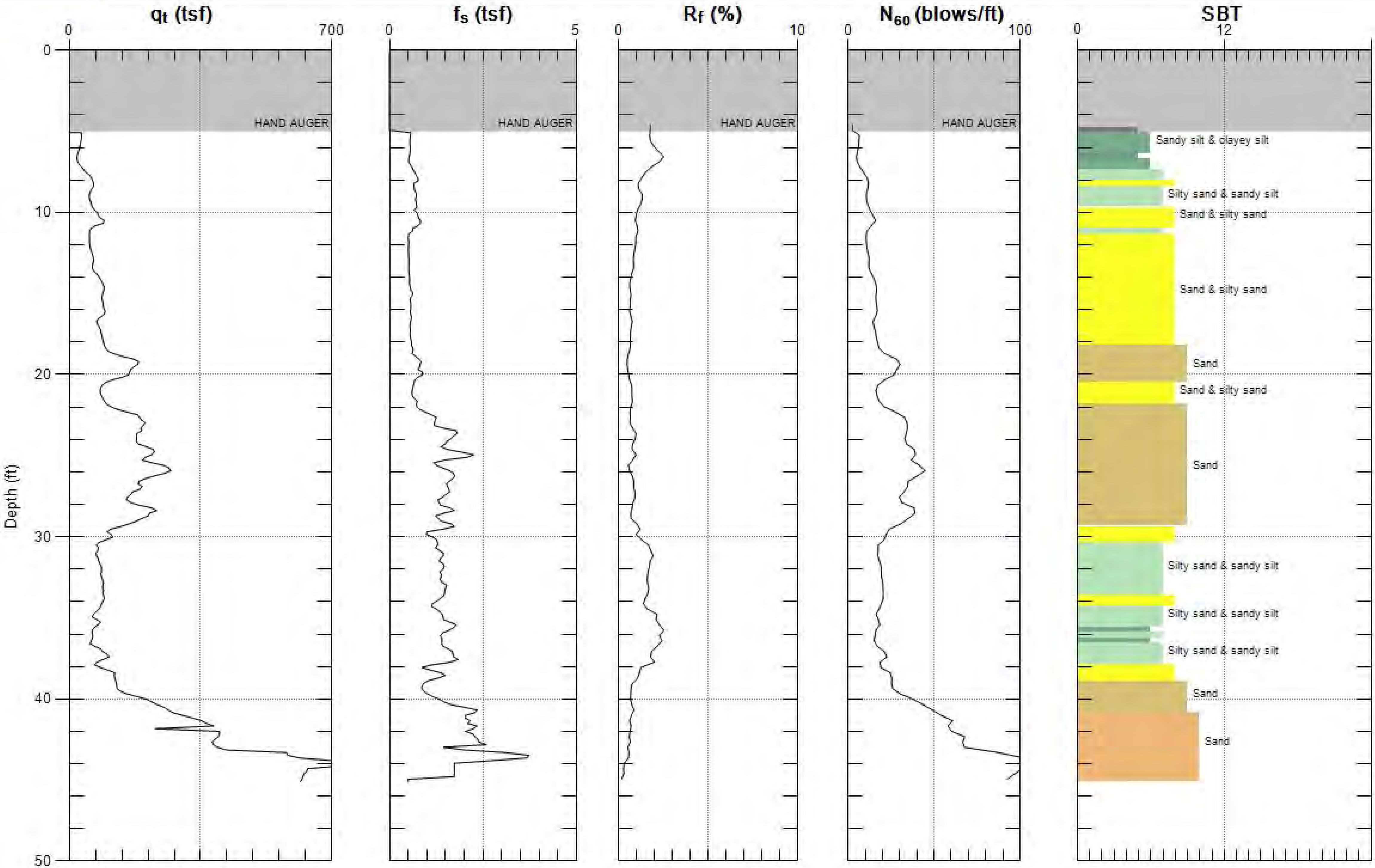
Max. Depth: 45.112 (ft)
Avg. Interval: 0.328 (ft)

SBT: Soil Behavior Type (Robertson 1990)

NINYO & MOORE

Site: COLFAX SCHOOL
Sounding: SCPT-2

Engineer: F.RUIZ
Date: 3/23/2016 10:57



Max. Depth: 45.112 (ft)
Avg. Interval: 0.328 (ft)

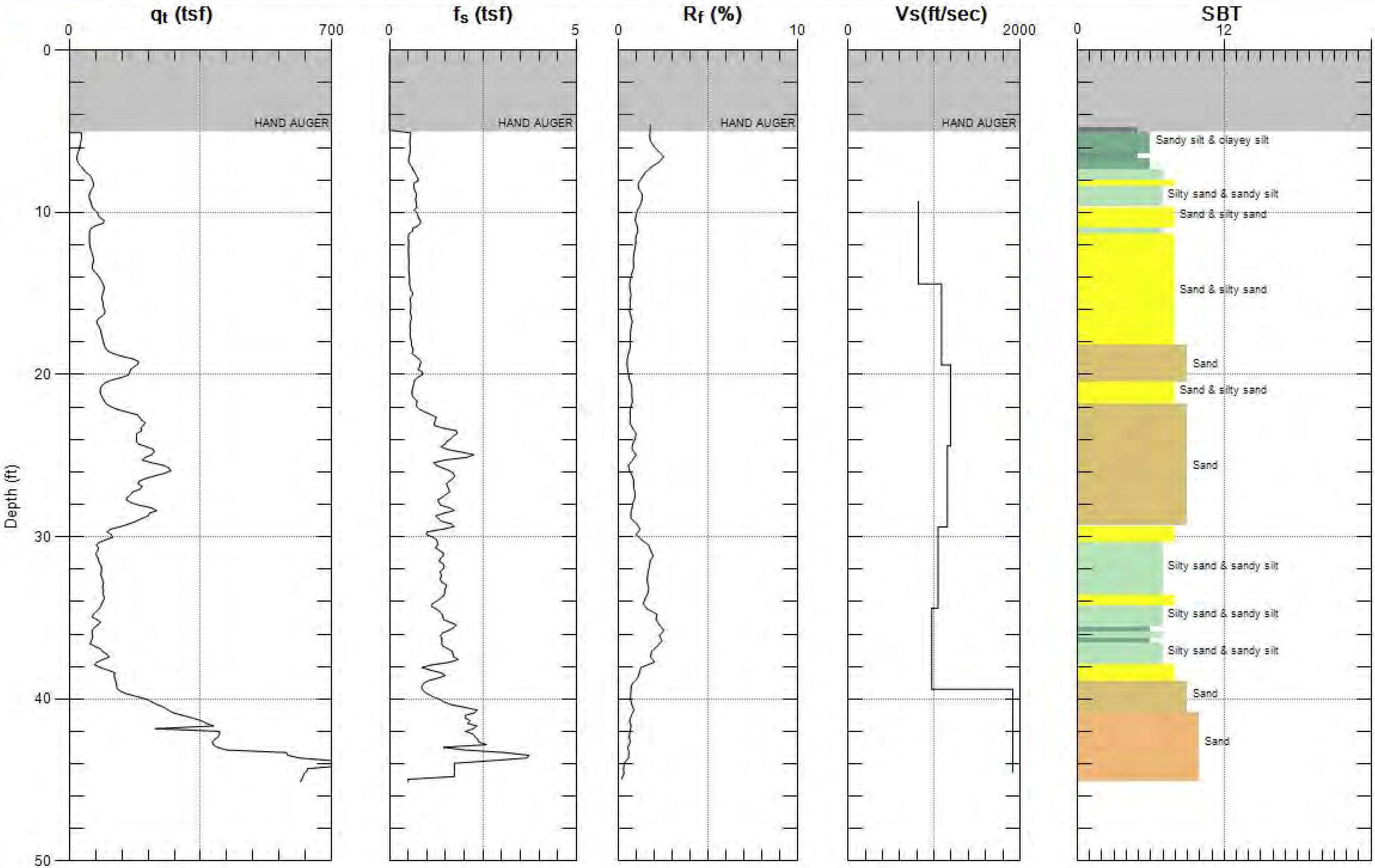
SBT: Soil Behavior Type (Robertson 1990)

GREGG

NINYO & MOORE

Site: COLFAX SCHOOL
Sounding: SCPT-2

Engineer: F.RUIZ
Date: 3/23/2016 10:57

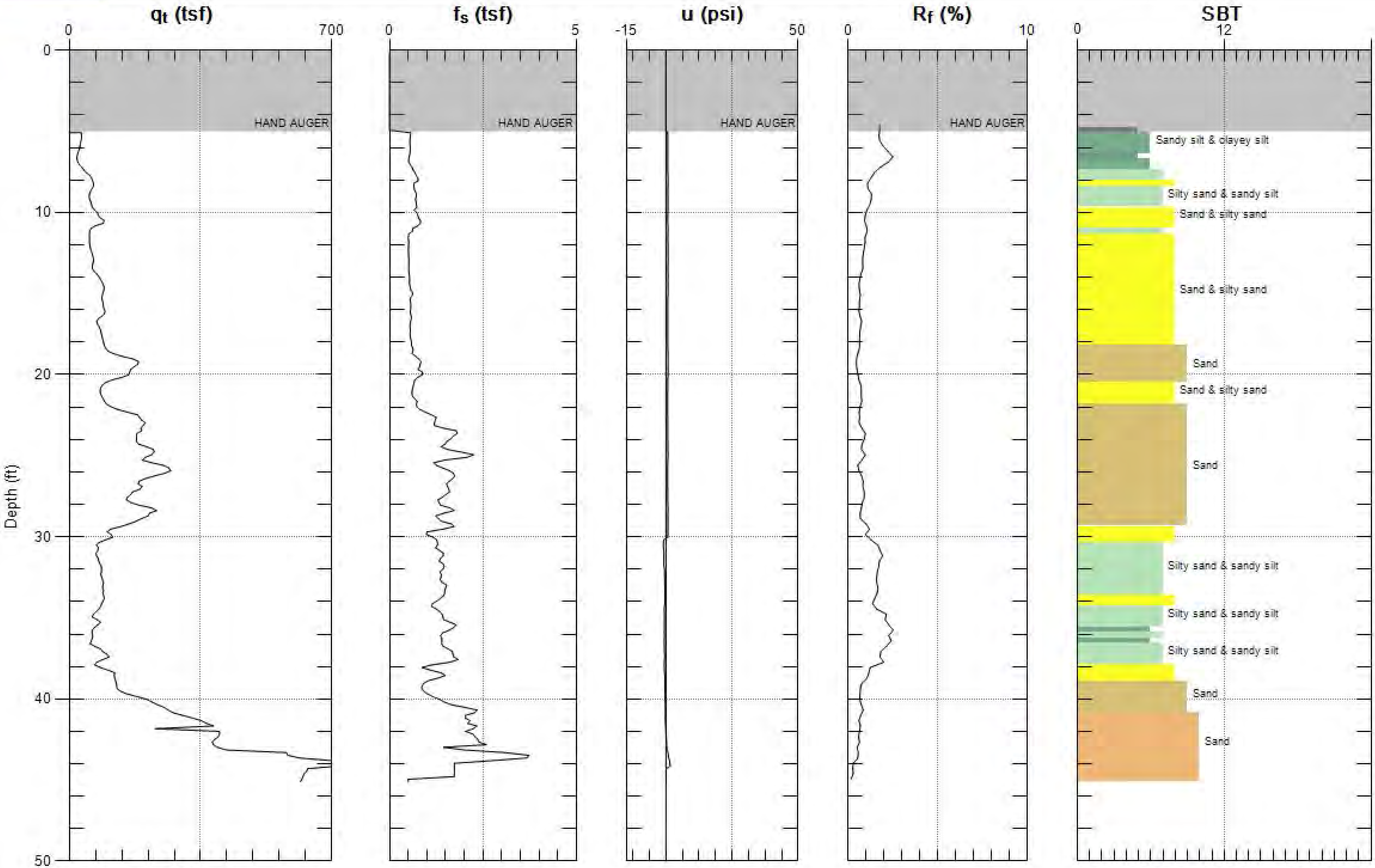


Max. Depth: 45.112 (ft)
Avg. Interval: 0.328 (ft)

SBT: Soil Behavior Type (Robertson 1990)

GREGG **NINYO & MOORE**

Site: COLFAX SCHOOL
Sounding: SCPT-2
Engineer: F.RUIZ
Date: 3/23/2016 10:57



Max. Depth: 45.112 (ft)
Avg. Interval: 0.328 (ft)

SBT: Soil Behavior Type (Robertson 1990)

APPENDIX D

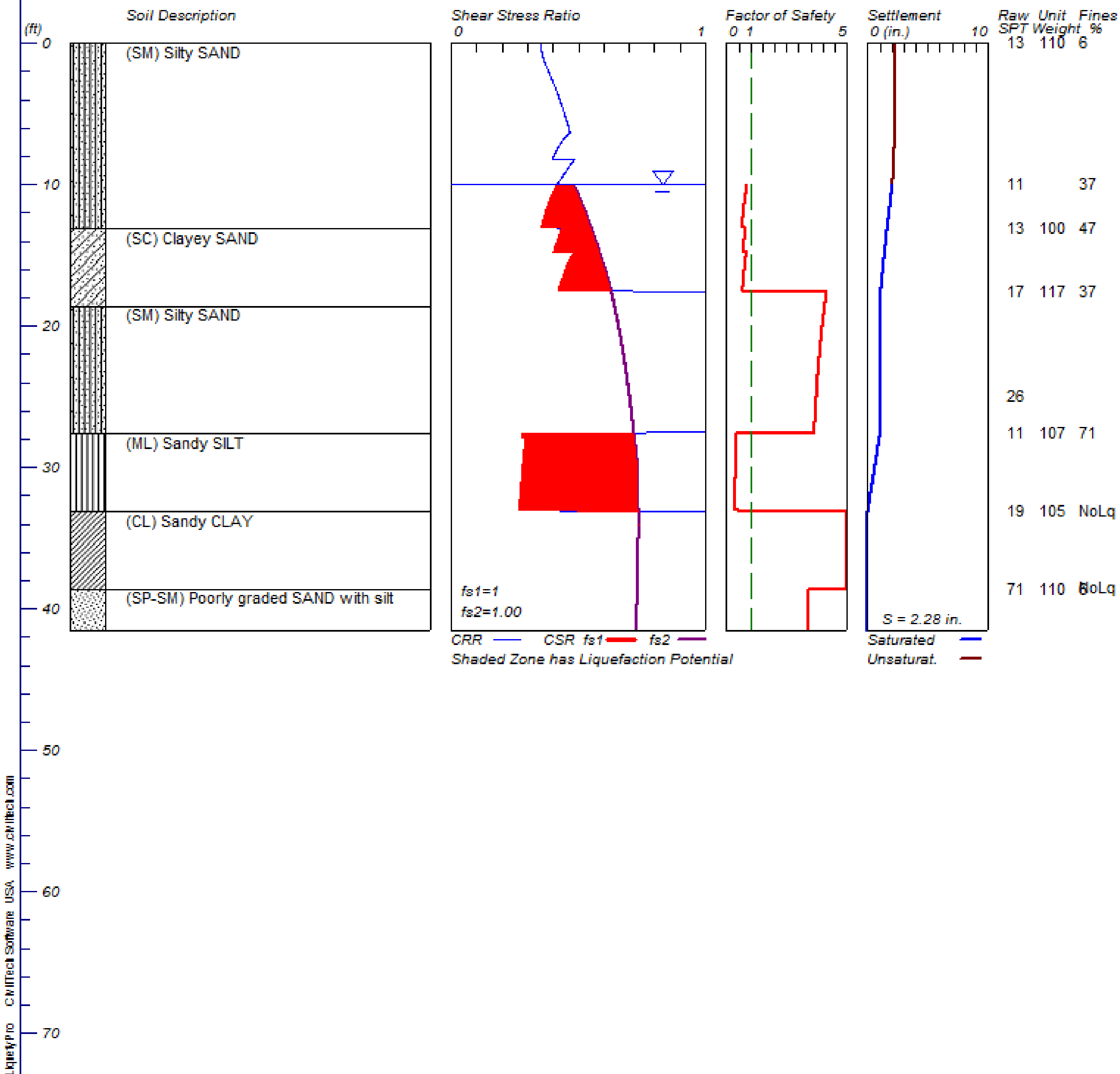
LIQUEFACTION ANALYSIS RESULTS

LIQUEFACTION ANALYSIS

LAUSD/COLFAX ELEMENTARY SCHOOL

Hole No.=B-1 Water Depth=10 ft Surface Elev.=630

Magnitude=6.74
Acceleration=.758g



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LIQUEFACTION ANALYSIS SUMMARY

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Input File Name: G:\File Share\FR.temp_Liquefaction Analysis\209381010\209381010_B-1.liq
Title: LAUSD/COLFAX ELEMENTARY SCHOOL
Subtitle: 209381010

Surface Elev.=630
Hole No.=B-1
Depth of Hole= 41.50 ft
Water Table during Earthquake= 10.00 ft
Water Table during In-Situ Testing= 100.00 ft
Max. Acceleration= 0.76 g
Earthquake Magnitude= 6.74

Input Data:
Surface Elev.=630
Hole No.=B-1
Depth of Hole=41.50 ft
Water Table during Earthquake= 10.00 ft
Water Table during In-Situ Testing= 100.00 ft
Max. Acceleration=0.76 g
Earthquake Magnitude=6.74

1. SPT or BPT Calculation.
2. Settlement Analysis Method: Tokimatsu/Seed
3. Fines Correction for Liquefaction: Idriss/Seed
4. Fine Correction for Settlement: During Liquefaction*
5. Settlement Calculation in: All zones*
6. Hammer Energy Ratio, Ce = 1.25
7. Borehole Diameter, Cb= 1.15
8. Sampling Method, Cs= 1
9. User request factor of safety (apply to CSR) , User= 1
   Plot two CSR (fs1=1, fs2=User)
10. Use Curve Smoothing: Yes*
* Recommended Options

In-Situ Test Data:

Depth ft	SPT	gamma pcf	Fines %
0.00	13.00	110.00	6.00
10.00	11.00	110.00	37.00
13.00	11.00	110.00	37.00
13.10	13.00	100.00	47.00
17.50	13.00	100.00	47.00
17.60	17.00	117.00	37.00
25.00	26.00	117.00	37.00
27.50	26.00	117.00	37.00
27.60	11.00	107.00	71.00
33.00	11.00	107.00	71.00

33.10	19.00	105.00	NoLiq
38.50	19.00	105.00	NoLiq
38.60	71.00	110.00	6.00
41.50	71.00	110.00	6.00

Output Results:
Settlement of Saturated Sands=2.06 in.
Settlement of Unsaturated Sands=0.22 in.
Total Settlement of Saturated and Unsaturated Sands=2.28 in.
Differential Settlement=1.140 to 1.505 in.

Depth ft	CRRm	CSRfs	F.S.	S_sat. in.	S_dry in.	S_all in.
0.00	0.35	0.49	5.00	2.06	0.22	2.28
1.00	0.36	0.49	5.00	2.06	0.22	2.28
2.00	0.38	0.49	5.00	2.06	0.22	2.27
3.00	0.40	0.49	5.00	2.06	0.21	2.27
4.00	0.43	0.49	5.00	2.06	0.20	2.26
5.00	0.44	0.49	5.00	2.06	0.19	2.25
6.00	0.46	0.49	5.00	2.06	0.18	2.24
7.00	0.43	0.48	5.00	2.06	0.17	2.23
8.00	0.40	0.48	5.00	2.06	0.14	2.20
9.00	0.45	0.48	5.00	2.06	0.09	2.14
10.00	0.41	0.48	0.86*	2.06	0.00	2.06
11.00	0.39	0.51	0.77*	1.92	0.00	1.92
12.00	0.37	0.53	0.70*	1.78	0.00	1.78
13.00	0.35	0.55	0.64*	1.64	0.00	1.64
14.00	0.41	0.57	0.73*	1.51	0.00	1.51
15.00	0.47	0.59	0.81*	1.38	0.00	1.38
16.00	0.45	0.61	0.74*	1.27	0.00	1.27
17.00	0.43	0.62	0.69*	1.14	0.00	1.14
18.00	2.63	0.64	4.13	1.06	0.00	1.06
19.00	2.63	0.65	4.06	1.04	0.00	1.04
20.00	2.63	0.66	3.99	1.02	0.00	1.02
21.00	2.63	0.67	3.93	1.02	0.00	1.02
22.00	2.63	0.68	3.87	1.02	0.00	1.02
23.00	2.63	0.69	3.82	1.02	0.00	1.02
24.00	2.63	0.70	3.78	1.02	0.00	1.02
25.00	2.63	0.70	3.74	1.02	0.00	1.02
26.00	2.63	0.71	3.71	1.02	0.00	1.02
27.00	2.63	0.72	3.67	1.02	0.00	1.02
28.00	0.29	0.72	0.40*	0.94	0.00	0.94
29.00	0.28	0.73	0.39*	0.76	0.00	0.76
30.00	0.28	0.73	0.38*	0.58	0.00	0.58
31.00	0.27	0.74	0.37*	0.40	0.00	0.40
32.00	0.27	0.74	0.37*	0.21	0.00	0.21
33.00	0.26	0.74	0.36*	0.02	0.00	0.02
34.00	2.00	0.74	5.00	0.00	0.00	0.00
35.00	2.00	0.74	5.00	0.00	0.00	0.00
36.00	2.00	0.74	5.00	0.00	0.00	0.00
37.00	2.00	0.74	5.00	0.00	0.00	0.00
38.00	2.00	0.73	5.00	0.00	0.00	0.00
39.00	2.49	0.73	3.40	0.00	0.00	0.00
40.00	2.48	0.73	3.40	0.00	0.00	0.00
41.00	2.47	0.73	3.39	0.00	0.00	0.00

* F.S.<1, Liquefaction Potential Zone
(F.S. is limited to 5, CRR is limited to 2,   CSR is limited to 2)

Units: Depth = ft, Stress or Pressure = atm (tsf), Unit Weight = pcf, Settlement = in.

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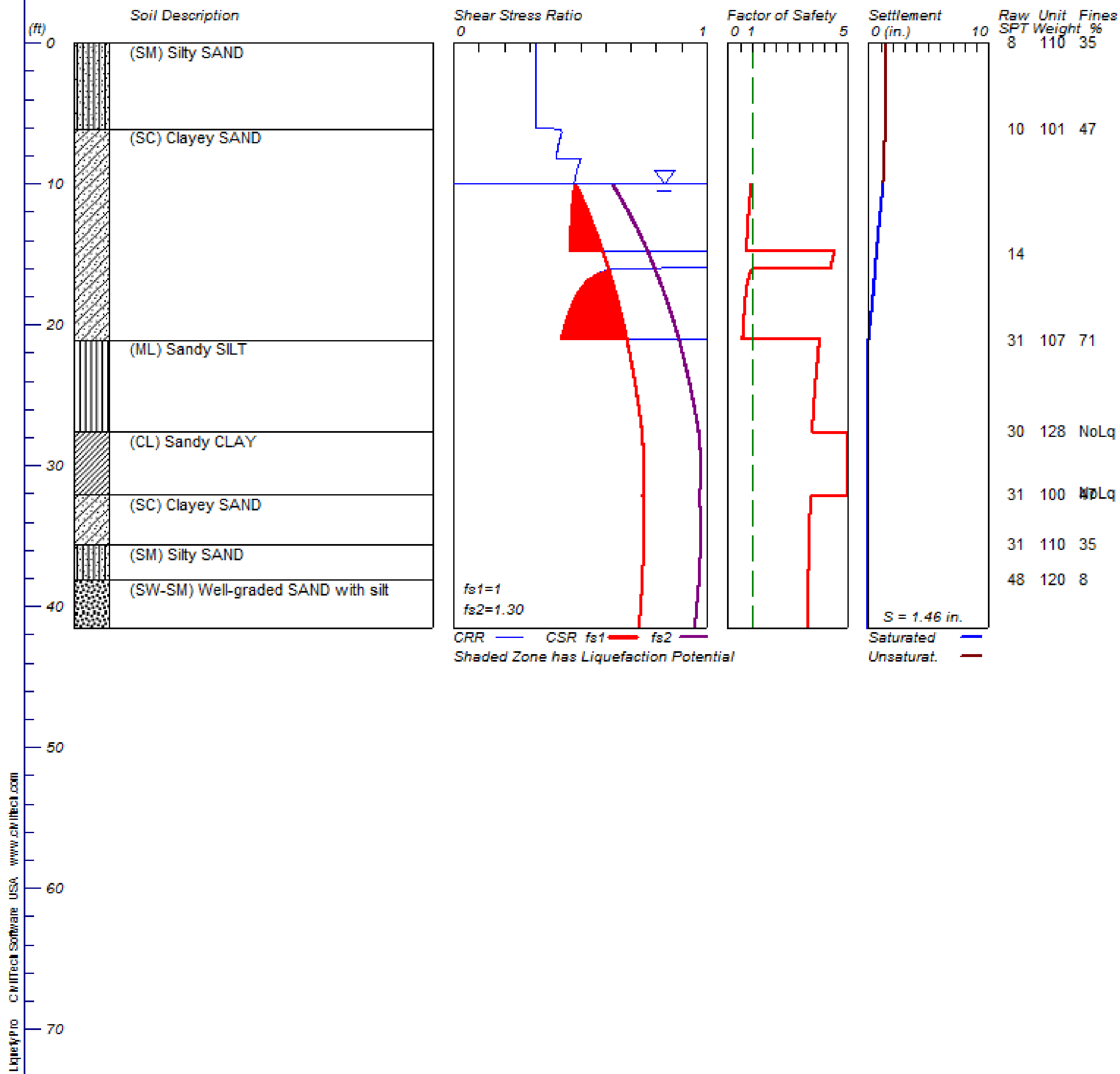
1 atm (atmosphere) = 1 tsf (ton/ft2)

CRRm	Cyclic resistance ratio from soils
CSRsf	Cyclic stress ratio induced by a given earthquake (with user request factor of safety)
F.S.	Factor of Safety against liquefaction, F.S.=CRRm/CSRsf
S_sat	Settlement from saturated sands
S_dry	Settlement from Unsaturated Sands
S_all	Total Settlement from Saturated and Unsaturated Sands
NoLiq	No-Liquefy Soils

LIQUEFACTION ANALYSIS
LAUSD/COLFAX ELEMENTARY SCHOOL

Hole No.=B-2 Water Depth=10 ft Surface Elev.=630

Magnitude=6.74
Acceleration=.758g



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LIQUEFACTION ANALYSIS SUMMARY

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Title: LAUSD/COLFAX ELEMENTARY SCHOOL
Subtitle: 209381010

Surface Elev.=630
Hole No.=B-2
Depth of Hole= 41.50 ft
Water Table during Earthquake= 10.00 ft
Water Table during In-Situ Testing= 100.00 ft
Max. Acceleration= 0.76 g
Earthquake Magnitude= 6.74

Input Data:
Surface Elev.=630
Hole No.=B-2
Depth of Hole=41.50 ft
Water Table during Earthquake= 10.00 ft
Water Table during In-Situ Testing= 100.00 ft
Max. Acceleration=0.76 g
Earthquake Magnitude=6.74

1. SPT or BPT Calculation.
2. Settlement Analysis Method: Tokimatsu/Seed
3. Fines Correction for Liquefaction: Idriss/Seed
4. Fine Correction for Settlement: During Liquefaction*
5. Settlement Calculation in: All zones*
6. Hammer Energy Ratio,   Ce = 1.25
7. Borehole Diameter,   Cb= 1.15
8. Sampling Method,   Cs= 1
9. User request factor of safety (apply to CSR) ,   User= 1.3
   Plot two CSR (fs1=1, fs2=User)
10. Use Curve Smoothing: Yes*
* Recommended Options

In-Situ Test Data:

Depth ft	SPT	gamma pcf	Fines %
0.00	8.00	110.00	35.00
6.00	8.00	110.00	35.00
6.10	10.00	101.00	47.00
15.00	14.00	101.00	47.00
21.00	14.00	101.00	47.00
21.10	31.00	107.00	71.00
27.50	31.00	107.00	71.00
27.60	30.00	128.00	NoLiq
32.00	30.00	128.00	NoLiq
32.10	31.00	100.00	47.00

35.50	31.00	100.00	47.00
35.60	31.00	110.00	35.00
38.00	31.00	110.00	35.00
38.10	48.00	120.00	8.00
41.50	48.00	120.00	8.00

Output Results:
Settlement of Saturated Sands=1.22 in.
Settlement of Unsaturated Sands=0.24 in.
Total Settlement of Saturated and Unsaturated Sands=1.46 in.
Differential Settlement=0.728 to 0.961 in.

Depth ft	CRRm	CSRfs	F.S.	S_sat. in.	S_dry in.	S_all in.
0.00	0.33	0.49	5.00	1.22	0.24	1.46
1.00	0.33	0.49	5.00	1.22	0.24	1.45
2.00	0.33	0.49	5.00	1.22	0.23	1.45
3.00	0.33	0.49	5.00	1.22	0.22	1.44
4.00	0.33	0.49	5.00	1.22	0.20	1.42
5.00	0.33	0.49	5.00	1.22	0.18	1.39
6.00	0.33	0.49	5.00	1.22	0.16	1.38
7.00	0.41	0.48	5.00	1.22	0.14	1.36
8.00	0.40	0.48	5.00	1.22	0.11	1.33
9.00	0.49	0.48	5.00	1.22	0.07	1.29
10.00	0.47	0.48	0.99*	1.22	0.00	1.22
11.00	0.47	0.51	0.92*	1.11	0.00	1.11
12.00	0.46	0.53	0.87*	0.99	0.00	0.99
13.00	0.46	0.55	0.83*	0.87	0.00	0.87
14.00	0.46	0.57	0.80*	0.76	0.00	0.76
15.00	2.63	0.59	4.43	0.65	0.00	0.65
16.00	0.64	0.61	1.05	0.57	0.00	0.57
17.00	0.52	0.63	0.82*	0.47	0.00	0.47
18.00	0.48	0.64	0.74*	0.37	0.00	0.37
19.00	0.45	0.66	0.69*	0.25	0.00	0.25
20.00	0.44	0.67	0.65*	0.13	0.00	0.13
21.00	0.42	0.68	0.61*	0.01	0.00	0.01
22.00	2.63	0.70	3.78	0.00	0.00	0.00
23.00	2.63	0.71	3.72	0.00	0.00	0.00
24.00	2.63	0.72	3.67	0.00	0.00	0.00
25.00	2.63	0.72	3.63	0.00	0.00	0.00
26.00	2.63	0.73	3.59	0.00	0.00	0.00
27.00	2.63	0.74	3.55	0.00	0.00	0.00
28.00	2.00	0.75	5.00	0.00	0.00	0.00
29.00	2.00	0.75	5.00	0.00	0.00	0.00
30.00	2.00	0.75	5.00	0.00	0.00	0.00
31.00	2.00	0.75	5.00	0.00	0.00	0.00
32.00	2.00	0.75	5.00	0.00	0.00	0.00
33.00	2.58	0.75	3.45	0.00	0.00	0.00
34.00	2.57	0.75	3.42	0.00	0.00	0.00
35.00	2.56	0.75	3.41	0.00	0.00	0.00
36.00	2.54	0.75	3.39	0.00	0.00	0.00
37.00	2.53	0.75	3.38	0.00	0.00	0.00
38.00	2.52	0.75	3.37	0.00	0.00	0.00
39.00	2.50	0.74	3.37	0.00	0.00	0.00
40.00	2.49	0.74	3.37	0.00	0.00	0.00
41.00	2.47	0.73	3.37	0.00	0.00	0.00

* F.S.<1, Liquefaction Potential Zone
(F.S. is limited to 5, CRR is limited to 2, CSR is limited to 2)

Units: Depth = ft, Stress or Pressure = atm (tsf), Unit Weight = pcf, Settlement = in.

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1 atm (atmosphere) = 1 tsf (ton/ft2)

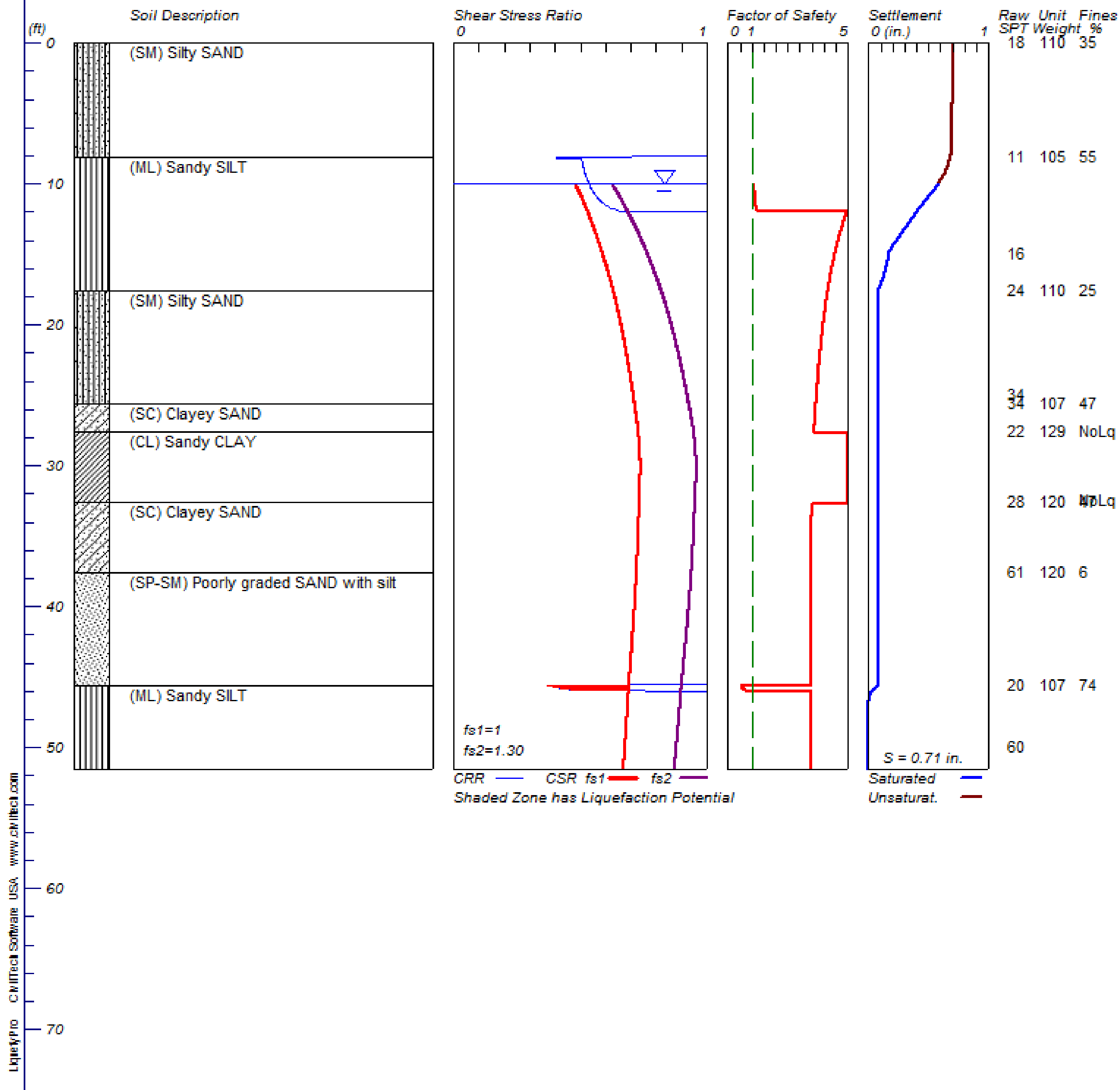
CRRm	Cyclic resistance ratio from soils
CSRsf	Cyclic stress ratio induced by a given earthquake (with user request factor of safety)
F.S.	Factor of Safety against liquefaction, F.S.=CRRm/CSRsf
S_sat	Settlement from saturated sands
S_dry	Settlement from Unsaturated Sands
S_all	Total Settlement from Saturated and Unsaturated Sands
NoLiq	No-Liquefy Soils

LIQUEFACTION ANALYSIS

LAUSD/COLFAX ELEMENTARY SCHOOL

Hole No.=B-3 Water Depth=10 ft Surface Elev.=630

Magnitude=6.74
Acceleration=.758g



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LIQUEFACTION ANALYSIS SUMMARY

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Title: LAUSD/COLFAX ELEMENTARY SCHOOL
Subtitle: 209381010

Surface Elev.=630
Hole No.=B-3
Depth of Hole= 51.50 ft
Water Table during Earthquake= 10.00 ft
Water Table during In-Situ Testing= 100.00 ft
Max. Acceleration= 0.76 g
Earthquake Magnitude= 6.74

Input Data:
Surface Elev.=630
Hole No.=B-3
Depth of Hole=51.50 ft
Water Table during Earthquake= 10.00 ft
Water Table during In-Situ Testing= 100.00 ft
Max. Acceleration=0.76 g
Earthquake Magnitude=6.74

1. SPT or BPT Calculation.
2. Settlement Analysis Method: Tokimatsu/Seed
3. Fines Correction for Liquefaction: Idriss/Seed
4. Fine Correction for Settlement: During Liquefaction*
5. Settlement Calculation in: All zones*
6. Hammer Energy Ratio, Ce = 1.25
7. Borehole Diameter, Cb= 1.15
8. Sampling Method, Cs= 1
9. User request factor of safety (apply to CSR) , User= 1.3
   Plot two CSR (fs1=1, fs2=User)
10. Use Curve Smoothing: Yes*
* Recommended Options

In-Situ Test Data:

Depth ft	SPT	gamma pcf	Fines %
0.00	18.00	110.00	35.00
8.00	18.00	110.00	35.00
8.10	11.00	105.00	55.00
15.00	16.00	105.00	55.00
17.50	16.00	105.00	55.00
17.60	24.00	110.00	25.00
25.00	34.00	110.00	25.00
25.50	34.00	110.00	25.00
25.60	34.00	107.00	47.00
27.50	34.00	107.00	47.00

27.60	22.00	129.00	NoLiq
32.50	22.00	129.00	NoLiq
32.60	28.00	120.00	47.00
37.50	28.00	120.00	47.00
37.60	61.00	120.00	6.00
45.50	61.00	120.00	6.00
45.60	20.00	107.00	74.00
50.00	60.00	107.00	74.00
51.50	60.00	107.00	74.00

Output Results:
Settlement of Saturated Sands=0.58 in.
Settlement of Unsaturated Sands=0.12 in.
Total Settlement of Saturated and Unsaturated Sands=0.71 in.
Differential Settlement=0.353 to 0.466 in.

Depth ft	CRRm	CSRfs	F.S.	S_sat. in.	S_dry in.	S_all in.
0.00	2.63	0.49	5.00	0.58	0.12	0.71
1.00	2.63	0.49	5.00	0.58	0.12	0.71
2.00	2.63	0.49	5.00	0.58	0.12	0.70
3.00	2.63	0.49	5.00	0.58	0.12	0.70
4.00	2.63	0.49	5.00	0.58	0.12	0.70
5.00	2.63	0.49	5.00	0.58	0.11	0.70
6.00	2.63	0.49	5.00	0.58	0.11	0.70
7.00	2.63	0.48	5.00	0.58	0.11	0.69
8.00	2.63	0.48	5.00	0.58	0.10	0.69
9.00	0.51	0.48	5.00	0.58	0.06	0.65
10.00	0.53	0.48	1.11	0.58	0.00	0.58
11.00	0.57	0.51	1.12	0.49	0.00	0.49
12.00	2.63	0.53	4.96	0.40	0.00	0.40
13.00	2.63	0.55	4.77	0.31	0.00	0.31
14.00	2.63	0.57	4.60	0.23	0.00	0.23
15.00	2.63	0.59	4.46	0.17	0.00	0.17
16.00	2.63	0.61	4.34	0.14	0.00	0.14
17.00	2.63	0.62	4.23	0.11	0.00	0.11
18.00	2.63	0.64	4.13	0.08	0.00	0.08
19.00	2.63	0.65	4.05	0.08	0.00	0.08
20.00	2.63	0.66	3.97	0.08	0.00	0.08
21.00	2.63	0.67	3.91	0.08	0.00	0.08
22.00	2.63	0.68	3.85	0.08	0.00	0.08
23.00	2.63	0.69	3.79	0.08	0.00	0.08
24.00	2.63	0.70	3.75	0.08	0.00	0.08
25.00	2.63	0.71	3.70	0.08	0.00	0.08
26.00	2.63	0.72	3.66	0.08	0.00	0.08
27.00	2.63	0.73	3.62	0.08	0.00	0.08
28.00	2.00	0.73	5.00	0.07	0.00	0.07
29.00	2.00	0.73	5.00	0.07	0.00	0.07
30.00	2.00	0.74	5.00	0.07	0.00	0.07
31.00	2.00	0.74	5.00	0.07	0.00	0.07
32.00	2.00	0.73	5.00	0.07	0.00	0.07
33.00	2.57	0.73	3.51	0.07	0.00	0.07
34.00	2.55	0.73	3.49	0.07	0.00	0.07
35.00	2.54	0.73	3.48	0.07	0.00	0.07
36.00	2.52	0.73	3.47	0.07	0.00	0.07
37.00	2.51	0.72	3.46	0.07	0.00	0.07
38.00	2.49	0.72	3.46	0.07	0.00	0.07
39.00	2.48	0.72	3.45	0.07	0.00	0.07
40.00	2.46	0.71	3.45	0.07	0.00	0.07
41.00	2.45	0.71	3.45	0.07	0.00	0.07
42.00	2.44	0.71	3.45	0.07	0.00	0.07

43.00	2.42	0.70	3.45	0.07	0.00	0.07
44.00	2.41	0.70	3.45	0.07	0.00	0.07
45.00	2.40	0.69	3.45	0.07	0.00	0.07
46.00	2.38	0.69	3.45	0.03	0.00	0.03
47.00	2.37	0.69	3.45	0.00	0.00	0.00
48.00	2.36	0.68	3.45	0.00	0.00	0.00
49.00	2.35	0.68	3.46	0.00	0.00	0.00
50.00	2.34	0.68	3.46	0.00	0.00	0.00
51.00	2.33	0.67	3.46	0.00	0.00	0.00

* F.S.<1, Liquefaction Potential Zone
(F.S. is limited to 5, CRR is limited to 2, CSR is limited to 2)

Units: Depth = ft, Stress or Pressure = atm (tsf), Unit Weight = pcf, Settlement = in.

---

1 atm (atmosphere) = 1 tsf (ton/ft2)

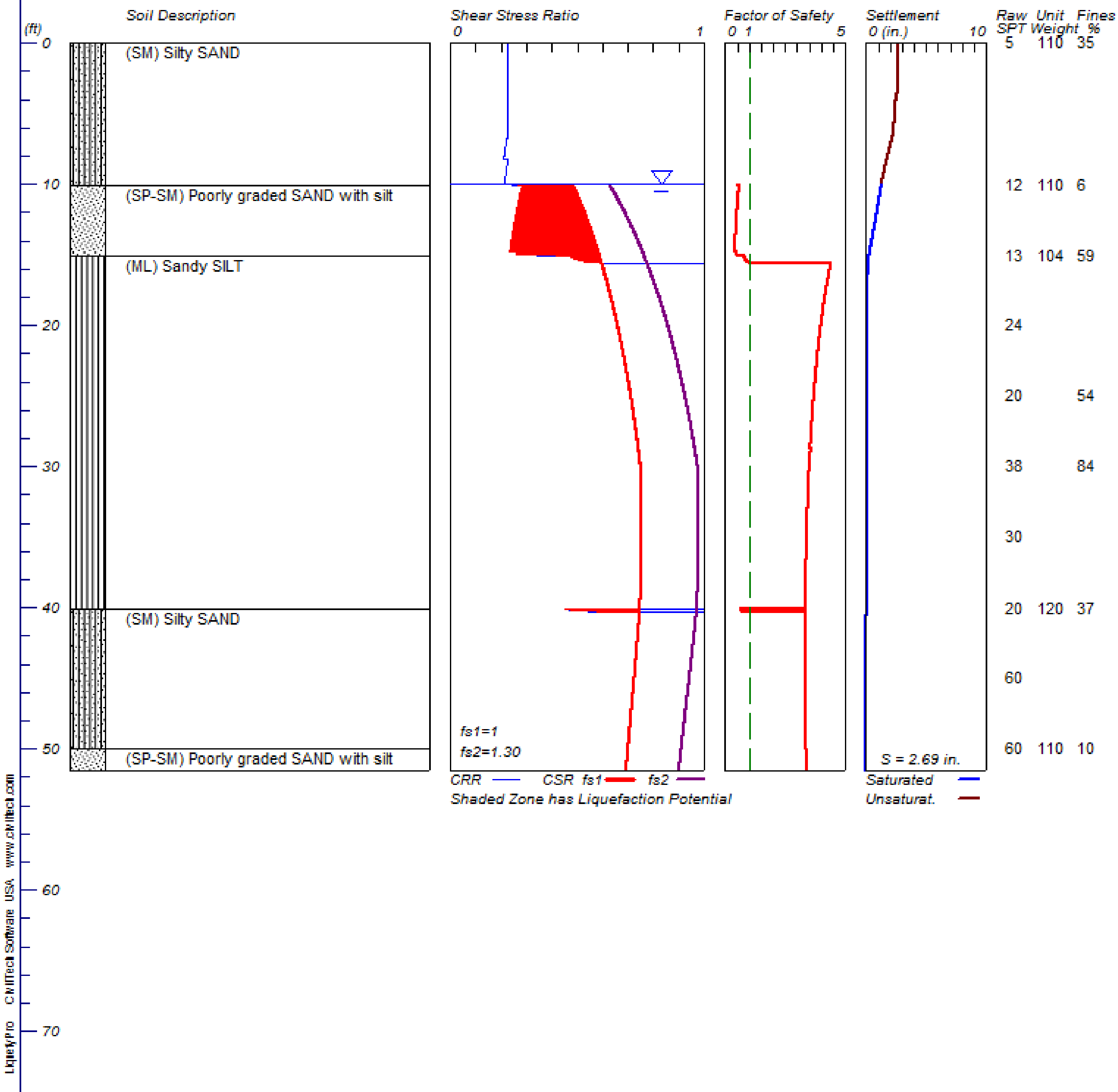
CRRm — Cyclic resistance ratio from soils
CSRsf — Cyclic stress ratio induced by a given earthquake (with user request factor of safety)
F.S. — Factor of Safety against liquefaction, F.S.=CRRm/CSRsf
S_sat — Settlement from saturated sands
S_dry — Settlement from Unsaturated Sands
S_all — Total Settlement from Saturated and Unsaturated Sands
NoLiq — No-Liquefy Soils

LIQUEFACTION ANALYSIS

LAUSD/COLFAX ELEMENTARY SCHOOL

Hole No.=B-4 Water Depth=10 ft Surface Elev.=630

Magnitude=6.74
Acceleration=.758g



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LIQUEFACTION ANALYSIS SUMMARY

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Input File Name: G:\File Share\FR.temp_Liquefaction Analysis\209381010\209381010_B-4.liq
Title: LAUSD/COLFAX ELEMENTARY SCHOOL
Subtitle: 209381010

Surface Elev.=630
Hole No.=B-4
Depth of Hole= 51.50 ft
Water Table during Earthquake= 10.00 ft
Water Table during In-Situ Testing= 100.00 ft
Max. Acceleration= 0.76 g
Earthquake Magnitude= 6.74

Input Data:
Surface Elev.=630
Hole No.=B-4
Depth of Hole=51.50 ft
Water Table during Earthquake= 10.00 ft
Water Table during In-Situ Testing= 100.00 ft
Max. Acceleration=0.76 g
Earthquake Magnitude=6.74

1. SPT or BPT Calculation.
2. Settlement Analysis Method: Tokimatsu/Seed
3. Fines Correction for Liquefaction: Idriss/Seed
4. Fine Correction for Settlement: During Liquefaction*
5. Settlement Calculation in: All zones*
6. Hammer Energy Ratio, Ce = 1.25
7. Borehole Diameter, Cb= 1.15
8. Sampling Method, Cs= 1
9. User request factor of safety (apply to CSR) , User= 1.3
   Plot two CSR (fs1=1, fs2=User)
10. Use Curve Smoothing: Yes*
* Recommended Options

In-Situ Test Data:

Depth ft	SPT	gamma pcf	Fines %
0.00	5.00	110.00	35.00
10.00	5.00	110.00	35.00
10.10	12.00	110.00	6.00
15.00	12.00	110.00	6.00
15.10	13.00	104.00	59.00
20.00	24.00	104.00	59.00
25.00	20.00	104.00	54.00
30.00	38.00	104.00	84.00
35.00	30.00	104.00	84.00
40.00	30.00	104.00	84.00

40.10	20.00	120.00	37.00
45.00	60.00	120.00	37.00
50.00	60.00	110.00	10.00
51.50	60.00	110.00	10.00

Output Results:

Settlement of Saturated Sands=1.26 in.
Settlement of Unsaturated Sands=1.43 in.
Total Settlement of Saturated and Unsaturated Sands=2.69 in.
Differential Settlement=1.347 to 1.778 in.

Depth ft	CRRm	CSRfs	F.S.	S_sat. in.	S_dry in.	S_all in.
0.00	0.23	0.49	5.00	1.26	1.43	2.69
1.00	0.23	0.49	5.00	1.26	1.43	2.69
2.00	0.23	0.49	5.00	1.26	1.42	2.68
3.00	0.23	0.49	5.00	1.26	1.40	2.66
4.00	0.23	0.49	5.00	1.26	1.20	2.46
5.00	0.23	0.49	5.00	1.26	1.12	2.38
6.00	0.23	0.49	5.00	1.26	1.04	2.30
7.00	0.22	0.48	5.00	1.26	0.82	2.08
8.00	0.21	0.48	5.00	1.26	0.53	1.79
9.00	0.22	0.48	5.00	1.26	0.25	1.51
10.00	0.21	0.48	0.44*	1.26	0.00	1.26
11.00	0.27	0.51	0.53*	1.07	0.00	1.07
12.00	0.26	0.53	0.49*	0.88	0.00	0.88
13.00	0.25	0.55	0.45*	0.67	0.00	0.67
14.00	0.24	0.57	0.42*	0.46	0.00	0.46
15.00	0.26	0.59	0.44*	0.25	0.00	0.25
16.00	2.63	0.60	4.36	0.15	0.00	0.15
17.00	2.63	0.62	4.25	0.11	0.00	0.11
18.00	2.63	0.63	4.15	0.10	0.00	0.10
19.00	2.63	0.65	4.06	0.10	0.00	0.10
20.00	2.63	0.66	3.99	0.10	0.00	0.10
21.00	2.63	0.67	3.92	0.10	0.00	0.10
22.00	2.63	0.68	3.85	0.10	0.00	0.10
23.00	2.63	0.69	3.79	0.10	0.00	0.10
24.00	2.63	0.70	3.74	0.08	0.00	0.08
25.00	2.63	0.71	3.69	0.06	0.00	0.06
26.00	2.63	0.72	3.65	0.05	0.00	0.05
27.00	2.63	0.73	3.61	0.05	0.00	0.05
28.00	2.63	0.74	3.57	0.05	0.00	0.05
29.00	2.64	0.74	3.55	0.05	0.00	0.05
30.00	2.63	0.75	3.50	0.05	0.00	0.05
31.00	2.61	0.75	3.48	0.05	0.00	0.05
32.00	2.60	0.75	3.45	0.05	0.00	0.05
33.00	2.59	0.75	3.43	0.05	0.00	0.05
34.00	2.57	0.75	3.41	0.05	0.00	0.05
35.00	2.56	0.75	3.40	0.05	0.00	0.05
36.00	2.55	0.75	3.38	0.05	0.00	0.05
37.00	2.53	0.75	3.37	0.05	0.00	0.05
38.00	2.52	0.75	3.36	0.05	0.00	0.05
39.00	2.51	0.75	3.35	0.05	0.00	0.05
40.00	2.49	0.75	3.34	0.05	0.00	0.05
41.00	2.48	0.74	3.34	0.00	0.00	0.00
42.00	2.47	0.74	3.34	0.00	0.00	0.00
43.00	2.45	0.73	3.34	0.00	0.00	0.00
44.00	2.44	0.73	3.34	0.00	0.00	0.00
45.00	2.43	0.72	3.35	0.00	0.00	0.00
46.00	2.41	0.72	3.35	0.00	0.00	0.00
47.00	2.40	0.71	3.36	0.00	0.00	0.00

48.00	2.39	0.71	3.36	0.00	0.00	0.00
49.00	2.38	0.70	3.37	0.00	0.00	0.00
50.00	2.36	0.70	3.38	0.00	0.00	0.00
51.00	2.35	0.70	3.38	0.00	0.00	0.00

* F.S.<1, Liquefaction Potential Zone
(F.S. is limited to 5, CRR is limited to 2,   CSR is limited to 2)

Units: Depth = ft, Stress or Pressure = atm (tsf), Unit Weight = pcf, Settlement = in.

1 atm (atmosphere) = 1 tsf (ton/ft2)

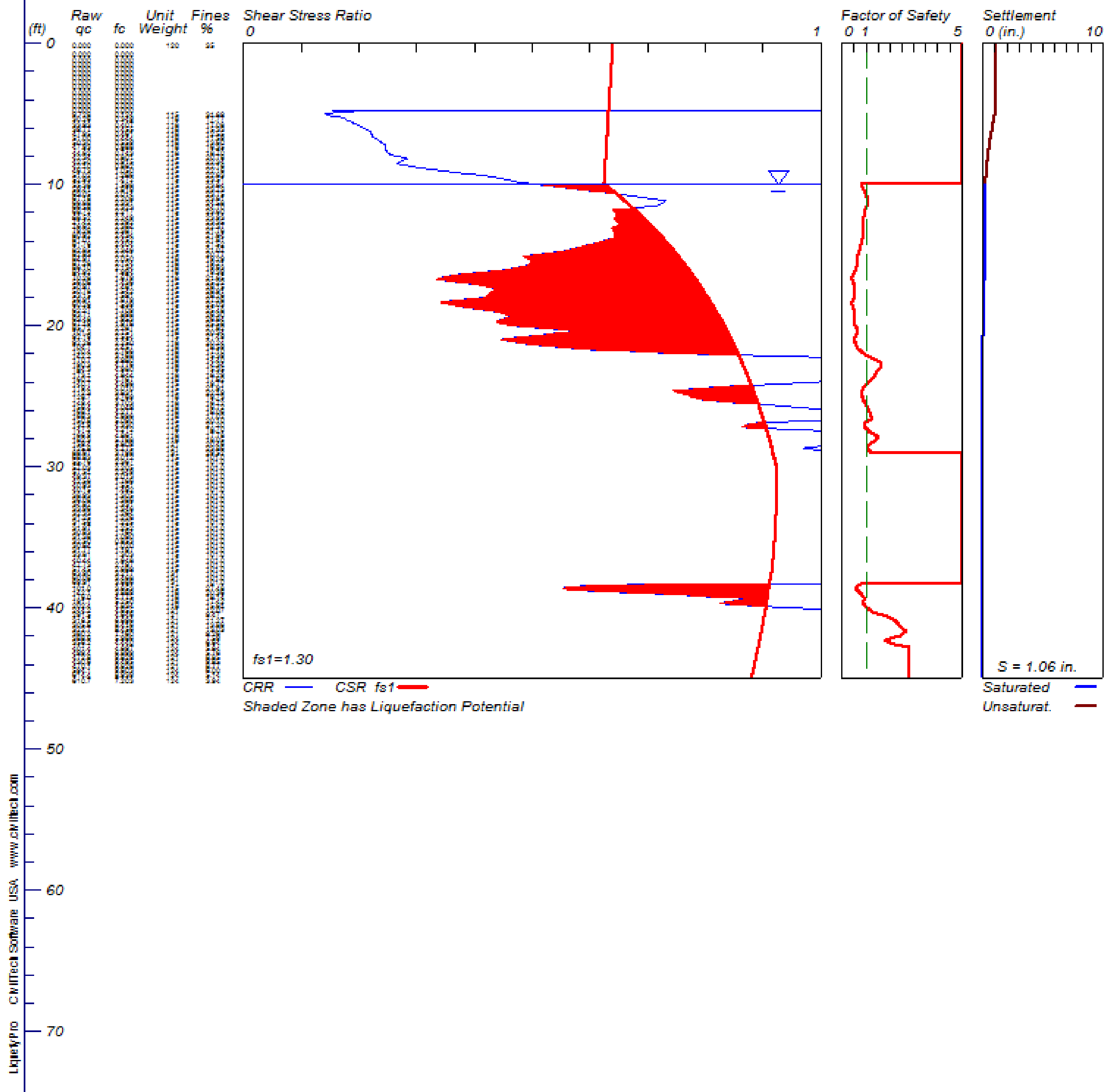
CRRm	Cyclic resistance ratio from soils
CSRsf	Cyclic stress ratio induced by a given earthquake (with user request factor of safety)
F.S.	Factor of Safety against liquefaction, F.S.=CRRm/CSRsf
S_sat	Settlement from saturated sands
S_dry	Settlement from Unsaturated Sands
S_all	Total Settlement from Saturated and Unsaturated Sands
NoLiq	No-Liquefy Soils

LIQUEFACTION ANALYSIS

LAUSD/COLFAX ELEMENTARY SCHOOL

Hole No.=CPT-1 Water Depth=10 ft Surface Elev.=630

Magnitude=6.74
Acceleration=.758g



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LIQUEFACTION ANALYSIS SUMMARY
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Input File Name: G:\Projects\200000 - Irvine\209350 - 209399\209381\209381010\Electronic Project File\Data Analysis & Calculations\Liquefaction\209381010_CPT-1.liq
Title: LAUSD/COLFAX ELEMENTARY SCHOOL
Subtitle: 209381010

Surface Elev.=630
Hole No.=CPT-1
Depth of Hole= 44.94 ft
Water Table during Earthquake= 10.00 ft
Water Table during In-Situ Testing= 100.00 ft
Max. Acceleration= 0.76 g
Earthquake Magnitude= 6.74

Input Data:

Surface Elev.=630
Hole No.=CPT-1
Depth of Hole=44.94 ft
Water Table during Earthquake= 10.00 ft
Water Table during In-Situ Testing= 100.00 ft
Max. Acceleration=0.76 g
Earthquake Magnitude=6.74

1. CPT Calculation Method: Modify Robertson*
2. Settlement Analysis Method: Tokimatsu/Seed
3. Fines Correction for Liquefaction: Stark/Olson et al.*
4. Fine Correction for Settlement: During Liquefaction*
5. Settlement Calculation in: All zones*
6. Hammer Energy Ratio,   Ce = 1.25
7. Borehole Diameter,   Cb= 1.15
8. Sampling Method,   Cs= 1
9. User request factor of safety (apply to CSR) ,   User= 1.3
   Plot one CSR curve (fs1=User)
10. Use Curve Smoothing: Yes*
* Recommended Options

In-Situ Test Data:

Depth ft	qc atm	fs atm	gamma pcf	Fines %	D50 mm
0.00	0.00	0.00	120.00	0.00	0.50
0.66	0.00	0.00	120.00	0.00	0.50
0.98	0.00	0.00	120.00	0.00	0.50
1.31	0.00	0.00	120.00	0.00	0.50
1.64	0.00	0.00	120.00	0.00	0.50
1.97	0.00	0.00	120.00	0.00	0.50
2.30	0.00	0.00	120.00	0.00	0.50
2.63	0.00	0.00	120.00	0.00	0.50
2.95	0.00	0.00	120.00	0.00	0.50
3.28	0.00	0.00	120.00	0.00	0.50
3.61	0.00	0.00	120.00	0.00	0.50
3.94	0.00	0.00	120.00	0.00	0.50
4.26	0.00	0.00	120.00	0.00	0.50
4.59	0.00	0.00	120.00	0.00	0.50
4.92	9.73	0.12	115.00	0.00	0.50
5.25	30.26	0.35	118.00	0.00	0.50
5.58	33.93	0.41	118.00	0.00	0.50
5.91	39.77	0.46	118.00	0.00	0.50
6.23	47.95	0.46	118.00	0.00	0.50

6.56	51.00	0.44	118.00	0.00	0.50
6.89	50.30	0.56	118.00	0.00	0.50
7.22	47.93	0.69	118.00	0.00	0.50
7.55	44.62	0.74	118.00	0.00	0.50
7.87	42.34	0.80	115.00	0.00	0.50
8.20	42.50	0.92	115.00	0.00	0.50
8.53	42.10	0.86	115.00	0.00	0.50
8.86	46.73	1.05	115.00	0.00	0.50
9.19	51.02	1.29	115.00	0.00	0.50
9.51	52.93	1.47	115.00	0.00	0.50
9.84	55.38	1.60	115.00	0.00	0.50
10.17	59.41	1.82	115.00	0.00	0.50
10.49	63.05	2.01	115.00	0.00	0.50
10.82	67.18	2.21	115.00	0.00	0.50
11.15	66.68	2.33	115.00	0.00	0.50
11.48	66.58	2.32	115.00	0.00	0.50
11.81	68.72	2.22	115.00	0.00	0.50
12.13	68.52	2.25	115.00	0.00	0.50
12.46	71.42	2.29	115.00	0.00	0.50
12.79	76.62	2.38	115.00	0.00	0.50
13.12	79.28	2.39	115.00	0.00	0.50
13.45	80.92	2.43	115.00	0.00	0.50
13.78	81.01	2.45	115.00	0.00	0.50
14.10	81.76	2.40	115.00	0.00	0.50
14.43	82.85	2.35	115.00	0.00	0.50
14.76	82.83	2.27	115.00	0.00	0.50
15.09	84.97	2.05	118.00	0.00	0.50
15.42	87.28	2.12	118.00	0.00	0.50
15.74	86.10	2.13	118.00	0.00	0.50
16.07	84.92	1.99	118.00	0.00	0.50
16.40	70.28	1.68	118.00	0.00	0.50
16.73	56.06	1.44	115.00	0.00	0.50
17.06	50.97	1.48	115.00	0.00	0.50
17.38	50.78	1.54	115.00	0.00	0.50
17.71	53.15	1.59	115.00	0.00	0.50
18.04	56.91	1.68	115.00	0.00	0.50
18.37	60.26	1.54	115.00	0.00	0.50
18.70	62.27	1.71	115.00	0.00	0.50
19.02	63.71	1.90	115.00	0.00	0.50
19.35	63.48	1.95	115.00	0.00	0.50
19.68	67.19	1.98	115.00	0.00	0.50
20.01	85.72	2.29	115.00	0.00	0.50
20.34	101.30	2.75	118.00	0.00	0.50
20.66	92.19	2.55	115.00	0.00	0.50
20.99	92.26	2.25	118.00	0.00	0.50
21.32	104.70	2.46	118.00	0.00	0.50
21.65	120.40	2.77	118.00	0.00	0.50
21.98	142.20	3.17	118.00	0.00	0.50
22.31	170.70	3.98	118.00	0.00	0.50
22.63	190.30	4.78	118.00	0.00	0.50
22.96	184.30	4.98	118.00	0.00	0.50
23.29	173.10	4.84	118.00	0.00	0.50
23.62	160.70	4.77	118.00	0.00	0.50
23.95	140.70	4.50	115.00	0.00	0.50
24.27	119.40	4.01	115.00	0.00	0.50
24.60	112.30	3.63	115.00	0.00	0.50
24.93	128.70	3.77	118.00	0.00	0.50
25.26	149.40	3.70	118.00	0.00	0.50
25.59	156.40	4.05	118.00	0.00	0.50
25.91	168.10	4.28	118.00	0.00	0.50
26.24	168.30	4.70	118.00	0.00	0.50
26.57	150.80	5.09	115.00	0.00	0.50
26.90	131.90	4.33	115.00	0.00	0.50
27.23	147.20	4.21	118.00	0.00	0.50
27.55	166.90	4.86	118.00	0.00	0.50
27.88	182.30	5.79	118.00	0.00	0.50

28.21	159.40	5.61	121.00	0.00	0.50
28.54	125.80	4.78	121.00	0.00	0.50
28.87	88.67	3.80	131.00	0.00	0.50
29.19	68.83	3.01	115.00	0.00	0.50
29.52	55.76	2.37	115.00	0.00	0.50
29.85	57.03	2.20	115.00	0.00	0.50
30.18	57.51	2.35	115.00	0.00	0.50
30.51	49.37	2.01	115.00	0.00	0.50
30.84	42.56	1.77	115.00	0.00	0.50
31.16	40.93	1.55	115.00	0.00	0.50
31.49	40.15	1.49	115.00	0.00	0.50
31.82	38.93	1.30	115.00	0.00	0.50
32.15	36.08	1.39	115.00	0.00	0.50
32.48	34.82	1.33	115.00	0.00	0.50
32.80	33.96	1.35	115.00	0.00	0.50
33.13	32.33	1.26	115.00	0.00	0.50
33.46	31.25	1.23	115.00	0.00	0.50
33.79	31.56	1.23	115.00	0.00	0.50
34.12	31.97	1.25	115.00	0.00	0.50
34.44	30.83	1.16	115.00	0.00	0.50
34.77	31.38	1.09	115.00	0.00	0.50
35.10	32.50	0.85	115.00	0.00	0.50
35.43	30.64	1.02	115.00	0.00	0.50
35.76	31.77	1.20	115.00	0.00	0.50
36.08	33.81	1.30	115.00	0.00	0.50
36.41	40.44	1.65	115.00	0.00	0.50
36.74	47.73	2.20	115.00	0.00	0.50
37.07	57.45	2.69	115.00	0.00	0.50
37.40	63.90	3.22	131.00	0.00	0.50
37.73	60.08	3.47	131.00	0.00	0.50
38.05	69.91	3.69	131.00	0.00	0.50
38.38	101.00	3.65	115.00	0.00	0.50
38.71	142.10	3.89	118.00	0.00	0.50
39.04	176.00	4.78	118.00	0.00	0.50
39.37	191.70	5.25	118.00	0.00	0.50
39.69	202.40	4.83	118.00	0.00	0.50
40.02	244.20	4.66	121.00	0.00	0.50
40.35	291.50	4.65	121.00	0.00	0.50
40.68	316.50	6.70	121.00	0.00	0.50
41.01	305.60	8.42	121.00	0.00	0.50
41.33	322.70	8.46	121.00	0.00	0.50
41.66	380.20	7.16	121.00	0.00	0.50
41.99	388.60	5.99	124.00	0.00	0.50
42.32	356.20	4.44	124.00	0.00	0.50
42.65	401.40	4.70	124.00	0.00	0.50
42.97	499.40	6.90	124.00	0.00	0.50
43.30	472.80	9.83	121.00	0.00	0.50
43.63	430.60	9.49	121.00	0.00	0.50
43.96	470.10	9.63	121.00	0.00	0.50
44.29	594.10	9.60	124.00	0.00	0.50
44.61	614.40	8.94	124.00	0.00	0.50
44.94	610.70	7.20	124.00	0.00	0.50

Modify Robertson method generates Fines from qc/fs. Inputted Fines are not relevant.

Output Results:

Settlement of Saturated Sands=0.27 in.
Settlement of Unsaturated Sands=0.80 in.
Total Settlement of Saturated and Unsaturated Sands=1.06 in.
Differential Settlement=0.532 to 0.703 in.

Depth ft	CRRm	CSRfs	F.S.	S_sat. in.	S_dry in.	S_all in.
0.00	2.00	0.64	5.00	0.27	0.80	1.06
1.00	2.00	0.64	5.00	0.27	0.80	1.06

2.00	2.00	0.64	5.00	0.27	0.80	1.06
3.00	2.00	0.64	5.00	0.27	0.80	1.06
4.00	2.00	0.63	5.00	0.27	0.80	1.06
5.00	0.14	0.63	5.00	0.27	0.76	1.03
6.00	0.21	0.63	5.00	0.27	0.54	0.80
7.00	0.24	0.63	5.00	0.27	0.34	0.61
8.00	0.27	0.63	5.00	0.27	0.18	0.44
9.00	0.34	0.63	5.00	0.27	0.04	0.31
10.00	0.51	0.63	0.81*	0.27	0.00	0.27
11.00	0.70	0.66	1.07	0.26	0.00	0.26
12.00	0.64	0.68	0.94*	0.26	0.00	0.26
13.00	0.64	0.71	0.91*	0.26	0.00	0.26
14.00	0.62	0.73	0.85*	0.26	0.00	0.26
15.00	0.50	0.75	0.67*	0.25	0.00	0.25
16.00	0.46	0.77	0.60*	0.22	0.00	0.22
17.00	0.38	0.79	0.49*	0.15	0.00	0.15
18.00	0.42	0.80	0.52*	0.12	0.00	0.12
19.00	0.44	0.82	0.53*	0.07	0.00	0.07
20.00	0.47	0.83	0.56*	0.05	0.00	0.05
21.00	0.45	0.85	0.53*	0.03	0.00	0.03
22.00	0.76	0.86	0.89*	0.00	0.00	0.00
23.00	1.39	0.87	1.60	0.00	0.00	0.00
24.00	0.99	0.88	1.13	0.00	0.00	0.00
25.00	0.77	0.89	0.87*	0.00	0.00	0.00
26.00	1.01	0.90	1.13	0.00	0.00	0.00
27.00	0.88	0.90	0.97*	0.00	0.00	0.00
28.00	1.32	0.91	1.45	0.00	0.00	0.00
29.00	1.12	0.92	1.23	0.00	0.00	0.00
30.00	2.00	0.92	5.00	0.00	0.00	0.00
31.00	2.00	0.92	5.00	0.00	0.00	0.00
32.00	2.00	0.92	5.00	0.00	0.00	0.00
33.00	2.00	0.92	5.00	0.00	0.00	0.00
34.00	2.00	0.92	5.00	0.00	0.00	0.00
35.00	2.00	0.92	5.00	0.00	0.00	0.00
36.00	2.00	0.92	5.00	0.00	0.00	0.00
37.00	2.00	0.92	5.00	0.00	0.00	0.00
38.00	2.00	0.91	5.00	0.00	0.00	0.00
39.00	0.73	0.91	0.80*	0.00	0.00	0.00
40.00	0.95	0.91	1.05	0.00	0.00	0.00
41.00	2.05	0.90	2.28	0.00	0.00	0.00
42.00	2.19	0.90	2.44	0.00	0.00	0.00
43.00	2.50	0.89	2.80	0.00	0.00	0.00
44.00	2.49	0.89	2.81	0.00	0.00	0.00

* F.S.<1, Liquefaction Potential Zone
(F.S. is limited to 5, CRR is limited to 2, CSR is limited to 2)

Units: Depth = ft, Stress or Pressure = atm (tsf), Unit Weight = pcf, Settlement = in.

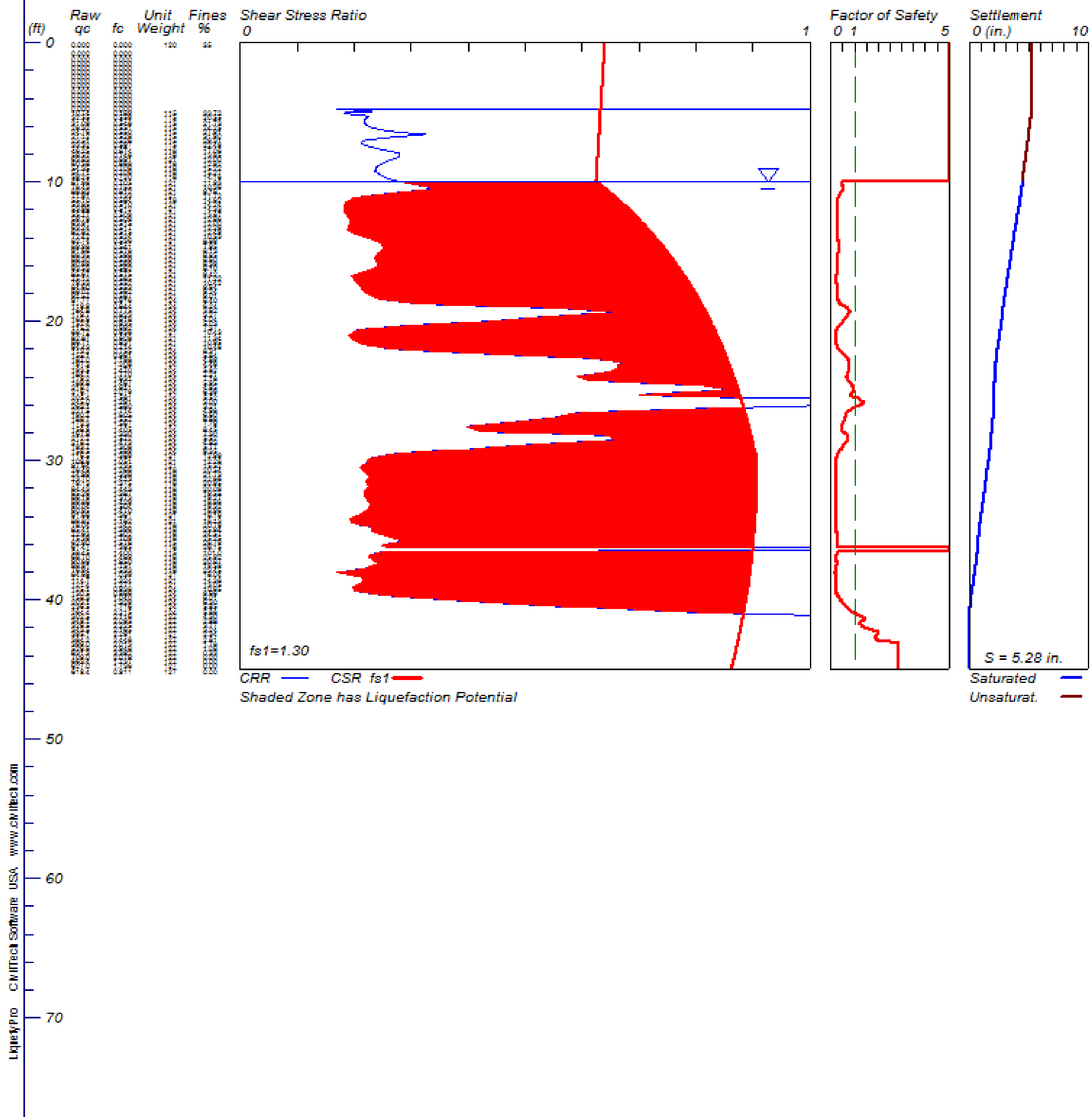
1 atm (atmosphere) = 1 tsf (ton/ft2)

CRRm	Cyclic resistance ratio from soils
CSRsf	Cyclic stress ratio induced by a given earthquake (with user request factor of safety)
F.S.	Factor of Safety against liquefaction, F.S.=CRRm/CSRsf
S_sat	Settlement from saturated sands
S_dry	Settlement from Unsaturated Sands
S_all	Total Settlement from Saturated and Unsaturated Sands
NoLiq	No-Liquefy Soils

LIQUEFACTION ANALYSIS

LAUSD/COLFAX ELEMENTARY SCHOOL

Hole No.=CPT-2   Water Depth=10 ft   Surface Elev.=630   *Magnitude=6.74 Acceleration=.758g*



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LIQUEFACTION ANALYSIS SUMMARY
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Input File Name: G:\Projects\200000 - Irvine\209350 - 209399\209381\209381010\Electronic Project File\Data Analysis & Calculations\Liquefaction\209381010_CPT-2.liq
Title: LAUSD/COLFAX ELEMENTARY SCHOOL
Subtitle: 209381010

Surface Elev.=630
Hole No.=CPT-2
Depth of Hole= 44.94 ft
Water Table during Earthquake= 10.00 ft
Water Table during In-Situ Testing= 100.00 ft
Max. Acceleration= 0.76 g
Earthquake Magnitude= 6.74

Input Data:

Surface Elev.=630
Hole No.=CPT-2
Depth of Hole=44.94 ft
Water Table during Earthquake= 10.00 ft
Water Table during In-Situ Testing= 100.00 ft
Max. Acceleration=0.76 g
Earthquake Magnitude=6.74

1. CPT Calculation Method: Modify Robertson*
2. Settlement Analysis Method: Tokimatsu/Seed
3. Fines Correction for Liquefaction: Modify Stark/Olson
4. Fine Correction for Settlement: During Liquefaction*
5. Settlement Calculation in: All zones*
6. Hammer Energy Ratio,   Ce = 1.25
7. Borehole Diameter,   Cb= 1.15
8. Sampling Method,   Cs= 1
9. User request factor of safety (apply to CSR) ,   User= 1.3
   Plot one CSR curve (fs1=User)
10. Use Curve Smoothing: Yes*
* Recommended Options

In-Situ Test Data:

Depth ft	qc atm	fs atm	gamma pcf	Fines %	D50 mm
0.00	0.00	0.00	120.00	0.00	0.50
0.66	0.00	0.00	120.00	0.00	0.50
0.98	0.00	0.00	120.00	0.00	0.50
1.31	0.00	0.00	120.00	0.00	0.50
1.64	0.00	0.00	120.00	0.00	0.50
1.97	0.00	0.00	120.00	0.00	0.50
2.30	0.00	0.00	120.00	0.00	0.50
2.63	0.00	0.00	120.00	0.00	0.50
2.95	0.00	0.00	120.00	0.00	0.50
3.28	0.00	0.00	120.00	0.00	0.50
3.61	0.00	0.00	120.00	0.00	0.50
3.94	0.00	0.00	120.00	0.00	0.50
4.26	0.00	0.00	120.00	0.00	0.50
4.59	0.00	0.00	120.00	0.00	0.50
4.92	10.74	0.19	115.00	0.00	0.50
5.25	32.55	0.56	115.00	0.00	0.50
5.58	31.09	0.55	115.00	0.00	0.50
5.91	28.32	0.55	115.00	0.00	0.50
6.23	24.76	0.55	115.00	0.00	0.50

6.56	21.12	0.53	115.00	0.00	0.50
6.89	23.51	0.53	115.00	0.00	0.50
7.22	33.32	0.60	115.00	0.00	0.50
7.55	46.25	0.67	118.00	0.00	0.50
7.87	58.52	0.75	118.00	0.00	0.50
8.20	63.83	0.69	121.00	0.00	0.50
8.53	60.58	0.67	118.00	0.00	0.50
8.86	54.35	0.71	118.00	0.00	0.50
9.19	54.71	0.71	118.00	0.00	0.50
9.51	59.25	0.72	118.00	0.00	0.50
9.84	67.98	0.70	121.00	0.00	0.50
10.17	78.43	0.75	121.00	0.00	0.50
10.49	88.83	0.81	121.00	0.00	0.50
10.82	71.91	0.73	121.00	0.00	0.50
11.15	55.10	0.58	118.00	0.00	0.50
11.48	53.85	0.51	121.00	0.00	0.50
11.81	53.98	0.51	121.00	0.00	0.50
12.13	55.77	0.51	121.00	0.00	0.50
12.46	59.79	0.51	121.00	0.00	0.50
12.79	63.91	0.51	121.00	0.00	0.50
13.12	63.24	0.52	121.00	0.00	0.50
13.45	62.82	0.51	121.00	0.00	0.50
13.78	72.42	0.52	121.00	0.00	0.50
14.10	82.74	0.54	121.00	0.00	0.50
14.43	89.98	0.54	121.00	0.00	0.50
14.76	91.66	0.58	121.00	0.00	0.50
15.09	88.35	0.60	121.00	0.00	0.50
15.42	88.30	0.56	121.00	0.00	0.50
15.74	90.89	0.57	121.00	0.00	0.50
16.07	93.53	0.56	121.00	0.00	0.50
16.40	85.67	0.57	121.00	0.00	0.50
16.73	75.12	0.56	121.00	0.00	0.50
17.06	79.53	0.55	121.00	0.00	0.50
17.38	84.60	0.55	121.00	0.00	0.50
17.71	88.07	0.56	121.00	0.00	0.50
18.04	91.57	0.59	121.00	0.00	0.50
18.37	97.77	0.62	124.00	0.00	0.50
18.70	119.90	0.64	124.00	0.00	0.50
19.02	164.80	0.77	124.00	0.00	0.50
19.35	179.70	0.82	124.00	0.00	0.50
19.68	165.60	0.82	124.00	0.00	0.50
20.01	152.40	0.83	124.00	0.00	0.50
20.34	115.20	0.69	124.00	0.00	0.50
20.66	88.72	0.64	121.00	0.00	0.50
20.99	82.87	0.61	121.00	0.00	0.50
21.32	86.71	0.63	121.00	0.00	0.50
21.65	94.43	0.71	121.00	0.00	0.50
21.98	113.20	0.75	124.00	0.00	0.50
22.31	155.10	0.96	124.00	0.00	0.50
22.63	187.00	1.20	124.00	0.00	0.50
22.96	197.30	1.21	124.00	0.00	0.50
23.29	193.50	1.47	124.00	0.00	0.50
23.62	184.10	1.77	124.00	0.00	0.50
23.95	179.20	1.63	124.00	0.00	0.50
24.27	189.80	1.47	124.00	0.00	0.50
24.60	218.70	1.61	124.00	0.00	0.50
24.93	216.10	2.08	124.00	0.00	0.50
25.26	205.40	1.58	124.00	0.00	0.50
25.59	245.00	1.29	124.00	0.00	0.50
25.91	263.10	1.58	124.00	0.00	0.50
26.24	227.50	1.71	124.00	0.00	0.50
26.57	190.70	1.61	124.00	0.00	0.50
26.90	188.70	1.56	124.00	0.00	0.50
27.23	173.30	1.57	124.00	0.00	0.50
27.55	156.90	1.40	124.00	0.00	0.50
27.88	167.90	1.33	124.00	0.00	0.50

28.21	212.70	1.57	124.00	0.00	0.50
28.54	218.70	1.47	124.00	0.00	0.50
28.87	193.70	1.31	124.00	0.00	0.50
29.19	158.50	1.59	124.00	0.00	0.50
29.52	116.50	1.39	121.00	0.00	0.50
29.85	109.60	1.05	121.00	0.00	0.50
30.18	97.64	1.24	121.00	0.00	0.50
30.51	76.49	1.27	118.00	0.00	0.50
30.84	74.99	1.34	118.00	0.00	0.50
31.16	73.70	1.41	118.00	0.00	0.50
31.49	79.13	1.38	118.00	0.00	0.50
31.82	84.43	1.44	118.00	0.00	0.50
32.15	85.26	1.39	118.00	0.00	0.50
32.48	86.19	1.37	118.00	0.00	0.50
32.80	89.88	1.43	118.00	0.00	0.50
33.13	90.04	1.50	118.00	0.00	0.50
33.46	90.95	1.47	118.00	0.00	0.50
33.79	91.66	1.36	121.00	0.00	0.50
34.12	86.82	1.18	121.00	0.00	0.50
34.44	78.04	1.24	118.00	0.00	0.50
34.77	65.41	1.40	118.00	0.00	0.50
35.10	72.63	1.50	118.00	0.00	0.50
35.43	75.39	1.71	118.00	0.00	0.50
35.76	62.90	1.58	115.00	0.00	0.50
36.08	61.47	1.39	118.00	0.00	0.50
36.41	58.45	1.40	115.00	0.00	0.50
36.74	68.70	1.47	118.00	0.00	0.50
37.07	90.69	1.65	118.00	0.00	0.50
37.40	98.81	1.75	118.00	0.00	0.50
37.73	76.94	1.53	118.00	0.00	0.50
38.05	84.69	1.04	121.00	0.00	0.50
38.38	114.70	1.32	121.00	0.00	0.50
38.71	121.40	1.27	121.00	0.00	0.50
39.04	125.10	0.94	124.00	0.00	0.50
39.37	130.50	0.89	124.00	0.00	0.50
39.69	158.30	1.04	124.00	0.00	0.50
40.02	203.10	1.33	124.00	0.00	0.50
40.35	236.50	1.72	124.00	0.00	0.50
40.68	264.40	2.21	124.00	0.00	0.50
41.01	302.50	2.12	127.00	0.00	0.50
41.33	349.10	2.10	127.00	0.00	0.50
41.66	326.50	2.22	127.00	0.00	0.50
41.99	343.50	2.16	127.00	0.00	0.50
42.32	395.10	2.29	127.00	0.00	0.50
42.65	384.20	2.45	127.00	0.00	0.50
42.97	399.00	2.01	127.00	0.00	0.50
43.30	526.60	2.95	127.00	0.00	0.50
43.63	631.30	3.39	127.00	0.00	0.50
43.96	709.00	2.08	127.00	0.00	0.50
44.29	663.40	1.74	127.00	0.00	0.50
44.61	627.00	1.74	127.00	0.00	0.50
44.94	619.40	0.91	127.00	0.00	0.50

Modify Robertson method generates Fines from qc/fs. Inputted Fines are not relevant.

Output Results:

Settlement of Saturated Sands=4.49 in.
Settlement of Unsaturated Sands=0.79 in.
Total Settlement of Saturated and Unsaturated Sands=5.28 in.
Differential Settlement=2.638 to 3.482 in.

Depth ft	CRRm	CSRfs	F.S.	S_sat. in.	S_dry in.	S_all in.
0.00	2.00	0.64	5.00	4.49	0.79	5.28
1.00	2.00	0.64	5.00	4.49	0.79	5.28

2.00	2.00	0.64	5.00	4.49	0.79	5.28
3.00	2.00	0.64	5.00	4.49	0.79	5.28
4.00	2.00	0.63	5.00	4.49	0.79	5.28
5.00	0.19	0.63	5.00	4.49	0.77	5.25
6.00	0.22	0.63	5.00	4.49	0.59	5.08
7.00	0.22	0.63	5.00	4.49	0.46	4.95
8.00	0.28	0.63	5.00	4.49	0.29	4.78
9.00	0.24	0.63	5.00	4.49	0.12	4.61
10.00	0.28	0.63	0.45*	4.49	0.00	4.49
11.00	0.23	0.66	0.34*	4.33	0.00	4.33
12.00	0.18	0.68	0.27*	4.14	0.00	4.14
13.00	0.19	0.71	0.27*	3.94	0.00	3.94
14.00	0.22	0.73	0.30*	3.75	0.00	3.75
15.00	0.25	0.75	0.33*	3.57	0.00	3.57
16.00	0.24	0.77	0.32*	3.39	0.00	3.39
17.00	0.20	0.78	0.25*	3.20	0.00	3.20
18.00	0.22	0.80	0.28*	3.01	0.00	3.01
19.00	0.53	0.81	0.66*	2.84	0.00	2.84
20.00	0.44	0.83	0.53*	2.72	0.00	2.72
21.00	0.19	0.84	0.23*	2.54	0.00	2.54
22.00	0.27	0.85	0.32*	2.35	0.00	2.35
23.00	0.68	0.86	0.79*	2.23	0.00	2.23
24.00	0.60	0.87	0.69*	2.15	0.00	2.15
25.00	0.82	0.87	0.94*	2.09	0.00	2.09
26.00	1.12	0.88	1.27	2.06	0.00	2.06
27.00	0.53	0.89	0.60*	1.99	0.00	1.99
28.00	0.49	0.90	0.55*	1.86	0.00	1.86
29.00	0.46	0.90	0.51*	1.76	0.00	1.76
30.00	0.22	0.91	0.25*	1.61	0.00	1.61
31.00	0.22	0.91	0.25*	1.45	0.00	1.45
32.00	0.22	0.91	0.25*	1.29	0.00	1.29
33.00	0.23	0.91	0.25*	1.13	0.00	1.13
34.00	0.20	0.90	0.22*	0.97	0.00	0.97
35.00	0.23	0.90	0.26*	0.81	0.00	0.81
36.00	0.26	0.90	0.29*	0.69	0.00	0.69
37.00	0.23	0.90	0.25*	0.59	0.00	0.59
38.00	0.18	0.90	0.20*	0.44	0.00	0.44
39.00	0.20	0.89	0.22*	0.26	0.00	0.26
40.00	0.37	0.89	0.41*	0.09	0.00	0.09
41.00	0.89	0.88	1.00	0.00	0.00	0.00
42.00	1.23	0.88	1.40	0.00	0.00	0.00
43.00	1.93	0.87	2.20	0.00	0.00	0.00
44.00	2.47	0.87	2.84	0.00	0.00	0.00

* F.S.<1, Liquefaction Potential Zone
(F.S. is limited to 5, CRR is limited to 2, CSR is limited to 2)

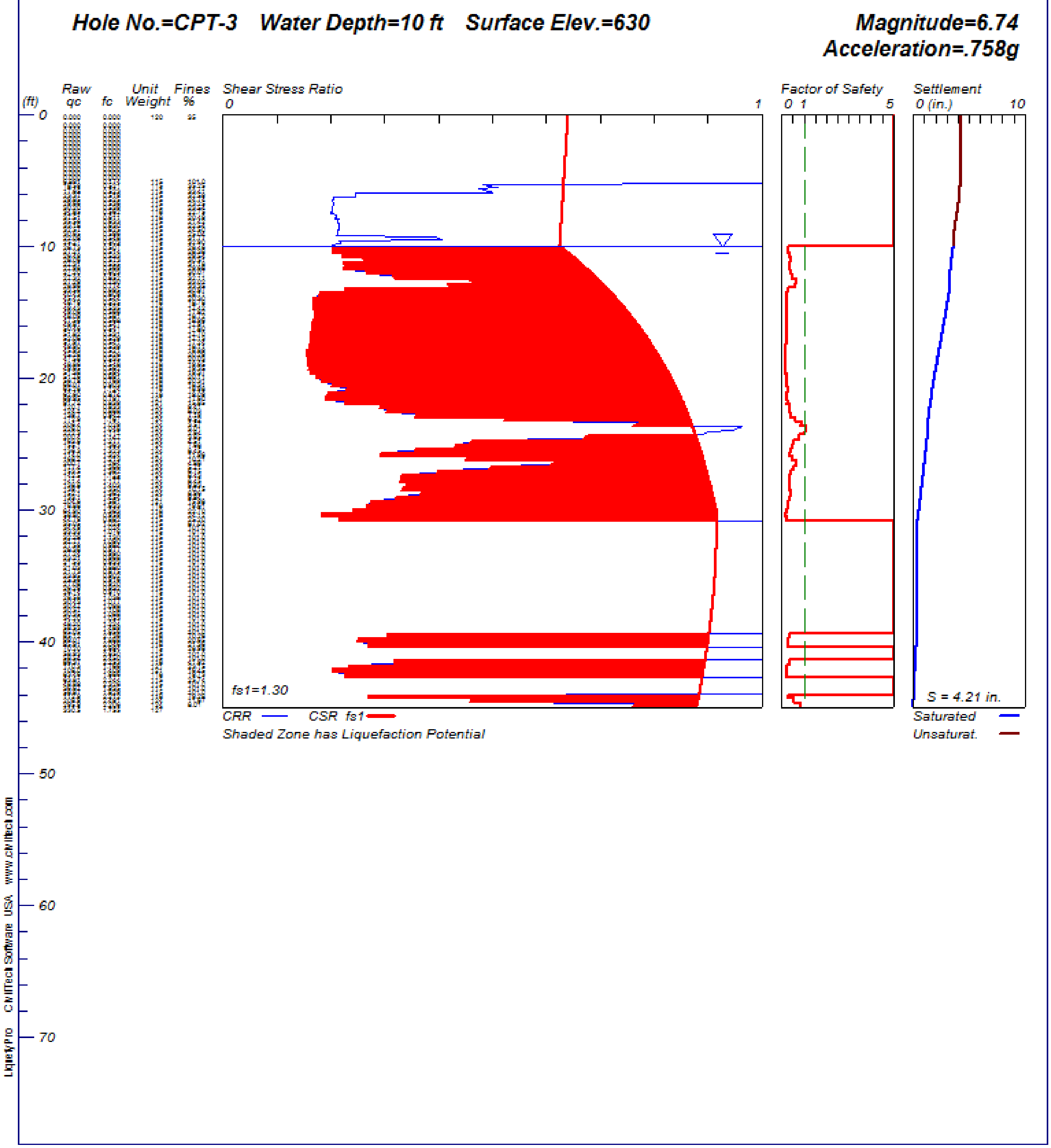
Units: Depth = ft, Stress or Pressure = atm (tsf), Unit Weight = pcf, Settlement = in.

1 atm (atmosphere) = 1 tsf (ton/ft2)

CRRm	Cyclic resistance ratio from soils
CSRsf	Cyclic stress ratio induced by a given earthquake (with user request factor of safety)
F.S.	Factor of Safety against liquefaction, F.S.=CRRm/CSRsf
S_sat	Settlement from saturated sands
S_dry	Settlement from Unsaturated Sands
S_all	Total Settlement from Saturated and Unsaturated Sands
NoLiq	No-Liquefy Soils

LIQUEFACTION ANALYSIS

LAUSD/COLFAX ELEMENTARY SCHOOL



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LIQUEFACTION ANALYSIS SUMMARY
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Input File Name: G:\Projects\200000 - Irvine\209350 - 209399\209381\209381010\Electronic Project File\Data Analysis & Calculations\Liquefaction\209381010_CPT-3.liq
Title: LAUSD/COLFAX ELEMENTARY SCHOOL
Subtitle: 209381010

Surface Elev.=630
Hole No.=CPT-3
Depth of Hole= 44.94 ft
Water Table during Earthquake= 10.00 ft
Water Table during In-Situ Testing= 100.00 ft
Max. Acceleration= 0.76 g
Earthquake Magnitude= 6.74

Input Data:

Surface Elev.=630
Hole No.=CPT-3
Depth of Hole=44.94 ft
Water Table during Earthquake= 10.00 ft
Water Table during In-Situ Testing= 100.00 ft
Max. Acceleration=0.76 g
Earthquake Magnitude=6.74

1. CPT Calculation Method: Modify Robertson*
2. Settlement Analysis Method: Tokimatsu/Seed
3. Fines Correction for Liquefaction: No
4. Fine Correction for Settlement: During Liquefaction*
5. Settlement Calculation in: All zones*
6. Hammer Energy Ratio, Ce = 1.25
7. Borehole Diameter, Cb= 1.15
8. Sampling Method, Cs= 1
9. User request factor of safety (apply to CSR) , User= 1.3
   Plot one CSR curve (fs1=User)
10. Use Curve Smoothing: No
* Recommended Options

In-Situ Test Data:

Depth ft	qc atm	fs atm	gamma pcf	Fines %	D50 mm
0.00	0.00	0.00	120.00	0.00	0.50
0.66	0.00	0.00	120.00	0.00	0.50
0.98	0.00	0.00	120.00	0.00	0.50
1.31	0.00	0.00	120.00	0.00	0.50
1.64	0.00	0.00	120.00	0.00	0.50
1.97	0.00	0.00	120.00	0.00	0.50
2.30	0.00	0.00	120.00	0.00	0.50
2.63	0.00	0.00	120.00	0.00	0.50
2.95	0.00	0.00	120.00	0.00	0.50
3.28	0.00	0.00	120.00	0.00	0.50
3.61	0.00	0.00	120.00	0.00	0.50
3.94	0.00	0.00	120.00	0.00	0.50
4.26	0.00	0.00	120.00	0.00	0.50
4.59	0.00	0.00	120.00	0.00	0.50
4.92	6.89	0.17	115.00	0.00	0.50
5.25	18.59	0.52	115.00	0.00	0.50
5.58	17.65	0.52	115.00	0.00	0.50
5.91	23.37	0.52	115.00	0.00	0.50
6.23	29.85	0.52	115.00	0.00	0.50

6.56	29.66	0.54	115.00	0.00	0.50
6.89	30.20	0.54	115.00	0.00	0.50
7.22	34.85	0.56	118.00	0.00	0.50
7.55	37.51	0.61	118.00	0.00	0.50
7.87	35.56	0.63	115.00	0.00	0.50
8.20	33.16	0.63	115.00	0.00	0.50
8.53	32.57	0.63	115.00	0.00	0.50
8.86	30.65	0.60	115.00	0.00	0.50
9.19	22.09	0.55	115.00	0.00	0.50
9.51	25.27	0.50	115.00	0.00	0.50
9.84	26.73	0.51	115.00	0.00	0.50
10.17	27.21	0.51	115.00	0.00	0.50
10.49	26.49	0.53	115.00	0.00	0.50
10.82	26.06	0.57	115.00	0.00	0.50
11.15	27.31	0.56	115.00	0.00	0.50
11.48	27.98	0.57	115.00	0.00	0.50
11.81	27.20	0.60	115.00	0.00	0.50
12.13	27.32	0.65	115.00	0.00	0.50
12.46	27.29	0.73	115.00	0.00	0.50
12.79	28.96	0.77	115.00	0.00	0.50
13.12	33.56	0.69	115.00	0.00	0.50
13.45	40.43	0.61	118.00	0.00	0.50
13.78	45.42	0.54	118.00	0.00	0.50
14.10	48.19	0.52	118.00	0.00	0.50
14.43	49.43	0.54	118.00	0.00	0.50
14.76	49.06	0.57	118.00	0.00	0.50
15.09	48.09	0.58	118.00	0.00	0.50
15.42	47.56	0.57	118.00	0.00	0.50
15.74	49.81	0.55	118.00	0.00	0.50
16.07	50.46	0.54	118.00	0.00	0.50
16.40	51.82	0.53	118.00	0.00	0.50
16.73	52.06	0.53	118.00	0.00	0.50
17.06	51.97	0.54	118.00	0.00	0.50
17.38	49.90	0.54	118.00	0.00	0.50
17.71	45.93	0.52	118.00	0.00	0.50
18.04	45.28	0.53	118.00	0.00	0.50
18.37	47.58	0.54	118.00	0.00	0.50
18.70	48.86	0.55	118.00	0.00	0.50
19.02	49.65	0.56	118.00	0.00	0.50
19.35	51.38	0.59	118.00	0.00	0.50
19.68	51.76	0.69	118.00	0.00	0.50
20.01	56.79	0.77	118.00	0.00	0.50
20.34	66.07	0.90	118.00	0.00	0.50
20.66	65.28	1.12	118.00	0.00	0.50
20.99	62.60	0.87	118.00	0.00	0.50
21.32	69.95	0.80	121.00	0.00	0.50
21.65	91.72	0.84	121.00	0.00	0.50
21.98	120.70	0.83	124.00	0.00	0.50
22.31	124.10	0.89	124.00	0.00	0.50
22.63	139.70	0.94	124.00	0.00	0.50
22.96	172.90	1.17	124.00	0.00	0.50
23.29	206.40	1.03	124.00	0.00	0.50
23.62	226.00	1.05	124.00	0.00	0.50
23.95	222.30	1.11	124.00	0.00	0.50
24.27	200.40	1.15	124.00	0.00	0.50
24.60	163.60	1.28	124.00	0.00	0.50
24.93	155.10	1.36	124.00	0.00	0.50
25.26	136.30	1.32	124.00	0.00	0.50
25.59	114.00	1.32	121.00	0.00	0.50
25.91	168.20	1.21	124.00	0.00	0.50
26.24	200.70	1.26	124.00	0.00	0.50
26.57	177.40	1.37	124.00	0.00	0.50
26.90	153.50	1.38	124.00	0.00	0.50
27.23	142.50	1.13	124.00	0.00	0.50
27.55	141.40	1.18	124.00	0.00	0.50
27.88	138.80	1.40	124.00	0.00	0.50

28.21	139.10	1.35	124.00	0.00	0.50
28.54	152.10	1.36	124.00	0.00	0.50
28.87	133.10	1.45	121.00	0.00	0.50
29.19	104.60	1.58	121.00	0.00	0.50
29.52	78.88	1.63	118.00	0.00	0.50
29.85	64.90	1.36	118.00	0.00	0.50
30.18	58.80	0.96	118.00	0.00	0.50
30.51	44.79	0.88	115.00	0.00	0.50
30.84	35.05	1.02	115.00	0.00	0.50
31.16	34.49	1.02	115.00	0.00	0.50
31.49	33.33	1.08	115.00	0.00	0.50
31.82	32.29	1.13	115.00	0.00	0.50
32.15	31.77	1.09	115.00	0.00	0.50
32.48	27.59	0.98	115.00	0.00	0.50
32.80	26.38	0.98	115.00	0.00	0.50
33.13	27.24	0.99	115.00	0.00	0.50
33.46	23.21	0.97	115.00	0.00	0.50
33.79	21.53	0.93	115.00	0.00	0.50
34.12	21.03	0.88	115.00	0.00	0.50
34.44	21.73	0.88	115.00	0.00	0.50
34.77	23.95	0.90	115.00	0.00	0.50
35.10	25.56	0.92	115.00	0.00	0.50
35.43	27.08	0.92	115.00	0.00	0.50
35.76	26.29	0.93	115.00	0.00	0.50
36.08	26.14	0.97	115.00	0.00	0.50
36.41	28.58	1.04	115.00	0.00	0.50
36.74	30.43	1.08	115.00	0.00	0.50
37.07	30.47	1.10	115.00	0.00	0.50
37.40	30.57	1.11	115.00	0.00	0.50
37.73	30.35	1.09	115.00	0.00	0.50
38.05	34.20	1.05	115.00	0.00	0.50
38.38	48.20	1.22	115.00	0.00	0.50
38.71	58.53	1.49	115.00	0.00	0.50
39.04	65.05	1.66	115.00	0.00	0.50
39.37	85.12	2.14	118.00	0.00	0.50
39.69	99.07	1.89	118.00	0.00	0.50
40.02	95.91	2.05	118.00	0.00	0.50
40.35	70.20	2.69	115.00	0.00	0.50
40.68	58.93	2.65	115.00	0.00	0.50
41.01	58.54	2.45	115.00	0.00	0.50
41.33	86.37	2.25	118.00	0.00	0.50
41.66	110.30	1.77	121.00	0.00	0.50
41.99	108.00	1.41	121.00	0.00	0.50
42.32	83.46	1.69	118.00	0.00	0.50
42.65	63.81	2.24	115.00	0.00	0.50
42.97	48.89	2.33	115.00	0.00	0.50
43.30	36.67	1.93	111.00	0.00	0.50
43.63	58.87	1.83	115.00	0.00	0.50
43.96	112.90	2.21	118.00	0.00	0.50
44.29	208.90	2.49	124.00	0.00	0.50
44.61	295.90	2.21	124.00	0.00	0.50
44.94	330.50	1.75	127.00	0.00	0.50

Modify Robertson method generates Fines from qc/fs. Inputted Fines are not relevant.

Output Results:

Settlement of Saturated Sands=3.59 in.
Settlement of Unsaturated Sands=0.61 in.
Total Settlement of Saturated and Unsaturated Sands=4.21 in.
Differential Settlement=2.103 to 2.776 in.

Depth ft	CRRm	CSRfs	F.S.	S_sat. in.	S_dry in.	S_all in.
0.00	2.00	0.64	5.00	3.59	0.61	4.21
1.00	2.00	0.64	5.00	3.59	0.61	4.21

2.00	2.00	0.64	5.00	3.59	0.61	4.21
3.00	2.00	0.64	5.00	3.59	0.61	4.21
4.00	2.00	0.63	5.00	3.59	0.61	4.21
5.00	2.00	0.63	5.00	3.59	0.61	4.21
6.00	0.25	0.63	5.00	3.59	0.59	4.18
7.00	0.20	0.63	5.00	3.59	0.42	4.02
8.00	0.21	0.63	5.00	3.59	0.24	3.84
9.00	0.21	0.63	5.00	3.59	0.08	3.67
10.00	0.20	0.63	0.32*	3.59	0.00	3.59
11.00	0.26	0.66	0.40*	3.45	0.00	3.45
12.00	0.27	0.68	0.39*	3.31	0.00	3.31
13.00	0.42	0.71	0.59*	3.27	0.00	3.27
14.00	0.17	0.73	0.23*	3.12	0.00	3.12
15.00	0.17	0.75	0.23*	2.92	0.00	2.92
16.00	0.16	0.77	0.21*	2.72	0.00	2.72
17.00	0.16	0.79	0.21*	2.51	0.00	2.51
18.00	0.16	0.80	0.19*	2.30	0.00	2.30
19.00	0.16	0.82	0.19*	2.09	0.00	2.09
20.00	0.17	0.83	0.21*	1.89	0.00	1.89
21.00	0.19	0.84	0.23*	1.71	0.00	1.71
22.00	0.29	0.86	0.34*	1.53	0.00	1.53
23.00	0.53	0.87	0.61*	1.37	0.00	1.37
24.00	0.90	0.87	1.03	1.30	0.00	1.30
25.00	0.43	0.88	0.49*	1.21	0.00	1.21
26.00	0.45	0.89	0.51*	1.07	0.00	1.07
27.00	0.40	0.90	0.44*	0.95	0.00	0.95
28.00	0.34	0.90	0.38*	0.80	0.00	0.80
29.00	0.32	0.91	0.35*	0.66	0.00	0.66
30.00	0.24	0.92	0.26*	0.52	0.00	0.52
31.00	2.00	0.92	5.00	0.39	0.00	0.39
32.00	2.00	0.92	5.00	0.39	0.00	0.39
33.00	2.00	0.92	5.00	0.39	0.00	0.39
34.00	2.00	0.91	5.00	0.39	0.00	0.39
35.00	2.00	0.91	5.00	0.39	0.00	0.39
36.00	2.00	0.91	5.00	0.39	0.00	0.39
37.00	2.00	0.91	5.00	0.39	0.00	0.39
38.00	2.00	0.91	5.00	0.39	0.00	0.39
39.00	2.00	0.90	5.00	0.39	0.00	0.39
40.00	0.25	0.90	0.28*	0.32	0.00	0.32
41.00	2.00	0.90	5.00	0.27	0.00	0.27
42.00	0.20	0.89	0.23*	0.19	0.00	0.19
43.00	2.00	0.89	5.00	0.08	0.00	0.08
44.00	0.27	0.88	0.31*	0.08	0.00	0.08

* F.S.<1, Liquefaction Potential Zone
(F.S. is limited to 5, CRR is limited to 2, CSR is limited to 2)

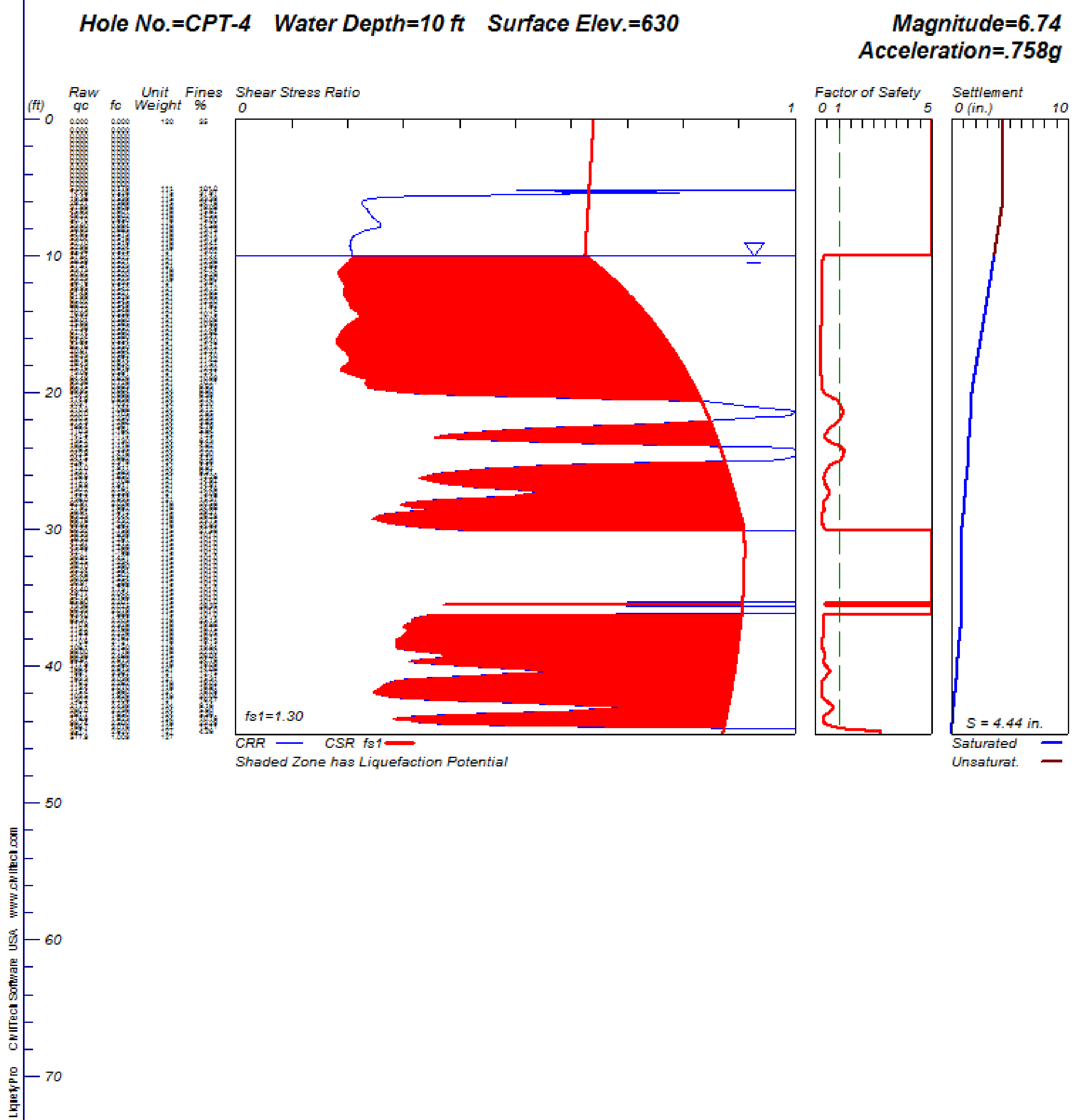
Units: Depth = ft, Stress or Pressure = atm (tsf), Unit Weight = pcf, Settlement = in.

1 atm (atmosphere) = 1 tsf (ton/ft2)

CRRm	Cyclic resistance ratio from soils
CSRsf	Cyclic stress ratio induced by a given earthquake (with user request factor of safety)
F.S.	Factor of Safety against liquefaction, F.S.=CRRm/CSRsf
S_sat	Settlement from saturated sands
S_dry	Settlement from Unsaturated Sands
S_all	Total Settlement from Saturated and Unsaturated Sands
NoLiq	No-Liquefy Soils

LIQUEFACTION ANALYSIS

LAUSD/COLFAX ELEMENTARY SCHOOL



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LIQUEFACTION ANALYSIS SUMMARY
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Input File Name: G:\Projects\200000 - Irvine\209350 - 209399\209381\209381010\Electronic Project File\Data Analysis & Calculations\Liquefaction\209381010_CPT-4.liq
Title: LAUSD/COLFAX ELEMENTARY SCHOOL
Subtitle: 209381010

Surface Elev.=630
Hole No.=CPT-4
Depth of Hole= 44.94 ft
Water Table during Earthquake= 10.00 ft
Water Table during In-Situ Testing= 100.00 ft
Max. Acceleration= 0.76 g
Earthquake Magnitude= 6.74

Input Data:

Surface Elev.=630
Hole No.=CPT-4
Depth of Hole=44.94 ft
Water Table during Earthquake= 10.00 ft
Water Table during In-Situ Testing= 100.00 ft
Max. Acceleration=0.76 g
Earthquake Magnitude=6.74

1. CPT Calculation Method: Modify Robertson*
2. Settlement Analysis Method: Tokimatsu/Seed
3. Fines Correction for Liquefaction: No
4. Fine Correction for Settlement: During Liquefaction*
5. Settlement Calculation in: All zones*
6. Hammer Energy Ratio,   Ce = 1.25
7. Borehole Diameter,   Cb= 1.15
8. Sampling Method,   Cs= 1
9. User request factor of safety (apply to CSR) ,   User= 1.3
   Plot one CSR curve (fs1=User)
10. Use Curve Smoothing: Yes*
* Recommended Options

In-Situ Test Data:

Depth ft	qc atm	fs atm	gamma pcf	Fines %	D50 mm
0.00	0.00	0.00	120.00	0.00	0.50
0.66	0.00	0.00	120.00	0.00	0.50
0.98	0.00	0.00	120.00	0.00	0.50
1.31	0.00	0.00	120.00	0.00	0.50
1.64	0.00	0.00	120.00	0.00	0.50
1.97	0.00	0.00	120.00	0.00	0.50
2.30	0.00	0.00	120.00	0.00	0.50
2.63	0.00	0.00	120.00	0.00	0.50
2.95	0.00	0.00	120.00	0.00	0.50
3.28	0.00	0.00	120.00	0.00	0.50
3.61	0.00	0.00	120.00	0.00	0.50
3.94	0.00	0.00	120.00	0.00	0.50
4.26	0.00	0.00	120.00	0.00	0.50
4.59	0.00	0.00	120.00	0.00	0.50
4.92	5.00	0.18	111.00	0.00	0.50
5.25	14.48	0.53	115.00	0.00	0.50
5.58	19.36	0.54	115.00	0.00	0.50
5.91	29.27	0.59	115.00	0.00	0.50
6.23	37.89	0.61	118.00	0.00	0.50

6.56	45.63	0.60	118.00	0.00	0.50
6.89	49.22	0.60	118.00	0.00	0.50
7.22	50.10	0.65	118.00	0.00	0.50
7.55	53.60	0.69	118.00	0.00	0.50
7.87	56.63	0.69	118.00	0.00	0.50
8.20	54.65	0.57	118.00	0.00	0.50
8.53	53.04	0.52	118.00	0.00	0.50
8.86	52.70	0.52	118.00	0.00	0.50
9.19	52.98	0.52	118.00	0.00	0.50
9.51	55.36	0.52	121.00	0.00	0.50
9.84	57.84	0.52	121.00	0.00	0.50
10.17	58.59	0.52	121.00	0.00	0.50
10.49	57.51	0.52	121.00	0.00	0.50
10.82	53.73	0.52	118.00	0.00	0.50
11.15	50.65	0.52	118.00	0.00	0.50
11.48	53.23	0.52	118.00	0.00	0.50
11.81	56.76	0.54	121.00	0.00	0.50
12.13	59.95	0.54	121.00	0.00	0.50
12.46	61.49	0.53	121.00	0.00	0.50
12.79	61.99	0.53	121.00	0.00	0.50
13.12	65.02	0.55	121.00	0.00	0.50
13.45	68.22	0.55	121.00	0.00	0.50
13.78	70.73	0.55	121.00	0.00	0.50
14.10	76.93	0.56	121.00	0.00	0.50
14.43	79.01	0.58	121.00	0.00	0.50
14.76	75.69	0.56	121.00	0.00	0.50
15.09	71.38	0.55	121.00	0.00	0.50
15.42	67.14	0.56	121.00	0.00	0.50
15.74	65.24	0.58	121.00	0.00	0.50
16.07	64.65	0.55	121.00	0.00	0.50
16.40	65.76	0.55	121.00	0.00	0.50
16.73	70.67	0.56	121.00	0.00	0.50
17.06	76.23	0.58	121.00	0.00	0.50
17.38	78.18	0.61	121.00	0.00	0.50
17.71	78.43	0.62	121.00	0.00	0.50
18.04	75.16	0.62	121.00	0.00	0.50
18.37	73.06	0.59	121.00	0.00	0.50
18.70	84.49	0.63	121.00	0.00	0.50
19.02	93.38	0.73	121.00	0.00	0.50
19.35	95.15	0.68	121.00	0.00	0.50
19.68	99.95	0.66	124.00	0.00	0.50
20.01	124.30	0.70	124.00	0.00	0.50
20.34	174.90	0.84	124.00	0.00	0.50
20.66	203.10	1.03	124.00	0.00	0.50
20.99	210.30	1.09	124.00	0.00	0.50
21.32	220.00	1.11	124.00	0.00	0.50
21.65	220.50	1.25	124.00	0.00	0.50
21.98	212.30	1.28	124.00	0.00	0.50
22.31	199.40	1.37	124.00	0.00	0.50
22.63	170.30	1.18	124.00	0.00	0.50
22.96	147.50	1.11	124.00	0.00	0.50
23.29	135.20	1.13	124.00	0.00	0.50
23.62	185.30	1.12	124.00	0.00	0.50
23.95	228.50	1.24	124.00	0.00	0.50
24.27	242.90	1.42	124.00	0.00	0.50
24.60	241.50	1.68	124.00	0.00	0.50
24.93	226.10	2.32	124.00	0.00	0.50
25.26	172.00	1.91	124.00	0.00	0.50
25.59	153.70	1.58	124.00	0.00	0.50
25.91	128.60	1.65	121.00	0.00	0.50
26.24	112.10	1.71	121.00	0.00	0.50
26.57	118.90	1.92	121.00	0.00	0.50
26.90	130.20	2.16	121.00	0.00	0.50
27.23	155.20	2.56	121.00	0.00	0.50
27.55	138.00	2.63	121.00	0.00	0.50
27.88	92.97	2.03	118.00	0.00	0.50

28.21	71.92	1.69	118.00	0.00	0.50
28.54	58.61	1.61	115.00	0.00	0.50
28.87	63.23	1.44	118.00	0.00	0.50
29.19	69.78	1.43	118.00	0.00	0.50
29.52	69.85	1.56	118.00	0.00	0.50
29.85	66.32	1.76	115.00	0.00	0.50
30.18	58.53	1.84	115.00	0.00	0.50
30.51	56.53	1.76	115.00	0.00	0.50
30.84	47.37	1.71	115.00	0.00	0.50
31.16	45.99	1.77	115.00	0.00	0.50
31.49	42.71	1.80	115.00	0.00	0.50
31.82	36.91	1.43	115.00	0.00	0.50
32.15	36.75	1.23	115.00	0.00	0.50
32.48	38.70	1.59	115.00	0.00	0.50
32.80	35.24	1.59	115.00	0.00	0.50
33.13	34.48	1.50	115.00	0.00	0.50
33.46	36.03	1.55	115.00	0.00	0.50
33.79	36.97	1.59	115.00	0.00	0.50
34.12	44.40	1.74	115.00	0.00	0.50
34.44	49.77	2.04	115.00	0.00	0.50
34.77	54.13	2.17	115.00	0.00	0.50
35.10	65.80	2.20	115.00	0.00	0.50
35.43	73.36	2.08	115.00	0.00	0.50
35.76	66.33	2.08	115.00	0.00	0.50
36.08	63.40	1.89	115.00	0.00	0.50
36.41	85.37	2.20	118.00	0.00	0.50
36.74	110.90	2.33	118.00	0.00	0.50
37.07	113.20	2.17	118.00	0.00	0.50
37.40	118.90	2.23	118.00	0.00	0.50
37.73	117.70	2.18	118.00	0.00	0.50
38.05	110.60	2.12	118.00	0.00	0.50
38.38	108.10	2.15	118.00	0.00	0.50
38.71	98.00	2.18	118.00	0.00	0.50
39.04	88.38	2.47	115.00	0.00	0.50
39.37	96.61	2.67	115.00	0.00	0.50
39.69	117.90	2.36	118.00	0.00	0.50
40.02	168.40	2.81	121.00	0.00	0.50
40.35	199.10	3.36	121.00	0.00	0.50
40.68	163.30	3.04	121.00	0.00	0.50
41.01	116.20	2.26	118.00	0.00	0.50
41.33	113.40	2.07	118.00	0.00	0.50
41.66	115.40	1.96	121.00	0.00	0.50
41.99	103.50	1.93	118.00	0.00	0.50
42.32	130.20	2.21	121.00	0.00	0.50
42.65	217.20	2.44	124.00	0.00	0.50
42.97	280.00	2.24	124.00	0.00	0.50
43.30	261.70	1.85	124.00	0.00	0.50
43.63	178.60	1.82	124.00	0.00	0.50
43.96	98.74	2.50	118.00	0.00	0.50
44.29	166.70	3.08	121.00	0.00	0.50
44.61	351.10	2.62	127.00	0.00	0.50
44.94	577.90	1.01	127.00	0.00	0.50

Modify Robertson method generates Fines from qc/fs. Inputted Fines are not relevant.

Output Results:

Settlement of Saturated Sands=3.66 in.
Settlement of Unsaturated Sands=0.78 in.
Total Settlement of Saturated and Unsaturated Sands=4.44 in.
Differential Settlement=2.222 to 2.932 in.

Depth ft	CRRm	CSRfs	F.S.	S_sat. in.	S_dry in.	S_all in.
0.00	2.00	0.64	5.00	3.66	0.78	4.44
1.00	2.00	0.64	5.00	3.66	0.78	4.44

2.00	2.00	0.64	5.00	3.66	0.78	4.44
3.00	2.00	0.64	5.00	3.66	0.78	4.44
4.00	2.00	0.63	5.00	3.66	0.78	4.44
5.00	2.00	0.63	5.00	3.66	0.78	4.44
6.00	0.23	0.63	5.00	3.66	0.72	4.39
7.00	0.24	0.63	5.00	3.66	0.55	4.21
8.00	0.25	0.63	5.00	3.66	0.38	4.04
9.00	0.21	0.63	5.00	3.66	0.18	3.84
10.00	0.21	0.63	0.33*	3.66	0.00	3.66
11.00	0.19	0.66	0.28*	3.48	0.00	3.48
12.00	0.19	0.68	0.28*	3.28	0.00	3.28
13.00	0.20	0.71	0.28*	3.09	0.00	3.09
14.00	0.21	0.73	0.29*	2.89	0.00	2.89
15.00	0.20	0.75	0.27*	2.71	0.00	2.71
16.00	0.18	0.77	0.24*	2.51	0.00	2.51
17.00	0.20	0.78	0.25*	2.31	0.00	2.31
18.00	0.19	0.80	0.24*	2.12	0.00	2.12
19.00	0.23	0.81	0.29*	1.92	0.00	1.92
20.00	0.30	0.83	0.37*	1.75	0.00	1.75
21.00	0.91	0.84	1.09	1.65	0.00	1.65
22.00	0.87	0.85	1.02	1.62	0.00	1.62
23.00	0.39	0.86	0.46*	1.53	0.00	1.53
24.00	0.97	0.87	1.12	1.42	0.00	1.42
25.00	0.87	0.87	1.00*	1.40	0.00	1.40
26.00	0.35	0.88	0.40*	1.30	0.00	1.30
27.00	0.45	0.89	0.51*	1.18	0.00	1.18
28.00	0.31	0.90	0.35*	1.10	0.00	1.10
29.00	0.25	0.90	0.28*	0.99	0.00	0.99
30.00	0.38	0.91	0.42*	0.88	0.00	0.88
31.00	2.00	0.91	5.00	0.88	0.00	0.88
32.00	2.00	0.91	5.00	0.88	0.00	0.88
33.00	2.00	0.91	5.00	0.88	0.00	0.88
34.00	2.00	0.91	5.00	0.88	0.00	0.88
35.00	2.00	0.91	5.00	0.88	0.00	0.88
36.00	2.00	0.91	5.00	0.87	0.00	0.87
37.00	0.30	0.90	0.33*	0.79	0.00	0.79
38.00	0.29	0.90	0.32*	0.66	0.00	0.66
39.00	0.35	0.90	0.39*	0.54	0.00	0.54
40.00	0.42	0.89	0.47*	0.47	0.00	0.47
41.00	0.29	0.89	0.33*	0.40	0.00	0.40
42.00	0.25	0.89	0.28*	0.26	0.00	0.26
43.00	0.70	0.88	0.80*	0.15	0.00	0.15
44.00	0.31	0.88	0.36*	0.04	0.00	0.04

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* F.S.<1, Liquefaction Potential Zone
(F.S. is limited to 5, CRR is limited to 2, CSR is limited to 2)

Units: Depth = ft, Stress or Pressure = atm (tsf), Unit Weight = pcf, Settlement = in.

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1 atm (atmosphere) = 1 tsf (ton/ft2)

CRRm	Cyclic resistance ratio from soils
CSRsf	Cyclic stress ratio induced by a given earthquake (with user request factor of safety)
F.S.	Factor of Safety against liquefaction, F.S.=CRRm/CSRsf
S_sat	Settlement from saturated sands
S_dry	Settlement from Unsaturated Sands
S_all	Total Settlement from Saturated and Unsaturated Sands
NoLiq	No-Liquefy Soils

Appendix E
Phase I Environmental Site Assessment

WorleyParsons

resources & energy

EcoNomics™

Phase I Environmental Site Assessment

Colfax Elementary School

11724 Addison Street, Los Angeles, California

308038-08520

January 21, 2016

Decommissioning & Restoration

181 W. Huntington Drive, Suite 110
Monrovia, CA 91016 USA
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Ralph Beck, as an employee of WorleyParsons, with expertise in environmental due diligence, has reviewed the report with the title **Phase I Environmental Site Assessment, 11724 Addison Street, Los Angeles, California**. His signature appears below.

"I declare that, to the best of my professional knowledge and belief, I meet the definition of 'environmental professional' as defined in section 312.10 of 40 CFR 312 and I have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the property referenced above. I have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312."

Ralph M. Beck, PG, CAC

January 21, 2016

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EXECUTIVE SUMMARY

WorleyParsons performed a Phase I Environmental Site Assessment (ESA) of the Colfax Elementary School, located at 11724 Addison Street, Los Angeles, California (the Site). The Site consists of an approximately 8.1-acre charter elementary school and kindergarten and is located within Los Angeles County assessor's parcel number (APN) 2355-013-900 at Latitude N34°09'37.21" and Longitude W118°23'19.92". The Site is bounded to the north by single-family dwellings across Addison Street, to the east by single-family dwellings across Colfax Avenue, to the south by single-family dwellings across Huston Street, and to the west by single-family dwellings across Morella Avenue.

ON-SITE FINDINGS

The Site was an arboretum from at least 1928 to 1940 and included a single-family dwelling in the center of the Site. A Grant Deed, dated July 28, 1949, and recorded on September 28, 1949, indicates that the Los Angeles City School District of Los Angeles County, now known as the Los Angeles Unified School District (LAUSD), took ownership of the Site from A. F. Schiffman. Permits issued for construction and certificates of occupancy indicate that the Site was incorporated as a school in approximately 1951. Throughout the years, various construction activities at the Site added and removed various structures, added parking lots and paved areas.

The Site is currently developed with 10 single-story classroom buildings, two single-story restroom buildings, one single-story library building, one single story office building, one two-story assembly/cafeteria building, six intermodal container used to store maintenance supplies, art supplies, earthquake emergency supplies, classroom supplies, and school fair supplies and an animal sanctuary. A paved staff parking area is located in the northern portion of the Site along Addison Street. An additional parking area is located in the eastern portion of the Site on Colfax Avenue. A paved playground area is located in the mid portion of the Site. Three fenced-in concrete padded electrical transformers are located on-Site; one in the eastern portion of Site south of Classroom 26 and two adjacent to the south of the girls restroom near Classroom 12. An electrical room is located near the boy's restroom and Classroom 20. An electrical box and a sprinkler electrical control box are located in the southeastern portion of the Site. A landscaped play area is located in the mid-western portion of the Site. No evidence of releases or spills of hazardous materials or petroleum products was identified at the Site as part of this investigation.

Additionally, no evidence of underground storage tanks (USTs), aboveground storage tanks (ASTs), pits, ponds, lagoons, or hazardous material/petroleum products use, storage or disposal was observed at the Site during the Site reconnaissance inspection, with the exception of three 5-gallon portable gasoline containers, two of which were full at the time of the Site reconnaissance, stored in the art supply intermodal container. Additionally, no evidence of dumping, landfilling, distressed vegetation, or other evidence suggesting the possible release of hazardous substances and/or petroleum products was observed during the Site reconnaissance inspection.

OFF-SITE FINDINGS

From at least 1928 until 1938 the Site was bordered to the north by farms across Addison Street, to the east by farms and single-family dwellings across Colfax Avenue, to the south by single-family residential dwellings across Huston Street, and to the west by an arboretum. In 1938 the arboretum bordering the Site to the west was developed as single-family residential dwellings across Morella Avenue. In 1940 the farms present north of the Site across Addison Street were developed into single-family residential dwellings. In 1952 the remainder of the farms adjacent to the Site were developed into single-family residential dwellings as well as a church to the northeast of the Site on the northeast corner of Addison Street and Colfax Avenue.

The Site is currently bordered to the north by single-family dwellings across Addison Street, to the east by single-family dwellings across Colfax Avenue, to the south by single-family dwellings across Huston Street, and to the west by single-family dwellings across Morella Avenue. Faith Presbyterian Church is located to the northeast of the Site across from the intersection of Addison Street and Colfax Avenue. No evidence of hazardous material and/or petroleum product releases was observed on these properties during the reconnaissance inspection.

Federal, State, and local regulatory database lists were reviewed for cases including, but not limited to, USTs, ASTs, hazardous waste sites, hazardous waste generators, Brownfield sites, hazardous material/petroleum product release sites, abandoned sites, and sites with deed restrictions and/or institutional controls within the specified radii of standards established by the American Society of Testing and Materials (ASTM). The Colfax Elementary School, was identified in the RCRA-LGQ, FINDS, HAZNET, FTTS, and HIST FTTS databases for generation of various hazardous wastes, including lead-based paint, asbestos and PCB wastes generated during the renovation of Site buildings.

OPINION OF ON-SITE FINDINGS

Based on the age of the existing Site buildings, it is possible that lead-based paint (LBP) has been applied to the exterior finishes of the buildings. As such, it is possible that LBP residue is present in soils around the perimeters of the existing and former buildings. It is possible that organochlorinated pesticides (OCP) in the form of termiticides have been applied around the foundations of these Site buildings or in the areas that were previously used for horticulture/agriculture. Additionally, there is the potential presence of arsenic underneath pavement that may have been applied as an herbicide. Based on the age of the existing Site buildings, it is possible that asbestos-containing materials (ACM) are present in building materials. It is WorleyParsons' opinion that the potential presence of LBP residue, OCPs, and arsenic in soil and ACM in the Site building materials constitute recognized environmental conditions (RECs).

Based on the findings of this investigation, no other RECs, historic RECs (HRECs), controlled RECs (CRECs) or de minimus conditions have been identified at the Site.

OPINION OF OFF-SITE FINDINGS

An environmental database report prepared by Environmental Data Resources, Inc. (EDR) was reviewed for local, state, and federal listings for properties within the Site vicinity. Regulatory database lists were reviewed for cases pertaining to leaking USTs and ASTs, hazardous waste sites, and abandoned sites within the specified radii of standards established by the ASTM. Based on the status of these facilities, their distance from the Site, and the reported groundwater flow direction, these sites are not considered RECs.

EXISTING SCHOOL SITES CHECKLIST

An LAUSD Office of Environmental Health Services (OEHS) Existing School Sites checklist was completed as part of this Phase I ESA in accordance with California Department of Education (CDE) requirements. Based on the findings of this investigation, no affirmative answers to the checklist were made with the exception of the following:

- The Site is located within a dam inundation area. However, the Project is not expected to create a new or exacerbate an existing significant safety hazard to students from flooding or dam inundation.

CONCLUSIONS AND RECOMMENDATIONS

WorleyParsons has performed a Phase I ESA of the Site in conformance with the scope and limitations of ASTM Standard Practice E1527-13 and requirements set forth by the LAUSD and the California Department of Education (CDE). Any exceptions to or deletions from this practice are described in Section 13 of this report. This assessment has revealed no evidence of RECs in connection with the Site with the exception of the following:

a) Potential presence of LBP residue in shallow soils around the drip lines of the existing and former buildings at the Site.

b) Potential presence of OCP in shallow soils around the foundations of the existing and former buildings and in areas of former horticulture/agriculture at the Site.

c) Potential presence of arsenic in shallow soils under pavement.

d) Potential presence of ACM in the Site building materials.

WorleyParsons recommends completion of a site investigation within the boundary of the planned development area that includes collection of soil samples for the evaluation of LBP, OCP, and arsenic and if present, a human health risk assessment to determine if the levels pose a risk to future Site occupants. WorleyParsons recommends completion of a hazardous Material Property Condition Survey to identify and quantify all hazardous materials present at the Site including asbestos, lead-based-paint, mold, PCBs, mercury, tritium, radium, and/or other hazardous materials, in order that work plans and specifications may be developed for the safe abatement by a licensed and qualified contractor(s) prior to removal/renovation of any Site buildings.

1. INTRODUCTION

This report presents the results of a Phase I Environmental Site Assessment (Phase I ESA) performed by WorleyParsons for the Los Angeles Unified School District (LAUSD) for the Colfax Elementary School (hereinafter referred to as the "Site"). The Site consists of approximately 8.1-acres and is located at 11724 Addison Street in Los Angeles, California (Figures 1 and 2). The Site is located within Los Angeles County assessor's parcel number (APN) 2355-013-900 at Latitude N34°09'37.21" and Longitude W118°23'19.92". The Site is bounded to the north by single-family dwellings across Addison Street, to the east by single-family dwellings across Colfax Avenue, to the south by single-family dwellings across Huston Street, and to the west by single-family dwellings across Morella Avenue. It is WorleyParsons' understanding that the LAUSD plans to add new and improve existing classroom buildings at the Site (hereinafter referred to as "the Project").

1.1 Objective and Purpose

The purpose of this Phase I ESA was to assist in the evaluation of Site-specific safety factors that may be caused or exacerbated by the Project and the potential impact of these safety factors on students at Site. The objective of the Phase I ESA is to identify recognized environmental conditions (RECs) in order to assist in the evaluation of historical land use at the Site, assess for potential environmental impacts on- and off-site, and determine the degree to which any potential environmental impacts may affect on-site occupants, off-site individuals, and the environment. The Phase I ESA was also intended to assist in determining whether further action is needed to characterize and/or mitigate environmental impacts identified during the Phase I ESA.

According to American Society for Testing and Materials (ASTM) Standard Practice E1527-13, the term REC means the presence or likely presence of hazardous substances and/or petroleum products on or near a property under conditions that indicate an existing release, a past release or the material threat of a release into structures on the property or into the ground, groundwater or surface water of the property. WorleyParsons understands that the purpose of this Phase I ESA is to perform due diligence with respect to RECs at the Site in accordance with good commercial and customary practice for conducting an environmental site assessment of a property.

1.2 Scope of Services

The Phase I ESA was performed in general accordance with the American Society for Testing and Materials (ASTM) Designation E 1527-13*, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process: Phase I Environmental Site Assessment Process* and WorleyParsons proposal dated August 24, 2015.

The Phase I ESA scope of work included the following tasks:

a) Contacted the appropriate city, county, and regional agencies regarding records for the Site;

b) Reviewed selected government database lists;

c) Reviewed documents as provided by the LAUSD;

d) Performed a fire insurance map search and review;

e) Performed a city directory search and review;

f) Performed a building permits search and review;

g) Performed a property tax search and review;

h) Performed a search and review of available current land title records for environmental cleanup liens and other activity and use limitations, such as engineering controls and institutional controls;

i) Performed an aerial photograph search and review;

j) Performed a historical topographic map search and review;

k) Completed the OEHS Existing School Sites checklist; and

l) Prepared and submitted this Phase I ESA report to the client.

The scope of work for this Phase I ESA did not include collection of environmental samples such as air, soil and groundwater, building materials/finishes suspected of containing asbestos or lead-based paint, or equipment suspected of containing polychlorinated biphenyls (PCBs) or mercury. The scope of work did not include an assessment of the presence of sensitive or endangered species and/or wildlife habitats. This Phase I ESA also did not include an assessment of the environmental compliance status of the Site or a health-based risk assessment.

1.3 Significant Assumptions

WorleyParsons assumes that the purpose of this Phase I ESA is to provide all appropriate inquiry into the previous ownership and use of the Site consistent with good commercial and customary practice in an effort to minimize liability. WorleyParsons also assumes that the information provided by the LAUSD, regulatory database provider, regulatory agencies, and other 3rd parties is true and reliable.

2. SITE DESCRIPTION

The Site consists of an approximately 8.1-acre elementary school and kindergarten. The Site is bounded to the north by single-family dwellings across Addison Street, to the east by single-family dwellings across Colfax Avenue, to the south by single-family dwellings across Huston Street, and to the west by single-family dwellings across Morella Avenue.

The location of the Site is shown on Figures 1 and 2 and is identified as APN 2355-013-900 by the Los Angeles County Assessor's office. The findings of a reconnaissance inspection of the Site are contained in Section 5.

2.1 Description of On-site Buildings, Structures, and Other Features

The Site is currently occupied by ten single-story classroom buildings, two single-story restroom buildings, one single-story library building, one single story office building, a two-story assembly/cafeteria building, an intermodal container used to store maintenance supplies, an intermodal container used to store art supplies, an intermodal container used to store earthquake emergency supplies, an intermodal container used to store classroom supplies, and two intermodal containers used to store school fair supplies. A paved parking area is located in the northern portion of the Site along Addison Street. An additional parking area is located on the eastern portion of the Site on Colfax Avenue. A paved playground area is located in the mid portion of the Site. A landscaped play area is located in the mid-western portion of the Site.

2.2 Description of Current Site Use and Operations

The approximately 8.1-acres Site is currently in use as a charter kindergarten and elementary school. Additional details regarding the Site are contained in Section 5 of this report.

2.3 Description of Past Site Use and Operations

Since at least 1928 to 1940, the Site was used as an arboretum with a single-family dwelling located in the center portion of the Site.

2.4 Description of Site Vicinity and Current Uses of Adjoining Properties

The immediate Site vicinity consists of residential and institutional properties. The Site is bounded to the north by single-family dwellings across Addison Street, to the east by single-family dwellings across Colfax Avenue, to the south by single-family dwellings across Huston Street, and to the west by single-family dwellings across Morella Avenue. Faith Presbyterian Church is located to the northeast of the Site across from the intersection of Addison Street and Colfax Avenue.

3. USER-PROVIDED INFORMATION

3.1 Title Records

No title records were provided by the LAUSD as part of this Phase I ESA.

3.2 Environmental Liens or Activity and Use Limitations

No information regarding environmental liens or activity and use limitations were provided by LAUSD as part of this Phase I ESA.

WorleyParsons ordered an environmental liens and Activity and Use Limitation (AULs) report for the Site from EDR. The findings of this report indicate that no environmental liens or AULs were found for the Site.

3.3 Specialized Knowledge

The Site is currently in use as a charter kindergarten and elementary school. No other specialized knowledge regarding the Site was provided by the LAUSD as part of this Phase I ESA.

3.4 Commonly Known or Reasonably Ascertainable Information

The Site was an arboretum prior to the construction of the Colfax Elementary School in 1950. No other additional commonly known or reasonably ascertainable information was provided by the LAUSD as part of this Phase I ESA.

3.5 Valuation Reduction for Environmental Issues

No estimated valuation reduction related to known environmental issues associated with the Site was provided by LAUSD as part of this Phase I ESA.

3.6 Owner, Manager, and Occupant Information

Based on information provided by the LAUSD and obtained during research of the Site, the Site is currently owned and operated by the LAUSD as part of the Colfax Elementary School. Interviews regarding the current and historic use of the Site were conducted by Mr. Michael Huma, of WorleyParsons, on Wednesday, September 23, 2015, with Mr. Andrew Fowler, Project Manager for the LAUSD and Mr. Rodrigo Ricon, the Colfax Elementary School Plant Manager. The findings of these interviews are discussed in Section 5. LAUSD provided a plan from AC Martin Architects for a classroom addition project for the Site. The project boundaries for the classroom addition are shown on Figure 2.

3.7 Reason for Performing Phase I ESA

The purpose of this Phase I ESA was to identify RECs in order to assist in the evaluation of historical land use at the Site, assess for potential environmental impacts on- and off-site, and determine the degree to which any potential environmental impacts may affect on-site occupants, off-site individuals, and the environment. The Phase I ESA was conducted to meet school modification construction and existing school expansion requirements set forth by the California Department of Education, as well as assist in determining whether further action is needed to characterize and/or mitigate environmental impacts identified during the Phase I ESA.

4. RECORDS REVIEW

4.1 Environmental Setting

4.1.1 Regional Physiographic Setting

The Site is located in the southeastern San Fernando Valley area approximately 1.5 miles north of the Santa Monica Mountains in the regional Transverse Ranges Geomorphic Province of Southern California. The province is characterized by elongated northwest-trending mountain ridges separated by straight-sided sediment floored valleys. To the south of this province is the Peninsular Ranges Geomorphic Province which extends southward into San Diego County and Baja California and consists of generally northerly- and northwesterly-trending mountain ranges and associated valleys (California Department of Water Resources [DWR], 1961).

Topographic Setting

According to the United States Geological Survey (USGS) Topographic Map, Van Nuys, California Quadrangle, the Site is approximately 633 feet above mean sea level. The topography in the Site vicinity slopes toward the southeast (EDR, 2015b).

Nearest Surface Water Body

The nearest surface water bodies to the Site are the Tujunga Wash and the Los Angeles River, approximately 0.64 and 0.87 mile, respectively, south-southwest of the Site.

4.1.2 Nearest Ecological Interest

Based on the information provided by the California Environmental Resources Evaluation System (CERES) database, the Information Center for the Environment Mapping Database (ICEMAPS), and the County of Los Angeles, Department of Regional Planning interactive GIS mapping application < http://planning.lacounty.gov/gis/interactive>, the closest area of significant ecological interest is the State Water Resources Control Board Riverine Waterbody (Los Angeles River) area approximately 0.87 mile south-southwest of the Site.

4.1.3 Geology

Regional Geology

The Site is located within the eastern portion San Fernando Valley, an east-trending structural trough within the Transverse Ranges Geomorphic Province of Southern California. The San Fernando Valley is bounded by the Santa Susana Mountains on the northwest, the San Gabriel Mountains on the northeast, the Simi Hills on the west, and the Santa Monica Mountains on the south. The mountains that bound it to the north and south are actively deforming anticlinal ranges bounded on their south sides by thrust faults. The northwest to west-northwest trending fault zones separate large elongated blocks that stand at different structural elevations. These elongate blocks have been divided into the central block, northeastern block, northwestern block and the southwestern block. The Site lies within the central block with its major structural feature being a doubly plunging syncline (Yerkes et al., 1965). As these ranges have risen and been deformed, the San Fernando Valley has subsided and filled with sediment.

The eastern portion of the San Fernando Valley, has received sediment from Pacoima and Tujunga washes. These washes are associated with large river systems that have their sources in the steep, rugged San Gabriel Mountains, which are comprised of crystalline bedrock. The rivers have deposited a broad alluvial fan composed of gravels, sands, sandy silts, and clays that blankets most of the area (DWR, 1961).

Local Geology

Soils in the Site vicinity consist of interbedded layers of unconsolidated and poorly sorted sand, silty sand, sandy silt and silty clay from the surface to 71 feet below ground surface (bgs) and are classified as Quaternary alluvium deposited in the Cenozoic Era (Delta, 2010). These sediments were likely deposited on an alluvial plain associated with the Tujunga Wash and the Los Angeles River.

Eight exploration boreholes were drilled at the Site in 1949 for a foundation investigation prior to construction of the Colfax Elementary School and indicated surface deposits of sand containing some gravel and cobbles and lenses of silty loam. Two boreholes to depths of 17.5 and 7 feet did not extend through the sand. In the remaining boreholes, the sand varied from 7 to 19.5 feet in depth. Below these surface sands, lenticular deposits of sandy loam, silty loam, loam, and sand extended to a depth of 25 feet bgs. Groundwater was not encountered in the exploration boreholes (Dames & Moore, 1949).

4.1.4 Location of Nearest Oil and Gas Fields

Based on the California Department of Conservation, Division of Oil, Gas, and Geothermal Resources (DOGGR) Map W1-2, the Site is not located within an oil and gas field (DOGGR, 2004). The closest oil and gas field is the Salt Lake Oil Field, located approximately 5.62 miles to the south of the Site (DOGGR, 2010).

4.1.5 Location of Nearest Exploratory and Production Oil and Gas Wells

Based on the DOGGR oil and gas well map W1-2, the closest current or historic plugged and abandoned oil and/or gas well to the Site is the plugged and abandoned oil well, Conoco Inc. "Hollywood Freeway" 1, located approximately 0.54-mile north-northeast of the Site (DOGGR, 2004).

4.1.6 Potential for Methane and Hydrogen Sulfide

Methane and hydrogen sulfide are gases associated with the decay of organic matter. In the natural environment, these gases form in localities such as old marine rocks (including oil-bearing strata), peat bogs, marshes and swamps. Anthropogenic sources of these gases may include landfills, waste pools, and the refinement of petroleum products.

Based on the information provided by the City of Los Angeles NavigateLA Web site and information provided by the City of Los Angeles Building and Safety (LADBS) and the City's Public Works Departments, the Site does not lie within a City of Los Angeles designated methane zone.

4.1.7 Nearest Special Study Zone (Alquist-Priolo Act)

Based on a review of the Special Studies Zone Maps provided by the California Department of Conservation Division of Mines and Geology *(*DMG), the Site is not located within a special study zone. The nearest special study zone that is regulated under the Alquist-Priolo Earthquake Fault Zoning Act (Public Resources Code 2621, Division 2, Chapter 7.5) is in the vicinity of the Hollywood Fault zone, located approximately 4.66 miles south-southeast of the Site. The Hollywood Fault is located within the central portion of the Santa Monica-Hollywood-Raymond Fault system, which is collectively part of a greater than 200-km long west-trending system of oblique, reverse and left-lateral faults that separate the Transverse Ranges Geomorphic Province of California on the north from the Peninsular Ranges Geomorphic Province on the south (Dolan et al., 1997)

4.1.8 Potential for Liquefaction and Landslides

Liquefaction Potential

Based on Section 1, Liquefaction Evaluation Report, of the 1997 DMG Seismic Hazard Zone Report for the Van Nuys 7.5-Minute Quadrangle, four main younger Quaternary soil inventory types were identified in the Van Nuys Quadrangle along with the susceptibility of each unit to liquefaction. These younger Quaternary soil inventory types included very old Pleistocene alluvium consisting of dense to very dense silt and clay deposits in an area of deep groundwater (low susceptible to liquefaction), old Pleistocene alluvium consisting of loose to moderately dense silt and silty sand (high susceptible to liquefaction in areas where groundwater is shallower than 40 feet), young Holocene alluvium consisting of sand with silty sand, silt and gravel (high susceptible to liquefaction in areas where groundwater is shallower than 40 feet), and artificial fill consisting of engineered fill for dams, freeways, and waste landfills (low susceptible to liquefaction as engineering fill is generally too thin to affect liquefaction susceptibility and waste landfills are located in an area of deep groundwater).

The potential for liquefaction at the Site, based on the Seismic Zone Hazard Map for the Van Nuys Quadrangle (1998), the DMG report, and by applying State Mining and Geology Board criteria (see DMG report) for liquefaction zoning, is generally low because groundwater is deeper than 40 feet bgs (DMG, 1997 and State of California Seismic Hazard Zones map, Van Nuys Quadrangle, 1998).

Landslide Potential

Based on Section 2, Earthquake-Induced Landslide Evaluation Report, of the 1997 DMG report and on information provided by the State Seismic Hazard Zones map for the Van Nuys (1997), the Site is not located within an earthquake-induced landslide potential zone (DMG, 1997 and State of California Seismic Hazard Zones map, Van Nuys Quadrangle, 1999).

4.1.9 Potential for Flooding

The Site is not located within a 100 or 500-year flood zone as described by Federal Emergency Management Agency (FEMA) (EDR, 2015a).

4.1.10 Hydrogeology

Regional Hydrogeology

The Site lies within the San Fernando Valley Groundwater Basin, a regional basin encompassing 112,000 acres with the Upper Los Angeles River area. The water-bearing sediments consist of the lower Pleistocene Saugus Formation, Pleistocene and Holocene age alluvium. The groundwater in the basin is mainly unconfined with some confinement within the Saugus Formation in the western part of the basin and in the Sylmar and Eagle Rock areas (California State Water Rights Board [CSWRB], 1962). Groundwater flows generally from the edges of the basin toward the middle of the basin, then beneath the Los Angeles River Narrows into the Central Subbasin of the Coastal Plain of the Los Angeles Basin. Flow velocity ranges from about 5 feet per year in the western part of the basin to 1,300 feet per year beneath the Los Angeles River Narrows (Upper Los Angeles River Area Watermaster [ULARAW], 1999).

Local Hydrogeology

Records of groundwater conditions in the general vicinity were reviewed at the Los Angeles Department of Public Works, Hydrogeologic Records Division, to obtain groundwater depth near the Site. The nearest water well to the Site is Observation Well 3831J, located approximately 840 feet north of the Site. Groundwater in the well was measured at approximately 133.70 feet bgs on December 3, 2009.

Groundwater was measured at Unocal Site 5261, located at 4654 Laurel Canyon Boulevard and approximately 0.44 mile southwest of the Site, in well MW-6 on July 15, 2011 at depth of 54.29 feet bgs. Groundwater flow direction at this facility was measured to be in the east-southeast direction at 0.01 feet/feet (SAIC, 2011).

Nearest Groundwater Production Wells

There is one groundwater observation well, 3831J, located approximately 840 feet north of the Site and no groundwater production wells located within a 0.25 mile radius of the Site (EDR, 2015a and LACDPW, 2015).

4.2 Standard and Additional Environmental Record Sources

WorleyParsons contracted with EDR to research the available databases containing valuable environmental regulatory database information. EDR researched each database for sites located within the minimum standard search radius, as identified by ASTM 1527-15. Details of sites found in the databases are included in the EDR report (see Appendix 2). Please note that the distance and direction of sites listed within the EDR search radius, as related to the Site, are based on the EDR report and Google Earth. Additionally, direction of gradient of each site listed in the radius report with respect to the Site is based on the expected shallow groundwater flow direction to the east-southeast.

EDR Radius Report Summary: Site

Site Name	Address	Database	Distance and Direction	Oversight Agency and Property Status	EDR Map ID/Page No.
Colfax Elementary School	11724 Addison St., Los Angeles, CA 91607	RCRA-LQG, FINDS	Site	Large quantity generator; No violations noted.	A1/8
Colfax Elementary School	11724 Addison St., Los Angeles, CA 91607	FTTS, HIST FTTS	Site	Lead inspection on April 12, 2004. Violation noted.	A2/9

EDR Radius Report Summary: Site (continued)

Site Name	Address	Database	Distance and Direction	Oversight Agency and Property Status	EDR Map ID/Page No.
Colfax Elementary School	11724 Addison St., Los Angeles, CA 91607	HAZNET	Site	DTSC. 0.83 tons of polychlorinated biphenyls (PCBs) and materials containing PCBs (2007); 0.07 tons of other organic solids (2004); 90 tons of asbestos containing waste (2004); 0.044 tons of other organic solids (1998).	A3/6
Colfax Elementary School	11724 Addison St., Los Angeles, CA 91607	HAZNET	Site	DTSC. 0.06 tons of other inorganic solid waste (2009); 0.55 tons of laboratory waste chemicals (2008); 29.498 tons of other inorganic solid waste (2008); 0.4 tons of asbestos containing waste (2008); 4 tons of asbestos containing waste (2008).	A4/11

EDR Radius Report Summary: Sites within 0 to ⅛ Mile of Site

Site Name	Address	Database	Distance and Direction	Oversight Agency and Property Status	EDR Map ID/Page No.
Curtis Kheel	4928 Carpenter Ave., Valley Village, CA 91607	HAZNET	Approx. 0.04 mile west (upgradient)	DTSC. 0.4 tons Unreported waste disposed from residential property.	B5/13
Denise Scheerer	4951 Carpenter Ave., Valey Village 91607	HAZNET	Approx. 0.07 mile west (upgradient)	DTSC. 0.4 tons Unreported waste disposed from residential property.	B6/13

EDR Radius Report Summary: Sites within ⅛ to ¼ Mile of Site

Site Name	Address	Database	Distance and Direction	Oversight Agency and Property Status	EDR Map ID/Page No.
Tibor Breir	4805 Colfax Ave., North Hollywood, CA 91601	UST SWEEPS UST EDR UST Hist Auto Stat CA FID UST	Approx. 0.20 mile south (crossgradient)	UST location with no violations. Active status.	C7/14 C9/14
Ben's Texaco Station	11700 Magnolia Blvd., North Hollywood, CA 91607	SWEEPS UST CA FID UST HIST UST	Approx. 0.24 mile south (crossgradient)	Inactive status.	D17/18 D18/19

EDR Radius Report Summary: Sites within ⅛ to ¼ Mile of Site (continued)

Site Name	Address	Database	Distance and Direction	Oversight Agency and Property Status	EDR Map ID/Page No.
F & P Auto Service	11708 Riverside Dr., North Hollywood, CA 91607	SWEEPS UST	Approx. 0.14 mile south (crossgradient)	Active status.	C14/16
Nelson Le Roy	11733 Riverside Dr., San Fernando Valley, CA 91607	EDR US Hist Auto Stat	Approx. 0.10 mile south (crossgradient)	EDR. Historical gasoline service station.	C10/15 C11/15
Bob's Service Station	11708 Riverside Dr., San Fernando Valley, CA 91607	EDR US Hist Auto Stat	Approx. 0.10 mile south (crossgradient)	EDR. Historical gasoline service station.	C12/15 C13/16

EDR Radius Report Summary: Sites within ¼ to ½ Mile of Site

Site Name	Address	Database	Distance and Direction	Oversight Agency and Property Status	EDR Map ID/Page No.
Chevron #9-3909	4757 Laurel Canyon Blvd. North Hollywood, CA 91607	LUST	Approx. 0.42 mile west-southwest (cross- to upgradient)	RWQCB. Hydrocarbon contamination in soils. Case closed.	F21/20 F22/21
ARCO #1680	5158 Laurel Canyon Blvd., North Hollywood, CA 91604	LUST	Approx. 0.41 mile northwest (up/ crossgradient)	RWQCB. Hydrocarbon contamination to soil. Open case – Eligible for Closure.	G23/22 G24/28
76 ConocoPhillips Products Station #5261	4654 Laurel Canyon Blvd., North Hollywood, CA 91607	LUST SWEEPS UST HIST UST	Approx. 0.45 mile south-southwest (crossgradient)	RWQCB. Hydrocarbon contamination in soil. Case closed. Active USTs: Contents include waste oil and unleaded gasoline.	H25/29 H26/33
Moore E L	11539 Riverside Dr., North Hollywood, CA 91602	EDR US Hist Auto Stat	Approx. 0.45 mile southeast (downgradient)	EDR. Historical gasoline service station.	E19/20 E20/20
Not Reported	5150 Colfax Ave., North Hollywood, CA 91601	EDR US Hist Cleaners List	Approx. 0.21 mile south-southeast (cross/downgradient)	EDR. Historical Dry Cleaner	D15/16

EDR Radius Report Summary: Sites within ½ to 1 Mile of Site

Site Name	Address	Database	Distance and Direction	Oversight Agency and Property Status	EDR Map ID/Page No.
North Hollywood Superior Court	5554-68 Lankershim Blvd., North Hollywood, CA 91601	ENVIROSTOR	Approx. 0.88 mile northeast (cross/downgradient)	DTSC. Site Investigation ongoing for potential halogenated organic compounds, halogenated solvents, hydrocarbons solvents, metals, organic solids, oxygenated solvents in soil and soil vapor.	30/46

EDR Radius Report Summary: Sites within ½ to 1 Mile of Site (continued)

Site Name	Address	Database	Distance and Direction	Oversight Agency and Property Status	EDR Map ID/Page No.
Lankershim Elementary Expansion	11241/11261 Magnolia Blvd., North Hollywood, CA 91601	ENVIROSTOR SCH	Approx. 0.66 mile east-northeast (cross/downgradient)	DTSC. Site investigation closed Feb 6, 2002. No specific contaminants found.	29/42
Executive Cleaners	12514 Riverside , Los Angeles, CA 91607	ENVIROSTOR LA Co. Site Mitigation	Approx. 0.90 mile west-southwest (crossgradient)	Local agency. Evaluation as of Jul 5, 2000.	32/49
Shell Service Station (Former)	4647 Laurel Canyon Blvd., North Hollywood, CA 91607	LUST RCRA-SQG FINDS HAZNET	Approx. 0.48 mile south-southwest (crossgradient)	RWQCB. Hydrocarbon contamination to soil. Case closed. Small quanity generator with no violations found. DTSC. 0.22 tons, 0.68 tons, 6.25 tons of aqueous solution with total organic residues less than 10% (2002). 0.5 tons of waste oil and mixed oil (2002). 0.25 tons other empty containers 30 gallons or more (2002).	H28/38

4.3 Historic Use Information

4.3.1 Regulatory Agency Information

Regional Water Quality Control Board, Los Angeles Region

WorleyParsons contacted the Regional Water Quality Control Board, Los Angeles Region (RWQCB), to determine whether files exist for the Site based on the existing or historic Site addresses. See Appendix 4 for copies of agency correspondence. No files were found for the Site address.

California Environmental Protection Agency, Department of Toxic Substances Control

WorleyParsons contacted the California Environmental Protection Agency, Department of Toxic Substances Control (DTSC), in Chatsworth, California, to determine whether files exist for the Site. See Appendix 4 for agency correspondence. No files were found for the Site address.

Los Angeles County Fire Department, DHS Health Hazardous Materials Unit

WorleyParsons contacted the Los Angeles County Fire Department, Health Hazardous Materials Unit, which includes the Los Angeles County Public Health Investigation Unit (PHI), to determine whether files exist for the Site. See Appendix 4 for agency correspondence. No files were found for the Site address.

City of Los Angeles Fire Department, Fire Prevention – Underground Tank Unit

WorleyParsons contacted the City of Los Angeles Fire Department, Fire Prevention – Underground Tank Unit (LAFD-UST) to determine whether files exist for the Site. See Appendix 4 for agency correspondence. No files were found for the Site address.

City of Los Angeles Fire Department, Hazardous Materials Unit

WorleyParsons contacted the City of Los Angeles Fire Department, Hazardous Materials Unit (LAFD-Hazmat) to determine whether files exist for the Site. See Appendix 4 for a copy of agency correspondence. As of the publication date of this report, a response has not been received from this agency.

City of Los Angeles, Department of Building and Safety

WorleyParsons contacted the City of Los Angeles Department of Building and Safety (LADBS) to determine whether files exist for the Site. The LABDS reported that one geotechnical report, one foundation investigation letter, 12 new construction building permit files, 12 certificates of occupancy files, one closed miscellaneous file, and one event permit file exist for the Site.

A report entitled, Report of Foundation Investigation, Proposed Colfax Avenue School, Colfax Avenue and Addison Street, Los Angeles, California for the Los Angeles City Board of Education and letter entitled, Variation in Ground Water Elevation, Foundation Investigation, Proposed Colfax Avenue School, Los Angeles, California for the Los Angeles City Board of Education, dated December 29, 1949 and January 16, 1950, respectively were reviewed. The details of the geotechnical report are summarized above in Section 4.1.3. The letter indicated that large variations in groundwater occur in the Site vicintiy and if water levels are to rise to or above a level of 618 feet bgs differential settlements of impermissible amounts may occur for structures heavier than those contemplated (Dames & Moore, 1950).

Permits were issued on May 12, 1950 for the construction of an administration building, a cafeteria, classroom buildings, restroom buildings and a kindergarten building.

Certificates of occupancy were issued to the owner of the Site, the Los Angeles City School District, on July 20, 1951, March 25, 1953, and August 23, 1955 for the various buildings constructed.

A temporary special events permit was issued on May 31, 2011 for the installation of two tents and two stages.

City of Los Angeles Sanitation District, Industrial Waste Management Division

WorleyParsons contacted the City of Los Angeles Department of Public Works, Industrial Waste Management Division (LAPW-IWMD), to determine whether files exist for the Site. See Appendix 4 for a copy of agency correspondence. No files were found for the Site address.

Office of the State Fire Marshal, Pipeline Division

As part of this Phase I ESA, WorleyParsons requested records for the Site vicinity from the Pipeline Division of the State Fire Marshal’s Office. The Office of the State Marshal indicated that there are no pipelines jurisdictional to the State Fire Marshal in the area of the Site. The Office of the State Marshal also recommends use of the National Pipeline Mapping System (NPMS) as a resource tool (State Fire Marshal’s Office, 2015).

The NPMS is a dataset containing locations of and information about gas transmission and hazardous liquid pipelines and Liquefied Natural Gas (LNG) plants which are under the jurisdiction of the Pipeline and Hazardous Materials Safety Administration (PHMSA). The NPMS also contain voluntarily submitted breakout tank data. The data is used by PHMSA for emergency response, pipeline inspections, regulatory management and compliance, and analysis purposes. It is used by government officials, pipeline operators, and the general public for a variety of tasks including emergency response, smart growth planning, critical infrastructure protection, and environmental protection.

According to the NPMS database, no hazardous liquid pipelines are located within one mile of the Site (NPMS, 2015).

4.3.2 Fire Insurance Map Search and Review

WorleyParsons requested that EDR conduct a historical Sanborn Fire Insurance Maps search for the Site and immediate vicinity (EDR, 2015c). Maps of the Site and vicinity from 1950, 1955, 1956, 1958, 1960, 1961, 1966 and 1969 were identified and reviewed. A summary of WorleyParsons' review of these maps is included below. Copies of these maps are contained in Appendix 3.

1950

On-site

The northern portion of the Site is occupied by 10 buildings including classrooms, an administration building and a lunch room. The remainder of the Site consists of an open lot. The Site is bounded to the north by Addison, to the east by Colfax, to the south by Huston, and to the west by Morella.

Off-site

The Site is bordered to the north by single-family dwellings across Addison Street, to the east by single-family dwellings across Colfax Avenue, to the south by single-family dwellings across Huston Street, and to the west by single-family dwellings across Morella Avenue. A church is located to the northeast of the Site on the northeast corner of Addison and Colfax.

1955

On-site

The northern portion of the Site is occupied by 15 buildings, which now includes additional classrooms and an auditorium and cafeteria. The remainder of the Site appears similar to the previous map.

Off-site

Additional development has occurred at the church to the northeast of the Site. The remaining surrounding properties appear similar to the previous map.

1956

On-site

The Site appears similar to the previous map.

Off-site

Additional development has occurred at the church to the northeast of the Site. The remaining surrounding properties appear similar to the previous map.

1958

On-site

The northern portion of the Site is occupied by 13 buildings, two classroom buildings observed on the 1956 map have been removed. The remainder of the Site appears similar to the previous map.

Off-site

The surrounding properties appear similar to the previous map.

1960

The Site and surrounding properties appear similar to the previous map.

1961

On-site

The northern portion of the Site is occupied by 12 buildings, one classroom building observed on the 1960 map has been removed. The remainder of the Site appears similar to the previous map.

Off-site

The surrounding properties appear similar to the previous map.

1966

On-site

The northern portion of the Site is occupied by 14 buildings, two additional classrooms have constructed. The remainder of the Site appears similar to the previous map.

Off-site

Additional development has occurred at the church to the northeast of the Site. The remaining surrounding properties appear similar to the previous map.

1969

The Site and surrounding properties appear similar to the previous map.

4.3.3 City Directory Search and Review

WorleyParsons contracted with EDR to research available historical and current city directories based on the Site address. A copy of the complete EDR City Directory Abstract is included in Appendix 3. The following information on Site use and/or occupants was identified (EDR, 2015d).

11724 Addison Street, Valley Village, CA 91607

- 1956, 1962, 1970, 1980, 1985, 2001, 2008, 2013: Colfax Ave Elementary School

4.3.4 Historic Aerial Photograph Search and Review

WorleyParsons contracted with EDR to research available historic aerial photographs of the Site and vicinity. Copies of the aerial photographs are included in Appendix 3 and the Site is outlined. The information below was obtained from the aerial photographs (EDR, 2015e).

1928, Scale 1”= 500’

On-site

The Site is occupied by an arboretum with rows of trees visible.

Off-site

Farms and vacant land are visible to the north of the Site. A school is visible north of what is now Magnolia Boulevard. Farms, single-family dwellings, and vacant land are visible east and south of the Site. An arboretum is visible to the west of the Site. A wash is visible to the east of the Site in the location of the current State Highway 170.

1938, Scale 1” = 500’

On-site

The Site is occupied by an arboretum. A single family dwelling is visible in the center of the Site.

Off-site

The surrounding properties appear similar to the previous map with the exception of a number of farms now developed into single-family dwellings.

1940, Scale 1”= 500’

On-site

No apparent changes from the 1938 photograph.

Off-site

Additional single-family dwellings have been developed in the surrounding area. A school has been developed at the southeast corner of what is now Sarah Street and Colfax Avenue.

1952, Scale 1”= 500’

On-site

Colfax Elementary School, with 10 buildings, is visible on-Site. A small parking lot is visible 0n the north end of the Site. Numerous trees from the arboretum remain on-Site. The southeastern and southwestern portion of the arboretum has been cleared.

Off-site

Buildings have been constructed northeast of the Site, on the northeast corner of what is now Addison Street and Colfax Avenue. Numerous multi-tenant residential buildings and a few commercial buildings have been developed in the surrounding area.

1954, Scale 1”= 500’

On-site

Additional buildings have been constructed on-Site. The remainder of the Site appears similar to the previous photograph.

Off-site

Additional multi-tenant residential and commercial buildings have been constructed in the surrounding area.

1964, Scale 1”= 500’

On-site

A few buildings have been removed from mid-eastern portion of the Site. The remainder of the Site appears similar to the previous photograph.

Off-site

Additional multi-tenant residential and commercial buildings have been constructed in the surrounding area. State Highway 170 is under construction further east of the Site. State Highway 101 has been constructed further south of the Site.

1972, Scale 1”= 500’

On-site

Additional small buildings have been constructed on the mid-eastern portion of the Site. A large parking lot is now visible in the eastern portion of the Site. The remainder of the Site appears similar to the previous photograph.

Off-site

Additional commercial buildings have been constructed in the surrounding area. Construction of State Highway 170 is complete further east of the Site. The remainder of the surrounding properties appear similar to the previous photograph.

1977, Scale 1”= 500’

On-site

Small buildings have been removed from the mid-eastern portion of the Site. Two new buildings have been constructed on the southeastern portion of the Site. The remainder of the Site appears similar to the previous photograph.

Off-site

The surrounding properties appear similar to the previous photograph.

1981, Scale 1”= 500’

On-site

Five new buildings have been constructed on the eastern portion of the Site. The remainder of the Site appears similar to the previous photograph.

Off-site

The surrounding properties appear similar to the previous photograph.

1989, Scale 1”= 500’

On-site

Numerous buildings have been removed from the eastern and southeastern portions of the Site. The remainder of the Site appears similar to the previous photograph.

Off-site

The surrounding properties appear similar to the previous photograph.

1994, Scale 1”= 500’

On-site

A new building has been constructed on the eastern portion of the Site. The remainder of the Site appears similar to the previous photograph.

Off-site

The surrounding properties appear similar to the previous photograph.

2002 and 2005, Scale 1”= 500’

On-site

Additional structures are now visible in the eastern portion of the Site. The majority of the mid- to southern portion of the Site appears to have been paved. The remainder of the Site appears similar to the previous photograph.

Off-site

The surrounding properties appear similar to the previous photograph.

2009, 2010 and 2012, Scale 1”= 500’

On-site

The Site appears similar to the previous photograph.

Off-site

Additional commercial development is visible in the surrounding area.

4.3.5 Historic Topographic Maps

WorleyParsons contracted with EDR to research available historic topographic maps that include the Site and vicinity. Copies of the historic topographic maps from 1896 through 1972 are included in Appendix 3. The following is a summary of information obtained from the historic topographic maps (EDR, 2015f).

1896 Santa Monica Quadrangle, 15’ Series

No obvious development is depicted on the Site or neighboring properties on this map based on the scale of the map.

1900 Los Angeles Quadrangle, 15' Series

No obvious development is depicted on the Site or neighboring properties on this map based on the scale of the map.

1901 Southern CA Sheet 1 Quadrangle, 60' Series

No obvious development is depicted on the Site or neighboring properties on this map based on the scale of the map.

1902 Santa Monica Quadrangle, 15' Series

No obvious development is depicted on the Site or neighboring properties on this map based on the scale of the map.

1920 Santa Monica Quadrangle, 15' Series

On-site

No obvious development is depicted on the Site on this map based on the scale of the map.

Off-site

Minor development is depicted in the surrounding area of Site.

1926 Burbank Quadrangle, 6' Series

On-site

No development is depicted on the Site on this map.

Off-site

Minor development is depicted in the surrounding area of Site.

1941 Burbank Quadrangle, 6' Series

On-site

No development is depicted on the Site on this map.

Off-site

Minor development is depicted in the surrounding area of Site.

1953 Van Nuys Quadrangle, 7.5’ Series

On-site

Colfax Elementary School with approximately 8 buildings is present in the north portion of the Site.

Off-site

Residential development is depicted in the surrounding area of the Site. North Hollywood High School is visible north of the Site, north of Magnolia Boulevard. A church is visible to the northeast of the Site. North Hollywood Park has been created east of the Site. North Hollywood Junior High School is visible south-southeast of the Site. Republic Studio is visible south to the Site, south of Moorpark Street. A wash is visible east of the Site in the present day location of State Highway 170. A channel is present east of the Site at the Tujunga Wash.

1966 Van Nuys Quadrangle, 7.5’ Series

On-site

Additional buildings are present in the north portion of the Site.

Off-site

State Highway 170 and an aqueduct have been constructed east of the Site. Additional roads have been constructed in the surrounding area. Grant High School has been constructed northwest of the Site, west of the Tujunga Wash. The remainder of the surrounding properties appear similar to the previous map.

1972 Van Nuys Quadrangle (Photorevised from 1966), 7.5’ Series

On-site

The Site appears similar to the previous map.

Off-site

The surrounding properties appear similar to the previous map.

4.3.6 Environmental Data Resources Building Permit Report

WorleyParsons contracted with EDR to research available building department records for indications of environmental conditions. A copy of the EDR Building Permit Report is included in Appendix 3. The following is a summary of information obtained from the EDR Building Permit Report (EDR, 2015g).

EDR searched the City of Los Angeles, Department of Building and Safety, in Valley Village, California, from 1988 to 2015 and the San Bernardino County, Land Use, Building and Safety, in Fontana, California, from 2002 to 2015, and determined that no records exist.

4.3.7 Environmental Data Resources LienSearch™ Report

WorleyParsons contracted with EDR to search for available current land title records for environmental cleanup liens and other activity and use limitations, such as engineering controls and institutional controls. A copy of the EDR LienSearch™ Report is included in Appendix 3. The following is a summary of information obtained from the EDR Building Permit Report (EDR, 2015h).

One Grant Deed, dated July 28, 1949, and recorded on September 28, 1949, was received from A. F. Schiffman and vested to Los Angeles City School District of Los Angeles County. The legal description states "All that certain piece or parcel of land being Lot 1 of Tract No. 14573, filed 12/07/1950 in Book 397, Page 4, situate and lying in the County of Los Angeles, State of California." The current legal owner is the Los Angeles City School District of Los Angeles County, now known as the LAUSD.

No environmental liens were found for the Site. No other Activity and Use Limitations (AULs) were found for the Site.

4.4 Historical Use of Adjoining Properties

Based on the information obtained for Section 4.3, Historic Use Information, the properties adjacent to the Site have consisted of arboretums, farms, and single-family dwellings from at least 1928 until 1the present. A church was constructed to the northeast of the Site in 1952 on the northeast corner of Addison Street and Colfax Avenue.

5. SITE RECONNAISSANCE

On September 23, 2015, a reconnaissance inspection of the Site was conducted by Mr. Michael Huma of WorleyParsons. Mr. Huma was escorted by Mr. Rodrigo Ricon, Plant Manager of the Colfax Elementary School and accompanied by Mr. Andrew Fowler, Project Manager/Consultant of the LAUSD OEHS. The purpose of the Site reconnaissance was to inspect the Site, its current operations and observe the neighboring properties for evidence of the use and/or the release of hazardous materials or petroleum products that may impact the Site in accordance with ASTM Standard Practice 1527-13 (ASTM, 2013).

5.1 Methodology and Limiting Conditions

The entire Site was visually inspected and observations of the adjacent properties were made from the Site's boundaries and/or public streets and sidewalks. WorleyParsons' personnel were allowed access to a classroom, the plant manager's office, and intermodal containers storing various supplies at the Site. Photographs documenting Site conditions at the time of the reconnaissance inspection were taken and are included in Appendix 1.

5.2 General Site Setting

The Site consists of the approximately 8.1-acre Colfax Elementary School, located at 11724 Addison Street in Los Angeles, California. The Site contains ten singe-story classroom buildings, two single-story restroom buildings, one single-story library building, one single story office building, one two-story assembly/cafeteria building and six intermodal containers. The Site is bounded to the north by single-family dwellings across Addison Street, to the east by single-family dwellings across Colfax Avenue, to the south by single-family dwellings across Huston Street, and to the west by single-family dwellings across Morella Avenue. Faith Presbyterian Church is located to the northeast of the Site on the northeast corner of Addison Street and Colfax Avenue.

5.3 Exterior Observations

Site: The Site contains classroom buildings, restrooms buildings, a library building, an office building, an assembly/cafeteria building, an intermodal container used to store maintenance supplies, an intermodal container used to store art supplies, an intermodal container used to store earthquake emergency supplies, an intermodal container used to store classroom supplies, and two intermodal containers used to support school fair supplies. A garden is located in the western portion of the Site along the property boundary. A small enclosed animal sanctuary with one pig, two sheep, chickens, ducks, rabbits, and guinea pigs is located in the southern portion of the Site along the property boundary. A paved staff parking area is located in the northern portion of the Site along Addison Street. An additional parking area is located in the eastern portion of the Site along Colfax Avenue. A paved playground area is located in the mid portion of the Site. Three fenced-in concrete padded electrical transformers are located on-Site; one in the eastern portion of Site south of Classroom 26 and two adjacent to the south of the girls restroom near Classroom 12. An electrical room is located near the boy's restroom and Classroom 20. An electrical box and a sprinkler electrical control box are located in the southeastern portion of the Site. A landscaped play area is located in the mid-western portion of the Site. Solid waste is stored in three waste bins and recyclable waste is stored in two waste bins in a fenced area in the eastern portion of the Site and are all serviced of by Republic Services. Natural gas service lines for the Site buildings enter the Site from the adjacent Addison Street and Colfax Avenue.

No evidence of the use, storage or release of hazardous materials or petroleum products was observed in the exterior areas of the Site.

Surrounding Properties: The Site is surrounded by single family residential properties with the exception of a church property located to the northeast of the Site. No evidence of the use, storage or release of hazardous materials or petroleum products was observed on the surrounding properties.

5.4 Interior Observations

The interior of the classrooms at the Site contained books, desks, and other teaching aids typical of an elementary school. Non-hazardous materials are stored in an intermodal container adjacent to the Plant Manager's office and Classroom 12. Materials stored consist of twelve 7-pound containers of Uni-Kleen concentrated cleaner with pine oil, nine 1-gallon containers of steam shampoo, eight 2-liter containers of Quick Fill Compact 310 (concentrated floor cleaner), eleven 2-liter containers of Quick Fill Compact 905 (cleaner), six 5-gallon containers of Super Polymer 85 (floor finish), eight 1-gallon containers of Floor Stripper, one -1-gallon container of HD-CH II Industrial Cleaner, and two 1-gallon containers of Neutral Floor Cleaner and Spray Buffing Solution. Three 5-gallon portable gasoline containers used for lawn maintenance, two of which were full at the time of the Site reconnaissance, and a flammable locker containing four 2.6-fluid ounce containers of engine oil, three 1-quart containers of multi-purpose oil, and two 1-quart containers of multi-purpose paint are stored in the art supply intermodal container.

No other evidence of the use, storage or release of hazardous materials or petroleum products was observed in the interior areas of the Site.

6. INTERVIEWS

6.1 Interview with Site Owner's Representatives

On September 23, 2015, WorleyParsons interviewed Mr. Rodrigo Ricon, Plant Manager, of the Colfax Elementary School and Mr. Andrew Fowler, the LAUSD OEHS Project Manager for the Site regarding the current and historic use of the Site. Mr. Ricon has been associated with the Site since 2012. During this time, Mr. Rico and Mr. Fowler indicated that the Site has been used as a school and to the best of their knowledge has always been in use as a school since 1952. Mr. Ricon reported, to the best of his knowledge, that no hazardous materials or associated wastes are stored at the Site. Additionally, to the best of their knowledge, no releases of such materials have occurred at the Site. Details regarding the interviews with Mr. Ricon and Mr. Fowler are contained in Appendix 5.

7. ON-SITE ISSUES

The following conditions and practices were observed during the Site reconnaissance conducted on Wednesday, September 23, 2015.

7.1 Hazardous Material Handling (Including Inventory of All Chemicals Observed)

No hazardous material handling and no chemicals were observed on-Site during the Site reconnaissance with the exception of the small quantities of gasoline, paint, oil and janitorial supplies noted in Section 5. The Colfax Elementary School is registered as a large quantity hazardous waste generator for lead and asbestos abatement work previously conducted at the Site.

7.1.1 Current Hazardous Material Handling Practices

Hazardous material handling practices on-Site are comprised of the use of standard janitorial supplies for classroom and restroom cleaning as needed. Three 5-gallon portable gasoline containers used for lawn maintenance, two of which were full at the time of the Site reconnaissance, are stored in the art supply intermodal container.

7.1.2 Past Hazardous Material Handling Practices

According to Mr. Ricon, the Plant Manager for the Colfax Elementary School, hazardous materials have not been stored or handled on the Site with the exception of standard janitorial supplies and three 5-gallon portable gasoline containers.

7.1.3 Current and Past On-site Underground Storage Tanks (USTs)

Based on the data obtained for the Site, no evidence was found regarding current and/or past USTs on-site.

7.1.4 Current and Past On-site Aboveground Storage Tanks (ASTs)

Based on the data obtained for the Site, no evidence was found regarding current and/or past ASTs on-site.

7.2 Solid and Hazardous Waste Handling Practices

No solid and hazardous material handling practices were observed on-Site during the Site reconnaissance.

7.2.1 Waste Handling and Storage

Solid waste is stored in three waste bins and recyclable waste is stored in two waste bins in a fenced area in the eastern portion of the Site.

7.2.2 On-site Disposal

Solid and recyclable waste disposal is performed by Republic Services.

7.2.3 Visible Signs of Releases and Spills

No visible signs of releases or spills were observed on-Site during the Site reconnaissance. According to Mr. Ricon, no hazardous materials or petroleum product releases have occurred at the Site.

7.2.4 Potential Future Environmental Liabilities to District from Past Waste Disposal Practices

Based on the data obtained as part of this investigation, no evidence of potential future environmental liabilities to the LAUSD from past waste disposal practices was identified.

7.3 Subsurface Impacts to On- and/or Off-site Soil

No evidence of subsurface impacts to on- or off-Site soil were observed on-Site during the Site reconnaissance.

7.3.1 Use of Imported Fill Material

The use of fill material in the construction of the Site is likely, although positive proof of the use of fill or its source has not been identified from the data obtained to date.

7.3.2 Previous Site Assessments

A civil engineering consultant, Dames & Moore, conducted a foundation investigation on December 29, 1949 and January 16, 1950 in advance of construction of the school buildings. The investigation included the advancement of soil boreholes to a maximum depth of 25 feet bgs. Groundwater was not encountered in the exploration boreholes; however, Dames & Moore indicated that large variations in groundwater occur in the Site area and if water levels are to rise to or above a level of 618 feet bgs differential settlements of impermissible amounts may occur for structures heavier than those contemplated (Dames & Moore, 1949, 1950).

No other previous assessment reports were identified for the Site.

7.4 Subsurface Impacts to On- and/or Off-site Groundwater

Based on the data obtained as part of this investigation, no information has been found to suggest subsurface impacts to on- and/or off-site soil or groundwater has occurred.

7.4.1 Source for Site Water Supply

Potable water is supplied to the Site by the Los Angeles Department of Water and Power.

7.4.2 Site Drainage and Stormwater Issues

No site drainage and stormwater issues were identified on-Site during the Site reconnaissance.

7.5 Site Permits

According to the LADBS, a temporary special events permit was issued on May 31, 2011 for the installation of two tents and two stages. Permits associated with the development of the Site as a school in the 1950s were reviewed at the LADBS and are discussed in Section 4.3

7.5.1 Site Permits on File with Environmental Regulatory Agencies

Current Permits

No current permits for the Site were found on file with regulatory agencies.

Historical Permits

No historical permits for the Site were found on file with regulatory agencies.

Noncompliance and Permit Violations

No information has been found to date regarding noncompliance or permit violations for the Site.

7.5.2 Site Listings with Regulatory Agencies

Based on the data obtained, the Site address (11724 Addison Street, Colfax Elementary School) is listed in the following regulatory databases:

- **RCRA-LQG**. The Site is listed as a large quantity hazardous waste generator for the generation of lead wastes associated with lead-based paint abatement activities conducted at the Site. According to the EDR report, no violations associated with the generation of this waste have been reported.

- **HAZNET and FINDS**. The Site is listed in the HAZNET and FINDS database for generation of 0.83 tons of polychlorinated biphenyls (PCBs) and material containing PCBs; 0.114 tons of other organic solids; 29.558 tons of other inorganic solids; 94.4 tons of asbestos containing waste; 0.55 tons of laboratory waste chemicals.
- **FTTS and HIST FTTS**. The Site is listed in the FTTS and HIST FTTS database. An inspection was conducted in April 12, 2004 for lead, according to Section 402, and a violation was noted.

According to Mr. Ricon, these materials are not stored on the Site. Additionally, based on the Site reconnaissance inspection, no evidence of the storage or release of such materials was observed at the Site.

7.6 Asbestos-containing Materials (ACM)

Based on the estimated age of the on-site buildings, there is a potential for asbestos-containing materials (ACM) to be present. However, sampling and analysis of suspect ACM was not included in the Phase I ESA scope of work.

7.6.1 Suspected ACM Sampling and Sampling Results

Sampling of suspect ACM was not included in the scope of work for this Phase I ESA.

7.7 Lead-based Paint (LBP)

Based on the estimated age of the on-site buildings, there is a potential for lead-based paint (LBP) to be present. However, sampling and analysis of suspect LBP was not included in the Phase I ESA scope of work.

7.7.1 Suspected LBP Sampling and Sampling Results

Sampling of suspect LBP was not included in the scope of work for this Phase I ESA.

7.8 Polychlorinated Biphenyl (PCB)-containing Equipment

Three electrical transformers were observed on-Site during the Site reconnaissance. All three transformers are pad-mounted dry-type manufactured by Siemens USA.

7.9 Radon

The United States Environmental Protection Agency (USEPA) and the USGS have evaluated the radon potential in the United States and have included Los Angeles County in Zone 2, or moderate radon potential (from 2 to 4 picoCuries per liter). Current information on radon in California is available

at
<http://www.conservation.ca.gov/cgs/minerals/hazardous_minerals/radon/Documents/sr182map.pdf>
and < http://www.epa.gov/radon/states/california.html>.

Radon gas testing was not included in the scope of work for this Phase I ESA. However, according to the Radon Potential Zone Map for Southern Los Angeles County, California, the Site is in an area for Low Potential for Indoor Radon Levels above 4.0 picoCuries per liter (California Department of Conservation, California Geological Survey, 2005).

7.10 Odors Noticed Indoors

No odors were noticed indoors on-Site during the Site reconnaissance.

7.11 California Department of Education (CDE) Existing Schools Issues

An LAUSD OEHS Existing School Sites checklist was completed as part of this Phase I ESA in accordance with California Department of Education (CDE) requirements. A summary of the checklist is provided in the sections below. A copy of the checklist is contained in Appendix 6.

7.11.1 Proximity to Power Lines/Electromagnetic Fields

Pursuant to CCR, Title 5, Section 14010(c), the property line for a new school site shall be the following minimum distances from the edge of a high-voltage power line easement: 100 feet for 50–133 kV lines; 150 feet for 220–230 kV lines; and 350 feet for 500–550 kV lines. Based on the Site reconnaissance, no high-voltage power transmission lines were observed within the vicinity of the Site. Additionally, WorleyParsons contacted Southern California Edison (SCE) for information regarding the presence of easements for aboveground or underground power lines of 50 kilovolts or greater within 100 feet of the Site. According to SCE and the following website <http://www.gosolarcalifornia.ca.gov/utilities/>, the utility provider for the Site area is the Los Angeles Department of Water and Power. WorleyParsons contacted the Los Angeles Department of Water and Power by telephone and described the nature of the call, however, as of the date of this report no information has been received by WorleyParsons from the Los Angeles Department of Water and Power regarding high-voltage power transmission lines in the Site area. During the Site reconnaissance inspection, no 50–133 kV lines, 220–230 kV lines, or 500–550 kV lines were observed within 100, 150, or 350 feet of the Site, respectively.

7.11.2 Railroads

Based on aerial photographs and topographic maps, no railroad lines are located within 1,500 feet of the Site. Based on this, the Project is not expected to create a new or exacerbate an existing significant safety hazard to students from railroads within 1,500 feet of the Site.

7.11.3 Traffic Noise

The Site is located within a residential area. No major highways or freeways are located adjacent to the Site. Based on this, the Project is not expected to create a new or exacerbate an existing significant safety hazard to students from adjacent roads or freeways that will adversely affect the educational program.

7.11.4 Faults

Based on a review of the Special Studies Zone Maps provided by the California Department of Conservation Division of Mines and Geology *(*DMG), the Site is not located within a special study zone. Based on this, the Project is not expected to create a new or exacerbate an existing significant safety hazard to students from an active earthquake fault or fault trace which may be onsite.

7.11.5 Flood or Inundation Area

According to EDR, the Site is not located with either a 100-year or 500-year flood zone (EDR 2015a). According to the County of Los Angeles, the Site is located within a dam inundation area (County of Los Angeles, 2014). However, the Project is not expected to create a new or exacerbate an existing significant safety hazard to students from flooding or dam inundation.

7.11.6 Pipelines and Aboveground Storage Tanks (ASTs)

According to the EDR Overview Map (EDR, 2015a), a natural gas pipeline traverses the center of the Site in a north-south direction. However, during a supplemental Site visit on October 26, 2015, this reported pipeline was verified as a dedicated gas service line for the Site buildings that enters the Site from the adjacent Addison Street. A second gas service line for the Site buildings enters the Site from the adjacent Colfax Avenue.

The California State Fire Marshal (CSFM) was contacted to determine the ownership of any fuel or crude oil pipelines on or near the Site within 1,500 feet of the proposed school site. Based on the response received from the CSFM (facsimile dated September 11, 2015), no pipelines in their jurisdiction are located within 1,500 feet of the Site.

During the Site reconnaissance inspection, no ASTs were observed on the surrounding properties or in the Site vicinity. Additionally, according to the EDR report, no facilities with registered ASTs are located within 0.5-mile of the Site. Based on this, the Project is not expected to create a new or exacerbate an existing significant safety hazard to students from nearby above-ground water or fuel storage tanks.

7.11.7 Liquefaction and Landslides

The potential for liquefaction at the Site, based on the Seismic Zone Hazard Map for the Van Nuys Quadrangle (1998), the DMG report, and by applying State Mining and Geology Board criteria (see DMG report) for liquefaction zoning, is generally low because groundwater is deeper than 40 feet bgs (DMG, 1997 and State of California Seismic Hazard Zones map, Van Nuys Quadrangle, 1998).

Based on Section 2, Earthquake-Induced Landslide Evaluation Report, of the 1997 DMG report and on information provided by the State Seismic Hazard Zones map for the Van Nuys (1997), the Site is not located within an earthquake-induced landslide potential zone (DMG, 1997 and State of California Seismic Hazard Zones map, Van Nuys Quadrangle, 1999).

Based on this, the Project is not expected to create a new or exacerbate an existing significant safety hazard to students from liquefaction or landslides.

7.11.8 Traffic and Pedestrian Safety

The site is located within a residential neighborhood and is not located adjacent to any major arterial streets. Based on this, the Project is not expected to create a new or exacerbate an existing significant safety hazard to students from an adjacent major arterial street.

7.11.9 Compatible Zoning

The Project involves construction of new and renovation of existing classroom buildings at the Site and is not expected to affect existing zoning for the Site and vicinity. Based on this, the Project is not expected to create a new or exacerbate an existing significant safety hazard to students from the zoning surrounding the Site.

7.11.10 Light, Wind and Air Pollution

The Project involves construction of new and renovation of existing classroom buildings at the Site. Based on this, the Project is not expected to create a new or exacerbate an existing significant safety hazard to students from light, wind or air pollution.

7.11.11 Easements

According to EDR, a natural gas pipeline easement traverses the center of the Site in a north-south direction. This pipeline is discussed in Section 7.11.6 above. Based on this, the Project may create a new or exacerbate an existing significant safety hazard to students, which may restrict access or building placement.

7.11.12 Border Zone Property

Pursuant to CCR, Title 5, Section 14010(t), a school site shall not be located on or within 2,000 feet from a significant disposal of hazardous waste. Based on information obtained from an EDR research of available environmental databases in the vicinity of the Site, WorleyParsons obtained the following information related to hazardous substance release or disposal sites:

- ENVIROSTOR Database – DTSC: no Federal or State National Priority List sites found within the 2,000 feet of the Site.
- USEPA: no current or former hazardous or solid waste disposal properties found within 2,000 feet of the Site.
- SWF/LF – California Department of Resources Recovery and Recycling; no landfills were listed within 2,000 feet of the Site.
- WMUDS/SWAT database – State Water Resources Control Board (SWRCB): no sites were listed within 2,000 feet of the Site.

Based on this, the Project is not expected to create a new or exacerbate an existing significant safety hazard to students from a significant disposal of hazardous waste within 2,000 ft. of the Site.

7.11.13 Cellular Phone Towers

According to www.CellReception.com, a database that maps towers registered with the Federal Communications Commission (FCC), no cellular phone towers are located within one mile of the Site.

7.11.14 Air Pollution

The closest major roadways to the Site are State Highways 101 and 170, located approximately 0.34 miles south and 0.38 miles east of the Site, respectively. No railroad lines are located within 500 feet of the Site. Based on this, the Project is not expected to create a new or exacerbate an existing significant safety hazard to students from a major transportation corridor.

The Site is located within a residential neighborhood. The Project involves construction of new and renovation of existing classroom buildings at the Site. Based on this, the Project is not expected to create a new or exacerbate an existing significant safety hazard to students from a major stationary source of emissions within 500 feet of the Site.

7.11.15 Methane Zone

Based on the information provided by the City of Los Angeles NavigateLA Web site and information provided by the City of Los Angeles Building and Safety (LADBS) and the City's Public Works Departments, the Site does not lie within a City of Los Angeles designated methane zone. Per the

California Department of Conservation, Division of Oil, Gas and Geothermal Resources, the Site is not located within a designated oil field. Based on this, the Project is not expected to create a new or exacerbate an existing significant safety hazard to students from a known methane zone or oil field.

7.11.16 Oil Wells

Based on the DOGGR oil and gas well wildcat map W1-2, there are no current or historic plugged and abandoned oil and/or gas well on the Site. The closest to the Site is the plugged and abandoned oil well, Conoco's. "Hollywood Freeway" 1, located approximately 0.54-mile north-northeast of the Site (DOGGR, 2004). Based on this, the Project is not expected to create a new or exacerbate an existing significant safety hazard to students from an on-site oil well.

7.11.17 Airports

The closest airport to the Site is the Bob Hope Burbank Airport, located approximately 2.63 miles north-northeast of the Site. Based on this, the Project is not expected to create a new or exacerbate an existing significant safety hazard to students from an airport within two nautical miles of the Site.

7.12 Surrounding Land Uses

Based on documents reviewed, the land surrounding the Site consists of residential properties.

7.13 Easements

Based on information obtained during this assessment, no easements were identified at the Site.

8. FINDINGS

8.1 General Findings

The Site is consists of the approximately 8.1-acre Colfax Elementary School located at 11724 Addison Street in Los Angeles, California. The Site contains school buildings, intermodal containers for storage of school and maintenance supplies and an animal sanctuary. No evidence of the storage or release of hazardous materials were reported at the Site or observed during the Site reconnaissance inspection with the exception of small quantities of janitorial supplies, three 5-gallon portable gasoline containers, two of which were full at the time of the Site reconnaissance, and a few small containers of oil stored in the art supply intermodal container. The Colfax Elementary School is identified as a large quantity hazardous waste generator; as a results of past school renovation activities, which included the abatement of asbestos, lead-based paint and PCB-containing equipment. According to Mr. Rodrigo Ricon, the Site Plant Manager, these wastes are not and have not been stored at the Site.

Historically, the Site was an arboretum from at least 1928 to 1940 and included a residential dwelling. A Grant Deed, dated July 28, 1949, and recorded on September 28, 1949, indicates that the Los Angeles City School District of Los Angeles County, now known as the LAUSD, took ownership of the Site from A. F. Schiffman. Permits issued for construction and certificates of occupancy indicate that the Site was incorporated as a school in approximately 1951. Throughout the years, various construction activities occurred at the Site which added and removed various structures and parking areas.

The Site is currently bordered to the north, south, east and west by residential properties beyond Addison and Hudson Streets and Colfax and Morella Avenues, respectively. A church property is located adjacent to the northeast of the Site.

8.2 SCHOOL SITE SELECTION CHECKLIST

An LAUSD OEHS Existing School Sites checklist was completed as part of this Phase I ESA in accordance with California Department of Education (CDE) requirements. Based on the findings of this investigation, no affirmative answers to the checklist were made with the exception of the following:

- The Site is located within a dam inundation area. However, the Project is not expected to create a new or exacerbate an existing significant safety hazard to students from flooding or dam inundation.

8.3 Known or Suspect Recognized Environmental Conditions

It is WorleyParsons' opinion that RECs exist at the Site. These RECs include the potential presence of LBP residue, OCP, and arsenic in soils at the Site and ACM in the Site building materials. Based on the age of the existing Site buildings, it is possible that lead-based paint (LBP) has been applied to the exterior finishes of the buildings. As such, it is possible that LBP residue is present in soils around the perimeters of the existing and former buildings. It is possible that organochlorinated pesticides (OCP) in the form of termiticides have been applied around the foundations of these Site buildings or in the areas that were previously used for horticulture/agriculture. Additionally, there is the potential presence of arsenic underneath pavement that may have been applied as an herbicide. Based on the age of the existing Site buildings, it is possible that asbestos-containing materials (ACM) are present in building materials.

9. CONCLUSIONS

WorleyParsons has performed a Phase I ESA of the Site in conformance with the scope and limitations of ASTM Standard Practice E1527-13 and requirements set forth by the LAUSD and the CDE. Any exceptions to or deletions from this practice are described in Section 13 of this report. This assessment has revealed no evidence of RECs in connection with the Site with the exception of the following:

a) Potential presence of LBP residue in shallow soils around the drip lines of the existing and former buildings at the Site.

b) Potential presence of OCP in shallow soils around the foundations of the existing and former buildings at the Site and in areas of former horticulture/agriculture at the Site.

c) Potential presence of arsenic in shallow soils under pavement at the Site.

d) Potential presence of ACM in Site building materials.

10. RECOMMENDATIONS

WorleyParsons recommends completion of a site investigation within the boundary of the planned development area that includes collection of soil samples for the evaluation of LBP, OCP, and arsenic and if present, a human health risk assessment to determine if the levels pose a risk to future Site occupants. WorleyParsons recommends completion of a hazardous Material Property Condition Survey to identify and quantify all hazardous materials present at the Site including asbestos, lead-based-paint, mold, PCBs, mercury, tritium, radium, and/or other hazardous materials, in order that work plans and specifications may be developed for the safe abatement by a licensed and qualified contractor(s) prior to removal/renovation of any Site buildings.

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12. ADDITIONAL SERVICES

No additional services outside the proposed scope of work in WorleyParsons' proposal, dated August 24, 2015 were conducted as part of this Phase I ESA.

13. DISCLAIMER

The information presented in this document was compiled and interpreted exclusively for the purposes stated in Section 1 of the document. WorleyParsons provided this report for the Los Angeles Unified School District solely for the purpose noted above.

WorleyParsons has exercised reasonable skill, care, and diligence to assess the information acquired during the preparation of this report, but makes no guarantees or warranties as to the accuracy or completeness of this information. The information contained in this report is based upon, and limited by, the circumstances and conditions acknowledged herein, and upon information available at the time of its preparation. The information provided by others is believed to be accurate but cannot be guaranteed.

WorleyParsons does not accept any responsibility for the use of this report for any purpose other than that stated in Section 1 and does not accept responsibility to any third party for the use in whole or in part of the contents of this report. Any alternative use, including that by a third party, or any reliance on, or decisions based on this document, is the responsibility of the alternative user or third party.

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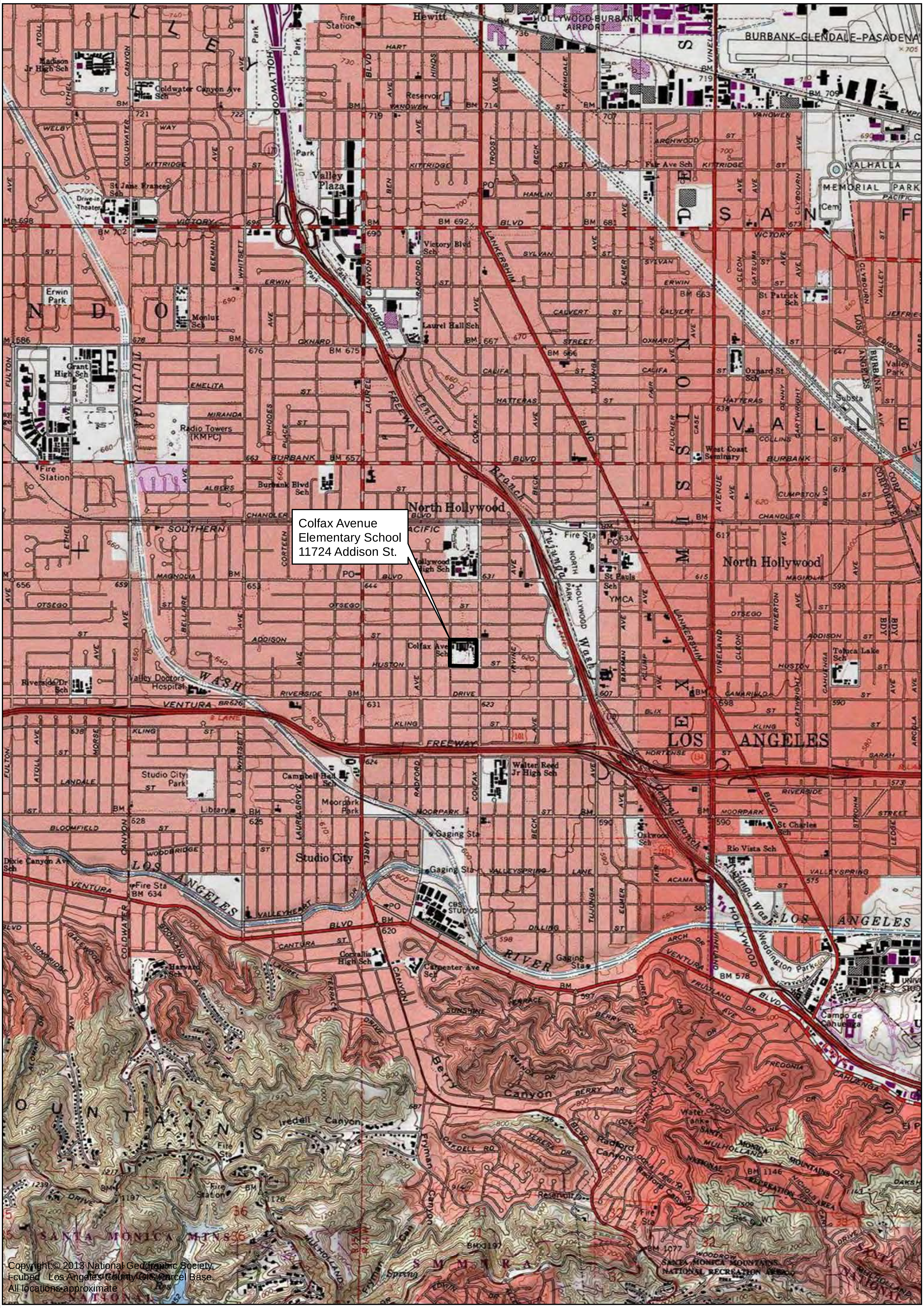
Any questions concerning the information or its interpretation should be directed to M. Huma or R. Beck.

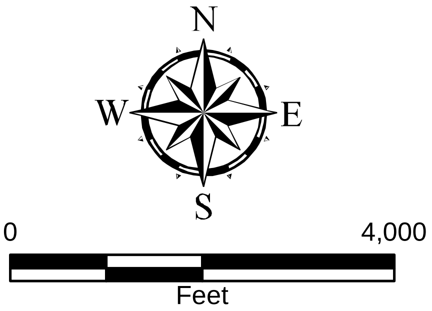
13.1 Limitations and Exceptions

Site-specific activities performed by WorleyParsons and information collected regarding these activities is summarized in the following sections. The findings of this Phase I ESA are presented in Section 8. Conclusions drawn and recommendations made by WorleyParsons, based on the information collected as part of the Phase I ESA, are presented in Sections 9 and 10, respectively. This Phase I ESA was conducted in a manner consistent with that level of care and skill ordinarily exercised by members of the profession currently practicing in the same locality under similar conditions.

The observations and conclusions presented in this report are professional opinions based on the scope of activities, work schedule, and information obtained through the Phase I ESA described herein. Opinions presented herein apply to site conditions existing at the time of our study and cannot necessarily be taken to apply to site conditions or changes that we are not aware of or have not had the opportunity to evaluate. It must be recognized that conclusions drawn from these data are limited to the amount, type, distribution, and integrity of the information collected at the time of the investigation, as well as the methods utilized to collect and evaluate the data, and that a full and complete determination of environmental risks cannot be made. Although WorleyParsons has taken steps to obtain true copies of information available from third parties, we make no representation or warranty with respect to the accuracy or completeness of this information.

FIGURES



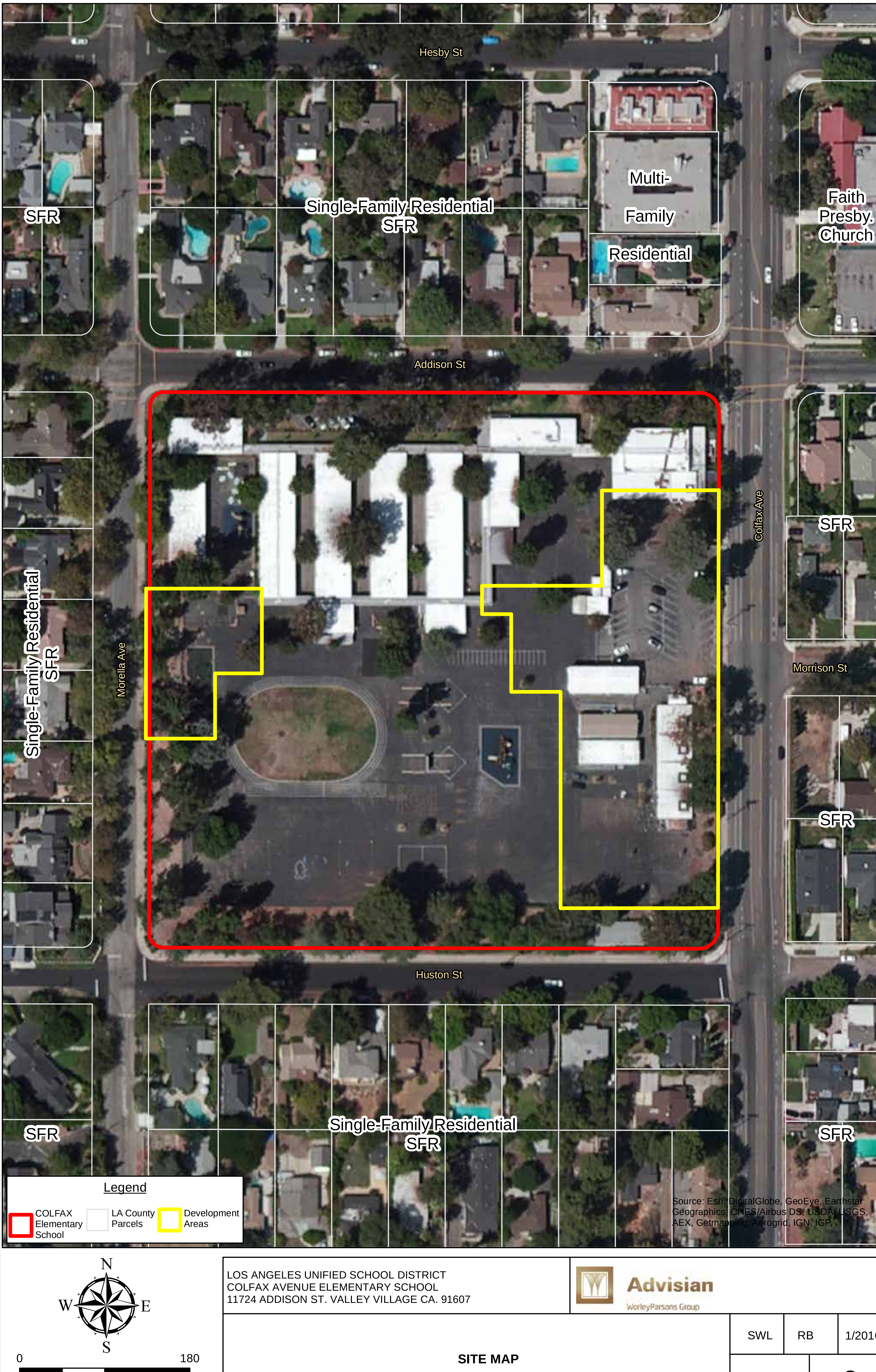


LOS ANGELES UNIFIED SCHOOL DISTRICT
COLFAX AVENUE ELEMENTARY SCHOOL
11724 ADDISON ST. VALLEY VILLAGE CA. 91607

Advisian
WorleyParsons Group

SWL	RB	10/2015
308038-08520		1

SITE LOCATION MAP



LOS ANGELES UNIFIED SCHOOL DISTRICT
COLFAX AVENUE ELEMENTARY SCHOOL
11724 ADDISON ST. VALLEY VILLAGE CA. 91607

Advisian
WorleyParsons Group

SWL	RB	1/2016
308038-08520	2	

SITE MAP

APPENDIX 1

PHOTOGRAPHS

WorleyParsons Photographic Log

Client: Los Angeles Unified School District
Site Name: Colfax Elementary School | Location: 11724 Addison Street, Los Angeles, CA
Photographer: Michael Huma | Date: September 23, 2015

Photo 1: Northeastern portion of the Site, looking southwest.

Photo 2: Mid-northern portion of the Site, looking southwest.

Photo 3: Northeastern portion of the Site, looking southeast.

Photo 4: Eastern portion of the Site, looking southwest.

Photo 5: Southeastern portion of the Site, looking southwest.

Photo 6: Southern portion of the Site, looking northwest.

Photo 7: Western portion of the Site, looking southeast.

Photo 8: Northwest portion of the Site, viewing the intermodal container storing non-hazardous materials, looking northwest.

Photo 9: Northeast portion of the Site, looking northeast.

Photo 10: Southeast portion of the Site, looking southeast.

Photo 11: Solid waste and recycling bins located in the eastern portion of the Site and residential properties to the east, looking east.

Photo 12: From left to right, electrical box and electrical sprinkler box, and electrical transformer further in the background, looking northeast.

Photo 13: Transformer no. 1 and 2, located in the mid portion of the Site near classroom 20, looking northeast.

Photo 14: Adjacent properties to the west of the Site, looking northeast.

Photo 15: Intermodal container near Plant Manager's office storing non-hazardous materials, looking northwest.

Photo 16: View of garden in the mid-western portion of the Site, looking northeast.

Photo 17: View of mini farm in the mid-southern portion of the Site, looking southwest

Photo 17: View of residential properties north of the Site, looking northwest.

WorleyParsons Photographic Log

Client: Los Angeles Unified School District
Site Name: Colfax Elementary School
Location: 11724 Addison Street, Los Angeles, CA
Photographer: Michael Huma
Date: September 23, 2015

Photo 18: View of Faith Presbyterian Church, 5000 Colfax Avenue, looking northeast.

Photo 19: View of residential properties south of the Site, looking southwest.

Photo 20: View of residential properties south of the Site, looking southwest.

APPENDIX 2

EDR DATABASE REPORT

Colfax Charter Elementary School
11724 Addison Street
Valley Village, CA 91607

Inquiry Number: 4398813.2s
August 31, 2015

The EDR Radius Map™ Report with GeoCheck®

EDR® Environmental Data Resources Inc

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

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SECTION **PAGE**

GEOCHECK ADDENDUM

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

11724 ADDISON STREET
VALLEY VILLAGE, CA 91607

COORDINATES

Latitude (North):	34.1603000 - 34˚ 9' 37.08''
Longitude (West):	118.3889000 - 118˚ 23' 20.04''
Universal Tranverse Mercator:	Zone 11
UTM X (Meters):	371972.0
UTM Y (Meters):	3780606.5
Elevation:	633 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	5630789 VAN NUYS, CA
Version Date:	2012
Northeast Map:	5630791 BURBANK, CA
Version Date:	2012

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from:	20120428
Source:	USDA

MAPPED SITES SUMMARY

Target Property Address:
11724 ADDISON STREET
VALLEY VILLAGE, CA 91607

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
A1	COLFAX ELEMENTARY SC	11724 ADDISON ST.	RCRA-LQG, FINDS		TP
A2	COLFAX ELEMENTARY SC	11724 ADDISON ST.	FTTS, HIST FTTS		TP
A3	LAUSD/ COLFAX AVE EL	11724 ADDISON ST	HAZNET		TP
A4	LAUSD-COLFAX ELEMENT	11724 ADDISON ST	HAZNET		TP
B5	CURTIS KHEEL	4928 CARPENTER AVE	HAZNET	Higher	653, 0.124, West
B6	DENISE SCHEERER	4951 CARPENTER AVE	HAZNET	Higher	655, 0.124, West
C7	TIBOR BREIR	4805 COLFAX AVE	UST, SWEEPS UST	Lower	967, 0.183, SSE
C8		4805 COLFAX AVE	EDR US Hist Auto Stat	Lower	967, 0.183, SSE
C9	TIBOR BREIR	4805 COLFAX AVE	CA FID UST	Lower	967, 0.183, SSE
C10	NELSON LE ROY	11733 RIVERSIDE DR	EDR US Hist Auto Stat	Lower	979, 0.185, South
C11	NELSON LE ROY	11733 RIVERSIDE DR	EDR US Hist Auto Stat	Lower	979, 0.185, South
C12	BOB S SERVICE STATIO	11708 RIVERSIDE DR	EDR US Hist Auto Stat	Lower	1011, 0.191, SSE
C13	BOB S SERVICE STATIO	11708 RIVERSIDE DR	EDR US Hist Auto Stat	Lower	1011, 0.191, SSE
C14	F & P AUTO SERVICE	11708 RIVERSIDE DR	SWEEPS UST	Lower	1015, 0.192, SSE
D15		5150 COLFAX AVE	EDR US Hist Cleaners	Higher	1501, 0.284, NNE
D16		11700 MAGNOLIA BLVD	EDR US Hist Auto Stat	Higher	1548, 0.293, North
D17	BEN'S TEXACO	11700 MAGNOLIA BLVD	HIST UST	Higher	1548, 0.293, North
D18	TEXACO STATION	11700 MAGNOLIA BLVD	SWEEPS UST, CA FID UST	Higher	1548, 0.293, North
E19	MOORE E L	11539 RIVERSIDE DR	EDR US Hist Auto Stat	Lower	1879, 0.356, ESE
E20	MOORE E L	11539 RIVERSIDE DR	EDR US Hist Auto Stat	Lower	1895, 0.359, ESE
F21	CHEVRON #9-3909	4757 LAUREL CANYON B	LUST	Higher	2629, 0.498, WSW
F22	CHEVRON #9-3909	4757 LAUREL CANYON B	LUST	Higher	2629, 0.498, WSW
G23	ARCO #1680	5158 LAUREL CANYON B	LUST, SWEEPS UST, CA FID UST	Higher	2727, 0.516, WNW
G24	ARCO #1680	5158 LAUREL CANYON B	LUST	Higher	2727, 0.516, WNW
H25	76 PRODUCTS STATION	4654 LAUREL CANYON B	LUST, SWEEPS UST, HIST UST	Higher	2864, 0.542, SW
H26	CONOCOPHILIPS STATIO	4654 LAUREL CANYON B	LUST	Higher	2864, 0.542, SW
H27	SHELL SERVICE STATIO	4647 LAUREL CANYON B	LUST	Higher	2887, 0.547, SW
H28	SHELL SERVICE STATIO	4647 LAUREL CANYON	RCRA-SQG, LUST, FINDS, HAZNET	Higher	2887, 0.547, SW
29	LANKERSHIM ELEMENTAR	11241/11261 MAGNOLIA	ENVIROSTOR, SCH	Lower	4253, 0.805, ENE
30	NORTH HOLLYWOOD SUPE	5554-68 LANKERSHIM B	ENVIROSTOR	Higher	5117, 0.969, NE
31	EXECUTIVE CLEANERS	12514 RIVERSIDE	ENVIROSTOR, LA Co. Site Mitigation	Lower	5278, 1.000, WSW
32	ROSALI CLEANERS	5160 VINELAND AVE.,	ENVIROSTOR	Lower	5795, 1.098, ENE

EXECUTIVE SUMMARY

TARGET PROPERTY SEARCH RESULTS

The target property was identified in the following records. For more information on this property see page 8 of the attached EDR Radius Map report:

Site	Database(s)	EPA ID
COLFAX ELEMENTARY SC 11724 ADDISON ST. NORTH HOLLYWOOD, CA 91607	RCRA-LQG EPA ID:: CAR000193870 FINDS Registry ID:: 110022537281	CAR000193870
COLFAX ELEMENTARY SC 11724 ADDISON ST. NORTH HOLLYWOOD, CA 91607	FTTS HIST FTTS	N/A
LAUSD/ COLFAX AVE EL 11724 ADDISON ST N HOLLYWOOD, CA 91607	HAZNET GEPAID: CAD982043861	N/A
LAUSD-COLFAX ELEMENT 11724 ADDISON ST NORTH HOLLYWOOD, CA 91607	HAZNET GEPAID: CAR000193870	N/A

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL.............................. National Priority List
Proposed NPL.................. Proposed National Priority List Sites
NPL LIENS...................... Federal Superfund Liens

Federal Delisted NPL site list

Delisted NPL.................. National Priority List Deletions

Federal CERCLIS list

FEDERAL FACILITY.......... Federal Facility Site Information listing

EXECUTIVE SUMMARY

CERCLIS Comprehensive Environmental Response, Compensation, and Liability Information System

Federal CERCLIS NFRAP site List

CERC-NFRAP CERCLIS No Further Remedial Action Planned

Federal RCRA CORRACTS facilities list

CORRACTS Corrective Action Report

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF RCRA - Treatment, Storage and Disposal

Federal RCRA generators list

RCRA-SQG RCRA - Small Quantity Generators
RCRA-CESQG RCRA - Conditionally Exempt Small Quantity Generator

Federal institutional controls / engineering controls registries

LUCIS Land Use Control Information System
US ENG CONTROLS Engineering Controls Sites List
US INST CONTROL Sites with Institutional Controls

Federal ERNS list

ERNS Emergency Response Notification System

State- and tribal - equivalent NPL

RESPONSE State Response Sites

State and tribal landfill and/or solid waste disposal site lists

SWF/LF Solid Waste Information System

State and tribal leaking storage tank lists

INDIAN LUST Leaking Underground Storage Tanks on Indian Land
SLIC Statewide SLIC Cases

State and tribal registered storage tank lists

FEMA UST Underground Storage Tank Listing
AST Aboveground Petroleum Storage Tank Facilities
INDIAN UST Underground Storage Tanks on Indian Land

State and tribal voluntary cleanup sites

INDIAN VCP Voluntary Cleanup Priority Listing
VCP Voluntary Cleanup Program Properties

State and tribal Brownfields sites

BROWNFIELDS Considered Brownfieds Sites Listing

EXECUTIVE SUMMARY

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS - A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

WMUDS/SWAT - Waste Management Unit Database
SWRCY - Recycler Database
HAULERS - Registered Waste Tire Haulers Listing
INDIAN ODI - Report on the Status of Open Dumps on Indian Lands
ODI - Open Dump Inventory
DEBRIS REGION 9 - Torres Martinez Reservation Illegal Dump Site Locations

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL - National Clandestine Laboratory Register
AOCONCERN - San Gabriel Valley Areas of Concern
HIST Cal-Sites - Historical Calsites Database
SCH - School Property Evaluation Program
CDL - Clandestine Drug Labs
Toxic Pits - Toxic Pits Cleanup Act Sites
US CDL - Clandestine Drug Labs

Local Land Records

LIENS - Environmental Liens Listing
LIENS 2 - CERCLA Lien Information
DEED - Deed Restriction Listing

Records of Emergency Release Reports

HMIRS - Hazardous Materials Information Reporting System
CHMIRS - California Hazardous Material Incident Report System
LDS - Land Disposal Sites Listing
MCS - Military Cleanup Sites Listing
SPILLS 90 - SPILLS 90 data from FirstSearch

Other Ascertainable Records

RCRA NonGen / NLR - RCRA - Non Generators / No Longer Regulated
FUDS - Formerly Used Defense Sites
DOD - Department of Defense Sites
SCRD DRYCLEANERS - State Coalition for Remediation of Drycleaners Listing
US FIN ASSUR - Financial Assurance Information
EPA WATCH LIST - EPA WATCH LIST
2020 COR ACTION - 2020 Corrective Action Program List
TSCA - Toxic Substances Control Act
TRIS - Toxic Chemical Release Inventory System
SSTS - Section 7 Tracking Systems
ROD - Records Of Decision
RMP - Risk Management Plans

EXECUTIVE SUMMARY

RAATS	RCRA Administrative Action Tracking System
PRP	Potentially Responsible Parties
PADS	PCB Activity Database System
ICIS	Integrated Compliance Information System
MLTS	Material Licensing Tracking System
COAL ASH DOE	Steam-Electric Plant Operation Data
COAL ASH EPA	Coal Combustion Residues Surface Impoundments List
PCB TRANSFORMER	PCB Transformer Registration Database
RADINFO	Radiation Information Database
DOT OPS	Incident and Accident Data
CONSENT	Superfund (CERCLA) Consent Decrees
INDIAN RESERV	Indian Reservations
UMTRA	Uranium Mill Tailings Sites
LEAD SMELTERS	Lead Smelter Sites
US AIRS	Aerometric Information Retrieval System Facility Subsystem
US MINES	Mines Master Index File
CA BOND EXP. PLAN	Bond Expenditure Plan
Cortese	"Cortese" Hazardous Waste & Substances Sites List
CUPA Listings	CUPA Resources List
DRYCLEANERS	Cleaner Facilities
EMI	Emissions Inventory Data
ENF	Enforcement Action Listing
Financial Assurance	Financial Assurance Information Listing
HIST CORTESE	Hazardous Waste & Substance Site List
LOS ANGELES CO. HMS	HMS: Street Number List
HWP	EnviroStor Permitted Facilities Listing
HWT	Registered Hazardous Waste Transporter Database
MINES	Mines Site Location Listing
MWMP	Medical Waste Management Program Listing
NPDES	NPDES Permits Listing
PEST LIC	Pesticide Regulation Licenses Listing
PROC	Certified Processors Database
Notify 65	Proposition 65 Records
LA Co. Site Mitigation	Site Mitigation List
UIC	UIC Listing
WASTEWATER PITS	Oil Wastewater Pits Listing
WDS	Waste Discharge System
WIP	Well Investigation Program Case List

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP	EDR Proprietary Manufactured Gas Plants

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF	Recovered Government Archive Solid Waste Facilities List
RGA LUST	Recovered Government Archive Leaking Underground Storage Tank

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

EXECUTIVE SUMMARY

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.
Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

STANDARD ENVIRONMENTAL RECORDS

State- and tribal - equivalent CERCLIS

ENVIROSTOR: The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

A review of the ENVIROSTOR list, as provided by EDR, and dated 05/04/2015 has revealed that there are 4 ENVIROSTOR sites within approximately 1.125 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
NORTH HOLLYWOOD SUPE Facility Id: 19750073 Status: Refer: EPA	5554-68 LANKERSHIM B	NE 1/2 - 1 (0.969 mi.)	30	46

Lower Elevation	Address	Direction / Distance	Map ID	Page
LANKERSHIM ELEMENTAR Facility Id: 19990040 Status: Certified	***11241/11261 MAGNOLIA***	***ENE 1/2 - 1 (0.805 mi.)***	***29***	***42***
EXECUTIVE CLEANERS Facility Id: 19720048 Status: Refer: 1248 Local Agency	***12514 RIVERSIDE***	***WSW 1/2 - 1 (1.000 mi.)***	***31***	***48***
ROSALI CLEANERS Facility Id: 19720045 Status: Refer: 1248 Local Agency	5160 VINELAND AVE.,	ENE 1 - 2 (1.098 mi.)	32	49

State and tribal leaking storage tank lists

LUST: The Leaking Underground Storage Tank Incident Reports contain an inventory of reported leaking underground storage tank incidents. The data come from the State Water Resources Control Board Leaking Underground Storage Tank Information System.

A review of the LUST list, as provided by EDR, and dated 06/15/2015 has revealed that there are 8

EXECUTIVE SUMMARY

LUST sites within approximately 0.625 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
CHEVRON #9-3909 Facility Id: 916070352 Status: Case Closed Global ID: T0603702616	4757 LAUREL CANYON B	WSW 1/4 - 1/2 (0.498 mi.)	F21	20
CHEVRON #9-3909 Status: Completed - Case Closed Global Id: T0603702616	4757 LAUREL CANYON B	WSW 1/4 - 1/2 (0.498 mi.)	F22	21
ARCO #1680 Status: Open - Eligible for Closure Status: Preliminary site assessment underway Global Id: T0603702575 Global ID: T0603708342	***5158 LAUREL CANYON B***	***WNW 1/2 - 1 (0.516 mi.)***	***G23***	***22***
ARCO #1680 Facility Id: 916040452 Status: Preliminary site assessment underway Global ID: T0603702575	5158 LAUREL CANYON B	WNW 1/2 - 1 (0.516 mi.)	G24	28
76 PRODUCTS STATION Facility Id: 916070334 Status: Case Closed Global ID: T0603702614	***4654 LAUREL CANYON B***	***SW 1/2 - 1 (0.542 mi.)***	***H25***	***29***
CONOCOPHILIPS STATIO Status: Completed - Case Closed Global Id: T0603702614 Global Id: T10000001047	4654 LAUREL CANYON B	SW 1/2 - 1 (0.542 mi.)	H26	33
SHELL SERVICE STATIO Status: Completed - Case Closed Global Id: T0603793313	4647 LAUREL CANYON B	SW 1/2 - 1 (0.547 mi.)	H27	36
SHELL SERVICE STATIO Facility Id: 916070389 Status: Preliminary site assessment underway Global ID: T0603793313	***4647 LAUREL CANYON***	***SW 1/2 - 1 (0.547 mi.)***	***H28***	***38***

State and tribal registered storage tank lists

UST: The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the State Water Resources Control Board’s Hazardous Substance Storage Container Database.

A review of the UST list, as provided by EDR, and dated 06/15/2015 has revealed that there is 1 UST site within approximately 0.375 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
TIBOR BREIR Facility Id: 24493	***4805 COLFAX AVE***	***SSE 1/8 - 1/4 (0.183 mi.)***	***C7***	***14***

EXECUTIVE SUMMARY

ADDITIONAL ENVIRONMENTAL RECORDS

Local Lists of Registered Storage Tanks

SWEEPS UST: Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

A review of the SWEEPS UST list, as provided by EDR, and dated 06/01/1994 has revealed that there are 3 SWEEPS UST sites within approximately 0.375 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
TEXACO STATION Comp Number: 7341	***11700 MAGNOLIA BLVD***	***N 1/4 - 1/2 (0.293 mi.)***	***D18***	***19***

Lower Elevation	Address	Direction / Distance	Map ID	Page
TIBOR BREIR Status: A Comp Number: 4676	***4805 COLFAX AVE***	***SSE 1/8 - 1/4 (0.183 mi.)***	***C7***	***14***
F & P AUTO SERVICE Status: A Comp Number: 8134	11708 RIVERSIDE DR	SSE 1/8 - 1/4 (0.192 mi.)	C14	16

HIST UST: Historical UST Registered Database.

A review of the HIST UST list, as provided by EDR, and dated 10/15/1990 has revealed that there is 1 HIST UST site within approximately 0.375 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
BEN'S TEXACO Facility Id: 00000068631	11700 MAGNOLIA BLVD	N 1/4 - 1/2 (0.293 mi.)	D17	18

CA FID UST: The Facility Inventory Database contains active and inactive underground storage tank locations. The source is the State Water Resource Control Board.

A review of the CA FID UST list, as provided by EDR, and dated 10/31/1994 has revealed that there are 2 CA FID UST sites within approximately 0.375 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
TEXACO STATION Facility Id: 19037437 Status: I	***11700 MAGNOLIA BLVD***	***N 1/4 - 1/2 (0.293 mi.)***	***D18***	***19***

Lower Elevation	Address	Direction / Distance	Map ID	Page
TIBOR BREIR	4805 COLFAX AVE	SSE 1/8 - 1/4 (0.183 mi.)	C9	14

EXECUTIVE SUMMARY

Facility Id: 19037876
Status: A

Other Ascertainable Records

HAZNET: The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000-1,000,000 annually, representing approximately 350,000-500,000 shipments. Data from non-California manifests & continuation sheets are not included at the present time. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, & disposal method. The source is the Department of Toxic Substance Control is the agency. This database begins with calendar year 1993.

A review of the HAZNET list, as provided by EDR, and dated 12/31/2013 has revealed that there are 2 HAZNET sites within approximately 0.125 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
CURTIS KHEEL GEPAID: CAC002712999	4928 CARPENTER AVE	W 0 - 1/8 (0.124 mi.)	B5	13
DENISE SCHEERER GEPAID: CAC002750630	4951 CARPENTER AVE	W 0 - 1/8 (0.124 mi.)	B6	13

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR US Hist Auto Stat: EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

A review of the EDR US Hist Auto Stat list, as provided by EDR, has revealed that there are 8 EDR US Hist Auto Stat sites within approximately 0.375 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
Not reported	11700 MAGNOLIA BLVD	N 1/4 - 1/2 (0.293 mi.)	D16	17

Lower Elevation	Address	Direction / Distance	Map ID	Page
Not reported	4805 COLFAX AVE	SSE 1/8 - 1/4 (0.183 mi.)	C8	14
NELSON LE ROY	11733 RIVERSIDE DR	S 1/8 - 1/4 (0.185 mi.)	C10	15
NELSON LE ROY	11733 RIVERSIDE DR	S 1/8 - 1/4 (0.185 mi.)	C11	15
BOB S SERVICE STATIO	11708 RIVERSIDE DR	SSE 1/8 - 1/4 (0.191 mi.)	C12	15
BOB S SERVICE STATIO	11708 RIVERSIDE DR	SSE 1/8 - 1/4 (0.191 mi.)	C13	16
MOORE E L	11539 RIVERSIDE DR	ESE 1/4 - 1/2 (0.356 mi.)	E19	20
MOORE E L	11539 RIVERSIDE DR	ESE 1/4 - 1/2 (0.359 mi.)	E20	20

EXECUTIVE SUMMARY

EDR US Hist Cleaners: EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

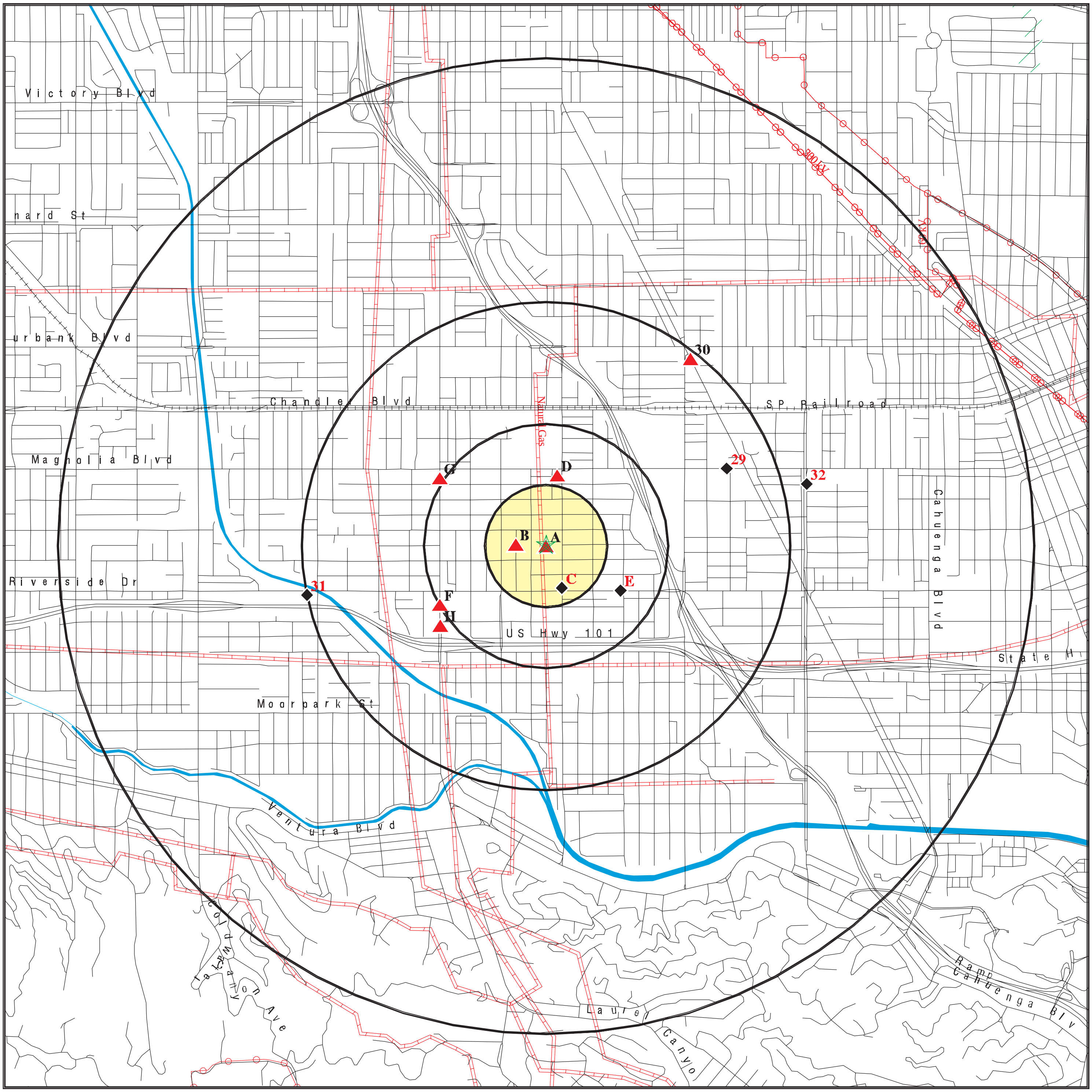
A review of the EDR US Hist Cleaners list, as provided by EDR, has revealed that there is 1 EDR US Hist Cleaners site within approximately 0.375 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
Not reported	5150 COLFAX AVE	NNE 1/4 - 1/2 (0.284 mi.)	D15	16

EXECUTIVE SUMMARY

There were no unmapped sites in this report.

OVERVIEW MAP - 4398813.2S



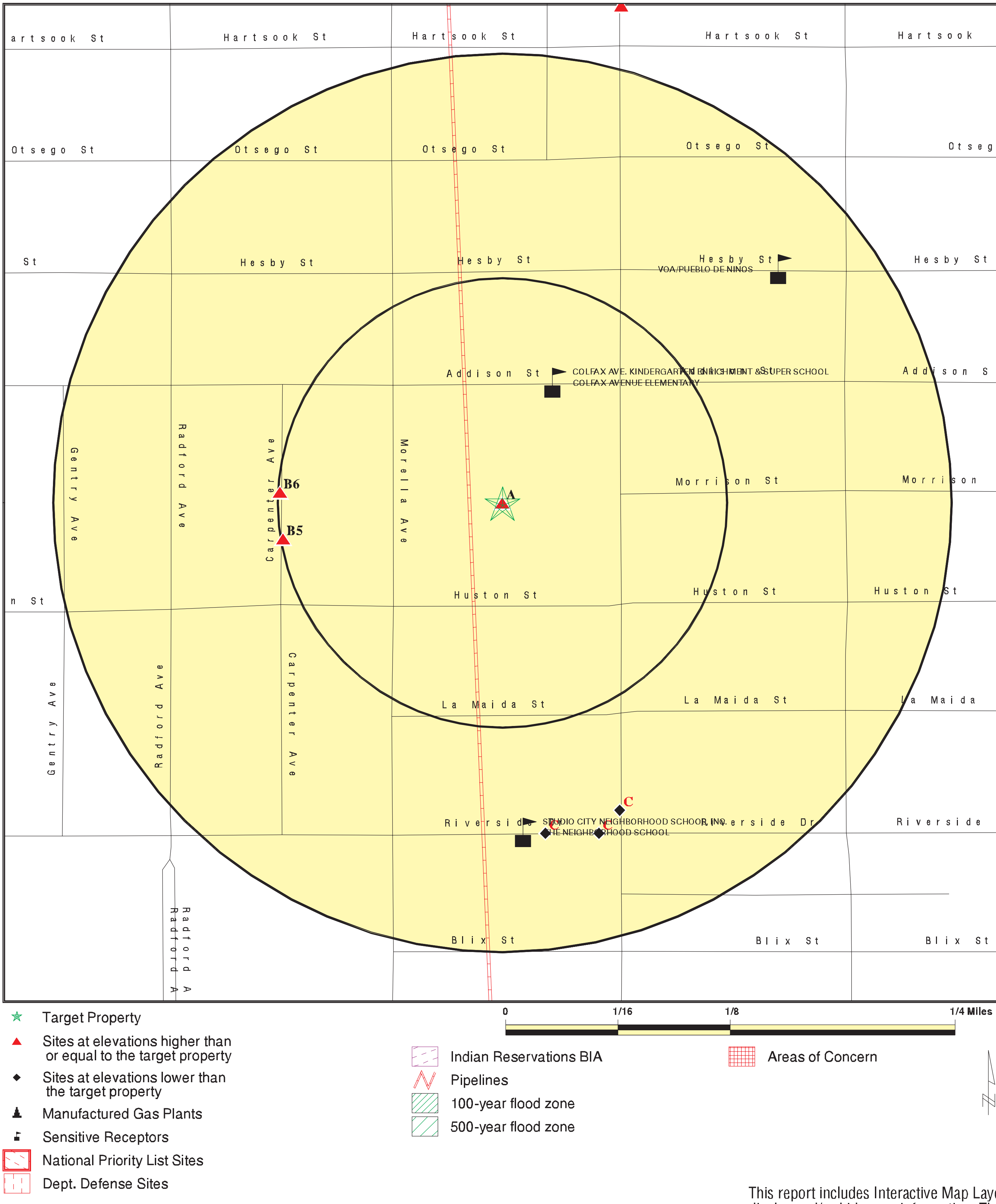
0 1/2 1 2 Miles

- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- Power transmission lines
- Pipelines
- 100-year flood zone
- 500-year flood zone
- Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Colfax Charter Elementary School ADDRESS: 11724 Addison Street Valley Village CA 91607 LAT/LONG: 34.1603 / 118.3889	CLIENT: WorleyParsons CONTACT: Ralph Beck INQUIRY #: 4398813.2s DATE: August 31, 2015 7:59 pm

DETAIL MAP - 4398813.2S



This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Colfax Charter Elementary School ADDRESS: 11724 Addison Street Valley Village CA 91607 LAT/LONG: 34.1603 / 118.3889	CLIENT: WorleyParsons CONTACT: Ralph Beck INQUIRY #: 4398813.2s DATE: August 31, 2015 8:00 pm

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
Federal NPL site list								
NPL	1.125		0	0	0	0	0	0
Proposed NPL	1.125		0	0	0	0	0	0
NPL LIENS	0.125		0	NR	NR	NR	NR	0
Federal Delisted NPL site list								
Delisted NPL	1.125		0	0	0	0	0	0
Federal CERCLIS list								
FEDERAL FACILITY	0.625		0	0	0	0	NR	0
CERCLIS	0.625		0	0	0	0	NR	0
Federal CERCLIS NFRAP site List								
CERC-NFRAP	0.625		0	0	0	0	NR	0
Federal RCRA CORRACTS facilities list								
CORRACTS	1.125		0	0	0	0	0	0
Federal RCRA non-CORRACTS TSD facilities list								
RCRA-TSDF	0.625		0	0	0	0	NR	0
Federal RCRA generators list								
RCRA-LQG	0.375	1	0	0	0	NR	NR	1
RCRA-SQG	0.375		0	0	0	NR	NR	0
RCRA-CESQG	0.375		0	0	0	NR	NR	0
Federal institutional controls / engineering controls registries								
LUCIS	0.625		0	0	0	0	NR	0
US ENG CONTROLS	0.625		0	0	0	0	NR	0
US INST CONTROL	0.625		0	0	0	0	NR	0
Federal ERNS list								
ERNS	0.125		0	NR	NR	NR	NR	0
State- and tribal - equivalent NPL								
RESPONSE	1.125		0	0	0	0	0	0
State- and tribal - equivalent CERCLIS								
ENVIROSTOR	1.125		0	0	0	3	1	4
State and tribal landfill and/or solid waste disposal site lists								
SWF/LF	0.625		0	0	0	0	NR	0
State and tribal leaking storage tank lists								
LUST	0.625		0	0	2	6	NR	8

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
INDIAN LUST	0.625		0	0	0	0	NR	0
SLIC	0.625		0	0	0	0	NR	0
State and tribal registered storage tank lists								
FEMA UST	0.375		0	0	0	NR	NR	0
UST	0.375		0	1	0	NR	NR	1
AST	0.375		0	0	0	NR	NR	0
INDIAN UST	0.375		0	0	0	NR	NR	0
State and tribal voluntary cleanup sites								
INDIAN VCP	0.625		0	0	0	0	NR	0
VCP	0.625		0	0	0	0	NR	0
State and tribal Brownfields sites								
BROWNFIELDS	0.625		0	0	0	0	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.625		0	0	0	0	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
WMUDS/SWAT	0.625		0	0	0	0	NR	0
SWRCY	0.625		0	0	0	0	NR	0
HAULERS	0.125		0	NR	NR	NR	NR	0
INDIAN ODI	0.625		0	0	0	0	NR	0
ODI	0.625		0	0	0	0	NR	0
DEBRIS REGION 9	0.625		0	0	0	0	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US HIST CDL	0.125		0	NR	NR	NR	NR	0
AOCONCERN	1.125		0	0	0	0	0	0
HIST Cal-Sites	1.125		0	0	0	0	0	0
SCH	0.375		0	0	0	NR	NR	0
CDL	0.125		0	NR	NR	NR	NR	0
Toxic Pits	1.125		0	0	0	0	0	0
US CDL	0.125		0	NR	NR	NR	NR	0
Local Lists of Registered Storage Tanks								
SWEEPS UST	0.375		0	2	1	NR	NR	3
HIST UST	0.375		0	0	1	NR	NR	1
CA FID UST	0.375		0	1	1	NR	NR	2
Local Land Records								
LIENS	0.125		0	NR	NR	NR	NR	0
LIENS 2	0.125		0	NR	NR	NR	NR	0
DEED	0.625		0	0	0	0	NR	0
Records of Emergency Release Reports								
HMIRS	0.125		0	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
CHMIRS	0.125		0	NR	NR	NR	NR	0
LDS	0.125		0	NR	NR	NR	NR	0
MCS	0.125		0	NR	NR	NR	NR	0
SPILLS 90	0.125		0	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.375		0	0	0	NR	NR	0
FUDS	1.125		0	0	0	0	0	0
DOD	1.125		0	0	0	0	0	0
SCRD DRYCLEANERS	0.625		0	0	0	0	NR	0
US FIN ASSUR	0.125		0	NR	NR	NR	NR	0
EPA WATCH LIST	0.125		0	NR	NR	NR	NR	0
2020 COR ACTION	0.375		0	0	0	NR	NR	0
TSCA	0.125		0	NR	NR	NR	NR	0
TRIS	0.125		0	NR	NR	NR	NR	0
SSTS	0.125		0	NR	NR	NR	NR	0
ROD	1.125		0	0	0	0	0	0
RMP	0.125		0	NR	NR	NR	NR	0
RAATS	0.125		0	NR	NR	NR	NR	0
PRP	0.125		0	NR	NR	NR	NR	0
PADS	0.125		0	NR	NR	NR	NR	0
ICIS	0.125		0	NR	NR	NR	NR	0
FTTS	0.125	1	0	NR	NR	NR	NR	1
MLTS	0.125		0	NR	NR	NR	NR	0
COAL ASH DOE	0.125		0	NR	NR	NR	NR	0
COAL ASH EPA	0.625		0	0	0	0	NR	0
PCB TRANSFORMER	0.125		0	NR	NR	NR	NR	0
RADINFO	0.125		0	NR	NR	NR	NR	0
HIST FTTS	0.125	1	0	NR	NR	NR	NR	1
DOT OPS	0.125		0	NR	NR	NR	NR	0
CONSENT	1.125		0	0	0	0	0	0
INDIAN RESERV	1.125		0	0	0	0	0	0
UMTRA	0.625		0	0	0	0	NR	0
LEAD SMELTERS	0.125		0	NR	NR	NR	NR	0
US AIRS	0.125		0	NR	NR	NR	NR	0
US MINES	0.375		0	0	0	NR	NR	0
FINDS	0.125	1	0	NR	NR	NR	NR	1
CA BOND EXP. PLAN	1.125		0	0	0	0	0	0
Cortese	0.625		0	0	0	0	NR	0
CUPA Listings	0.375		0	0	0	NR	NR	0
DRYCLEANERS	0.375		0	0	0	NR	NR	0
EMI	0.125		0	NR	NR	NR	NR	0
ENF	0.125		0	NR	NR	NR	NR	0
Financial Assurance	0.125		0	NR	NR	NR	NR	0
HAZNET	0.125	2	2	NR	NR	NR	NR	4
HIST CORTESE	0.500		0	0	0	NR	NR	0
LOS ANGELES CO. HMS	0.125		0	NR	NR	NR	NR	0
HWP	1.125		0	0	0	0	0	0
HWT	0.375		0	0	0	NR	NR	0
MINES	0.125		0	NR	NR	NR	NR	0
MWMP	0.375		0	0	0	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
NPDES	0.125		0	NR	NR	NR	NR	0
PEST LIC	0.125		0	NR	NR	NR	NR	0
PROC	0.625		0	0	0	0	NR	0
Notify 65	1.125		0	0	0	0	0	0
LA Co. Site Mitigation	0.125		0	NR	NR	NR	NR	0
UIC	0.125		0	NR	NR	NR	NR	0
WASTEWATER PITS	0.625		0	0	0	0	NR	0
WDS	0.125		0	NR	NR	NR	NR	0
WIP	0.375		0	0	0	NR	NR	0
EDR HIGH RISK HISTORICAL RECORDS								
EDR Exclusive Records								
EDR MGP	1.125		0	0	0	0	0	0
EDR US Hist Auto Stat	0.375		0	5	3	NR	NR	8
EDR US Hist Cleaners	0.375		0	0	1	NR	NR	1
EDR RECOVERED GOVERNMENT ARCHIVES								
Exclusive Recovered Govt. Archives								
RGA LF	0.125		0	NR	NR	NR	NR	0
RGA LUST	0.125		0	NR	NR	NR	NR	0
- Totals --		6	2	9	9	9	1	36

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

A1 **COLFAX ELEMENTARY SCHOOL** **RCRA-LQG** **1011488228**
Target **11724 ADDISON ST.** **FINDS** **CAR000193870**
Property **NORTH HOLLYWOOD, CA 91607**

Site 1 of 4 in cluster A

Actual:
633 ft.

RCRA-LQG:

Date form received by agency:	07/17/2008
Facility name:	COLFAX ELEMENTARY SCHOOL
Facility address:	11724 ADDISON ST NORTH HOLLYWOOD, CA 91607
EPA ID:	CAR000193870
Mailing address:	333 S BEAUDRY AVE LAUSD OEHS 20TH FL LOS ANGELES, CA 90017
Contact:	SOE AUNG
Contact address:	333 S BEAUDRY AVE LAUSD OEHS 20TH FL LOS ANGELES, CA 90017
Contact country:	US
Contact telephone:	213-241-3904
Contact email:	SOE.AUNG@LAUSD.NET
EPA Region:	09
Classification:	Large Quantity Generator
Description:	Handler: generates 1,000 kg or more of hazardous waste during any calendar month; or generates more than 1 kg of acutely hazardous waste during any calendar month; or generates more than 100 kg of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month; or generates 1 kg or less of acutely hazardous waste during any calendar month, and accumulates more than 1 kg of acutely hazardous waste at any time; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates more than 100 kg of that material at any time

Owner/Operator Summary:

Owner/operator name:	LOS ANGELES UNIFIED SCHOOL DIST
Owner/operator address:	333 S BEAUDRY AVE LOS ANGELES, CA 90017
Owner/operator country:	US
Owner/operator telephone:	Not reported
Legal status:	District
Owner/Operator Type:	Owner
Owner/Op start date:	06/17/1988
Owner/Op end date:	Not reported
Owner/operator name:	COLFAX ELEMENTARY SCHOOL
Owner/operator address:	Not reported Not reported
Owner/operator country:	Not reported
Owner/operator telephone:	Not reported
Legal status:	District
Owner/Operator Type:	Operator
Owner/Op start date:	06/17/1988
Owner/Op end date:	Not reported

Handler Activities Summary:

COLFAX ELEMENTARY SCHOOL (Continued) **1011488228**

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No

. Waste code: D008
. Waste name: LEAD

Violation Status: No violations found

FINDS:

Registry ID: 110022537281

Environmental Interest/Information System

NCDB (National Compliance Data Base) supports implementation of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) and the Toxic Substances Control Act (TSCA). The system tracks inspections in regions and states with cooperative agreements, enforcement actions, and settlements.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

A2 **COLFAX ELEMENTARY SCHOOL** **FTTS** **1008387927**
Target **11724 ADDISON ST.** **HIST FTTS** **N/A**
Property **NORTH HOLLYWOOD, CA 91607**

Site 2 of 4 in cluster A

Actual:
633 ft.

FTTS INSP:

Inspection Number:	200404129ST30 1
Region:	09
Inspection Date:	04/12/04
Inspector:	MIXHAEL RAYBOURN
Violation occurred:	Yes
Investigation Type:	Lead, Section 402, State
Investigation Reason:	Neutral Scheme, State
Legislation Code:	TSCA
Facility Function:	Child Occupied Facility/Misc

COLFAX ELEMENTARY SCHOOL (Continued) **1008387927**

HIST FTTS INSP:

Inspection Number:	200404129ST30 1
Region:	09
Inspection Date:	Not reported
Inspector:	MIXHAEL RAYBOURN
Violation occurred:	Yes
Investigation Type:	Lead, Section 402, State
Investigation Reason:	Neutral Scheme, State
Legislation Code:	TSCA
Facility Function:	Child Occupied Facility/Misc

A3 **LAUSD/ COLFAX AVE ELEM** **HAZNET** **S113013425**
Target **11724 ADDISON ST** **N/A**
Property **N HOLLYWOOD, CA 91607**

Site 3 of 4 in cluster A

Actual:
633 ft.

HAZNET:

envid:	S113013425
Year:	2007
GEPAID:	CAD982043861
Contact:	Soe Aung
Telephone:	2137435086
Mailing Name:	Not reported
Mailing Address:	333 S BEAUDRY AVE 20TH FLR
Mailing City,St,Zip:	LOS ANGELES, CA 900170000
Gen County:	Not reported
TSD EPA ID:	AZR000005454
TSD County:	Not reported
Waste Category:	Polychlorinated biphenyls and material containing PCBs
Disposal Method:	Not reported
Tons:	0.83
Facility County:	Los Angeles

envid:	S113013425
Year:	2004
GEPAID:	CAD982043861
Contact:	YI HWA KIM DEPUTY DIRECTOR
Telephone:	2137435086
Mailing Name:	Not reported
Mailing Address:	333 S BEAUDRY AVE 20TH FLR
Mailing City,St,Zip:	LOS ANGELES, CA 900170000
Gen County:	Not reported
TSD EPA ID:	CAD008252405
TSD County:	Not reported
Waste Category:	Other organic solids
Disposal Method:	Transfer Station
Tons:	0.07
Facility County:	Los Angeles

envid:	S113013425
Year:	2004
GEPAID:	CAD982043861
Contact:	YI HWA KIM DEPUTY DIRECTOR
Telephone:	2137435086
Mailing Name:	Not reported

LAUSD/ COLFAX AVE ELEM (Continued) **S113013425**

Mailing Address:	333 S BEAUDRY AVE 20TH FLR
Mailing City,St,Zip:	LOS ANGELES, CA 900170000
Gen County:	Not reported
TSD EPA ID:	AZC950823111
TSD County:	Not reported
Waste Category:	Asbestos containing waste
Disposal Method:	Not reported
Tons:	90
Facility County:	Los Angeles

envid:	S113013425
Year:	1998
GEPAID:	CAD982043861
Contact:	LOS ANGELES USD
Telephone:	2137435086
Mailing Name:	Not reported
Mailing Address:	1449 S SAN PEDRO ST
Mailing City,St,Zip:	LOS ANGELES, CA 900153119
Gen County:	Not reported
TSD EPA ID:	CAD028409019
TSD County:	Not reported
Waste Category:	Other organic solids
Disposal Method:	Transfer Station
Tons:	.0440
Facility County:	Los Angeles

A4 **LAUSD-COLFAX ELEMENTARY SCHOOL** **HAZNET** **S113178659**
Target **11724 ADDISON ST** **N/A**
Property **NORTH HOLLYWOOD, CA 91607**

Site 4 of 4 in cluster A

Actual:
633 ft.

HAZNET:

envid:	S113178659
Year:	2009
GEPAID:	CAR000193870
Contact:	SOE AUNG / ECM
Telephone:	2132413199
Mailing Name:	Not reported
Mailing Address:	333 S BEAUDRY AVE 20TH FLOOR
Mailing City,St,Zip:	LOS ANGELES, CA 900170000
Gen County:	Not reported
TSD EPA ID:	CAD028409019
TSD County:	Not reported
Waste Category:	Other inorganic solid waste
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.06
Facility County:	Los Angeles

envid:	S113178659
Year:	2008
GEPAID:	CAR000193870
Contact:	SOE AUNG
Telephone:	2132413904
Mailing Name:	Not reported
Mailing Address:	333 S BEAUDRY AVE LAUSD OEHS 20TH F
Mailing City,St,Zip:	LOS ANGELES, CA 900170000

LAUSD-COLFAX ELEMENTARY SCHOOL (Continued) **S113178659**

Gen County:	Not reported
TSD EPA ID:	CAD028409019
TSD County:	Not reported
Waste Category:	Laboratory waste chemicals
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.55
Facility County:	Los Angeles

envid:	S113178659
Year:	2008
GEPAID:	CAR000193870
Contact:	SOE AUNG
Telephone:	2132413904
Mailing Name:	Not reported
Mailing Address:	333 S BEAUDRY AVE LAUSD OEHS 20TH F
Mailing City,St,Zip:	LOS ANGELES, CA 900170000
Gen County:	Not reported
TSD EPA ID:	CAT000646117
TSD County:	Not reported
Waste Category:	Other inorganic solid waste
Disposal Method:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons:	29.498
Facility County:	Los Angeles

envid:	S113178659
Year:	2008
GEPAID:	CAR000193870
Contact:	SOE AUNG
Telephone:	2132413904
Mailing Name:	Not reported
Mailing Address:	333 S BEAUDRY AVE LAUSD OEHS 20TH F
Mailing City,St,Zip:	LOS ANGELES, CA 900170000
Gen County:	Not reported
TSD EPA ID:	CAD009007626
TSD County:	Not reported
Waste Category:	Asbestos containing waste
Disposal Method:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons:	0.4
Facility County:	Los Angeles

envid:	S113178659
Year:	2008
GEPAID:	CAR000193870
Contact:	SOE AUNG
Telephone:	2132413904
Mailing Name:	Not reported
Mailing Address:	333 S BEAUDRY AVE LAUSD OEHS 20TH F
Mailing City,St,Zip:	LOS ANGELES, CA 900170000
Gen County:	Not reported
TSD EPA ID:	AZC950823111
TSD County:	Not reported
Waste Category:	Asbestos containing waste
Disposal Method:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)

LAUSD-COLFAX ELEMENTARY SCHOOL (Continued) **S113178659**

Tons: 4
Facility County: Los Angeles

Click this hyperlink while viewing on your computer to access additional CA_HAZNET: detail in the EDR Site Report.

B5
West
< 1/8
0.124 mi.
653 ft.

CURTIS KHEEL
4928 CARPENTER AVE
VALLEY VILLAGE, CA 91607

HAZNET **S113794164**
N/A

Site 1 of 2 in cluster B

Relative:
Higher

Actual:
633 ft.

HAZNET:

envid:	S113794164
Year:	2012
GEPAID:	CAC002712999
Contact:	CURTIS KHEEL
Telephone:	8187627451
Mailing Name:	Not reported
Mailing Address:	4928 CARPENTER AVE
Mailing City,St,Zip:	VALLEY VILLAGE, CA 916073207
Gen County:	Los Angeles
TSD EPA ID:	AZC950823111
TSD County:	99
Waste Category:	Not reported
Disposal Method:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons:	0.4
Facility County:	Los Angeles

B6
West
< 1/8
0.124 mi.
655 ft.

DENISE SCHEERER
4951 CARPENTER AVE
VALLEY VILLAGE, CA 91607

HAZNET **S117305765**
N/A

Site 2 of 2 in cluster B

Relative:
Higher

Actual:
634 ft.

HAZNET:

envid:	S117305765
Year:	2013
GEPAID:	CAC002750630
Contact:	DENISE SCHEERER
Telephone:	8187635252
Mailing Name:	Not reported
Mailing Address:	4951 CARPENTER AVE
Mailing City,St,Zip:	VALLEY VILLAGE, CA 916073206
Gen County:	Los Angeles
TSD EPA ID:	AZC950823111
TSD County:	99
Waste Category:	Not reported
Disposal Method:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons:	0.4
Facility County:	Not reported

C7 **TIBOR BREIR** **UST** **U003780909**
SSE **4805 COLFAX AVE** **SWEEPS UST** **N/A**
1/8-1/4 **NORTH HOLLYWOOD, CA 91601**
0.183 mi.
967 ft. **Site 1 of 8 in cluster C**

Relative:
Lower

Actual:
628 ft.

UST:

Facility ID:	24493
Permitting Agency:	LOS ANGELES, CITY OF
Latitude:	34.15786
Longitude:	-118.38775

SWEEPS UST:

Status:	Active
Comp Number:	4676
Number:	2
Board Of Equalization:	Not reported
Referral Date:	02-25-93
Action Date:	02-25-93
Created Date:	02-29-88
Owner Tank Id:	Not reported
SWRCB Tank Id:	Not reported
Tank Status:	Not reported
Capacity:	Not reported
Active Date:	Not reported
Tank Use:	Not reported
STG:	Not reported
Content:	Not reported
Number Of Tanks:	Not reported

C8 **EDR US Hist Auto Stat** **1015514350**
SSE **4805 COLFAX AVE** **N/A**
1/8-1/4 **NORTH HOLLYWOOD, CA 91601**
0.183 mi.
967 ft. **Site 2 of 8 in cluster C**

Relative:
Lower

Actual:
628 ft.

EDR Historical Auto Stations:

Name:	GILS AUTOMOTIVE CTR
Year:	2002
Address:	4805 COLFAX AVE
Name:	GILS AUTOMOTIVE CTR
Year:	2003
Address:	4805 COLFAX AVE

C9 **TIBOR BREIR** **CA FID UST** **S101586084**
SSE **4805 COLFAX AVE** **N/A**
1/8-1/4 **NORTH HOLLYWOOD, CA 91601**
0.183 mi.
967 ft. **Site 3 of 8 in cluster C**

Relative:
Lower

Actual:
628 ft.

CA FID UST:

Facility ID:	19037876
Regulated By:	UTNKA
Regulated ID:	Not reported
Cortese Code:	Not reported
SIC Code:	Not reported
Facility Phone:	8187606785

TIBOR BREIR (Continued) **S101586084**

Mail To:	Not reported
Mailing Address:	4805 COLFAX AVE
Mailing Address 2:	Not reported
Mailing City,St,Zip:	NORTH HOLLYWOOD 916010000
Contact:	Not reported
Contact Phone:	Not reported
DUNs Number:	Not reported
NPDES Number:	Not reported
EPA ID:	Not reported
Comments:	Not reported
Status:	Active

C10
South
1/8-1/4
0.185 mi.
979 ft.

NELSON LE ROY
11733 RIVERSIDE DR
SAN FERNANDO VALLEY, CA

Site 4 of 8 in cluster C

EDR US Hist Auto Stat **1009018259**
N/A

Relative:
Lower

Actual:
630 ft.

EDR Historical Auto Stations:

Name:	NELSON LE ROY
Year:	1940
Type:	GASOLINE SERVICE STATIONS

C11
South
1/8-1/4
0.185 mi.
979 ft.

NELSON LE ROY
11733 RIVERSIDE DR
NORTH HOLLYWOOD, CA

Site 5 of 8 in cluster C

EDR US Hist Auto Stat **1009051006**
N/A

Relative:
Lower

Actual:
630 ft.

EDR Historical Auto Stations:

Name:	NELSON LE ROY
Year:	1940
Type:	GASOLINE SERVICE STATIONS

C12
SSE
1/8-1/4
0.191 mi.
1011 ft.

BOB S SERVICE STATION
11708 RIVERSIDE DR
NORTH HOLLYWOOD, CA

Site 6 of 8 in cluster C

EDR US Hist Auto Stat **1009050749**
N/A

Relative:
Lower

Actual:
628 ft.

EDR Historical Auto Stations:

Name:	BOB S SERVICE STATION
Year:	1940
Type:	GASOLINE SERVICE STATIONS

C13 **BOB S SERVICE STATION** — **EDR US Hist Auto Stat** — **1009018240** / **N/A**
SSE **11708 RIVERSIDE DR**
1/8-1/4 **SAN FERNANDO VALLEY, CA**
0.191 mi.
1011 ft. **Site 7 of 8 in cluster C**

Relative: **Lower**
Actual: **628 ft.**

EDR Historical Auto Stations:

Name:	BOB S SERVICE STATION
Year:	1940
Type:	GASOLINE SERVICE STATIONS

C14 **F & P AUTO SERVICE** — **SWEEPS UST** — **S103990716** / **N/A**
SSE **11708 RIVERSIDE DR**
1/8-1/4 **NORTH HOLLYWOOD, CA 91607**
0.192 mi.
1015 ft. **Site 8 of 8 in cluster C**

Relative: **Lower**
Actual: **628 ft.**

SWEEPS UST:

Status:	Active
Comp Number:	8134
Number:	2
Board Of Equalization:	Not reported
Referral Date:	07-09-93
Action Date:	03-03-94
Created Date:	02-03-93
Owner Tank Id:	Not reported
SWRCB Tank Id:	Not reported
Tank Status:	Not reported
Capacity:	Not reported
Active Date:	Not reported
Tank Use:	Not reported
STG:	Not reported
Content:	Not reported
Number Of Tanks:	Not reported

D15 — **EDR US Hist Cleaners** — **1015070814** / **N/A**
NNE **5150 COLFAX AVE**
1/4-1/2 **NORTH HOLLYWOOD, CA 91601**
0.284 mi.
1501 ft. **Site 1 of 4 in cluster D**

Relative: **Higher**
Actual: **633 ft.**

EDR Historical Cleaners:

Name:	COLFAX LAUNDRY & CLEANERS
Year:	2001
Address:	5150 COLFAX AVE
Name:	COLFAX LAUNDRY & CLEANERS
Year:	2002
Address:	5150 COLFAX AVE
Name:	COLFAX LAUNDRY & CLEANERS
Year:	2003
Address:	5150 COLFAX AVE
Name:	COLFAX LAUNDRY & CLEANERS
Year:	2004
Address:	5150 COLFAX AVE

(Continued) **1015070814**

Name:	COLFAX LAUNDRY & CLEANERS
Year:	2006
Address:	5150 COLFAX AVE
Name:	COLFAX LAUNDRY & CLEANERS
Year:	2007
Address:	5150 COLFAX AVE
Name:	COLFAX LAUNDRY & CLEANERS
Year:	2008
Address:	5150 COLFAX AVE
Name:	COLFAX LAUNDRY & CLEANERS
Year:	2010
Address:	5150 COLFAX AVE
Name:	COLFAX CLEANERS & LAUNDRY
Year:	2011
Address:	5150 COLFAX AVE
Name:	COLFAX CLEANERS & LAUNDRY
Year:	2012
Address:	5150 COLFAX AVE

D16		**EDR US Hist Auto Stat**	**1015172616**
North	**11700 MAGNOLIA BLVD**		**N/A**
1/4-1/2	**VALLEY VILLAGE, CA 91607**		
0.293 mi.			
1548 ft.	**Site 2 of 4 in cluster D**		

Relative:
Higher

Actual:
634 ft.

EDR Historical Auto Stations:

Name:	K & A COMPLETE AUTO REPAIR
Year:	2002
Address:	11700 MAGNOLIA BLVD
Name:	K & A COMPLETE AUTO REPAIR
Year:	2003
Address:	11700 MAGNOLIA BLVD
Name:	K & A COMPLETE AUTO REPAIR
Year:	2004
Address:	11700 MAGNOLIA BLVD
Name:	COMPLETE AUTO REPAIR CENTER
Year:	2005
Address:	11700 MAGNOLIA BLVD
Name:	COMPLETE AUTO REPAIR CENTER
Year:	2006
Address:	11700 MAGNOLIA BLVD
Name:	COMPLETE AUTO REPAIR CENTER
Year:	2007
Address:	11700 MAGNOLIA BLVD
Name:	COMPLETE AUTO REPAIR CENTER
Year:	2008
Address:	11700 MAGNOLIA BLVD

(Continued) **1015172616**

Name:	S & J COMPLETE AUTO REPAIR
Year:	2009
Address:	11700 MAGNOLIA BLVD
Name:	S & JS COMPLETE AUTO REPAIR
Year:	2010
Address:	11700 MAGNOLIA BLVD
Name:	S & J COMPLETE AUTO REPAIR
Year:	2011
Address:	11700 MAGNOLIA BLVD
Name:	S & J COMPLETE AUTO REPAIR
Year:	2012
Address:	11700 MAGNOLIA BLVD

D17 **BEN'S TEXACO** **HIST UST** **U001568618**
North **11700 MAGNOLIA BLVD** **N/A**
1/4-1/2 **NORTH HOLLYWOOD, CA 91607**
0.293 mi.
1548 ft. **Site 3 of 4 in cluster D**

Relative:
Higher

Actual:
634 ft.

HIST UST:

Region:	STATE
Facility ID:	00000068631
Facility Type:	Gas Station
Other Type:	Not reported
Contact Name:	RAZMIK Z. BENYAMINE
Telephone:	8187633497
Owner Name:	RAZMIK Z. BENYAMINE
Owner Address:	6805 VANTAGE STREET
Owner City,St,Zip:	NORTH HOLLYWOOD, CA 91605
Total Tanks:	0004
Tank Num:	001
Container Num:	001
Year Installed:	Not reported
Tank Capacity:	00010000
Tank Used for:	WASTE
Type of Fuel:	1
Container Construction Thickness:	X
Leak Detection:	Sensor Instrument
Tank Num:	002
Container Num:	002
Year Installed:	Not reported
Tank Capacity:	00006000
Tank Used for:	PRODUCT
Type of Fuel:	UNLEADED
Container Construction Thickness:	Not reported
Leak Detection:	Sensor Instrument
Tank Num:	003
Container Num:	003
Year Installed:	Not reported
Tank Capacity:	00006000
Tank Used for:	PRODUCT
Type of Fuel:	REGULAR

BEN'S TEXACO (Continued) **U001568618**

Container Construction Thickness: Not reported
Leak Detection: Sensor Instrument

Tank Num: 004
Container Num: 004
Year Installed: Not reported
Tank Capacity: 00000250
Tank Used for: WASTE
Type of Fuel: WASTE OIL
Container Construction Thickness: Not reported
Leak Detection: Sensor Instrument

D18
North
1/4-1/2
0.293 mi.
1548 ft.

TEXACO STATION
11700 MAGNOLIA BLVD
NORTH HOLLYWOOD, CA 91607

Site 4 of 4 in cluster D

SWEEPS UST **S101586065**
CA FID UST **N/A**

Relative:
Higher

Actual:
634 ft.

SWEEPS UST:

Status: Not reported
Comp Number: 7341
Number: Not reported
Board Of Equalization: Not reported
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: Not reported
Tank Status: Not reported
Capacity: Not reported
Active Date: Not reported
Tank Use: Not reported
STG: Not reported
Content: Not reported
Number Of Tanks: Not reported

CA FID UST:

Facility ID: 19037437
Regulated By: UTNKI
Regulated ID: Not reported
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 8187633497
Mail To: Not reported
Mailing Address: 11700 MAGNOLIA BLVD
Mailing Address 2: Not reported
Mailing City,St,Zip: NORTH HOLLYWOOD 916070000
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Inactive

E19
ESE
1/4-1/2
0.356 mi.
1879 ft.

MOORE E L
11539 RIVERSIDE DR
NORTH HOLLYWOOD, CA

EDR US Hist Auto Stat **1009051004**
N/A

Site 1 of 2 in cluster E

Relative:
Lower

Actual:
621 ft.

EDR Historical Auto Stations:

Name:	MOORE E L
Year:	1940
Type:	GASOLINE SERVICE STATIONS

E20
ESE
1/4-1/2
0.359 mi.
1895 ft.

MOORE E L
11539 RIVERSIDE DR
SAN FERNANDO VALLEY, CA

EDR US Hist Auto Stat **1009018257**
N/A

Site 2 of 2 in cluster E

Relative:
Lower

Actual:
621 ft.

EDR Historical Auto Stations:

Name:	MOORE E L
Year:	1940
Type:	GASOLINE SERVICE STATIONS

F21
WSW
1/4-1/2
0.498 mi.
2629 ft.

CHEVRON #9-3909
4757 LAUREL CANYON BLVD
NORTH HOLLYWOOD, CA 91607

LUST **S102427237**
N/A

Site 1 of 2 in cluster F

Relative:
Higher

Actual:
633 ft.

LUST REG 4:

Region:	4
Regional Board:	04
County:	Los Angeles
Facility Id:	916070352
Status:	Case Closed
Substance:	Hydrocarbons
Substance Quantity:	Not reported
Local Case No:	Not reported
Case Type:	Soil
Abatement Method Used at the Site:	Not reported
Global ID:	T0603702616
W Global ID:	Not reported
Staff:	UNK
Local Agency:	19050
Cross Street:	Not reported
Enforcement Type:	Not reported
Date Leak Discovered:	Not reported
Date Leak First Reported:	11/4/1991
Date Leak Record Entered:	6/2/1992
Date Confirmation Began:	Not reported
Date Leak Stopped:	Not reported
Date Case Last Changed on Database:	2/25/1992
Date the Case was Closed:	1/30/1992
How Leak Discovered:	Not reported
How Leak Stopped:	Not reported
Cause of Leak:	UNK
Leak Source:	UNK
Operator:	OLD CASENO WAS 022592-02
Water System:	Not reported

CHEVRON #9-3909 (Continued) **S102427237**

Well Name:	Not reported
Approx. Dist To Production Well (ft):	10444.23406899136410548424581
Source of Cleanup Funding:	UNK
Preliminary Site Assessment Workplan Submitted:	Not reported
Preliminary Site Assessment Began:	Not reported
Pollution Characterization Began:	11/4/1991
Remediation Plan Submitted:	Not reported
Remedial Action Underway:	Not reported
Post Remedial Action Monitoring Began:	Not reported
Enforcement Action Date:	Not reported
Historical Max MTBE Date:	Not reported
Hist Max MTBE Conc in Groundwater:	Not reported
Hist Max MTBE Conc in Soil:	Not reported
Significant Interim Remedial Action Taken:	Not reported
GW Qualifier:	Not reported
Soil Qualifier:	Not reported
Organization:	Not reported
Owner Contact:	Not reported
Responsible Party:	BLANK RP
RP Address:	Not reported
Program:	LUST
Lat/Long:	34.1568304 / -1
Local Agency Staff:	PEJ
Beneficial Use:	Not reported
Priority:	Not reported
Cleanup Fund Id:	Not reported
Suspended:	Not reported
Assigned Name:	Not reported
Summary:	Not reported

F22
WSW
1/4-1/2
0.498 mi.
2629 ft.

CHEVRON #9-3909
4757 LAUREL CANYON BLVD
NORTH HOLLYWOOD, CA 91607

LUST **S103661345**
N/A

Site 2 of 2 in cluster F

Relative:
Higher

Actual:
633 ft.

LUST:

Region:	STATE
Global Id:	T0603702616
Latitude:	34.157244
Longitude:	-118.396929
Case Type:	Not reported
Status:	Completed - Case Closed
Status Date:	01/30/1992
Lead Agency:	Not reported
Case Worker:	WR
Local Agency:	Not reported
RB Case Number:	916070352
LOC Case Number:	Not reported
File Location:	Not reported
Potential Media Affect:	Soil
Potential Contaminants of Concern:	Other Solvent or Non-Petroleum Hydrocarbon
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0603702616

CHEVRON #9-3909 (Continued) **S103661345**

Contact Type:	Regional Board Caseworker
Contact Name:	YUE RONG
Organization Name:	LOS ANGELES RWQCB (REGION 4)
Address:	320 W. 4TH ST., SUITE 200
City:	Los Angeles
Email:	yrong@waterboards.ca.gov
Phone Number:	Not reported
Global Id:	T0603702616
Contact Type:	Local Agency Caseworker
Contact Name:	TBD
Organization Name:	LOS ANGELES, CITY OF
Address:	200 N. MAIN ST. RM. 970
City:	LOS ANGELES
Email:	Not reported
Phone Number:	2134826528

Status History:

Global Id:	T0603702616
Status:	Completed - Case Closed
Status Date:	01/30/1992
Global Id:	T0603702616
Status:	Open - Case Begin Date
Status Date:	11/04/1991
Global Id:	T0603702616
Status:	Open - Site Assessment
Status Date:	11/04/1991

Regulatory Activities:

Global Id:	T0603702616
Action Type:	Other
Date:	11/04/1991
Action:	Leak Reported

G23
WNW
1/2-1
0.516 mi.
2727 ft.

ARCO #1680
5158 LAUREL CANYON BLVD
NORTH HOLLYWOOD, CA 91604

LUST
SWEEPS UST
CA FID UST

S101583692
N/A

Site 1 of 2 in cluster G

Relative:
Higher

Actual:
646 ft.

LUST:

Region:	STATE
Global Id:	T0603702575
Latitude:	34.1642771
Longitude:	-118.3963293
Case Type:	Not reported
Status:	Open - Eligible for Closure
Status Date:	11/06/2014
Lead Agency:	Not reported
Case Worker:	MC
Local Agency:	Not reported
RB Case Number:	916040452
LOC Case Number:	Not reported
File Location:	Not reported

ARCO #1680 (Continued) **S101583692**

Potential Media Affect:	Soil
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0603702575
Contact Type:	Local Agency Caseworker
Contact Name:	ELOY LUNA
Organization Name:	LOS ANGELES, CITY OF
Address:	200 North Main Street, Suite 1780
City:	LOS ANGELES
Email:	eloy.luna@lacity.org
Phone Number:	Not reported
Global Id:	T0603702575
Contact Type:	Regional Board Caseworker
Contact Name:	MATTHEW COHEN
Organization Name:	SWRCB
Address:	1001 I Street
City:	SACRAMENTO
Email:	mcohen@waterboards.ca.gov
Phone Number:	9163415751
Global Id:	T0603702575
Contact Type:	Regional Board Caseworker
Contact Name:	YUE RONG
Organization Name:	LOS ANGELES RWQCB (REGION 4)
Address:	320 W. 4TH ST., SUITE 200
City:	Los Angeles
Email:	yrong@waterboards.ca.gov
Phone Number:	Not reported

Status History:

Global Id:	T0603702575
Status:	Open - Case Begin Date
Status Date:	10/10/1991
Global Id:	T0603702575
Status:	Open - Eligible for Closure
Status Date:	11/06/2014
Global Id:	T0603702575
Status:	Open - Site Assessment
Status Date:	10/10/1991

Regulatory Activities:

Global Id:	T0603702575
Action Type:	ENFORCEMENT
Date:	03/27/2013
Action:	Staff Letter
Global Id:	T0603702575
Action Type:	Other
Date:	10/10/1991
Action:	Leak Discovery

ARCO #1680 (Continued) **S101583692**

Global Id:	T0603702575
Action Type:	RESPONSE
Date:	02/01/1994
Action:	Site Assessment Report
Global Id:	T0603702575
Action Type:	RESPONSE
Date:	09/30/1992
Action:	Interim Remedial Action Plan
Global Id:	T0603702575
Action Type:	RESPONSE
Date:	02/01/1988
Action:	Tank Removal Report / UST Sampling Report
Global Id:	T0603702575
Action Type:	RESPONSE
Date:	08/18/1993
Action:	Site Assessment Report
Global Id:	T0603702575
Action Type:	RESPONSE
Date:	03/22/1995
Action:	Site Assessment Report
Global Id:	T0603702575
Action Type:	RESPONSE
Date:	04/08/2008
Action:	Site Assessment Report
Global Id:	T0603702575
Action Type:	RESPONSE
Date:	03/20/2003
Action:	Preliminary Site Assessment Workplan
Global Id:	T0603702575
Action Type:	RESPONSE
Date:	12/16/1993
Action:	Soil and Water Investigation Report
Global Id:	T0603702575
Action Type:	RESPONSE
Date:	04/10/1992
Action:	Interim Remedial Action Plan
Global Id:	T0603702575
Action Type:	ENFORCEMENT
Date:	11/06/2014
Action:	Notification - Public Notice of Case Closure
Global Id:	T0603702575
Action Type:	RESPONSE
Date:	07/15/2014
Action:	Monitoring Report - Quarterly
Global Id:	T0603702575
Action Type:	ENFORCEMENT

ARCO #1680 (Continued) **S101583692**

Date:	04/11/2011
Action:	Staff Letter - #1
Global Id:	T0603702575
Action Type:	ENFORCEMENT
Date:	04/11/2011
Action:	Petition Submitted for Review
Global Id:	T0603702575
Action Type:	ENFORCEMENT
Date:	03/13/2015
Action:	State Water Board Closure Order
Global Id:	T0603702575
Action Type:	Other
Date:	10/10/1991
Action:	Leak Reported
Global Id:	T0603702575
Action Type:	ENFORCEMENT
Date:	11/05/2014
Action:	Clean Up Fund - Case Closure Review Summary Report (RSR)
Global Id:	T0603702575
Action Type:	RESPONSE
Date:	01/29/2013
Action:	Site Investigation Workplan - Regulator Responded
Global Id:	T0603702575
Action Type:	RESPONSE
Date:	08/18/2014
Action:	Other Workplan - Regulator Responded

LUST REG 4:

Region:	4
Regional Board:	04
County:	Los Angeles
Facility Id:	Not reported
Status:	Preliminary site assessment underway
Substance:	Gasoline
Substance Quantity:	Not reported
Local Case No:	24437-8375
Case Type:	Soil
Abatement Method Used at the Site:	Not reported
Global ID:	T0603708342
W Global ID:	Not reported
Staff:	Not reported
Local Agency:	19050
Cross Street:	MAGNOLIA
Enforcement Type:	Not reported
Date Leak Discovered:	10/8/1999
Date Leak First Reported:	10/8/1999
Date Leak Record Entered:	Not reported
Date Confirmation Began:	5/22/2003
Date Leak Stopped:	10/8/1999
Date Case Last Changed on Database:	Not reported

ARCO #1680 (Continued) **S101583692**

Date the Case was Closed:	Not reported
How Leak Discovered:	OM
How Leak Stopped:	RPP
Cause of Leak:	UNK
Leak Source:	UNK
Operator:	Not reported
Water System:	Not reported
Well Name:	Not reported
Approx. Dist To Production Well (ft):	Not reported
Source of Cleanup Funding:	UNK
Preliminary Site Assessment Workplan Submitted:	Not reported
Preliminary Site Assessment Began:	5/22/2003
Pollution Characterization Began:	Not reported
Remediation Plan Submitted:	Not reported
Remedial Action Underway:	Not reported
Post Remedial Action Monitoring Began:	Not reported
Enforcement Action Date:	Not reported
Historical Max MTBE Date:	Not reported
Hist Max MTBE Conc in Groundwater:	Not reported
Hist Max MTBE Conc in Soil:	Not reported
Significant Interim Remedial Action Taken:	Not reported
GW Qualifier:	Not reported
Soil Qualifier:	Not reported
Organization:	Not reported
Owner Contact:	Not reported
Responsible Party:	ARCO
RP Address:	P O BOX 6038 ARTESIA CA 90702
Program:	LUST
Lat/Long:	0 / 0
Local Agency Staff:	Not reported
Beneficial Use:	Not reported
Priority:	Not reported
Cleanup Fund Id:	Not reported
Suspended:	Not reported
Assigned Name:	Not reported
Summary:	Not reported

SWEEPS UST:

Status:	Not reported
Comp Number:	1589
Number:	Not reported
Board Of Equalization:	44-000506
Referral Date:	Not reported
Action Date:	Not reported
Created Date:	Not reported
Owner Tank Id:	Not reported
SWRCB Tank Id:	19-050-001589-000001
Tank Status:	Not reported
Capacity:	10000
Active Date:	Not reported
Tank Use:	M.V. FUEL
STG:	PRODUCT
Content:	REG UNLEADED
Number Of Tanks:	4

Status:	Not reported
Comp Number:	1589

ARCO #1680 (Continued)   **S101583692**

Number:	Not reported
Board Of Equalization:	44-000506
Referral Date:	Not reported
Action Date:	Not reported
Created Date:	Not reported
Owner Tank Id:	Not reported
SWRCB Tank Id:	19-050-001589-000002
Tank Status:	Not reported
Capacity:	10000
Active Date:	Not reported
Tank Use:	M.V. FUEL
STG:	PRODUCT
Content:	REG UNLEADED
Number Of Tanks:	Not reported

Status:	Not reported
Comp Number:	1589
Number:	Not reported
Board Of Equalization:	44-000506
Referral Date:	Not reported
Action Date:	Not reported
Created Date:	Not reported
Owner Tank Id:	Not reported
SWRCB Tank Id:	19-050-001589-000003
Tank Status:	Not reported
Capacity:	10000
Active Date:	Not reported
Tank Use:	M.V. FUEL
STG:	PRODUCT
Content:	REG UNLEADED
Number Of Tanks:	Not reported

Status:	Not reported
Comp Number:	1589
Number:	Not reported
Board Of Equalization:	44-000506
Referral Date:	Not reported
Action Date:	Not reported
Created Date:	Not reported
Owner Tank Id:	Not reported
SWRCB Tank Id:	19-050-001589-000004
Tank Status:	Not reported
Capacity:	10000
Active Date:	Not reported
Tank Use:	M.V. FUEL
STG:	PRODUCT
Content:	PRM UNLEADED
Number Of Tanks:	Not reported

Status:	Active
Comp Number:	1589
Number:	1
Board Of Equalization:	44-000506
Referral Date:	07-24-92
Action Date:	02-03-94
Created Date:	02-29-88
Owner Tank Id:	Not reported

ARCO #1680 (Continued) **S101583692**

SWRCB Tank Id:	Not reported
Tank Status:	Not reported
Capacity:	Not reported
Active Date:	Not reported
Tank Use:	Not reported
STG:	Not reported
Content:	Not reported
Number Of Tanks:	Not reported

CA FID UST:

Facility ID:	19005556
Regulated By:	UTNKA
Regulated ID:	00026600
Cortese Code:	Not reported
SIC Code:	Not reported
Facility Phone:	8185066541
Mail To:	Not reported
Mailing Address:	515 S FLOWER ST
Mailing Address 2:	Not reported
Mailing City,St,Zip:	NORTH HOLLYWOOD 916070000
Contact:	Not reported
Contact Phone:	Not reported
DUNs Number:	Not reported
NPDES Number:	Not reported
EPA ID:	Not reported
Comments:	Not reported
Status:	Active

G24 **ARCO #1680** **LUST** **S102424180**
WNW **5158 LAUREL CANYON BLVD** **N/A**
1/2-1 **STUDIO CITY, CA 91604**
0.516 mi.
2727 ft. **Site 2 of 2 in cluster G**

Relative:
Higher

Actual:
646 ft.

LUST REG 4:

Region:	4
Regional Board:	04
County:	Los Angeles
Facility Id:	916040452
Status:	Preliminary site assessment underway
Substance:	Gasoline
Substance Quantity:	Not reported
Local Case No:	Not reported
Case Type:	Soil
Abatement Method Used at the Site:	Not reported
Global ID:	T0603702575
W Global ID:	Not reported
Staff:	UNK
Local Agency:	19050
Cross Street:	MAGNOLIA
Enforcement Type:	Not reported
Date Leak Discovered:	10/10/1991
Date Leak First Reported:	10/10/1991
Date Leak Record Entered:	4/7/1992
Date Confirmation Began:	Not reported
Date Leak Stopped:	Not reported
Date Case Last Changed on Database:	12/7/1999

ARCO #1680 (Continued) **S102424180**

Date the Case was Closed: Not reported
How Leak Discovered: OM
How Leak Stopped: Not reported
Cause of Leak: UNK
Leak Source: UNK
Operator: OLD CASENO WAS 040792-07
Water System: Not reported
Well Name: Not reported
Approx. Dist To Production Well (ft): 7974.78390121720664126903 0672
Source of Cleanup Funding: UNK
Preliminary Site Assessment Workplan Submitted: Not reported
Preliminary Site Assessment Began: 10/10/1991
Pollution Characterization Began: Not reported
Remediation Plan Submitted: Not reported
Remedial Action Underway: Not reported
Post Remedial Action Monitoring Began: Not reported
Enforcement Action Date: Not reported
Historical Max MTBE Date: Not reported
Hist Max MTBE Conc in Groundwater: Not reported
Hist Max MTBE Conc in Soil: 310
Significant Interim Remedial Action Taken: Not reported
GW Qualifier: Not reported
Soil Qualifier: =
Organization: Not reported
Owner Contact: Not reported
Responsible Party: ARCO PRODUCTS CO.
RP Address: 17315 STUDEBAKER RD., CERRITOS, 90701
Program: LUST
Lat/Long: 34.1642771 / -1
Local Agency Staff: PEJ
Beneficial Use: Not reported
Priority: Not reported
Cleanup Fund Id: Not reported
Suspended: Not reported
Assigned Name: Not reported
Summary: DURING PREDRILL ANALYSIS FOR A TANK REPLACEMENT A BORE HOLE INDICATED THE OVA + 1000 PTS/M TO DEPTH OF 40'. INVESTIGATION IS CONTINUING. 12/7/99 DISPENSER SOIL SAMPLING RPT

H25
SW
1/2-1
0.542 mi.
2864 ft.

76 PRODUCTS STATION #5261
4654 LAUREL CANYON BLVD
NORTH HOLLYWOOD, CA 91607

Site 1 of 4 in cluster H

LUST **1000166604**
SWEEPS UST **N/A**
HIST UST

Relative:
Higher

Actual:
635 ft.

LUST REG 4:
Region: 4
Regional Board: 04
County: Los Angeles
Facility Id: 916070334
Status: Case Closed
Substance: Gasoline
Substance Quantity: Not reported
Local Case No: Not reported
Case Type: Soil
Abatement Method Used at the Site: Not reported
Global ID: T0603702614
W Global ID: Not reported

76 PRODUCTS STATION #5261 (Continued) **1000166604**

Staff:	UNK
Local Agency:	19050
Cross Street:	KLING
Enforcement Type:	Not reported
Date Leak Discovered:	6/23/1986
Date Leak First Reported:	6/23/1986
Date Leak Record Entered:	12/31/1986
Date Confirmation Began:	Not reported
Date Leak Stopped:	6/23/1986
Date Case Last Changed on Database:	3/5/1998
Date the Case was Closed:	3/5/1998
How Leak Discovered:	Tank Closure
How Leak Stopped:	Not reported
Cause of Leak:	Overfill
Leak Source:	UNK
Operator:	NEWKOFF, JACK
Water System:	Not reported
Well Name:	Not reported
Approx. Dist To Production Well (ft):	10808.765409616153427124473695
Source of Cleanup Funding:	UNK
Preliminary Site Assessment Workplan Submitted:	Not reported
Preliminary Site Assessment Began:	Not reported
Pollution Characterization Began:	Not reported
Remediation Plan Submitted:	Not reported
Remedial Action Underway:	Not reported
Post Remedial Action Monitoring Began:	Not reported
Enforcement Action Date:	Not reported
Historical Max MTBE Date:	Not reported
Hist Max MTBE Conc in Groundwater:	Not reported
Hist Max MTBE Conc in Soil:	Not reported
Significant Interim Remedial Action Taken:	Not reported
GW Qualifier:	Not reported
Soil Qualifier:	Not reported
Organization:	Not reported
Owner Contact:	Not reported
Responsible Party:	TOSCO/76 PRODUCTS TEAM
RP Address:	555 ANTON, COSTA MESA, CA 92626
Program:	LUST
Lat/Long:	34.1555774 / -1
Local Agency Staff:	PEJ
Beneficial Use:	Not reported
Priority:	Not reported
Cleanup Fund Id:	Not reported
Suspended:	Not reported
Assigned Name:	Not reported
Summary:	SITE ASSESSMENT AND SOILS ANALYSIS REQUIRED OLD CASE #000106

SWEEPS UST:

Status:	Active
Comp Number:	1174
Number:	9
Board Of Equalization:	44-000051
Referral Date:	05-16-93
Action Date:	03-16-94
Created Date:	02-29-88
Owner Tank Id:	Not reported

76 PRODUCTS STATION #5261 (Continued) **1000166604**

SWRCB Tank Id: 19-050-001174-000001
Tank Status: A
Capacity: 280
Active Date: 04-20-88
Tank Use: OIL
STG: W
Content: WASTE OIL
Number Of Tanks: 3

Status: Active
Comp Number: 1174
Number: 9
Board Of Equalization: 44-000051
Referral Date: 05-16-93
Action Date: 03-16-94
Created Date: 02-29-88
Owner Tank Id: Not reported
SWRCB Tank Id: 19-050-001174-000002
Tank Status: A
Capacity: 9950
Active Date: 04-20-88
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: Not reported

Status: Active
Comp Number: 1174
Number: 9
Board Of Equalization: 44-000051
Referral Date: 05-16-93
Action Date: 03-16-94
Created Date: 02-29-88
Owner Tank Id: Not reported
SWRCB Tank Id: 19-050-001174-000003
Tank Status: A
Capacity: 9950
Active Date: 04-20-88
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: Not reported

HIST UST:
Region: STATE
Facility ID: 00000017338
Facility Type: Gas Station
Other Type: Not reported
Contact Name: JACK NEWKOFF
Telephone: 8189850407
Owner Name: UNION OIL COMPANY OF CALIFORNI
Owner Address: 3701 WILSHIRE BOULEVARD STE830
Owner City,St,Zip: LOS ANGELES, CA 90010
Total Tanks: 0006

Tank Num: 001
Container Num: 5261-4

76 PRODUCTS STATION #5261 (Continued) **1000166604**

Year Installed:	1964
Tank Capacity:	00000280
Tank Used for:	WASTE
Type of Fuel:	WASTE OIL
Container Construction Thickness:	Not reported
Leak Detection:	Stock Inventor, Pressure Test
Tank Num:	002
Container Num:	5261-2
Year Installed:	1964
Tank Capacity:	00009950
Tank Used for:	PRODUCT
Type of Fuel:	PREMIUM
Container Construction Thickness:	Not reported
Leak Detection:	Stock Inventor, Pressure Test
Tank Num:	003
Container Num:	5261-1
Year Installed:	1964
Tank Capacity:	00009950
Tank Used for:	PRODUCT
Type of Fuel:	UNLEADED
Container Construction Thickness:	Not reported
Leak Detection:	Stock Inventor, Pressure Test
Tank Num:	004
Container Num:	5274-4
Year Installed:	1964
Tank Capacity:	00000280
Tank Used for:	WASTE
Type of Fuel:	WASTE OIL
Container Construction Thickness:	Not reported
Leak Detection:	Stock Inventor, Pressure Test
Tank Num:	005
Container Num:	5274-2
Year Installed:	1964
Tank Capacity:	00009940
Tank Used for:	PRODUCT
Type of Fuel:	PREMIUM
Container Construction Thickness:	Not reported
Leak Detection:	Stock Inventor, Pressure Test
Tank Num:	006
Container Num:	5274-1
Year Installed:	1964
Tank Capacity:	00009940
Tank Used for:	PRODUCT
Type of Fuel:	UNLEADED
Container Construction Thickness:	Not reported
Leak Detection:	Stock Inventor, Pressure Test

H26	**CONOCOPHILIPS STATION 5261**	**LUST**	**S108203507**
SW	**4654 LAUREL CANYON BLVD**		**N/A**
1/2-1	**NORTH HOLLYWOOD, CA 91607**		
0.542 mi.			
2864 ft.	**Site 2 of 4 in cluster H**		

Relative: **Higher**

Actual: **635 ft.**

LUST:

Region:	STATE
Global Id:	T0603702614
Latitude:	34.155446
Longitude:	-118.396099
Case Type:	Not reported
Status:	Completed - Case Closed
Status Date:	03/05/1998
Lead Agency:	Not reported
Case Worker:	EL
Local Agency:	Not reported
RB Case Number:	916070334
LOC Case Number:	Not reported
File Location:	Not reported
Potential Media Affect:	Soil
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0603702614
Contact Type:	Regional Board Caseworker
Contact Name:	YUE RONG
Organization Name:	LOS ANGELES RWQCB (REGION 4)
Address:	320 W. 4TH ST., SUITE 200
City:	Los Angeles
Email:	yrong@waterboards.ca.gov
Phone Number:	Not reported
Global Id:	T0603702614
Contact Type:	Local Agency Caseworker
Contact Name:	ELOY LUNA
Organization Name:	LOS ANGELES, CITY OF
Address:	200 North Main Street, Suite 1780
City:	LOS ANGELES
Email:	eloy.luna@lacity.org
Phone Number:	Not reported

Status History:

Global Id:	T0603702614
Status:	Completed - Case Closed
Status Date:	03/05/1998
Global Id:	T0603702614
Status:	Open - Case Begin Date
Status Date:	06/23/1986

Regulatory Activities:

Global Id:	T0603702614
Action Type:	Other
Date:	06/23/1986
Action:	Leak Reported

CONOCOPHILIPS STATION 5261 (Continued) **S108203507**

Global Id:	T0603702614
Action Type:	Other
Date:	06/23/1986
Action:	Leak Stopped
Global Id:	T0603702614
Action Type:	Other
Date:	06/23/1986
Action:	Leak Discovery

Region:	STATE
Global Id:	T10000001047
Latitude:	34.155446
Longitude:	-118.396099
Case Type:	Not reported
Status:	Completed - Case Closed
Status Date:	10/25/2011
Lead Agency:	Not reported
Case Worker:	AT
Local Agency:	Not reported
RB Case Number:	916070334A
LOC Case Number:	Not reported
File Location:	Regional Board
Potential Media Affect:	Aquifer used for drinking water supply
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T10000001047
Contact Type:	Regional Board Caseworker
Contact Name:	ARMAN TOUMARI
Organization Name:	LOS ANGELES RWQCB (REGION 4)
Address:	320 WEST 4TH STREET, SUITE 200
City:	LOS ANGELES
Email:	atoumari@waterboards.ca.gov
Phone Number:	2135766708
Global Id:	T10000001047
Contact Type:	Local Agency Caseworker
Contact Name:	ELOY LUNA
Organization Name:	LOS ANGELES, CITY OF
Address:	200 North Main Street, Suite 1780
City:	LOS ANGELES
Email:	eloy.luna@lacity.org
Phone Number:	Not reported

Status History:

Global Id:	T10000001047
Status:	Completed - Case Closed
Status Date:	10/25/2011
Global Id:	T10000001047
Status:	Open - Case Begin Date
Status Date:	08/23/2007

CONOCOPHILIPS STATION 5261 (Continued) **S108203507**

Global Id:	T10000001047
Status:	Open - Referred
Status Date:	06/11/2009
Global Id:	T10000001047
Status:	Open - Site Assessment
Status Date:	08/23/2007
Global Id:	T10000001047
Status:	Open - Site Assessment
Status Date:	10/06/2009

Regulatory Activities:

Global Id:	T10000001047
Action Type:	RESPONSE
Date:	01/15/2010
Action:	Monitoring Report - Semi-Annually
Global Id:	T10000001047
Action Type:	REMEDIATION
Date:	12/08/2003
Action:	Excavation
Global Id:	T10000001047
Action Type:	RESPONSE
Date:	11/06/2009
Action:	Other Report / Document
Global Id:	T10000001047
Action Type:	RESPONSE
Date:	10/15/2009
Action:	Monitoring Report - Semi-Annually
Global Id:	T10000001047
Action Type:	RESPONSE
Date:	07/15/2009
Action:	Monitoring Report - Semi-Annually
Global Id:	T10000001047
Action Type:	RESPONSE
Date:	04/15/2010
Action:	Well Installation Report
Global Id:	T10000001047
Action Type:	RESPONSE
Date:	04/15/2010
Action:	Monitoring Report - Semi-Annually
Global Id:	T10000001047
Action Type:	RESPONSE
Date:	04/15/2011
Action:	Monitoring Report - Semi-Annually
Global Id:	T10000001047
Action Type:	RESPONSE
Date:	07/15/2010
Action:	Monitoring Report - Semi-Annually

CONOCOPHILIPS STATION 5261 (Continued) **S108203507**

Global Id: T10000001047
Action Type: RESPONSE
Date: 07/15/2010
Action: Well Installation Workplan

Global Id: T10000001047
Action Type: RESPONSE
Date: 10/15/2010
Action: Monitoring Report - Semi-Annually

Global Id: T10000001047
Action Type: ENFORCEMENT
Date: 10/06/2009
Action: Staff Letter

Global Id: T10000001047
Action Type: ENFORCEMENT
Date: 10/25/2011
Action: Closure/No Further Action Letter

Global Id: T10000001047
Action Type: RESPONSE
Date: 07/15/2011
Action: Monitoring Report - Quarterly

Global Id: T10000001047
Action Type: ENFORCEMENT
Date: 06/11/2009
Action: Referral to Regional Board

Global Id: T10000001047
Action Type: Other
Date: 11/11/2008
Action: Leak Reported

Global Id: T10000001047
Action Type: RESPONSE
Date: 01/15/2011
Action: Monitoring Report - Semi-Annually

Global Id: T10000001047
Action Type: REMEDIATION
Date: 05/30/1995
Action: Excavation

H27 **SHELL SERVICE STATION (FORMER)** **LUST** **S103660948**
SW **4647 LAUREL CANYON BLVD.** **N/A**
1/2-1 **NORTH HOLLYWOOD, CA 91607**
0.547 mi.
2887 ft. **Site 3 of 4 in cluster H**

Relative:
Higher

Actual:
635 ft.

LUST:
Region: STATE
Global Id: T0603793313
Latitude: 0
Longitude: 0
Case Type: Not reported

SHELL SERVICE STATION (FORMER) (Continued) **S103660948**

Status:	Completed - Case Closed
Status Date:	01/07/2003
Lead Agency:	Not reported
Case Worker:	MB
Local Agency:	Not reported
RB Case Number:	916070389
LOC Case Number:	Not reported
File Location:	Regional Board
Potential Media Affect:	Soil
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0603793313
Contact Type:	Local Agency Caseworker
Contact Name:	ELOY LUNA
Organization Name:	LOS ANGELES, CITY OF
Address:	200 North Main Street, Suite 1780
City:	LOS ANGELES
Email:	eloy.luna@lacity.org
Phone Number:	Not reported

Global Id:	T0603793313
Contact Type:	Regional Board Caseworker
Contact Name:	MAGDY BAIADY
Organization Name:	LOS ANGELES RWQCB (REGION 4)
Address:	320 W. 4TH ST., SUITE 200
City:	LOS ANGELES
Email:	mbaiady@waterboards.ca.gov
Phone Number:	2135766699

Status History:

Global Id:	T0603793313
Status:	Completed - Case Closed
Status Date:	01/07/2003

Global Id:	T0603793313
Status:	Open - Case Begin Date
Status Date:	03/07/2002

Global Id:	T0603793313
Status:	Open - Site Assessment
Status Date:	03/07/2002

Global Id:	T0603793313
Status:	Open - Site Assessment
Status Date:	10/29/2002

Regulatory Activities:

Global Id:	T0603793313
Action Type:	ENFORCEMENT
Date:	01/07/2003
Action:	Closure/No Further Action Letter

Global Id:	T0603793313

SHELL SERVICE STATION (FORMER) (Continued) **S103660948**

Action Type: Other
Date: 09/24/2002
Action: Leak Reported

Global Id: T0603793313
Action Type: ENFORCEMENT
Date: 10/03/2002
Action: Staff Letter

Global Id: T0603793313
Action Type: RESPONSE
Date: 10/29/2002
Action: Preliminary Site Assessment Report

Global Id: T0603793313
Action Type: ENFORCEMENT
Date: 10/31/2002
Action: Site Visit / Inspection / Sampling

Global Id: T0603793313
Action Type: RESPONSE
Date: 11/04/2002
Action: Other Report / Document

Global Id: T0603793313
Action Type: Other
Date: 03/07/2002
Action: Leak Discovery

Global Id: T0603793313
Action Type: REMEDIATION
Date: 03/07/2002
Action: Excavation

Global Id: T0603793313
Action Type: Other
Date: 03/07/2002
Action: Leak Stopped

H28 **SHELL SERVICE STATION** **RCRA-SQG** **1004678426**
SW **4647 LAUREL CANYON** **LUST** **CAR000108936**
1/2-1 **N HOLLYWOOD, CA 91607** **FINDS**
0.547 mi. **HAZNET**
2887 ft. **Site 4 of 4 in cluster H**

Relative:
Higher

Actual:
635 ft.

RCRA-SQG:
Date form received by agency: 11/13/2001
Facility name: SHELL SERVICE STATION
Facility address: 4647 LAUREL CANYON
S A P 121169
N HOLLYWOOD, CA 91607
EPA ID: CAR000108936
Mailing address: P O BOX 2648
HOUSTON, TX 772522648
Contact: SONDRA BIENVENU
Contact address: P O BOX 2648
HOUSTON, TX 772522648

SHELL SERVICE STATION (Continued) **1004678426**

Contact country:	US
Contact telephone:	(713) 241-5036
Contact email:	Not reported
EPA Region:	09
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name:	EQUILON ENTERPRISES L L C
Owner/operator address:	P O BOX 2648 HOUSTON, TX 77252
Owner/operator country:	Not reported
Owner/operator telephone:	(713) 241-5036
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No

. Waste code:	D001
. Waste name:	IGNITABLE WASTE
. Waste code:	D018
. Waste name:	BENZENE
Violation Status:	No violations found

LUST REG 4:

Region:	4
Regional Board:	04
County:	Los Angeles
Facility Id:	916070389
Status:	Preliminary site assessment underway
Substance:	Gasoline
Substance Quantity:	Not reported
Local Case No:	Not reported
Case Type:	Soil

SHELL SERVICE STATION (Continued) **1004678426**

Abatement Method Used at the Site:	Not reported
Global ID:	T0603793313
W Global ID:	Not reported
Staff:	MB
Local Agency:	19050
Cross Street:	Not reported
Enforcement Type:	SI
Date Leak Discovered:	3/7/2002
Date Leak First Reported:	9/24/2002
Date Leak Record Entered:	Not reported
Date Confirmation Began:	Not reported
Date Leak Stopped:	3/7/2002
Date Case Last Changed on Database:	Not reported
Date the Case was Closed:	Not reported
How Leak Discovered:	OM
How Leak Stopped:	Close Tank
Cause of Leak:	UNK
Leak Source:	UNK
Operator:	Not reported
Water System:	Not reported
Well Name:	Not reported
Approx. Dist To Production Well (ft):	Not reported
Source of Cleanup Funding:	UNK
Preliminary Site Assessment Workplan Submitted:	Not reported
Preliminary Site Assessment Began:	3/7/2002
Pollution Characterization Began:	Not reported
Remediation Plan Submitted:	Not reported
Remedial Action Underway:	Not reported
Post Remedial Action Monitoring Began:	Not reported
Enforcement Action Date:	Not reported
Historical Max MTBE Date:	Not reported
Hist Max MTBE Conc in Groundwater:	Not reported
Hist Max MTBE Conc in Soil:	2000
Significant Interim Remedial Action Taken:	Not reported
GW Qualifier:	Not reported
Soil Qualifier:	=
Organization:	Not reported
Owner Contact:	Not reported
Responsible Party:	ED PADEN
RP Address:	PO BOX 7869
Program:	LUST
Lat/Long:	0 / 0
Local Agency Staff:	Not reported
Beneficial Use:	Not reported
Priority:	Not reported
Cleanup Fund Id:	Not reported
Suspended:	Not reported
Assigned Name:	Not reported
Summary:	Not reported

FINDS:

Registry ID: 110012233975

Environmental Interest/Information System
California Hazardous Waste Tracking System - Datamart (HWTS-DATAMART) provides California with information on hazardous waste shipments for

SHELL SERVICE STATION (Continued) **1004678426**

generators, transporters, and treatment, storage, and disposal facilities.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

HAZNET:

envid: 1004678426
Year: 2002
GEPAID: CAR000108936
Contact: N CORTEZ/ENVT'L DATA ANALYST
Telephone: 2818742224
Mailing Name: Not reported
Mailing Address: 12700 NORTHBOROUGH DRIVE MFT 240-G
Mailing City,St,Zip: Houston, TX 770672508
Gen County: Not reported
TSD EPA ID: CAD028409019
TSD County: Not reported
Waste Category: Aqueous solution with total organic residues less than 10 percent
Disposal Method: Not reported
Tons: 0.22
Facility County: Los Angeles

envid: 1004678426
Year: 2002
GEPAID: CAR000108936
Contact: N CORTEZ/ENVT'L DATA ANALYST
Telephone: 2818742224
Mailing Name: Not reported
Mailing Address: 12700 NORTHBOROUGH DRIVE MFT 240-G
Mailing City,St,Zip: Houston, TX 770672508
Gen County: Not reported
TSD EPA ID: CAD028409019
TSD County: Not reported
Waste Category: Aqueous solution with total organic residues less than 10 percent
Disposal Method: Treatment, Tank
Tons: 0.68
Facility County: Los Angeles

envid: 1004678426
Year: 2002
GEPAID: CAR000108936
Contact: N CORTEZ/ENVT'L DATA ANALYST
Telephone: 2818742224
Mailing Name: Not reported
Mailing Address: 12700 NORTHBOROUGH DRIVE MFT 240-G
Mailing City,St,Zip: Houston, TX 770672508
Gen County: Not reported
TSD EPA ID: CAD028409019
TSD County: Not reported
Waste Category: Waste oil and mixed oil
Disposal Method: Treatment, Tank

SHELL SERVICE STATION (Continued) **1004678426**

Tons:	0.5
Facility County:	Los Angeles
envid:	1004678426
Year:	2002
GEPAID:	CAR000108936
Contact:	N CORTEZ/ENVT'L DATA ANALYST
Telephone:	2818742224
Mailing Name:	Not reported
Mailing Address:	12700 NORTHBOROUGH DRIVE MFT 240-G
Mailing City,St,Zip:	Houston, TX 770672508
Gen County:	Not reported
TSD EPA ID:	CAT080013352
TSD County:	Not reported
Waste Category:	Aqueous solution with total organic residues less than 10 percent
Disposal Method:	Recycler
Tons:	6.25
Facility County:	Los Angeles
envid:	1004678426
Year:	2002
GEPAID:	CAR000108936
Contact:	N CORTEZ/ENVT'L DATA ANALYST
Telephone:	2818742224
Mailing Name:	Not reported
Mailing Address:	12700 NORTHBOROUGH DRIVE MFT 240-G
Mailing City,St,Zip:	Houston, TX 770672508
Gen County:	Not reported
TSD EPA ID:	CAD982484933
TSD County:	Not reported
Waste Category:	Other empty containers 30 gallons or more
Disposal Method:	Not reported
Tons:	0.25
Facility County:	Los Angeles

~~Click this hyperlink~~ while viewing on your computer to access
3 additional CA_HAZNET: record(s) in the EDR Site Report.

29
ENE
1/2-1
0.805 mi.
4253 ft.

LANKERSHIM ELEMENTARY EXPANSION
11241/11261 MAGNOLIA BOULEVARD
NORTH HOLLYWOOD, CA 91601

ENVIROSTOR **SCH** **S105628658** **N/A**

Relative:
Lower

Actual:
625 ft.

ENVIROSTOR:

Facility ID:	19990040
Status:	Certified
Status Date:	03/12/2002
Site Code:	304259
Site Type:	School Cleanup
Site Type Detailed:	School
Acres:	.9
NPL:	NO
Regulatory Agencies:	SMBRP
Lead Agency:	SMBRP
Program Manager:	Not reported
Supervisor:	Javier Hinojosa
Division Branch:	Southern California Schools & Brownfields Outreach

LANKERSHIM ELEMENTARY EXPANSION (Continued) **S105628658**

Assembly:	46
Senate:	18
Special Program:	Not reported
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	School District
Latitude:	34.16
Longitude:	-118.372
APN:	NONE SPECIFIED
Past Use:	* UNKNOWN, NONE, NONE
Potential COC:	NONE SPECIFIED No Contaminants found
Confirmed COC:	31000-NO
Potential Description:	SOIL
Alias Name:	LANKERSHIM ELEMENTARY EXPANSION
Alias Type:	Alternate Name
Alias Name:	LAUSD-11241 & 11261 MAGNOLIA BLVD.
Alias Type:	Alternate Name
Alias Name:	LAUSD-11241 & 11261 MAGNOLIA BLVD/VCA
Alias Type:	Alternate Name
Alias Name:	LAUSD-LANKERSHUM
Alias Type:	Alternate Name
Alias Name:	LOS ANGELES UNIFIED SCHOOL DISTRICT
Alias Type:	Alternate Name
Alias Name:	110033607595
Alias Type:	EPA (FRS #)
Alias Name:	304036
Alias Type:	Project Code (Site Code)
Alias Name:	304129
Alias Type:	Project Code (Site Code)
Alias Name:	304259
Alias Type:	Project Code (Site Code)
Alias Name:	19990040
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	* CEQA
Completed Date:	11/22/2001
Comments:	Not reported

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Preliminary Endangerment Assessment Report
Completed Date:	05/24/2001
Comments:	Not reported

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Phase 1
Completed Date:	02/04/2000
Comments:	Not reported

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Removal Action Completion Report
Completed Date:	02/06/2002
Comments:	Not reported

LANKERSHIM ELEMENTARY EXPANSION (Continued) **S105628658**

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Workplan
Completed Date: 10/16/2001
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Certification
Completed Date: 03/12/2002
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 03/25/2002
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 04/22/2003
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Oversight Agreement
Completed Date: 02/10/2000
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

SCH:

Facility ID: 19990040
Site Type: School Cleanup
Site Type Detail: School
Site Mgmt. Req.: NONE SPECIFIED
Acres: .9
National Priorities List: NO
Cleanup Oversight Agencies: SMBRP
Lead Agency: SMBRP
Lead Agency Description: DTSC - Site Cleanup Program
Project Manager: Not reported
Supervisor: Javier Hinojosa
Division Branch: Southern California Schools & Brownfields Outreach
Site Code: 304259
Assembly: 46
Senate: 18

LANKERSHIM ELEMENTARY EXPANSION (Continued) **S105628658**

Special Program Status:	Not reported
Status:	Certified
Status Date:	03/12/2002
Restricted Use:	NO
Funding:	School District
Latitude:	34.16
Longitude:	-118.372
APN:	NONE SPECIFIED
Past Use:	* UNKNOWN, NONE, NONE
Potential COC:	NONE SPECIFIED, No Contaminants found
Confirmed COC:	31000-NO
Potential Description:	SOIL
Alias Name:	LANKERSHIM ELEMENTARY EXPANSION
Alias Type:	Alternate Name
Alias Name:	LAUSD-11241 & 11261 MAGNOLIA BLVD.
Alias Type:	Alternate Name
Alias Name:	LAUSD-11241 & 11261 MAGNOLIA BLVD/VCA
Alias Type:	Alternate Name
Alias Name:	LAUSD-LANKERSHUM
Alias Type:	Alternate Name
Alias Name:	LOS ANGELES UNIFIED SCHOOL DISTRICT
Alias Type:	Alternate Name
Alias Name:	110033607595
Alias Type:	EPA (FRS #)
Alias Name:	304036
Alias Type:	Project Code (Site Code)
Alias Name:	304129
Alias Type:	Project Code (Site Code)
Alias Name:	304259
Alias Type:	Project Code (Site Code)
Alias Name:	19990040
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	* CEQA
Completed Date:	11/22/2001
Comments:	Not reported

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Preliminary Endangerment Assessment Report
Completed Date:	05/24/2001
Comments:	Not reported

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Phase 1
Completed Date:	02/04/2000
Comments:	Not reported

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Removal Action Completion Report
Completed Date:	02/06/2002
Comments:	Not reported

LANKERSHIM ELEMENTARY EXPANSION (Continued) **S105628658**

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Removal Action Workplan
Completed Date: 10/16/2001
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Certification
Completed Date: 03/12/2002
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 03/25/2002
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Cost Recovery Closeout Memo
Completed Date: 04/22/2003
Comments: Not reported

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Environmental Oversight Agreement
Completed Date: 02/10/2000
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

30
NE
1/2-1
0.969 mi.
5117 ft.

NORTH HOLLYWOOD SUPERIOR COURT
5554-68 LANKERSHIM BOULEVARD
NORTH HOLLYWOOD, CA 91601

ENVIROSTOR **S100351770**
N/A

Relative:
Higher

Actual:
640 ft.

ENVIROSTOR:
Facility ID: 19750073
Status: Refer: EPA
Status Date: 05/18/2009
Site Code: Not reported
Site Type: Evaluation
Site Type Detailed: Evaluation
Acres: 2
NPL: NO
Regulatory Agencies: SMBRP
Lead Agency: SMBRP
Program Manager: Not reported

NORTH HOLLYWOOD SUPERIOR COURT (Continued) **S100351770**

Supervisor:	Javier Hinojosa
Division Branch:	Cleanup Chatsworth
Assembly:	39
Senate:	18
Special Program:	EPA - PASI
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	Not reported
Latitude:	34.17152
Longitude:	-118.3781
APN:	2350008008
Past Use:	FUEL - VEHICLE STORAGE/ REFUELING, PAINT/DEPAINT FACILITY, RETAIL - SERVICE STATION
Potential COC:	* HALOGENATED ORGANIC COMPOUNDS * HALOGENATED SOLVENTS * HYDROCARBON SOLVENTS * Metals - Other Inorganic Solid Waste * ORGANIC LIQUIDS WITH METALS * ORGANIC SOLIDS WITH HALOGENS * OXYGENATED SOLVENTS * CONTAMINATED SOIL * Sludge - Halogenated Compounds * Sludge - Paint * UNSPECIFIED OIL CONTAINING WASTE * UNSPECIFIED SOLVENT MIXTURES * WASTE OIL & MIXED OIL * ORGANIC LIQUIDS (NONSOLVENTS) WITH HALOGENS * UNSPECIFIED ORGANIC LIQUID MIXTURE * AUTO SHREDDER WASTE Lead Polychlorinated biphenyls (PCBs
Confirmed COC:	NONE SPECIFIED
Potential Description:	OTH, SOIL, SV
Alias Name:	ALOHA AUTO BODY
Alias Type:	Alternate Name
Alias Name:	GEMINI AUTO SALES
Alias Type:	Alternate Name
Alias Name:	KIMS AUTO BODY
Alias Type:	Alternate Name
Alias Name:	OXNARD AUTO REPAIR
Alias Type:	Alternate Name
Alias Name:	2350008008
Alias Type:	APN
Alias Name:	19750073
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Site Screening
Completed Date:	12/10/1993
Comments:	Site Investigation is ongoing, L.A. County lead.

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Site Screening
Completed Date:	11/18/1992
Comments:	The site is proposed to develop as North Hollywood Superior Court. The subsurface contamination at the site is greater than 10-13 feet. The contamination ia mainly from oil spilled hydrocarbon. The site is contaminates with light solvents, xylenes and toluenes, lead and PCBs. One above ground tank is on the property. The site consists of ten lots which include office buildings, restaurants, auto repair shops, auto body shops, and residential places. Some of the business activities at the site is still opeational. LA County is the lead. Therefore, NFA for the Department

Completed Area Name:	PROJECT WIDE

NORTH HOLLYWOOD SUPERIOR COURT (Continued) **S100351770**

Completed Sub Area Name:	Not reported
Completed Document Type:	Site Screening
Completed Date:	06/10/2008
Comments:	EPA signed off on the Site Screening.

Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

---

31 **WSW** **1/2-1** **1.000 mi.** **5278 ft.**	**EXECUTIVE CLEANERS** **12514 RIVERSIDE** **LOS ANGELES, CA 91607**	**ENVIROSTOR** **LA Co. Site Mitigation**	**S106843265** **N/A**

Relative: **Lower**

Actual: **632 ft.**

ENVIROSTOR:

Facility ID:	19720048
Status:	Refer: 1248 Local Agency
Status Date:	07/05/2000
Site Code:	Not reported
Site Type:	Evaluation
Site Type Detailed:	Evaluation
Acres:	0
NPL:	NO
Regulatory Agencies:	LOS ANGELES COUNTY
Lead Agency:	LOS ANGELES COUNTY
Program Manager:	Not reported
Supervisor:	Referred - Not Assigned
Division Branch:	Cleanup Cypress
Assembly:	46
Senate:	18
Special Program:	Not reported
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	Not Applicable
Latitude:	34.15763
Longitude:	-118.4072
APN:	23570327
Past Use:	NONE SPECIFIED
Potential COC:	NONE SPECIFIED
Confirmed COC:	NONE SPECIFIED
Potential Description:	NONE SPECIFIED
Alias Name:	23570327
Alias Type:	APN
Alias Name:	19720048
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	SB 1248 Notification
Completed Date:	07/05/2000

EXECUTIVE CLEANERS (Continued) **S106843265**

Comments: DTSC is not involved with this project.

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

LA Co. Site Mitigation:
Facility ID: Not reported
Site ID: SD0010008
Jurisdiction: County
Case ID: RO0000406
Abated: Yes
Assigned To: Don Thompson
Entered Date: 05/11/2004

32
ENE
> 1
1.098 mi.
5795 ft.

ROSALI CLEANERS
5160 VINELAND AVE., #107
NORTH HOLLYWOOD, CA 91601

ENVIROSTOR **S106893771**
N/A

Relative:
Lower

Actual:
617 ft.

ENVIROSTOR:
Facility ID: 19720045
Status: Refer: 1248 Local Agency
Status Date: 07/11/2003
Site Code: Not reported
Site Type: Evaluation
Site Type Detailed: Evaluation
Acres: Not reported
NPL: NO
Regulatory Agencies: NONE SPECIFIED
Lead Agency: NONE SPECIFIED
Program Manager: Not reported
Supervisor: Referred - Not Assigned
Division Branch: Cleanup Cypress
Assembly: 39
Senate: 18
Special Program: Not reported
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: Not Applicable
Latitude: 34.16418
Longitude: -118.3694
APN: NONE SPECIFIED
Past Use: NONE SPECIFIED
Potential COC: NONE SPECIFIED
Confirmed COC: NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: 19720045
Alias Type: Envirostor ID Number

ROSALI CLEANERS (Continued) **S106893771**

Completed Info:

Completed Area Name:	Not reported
Completed Sub Area Name:	Not reported
Completed Document Type:	Not reported
Completed Date:	Not reported
Comments:	Not reported

Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

Count: 0 records.

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
		NO SITES FOUND			

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 03/26/2015
Date Data Arrived at EDR: 04/08/2015
Date Made Active in Reports: 06/22/2015
Number of Days to Update: 75

Source: EPA
Telephone: N/A
Last EDR Contact: 07/09/2015
Next Scheduled EDR Contact: 10/19/2015
Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 3
Telephone 215-814-5418

EPA Region 4
Telephone 404-562-8033

EPA Region 5
Telephone 312-886-6686

EPA Region 10
Telephone 206-553-8665

EPA Region 6
Telephone: 214-655-6659

EPA Region 7
Telephone: 913-551-7247

EPA Region 8
Telephone: 303-312-6774

EPA Region 9
Telephone: 415-947-4246

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 03/26/2015
Date Data Arrived at EDR: 04/08/2015
Date Made Active in Reports: 06/22/2015
Number of Days to Update: 75

Source: EPA
Telephone: N/A
Last EDR Contact: 07/09/2015
Next Scheduled EDR Contact: 10/19/2015
Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991
Date Data Arrived at EDR: 02/02/1994
Date Made Active in Reports: 03/30/1994
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

Federal Delisted NPL site list

Delisted NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 03/26/2015
Date Data Arrived at EDR: 04/08/2015
Date Made Active in Reports: 06/22/2015
Number of Days to Update: 75

Source: EPA
Telephone: N/A
Last EDR Contact: 07/09/2015
Next Scheduled EDR Contact: 10/19/2015
Data Release Frequency: Quarterly

Federal CERCLIS list

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 03/26/2015
Date Data Arrived at EDR: 04/08/2015
Date Made Active in Reports: 06/11/2015
Number of Days to Update: 64

Source: Environmental Protection Agency
Telephone: 703-603-8704
Last EDR Contact: 07/10/2015
Next Scheduled EDR Contact: 10/19/2015
Data Release Frequency: Varies

CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System

CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 10/25/2013
Date Data Arrived at EDR: 11/11/2013
Date Made Active in Reports: 02/13/2014
Number of Days to Update: 94

Source: EPA
Telephone: 703-412-9810
Last EDR Contact: 05/29/2015
Next Scheduled EDR Contact: 09/07/2015
Data Release Frequency: Quarterly

Federal CERCLIS NFRAP site List

CERCLIS-NFRAP: CERCLIS No Further Remedial Action Planned

Archived sites are sites that have been removed and archived from the inventory of CERCLIS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

Date of Government Version: 10/25/2013
Date Data Arrived at EDR: 11/11/2013
Date Made Active in Reports: 02/13/2014
Number of Days to Update: 94

Source: EPA
Telephone: 703-412-9810
Last EDR Contact: 05/29/2015
Next Scheduled EDR Contact: 09/07/2015
Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 03/10/2015
Date Data Arrived at EDR: 03/31/2015
Date Made Active in Reports: 06/11/2015
Number of Days to Update: 72

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 06/26/2015
Next Scheduled EDR Contact: 10/12/2015
Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 03/10/2015
Date Data Arrived at EDR: 03/31/2015
Date Made Active in Reports: 06/11/2015
Number of Days to Update: 72

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 06/26/2015
Next Scheduled EDR Contact: 10/12/2015
Data Release Frequency: Quarterly

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 03/10/2015
Date Data Arrived at EDR: 03/31/2015
Date Made Active in Reports: 06/11/2015
Number of Days to Update: 72

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 06/26/2015
Next Scheduled EDR Contact: 10/12/2015
Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 03/10/2015
Date Data Arrived at EDR: 03/31/2015
Date Made Active in Reports: 06/11/2015
Number of Days to Update: 72

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 06/26/2015
Next Scheduled EDR Contact: 10/12/2015
Data Release Frequency: Quarterly

RCRA-CESQG: RCRA - Conditionally Exempt Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 03/10/2015
Date Data Arrived at EDR: 03/31/2015
Date Made Active in Reports: 06/11/2015
Number of Days to Update: 72

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 06/26/2015
Next Scheduled EDR Contact: 10/12/2015
Data Release Frequency: Varies

Federal institutional controls / engineering controls registries

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 05/28/2015
Date Data Arrived at EDR: 05/29/2015
Date Made Active in Reports: 06/11/2015
Number of Days to Update: 13

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 08/12/2015
Next Scheduled EDR Contact: 11/30/2015
Data Release Frequency: Varies

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 03/16/2015
Date Data Arrived at EDR: 03/17/2015
Date Made Active in Reports: 06/02/2015
Number of Days to Update: 77

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 06/01/2015
Next Scheduled EDR Contact: 09/14/2015
Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 03/16/2015
Date Data Arrived at EDR: 03/17/2015
Date Made Active in Reports: 06/02/2015
Number of Days to Update: 77

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 06/01/2015
Next Scheduled EDR Contact: 09/14/2015
Data Release Frequency: Varies

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 03/30/2015
Date Data Arrived at EDR: 03/31/2015
Date Made Active in Reports: 06/02/2015
Number of Days to Update: 63

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 06/26/2015
Next Scheduled EDR Contact: 10/12/2015
Data Release Frequency: Annually

State- and tribal - equivalent NPL

RESPONSE: State Response Sites

Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk.

Date of Government Version: 05/04/2015
Date Data Arrived at EDR: 05/05/2015
Date Made Active in Reports: 05/14/2015
Number of Days to Update: 9

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 08/04/2015
Next Scheduled EDR Contact: 11/16/2015
Data Release Frequency: Quarterly

State- and tribal - equivalent CERCLIS

ENVIROSTOR: EnviroStor Database

The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

Date of Government Version: 05/04/2015
Date Data Arrived at EDR: 05/05/2015
Date Made Active in Reports: 05/14/2015
Number of Days to Update: 9

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 08/04/2015
Next Scheduled EDR Contact: 11/16/2015
Data Release Frequency: Quarterly

State and tribal landfill and/or solid waste disposal site lists

SWF/LF (SWIS): Solid Waste Information System

Active, Closed and Inactive Landfills. SWF/LF records typically contain an inve ntory of solid waste disposal facilities or landfills. These may be active or i nactive facilities or open dumps that failed to meet RCRA Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 05/18/2015
Date Data Arrived at EDR: 05/20/2015
Date Made Active in Reports: 06/05/2015
Number of Days to Update: 16

Source: Department of Resources Recycling and Recovery
Telephone: 916-341-6320
Last EDR Contact: 05/20/2015
Next Scheduled EDR Contact: 08/31/2015
Data Release Frequency: Quarterly

State and tribal leaking storage tank lists

LUST REG 8: Leaking Underground Storage Tanks

California Regional Water Quality Control Board Santa Ana Region (8). For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/14/2005
Date Data Arrived at EDR: 02/15/2005
Date Made Active in Reports: 03/28/2005
Number of Days to Update: 41

Source: California Regional Water Quality Control Board Santa Ana Region (8)
Telephone: 909-782-4496
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: Varies

LUST REG 3: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank locations. Monterey, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz counties.

Date of Government Version: 05/19/2003
Date Data Arrived at EDR: 05/19/2003
Date Made Active in Reports: 06/02/2003
Number of Days to Update: 14

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-542-4786
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: No Update Planned

LUST REG 7: Leaking Underground Storage Tank Case Listing

Leaking Underground Storage Tank locations. Imperial, Riverside, San Diego, Santa Barbara counties.

Date of Government Version: 02/26/2004
Date Data Arrived at EDR: 02/26/2004
Date Made Active in Reports: 03/24/2004
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Colorado River Basin Region (7)
Telephone: 760-776-8943
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

LUST REG 6V: Leaking Underground Storage Tank Case Listing
Leaking Underground Storage Tank locations. Inyo, Kern, Los Angeles, Mono, San Bernardino counties.

Date of Government Version: 06/07/2005
Date Data Arrived at EDR: 06/07/2005
Date Made Active in Reports: 06/29/2005
Number of Days to Update: 22

Source: California Regional Water Quality Control Board Victorville Branch Office (6)
Telephone: 760-241-7365
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

LUST REG 6L: Leaking Underground Storage Tank Case Listing
For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/09/2003
Date Data Arrived at EDR: 09/10/2003
Date Made Active in Reports: 10/07/2003
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Lahontan Region (6)
Telephone: 530-542-5572
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

LUST REG 5: Leaking Underground Storage Tank Database
Leaking Underground Storage Tank locations. Alameda, Alpine, Amador, Butte, Colusa, Contra Costa, Calveras, El Dorado, Fresno, Glenn, Kern, Kings, Lake, Lassen, Madera, Mariposa, Merced, Modoc, Napa, Nevada, Placer, Plumas, Sacramento, San Joaquin, Shasta, Solano, Stanislaus, Sutter, Tehama, Tulare, Tuolumne, Yolo, Yuba counties.

Date of Government Version: 07/01/2008
Date Data Arrived at EDR: 07/22/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 9

Source: California Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-4834
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: No Update Planned

LUST REG 9: Leaking Underground Storage Tank Report
Orange, Riverside, San Diego counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 03/01/2001
Date Data Arrived at EDR: 04/23/2001
Date Made Active in Reports: 05/21/2001
Number of Days to Update: 28

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-637-5595
Last EDR Contact: 09/26/2011
Next Scheduled EDR Contact: 01/09/2012
Data Release Frequency: No Update Planned

LUST REG 2: Fuel Leak List
Leaking Underground Storage Tank locations. Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, Sonoma counties.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: California Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-622-2433
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Quarterly

LUST REG 1: Active Toxic Site Investigation
Del Norte, Humboldt, Lake, Mendocino, Modoc, Siskiyou, Sonoma, Trinity counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/01/2001
Date Data Arrived at EDR: 02/28/2001
Date Made Active in Reports: 03/29/2001
Number of Days to Update: 29

Source: California Regional Water Quality Control Board North Coast (1)
Telephone: 707-570-3769
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

LUST: Geotracker's Leaking Underground Fuel Tank Report

Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state. For more information on a particular leaking underground storage tank sites, please contact the appropriate regulatory agency.

Date of Government Version: 06/15/2015	Source: State Water Resources Control Board
Date Data Arrived at EDR: 06/17/2015	Telephone: see region list
Date Made Active in Reports: 07/14/2015	Last EDR Contact: 06/17/2015
Number of Days to Update: 27	Next Scheduled EDR Contact: 09/28/2015
	Data Release Frequency: Quarterly

LUST REG 4: Underground Storage Tank Leak List

Los Angeles, Ventura counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/07/2004	Source: California Regional Water Quality Control Board Los Angeles Region (4)
Date Data Arrived at EDR: 09/07/2004	Telephone: 213-576-6710
Date Made Active in Reports: 10/12/2004	Last EDR Contact: 09/06/2011
Number of Days to Update: 35	Next Scheduled EDR Contact: 12/19/2011
	Data Release Frequency: No Update Planned

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 01/08/2015	Source: Environmental Protection Agency
Date Data Arrived at EDR: 01/08/2015	Telephone: 415-972-3372
Date Made Active in Reports: 02/09/2015	Last EDR Contact: 07/31/2015
Number of Days to Update: 32	Next Scheduled EDR Contact: 11/09/2015
	Data Release Frequency: Quarterly

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 02/03/2015	Source: EPA Region 10
Date Data Arrived at EDR: 02/12/2015	Telephone: 206-553-2857
Date Made Active in Reports: 03/13/2015	Last EDR Contact: 07/22/2015
Number of Days to Update: 29	Next Scheduled EDR Contact: 11/09/2015
	Data Release Frequency: Quarterly

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land

Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 04/30/2015	Source: EPA, Region 5
Date Data Arrived at EDR: 05/29/2015	Telephone: 312-886-7439
Date Made Active in Reports: 06/22/2015	Last EDR Contact: 07/22/2015
Number of Days to Update: 24	Next Scheduled EDR Contact: 11/09/2015
	Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 04/30/2015	Source: EPA Region 8
Date Data Arrived at EDR: 05/05/2015	Telephone: 303-312-6271
Date Made Active in Reports: 06/22/2015	Last EDR Contact: 07/22/2015
Number of Days to Update: 48	Next Scheduled EDR Contact: 11/09/2015
	Data Release Frequency: Quarterly

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 03/30/2015
Date Data Arrived at EDR: 04/28/2015
Date Made Active in Reports: 06/22/2015
Number of Days to Update: 55

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 07/22/2015
Next Scheduled EDR Contact: 11/09/2015
Data Release Frequency: Varies

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 03/17/2015
Date Data Arrived at EDR: 05/01/2015
Date Made Active in Reports: 06/22/2015
Number of Days to Update: 52

Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 07/22/2015
Next Scheduled EDR Contact: 11/09/2015
Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 09/30/2014
Date Data Arrived at EDR: 03/03/2015
Date Made Active in Reports: 03/13/2015
Number of Days to Update: 10

Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 07/22/2015
Next Scheduled EDR Contact: 11/09/2015
Data Release Frequency: Semi-Annually

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 02/03/2015
Date Data Arrived at EDR: 04/30/2015
Date Made Active in Reports: 06/22/2015
Number of Days to Update: 53

Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 07/31/2015
Next Scheduled EDR Contact: 11/09/2015
Data Release Frequency: Varies

SLIC: Statewide SLIC Cases
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 06/15/2015
Date Data Arrived at EDR: 06/17/2015
Date Made Active in Reports: 07/14/2015
Number of Days to Update: 27

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/17/2015
Next Scheduled EDR Contact: 09/28/2015
Data Release Frequency: Varies

SLIC REG 1: Active Toxic Site Investigations
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2003
Date Data Arrived at EDR: 04/07/2003
Date Made Active in Reports: 04/25/2003
Number of Days to Update: 18

Source: California Regional Water Quality Control Board, North Coast Region (1)
Telephone: 707-576-2220
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 2: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-286-0457
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

SLIC REG 3: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/18/2006
Date Data Arrived at EDR: 05/18/2006
Date Made Active in Reports: 06/15/2006
Number of Days to Update: 28

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-549-3147
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: Semi-Annually

SLIC REG 4: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/17/2004
Date Data Arrived at EDR: 11/18/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 47

Source: Region Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6600
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: Varies

SLIC REG 5: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/01/2005
Date Data Arrived at EDR: 04/05/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 16

Source: Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-3291
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Semi-Annually

SLIC REG 6V: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/24/2005
Date Data Arrived at EDR: 05/25/2005
Date Made Active in Reports: 06/16/2005
Number of Days to Update: 22

Source: Regional Water Quality Control Board, Victorville Branch
Telephone: 619-241-6583
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: Semi-Annually

SLIC REG 6L: SLIC Sites
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board, Lahontan Region
Telephone: 530-542-5574
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

SLIC REG 7: SLIC List
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/24/2004
Date Data Arrived at EDR: 11/29/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 36

Source: California Regional Quality Control Board, Colorado River Basin Region
Telephone: 760-346-7491
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 8: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2008
Date Data Arrived at EDR: 04/03/2008
Date Made Active in Reports: 04/14/2008
Number of Days to Update: 11

Source: California Region Water Quality Control Board Santa Ana Region (8)
Telephone: 951-782-3298
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Semi-Annually

SLIC REG 9: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/10/2007
Date Data Arrived at EDR: 09/11/2007
Date Made Active in Reports: 09/28/2007
Number of Days to Update: 17

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-467-2980
Last EDR Contact: 08/08/2011
Next Scheduled EDR Contact: 11/21/2011
Data Release Frequency: Annually

State and tribal registered storage tank lists

FEMA UST: Underground Storage Tank Listing
A listing of all FEMA owned underground storage tanks.

Date of Government Version: 01/01/2010
Date Data Arrived at EDR: 02/16/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 55

Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 07/10/2015
Next Scheduled EDR Contact: 10/28/2015
Data Release Frequency: Varies

UST: Active UST Facilities
Active UST facilities gathered from the local regulatory agencies

Date of Government Version: 06/15/2015
Date Data Arrived at EDR: 06/17/2015
Date Made Active in Reports: 07/06/2015
Number of Days to Update: 19

Source: SWRCB
Telephone: 916-341-5851
Last EDR Contact: 06/17/2015
Next Scheduled EDR Contact: 09/28/2015
Data Release Frequency: Semi-Annually

AST: Aboveground Petroleum Storage Tank Facilities
A listing of aboveground storage tank petroleum storage tank locations.

Date of Government Version: 08/01/2009
Date Data Arrived at EDR: 09/10/2009
Date Made Active in Reports: 10/01/2009
Number of Days to Update: 21

Source: California Environmental Protection Agency
Telephone: 916-327-5092
Last EDR Contact: 07/13/2015
Next Scheduled EDR Contact: 10/12/2015
Data Release Frequency: Quarterly

INDIAN UST R6: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 03/17/2015
Date Data Arrived at EDR: 05/01/2015
Date Made Active in Reports: 06/22/2015
Number of Days to Update: 52

Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 07/22/2015
Next Scheduled EDR Contact: 11/09/2015
Data Release Frequency: Semi-Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 09/23/2014	Source: EPA Region 7
Date Data Arrived at EDR: 11/25/2014	Telephone: 913-551-7003
Date Made Active in Reports: 01/29/2015	Last EDR Contact: 07/22/2015
Number of Days to Update: 65	Next Scheduled EDR Contact: 11/09/2015
	Data Release Frequency: Varies

INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 02/03/2015	Source: EPA, Region 1
Date Data Arrived at EDR: 04/30/2015	Telephone: 617-918-1313
Date Made Active in Reports: 06/22/2015	Last EDR Contact: 07/31/2015
Number of Days to Update: 53	Next Scheduled EDR Contact: 11/09/2015
	Data Release Frequency: Varies

INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 12/14/2014	Source: EPA Region 9
Date Data Arrived at EDR: 02/13/2015	Telephone: 415-972-3368
Date Made Active in Reports: 03/13/2015	Last EDR Contact: 07/31/2015
Number of Days to Update: 28	Next Scheduled EDR Contact: 11/09/2015
	Data Release Frequency: Quarterly

INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 05/06/2015	Source: EPA Region 10
Date Data Arrived at EDR: 05/19/2015	Telephone: 206-553-2857
Date Made Active in Reports: 06/22/2015	Last EDR Contact: 07/22/2015
Number of Days to Update: 34	Next Scheduled EDR Contact: 11/09/2015
	Data Release Frequency: Quarterly

INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 04/30/2015	Source: EPA Region 5
Date Data Arrived at EDR: 05/26/2015	Telephone: 312-886-6136
Date Made Active in Reports: 06/22/2015	Last EDR Contact: 07/22/2015
Number of Days to Update: 27	Next Scheduled EDR Contact: 11/09/2015
	Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 09/30/2014	Source: EPA Region 4
Date Data Arrived at EDR: 03/03/2015	Telephone: 404-562-9424
Date Made Active in Reports: 03/13/2015	Last EDR Contact: 07/22/2015
Number of Days to Update: 10	Next Scheduled EDR Contact: 11/09/2015
	Data Release Frequency: Semi-Annually

INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 04/30/2015
Date Data Arrived at EDR: 05/05/2015
Date Made Active in Reports: 06/22/2015
Number of Days to Update: 48

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 07/22/2015
Next Scheduled EDR Contact: 11/09/2015
Data Release Frequency: Quarterly

State and tribal voluntary cleanup sites

INDIAN VCP R1: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 09/29/2014
Date Data Arrived at EDR: 10/01/2014
Date Made Active in Reports: 11/06/2014
Number of Days to Update: 36

Source: EPA, Region 1
Telephone: 617-918-1102
Last EDR Contact: 06/26/2015
Next Scheduled EDR Contact: 10/12/2015
Data Release Frequency: Varies

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27

Source: EPA, Region 7
Telephone: 913-551-7365
Last EDR Contact: 04/20/2009
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Varies

VCP: Voluntary Cleanup Program Properties

Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

Date of Government Version: 05/04/2015
Date Data Arrived at EDR: 05/05/2015
Date Made Active in Reports: 05/14/2015
Number of Days to Update: 9

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 08/04/2015
Next Scheduled EDR Contact: 11/16/2015
Data Release Frequency: Quarterly

State and tribal Brownfields sites

BROWNFIELDS: Considered Brownfieds Sites Listing

A listing of sites the SWRCB considers to be Brownfields since these are sites have come to them through the MOA Process.

Date of Government Version: 06/08/2015
Date Data Arrived at EDR: 06/09/2015
Date Made Active in Reports: 07/10/2015
Number of Days to Update: 31

Source: State Water Resources Control Board
Telephone: 916-323-7905
Last EDR Contact: 06/05/2015
Next Scheduled EDR Contact: 09/21/2015
Data Release Frequency: Varies

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 03/23/2015
Date Data Arrived at EDR: 03/24/2015
Date Made Active in Reports: 06/02/2015
Number of Days to Update: 70

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 06/24/2015
Next Scheduled EDR Contact: 10/05/2015
Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

WMUDS/SWAT: Waste Management Unit Database

Waste Management Unit Database System. WMUDS is used by the State Water Resources Control Board staff and the Regional Water Quality Control Boards for program tracking and inventory of waste management units. WMUDS is composed of the following databases: Facility Information, Scheduled Inspections Information, Waste Management Unit Information, SWAT Program Information, SWAT Report Summary Information, SWAT Report Summary Data, Chapter 15 (formerly Subchapter 15) Information, Chapter 15 Monitoring Parameters, TPCA Program Information, RCRA Program Information, Closure Information, and Interested Parties Information.

Date of Government Version: 04/01/2000
Date Data Arrived at EDR: 04/10/2000
Date Made Active in Reports: 05/10/2000
Number of Days to Update: 30

Source: State Water Resources Control Board
Telephone: 916-227-4448
Last EDR Contact: 08/04/2015
Next Scheduled EDR Contact: 11/23/2015
Data Release Frequency: No Update Planned

SWRCY: Recycler Database

A listing of recycling facilities in California.

Date of Government Version: 06/15/2015
Date Data Arrived at EDR: 06/17/2015
Date Made Active in Reports: 08/03/2015
Number of Days to Update: 47

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 06/17/2015
Next Scheduled EDR Contact: 09/28/2015
Data Release Frequency: Quarterly

HAULERS: Registered Waste Tire Haulers Listing

A listing of registered waste tire haulers.

Date of Government Version: 05/26/2015
Date Data Arrived at EDR: 05/28/2015
Date Made Active in Reports: 06/05/2015
Number of Days to Update: 8

Source: Integrated Waste Management Board
Telephone: 916-341-6422
Last EDR Contact: 08/12/2015
Next Scheduled EDR Contact: 11/30/2015
Data Release Frequency: Varies

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands

Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 05/01/2015
Next Scheduled EDR Contact: 08/17/2015
Data Release Frequency: Varies

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations

A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137

Source: EPA, Region 9
Telephone: 415-947-4219
Last EDR Contact: 07/22/2015
Next Scheduled EDR Contact: 11/09/2015
Data Release Frequency: No Update Planned

ODI: Open Dump Inventory

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 02/25/2015
Date Data Arrived at EDR: 03/10/2015
Date Made Active in Reports: 03/25/2015
Number of Days to Update: 15

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 05/29/2015
Next Scheduled EDR Contact: 09/14/2015
Data Release Frequency: No Update Planned

HIST CAL-SITES: Calsites Database

The Calsites database contains potential or confirmed hazardous substance release properties. In 1996, California EPA reevaluated and significantly reduced the number of sites in the Calsites database. No longer updated by the state agency. It has been replaced by ENVIROSTOR.

Date of Government Version: 08/08/2005
Date Data Arrived at EDR: 08/03/2006
Date Made Active in Reports: 08/24/2006
Number of Days to Update: 21

Source: Department of Toxic Substance Control
Telephone: 916-323-3400
Last EDR Contact: 02/23/2009
Next Scheduled EDR Contact: 05/25/2009
Data Release Frequency: No Update Planned

SCH: School Property Evaluation Program

This category contains proposed and existing school sites that are being evaluated by DTSC for possible hazardous materials contamination. In some cases, these properties may be listed in the CalSites category depending on the level of threat to public health and safety or the environment they pose.

Date of Government Version: 05/04/2015
Date Data Arrived at EDR: 05/05/2015
Date Made Active in Reports: 05/14/2015
Number of Days to Update: 9

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 08/04/2015
Next Scheduled EDR Contact: 11/16/2015
Data Release Frequency: Quarterly

CDL: Clandestine Drug Labs

A listing of drug lab locations. Listing of a location in this database does not indicate that any illegal drug lab materials were or were not present there, and does not constitute a determination that the location either requires or does not require additional cleanup work.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 03/10/2015
Date Made Active in Reports: 03/18/2015
Number of Days to Update: 8

Source: Department of Toxic Substances Control
Telephone: 916-255-6504
Last EDR Contact: 08/07/2015
Next Scheduled EDR Contact: 10/28/2015
Data Release Frequency: Varies

TOXIC PITS: Toxic Pits Cleanup Act Sites

Toxic PITS Cleanup Act Sites. TOXIC PITS identifies sites suspected of containing hazardous substances where cleanup has not yet been completed.

Date of Government Version: 07/01/1995
Date Data Arrived at EDR: 08/30/1995
Date Made Active in Reports: 09/26/1995
Number of Days to Update: 27

Source: State Water Resources Control Board
Telephone: 916-227-4364
Last EDR Contact: 01/26/2009
Next Scheduled EDR Contact: 04/27/2009
Data Release Frequency: No Update Planned

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 02/25/2015
Date Data Arrived at EDR: 03/10/2015
Date Made Active in Reports: 03/25/2015
Number of Days to Update: 15

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 05/29/2015
Next Scheduled EDR Contact: 09/14/2015
Data Release Frequency: Quarterly

Local Lists of Registered Storage Tanks

SWEEPS UST: SWEEPS UST Listing

Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

Date of Government Version: 06/01/1994
Date Data Arrived at EDR: 07/07/2005
Date Made Active in Reports: 08/11/2005
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/03/2005
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

UST MENDOCINO: Mendocino County UST Database

A listing of underground storage tank locations in Mendocino County.

Date of Government Version: 09/23/2009
Date Data Arrived at EDR: 09/23/2009
Date Made Active in Reports: 10/01/2009
Number of Days to Update: 8

Source: Department of Public Health
Telephone: 707-463-4466
Last EDR Contact: 06/01/2015
Next Scheduled EDR Contact: 09/14/2015
Data Release Frequency: Annually

HIST UST: Hazardous Substance Storage Container Database

The Hazardous Substance Storage Container Database is a historical listing of UST sites. Refer to local/county source for current data.

Date of Government Version: 10/15/1990
Date Data Arrived at EDR: 01/25/1991
Date Made Active in Reports: 02/12/1991
Number of Days to Update: 18

Source: State Water Resources Control Board
Telephone: 916-341-5851
Last EDR Contact: 07/26/2001
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

CA FID UST: Facility Inventory Database

The Facility Inventory Database (FID) contains a historical listing of active and inactive underground storage tank locations from the State Water Resource Control Board. Refer to local/county source for current data.

Date of Government Version: 10/31/1994	Source: California Environmental Protection Agency
Date Data Arrived at EDR: 09/05/1995	Telephone: 916-341-5851
Date Made Active in Reports: 09/29/1995	Last EDR Contact: 12/28/1998
Number of Days to Update: 24	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

Local Land Records

LIENS: Environmental Liens Listing

A listing of property locations with environmental liens for California where DTSC is a lien holder.

Date of Government Version: 06/11/2015	Source: Department of Toxic Substances Control
Date Data Arrived at EDR: 06/16/2015	Telephone: 916-323-3400
Date Made Active in Reports: 07/14/2015	Last EDR Contact: 06/05/2015
Number of Days to Update: 28	Next Scheduled EDR Contact: 09/21/2015
	Data Release Frequency: Varies

LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 02/18/2014	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/18/2014	Telephone: 202-564-6023
Date Made Active in Reports: 04/24/2014	Last EDR Contact: 07/22/2015
Number of Days to Update: 37	Next Scheduled EDR Contact: 11/09/2015
	Data Release Frequency: Varies

DEED: Deed Restriction Listing

Site Mitigation and Brownfields Reuse Program Facility Sites with Deed Restrictions & Hazardous Waste Management Program Facility Sites with Deed / Land Use Restriction. The DTSC Site Mitigation and Brownfields Reuse Program (SMBRP) list includes sites cleaned up under the program's oversight and generally does not include current or former hazardous waste facilities that required a hazardous waste facility permit. The list represents deed restrictions that are active. Some sites have multiple deed restrictions. The DTSC Hazardous Waste Management Program (HWMP) has developed a list of current or former hazardous waste facilities that have a recorded land use restriction at the local county recorder's office. The land use restrictions on this list were required by the DTSC HWMP as a result of the presence of hazardous substances that remain on site after the facility (or part of the facility) has been closed or cleaned up. The types of land use restriction include deed notice, deed restriction, or a land use restriction that binds current and future owners.

Date of Government Version: 06/08/2015	Source: DTSC and SWRCB
Date Data Arrived at EDR: 06/09/2015	Telephone: 916-323-3400
Date Made Active in Reports: 07/14/2015	Last EDR Contact: 06/09/2015
Number of Days to Update: 35	Next Scheduled EDR Contact: 09/21/2015
	Data Release Frequency: Semi-Annually

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 03/30/2015	Source: U.S. Department of Transportation
Date Data Arrived at EDR: 03/31/2015	Telephone: 202-366-4555
Date Made Active in Reports: 06/11/2015	Last EDR Contact: 06/26/2015
Number of Days to Update: 72	Next Scheduled EDR Contact: 10/12/2015
	Data Release Frequency: Annually

CHMIRS: California Hazardous Material Incident Report System

California Hazardous Material Incident Reporting System. CHMIRS contains information on reported hazardous material incidents (accidental releases or spills).

Date of Government Version: 06/15/2015
Date Data Arrived at EDR: 07/28/2015
Date Made Active in Reports: 08/03/2015
Number of Days to Update: 6

Source: Office of Emergency Services
Telephone: 916-845-8400
Last EDR Contact: 07/28/2015
Next Scheduled EDR Contact: 11/09/2015
Data Release Frequency: Varies

LDS: Land Disposal Sites Listing

The Land Disposal program regulates of waste discharge to land for treatment, storage and disposal in waste management units.

Date of Government Version: 06/15/2015
Date Data Arrived at EDR: 06/17/2015
Date Made Active in Reports: 07/14/2015
Number of Days to Update: 27

Source: State Water Qualilty Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/17/2015
Next Scheduled EDR Contact: 09/28/2015
Data Release Frequency: Quarterly

MCS: Military Cleanup Sites Listing

The State Water Resources Control Board and nine Regional Water Quality Control Boards partner with the Department of Defense (DoD) through the Defense and State Memorandum of Agreement (DSMOA) to oversee the investigation and remediation of water quality issues at military facilities.

Date of Government Version: 06/15/2015
Date Data Arrived at EDR: 06/17/2015
Date Made Active in Reports: 07/14/2015
Number of Days to Update: 27

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 06/17/2015
Next Scheduled EDR Contact: 09/28/2015
Data Release Frequency: Quarterly

SPILLS 90: SPILLS90 data from FirstSearch

Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

Date of Government Version: 06/06/2012
Date Data Arrived at EDR: 01/03/2013
Date Made Active in Reports: 02/22/2013
Number of Days to Update: 50

Source: FirstSearch
Telephone: N/A
Last EDR Contact: 01/03/2013
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

RCRAInfo is EPA’s comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 03/10/2015
Date Data Arrived at EDR: 03/31/2015
Date Made Active in Reports: 06/11/2015
Number of Days to Update: 72

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 06/26/2015
Next Scheduled EDR Contact: 10/12/2015
Data Release Frequency: Varies

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 06/06/2014
Date Data Arrived at EDR: 09/10/2014
Date Made Active in Reports: 09/18/2014
Number of Days to Update: 8

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 07/08/2015
Next Scheduled EDR Contact: 09/21/2015
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 11/10/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 62

Source: USGS
Telephone: 888-275-8747
Last EDR Contact: 07/14/2015
Next Scheduled EDR Contact: 10/28/2015
Data Release Frequency: Semi-Annually

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 02/06/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 339

Source: U.S. Geological Survey
Telephone: 888-275-8747
Last EDR Contact: 07/14/2015
Next Scheduled EDR Contact: 10/28/2015
Data Release Frequency: N/A

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 03/07/2011
Date Data Arrived at EDR: 03/09/2011
Date Made Active in Reports: 05/02/2011
Number of Days to Update: 54

Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 05/21/2015
Next Scheduled EDR Contact: 08/31/2015
Data Release Frequency: Varies

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 03/09/2015
Date Data Arrived at EDR: 03/10/2015
Date Made Active in Reports: 03/25/2015
Number of Days to Update: 15

Source: Environmental Protection Agency
Telephone: 202-566-1917
Last EDR Contact: 08/12/2015
Next Scheduled EDR Contact: 11/30/2015
Data Release Frequency: Quarterly

EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013
Date Data Arrived at EDR: 03/21/2014
Date Made Active in Reports: 06/17/2014
Number of Days to Update: 88

Source: Environmental Protection Agency
Telephone: 617-520-3000
Last EDR Contact: 08/04/2015
Next Scheduled EDR Contact: 11/23/2015
Data Release Frequency: Quarterly

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 04/22/2013
Date Data Arrived at EDR: 03/03/2015
Date Made Active in Reports: 03/09/2015
Number of Days to Update: 6

Source: Environmental Protection Agency
Telephone: 703-308-4044
Last EDR Contact: 05/14/2015
Next Scheduled EDR Contact: 08/24/2015
Data Release Frequency: Varies

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2012
Date Data Arrived at EDR: 01/15/2015
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 14

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 06/25/2015
Next Scheduled EDR Contact: 10/05/2015
Data Release Frequency: Every 4 Years

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 02/12/2015
Date Made Active in Reports: 06/02/2015
Number of Days to Update: 110

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 01/29/2015
Next Scheduled EDR Contact: 06/08/2015
Data Release Frequency: Annually

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 12/10/2010
Date Made Active in Reports: 02/25/2011
Number of Days to Update: 77

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 07/22/2015
Next Scheduled EDR Contact: 11/09/2015
Data Release Frequency: Annually

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 11/25/2013
Date Data Arrived at EDR: 12/12/2013
Date Made Active in Reports: 02/24/2014
Number of Days to Update: 74

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 06/12/2015
Next Scheduled EDR Contact: 09/21/2015
Data Release Frequency: Annually

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 02/01/2015
Date Data Arrived at EDR: 02/13/2015
Date Made Active in Reports: 03/25/2015
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-8600
Last EDR Contact: 07/22/2015
Next Scheduled EDR Contact: 11/09/2015
Data Release Frequency: Varies

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

PRP: Potentially Responsible Parties

A listing of verified Potentially Responsible Parties

Date of Government Version: 10/25/2013
Date Data Arrived at EDR: 10/17/2014
Date Made Active in Reports: 10/20/2014
Number of Days to Update: 3

Source: EPA
Telephone: 202-564-6023
Last EDR Contact: 05/14/2015
Next Scheduled EDR Contact: 08/24/2015
Data Release Frequency: Quarterly

PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 07/01/2014
Date Data Arrived at EDR: 10/15/2014
Date Made Active in Reports: 11/17/2014
Number of Days to Update: 33

Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 07/17/2015
Next Scheduled EDR Contact: 10/28/2015
Data Release Frequency: Annually

ICIS: Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 01/23/2015
Date Data Arrived at EDR: 02/06/2015
Date Made Active in Reports: 03/09/2015
Number of Days to Update: 31

Source: Environmental Protection Agency
Telephone: 202-564-5088
Last EDR Contact: 07/09/2015
Next Scheduled EDR Contact: 10/28/2015
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 05/20/2015
Next Scheduled EDR Contact: 09/07/2015
Data Release Frequency: Quarterly

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 05/20/2015
Next Scheduled EDR Contact: 09/07/2015
Data Release Frequency: Quarterly

MLTS: Material Licensing Tracking System

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 03/31/2015
Date Data Arrived at EDR: 04/09/2015
Date Made Active in Reports: 06/11/2015
Number of Days to Update: 63

Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 06/04/2015
Next Scheduled EDR Contact: 09/21/2015
Data Release Frequency: Quarterly

COAL ASH DOE: Steam-Electric Plant Operation Data

A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 08/07/2009
Date Made Active in Reports: 10/22/2009
Number of Days to Update: 76

Source: Department of Energy
Telephone: 202-586-8719
Last EDR Contact: 07/13/2015
Next Scheduled EDR Contact: 10/28/2015
Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List

A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 07/01/2014
Date Data Arrived at EDR: 09/10/2014
Date Made Active in Reports: 10/20/2014
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: N/A
Last EDR Contact: 06/12/2015
Next Scheduled EDR Contact: 09/21/2015
Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database

The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 02/01/2011
Date Data Arrived at EDR: 10/19/2011
Date Made Active in Reports: 01/10/2012
Number of Days to Update: 83

Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 07/31/2015
Next Scheduled EDR Contact: 11/09/2015
Data Release Frequency: Varies

RADINFO: Radiation Information Database

The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 04/07/2015
Date Data Arrived at EDR: 04/09/2015
Date Made Active in Reports: 06/11/2015
Number of Days to Update: 63

Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 07/09/2015
Next Scheduled EDR Contact: 10/19/2015
Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing

A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2007
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing

A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

DOT OPS: Incident and Accident Data

Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 07/31/2012
Date Data Arrived at EDR: 08/07/2012
Date Made Active in Reports: 09/18/2012
Number of Days to Update: 42

Source: Department of Transporation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 08/04/2015
Next Scheduled EDR Contact: 11/16/2015
Data Release Frequency: Varies

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 04/17/2015
Date Made Active in Reports: 06/02/2015
Number of Days to Update: 46

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 06/22/2015
Next Scheduled EDR Contact: 10/12/2015
Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2011
Date Data Arrived at EDR: 02/26/2013
Date Made Active in Reports: 04/19/2013
Number of Days to Update: 52

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 05/29/2015
Next Scheduled EDR Contact: 09/07/2015
Data Release Frequency: Biennially

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 12/08/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 34

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 07/14/2015
Next Scheduled EDR Contact: 10/28/2015
Data Release Frequency: Semi-Annually

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 09/14/2010
Date Data Arrived at EDR: 10/07/2011
Date Made Active in Reports: 03/01/2012
Number of Days to Update: 146

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 05/26/2015
Next Scheduled EDR Contact: 09/07/2015
Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 11/25/2014
Date Data Arrived at EDR: 11/26/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 64

Source: Environmental Protection Agency
Telephone: 703-603-8787
Last EDR Contact: 07/07/2015
Next Scheduled EDR Contact: 10/19/2015
Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001
Date Data Arrived at EDR: 10/27/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 36

Source: American Journal of Public Health
Telephone: 703-305-6451
Last EDR Contact: 12/02/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 10/16/2014
Date Data Arrived at EDR: 10/31/2014
Date Made Active in Reports: 11/17/2014
Number of Days to Update: 17

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 06/22/2015
Next Scheduled EDR Contact: 10/05/2015
Data Release Frequency: Annually

US AIRS MINOR: Air Facility System Data

A listing of minor source facilities.

Date of Government Version: 10/16/2014
Date Data Arrived at EDR: 10/31/2014
Date Made Active in Reports: 11/17/2014
Number of Days to Update: 17

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 06/22/2015
Next Scheduled EDR Contact: 10/22/2015
Data Release Frequency: Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 12/30/2014
Date Data Arrived at EDR: 12/31/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 29

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 06/03/2015
Next Scheduled EDR Contact: 09/14/2015
Data Release Frequency: Semi-Annually

US MINES 2: Ferrous and Nonferrous Metal Mines Database Listing

This map layer includes ferrous (ferrous metal mines are facilities that extract ferrous metals, such as iron ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.

Date of Government Version: 12/05/2005
Date Data Arrived at EDR: 02/29/2008
Date Made Active in Reports: 04/18/2008
Number of Days to Update: 49

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 06/05/2015
Next Scheduled EDR Contact: 09/14/2015
Data Release Frequency: Varies

US MINES 3: Active Mines & Mineral Plants Database Listing

Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.

Date of Government Version: 04/14/2011
Date Data Arrived at EDR: 06/08/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 97

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 06/05/2015
Next Scheduled EDR Contact: 09/14/2015
Data Release Frequency: Varies

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 01/18/2015
Date Data Arrived at EDR: 02/27/2015
Date Made Active in Reports: 03/25/2015
Number of Days to Update: 26

Source: EPA
Telephone: (415) 947-8000
Last EDR Contact: 06/10/2015
Next Scheduled EDR Contact: 09/21/2015
Data Release Frequency: Quarterly

CA BOND EXP. PLAN: Bond Expenditure Plan

Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. It is not updated.

Date of Government Version: 01/01/1989
Date Data Arrived at EDR: 07/27/1994
Date Made Active in Reports: 08/02/1994
Number of Days to Update: 6

Source: Department of Health Services
Telephone: 916-255-2118
Last EDR Contact: 05/31/1994
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

CORTESE: "Cortese" Hazardous Waste & Substances Sites List

The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites).

Date of Government Version: 06/24/2015
Date Data Arrived at EDR: 06/26/2015
Date Made Active in Reports: 07/14/2015
Number of Days to Update: 18

Source: CAL EPA/Office of Emergency Information
Telephone: 916-323-3400
Last EDR Contact: 06/26/2015
Next Scheduled EDR Contact: 10/12/2015
Data Release Frequency: Quarterly

DRYCLEANERS: Cleaner Facilities

A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial; garment pressing and cleaner's agents; linen supply; coin-operated laundries and cleaning; drycleaning plants, except rugs; carpet and upholster cleaning; industrial launderers; laundry and garment services.

Date of Government Version: 02/18/2015
Date Data Arrived at EDR: 02/20/2015
Date Made Active in Reports: 03/12/2015
Number of Days to Update: 20

Source: Department of Toxic Substance Control
Telephone: 916-327-4498
Last EDR Contact: 07/31/2015
Next Scheduled EDR Contact: 09/21/2015
Data Release Frequency: Annually

EMI: Emissions Inventory Data

Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies.

Date of Government Version: 12/31/2012
Date Data Arrived at EDR: 03/25/2014
Date Made Active in Reports: 04/28/2014
Number of Days to Update: 34

Source: California Air Resources Board
Telephone: 916-322-2990
Last EDR Contact: 06/25/2015
Next Scheduled EDR Contact: 10/05/2015
Data Release Frequency: Varies

ENF: Enforcement Action Listing

A listing of Water Board Enforcement Actions. Formal is everything except Oral/Verbal Communication, Notice of Violation, Expedited Payment Letter, and Staff Enforcement Letter.

Date of Government Version: 04/30/2015
Date Data Arrived at EDR: 05/01/2015
Date Made Active in Reports: 05/13/2015
Number of Days to Update: 12

Source: State Water Resoruces Control Board
Telephone: 916-445-9379
Last EDR Contact: 08/07/2015
Next Scheduled EDR Contact: 11/09/2015
Data Release Frequency: Varies

Financial Assurance 1: Financial Assurance Information Listing

Financial Assurance information

Date of Government Version: 04/30/2015
Date Data Arrived at EDR: 05/01/2015
Date Made Active in Reports: 05/13/2015
Number of Days to Update: 12

Source: Department of Toxic Substances Control
Telephone: 916-255-3628
Last EDR Contact: 07/24/2015
Next Scheduled EDR Contact: 11/09/2015
Data Release Frequency: Varies

Financial Assurance 2: Financial Assurance Information Listing

A listing of financial assurance information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 05/18/2015
Date Data Arrived at EDR: 05/22/2015
Date Made Active in Reports: 06/05/2015
Number of Days to Update: 14

Source: California Integrated Waste Management Board
Telephone: 916-341-6066
Last EDR Contact: 05/18/2015
Next Scheduled EDR Contact: 08/31/2015
Data Release Frequency: Varies

HAZNET: Facility and Manifest Data

Facility and Manifest Data. The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000 - 1,000,000 annually, representing approximately 350,000 - 500,000 shipments. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, and disposal method. This database begins with calendar year 1993.

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 10/15/2014
Date Made Active in Reports: 11/19/2014
Number of Days to Update: 35

Source: California Environmental Protection Agency
Telephone: 916-255-1136
Last EDR Contact: 07/17/2015
Next Scheduled EDR Contact: 10/28/2015
Data Release Frequency: Annually

HIST CORTESE: Hazardous Waste & Substance Site List

The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSITES]. This listing is no longer updated by the state agency.

Date of Government Version: 04/01/2001
Date Data Arrived at EDR: 01/22/2009
Date Made Active in Reports: 04/08/2009
Number of Days to Update: 76

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/22/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

HWP: EnviroStor Permitted Facilities Listing

Detailed information on permitted hazardous waste facilities and corrective action ("cleanups") tracked in EnviroStor.

Date of Government Version: 05/26/2015
Date Data Arrived at EDR: 05/28/2015
Date Made Active in Reports: 06/05/2015
Number of Days to Update: 8

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 05/28/2015
Next Scheduled EDR Contact: 09/07/2015
Data Release Frequency: Quarterly

HWT: Registered Hazardous Waste Transporter Database

A listing of hazardous waste transporters. In California, unless specifically exempted, it is unlawful for any person to transport hazardous wastes unless the person holds a valid registration issued by DTSC. A hazardous waste transporter registration is valid for one year and is assigned a unique registration number.

Date of Government Version: 07/13/2015
Date Data Arrived at EDR: 07/14/2015
Date Made Active in Reports: 08/03/2015
Number of Days to Update: 20

Source: Department of Toxic Substances Control
Telephone: 916-440-7145
Last EDR Contact: 07/14/2015
Next Scheduled EDR Contact: 10/28/2015
Data Release Frequency: Quarterly

MINES: Mines Site Location Listing

A listing of mine site locations from the Office of Mine Reclamation.

Date of Government Version: 06/15/2015
Date Data Arrived at EDR: 06/17/2015
Date Made Active in Reports: 07/14/2015
Number of Days to Update: 27

Source: Department of Conservation
Telephone: 916-322-1080
Last EDR Contact: 06/17/2015
Next Scheduled EDR Contact: 09/28/2015
Data Release Frequency: Varies

MWMP: Medical Waste Management Program Listing

The Medical Waste Management Program (MWMP) ensures the proper handling and disposal of medical waste by permitting and inspecting medical waste Offsite Treatment Facilities (PDF) and Transfer Stations (PDF) throughout the state. MWMP also oversees all Medical Waste Transporters.

Date of Government Version: 05/07/2015
Date Data Arrived at EDR: 06/09/2015
Date Made Active in Reports: 07/14/2015
Number of Days to Update: 35

Source: Department of Public Health
Telephone: 916-558-1784
Last EDR Contact: 06/09/2015
Next Scheduled EDR Contact: 09/21/2015
Data Release Frequency: Varies

NPDES: NPDES Permits Listing

A listing of NPDES permits, including stormwater.

Date of Government Version: 05/18/2015
Date Data Arrived at EDR: 05/20/2015
Date Made Active in Reports: 06/11/2015
Number of Days to Update: 22

Source: State Water Resources Control Board
Telephone: 916-445-9379
Last EDR Contact: 05/20/2015
Next Scheduled EDR Contact: 08/31/2015
Data Release Frequency: Quarterly

PEST LIC: Pesticide Regulation Licenses Listing

A listing of licenses and certificates issued by the Department of Pesticide Regulation. The DPR issues licenses and/or certificates to: Persons and businesses that apply or sell pesticides; Pest control dealers and brokers; Persons who advise on agricultural pesticide applications.

Date of Government Version: 06/07/2015
Date Data Arrived at EDR: 06/10/2015
Date Made Active in Reports: 07/14/2015
Number of Days to Update: 34

Source: Department of Pesticide Regulation
Telephone: 916-445-4038
Last EDR Contact: 06/10/2015
Next Scheduled EDR Contact: 09/21/2015
Data Release Frequency: Quarterly

PROC: Certified Processors Database

A listing of certified processors.

Date of Government Version: 06/15/2015
Date Data Arrived at EDR: 06/17/2015
Date Made Active in Reports: 07/14/2015
Number of Days to Update: 27

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 06/17/2015
Next Scheduled EDR Contact: 09/28/2015
Data Release Frequency: Quarterly

NOTIFY 65: Proposition 65 Records

Listings of all Proposition 65 incidents reported to counties by the State Water Resources Control Board and the Regional Water Quality Control Board. This database is no longer updated by the reporting agency.

Date of Government Version: 10/21/1993
Date Data Arrived at EDR: 11/01/1993
Date Made Active in Reports: 11/19/1993
Number of Days to Update: 18

Source: State Water Resources Control Board
Telephone: 916-445-3846
Last EDR Contact: 06/17/2015
Next Scheduled EDR Contact: 10/05/2015
Data Release Frequency: No Update Planned

UIC: UIC Listing

A listing of wells identified as underground injection wells, in the California Oil and Gas Wells database.

Date of Government Version: 11/19/2014
Date Data Arrived at EDR: 12/15/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 45

Source: Deaprtment of Conservation
Telephone: 916-445-2408
Last EDR Contact: 06/19/2015
Next Scheduled EDR Contact: 09/28/2015
Data Release Frequency: Varies

WASTEWATER PITS: Oil Wastewater Pits Listing

Water officials discovered that oil producers have been dumping chemical-laden wastewater into hundreds of unlined pits that are operating without proper permits. Inspections completed by the Central Valley Regional Water Quality Control Board revealed the existence of previously unidentified waste sites. The water board?s review found that more than one-third of the region?s active disposal pits are operating without permission.

Date of Government Version: 04/15/2015
Date Data Arrived at EDR: 04/17/2015
Date Made Active in Reports: 06/23/2015
Number of Days to Update: 67

Source: RWQCB, Central Valley Region
Telephone: 559-445-5577
Last EDR Contact: 07/13/2015
Next Scheduled EDR Contact: 10/28/2015
Data Release Frequency: Varies

WDS: Waste Discharge System

Sites which have been issued waste discharge requirements.

Date of Government Version: 06/19/2007
Date Data Arrived at EDR: 06/20/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 9

Source: State Water Resources Control Board
Telephone: 916-341-5227
Last EDR Contact: 05/20/2015
Next Scheduled EDR Contact: 09/07/2015
Data Release Frequency: Quarterly

WIP: Well Investigation Program Case List
Well Investigation Program case in the San Gabriel and San Fernando Valley area.

Date of Government Version: 07/03/2009
Date Data Arrived at EDR: 07/21/2009
Date Made Active in Reports: 08/03/2009
Number of Days to Update: 13

Source: Los Angeles Water Quality Control Board
Telephone: 213-576-6726
Last EDR Contact: 06/22/2015
Next Scheduled EDR Contact: 10/12/2015
Data Release Frequency: Varies

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: EDR Proprietary Manufactured Gas Plants
The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EDR US Hist Auto Stat: EDR Exclusive Historic Gas Stations
EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR US Hist Cleaners: EDR Exclusive Historic Dry Cleaners
EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF: Recovered Government Archive Solid Waste Facilities List

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Resources Recycling and Recovery in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/13/2014
Number of Days to Update: 196

Source: Department of Resources Recycling and Recovery
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the State Water Resources Control Board in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 12/30/2013
Number of Days to Update: 182

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

COUNTY RECORDS

ALAMEDA COUNTY:

Contaminated Sites

A listing of contaminated sites overseen by the Toxic Release Program (oil and groundwater contamination from chemical releases and spills) and the Leaking Underground Storage Tank Program (soil and ground water contamination from leaking petroleum USTs).

Date of Government Version: 07/21/2015
Date Data Arrived at EDR: 07/24/2015
Date Made Active in Reports: 08/05/2015
Number of Days to Update: 12

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 08/10/2015
Next Scheduled EDR Contact: 10/28/2015
Data Release Frequency: Semi-Annually

Underground Tanks

Underground storage tank sites located in Alameda county.

Date of Government Version: 07/21/2015
Date Data Arrived at EDR: 07/22/2015
Date Made Active in Reports: 08/03/2015
Number of Days to Update: 12

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 07/13/2015
Next Scheduled EDR Contact: 10/28/2015
Data Release Frequency: Semi-Annually

AMADOR COUNTY:

CUPA Facility List
Cupa Facility List

Date of Government Version: 06/05/2015	Source: Amador County Environmental Health
Date Data Arrived at EDR: 06/09/2015	Telephone: 209-223-6439
Date Made Active in Reports: 07/10/2015	Last EDR Contact: 06/05/2015
Number of Days to Update: 31	Next Scheduled EDR Contact: 09/21/2015
	Data Release Frequency: Varies

BUTTE COUNTY:

CUPA Facility Listing
Cupa facility list.

Date of Government Version: 11/20/2014	Source: Public Health Department
Date Data Arrived at EDR: 11/24/2014	Telephone: 530-538-7149
Date Made Active in Reports: 01/07/2015	Last EDR Contact: 07/13/2015
Number of Days to Update: 44	Next Scheduled EDR Contact: 10/28/2015
	Data Release Frequency: No Update Planned

CALVERAS COUNTY:

CUPA Facility Listing
Cupa Facility Listing

Date of Government Version: 07/15/2015	Source: Calveras County Environmental Health
Date Data Arrived at EDR: 07/17/2015	Telephone: 209-754-6399
Date Made Active in Reports: 08/03/2015	Last EDR Contact: 06/22/2015
Number of Days to Update: 17	Next Scheduled EDR Contact: 10/12/2015
	Data Release Frequency: Quarterly

COLUSA COUNTY:

CUPA Facility List
Cupa facility list.

Date of Government Version: 06/11/2014	Source: Health & Human Services
Date Data Arrived at EDR: 06/13/2014	Telephone: 530-458-0396
Date Made Active in Reports: 07/07/2014	Last EDR Contact: 08/10/2015
Number of Days to Update: 24	Next Scheduled EDR Contact: 11/23/2015
	Data Release Frequency: Varies

CONTRA COSTA COUNTY:

Site List
List includes sites from the underground tank, hazardous waste generator and business plan/2185 programs.

Date of Government Version: 05/26/2015	Source: Contra Costa Health Services Department
Date Data Arrived at EDR: 05/29/2015	Telephone: 925-646-2286
Date Made Active in Reports: 06/11/2015	Last EDR Contact: 08/03/2015
Number of Days to Update: 13	Next Scheduled EDR Contact: 11/16/2015
	Data Release Frequency: Semi-Annually

DEL NORTE COUNTY:

CUPA Facility List
Cupa Facility list

Date of Government Version: 05/19/2015
Date Data Arrived at EDR: 05/22/2015
Date Made Active in Reports: 06/05/2015
Number of Days to Update: 14

Source: Del Norte County Environmental Health Division
Telephone: 707-465-0426
Last EDR Contact: 07/31/2015
Next Scheduled EDR Contact: 11/16/2015
Data Release Frequency: Varies

EL DORADO COUNTY:

CUPA Facility List
CUPA facility list.

Date of Government Version: 05/26/2015
Date Data Arrived at EDR: 05/29/2015
Date Made Active in Reports: 06/05/2015
Number of Days to Update: 7

Source: El Dorado County Environmental Management Department
Telephone: 530-621-6623
Last EDR Contact: 08/03/2015
Next Scheduled EDR Contact: 11/16/2015
Data Release Frequency: Varies

FRESNO COUNTY:

CUPA Resources List
Certified Unified Program Agency. CUPA's are responsible for implementing a unified hazardous materials and hazardous waste management regulatory program. The agency provides oversight of businesses that deal with hazardous materials, operate underground storage tanks or aboveground storage tanks.

Date of Government Version: 07/13/2015
Date Data Arrived at EDR: 07/14/2015
Date Made Active in Reports: 08/03/2015
Number of Days to Update: 20

Source: Dept. of Community Health
Telephone: 559-445-3271
Last EDR Contact: 07/06/2015
Next Scheduled EDR Contact: 10/19/2015
Data Release Frequency: Semi-Annually

HUMBOLDT COUNTY:

CUPA Facility List
CUPA facility list.

Date of Government Version: 03/11/2015
Date Data Arrived at EDR: 03/13/2015
Date Made Active in Reports: 03/24/2015
Number of Days to Update: 11

Source: Humboldt County Environmental Health
Telephone: N/A
Last EDR Contact: 07/14/2015
Next Scheduled EDR Contact: 09/07/2015
Data Release Frequency: Varies

IMPERIAL COUNTY:

CUPA Facility List
Cupa facility list.

Date of Government Version: 04/27/2015
Date Data Arrived at EDR: 04/28/2015
Date Made Active in Reports: 05/13/2015
Number of Days to Update: 15

Source: San Diego Border Field Office
Telephone: 760-339-2777
Last EDR Contact: 08/07/2015
Next Scheduled EDR Contact: 11/09/2015
Data Release Frequency: Varies

INYO COUNTY:

CUPA Facility List
Cupa facility list.

Date of Government Version: 09/10/2013
Date Data Arrived at EDR: 09/11/2013
Date Made Active in Reports: 10/14/2013
Number of Days to Update: 33

Source: Inyo County Environmental Health Services
Telephone: 760-878-0238
Last EDR Contact: 05/21/2015
Next Scheduled EDR Contact: 09/07/2015
Data Release Frequency: Varies

KERN COUNTY:

Underground Storage Tank Sites & Tank Listing
Kern County Sites and Tanks Listing.

Date of Government Version: 05/19/2015
Date Data Arrived at EDR: 06/18/2015
Date Made Active in Reports: 07/22/2015
Number of Days to Update: 34

Source: Kern County Environment Health Services Department
Telephone: 661-862-8700
Last EDR Contact: 08/07/2015
Next Scheduled EDR Contact: 11/23/2015
Data Release Frequency: Quarterly

KINGS COUNTY:

CUPA Facility List
A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 05/26/2015
Date Data Arrived at EDR: 05/28/2015
Date Made Active in Reports: 06/15/2015
Number of Days to Update: 18

Source: Kings County Department of Public Health
Telephone: 559-584-1411
Last EDR Contact: 05/21/2015
Next Scheduled EDR Contact: 09/07/2015
Data Release Frequency: Varies

LAKE COUNTY:

CUPA Facility List
Cupa facility list

Date of Government Version: 05/05/2015
Date Data Arrived at EDR: 05/07/2015
Date Made Active in Reports: 05/20/2015
Number of Days to Update: 13

Source: Lake County Environmental Health
Telephone: 707-263-1164
Last EDR Contact: 07/20/2015
Next Scheduled EDR Contact: 11/02/2015
Data Release Frequency: Varies

LOS ANGELES COUNTY:

San Gabriel Valley Areas of Concern
San Gabriel Valley areas where VOC contamination is at or above the MCL as designated by region 9 EPA office.

Date of Government Version: 03/30/2009
Date Data Arrived at EDR: 03/31/2009
Date Made Active in Reports: 10/23/2009
Number of Days to Update: 206

Source: EPA Region 9
Telephone: 415-972-3178
Last EDR Contact: 06/17/2015
Next Scheduled EDR Contact: 10/05/2015
Data Release Frequency: No Update Planned

HMS: Street Number List
Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 11/24/2014
Date Data Arrived at EDR: 01/30/2015
Date Made Active in Reports: 03/04/2015
Number of Days to Update: 33

Source: Department of Public Works
Telephone: 626-458-3517
Last EDR Contact: 07/10/2015
Next Scheduled EDR Contact: 10/28/2015
Data Release Frequency: Semi-Annually

List of Solid Waste Facilities
Solid Waste Facilities in Los Angeles County.

Date of Government Version: 07/20/2015
Date Data Arrived at EDR: 07/21/2015
Date Made Active in Reports: 08/03/2015
Number of Days to Update: 13

Source: La County Department of Public Works
Telephone: 818-458-5185
Last EDR Contact: 07/21/2015
Next Scheduled EDR Contact: 11/02/2015
Data Release Frequency: Varies

City of Los Angeles Landfills
Landfills owned and maintained by the City of Los Angeles.

Date of Government Version: 01/01/2015
Date Data Arrived at EDR: 07/27/2015
Date Made Active in Reports: 08/10/2015
Number of Days to Update: 14

Source: Engineering & Construction Division
Telephone: 213-473-7869
Last EDR Contact: 07/20/2015
Next Scheduled EDR Contact: 11/02/2015
Data Release Frequency: Varies

Site Mitigation List
Industrial sites that have had some sort of spill or complaint.

Date of Government Version: 01/15/2015
Date Data Arrived at EDR: 01/29/2015
Date Made Active in Reports: 03/10/2015
Number of Days to Update: 40

Source: Community Health Services
Telephone: 323-890-7806
Last EDR Contact: 07/15/2015
Next Scheduled EDR Contact: 11/02/2015
Data Release Frequency: Annually

City of El Segundo Underground Storage Tank
Underground storage tank sites located in El Segundo city.

Date of Government Version: 03/30/2015
Date Data Arrived at EDR: 04/02/2015
Date Made Active in Reports: 04/13/2015
Number of Days to Update: 11

Source: City of El Segundo Fire Department
Telephone: 310-524-2236
Last EDR Contact: 07/17/2015
Next Scheduled EDR Contact: 11/02/2015
Data Release Frequency: Semi-Annually

City of Long Beach Underground Storage Tank
Underground storage tank sites located in the city of Long Beach.

Date of Government Version: 03/03/2015
Date Data Arrived at EDR: 05/26/2015
Date Made Active in Reports: 06/11/2015
Number of Days to Update: 16

Source: City of Long Beach Fire Department
Telephone: 562-570-2563
Last EDR Contact: 07/27/2015
Next Scheduled EDR Contact: 11/09/2015
Data Release Frequency: Annually

City of Torrance Underground Storage Tank
Underground storage tank sites located in the city of Torrance.

Date of Government Version: 06/03/2015
Date Data Arrived at EDR: 06/04/2015
Date Made Active in Reports: 07/06/2015
Number of Days to Update: 32

Source: City of Torrance Fire Department
Telephone: 310-618-2973
Last EDR Contact: 06/04/2015
Next Scheduled EDR Contact: 10/28/2015
Data Release Frequency: Semi-Annually

MADERA COUNTY:

CUPA Facility List

A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 05/28/2015
Date Data Arrived at EDR: 05/29/2015
Date Made Active in Reports: 06/15/2015
Number of Days to Update: 17

Source: Madera County Environmental Health
Telephone: 559-675-7823
Last EDR Contact: 05/22/2015
Next Scheduled EDR Contact: 09/07/2015
Data Release Frequency: Varies

MARIN COUNTY:

Underground Storage Tank Sites

Currently permitted USTs in Marin County.

Date of Government Version: 10/08/2014
Date Data Arrived at EDR: 10/22/2014
Date Made Active in Reports: 12/15/2014
Number of Days to Update: 54

Source: Public Works Department Waste Management
Telephone: 415-499-6647
Last EDR Contact: 07/06/2015
Next Scheduled EDR Contact: 10/19/2015
Data Release Frequency: Semi-Annually

MERCED COUNTY:

CUPA Facility List

CUPA facility list.

Date of Government Version: 05/22/2015
Date Data Arrived at EDR: 05/26/2015
Date Made Active in Reports: 06/05/2015
Number of Days to Update: 10

Source: Merced County Environmental Health
Telephone: 209-381-1094
Last EDR Contact: 05/22/2015
Next Scheduled EDR Contact: 09/07/2015
Data Release Frequency: Varies

MONO COUNTY:

CUPA Facility List

CUPA Facility List

Date of Government Version: 06/01/2015
Date Data Arrived at EDR: 06/03/2015
Date Made Active in Reports: 07/06/2015
Number of Days to Update: 33

Source: Mono County Health Department
Telephone: 760-932-5580
Last EDR Contact: 06/01/2015
Next Scheduled EDR Contact: 09/14/2015
Data Release Frequency: Varies

MONTEREY COUNTY:

CUPA Facility Listing

CUPA Program listing from the Environmental Health Division.

Date of Government Version: 06/30/2015
Date Data Arrived at EDR: 07/07/2015
Date Made Active in Reports: 07/16/2015
Number of Days to Update: 9

Source: Monterey County Health Department
Telephone: 831-796-1297
Last EDR Contact: 05/26/2015
Next Scheduled EDR Contact: 09/07/2015
Data Release Frequency: Varies

NAPA COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Sites With Reported Contamination
A listing of leaking underground storage tank sites located in Napa county.

Date of Government Version: 12/05/2011
Date Data Arrived at EDR: 12/06/2011
Date Made Active in Reports: 02/07/2012
Number of Days to Update: 63

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 06/01/2015
Next Scheduled EDR Contact: 09/14/2015
Data Release Frequency: No Update Planned

Closed and Operating Underground Storage Tank Sites
Underground storage tank sites located in Napa county.

Date of Government Version: 01/15/2008
Date Data Arrived at EDR: 01/16/2008
Date Made Active in Reports: 02/08/2008
Number of Days to Update: 23

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 06/01/2015
Next Scheduled EDR Contact: 09/14/2015
Data Release Frequency: No Update Planned

NEVADA COUNTY:

CUPA Facility List
CUPA facility list.

Date of Government Version: 06/03/2015
Date Data Arrived at EDR: 06/04/2015
Date Made Active in Reports: 07/22/2015
Number of Days to Update: 48

Source: Community Development Agency
Telephone: 530-265-1467
Last EDR Contact: 07/31/2015
Next Scheduled EDR Contact: 11/16/2015
Data Release Frequency: Varies

ORANGE COUNTY:

List of Industrial Site Cleanups
Petroleum and non-petroleum spills.

Date of Government Version: 05/01/2015
Date Data Arrived at EDR: 05/12/2015
Date Made Active in Reports: 06/05/2015
Number of Days to Update: 24

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 08/06/2015
Next Scheduled EDR Contact: 11/23/2015
Data Release Frequency: Annually

List of Underground Storage Tank Cleanups
Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 05/01/2015
Date Data Arrived at EDR: 05/12/2015
Date Made Active in Reports: 06/08/2015
Number of Days to Update: 27

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 05/06/2015
Next Scheduled EDR Contact: 08/24/2015
Data Release Frequency: Quarterly

List of Underground Storage Tank Facilities
Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 05/01/2015
Date Data Arrived at EDR: 05/12/2015
Date Made Active in Reports: 06/11/2015
Number of Days to Update: 30

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 08/11/2015
Next Scheduled EDR Contact: 11/23/2015
Data Release Frequency: Quarterly

PLACER COUNTY:

Master List of Facilities

List includes aboveground tanks, underground tanks and cleanup sites.

Date of Government Version: 07/01/2015
Date Data Arrived at EDR: 07/07/2015
Date Made Active in Reports: 08/05/2015
Number of Days to Update: 29

Source: Placer County Health and Human Services
Telephone: 530-745-2363
Last EDR Contact: 06/22/2015
Next Scheduled EDR Contact: 09/21/2015
Data Release Frequency: Semi-Annually

RIVERSIDE COUNTY:

Listing of Underground Tank Cleanup Sites

Riverside County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 07/15/2015
Date Data Arrived at EDR: 07/17/2015
Date Made Active in Reports: 08/03/2015
Number of Days to Update: 17

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 06/22/2015
Next Scheduled EDR Contact: 10/05/2015
Data Release Frequency: Quarterly

Underground Storage Tank Tank List

Underground storage tank sites located in Riverside county.

Date of Government Version: 07/15/2015
Date Data Arrived at EDR: 07/17/2015
Date Made Active in Reports: 08/03/2015
Number of Days to Update: 17

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 06/22/2015
Next Scheduled EDR Contact: 10/05/2015
Data Release Frequency: Quarterly

SACRAMENTO COUNTY:

Toxic Site Clean-Up List

List of sites where unauthorized releases of potentially hazardous materials have occurred.

Date of Government Version: 05/07/2015
Date Data Arrived at EDR: 07/24/2015
Date Made Active in Reports: 08/03/2015
Number of Days to Update: 10

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 07/22/2015
Next Scheduled EDR Contact: 10/19/2015
Data Release Frequency: Quarterly

Master Hazardous Materials Facility List

Any business that has hazardous materials on site - hazardous material storage sites, underground storage tanks, waste generators.

Date of Government Version: 05/07/2015
Date Data Arrived at EDR: 07/27/2015
Date Made Active in Reports: 08/03/2015
Number of Days to Update: 7

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 07/22/2015
Next Scheduled EDR Contact: 10/19/2015
Data Release Frequency: Quarterly

SAN BERNARDINO COUNTY:

Hazardous Material Permits

This listing includes underground storage tanks, medical waste handlers/generators, hazardous materials handlers, hazardous waste generators, and waste oil generators/handlers.

Date of Government Version: 06/30/2015
Date Data Arrived at EDR: 07/07/2015
Date Made Active in Reports: 07/14/2015
Number of Days to Update: 7

Source: San Bernardino County Fire Department Hazardous Materials Division
Telephone: 909-387-3041
Last EDR Contact: 08/10/2015
Next Scheduled EDR Contact: 11/23/2015
Data Release Frequency: Quarterly

SAN DIEGO COUNTY:

Hazardous Materials Management Division Database

The database includes: HE58 - This report contains the business name, site address, business phone number, establishment 'H' permit number, type of permit, and the business status. HE17 - In addition to providing the same information provided in the HE58 listing, HE17 provides inspection dates, violations received by the establishment, hazardous waste generated, the quantity, method of storage, treatment/disposal of waste and the hauler, and information on underground storage tanks. Unauthorized Release List - Includes a summary of environmental contamination cases in San Diego County (underground tank cases, non-tank cases, groundwater contamination, and soil contamination are included.)

Date of Government Version: 09/23/2013
Date Data Arrived at EDR: 09/24/2013
Date Made Active in Reports: 10/17/2013
Number of Days to Update: 23

Source: Hazardous Materials Management Division
Telephone: 619-338-2268
Last EDR Contact: 06/05/2015
Next Scheduled EDR Contact: 09/21/2015
Data Release Frequency: Quarterly

Solid Waste Facilities

San Diego County Solid Waste Facilities.

Date of Government Version: 10/31/2014
Date Data Arrived at EDR: 11/21/2014
Date Made Active in Reports: 12/29/2014
Number of Days to Update: 38

Source: Department of Health Services
Telephone: 619-338-2209
Last EDR Contact: 07/22/2015
Next Scheduled EDR Contact: 11/09/2015
Data Release Frequency: Varies

Environmental Case Listing

The listing contains all underground tank release cases and projects pertaining to properties contaminated with hazardous substances that are actively under review by the Site Assessment and Mitigation Program.

Date of Government Version: 03/23/2010
Date Data Arrived at EDR: 06/15/2010
Date Made Active in Reports: 07/09/2010
Number of Days to Update: 24

Source: San Diego County Department of Environmental Health
Telephone: 619-338-2371
Last EDR Contact: 06/03/2015
Next Scheduled EDR Contact: 09/21/2015
Data Release Frequency: No Update Planned

SAN FRANCISCO COUNTY:

Local Oversite Facilities

A listing of leaking underground storage tank sites located in San Francisco county.

Date of Government Version: 09/19/2008
Date Data Arrived at EDR: 09/19/2008
Date Made Active in Reports: 09/29/2008
Number of Days to Update: 10

Source: Department Of Public Health San Francisco County
Telephone: 415-252-3920
Last EDR Contact: 08/06/2015
Next Scheduled EDR Contact: 11/23/2015
Data Release Frequency: Quarterly

Underground Storage Tank Information

Underground storage tank sites located in San Francisco county.

Date of Government Version: 11/29/2010
Date Data Arrived at EDR: 03/10/2011
Date Made Active in Reports: 03/15/2011
Number of Days to Update: 5

Source: Department of Public Health
Telephone: 415-252-3920
Last EDR Contact: 08/06/2015
Next Scheduled EDR Contact: 11/23/2015
Data Release Frequency: Quarterly

SAN JOAQUIN COUNTY:

San Joaquin Co. UST
A listing of underground storage tank locations in San Joaquin county.

Date of Government Version: 06/22/2015
Date Data Arrived at EDR: 06/26/2015
Date Made Active in Reports: 07/06/2015
Number of Days to Update: 10

Source: Environmental Health Department
Telephone: N/A
Last EDR Contact: 06/17/2015
Next Scheduled EDR Contact: 10/05/2015
Data Release Frequency: Semi-Annually

SAN LUIS OBISPO COUNTY:

CUPA Facility List
Cupa Facility List.

Date of Government Version: 05/22/2015
Date Data Arrived at EDR: 05/26/2015
Date Made Active in Reports: 06/10/2015
Number of Days to Update: 15

Source: San Luis Obispo County Public Health Department
Telephone: 805-781-5596
Last EDR Contact: 05/20/2015
Next Scheduled EDR Contact: 09/07/2015
Data Release Frequency: Varies

SAN MATEO COUNTY:

Business Inventory
List includes Hazardous Materials Business Plan, hazardous waste generators, and underground storage tanks.

Date of Government Version: 07/20/2015
Date Data Arrived at EDR: 07/22/2015
Date Made Active in Reports: 08/03/2015
Number of Days to Update: 12

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 06/15/2015
Next Scheduled EDR Contact: 09/28/2015
Data Release Frequency: Annually

Fuel Leak List
A listing of leaking underground storage tank sites located in San Mateo county.

Date of Government Version: 06/10/2015
Date Data Arrived at EDR: 06/16/2015
Date Made Active in Reports: 07/14/2015
Number of Days to Update: 28

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 06/10/2015
Next Scheduled EDR Contact: 06/29/2015
Data Release Frequency: Semi-Annually

SANTA BARBARA COUNTY:

CUPA Facility Listing
CUPA Program Listing from the Environmental Health Services division.

Date of Government Version: 09/08/2011
Date Data Arrived at EDR: 09/09/2011
Date Made Active in Reports: 10/07/2011
Number of Days to Update: 28

Source: Santa Barbara County Public Health Department
Telephone: 805-686-8167
Last EDR Contact: 05/22/2015
Next Scheduled EDR Contact: 09/07/2015
Data Release Frequency: Varies

SANTA CLARA COUNTY:

Cupa Facility List
Cupa facility list

Date of Government Version: 06/10/2015
Date Data Arrived at EDR: 06/16/2015
Date Made Active in Reports: 07/10/2015
Number of Days to Update: 24

Source: Department of Environmental Health
Telephone: 408-918-1973
Last EDR Contact: 06/05/2015
Next Scheduled EDR Contact: 09/07/2015
Data Release Frequency: Varies

HIST LUST - Fuel Leak Site Activity Report

A listing of open and closed leaking underground storage tanks. This listing is no longer updated by the county. Leaking underground storage tanks are now handled by the Department of Environmental Health.

Date of Government Version: 03/29/2005
Date Data Arrived at EDR: 03/30/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 22

Source: Santa Clara Valley Water District
Telephone: 408-265-2600
Last EDR Contact: 03/23/2009
Next Scheduled EDR Contact: 06/22/2009
Data Release Frequency: No Update Planned

LOP Listing

A listing of leaking underground storage tanks located in Santa Clara county.

Date of Government Version: 03/03/2014
Date Data Arrived at EDR: 03/05/2014
Date Made Active in Reports: 03/18/2014
Number of Days to Update: 13

Source: Department of Environmental Health
Telephone: 408-918-3417
Last EDR Contact: 06/01/2015
Next Scheduled EDR Contact: 09/14/2015
Data Release Frequency: Annually

Hazardous Material Facilities

Hazardous material facilities, including underground storage tank sites.

Date of Government Version: 05/07/2015
Date Data Arrived at EDR: 05/12/2015
Date Made Active in Reports: 06/08/2015
Number of Days to Update: 27

Source: City of San Jose Fire Department
Telephone: 408-535-7694
Last EDR Contact: 08/07/2015
Next Scheduled EDR Contact: 11/23/2015
Data Release Frequency: Annually

SANTA CRUZ COUNTY:

CUPA Facility List

CUPA facility listing.

Date of Government Version: 05/22/2015
Date Data Arrived at EDR: 05/26/2015
Date Made Active in Reports: 06/08/2015
Number of Days to Update: 13

Source: Santa Cruz County Environmental Health
Telephone: 831-464-2761
Last EDR Contact: 05/22/2015
Next Scheduled EDR Contact: 09/07/2015
Data Release Frequency: Varies

SHASTA COUNTY:

CUPA Facility List

Cupa Facility List.

Date of Government Version: 06/12/2015
Date Data Arrived at EDR: 06/16/2015
Date Made Active in Reports: 07/10/2015
Number of Days to Update: 24

Source: Shasta County Department of Resource Management
Telephone: 530-225-5789
Last EDR Contact: 05/26/2015
Next Scheduled EDR Contact: 09/07/2015
Data Release Frequency: Varies

SOLANO COUNTY:

Leaking Underground Storage Tanks
A listing of leaking underground storage tank sites located in Solano county.

Date of Government Version: 06/19/2015
Date Data Arrived at EDR: 06/24/2015
Date Made Active in Reports: 07/14/2015
Number of Days to Update: 20

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 06/10/2015
Next Scheduled EDR Contact: 09/28/2015
Data Release Frequency: Quarterly

Underground Storage Tanks
Underground storage tank sites located in Solano county.

Date of Government Version: 06/19/2015
Date Data Arrived at EDR: 06/30/2015
Date Made Active in Reports: 07/07/2015
Number of Days to Update: 7

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 06/10/2015
Next Scheduled EDR Contact: 09/28/2015
Data Release Frequency: Quarterly

SONOMA COUNTY:

Cupa Facility List
Cupa Facility list

Date of Government Version: 06/22/2015
Date Data Arrived at EDR: 06/26/2015
Date Made Active in Reports: 07/14/2015
Number of Days to Update: 18

Source: County of Sonoma Fire & Emergency Services Department
Telephone: 707-565-1174
Last EDR Contact: 06/22/2015
Next Scheduled EDR Contact: 10/12/2015
Data Release Frequency: Varies

Leaking Underground Storage Tank Sites
A listing of leaking underground storage tank sites located in Sonoma county.

Date of Government Version: 07/01/2015
Date Data Arrived at EDR: 07/07/2015
Date Made Active in Reports: 07/14/2015
Number of Days to Update: 7

Source: Department of Health Services
Telephone: 707-565-6565
Last EDR Contact: 06/22/2015
Next Scheduled EDR Contact: 10/12/2015
Data Release Frequency: Quarterly

SUTTER COUNTY:

Underground Storage Tanks
Underground storage tank sites located in Sutter county.

Date of Government Version: 06/05/2015
Date Data Arrived at EDR: 06/09/2015
Date Made Active in Reports: 07/06/2015
Number of Days to Update: 27

Source: Sutter County Department of Agriculture
Telephone: 530-822-7500
Last EDR Contact: 06/05/2015
Next Scheduled EDR Contact: 09/21/2015
Data Release Frequency: Semi-Annually

TUOLUMNE COUNTY:

CUPA Facility List
Cupa facility list

Date of Government Version: 07/13/2015
Date Data Arrived at EDR: 07/28/2015
Date Made Active in Reports: 08/03/2015
Number of Days to Update: 6

Source: Divison of Environmental Health
Telephone: 209-533-5633
Last EDR Contact: 07/24/2015
Next Scheduled EDR Contact: 11/09/2015
Data Release Frequency: Varies

VENTURA COUNTY:

Business Plan, Hazardous Waste Producers, and Operating Underground Tanks

The BWT list indicates by site address whether the Environmental Health Division has Business Plan (B), Waste Producer (W), and/or Underground Tank (T) information.

Date of Government Version: 06/26/2015
Date Data Arrived at EDR: 07/17/2015
Date Made Active in Reports: 08/03/2015
Number of Days to Update: 17

Source: Ventura County Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 08/12/2015
Next Scheduled EDR Contact: 11/30/2015
Data Release Frequency: Quarterly

Inventory of Illegal Abandoned and Inactive Sites

Ventura County Inventory of Closed, Illegal Abandoned, and Inactive Sites.

Date of Government Version: 12/01/2011
Date Data Arrived at EDR: 12/01/2011
Date Made Active in Reports: 01/19/2012
Number of Days to Update: 49

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 06/26/2015
Next Scheduled EDR Contact: 10/19/2015
Data Release Frequency: Annually

Listing of Underground Tank Cleanup Sites

Ventura County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 05/29/2008
Date Data Arrived at EDR: 06/24/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 37

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 08/12/2015
Next Scheduled EDR Contact: 11/30/2015
Data Release Frequency: Quarterly

Medical Waste Program List

To protect public health and safety and the environment from potential exposure to disease causing agents, the Environmental Health Division Medical Waste Program regulates the generation, handling, storage, treatment and disposal of medical waste throughout the County.

Date of Government Version: 04/27/2015
Date Data Arrived at EDR: 04/29/2015
Date Made Active in Reports: 05/13/2015
Number of Days to Update: 14

Source: Ventura County Resource Management Agency
Telephone: 805-654-2813
Last EDR Contact: 07/27/2015
Next Scheduled EDR Contact: 11/09/2015
Data Release Frequency: Quarterly

Underground Tank Closed Sites List

Ventura County Operating Underground Storage Tank Sites (UST)/Underground Tank Closed Sites List.

Date of Government Version: 05/27/2015
Date Data Arrived at EDR: 06/17/2015
Date Made Active in Reports: 07/06/2015
Number of Days to Update: 19

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 06/17/2015
Next Scheduled EDR Contact: 09/28/2015
Data Release Frequency: Quarterly

YOLO COUNTY:

Underground Storage Tank Comprehensive Facility Report

Underground storage tank sites located in Yolo county.

Date of Government Version: 07/08/2015
Date Data Arrived at EDR: 07/13/2015
Date Made Active in Reports: 07/22/2015
Number of Days to Update: 9

Source: Yolo County Department of Health
Telephone: 530-666-8646
Last EDR Contact: 07/06/2015
Next Scheduled EDR Contact: 10/05/2015
Data Release Frequency: Annually

YUBA COUNTY:

CUPA Facility List
CUPA facility listing for Yuba County.

Date of Government Version: 05/18/2015
Date Data Arrived at EDR: 05/19/2015
Date Made Active in Reports: 06/05/2015
Number of Days to Update: 17

Source: Yuba County Environmental Health Department
Telephone: 530-749-7523
Last EDR Contact: 07/31/2015
Next Scheduled EDR Contact: 11/16/2015
Data Release Frequency: Varies

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data
Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 07/30/2013
Date Data Arrived at EDR: 08/19/2013
Date Made Active in Reports: 10/03/2013
Number of Days to Update: 45

Source: Department of Energy & Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 05/18/2015
Next Scheduled EDR Contact: 08/31/2015
Data Release Frequency: No Update Planned

NJ MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 07/17/2015
Date Made Active in Reports: 08/12/2015
Number of Days to Update: 26

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 07/13/2015
Next Scheduled EDR Contact: 10/28/2015
Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data
Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 08/01/2015
Date Data Arrived at EDR: 08/06/2015
Date Made Active in Reports: 08/24/2015
Number of Days to Update: 18

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 08/06/2015
Next Scheduled EDR Contact: 11/16/2015
Data Release Frequency: Annually

PA MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 07/24/2015
Date Made Active in Reports: 08/18/2015
Number of Days to Update: 25

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 07/20/2015
Next Scheduled EDR Contact: 11/02/2015
Data Release Frequency: Annually

RI MANIFEST: Manifest information
Hazardous waste manifest information

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 06/19/2015
Date Made Active in Reports: 07/15/2015
Number of Days to Update: 26

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 05/26/2015
Next Scheduled EDR Contact: 09/07/2015
Data Release Frequency: Annually

WI MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 03/19/2015
Date Made Active in Reports: 04/07/2015
Number of Days to Update: 19

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 06/11/2015
Next Scheduled EDR Contact: 09/28/2015
Data Release Frequency: Annually

Oil/Gas Pipelines
Source: PennWell Corporation
Telephone: 281-546-1505
Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

Electric Power Transmission Line Data
Source: PennWell Corporation
Telephone: 800-823-6277
This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:
Source: American Hospital Association, Inc.
Telephone: 312-280-5991
The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.
Medical Centers: Provider of Services Listing
Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000
A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.
Nursing Homes
Source: National Institutes of Health
Telephone: 301-594-6248
Information on Medicare and Medicaid certified nursing homes in the United States.
Public Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.
Private Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on private school locations in the United States.
Daycare Centers: Licensed Facilities
Source: Department of Social Services
Telephone: 916-657-4041

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 2003 & 2011 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

STREET AND ADDRESS INFORMATION

GEOCHECK ®- PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

COLFAX CHARTER ELEMENTARY SCHOOL
11724 ADDISON STREET
VALLEY VILLAGE, CA 91607

TARGET PROPERTY COORDINATES

Latitude (North):	34.1603 - 34˚ 9’ 37.08’’
Longitude (West):	118.3889 - 118˚ 23’ 20.04’’
Universal Tranverse Mercator:	Zone 11
UTM X (Meters):	371972.0
UTM Y (Meters):	3780606.5
Elevation:	633 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	5630789 VAN NUYS, CA
Version Date:	2012
Northeast Map:	5630791 BURBANK, CA
Version Date:	2012

EDR’s GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principal investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

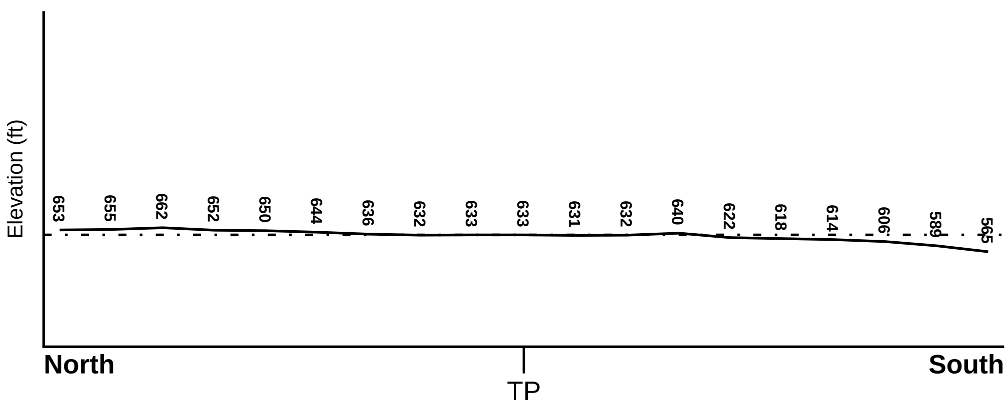
TOPOGRAPHIC INFORMATION

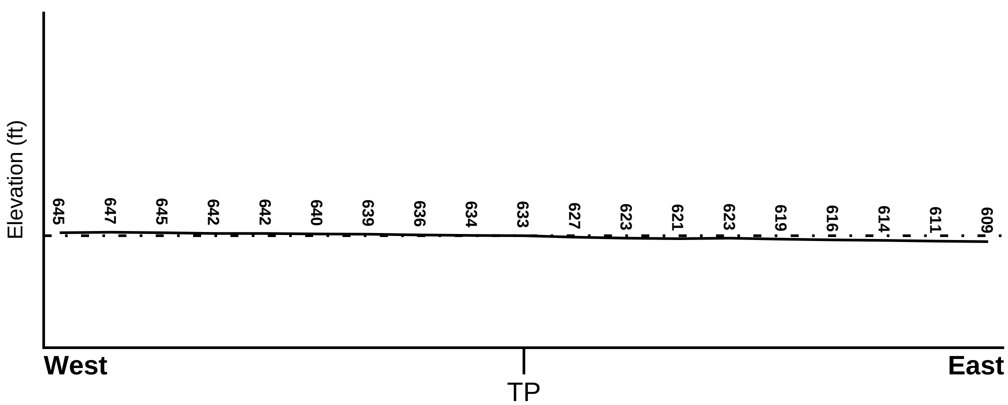
Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General East

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES





Target Property Elevation: 633 ft.

0 1/2 1 Miles

Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

Target Property County	FEMA Flood Electronic Data
LOS ANGELES, CA	YES - refer to the Overview Map and Detail Map

Flood Plain Panel at Target Property: 06037C - FEMA DFIRM Flood data

Additional Panels in search area: Not Reported

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property	NWI Electronic Data Coverage
VAN NUYS	YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Site-Specific Hydrogeological Data*:

Search Radius: 1.25 miles
Status: Not found

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

MAP ID	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW
Not Reported		

* All of the information and opinions presented are those of the cited EPA report(s), which were completed under a Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS) investigation.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

Era:	Cenozoic
System:	Quaternary
Series:	Quaternary
Code:	Q *(decoded above as Era, System & Series)*

GEOLOGIC AGE IDENTIFICATION

Category: Stratifed Sequence

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps. The following information is based on Soil Conservation Service STATSGO data.

Soil Component Name: URBAN LAND

Soil Surface Texture: variable

Hydrologic Group: Not reported

Soil Drainage Class: Not reported

Hydric Status: Soil does not meet the requirements for a hydric soil.

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 10 inches

Depth to Bedrock Max: > 10 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification			
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil	Permeability Rate (in/hr)	Soil Reaction (pH)
1	0 inches	6 inches	variable	Not reported	Not reported	Max: 0.00 Min: 0.00	Max: 0.00 Min: 0.00

OTHER SOIL TYPES IN AREA

Based on Soil Conservation Service STATSGO data, the following additional subordinant soil types may appear within the general area of target property.

Soil Surface Textures: loam
clay
silt loam
loamy sand
sandy loam
fine sand
clay loam
gravelly - sandy loam
coarse sand
gravelly - sand
sand

Surficial Soil Types: loam
clay
silt loam
loamy sand
sandy loam
fine sand
clay loam
gravelly - sandy loam
coarse sand
gravelly - sand
sand

Shallow Soil Types: fine sandy loam
gravelly - loam
sand
silty clay

Deeper Soil Types: stratified
clay loam
silty clay loam
gravelly - sandy loam
coarse sand
sand
weathered bedrock
very fine sandy loam

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

DATABASE	SEARCH DISTANCE (miles)
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No Wells Found		

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No PWS System Found		

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

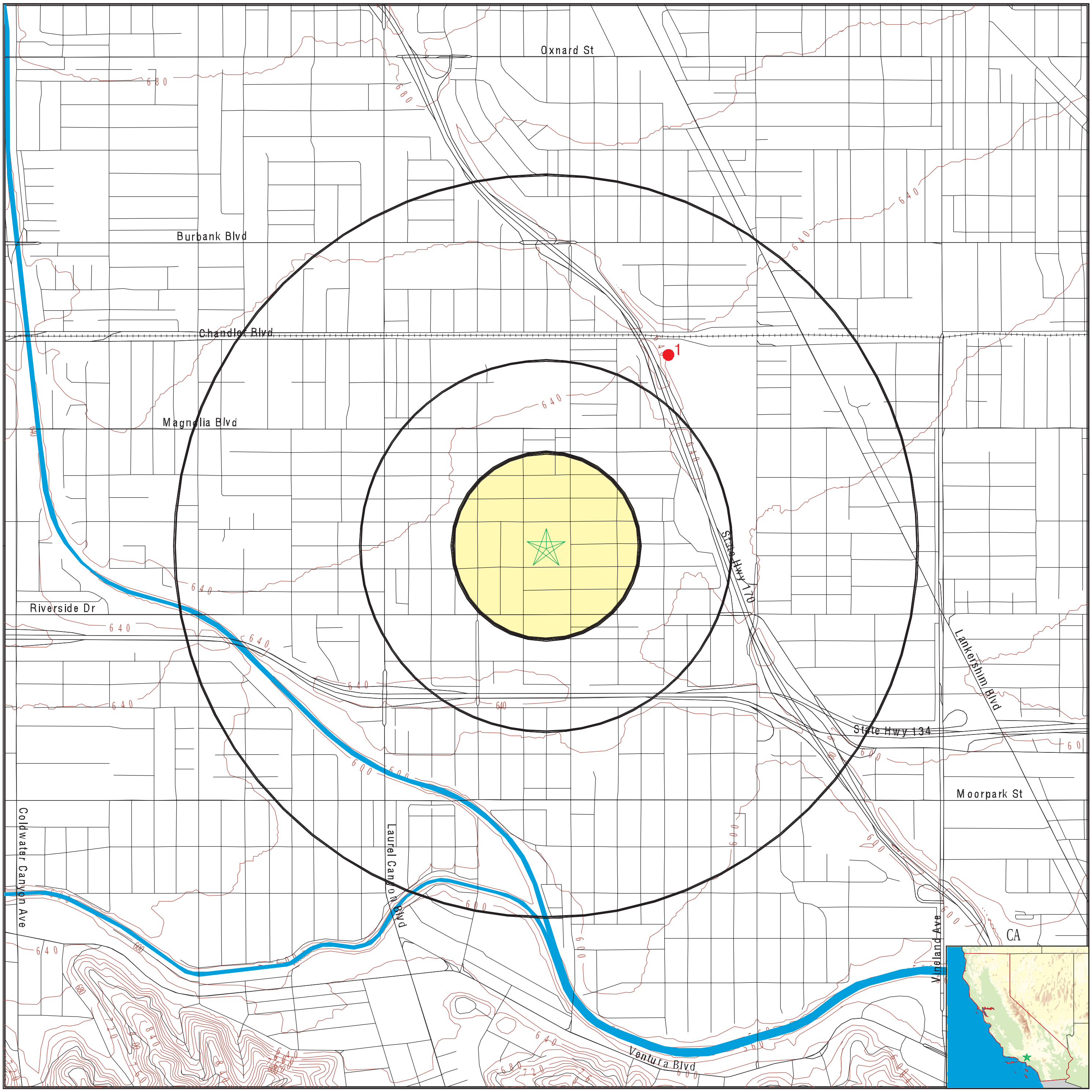
MAP ID	WELL ID	LOCATION FROM TP
No Wells Found		

OTHER STATE DATABASE INFORMATION

STATE OIL/GAS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
1	CAOG11000204594	1/2 - 1 Mile NNE

PHYSICAL SETTING SOURCE MAP - 4398813.2s



County Boundary
Major Roads
Contour Lines
Earthquake Fault Lines
Earthquake epicenter, Richter 5 or greater
Water Wells
Public Water Supply Wells
Cluster of Multiple Icons

0 1/4 1/2 1 Miles

Groundwater Flow Direction
GI Indeterminate Groundwater Flow at Location
GV Groundwater Flow Varies at Location
HD Closest Hydrogeological Data
Oil, gas or related wells

SITE NAME: Colfax Charter Elementary School ADDRESS: 11724 Addison Street Valley Village CA 91607 LAT/LONG: 34.1603 / 118.3889	CLIENT: WorleyParsons CONTACT: Ralph Beck INQUIRY #: 4398813.2s DATE: August 31, 2015 8:00 pm

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID Direction Distance	Database	EDR ID Number
1 **NNE** **1/2 - 1 Mile**	**OIL_GAS**	**CAOG11000204594**

District nun:	1	Api number:	03705314
Blm well:	N	Redrill can:	Not Reported
Dryhole:	Y	Well status:	P
Operator name:	Conoco Inc.		
County name:	Los Angeles	Fieldname:	Any Field
Area name:	Any Area	Section:	18
Township:	01N	Range:	14W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Hollywood Freeway	Wellnumber:	1
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Unknown	Gissymbol:	PDH
Site id:	CAOG11000204594		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

State Database: CA Radon

Radon Test Results

Zipcode	Num Tests	> 4 pCi/L
91607	95	0

Federal EPA Radon Zone for LOS ANGELES County: 2

Note: Zone 1 indoor average level > 4 pCi/L.
: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
: Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for LOS ANGELES COUNTY, CA

Number of sites tested: 63

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	0.711 pCi/L	98%	2%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	0.933 pCi/L	100%	0%	0%

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)
Source: United States Geologic Survey
EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

HYDROLOGIC INFORMATION

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 2003 & 2011 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

HYDROGEOLOGIC INFORMATION

AQUIFLOW[R] Information System
Source: EDR proprietary database of groundwater flow information
EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit
Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Services
The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Services (NRCS)
Telephone: 800-672-5559
SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Services, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)
This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

STATE RECORDS

Water Well Database
Source: Department of Water Resources
Telephone: 916-651-9648

California Drinking Water Quality Database
Source: Department of Public Health
Telephone: 916-324-2319
The database includes all drinking water compliance and special studies monitoring for the state of California since 1984. It consists of over 3,200,000 individual analyses along with well and water system information.

OTHER STATE DATABASE INFORMATION

California Oil and Gas Well Locations
Source: Department of Conservation
Telephone: 916-323-1779
Oil and Gas well locations in the state.

RADON

State Database: CA Radon
Source: Department of Health Services
Telephone: 916-324-2208
Radon Database for California

Area Radon Information
Source: USGS
Telephone: 703-356-4020
The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

EPA Radon Zones
Source: EPA
Telephone: 703-356-4020
Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

OTHER

Airport Landing Facilities: Private and public use landing facilities
Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

California Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines, prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

STREET AND ADDRESS INFORMATION

APPENDIX 3

HISTORIC REFERENCE DOCUMENTS

Colfax Charter Elementary School
11724 Addison Street
Valley Village, CA 91607

Inquiry Number: 4398813.12
September 01, 2015

The EDR Aerial Photo Decade Package

6 Armstrong Road, 4th Floor
Shelton, Connecticut 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Aerial Photo Decade Package

Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

When delivered electronically by EDR, the aerial photo images included with this report are for ONE TIME USE ONLY. Further reproduction of these aerial photo images is prohibited without permission from EDR. For more information contact your EDR Account Executive.

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

Date EDR Searched Historical Sources:

Aerial Photography September 01, 2015

Target Property:

11724 Addison Street

Valley Village, CA 91607

Year	***Scale***	***Details***	***Source***
1928	Aerial Photograph. Scale: 1"=500'	Flight Year: 1928	USGS
1938	Aerial Photograph. Scale: 1"=500'	Flight Year: 1938	USGS
1940	Aerial Photograph. Scale: 1"=500'	Flight Year: 1940	Fairchild
1952	Aerial Photograph. Scale: 1"=500'	Flight Year: 1952	USGS
1954	Aerial Photograph. Scale: 1"=500'	Flight Year: 1954	USGS
1964	Aerial Photograph. Scale: 1"=500'	Flight Year: 1964	USGS
1972	Aerial Photograph. Scale: 1"=500'	Flight Year: 1972	EDR Proprietary Brewster Pacific
1977	Aerial Photograph. Scale: 1"=500'	Flight Year: 1977	EDR Proprietary Brewster Pacific
1981	Aerial Photograph. Scale: 1"=500'	Flight Year: 1981	EDR Proprietary Brewster Pacific
1989	Aerial Photograph. Scale: 1"=500'	Flight Year: 1989	USGS
1994	Aerial Photograph. Scale: 1"=500'	/DOQQ - acquisition dates: 1994	USGS/DOQQ
2002	Aerial Photograph. Scale: 1"=500'	Flight Year: 2002	USGS
2005	Aerial Photograph. Scale: 1"=500'	Flight Year: 2005	USDA/NAIP
2009	Aerial Photograph. Scale: 1"=500'	Flight Year: 2009	USDA/NAIP
2010	Aerial Photograph. Scale: 1"=500'	Flight Year: 2010	USDA/NAIP
2012	Aerial Photograph. Scale: 1"=500'	Flight Year: 2012	USDA/NAIP


INQUIRY #: 4398813.12
YEAR: 1928
= 500'
N
EDR

INQUIRY #: 4398813.12

YEAR: 1938

= 500'

N

EDR


INQUIRY #: 4398813.12
YEAR: 1940
= 500'
N
EDR


INQUIRY #: 4398813.12
YEAR: 1952
= 500'
N
EDR


INQUIRY #: 4398813.12
YEAR: 1954
= 500'
N

INQUIRY #: 4398813.12

YEAR: 1964

= 500'

N

EDR

INQUIRY #: 4398813.12

YEAR: 1972

= 500'

N

EDR


INQUIRY #: 4398813.12
YEAR: 1977
= 500'
N
EDR

INQUIRY #: 4398813.12

YEAR: 1981

= 500'

N

INQUIRY #: 4398813.12
YEAR: 1989
= 500'
N
EDR

INQUIRY #: 4398813.12

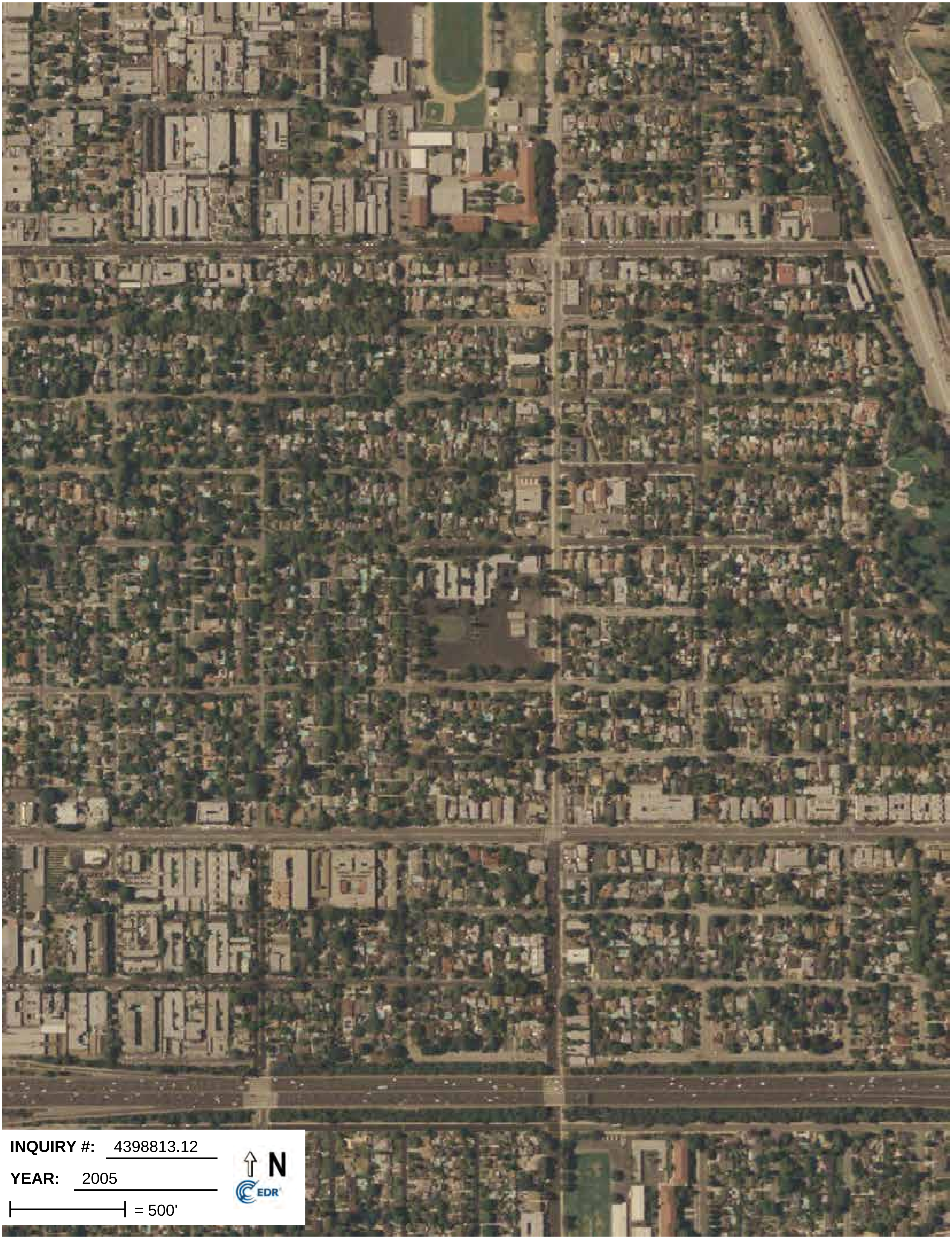
YEAR: 1994

= 500'

N

EDR


INQUIRY #: 4398813.12
YEAR: 2002
= 500'
N
EDR



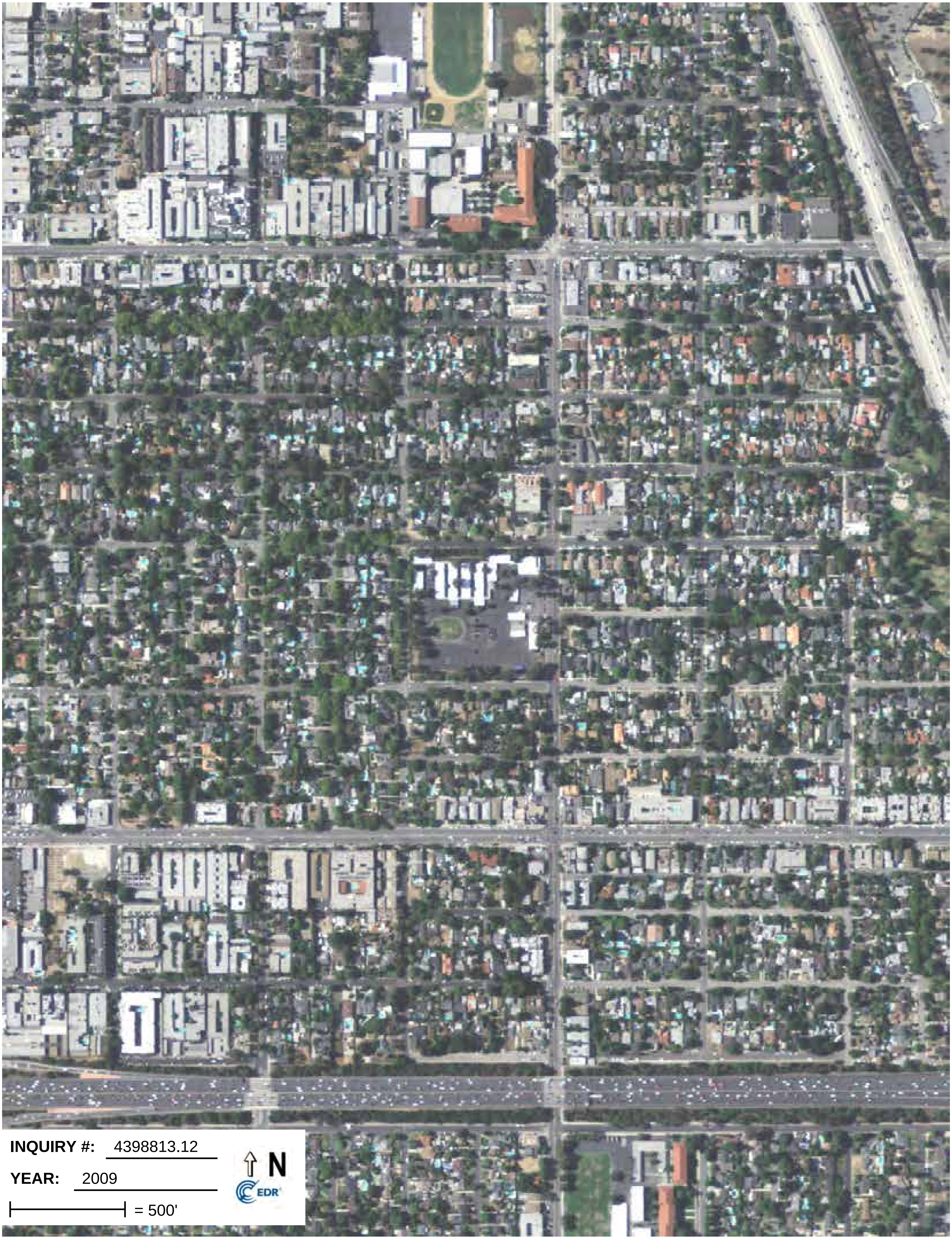
INQUIRY #: 4398813.12

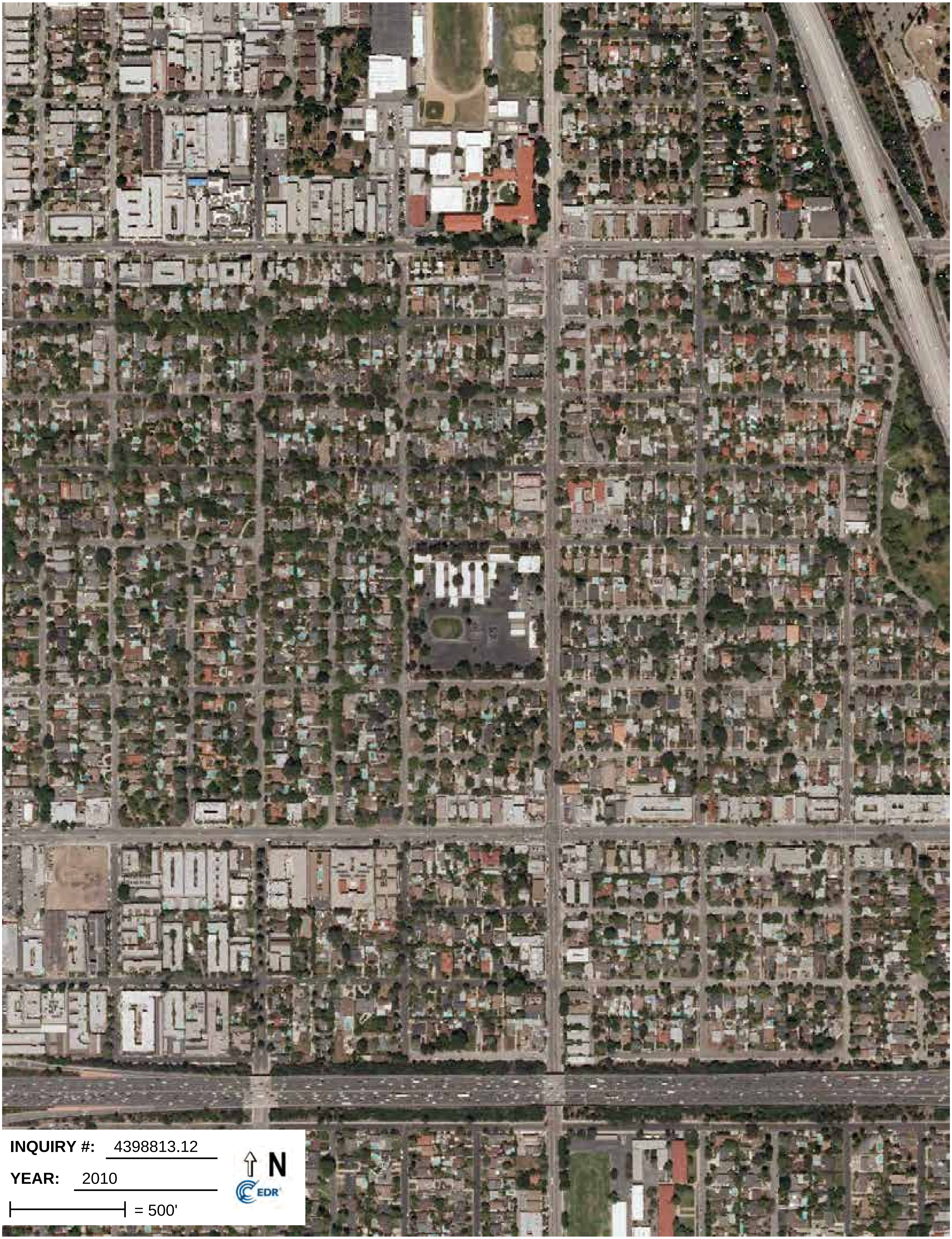
YEAR: 2005

= 500'

N

EDR


INQUIRY #: 4398813.12
YEAR: 2009
= 500'
N
EDR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YEAR: 2010
= 500'
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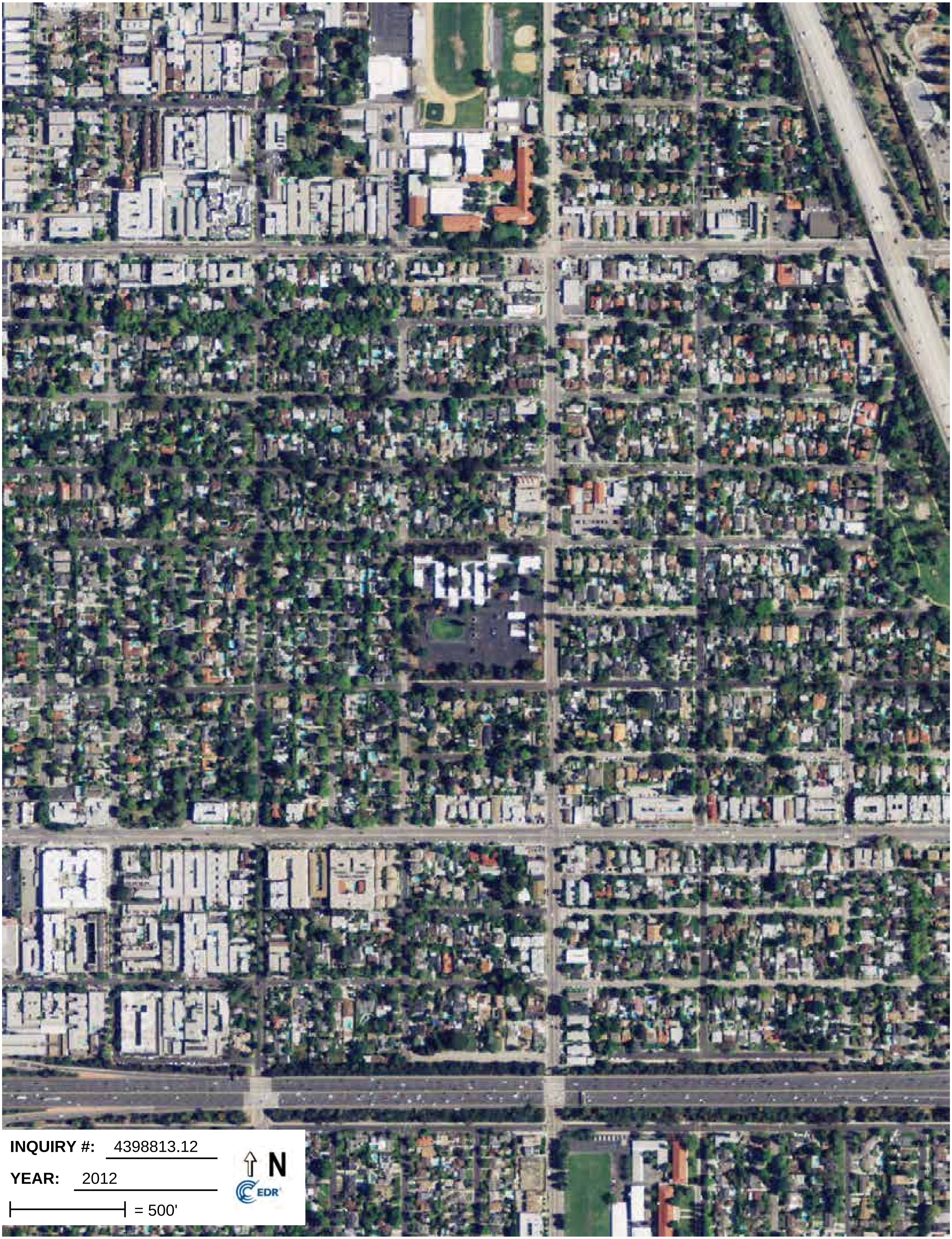
EDR



INQUIRY #: 4398813.12

YEAR: 2012

= 500'

N

EDR

Colfax Charter Elementary School
11724 Addison Street
Valley Village, CA 91607

Inquiry Number: 4398813.4
August 31, 2015

EDR Historical Topographic Map Report

EDR®

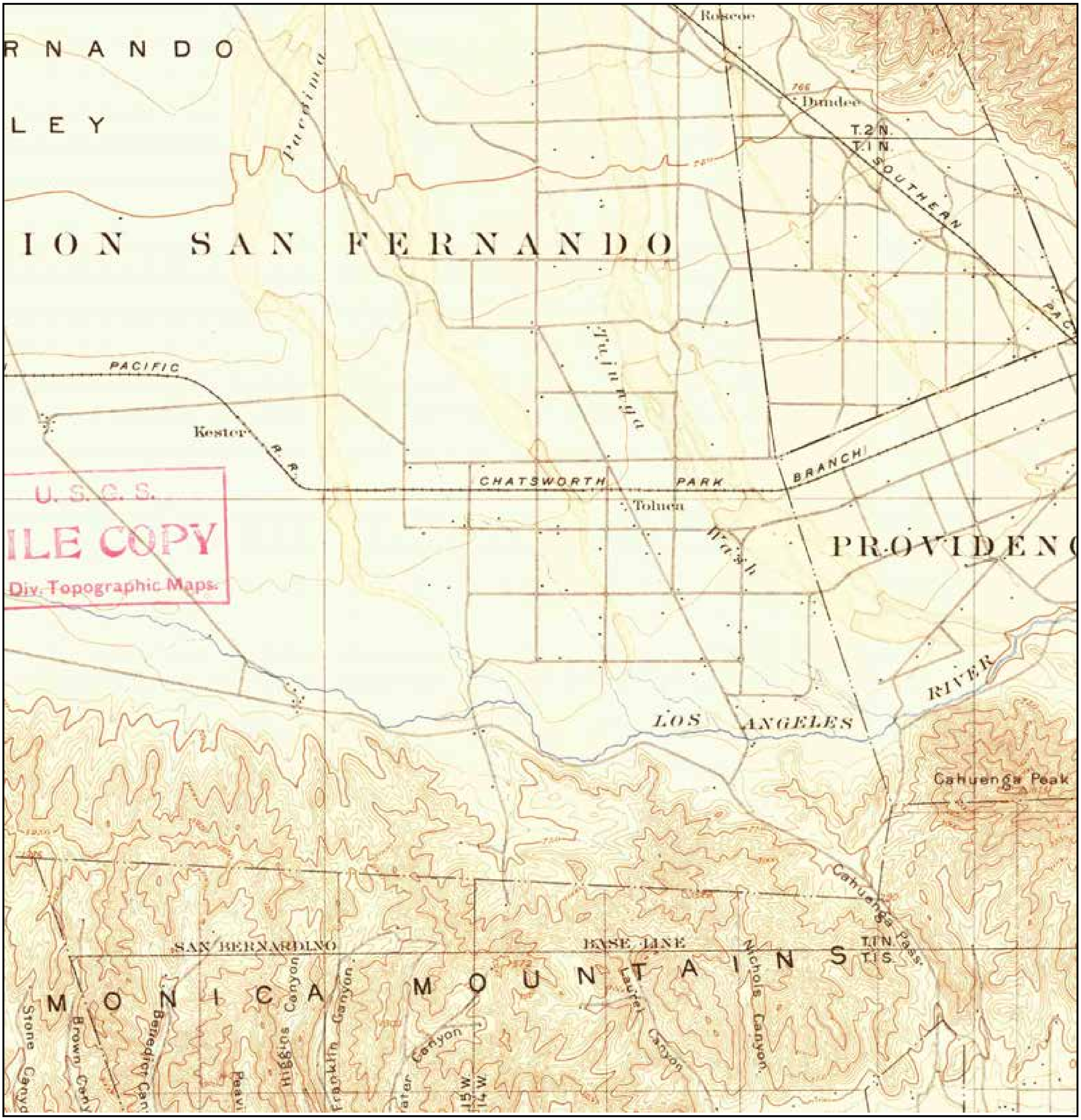
6 Armstrong Road, 4th Floor
Shelton, Connecticut 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Historical Topographic Map Report

Environmental Data Resources, Inc.s (EDR) Historical Topographic Map Report is designed to assist professionals in evaluating potential liability on a target property resulting from past activities. EDRs Historical Topographic Map Report includes a search of a collection of public and private color historical topographic maps, dating back to the early 1900s.

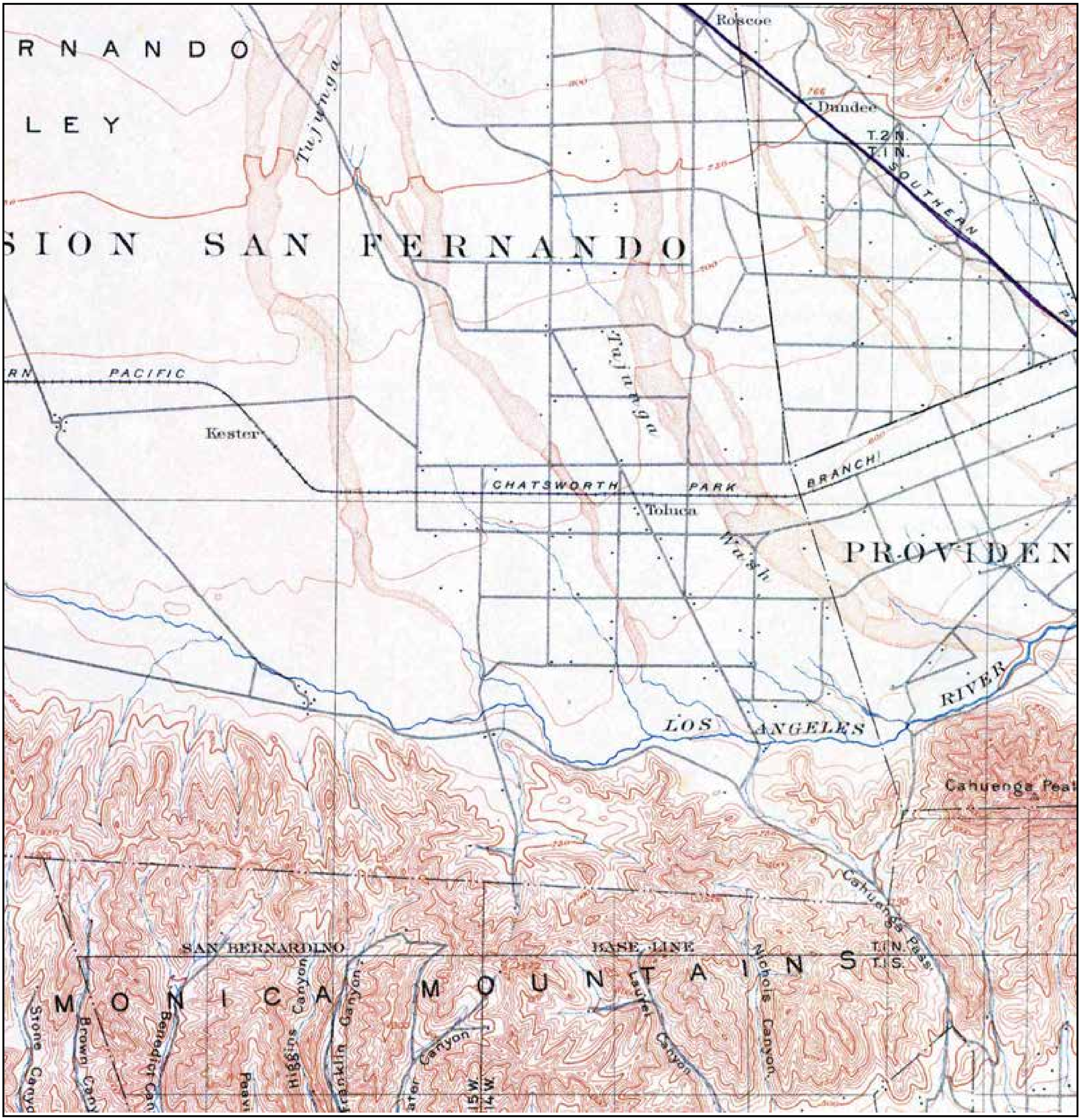
Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

Historical Topographic Map



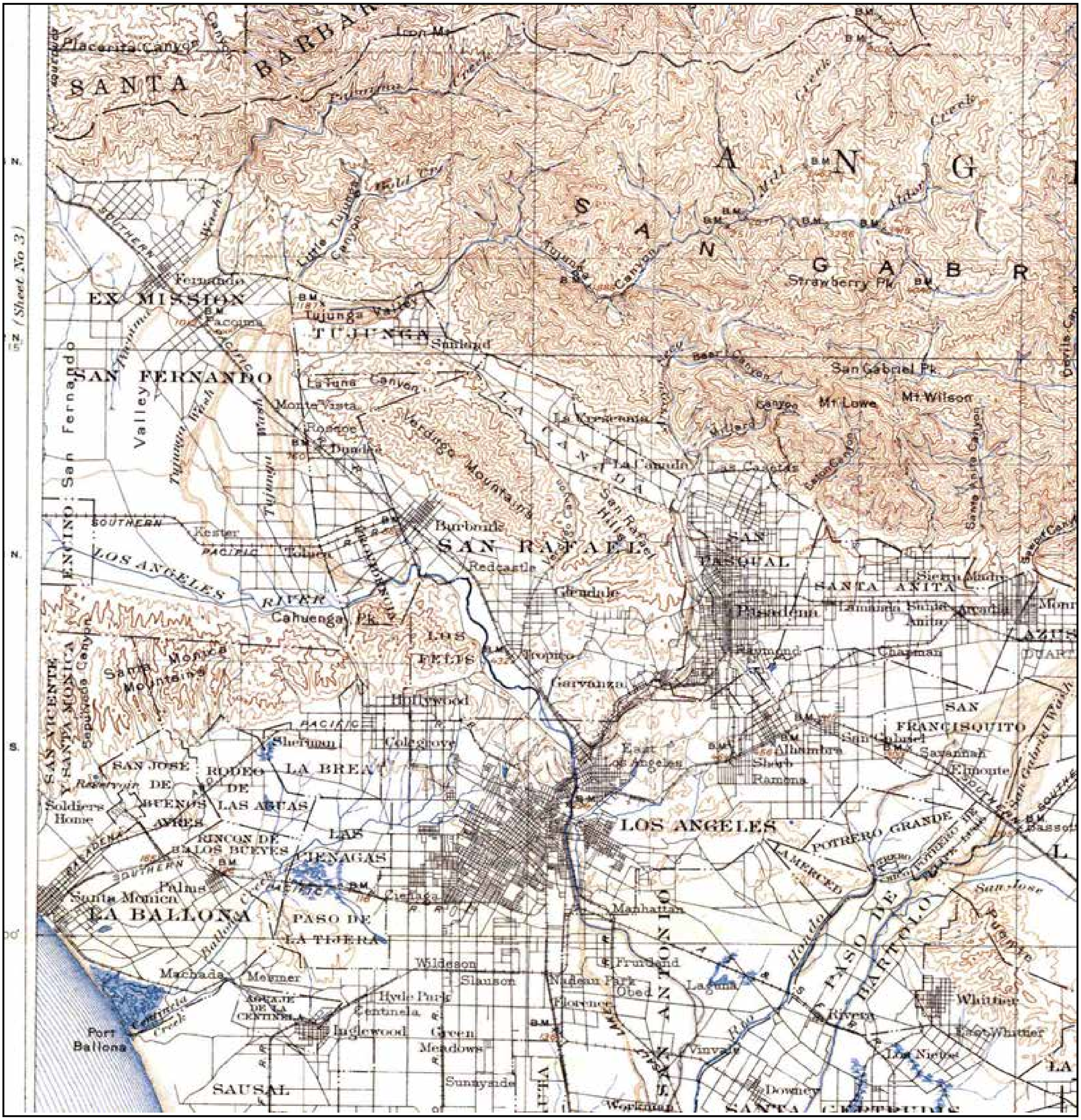
N	TARGET QUAD NAME:	SANTA MONICA	SITE NAME:	Colfax Charter Elementary School	CLIENT: WorleyParsons
	MAP YEAR:	1896	ADDRESS:	11724 Addison Street Valley Village, CA 91607	CONTACT: Ralph Beck INQUIRY#: 4398813.4 RESEARCH DATE: 08/31/2015
	SERIES:	15	LAT/LONG:	34.1603 / -118.3889	
	SCALE:	1:62500			

Historical Topographic Map



N	TARGET QUAD NAME: LOS ANGELES MAP YEAR: 1900 SERIES: 15 SCALE: 1:62500	SITE NAME: Colfax Charter Elementary School ADDRESS: 11724 Addison Street Valley Village, CA 91607 LAT/LONG: 34.1603 / -118.3889	CLIENT: WorleyParsons CONTACT: Ralph Beck INQUIRY#: 4398813.4 RESEARCH DATE: 08/31/2015

Historical Topographic Map



N	TARGET QUAD NAME:	SOUTHERN CA SHEET 1	SITE NAME:	Colfax Charter Elementary School	CLIENT:	WorleyParsons
	MAP YEAR:	1901	ADDRESS:	11724 Addison Street Valley Village, CA 91607	CONTACT:	Ralph Beck
	SERIES:	60	LAT/LONG:	34.1603 / -118.3889	INQUIRY#:	4398813.4
	SCALE:	1:250000			RESEARCH DATE:	08/31/2015

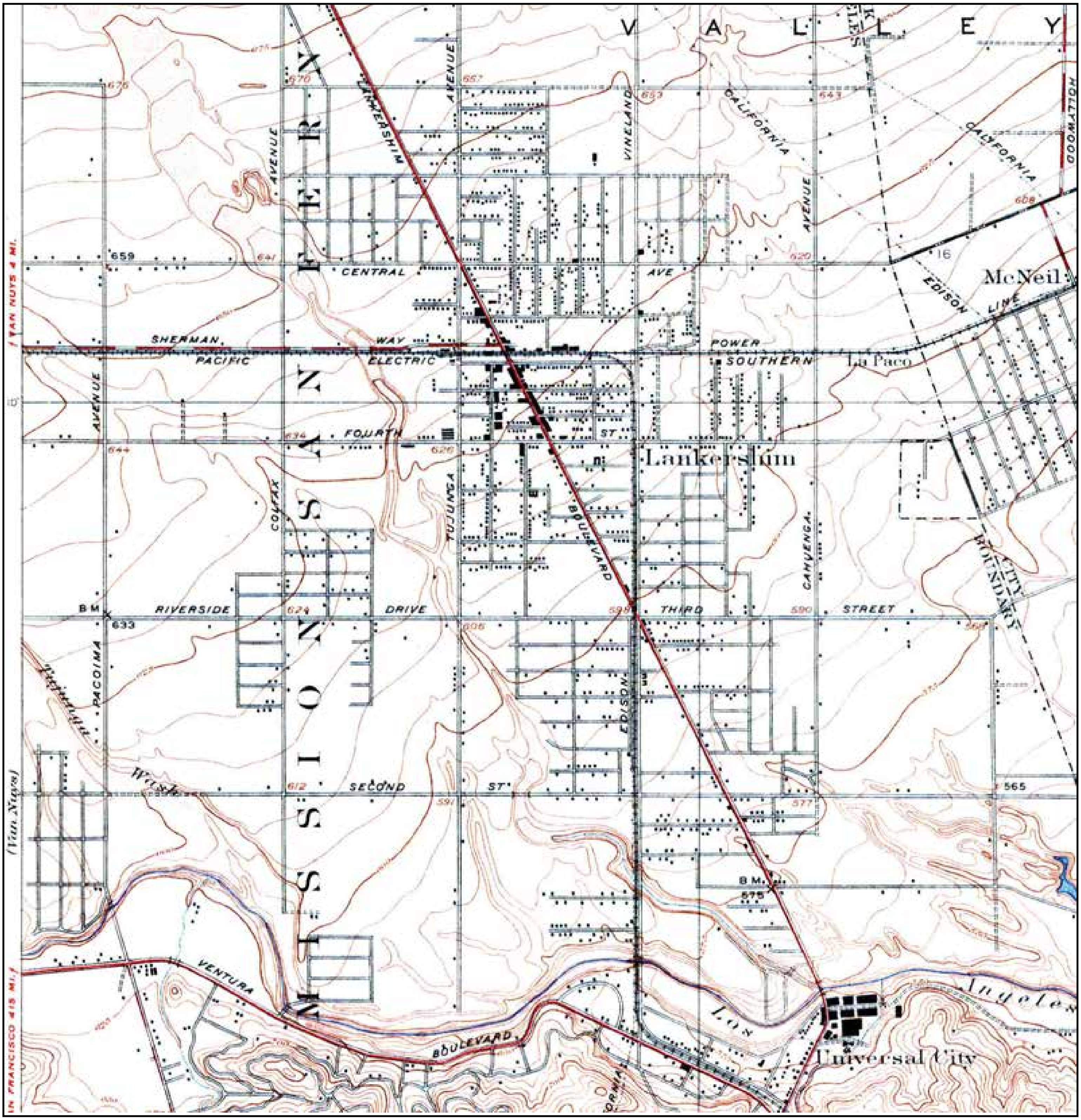
Historical Topographic Map

N ↑	TARGET QUAD	SITE NAME:	Colfax Charter Elementary School	CLIENT:	WorleyParsons
	NAME: SANTA MONICA			CONTACT:	Ralph Beck
	MAP YEAR: 1902	ADDRESS:	11724 Addison Street Valley Village, CA 91607	INQUIRY#:	4398813.4
	SERIES: 15	LAT/LONG:	34.1603 / -118.3889	RESEARCH DATE:	08/31/2015
	SCALE: 1:62500				

Historical Topographic Map

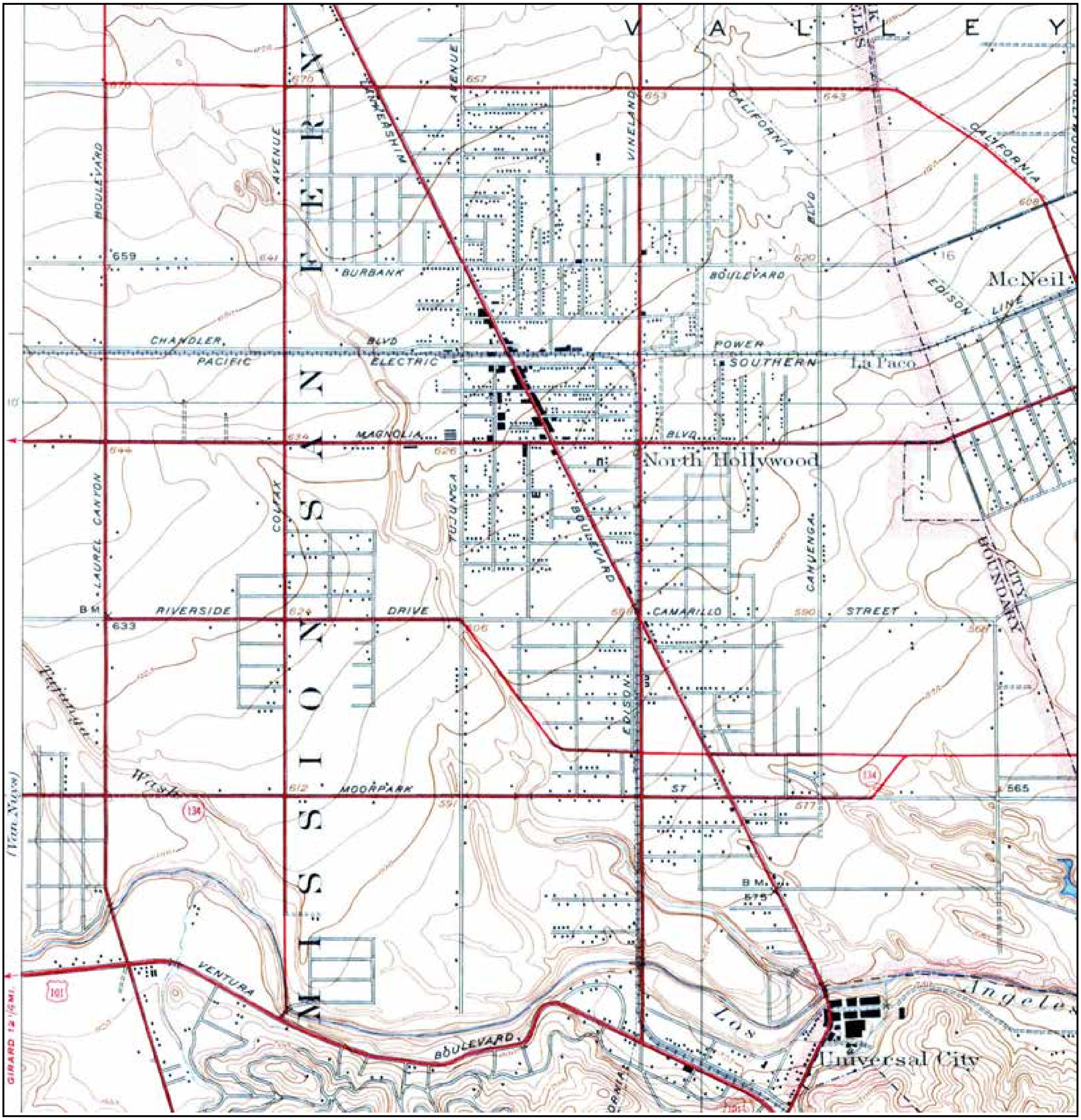
N	TARGET QUAD		SITE NAME:	Colfax Charter Elementary School	CLIENT:	WorleyParsons
	NAME:	SANTA MONICA			CONTACT:	Ralph Beck
	MAP YEAR:	1920	ADDRESS:	11724 Addison Street Valley Village, CA 91607	INQUIRY#:	4398813.4
					RESEARCH DATE:	08/31/2015
	SERIES:	15	LAT/LONG:	34.1603 / -118.3889		
	SCALE:	1:62500				

Historical Topographic Map



N ↑	TARGET QUAD NAME: BURBANK MAP YEAR: 1926 SERIES: 6 SCALE: 1:24000	SITE NAME: Colfax Charter Elementary School ADDRESS: 11724 Addison Street Valley Village, CA 91607 LAT/LONG: 34.1603 / -118.3889	CLIENT: WorleyParsons CONTACT: Ralph Beck INQUIRY#: 4398813.4 RESEARCH DATE: 08/31/2015

Historical Topographic Map

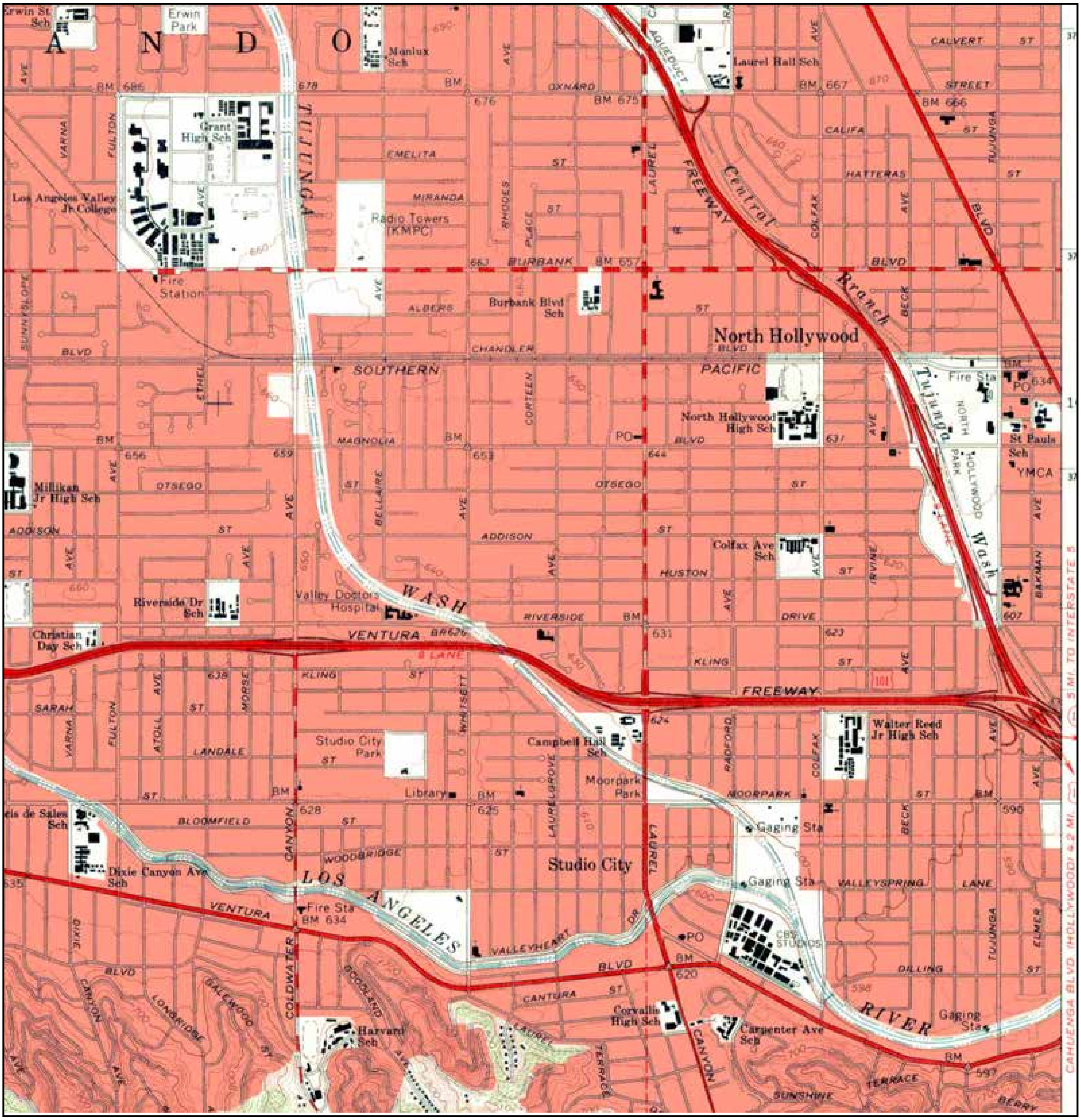


N	TARGET QUAD NAME: BURBANK MAP YEAR: 1941 SERIES: 6 SCALE: 1:24000	SITE NAME: Colfax Charter Elementary School ADDRESS: 11724 Addison Street Valley Village, CA 91607 LAT/LONG: 34.1603 / -118.3889	CLIENT: WorleyParsons CONTACT: Ralph Beck INQUIRY#: 4398813.4 RESEARCH DATE: 08/31/2015

Historical Topographic Map

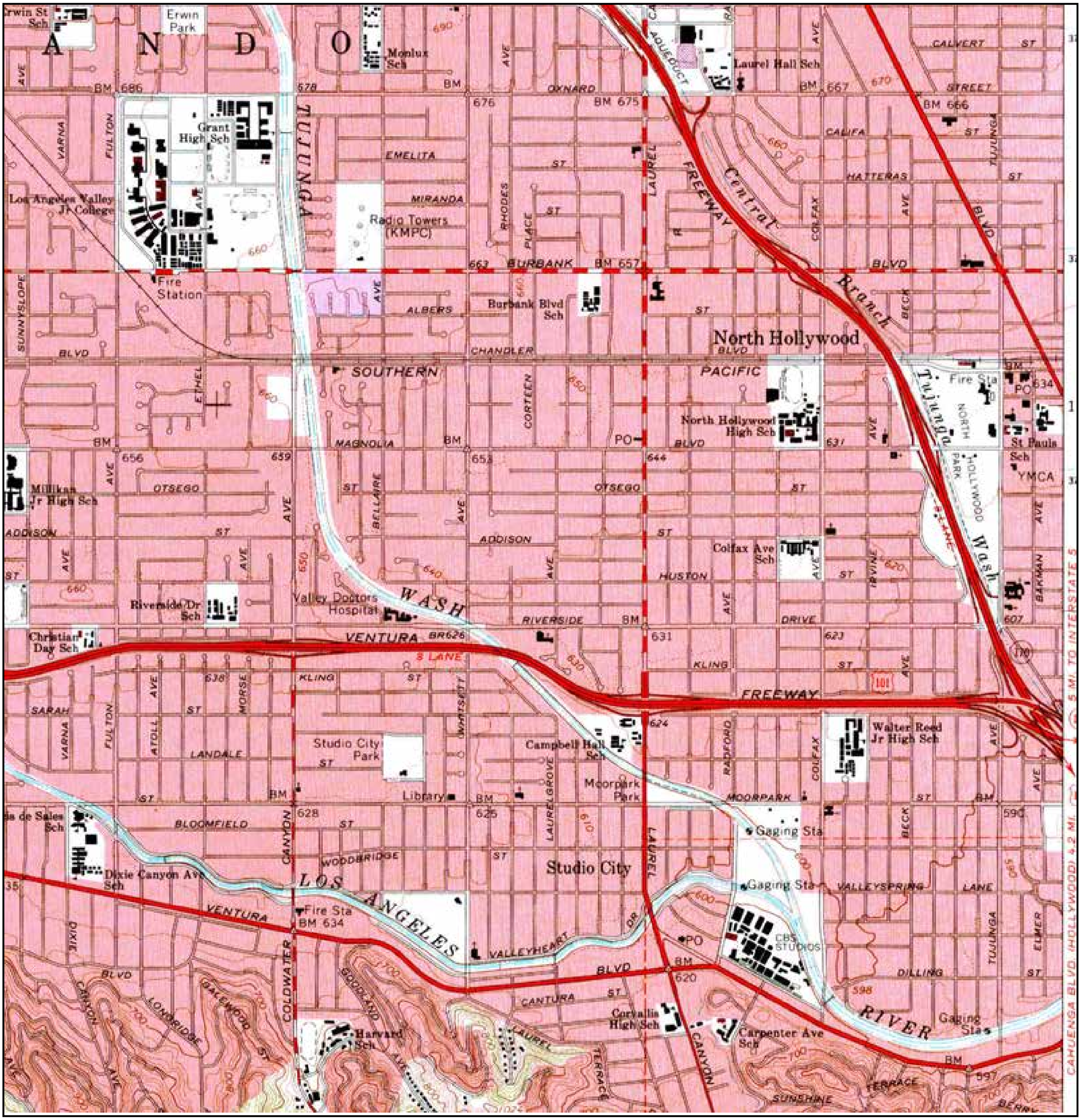
N	TARGET QUAD NAME: VAN NUYS	SITE NAME: Colfax Charter Elementary School	CLIENT: WorleyParsons	
	MAP YEAR: 1953	ADDRESS: 11724 Addison Street, Valley Village, CA 91607	CONTACT: Ralph Beck	
	SERIES: 7.5	LAT/LONG: 34.1603 / -118.3889	INQUIRY#: 4398813.4	
	SCALE: 1:24000		RESEARCH DATE: 08/31/2015	

Historical Topographic Map



N	TARGET QUAD		SITE NAME:	Colfax Charter Elementary School	CLIENT:	WorleyParsons
	NAME:	VAN NUYS	ADDRESS:	11724 Addison Street Valley Village, CA 91607	CONTACT:	Ralph Beck
	MAP YEAR:	1966	LAT/LONG:	34.1603 / -118.3889	INQUIRY#:	4398813.4
	SERIES:	7.5			RESEARCH DATE:	08/31/2015
	SCALE:	1:24000				

Historical Topographic Map



TARGET QUAD NAME: VAN NUYS MAP YEAR: 1972 PHOTOREVISED FROM :1966 SERIES: 7.5 SCALE: 1:24000	SITE NAME: Colfax Charter Elementary School ADDRESS: 11724 Addison Street Valley Village, CA 91607 LAT/LONG: 34.1603 / -118.3889	CLIENT: WorleyParsons CONTACT: Ralph Beck INQUIRY#: 4398813.4 RESEARCH DATE: 08/31/2015

Colfax Charter Elementary School

11724 Addison Street

Valley Village, CA 91607

Inquiry Number: 4398813.3

August 31, 2015

Certified Sanborn® Map Report

EDR®

6 Armstrong Road, 4th Floor
Shelton, Connecticut 06484
Toll Free: 800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

8/31/15

Site Name:
Colfax Charter Elementary
11724 Addison Street
Valley Village, CA 91607

EDR Inquiry # 4398813.3

Client Name:
WorleyParsons
181 W Huntington Dr Ste 110
Monrovia, CA 91016

Contact: Ralph Beck

The Sanborn Library has been searched by EDR and maps covering the target property location as provided by WorleyParsons were identified for the years listed below. The Sanborn Library is the largest, most complete collection of fire insurance maps. The collection includes maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow, and others. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by the Sanborn Library LLC, the copyright holder for the collection. Results can be authenticated by visiting www.edrnet.com/sanborn.

The Sanborn Library is continually enhanced with newly identified map archives. This report accesses all maps in the collection as of the day this report was generated.

Certified Sanborn Results:

Site Name:	Colfax Charter Elementary School
Address:	11724 Addison Street
City, State, Zip:	Valley Village, CA 91607
Cross Street:	
P.O. #	NA
Project:	308038-08520
Certification #	E1B0-42B9-91F6

Maps Provided:

1969, 1966, 1961, 1960, 1958, 1956, 1955, 1950

Sanborn® Library search results
Certification # E1B0-42B9-91F6

The Sanborn Library includes more than 1.2 million fire insurance maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow and others which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

- ✔ Library of Congress
- ✔ University Publications of America
- ✔ EDR Private Collection

The Sanborn Library LLC Since 1866™

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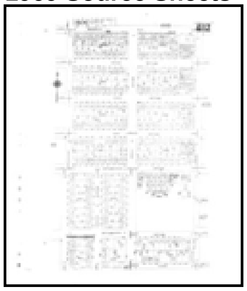
Sanborn Sheet Thumbnails

This Certified Sanborn Map Report is based upon the following Sanborn Fire Insurance map sheets.

1969 Source Sheets



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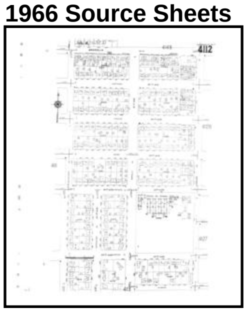
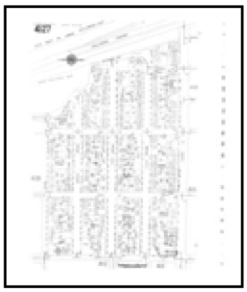
1966 Source Sheets

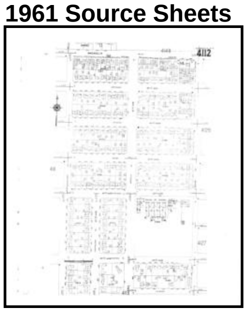


Volume 41, Sheet 4112

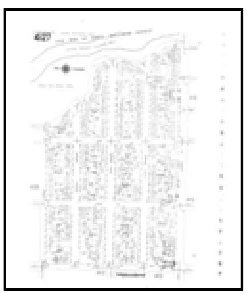


Volume 41, Sheet 4127

1961 Source Sheets



Volume 41, Sheet 4112



Volume 41, Sheet 4127

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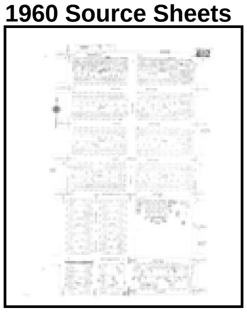
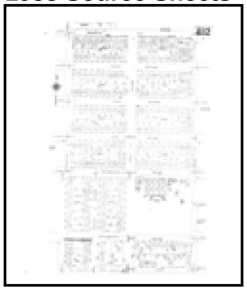


Volume 41, Sheet 4112

1958 Source Sheets



Volume 41, Sheet 4112

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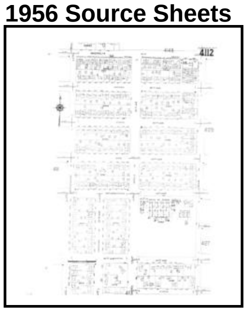
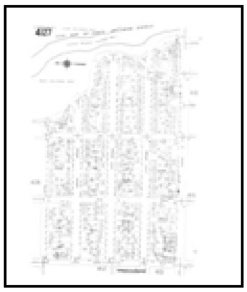
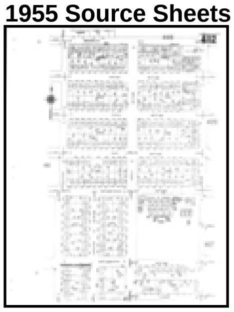


Volume 41, Sheet 4112

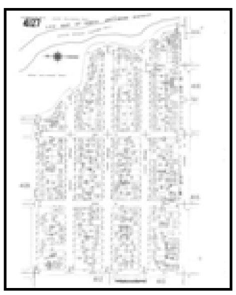


Volume 41, Sheet 4127

1955 Source Sheets



Volume 41, Sheet 4112



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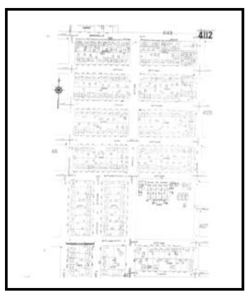
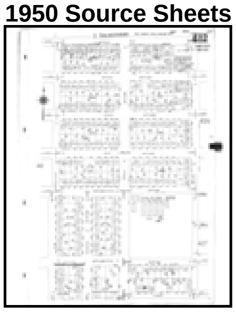
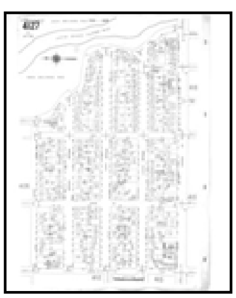


Volume 41, Sheet 4112

1950 Source Sheets

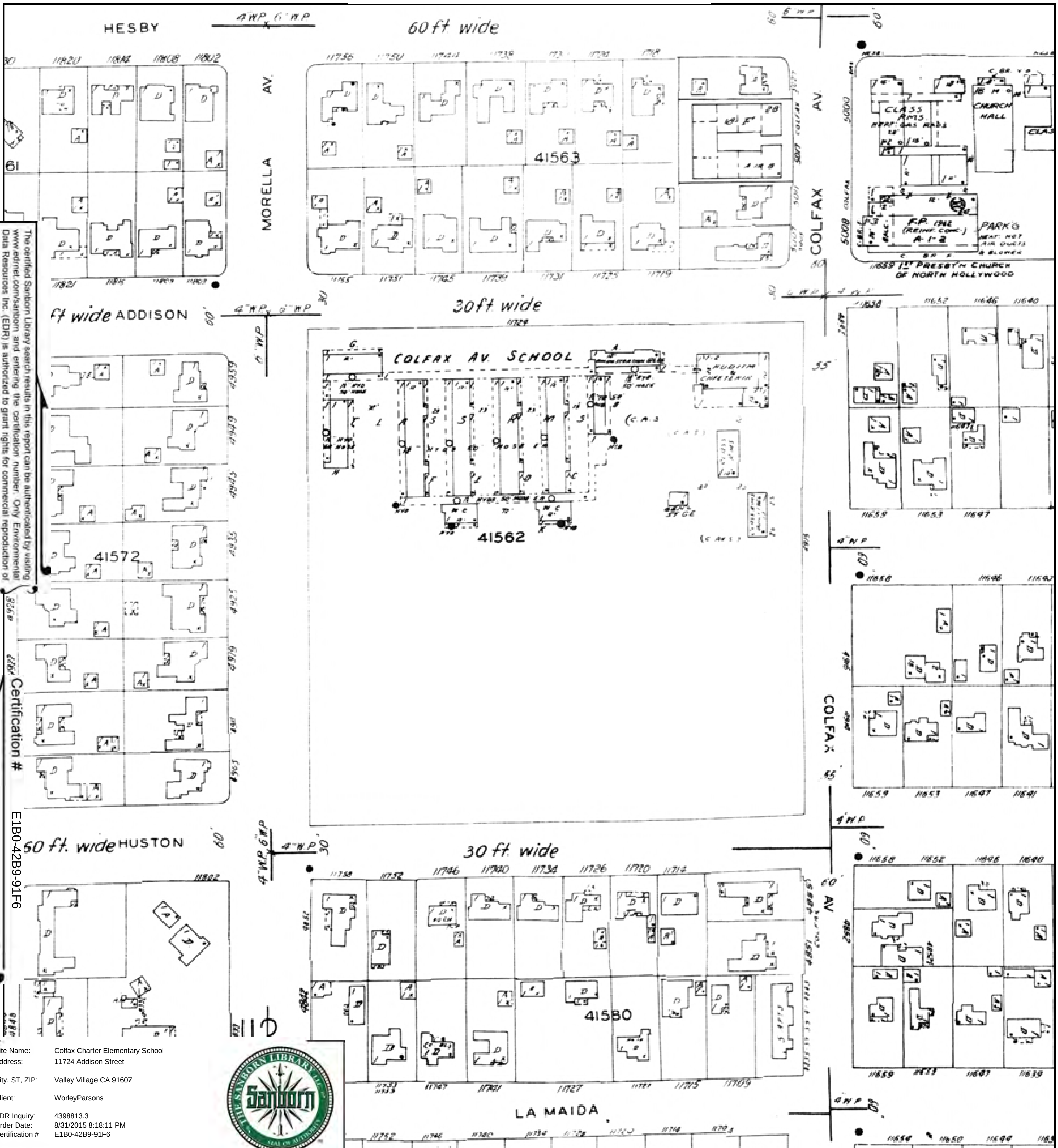


Volume 10A, Sheet 4112



Volume 10A, Sheet 4127

1969 Certified Sanborn Map



Site Name:	Colfax Charter Elementary School
Address:	11724 Addison Street
City, ST, ZIP:	Valley Village CA 91607
Client:	WorleyParsons
EDR Inquiry:	4398813.3
Order Date:	8/31/2015 8:18:11 PM
Certification #	E1B0-42B9-91F6
Copyright:	1969

This Certified Sanborn Map combines the following sheets.
Outlined areas indicate map sheets within the collection.

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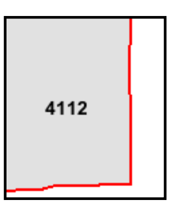

Volume 41, Sheet 4112

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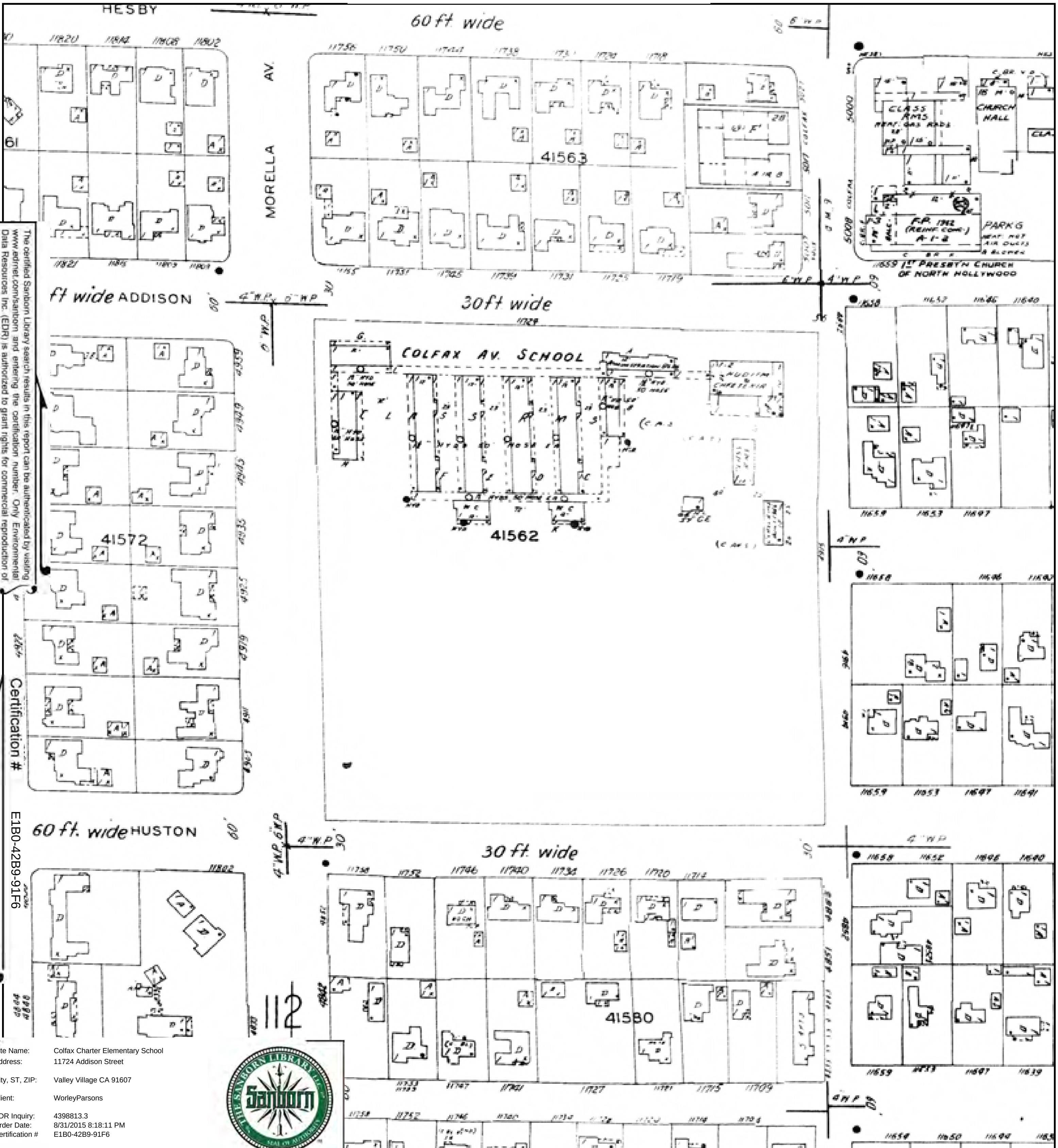
1966 Certified Sanborn Map



Certification # E1B0-42B9-91F6

Site Name:	Colfax Charter Elementary School
Address:	11724 Addison Street
City, ST, ZIP:	Valley Village CA 91607
Client:	WorleyParsons
EDR Inquiry:	4398813.3
Order Date:	8/31/2015 8:18:11 PM
Certification #	E1B0-42B9-91F6
Copyright:	1966

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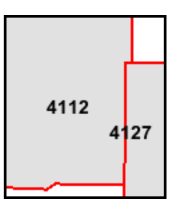

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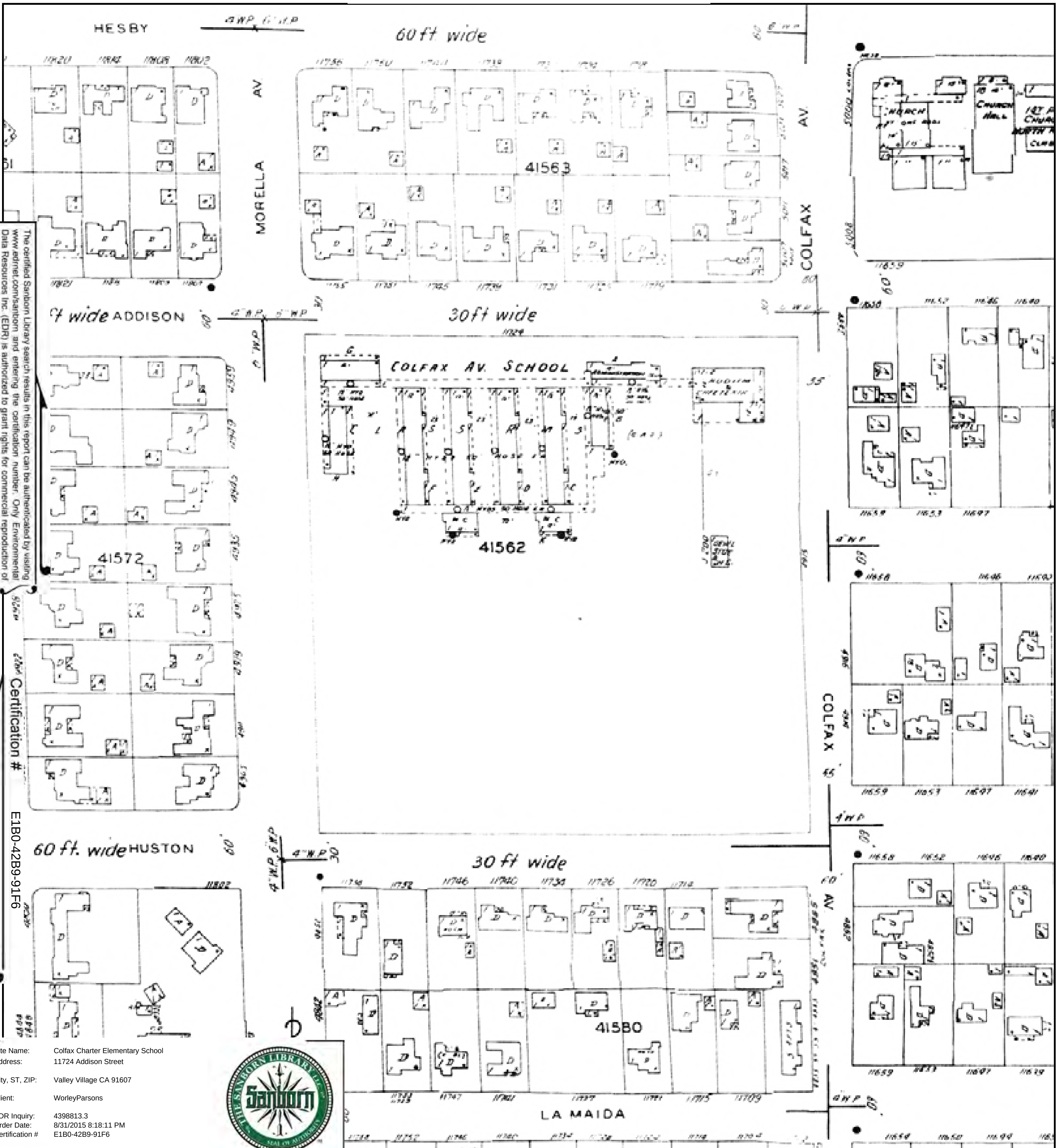
Volume 41, Sheet 4127

N

1961 Certified Sanborn Map



Site Name:	Colfax Charter Elementary School
Address:	11724 Addison Street
City, ST, ZIP:	Valley Village CA 91607
Client:	WorleyParsons
EDR Inquiry:	4398813.3
Order Date:	8/31/2015 8:18:11 PM
Certification #	E1B0-42B9-91F6
Copyright:	1961

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Outlined areas indicate map sheets within the collection.

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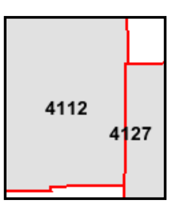

Volume 41, Sheet 4112
Volume 41, Sheet 4127

N

1960 Certified Sanborn Map

Certification # E1B0-42B9-91F6

Site Name: Colfax Charter Elementary School
Address: 11724 Addison Street

City, ST, ZIP: Valley Village CA 91607

Client: WorleyParsons

EDR Inquiry: 4398813.3
Order Date: 8/31/2015 8:18:11 PM
Certification # E1B0-42B9-91F6

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Outlined areas indicate map sheets within the collection.

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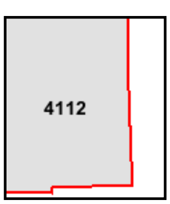

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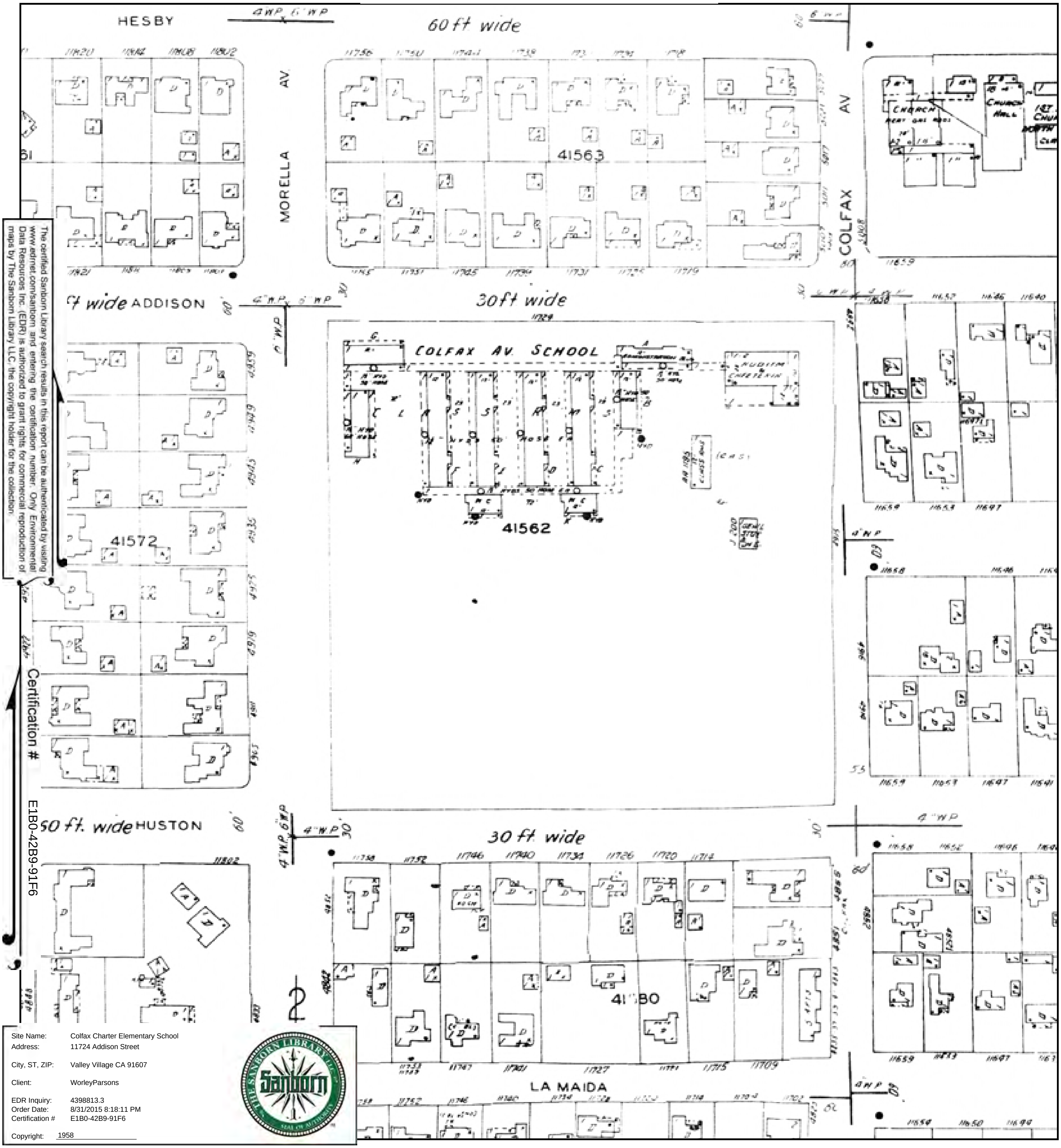
N

1958 Certified Sanborn Map



Site Name: Colfax Charter Elementary School
Address: 11724 Addison Street
City, ST, ZIP: Valley Village CA 91607
Client: WorleyParsons
EDR Inquiry: 4398813.3
Order Date: 8/31/2015 8:18:11 PM
Certification # E1B0-42B9-91F6
Copyright: 1958

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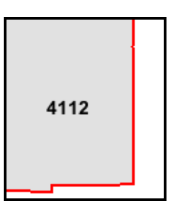

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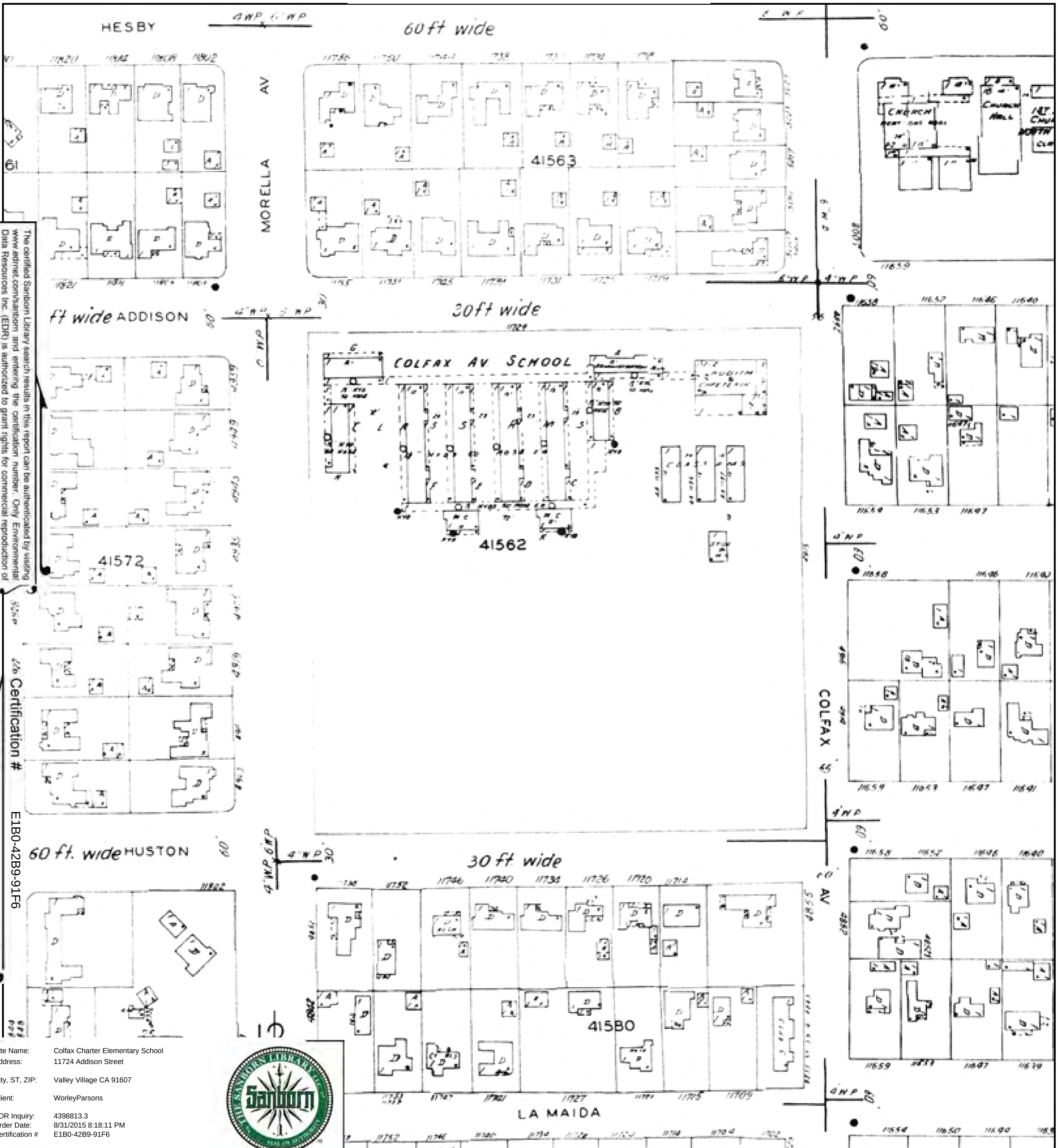
N

1956 Certified Sanborn Map



Site Name:	Colfax Charter Elementary School
Address:	11724 Addison Street
City, ST, ZIP:	Valley Village CA 91607
Client:	WorleyParsons
EDR Inquiry:	4398813.3
Order Date:	8/31/2015 8:18:11 PM
Certification #	E1B0-42B9-91F6
Copyright:	1956

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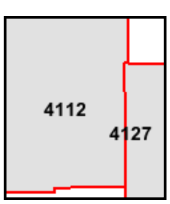

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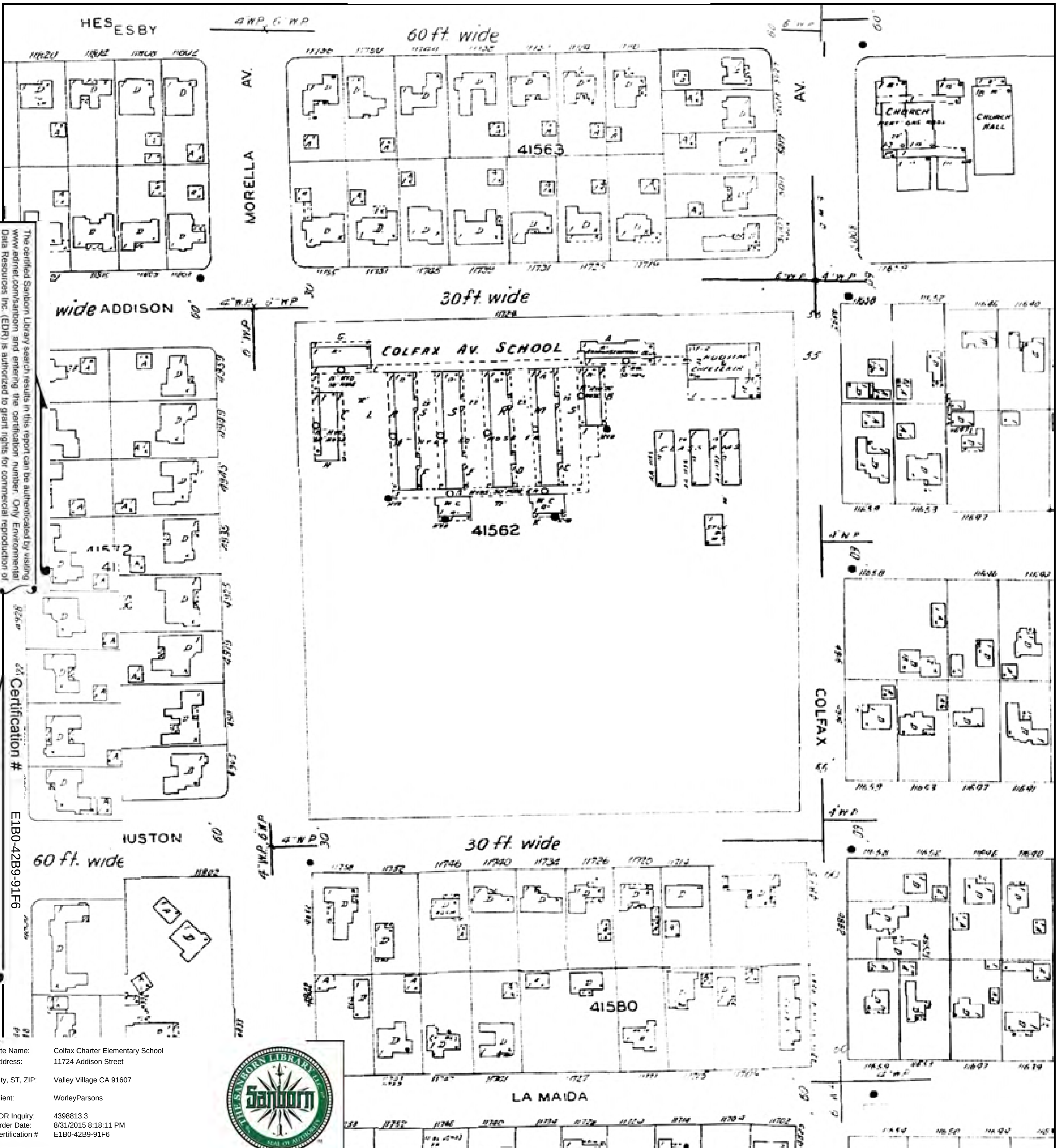
1955 Certified Sanborn Map



Site Name:	Colfax Charter Elementary School
Address:	11724 Addison Street
City, ST, ZIP:	Valley Village CA 91607
Client:	WorleyParsons
EDR Inquiry:	4398813.3
Order Date:	8/31/2015 8:18:11 PM
Certification #	E1B0-42B9-91F6
Copyright:	1955

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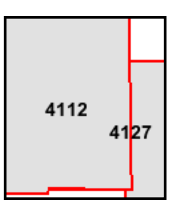
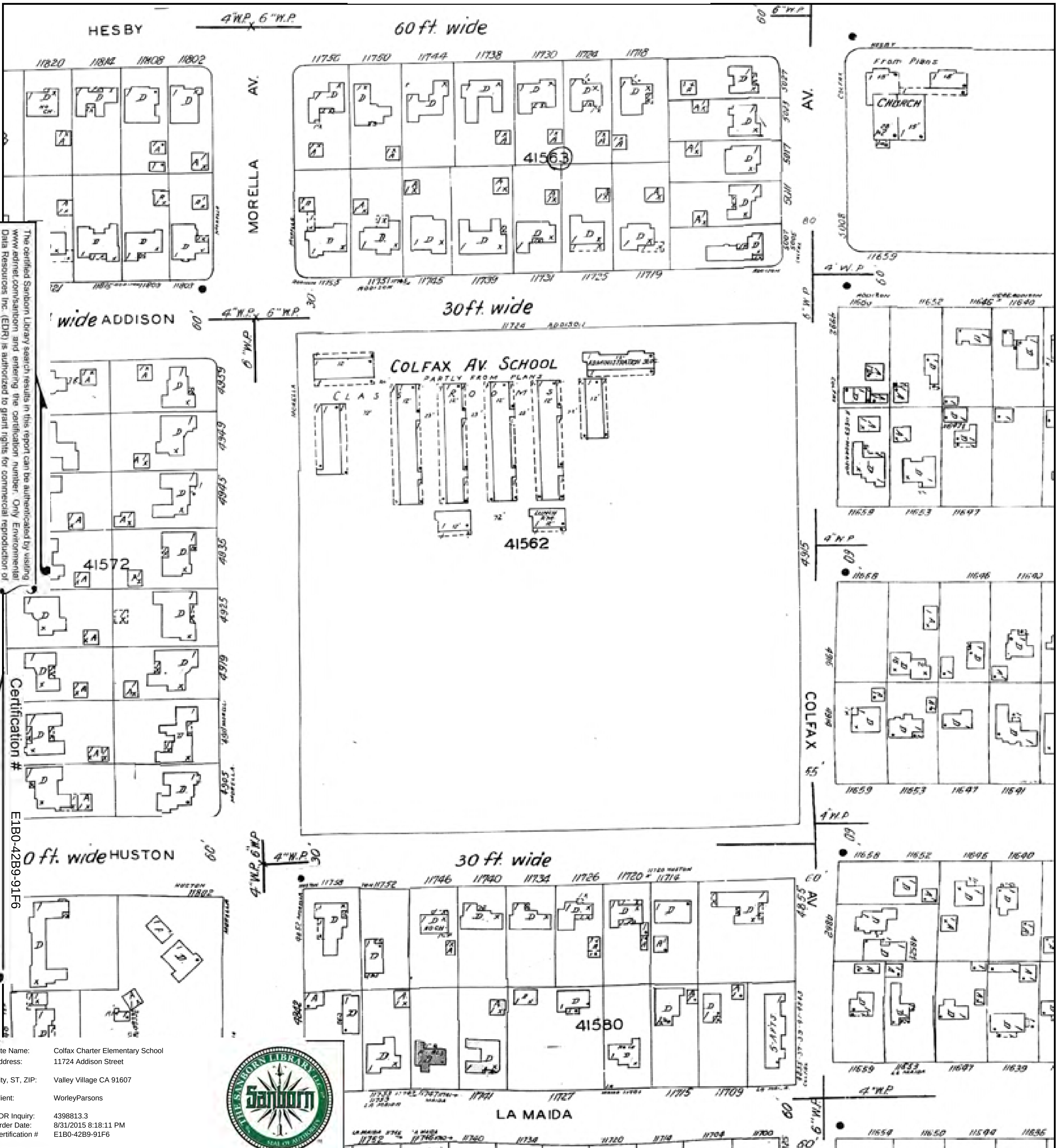


Volume 41, Sheet 4112
Volume 41, Sheet 4127
Volume 41, Sheet 4112

N

1950 Certified Sanborn Map



Certification # E1B0-42B9-91F6

Site Name:	Colfax Charter Elementary School
Address:	11724 Addison Street
City, ST, ZIP:	Valley Village CA 91607
Client:	WorleyParsons
EDR Inquiry:	4398813.3
Order Date:	8/31/2015 8:18:11 PM
Certification #	E1B0-42B9-91F6
Copyright:	1950

This Certified Sanborn Map combines the following sheets.
Outlined areas indicate map sheets within the collection.

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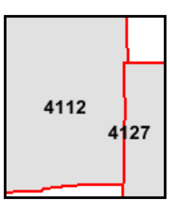

Volume 10A, Sheet 4112
Volume 10A, Sheet 4127

N

Colfax Charter Elementary School
11724 Addison Street
Valley Village, CA 91607

Inquiry Number: 4398813.5
September 14, 2015

The EDR-City Directory Abstract

Environmental Data Resources Inc

6 Armstrong Road
Shelton, CT 06484
800.352.0050
www.edrnet.com

TABLE OF CONTENTS

SECTION

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

EXECUTIVE SUMMARY

DESCRIPTION

Environmental Data Resources, Inc.'s (EDR) City Directory Abstract is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's City Directory Abstract includes a search and abstract of available city directory data. For each address, the directory lists the name of the corresponding occupant at five year intervals.

Business directories including city, cross reference and telephone directories were reviewed, if available, at approximately five year intervals for the years spanning 1920 through 2013. This report compiles information gathered in this review by geocoding the latitude and longitude of properties identified and gathering information about properties within 660 feet of the target property.

A summary of the information obtained is provided in the text of this report.

RESEARCH SUMMARY

The following research sources were consulted in the preparation of this report. An "X" indicates where information was identified in the source and provided in this report.

Year	***Source***	***TP***	***Adjoining***	***Text Abstract***	***Source Image***
2013	Cole Information Services	X	X	X	-
2008	Cole Information Services	X	X	X	-
2006	Haines Company, Inc.	-	X	X	-
2004	Haines Company	-	-	-	-
2003	Haines & Company	-	-	-	-
2001	Haines & Company, Inc.	X	X	X	-
2000	Haines	-	-	-	-
1999	Haines Company	-	-	-	-
1996	GTE	-	-	-	-
1995	Pacific Bell	-	X	X	-
1992	PACIFIC BELL WHITE PAGES	-	-	-	-
1991	Pacific Bell	-	X	X	-
1990	Pacific Bell	-	X	X	-
1986	Pacific Bell	-	X	X	-
1985	Pacific Bell	X	X	X	-
1981	Pacific Telephone	-	X	X	-
1980	Pacific Telephone	X	X	X	-
1976	Pacific Telephone	-	X	X	-
1975	Pacific Telephone	-	X	X	-
1972	R. L. Polk & Co.	-	-	-	-
1971	Pacific Telephone	-	X	X	-
1970	Pacific Telephone	X	X	X	-
1969	Pacific Telephone	-	-	-	-
1967	Pacific Telephone	-	X	X	-
1966	Pacific Telephone	-	-	-	-

EXECUTIVE SUMMARY

Year	Source	TP	Adjoining	Text Abstract	Source Image
1965	GTE	-	-	-	-
1964	Pacific Telephone	-	-	-	-
1963	Pacific Telephone	-	-	-	-
1962	Pacific Telephone	X	X	X	-
1961	R. L. Polk & Co.	-	-	-	-
1960	Pacific Telephone	-	-	-	-
1958	Pacific Telephone	-	X	X	-
1957	Pacific Telephone	-	-	-	-
1956	Pacific Telephone	X	X	X	-
1955	R. L. Polk & Co.	-	-	-	-
1954	R. L. Polk & Co.	-	-	-	-
1952	Los Angeles Directory Co.	-	-	-	-
1951	Los Angeles Directory Co.	-	-	-	-
1950	Pacific Telephone	-	X	X	-
1949	Los Angeles Directory Co.	-	-	-	-
1948	Associated Telephone Company, Ltd.	-	-	-	-
1947	Pacific Directory Co.	-	-	-	-
1946	Southern California Telephone Co	-	-	-	-
1945	R. L. Polk & Co.	-	-	-	-
1944	R. L. Polk & Co.	-	-	-	-
1942	Los Angeles Directory Co.	-	X	X	-
1940	Los Angeles Directory Co.	-	X	X	-
1939	Los Angeles Directory Co.	-	-	-	-
1938	Los Angeles Directory Company Publishers	-	-	-	-
1937	Los Angeles Directory Co.	-	-	-	-
1936	Los Angeles Directory Co.	-	-	-	-
1935	Los Angeles Directory Co.	-	X	X	-
1934	Los Angeles Directory Co.	-	-	-	-
1933	Los Angeles Directory Co.	-	-	-	-
1932	Los Angeles Directory Co.	-	-	-	-
1931	TRIBUNE-NEWS PUBLISHING CO.	-	-	-	-
1930	Los Angeles Directory Co.	-	X	X	-
1929	Los Angeles Directory Co.	-	-	-	-
1928	Los Angeles Directory Co.	-	-	-	-
1927	Los Angeles Directory Co.	-	-	-	-
1926	Los Angeles Directory Co.	-	-	-	-
1925	Los Angeles Directory Co.	-	-	-	-
1924	Los Angeles Directory Co.	-	-	-	-
1923	Los Angeles Directory Co.	-	-	-	-
1921	Los Angeles Directory Co.	-	-	-	-
1920	Los Angeles Directory Co.	-	-	-	-

FINDINGS

TARGET PROPERTY INFORMATION

ADDRESS

11724 Addison Street
Valley Village, CA   91607

FINDINGS DETAIL

Target Property research detail.

ADDISON ST

11724 ADDISON ST

Year	*Uses*	*Source*
2013	COLFAX AVE ELEMENTARY SCHOOL	Cole Information Services
2008	COLFAX AVENUE ELEMENTARY SCHOOL	Cole Information Services
	LOS ANGELES UNIFID SCHOOL DST	Cole Information Services
2001	COLFAX AVE ELEMENTARY SC	Haines & Company, Inc.
1980	COLFAX AVE ELEMENTARY SCHOOL	Pacific Telephone
1970	COLFAX AVE ELEMENTARY SCHOOL	Pacific Telephone
1962	COLFAX AVE ELEMENTARY SCHOOL	Pacific Telephone
1956	COLFAX AVE ELEMENTARY SCHOOL	Pacific Telephone

ADDISON WAY

11724 ADDISON WAY

Year	*Uses*	*Source*
1985	Colfax Ave Elementary School	Pacific Bell

FINDINGS

ADJOINING PROPERTY DETAIL

The following Adjoining Property addresses were researched for this report. Detailed findings are provided for each address.

ADDISON

11628 ADDISON

Year	Uses	Source
1940	WARNER DALE	Los Angeles Directory Co.

11630 ADDISON

Year	Uses	Source
1930	Ellis F H	Los Angeles Directory Co.

11646 ADDISON

Year	Uses	Source
1940	RALLIGAN LILLIAN A MRS	Los Angeles Directory Co.

11652 ADDISON

Year	Uses	Source
1940	SMITH HAROLD H (O)	Los Angeles Directory Co.
1935	BECKER BEDA R	Los Angeles Directory Co.
1930	Lorenz F A	Los Angeles Directory Co.

11658 ADDISON

Year	Uses	Source
1940	CHILD ARTH L	Los Angeles Directory Co.

11719 ADDISON

Year	Uses	Source
1991	Shahbazian Ronald & Beverly	Pacific Bell

11731 ADDISON

Year	Uses	Source
1940	HUSS WM R (O)	Los Angeles Directory Co.

11739 ADDISON

Year	Uses	Source
1940	KOSLOFF NATHAN (O)	Los Angeles Directory Co.

FINDINGS

11745 ADDISON

Year	Uses	Source
1940	RAHBAK EMO	Los Angeles Directory Co.

11755 ADDISON

Year	Uses	Source
1962	North Howard Irwin Mrs	Pacific Telephone

11809 ADDISON

Year	Uses	Source
1940	VACANT	Los Angeles Directory Co.

11815 ADDISON

Year	Uses	Source
1962	Artman L E	Pacific Telephone

ADDISON ST

11627 ADDISON ST

Year	Uses	Source
2006	a LLORENS Anthony 00 a	Haines Company, Inc.
2001	BRICKMAN A Sten	Haines & Company, Inc.
	BRICKMAN A Sten	Haines & Company, Inc.
1980	ORLICK IRVING	Pacific Telephone
1970	ORLICK IRVING	Pacific Telephone
	ORLICK IRVING	Pacific Telephone
1962	ORLICK IRVING	Pacific Telephone
1956	ORLICK IRVING	Pacific Telephone

11628 ADDISON ST

Year	Uses	Source
2008	JAMES H OKAZAKI	Cole Information Services
2006	OKAZAKI James H	Haines Company, Inc.
2001	OKAZAKI James H	Haines & Company, Inc.
1980	PERRELLA ARTHUR F	Pacific Telephone
1970	PERRELLA ARTHUR F	Pacific Telephone
	PERRELLA ARTHUR F	Pacific Telephone
1962	RANSTRON OLGA	Pacific Telephone
1956	RANSTROM OLGA	Pacific Telephone
1950	MAYSTEAD R D R	Pacific Telephone
	MAYSTEAD R D R	Pacific Telephone

FINDINGS

11634 ADDISON ST

Year	Uses	Source
2006	o TOOTILLNeil	Haines Company, Inc.
	AYONAAma	Haines Company, Inc.
1956	HOROWITZ AL	Pacific Telephone
1950	TOLHURST SHELLY R R	Pacific Telephone
	TOLHURST SHELLY R R	Pacific Telephone

11640 ADDISON ST

Year	Uses	Source
2006	MARLoren	Haines Company, Inc.
1956	LEATHERWOOD RAY A	Pacific Telephone
1950	LEATHERWOOD RAY A R	Pacific Telephone
	LEATHERWOOD RAY A R	Pacific Telephone

11646 ADDISON ST

Year	Uses	Source
2006	o LEWIS Noon	Haines Company, Inc.
1956	CARLETON MARY C	Pacific Telephone
1950	MANONE W R	Pacific Telephone
	MANONE W R	Pacific Telephone

11652 ADDISON ST

Year	Uses	Source
2006	o MOORERLana	Haines Company, Inc.
1956	SMITH HAL H	Pacific Telephone
1950	SMITH HAL H R	Pacific Telephone
	SMITH HAL H R	Pacific Telephone

11658 ADDISON ST

Year	Uses	Source
2006	MCCLOSKEY James	Haines Company, Inc.
1956	COOK CECIL R	Pacific Telephone
1950	COOK CECIL R R	Pacific Telephone
	COOK CECIL R R	Pacific Telephone

11711 ADDISON ST

Year	Uses	Source
2006	KRUEGER Harvey L	Haines Company, Inc.
2001	KRUEGER Harvey L	Haines & Company, Inc.
1980	KRUEGER HARVEY L	Pacific Telephone

FINDINGS

Year	Uses	Source
1970	CALLIES JOHN	Pacific Telephone
	CALLIES JOHN	Pacific Telephone
1962	MYERS BERTHA L	Pacific Telephone

11719 ADDISON ST

Year	Uses	Source
2006	No Current Listing	Haines Company, Inc.
2001	SHAHBAZIAN Heather A	Haines & Company, Inc.
1980	SHAHBAZIAN RONALD & BEVERLY NORTH HOLLYWOOD	Pacific Telephone
1970	SHAHBAZIAN RONALD	Pacific Telephone
	SHAHBAZIAN RONALD	Pacific Telephone
1962	ARNOLD RALPH W	Pacific Telephone
1956	ARNOLD RALPH W	Pacific Telephone
1950	REYNOLDS HAROLD W R	Pacific Telephone
	REYNOLDS HAROLD W R	Pacific Telephone

11725 ADDISON ST

Year	Uses	Source
2006	BORNSTEIN David	Haines Company, Inc.
2001	BORNSTEIN David	Haines & Company, Inc.
1980	BORNSTEIN DAVID	Pacific Telephone
1962	BOWMAN ERVIN L	Pacific Telephone
1956	BOWMAN ERVIN L	Pacific Telephone
1950	WILHOIT F S R	Pacific Telephone
	WILHOIT F S R	Pacific Telephone

11731 ADDISON ST

Year	Uses	Source
2006	a MARGO Lawrence	Haines Company, Inc.
2001	MARGO Lawrence	Haines & Company, Inc.
1980	VAN TRIGT JOHN R	Pacific Telephone
1970	VAN TRIGT JOHN R	Pacific Telephone
	VAN TRIGT JOHN R	Pacific Telephone
1962	VAN TRIGT JOHN R	Pacific Telephone
1956	VAN TRIGT JOHN R	Pacific Telephone
1950	SHIFFLET CLYDE T R	Pacific Telephone
	SHIFFLET CLYDE T R	Pacific Telephone

FINDINGS

11739 ADDISON ST

Year	Uses	Source
2006	SHLUKEREva	Haines Company, Inc.
1980	PARKINSON PAUL & TERESA	Pacific Telephone
	PARKINSON PAUL & TERESA	Pacific Telephone
1970	ANDERSON VICTOR C	Pacific Telephone
	ANDERSON VICTOR C	Pacific Telephone
1962	ANDERSON VICTOR C	Pacific Telephone
1956	ANDERSON VICTOR C	Pacific Telephone
1950	ANDERSON VICTOR C R	Pacific Telephone
	ANDERSON VICTOR C R	Pacific Telephone

11745 ADDISON ST

Year	Uses	Source
2006	a GILMOREWendy	Haines Company, Inc.
1980	MILNER B D NORTH HOLLYWOOD	Pacific Telephone
1970	BEESLEY HOLLIS R	Pacific Telephone
	BEESLEY HOLLIS R	Pacific Telephone
1962	HRABAC MAE E	Pacific Telephone

11751 ADDISON ST

Year	Uses	Source
2006	WALKER Dana	Haines Company, Inc.
2001	WALKER Dana	Haines & Company, Inc.
1970	KELLY EDW A	Pacific Telephone
	KELLY EDW A	Pacific Telephone
1962	KELLY EDW A	Pacific Telephone
1956	BROWN ROLAND BUD	Pacific Telephone
1950	SAWYERS O BRIEN R	Pacific Telephone
	SAWYERS O BRIEN R	Pacific Telephone

11755 ADDISON ST

Year	Uses	Source
2006	KRANTZThomas	Haines Company, Inc.
2001	KRANTZ Thomas	Haines & Company, Inc.
1970	NORTH HOWARD IRWIN MRS	Pacific Telephone
	NORTH HOWARD IRWIN MRS	Pacific Telephone
1962	NORTH HOWARD IRWIN MRS	Pacific Telephone
1956	GERALD CLARENCE EARL	Pacific Telephone
1950	GERALD CLARENCE EARL R	Pacific Telephone

FINDINGS

Year	Uses	Source
1950	GERALD CLARENCE EARL R	Pacific Telephone

11803 ADDISON ST

Year	Uses	Source
2006	a MCDEVITT Thomas	Haines Company, Inc.
2001	MCDEVITT Thomas	Haines & Company, Inc.
1980	TRABUE CLARENCE	Pacific Telephone
1970	SEIDLER WALLACE J	Pacific Telephone
	SEIDLER WALLACE J	Pacific Telephone
	SEIDLER WALLACE J	Pacific Telephone
	SEIDLER WALLACE J	Pacific Telephone
1956	MORHAR MARILYN	Pacific Telephone
	MORHAR SIDNEY	Pacific Telephone
	MORHAR BARBARA	Pacific Telephone

11809 ADDISON ST

Year	Uses	Source
2006	LYNCH Mary	Haines Company, Inc.
2001	LYNCH M	Haines & Company, Inc.
1980	LYNCH E K	Pacific Telephone
	LYNCH DONALD E	Pacific Telephone
1970	LYNCH DONALD E	Pacific Telephone
	LYNCH DONALD E	Pacific Telephone
1962	SELLS CLARA B MRS	Pacific Telephone
1956	SELLS CLARA B MRS	Pacific Telephone
1950	PUGH CHAS M R	Pacific Telephone
	PUGH CHAS M R	Pacific Telephone

11815 ADDISON ST

Year	Uses	Source
2006	GOLDZWEIGJeff	Haines Company, Inc.
2001	GOLDZWEIG Jeff	Haines & Company, Inc.
1980	BROPHY W	Pacific Telephone
1970	ARTMAN L E	Pacific Telephone
	BARRINGTON PORTER L REV	Pacific Telephone
	ARTMAN L E	Pacific Telephone
	BARRINGTON PORTER L REV	Pacific Telephone
1962	ARTMAN L E	Pacific Telephone
1958	Artman L E	Pacific Telephone

FINDINGS

Year	Uses	Source
1956	ARTMAN L E	Pacific Telephone
1950	ARTMAN L E R	Pacific Telephone
	ARTMAN L E R	Pacific Telephone

ADDISON WAY

11627 ADDISON WAY

Year	Uses	Source
1995	Brickman Brian	Pacific Bell
	Brickman A Sten	Pacific Bell
1991	Brickman Brian	Pacific Bell
	Brickman D	Pacific Bell
	Brickman ASten	Pacific Bell
1985	Brickman Brian	Pacific Bell
	Brickman Alvin L	Pacific Bell
	Brickman A Sten	Pacific Bell

11628 ADDISON WAY

Year	Uses	Source
1995	Okazaki Jas Hidetada	Pacific Bell
1991	Okazaki Jas Hidetada	Pacific Bell
	Okazaki Tomoko	Pacific Bell
1985	Okazaki Jas Hidetada	Pacific Bell

11711 ADDISON WAY

Year	Uses	Source
1991	Krueger Harvey L	Pacific Bell
1985	Krueger Harvey L	Pacific Bell

11725 ADDISON WAY

Year	Uses	Source
1991	Bornstein G&S	Pacific Bell
	Bonnstein David	Pacific Bell
	Bornstein Frances	Pacific Bell
1985	Bornstein David	Pacific Bell
	Bornstein Frances	Pacific Bell

11731 ADDISON WAY

Year	Uses	Source
1985	Van Trigt John R	Pacific Bell

FINDINGS

11739 ADDISON WAY

Year	***Uses***	***Source***
1985	Parkinson Paul & Teresa	Pacific Bell
	Parkinson Paul & Teresa	Pacific Bell
	Parkinson Paul C	Pacific Bell

11745 ADDISON WAY

Year	***Uses***	***Source***
1991	Lund Marion E Sun	Pacific Bell
	Lund Lawrence	Pacific Bell

11751 ADDISON WAY

Year	***Uses***	***Source***
1975	Robbins Jeffrey	Pacific Telephone

11809 ADDISON WAY

Year	***Uses***	***Source***
1995	Lynch M	Pacific Bell
1991	Lynch Donald E	Pacific Bell
1985	Lynch KP G His	Pacific Bell
	Lynch K D	Pacific Bell
	Lynch Donald E	Pacific Bell

11815 ADDISON WAY

Year	***Uses***	***Source***
1975	World Witness Evangelism	Pacific Telephone

COLFAX

4916 COLFAX

Year	***Uses***	***Source***
1935	ROBERTS SYDNEY MISS R	Los Angeles Directory Co.

4949 COLFAX

Year	***Uses***	***Source***
1935	SCHIFFMANA F DR R 1N HOLYWD419G	Los Angeles Directory Co.

5044 COLFAX

Year	***Uses***	***Source***
1971	Sillc Wm	Pacific Telephone

FINDINGS

COLFAX AVE

4914 COLFAX AVE

Year	Uses	Source
2006	URRUTIA Miguel	Haines Company, Inc.
2001	HUBBS Carla	Haines & Company, Inc.
1995	Hylton John W	Pacific Bell
1980	SALADO FRANK	Pacific Telephone
1956	SABOL JOE S	Pacific Telephone
1940	VACANT	Los Angeles Directory Co.
1935	MAUSS PETER B R	Los Angeles Directory Co.
1930	Savage L G bldg contr	Los Angeles Directory Co.

4915 COLFAX AVE

Year	Uses	Source
2001	XXXX	Haines & Company, Inc.
1976	LOS ANGELES CITY BOARD OF EDUCATION	Pacific Telephone
	ADMINISTRATIVE AREA OFFICES Area I	Pacific Telephone
1975	Area I	Pacific Telephone

4916 COLFAX AVE

Year	Uses	Source
2006	No Current Listing	Haines Company, Inc.
2001	BEBAK Mechtild	Haines & Company, Inc.
	BEBAK Frank	Haines & Company, Inc.
1991	Bebak Frank & Mechtild	Pacific Bell
	Bebak Danny	Pacific Bell
1985	Bebak Dan I	Pacific Bell
1980	BEBAK FRANK & MECHTILD	Pacific Telephone
1975	Kennedy Douglas S	Pacific Telephone
1970	SHREVE THOS A	Pacific Telephone
	ROBERTS A W MRS	Pacific Telephone
	SHREVE THOS A	Pacific Telephone
	ROBERTS A W MRS	Pacific Telephone
1962	ROBERTS A W MRS	Pacific Telephone
1956	ROBERTS A W	Pacific Telephone
1940	ROBERTS ARCH W (O)	Los Angeles Directory Co.
1930	Roberts A W bldg contr	Los Angeles Directory Co.

FINDINGS

5000 COLFAX AVE

Year	***Uses***	***Source***
2013	PRESBYTERIAN CHURCH USA	Cole Information Services
2008	VALLEY INTERFACE COUNCIL	Cole Information Services
	VALLEY INTERFAITH COUNCIL CITIZENSHI	Cole Information Services
	SAN FERNANDO INTERFACE COUNCIL	Cole Information Services
	FAITH PC OF VALLEY VLGE PRESBYTERIAN	Cole Information Services
	FIRST PRESBYTERIAN CHURCH OF VALLEY	Cole Information Services
	PRESBYTERIAN CHURCH USA 1ST PRESBYTE	Cole Information Services
	NATIONAL ABLE NETWORK	Cole Information Services
	CANDLE PRE SCHOOL	Cole Information Services
	SFV IMMIGRATION & CITIZENSHIP SERVIC	Cole Information Services
	EAST VALLEY MULTIPURPOSE SENIOR CENT	Cole Information Services
2006	EASTVLY	Haines Company, Inc.
	MULTIPRPSE SR CT	Haines Company, Inc.
	FAITH PRESBY CH 818 76r 8103	Haines Company, Inc.
	OF VLYVLG SFVIMMGRTN&	Haines Company, Inc.
	CTZNSHP SV NNPRPT	Haines Company, Inc.
2001	EAST VLY MULTIPRPSE SR CT	Haines & Company, Inc.
	EAST VLY MULTIPRPSE SR CT	Haines & Company, Inc.
	EAST VLY MULTIPRPSE SR CT	Haines & Company, Inc.
	FIRST PRESBYTERIAN CHURCH	Haines & Company, Inc.
	PRESBYTERIAN CHURCH USA	Haines & Company, Inc.
1995	Presbyterian Church US A	Pacific Bell
	First Presbyterian Church Of North Hollywood The	Pacific Bell
1991	First Presbyterian Church Of North Hollywood The	Pacific Bell
	East Valley Multipurpose Senior Center	Pacific Bell
	Candle Day Care Center The	Pacific Bell
1985	Charlotte Elise Merdiaian Armenian Evangelical School	Pacific Bell
	First Presbyterian Church Of North Hollywood The	Pacific Bell
	Senior Citizens Multi Purpose Center	Pacific Bell
	North Hollywood	Pacific Bell
	North Hollywood	Pacific Bell

FINDINGS

Year	Uses	Source
1985	North Hollywood	Pacific Bell
	Wachs Multipurpose Senior Center	Pacific Bell
1980	SENIOR CITIZENS MULTI-PURPOSE CENTER	Pacific Telephone
	FIRST PRESBYTERIAN CHURCH OF NORTH HOLLYWOOD THE	Pacific Telephone
	INTERFAITH COUNCIL OF SAN FERNANDO VALLEY	Pacific Telephone
	MONTESSORI SCHOOL OF SHERMAN OAKS	Pacific Telephone
	MULTI-PURPOSE CENTER FOR SENIOR CITIZENS	Pacific Telephone
	PRESBYTERIAN CHURCH UNITED	Pacific Telephone
	SAN FERNANDO VALLEY INTERFAITH COUNCIL	Pacific Telephone
1970	FIRST PRESBYTERIAN CHURCH OF NO HOLLYWD THE	Pacific Telephone
	PRESBYTERIAN CHURCH UNITED	Pacific Telephone
	FIRST PRESBYTERIAN CHURCH OF NO HOLLYWD THE	Pacific Telephone
	PRESBYTERIAN CHURCH UNITED	Pacific Telephone
1962	FIRST PRESBYTERIAN CHURCH OF NORTH HOLLYWOOD THE	Pacific Telephone
	FIRST PRESBYTERIAN CHURCH OF NORTH HOLLYWOOD THE	Pacific Telephone
	SAMUELSON BROS CONSTRUCTION CO	Pacific Telephone
	PRESBYTERIAN CHIURCH UNITED BEL AIR BEL AIR PRESBYTERIAN CHURCH	Pacific Telephone
1956	FIRST PRESBYTERIAN CHURCH OF NORTH HOLLYWOOD	Pacific Telephone
	PRESBYTERIAN U S A CHURCHES	Pacific Telephone
1950	PRESBYTERIAN CHURCH THE NORTH HOLLYWD	Pacific Telephone
	PRESBYTERIAN CHURCH THE NORTH HOLLYWD	Pacific Telephone

5007 COLFAX AVE

Year	Uses	Source
2006	KRUEGER Harey F	Haines Company, Inc.
	KRUEGER Jeffrey	Haines Company, Inc.
2001	KRUEGER Harey F	Haines & Company, Inc.
	KRUEGER Jeffrey	Haines & Company, Inc.
1995	Krueger Robert	Pacific Bell

FINDINGS

Year	Uses	Source
1995	Krueger Harvey F	Pacific Bell
1991	Krueger Harvey F	Pacific Bell
1985	Krueger Harvey F	Pacific Bell
1980	KRUEGER HARVEY F	Pacific Telephone
1970	MYERS R J	Pacific Telephone
	MYERS RONALD J	Pacific Telephone
	MYERS R J	Pacific Telephone
	MYERS RONALD J	Pacific Telephone
1962	MYERS RONALD J	Pacific Telephone
1956	BALZER WALTER J	Pacific Telephone
1950	BALZER WALTER J R	Pacific Telephone
	BALZER WALTER J R	Pacific Telephone

5008 COLFAX AVE

Year	Uses	Source
1940	JANSEN ALVIN H (O)	Los Angeles Directory Co.

5009 COLFAX AVE

Year	Uses	Source
1930	Swaggerty Mary M	Los Angeles Directory Co.
	Mattson Wm	Los Angeles Directory Co.

5011 COLFAX AVE

Year	Uses	Source
2006	PERRAULTJason	Haines Company, Inc.
2001	OKUNIEWSKI Arthur	Haines & Company, Inc.
1970	LOYD MARION	Pacific Telephone
	LOYD MARION	Pacific Telephone
1962	LOYD MARION	Pacific Telephone
1956	LOYD MARION	Pacific Telephone
1950	LOYD MARION R	Pacific Telephone
	LOYD MARION R	Pacific Telephone

5017 COLFAX AVE

Year	Uses	Source
2006	INFANTINODeanne	Haines Company, Inc.
	INFANTINORussell V	Haines Company, Inc.
	KLEIN Karl	Haines Company, Inc.
	KLEIN Kad	Haines Company, Inc.
	PADILLAChbrstopher	Haines Company, Inc.

FINDINGS

Year	***Uses***	***Source***
2001	INFANTINO Deanna	Haines & Company, Inc.
	INFANTINO Russell V	Haines & Company, Inc.
	STEIN Ronald	Haines & Company, Inc.
1995	Bonham Virginia	Pacific Bell
1991	Bonham Virginia	Pacific Bell
	Garrett Perry	Pacific Bell
	Garrett Phil D	Pacific Bell
	Garrett R	Pacific Bell
	Garrett Richard	Pacific Bell
	Mische K	Pacific Bell
	Mische LS	Pacific Bell
	Mischel J	Pacific Bell
	Mischel Julius	Pacific Bell
	Mischel Leo	Pacific Bell
	Mischel M	Pacific Bell
	Mischel MP	Pacific Bell
	Nain Soo Kyung	Pacific Bell
1985	Antonelli Michael	Pacific Bell
	Jabour John J	Pacific Bell
	Mayer Kenneth	Pacific Bell
	Mische K	Pacific Bell
	Mische L S	Pacific Bell
	Pelton Terry	Pacific Bell
	Reardan LF	Pacific Bell
	Santore Carmen	Pacific Bell
	Santori A L	Pacific Bell
	Stronach S	Pacific Bell
1980	JABOUR JOHN J NORTH HOLLYWOOD	Pacific Telephone
	MISCHE K	Pacific Telephone
	ALLEN ARTHUR	Pacific Telephone
	BONHAM VIRGINIA	Pacific Telephone
	MAYER KENNETH	Pacific Telephone
	OZOGANY LAJOS	Pacific Telephone
	PELTON F DENNIS	Pacific Telephone
	PELTON TERRY	Pacific Telephone
	RUSH MICHELLE	Pacific Telephone
	STRONACH S	Pacific Telephone
	TAPPER ALFRED E	Pacific Telephone

FINDINGS

Year	*Uses*	*Source*
1976	Mendoza Evelyn	Pacific Telephone
1975	Mendoza Evelyn	Pacific Telephone
	Scarcelli S	Pacific Telephone
	V Agavee Ruchirat	Pacific Telephone
	Vaty F	Pacific Telephone
1970	ARMSTRONG ROBT D DR	Pacific Telephone
	BONHAM VIRGINIA	Pacific Telephone
	CARR BARBARA JEAN	Pacific Telephone
	DENTON PAUL A	Pacific Telephone
	MALAROWITZ MURRY	Pacific Telephone
	MAYER KENNETH	Pacific Telephone
	MCCORMICK LARRY	Pacific Telephone
	OZOGANY LAJOS	Pacific Telephone
	REED MARTIN	Pacific Telephone
	SCHARF VERNON B	Pacific Telephone
	SINGLETON GILDA	Pacific Telephone
	ARMSTRONG ROBT D DR	Pacific Telephone
	BONHAM VIRGINIA	Pacific Telephone
	CARR BARBARA JEAN	Pacific Telephone
	DENTON PAUL A	Pacific Telephone
	MALAROWITZ MURRY	Pacific Telephone
	MAYER KENNETH	Pacific Telephone
	MCCORMICK LARRY	Pacific Telephone
	OZOGANY LAJOS	Pacific Telephone
	REED MARTIN	Pacific Telephone
	SCHARF VERNON B	Pacific Telephone
	SINGLETON GILDA	Pacific Telephone
1962	LA ROY C G	Pacific Telephone
1956	LA ROY C G	Pacific Telephone
1950	CRAIG EDITH SCARRATT R	Pacific Telephone
	CRAIG EDITH SCARRATT R	Pacific Telephone
1940	VACANT	Los Angeles Directory Co.

5023 COLFAX AVE

Year	*Uses*	*Source*
1962	HENDERSON KATHERYN M	Pacific Telephone
1956	BENSON KENNETH L	Pacific Telephone
	HENDERSON LYNN J	Pacific Telephone
1950	HENDERSON LYNN J R	Pacific Telephone

FINDINGS

Year	Uses	Source
1950	BENSON KENNETH L R	Pacific Telephone
	HENDERSON LYNN J R	Pacific Telephone
	BENSON KENNETH L R	Pacific Telephone

5027 COLFAX AVE

Year	Uses	Source
2013	YIGALE REANI	Cole Information Services
2001	SMITH Juanita	Haines & Company, Inc.
1995	Celebrity Locksmith	Pacific Bell
1991	Celebrity Locksmith	Pacific Bell
1985	Gilliam Jas N	Pacific Bell
	Gilliam Jas M	Pacific Bell
1962	DARVIS JOS J	Pacific Telephone
1956	GOBBLE LEW W	Pacific Telephone
1950	GOBBLE LEW W R	Pacific Telephone
	GOBBLE LEW W R	Pacific Telephone

5035 COLFAX AVE

Year	Uses	Source
2006	BARRIENTOS Marco	Haines Company, Inc.
	STEIN Frank A	Haines Company, Inc.
	MOLNARAn	Haines Company, Inc.
	GRAMAJOVilma C	Haines Company, Inc.

5038 COLFAX AVE

Year	Uses	Source
2006	No Current Listing	Haines Company, Inc.
2001	XXXX	Haines & Company, Inc.
1962	HARRINGTON JAS	Pacific Telephone
1956	GILES THOS R	Pacific Telephone
1950	GILES THOS R	Pacific Telephone
	GILES THOS R	Pacific Telephone

5038 1/4 COLFAX AVE

Year	Uses	Source
1970	MILLS WM A	Pacific Telephone
	MILLS WM A	Pacific Telephone
1956	OLSHEN WM J	Pacific Telephone

FINDINGS

5039 COLFAX AVE

Year	Uses	Source
2006	BABANEJAD Ramet	Haines Company, Inc.
2001	NEWMAN Tracy	Haines & Company, Inc.
1970	ANDERSON BRUCE E	Pacific Telephone
	ANDERSON BRUCE E	Pacific Telephone
1962	ANDERSON BRUCE E	Pacific Telephone
1956	ANDERSON BRUCE	Pacific Telephone
1950	SPAR A R	Pacific Telephone
	SPAR A R	Pacific Telephone

5040 COLFAX AVE

Year	Uses	Source
2006	No Current Listing	Haines Company, Inc.
2001	XXXX	Haines & Company, Inc.
1985	Tobolski Frank J	Pacific Bell
1980	TOUSSAINT THOS & LOUISE	Pacific Telephone
1956	DAVIS JEANNE L	Pacific Telephone
1950	CLODJEAUX J H R	Pacific Telephone
	CLODJEAUX J H R	Pacific Telephone
1930	Bavero Frank	Los Angeles Directory Co.

5040 1/4 COLFAX AVE

Year	Uses	Source
1962	GORDON JOS	Pacific Telephone
1956	SIMMONS JAS W	Pacific Telephone
1950	YOUNG MURRAY R	Pacific Telephone
	YOUNG MURRAY R	Pacific Telephone

5042 COLFAX AVE

Year	Uses	Source
2006	No Current Listing	Haines Company, Inc.
2001	XXXX	Haines & Company, Inc.
1985	Tulli A Nicholas Auctioneers & Appraisers	Pacific Bell
	Tulley Barbara A	Pacific Bell
	Bowmar Bruce C	Pacific Bell
1980	BOWMAR B W	Pacific Telephone
1970	TUCKER J DAVID	Pacific Telephone
	TUCKER J DAVID	Pacific Telephone

FINDINGS

5042 1/4 COLFAX AVE

Year	Uses	Source
1980	TULLEY BARBARA A	Pacific Telephone
1970	TULLEY BARBARA A	Pacific Telephone
	TULLEY BARBARA A	Pacific Telephone
1962	HENDRICKS RICHARD F	Pacific Telephone
1950	STANDRING CAROL S R NORTH HOLLYWOOD	Pacific Telephone
	STANDRING CAROL S R NORTH HOLLYWOOD	Pacific Telephone

5044 COLFAX AVE

Year	Uses	Source
2006	o LASKY Lura M	Haines Company, Inc.
2001	LASKY Laura M	Haines & Company, Inc.
1985	Silic Wendy	Pacific Bell
1976	Silic Wm	Pacific Telephone
1970	SILIC WM	Pacific Telephone
	SILIC WM	Pacific Telephone
1962	SILIC WM NORTH HOLLYWOOD	Pacific Telephone
1956	MAC NEIL JEAN	Pacific Telephone
1950	DURNING EDW W R	Pacific Telephone
	DURNING EDW W R	Pacific Telephone

5044 1/2 COLFAX AVE

Year	Uses	Source
1956	STAFFORD DOROTHY	Pacific Telephone

5044 1/4 COLFAX AVE

Year	Uses	Source
1970	ACKLEY ANNA	Pacific Telephone
	ACKLEY ANNA	Pacific Telephone
1962	STONE DONALD	Pacific Telephone

5045 COLFAX AVE

Year	Uses	Source
1970	LAFFIN V	Pacific Telephone
	LAFFIN V	Pacific Telephone
1962	LAFFIN JOHN E MRS	Pacific Telephone
1956	BLAFAS PETE	Pacific Telephone
1950	LE ROY C G R	Pacific Telephone

FINDINGS

Year	Uses	Source
1950	LE ROY C G R	Pacific Telephone
1942	Le Roy Wm F plmbr	Los Angeles Directory Co.

5046 COLFAX AVE

Year	Uses	Source
2006	o WAHLJonathan	Haines Company, Inc.
	o WAHLTracy	Haines Company, Inc.
2001	WAHL Tracy	Haines & Company, Inc.
	WAHL Jonathan	Haines & Company, Inc.
1995	Saman Farah	Pacific Bell
1980	PATE WM R	Pacific Telephone
1970	BURNETT PATRICIA A	Pacific Telephone
	BURNETT PATRICIA A	Pacific Telephone
1962	EDELSTEIN MILTON Z	Pacific Telephone
1956	EDELSTEIN MILTON Z	Pacific Telephone
1950	GLUKES BERNARD R R	Pacific Telephone
	GLUKES BERNARD R R	Pacific Telephone

5046 1/4 COLFAX AVE

Year	Uses	Source
1962	NAPOLL WM J	Pacific Telephone
1956	MCINTYRE MARY	Pacific Telephone
1950	BARNES MARGARET G R	Pacific Telephone
	BARNES MARGARET G R	Pacific Telephone

5048 COLFAX AVE

Year	Uses	Source
1980	SCIMONELLI P J	Pacific Telephone
1956	SOLOSKI BEATRICE	Pacific Telephone

5048 1/4 COLFAX AVE

Year	Uses	Source
1980	PLOURDE E S	Pacific Telephone
	FOWLER GENE N	Pacific Telephone
1970	FROCK RICHARD A	Pacific Telephone
	FROCK RICHARD A	Pacific Telephone
1962	STONE GARRELL E	Pacific Telephone
1950	BERNTSEN G W R	Pacific Telephone
	BERNTSEN G W R	Pacific Telephone

FINDINGS

5050 COLFAX AVE

Year	Uses	Source
2006	MEDINAJuan	Haines Company, Inc.
2001	SLENZAK Ronald	Haines & Company, Inc.
1962	GORSLINE GARY E	Pacific Telephone
1956	GORSLINE GARY E	Pacific Telephone
1950	SKIPPER H C R	Pacific Telephone
	SKIPPER H C R	Pacific Telephone

5050 1/2 COLFAX AVE

Year	Uses	Source
1980	PLECHER LONNIE R	Pacific Telephone
1956	GLASSICK TRAVIS	Pacific Telephone
1950	STEWART MARTIN R	Pacific Telephone
	STEWART MARTIN R	Pacific Telephone

5051 COLFAX AVE

Year	Uses	Source
2008	CAL AMERICAN SECURITY	Cole Information Services
2006	a GORDON Will Iam	Haines Company, Inc.
2001	GORDON William	Haines & Company, Inc.
1975	Atkinson Robt D	Pacific Telephone
1970	STERNBERG T L	Pacific Telephone
	STERNBERG T L	Pacific Telephone
1956	BAYLESS PATRICIA L	Pacific Telephone
	SHELLENBARGER KAY	Pacific Telephone
1950	LONGYEARRAE MRS R	Pacific Telephone
	LONGYEARRAE MRS R	Pacific Telephone

5051 1/2 COLFAX AVE

Year	Uses	Source
1980	TOMIK EMMANUEL	Pacific Telephone

5052 COLFAX AVE

Year	Uses	Source
2001	HIDALGO Jose Bernardo	Haines & Company, Inc.
	HIDALGO Marisela	Haines & Company, Inc.
1962	STANLEY MINNIE MRS	Pacific Telephone
1956	PONCHER BLANCHE K	Pacific Telephone
1950	GORSLINE GARY E R	Pacific Telephone
	GORSLINE GARY E R	Pacific Telephone

FINDINGS

5057 COLFAX AVE

Year	Uses	Source
2006	GORDON Wilam	Haines Company, Inc.
2001	GORDON William	Haines & Company, Inc.
	KONKLE Gordie	Haines & Company, Inc.
1995	Konkle Gordie	Pacific Bell
1991	Konklin Joseph A	Pacific Bell
	Konkle T	Pacific Bell
	Konkle Gordie	Pacific Bell
1990	KONKLE GORDIE NH	Pacific Bell
1986	KONKLE GORDIE NH	Pacific Bell
1985	Konkle Gordie	Pacific Bell
1981	KONKLE GORDIE NH	Pacific Telephone
1980	ROBIN EDDIE	Pacific Telephone
	KONKLE GORDIE	Pacific Telephone
1970	SEBER JAS D	Pacific Telephone
	SEBER JAS D	Pacific Telephone
1950	ROBISON KENNETH R	Pacific Telephone
	ROBISON KENNETH R	Pacific Telephone

5058 COLFAX AVE

Year	Uses	Source
2001	HALTER Ronald	Haines & Company, Inc.
1991	Loss Lawrence	Pacific Bell
	Loss Daniel	Pacific Bell
	Loss KE	Pacific Bell
1970	HOOD MAMIE MRS	Pacific Telephone
	HOOD MAMIE MRS	Pacific Telephone
1956	HERRERO JAS J	Pacific Telephone
1950	HERRERO JAS J R	Pacific Telephone
	HERRERO JAS J R	Pacific Telephone

5058 1/2 COLFAX AVE

Year	Uses	Source
1980	STRAUSS JULIE	Pacific Telephone
1970	CHANG JAS	Pacific Telephone
	CHANG JAS	Pacific Telephone
1956	ENJAIAN MICHAEL JR	Pacific Telephone

FINDINGS

5058 3/4 COLFAX AVE

Year	Uses	Source
1980	LOEBIG BRYAN D	Pacific Telephone
1962	OLDS SALLY	Pacific Telephone
1950	SPAHR IRWIN RICHARD R	Pacific Telephone
	SPAHR IRWIN RICHARD R	Pacific Telephone

5061 COLFAX AVE

Year	Uses	Source
2001	ORMAN John	Haines & Company, Inc.
1991	Malarkey Forbes	Pacific Bell
1985	Malarkey Forbes	Pacific Bell
	Malarkey K	Pacific Bell
1980	MALARKEY FORBES	Pacific Telephone
1962	CAIRNS JAS NORTH HOLLYWOODD	Pacific Telephone
1956	CAIRNS JAS	Pacific Telephone
1950	CAIRNS JAS R	Pacific Telephone
	CAIRNS JAS R	Pacific Telephone

COLFAX CT

4914 COLFAX CT

Year	Uses	Source
1975	Johnston L	Pacific Telephone

4916 COLFAX CT

Year	Uses	Source
1975	Roberts A W	Pacific Telephone

5000 COLFAX CT

Year	Uses	Source
1975	First Presbyterian Church Of North Hollywood The	Pacific Telephone
	First Presbyterian Church Of San Fernando	Pacific Telephone
	First Presbyterian Church Of North Hollywood The	Pacific Telephone
	Belmont College Preparatory School	Pacific Telephone

5007 COLFAX CT

Year	Uses	Source
1975	Krueger Harvey F	Pacific Telephone

FINDINGS

5017 COLFAX CT

Year	Uses	Source
1975	Bonham Virginia	Pacific Telephone
	Langford M J	Pacific Telephone
	Treece L	Pacific Telephone
	Ozogany Lajos	Pacific Telephone
	Mayer Kenneth	Pacific Telephone

5042 COLFAX CT

Year	Uses	Source
1975	Tulley Barbara A	Pacific Telephone

5044 COLFAX CT

Year	Uses	Source
1975	Durrell G R	Pacific Telephone
	Silic Wm	Pacific Telephone

5045 COLFAX CT

Year	Uses	Source
1975	Laffin V	Pacific Telephone

5050 COLFAX CT

Year	Uses	Source
1975	Johnson Marcia	Pacific Telephone

5052 COLFAX CT

Year	Uses	Source
1975	Ockuly Thos	Pacific Telephone

5057 COLFAX CT

Year	Uses	Source
1975	Dallas Constance	Pacific Telephone

5058 COLFAX CT

Year	Uses	Source
1975	Hood Mamie Mrs	Pacific Telephone
1958	Cowin Geo G	Pacific Telephone

5061 COLFAX CT

Year	Uses	Source
1975	Pogrund Richard	Pacific Telephone

FINDINGS

HESBY

11720 HESBY

Year	Uses	Source
1940	VACANT	Los Angeles Directory Co.

11724 HESBY

Year	Uses	Source
1940	WOOD T HARLAN (O)	Los Angeles Directory Co.

11725 HESBY

Year	Uses	Source
1940	WATSON HOMER W (O)	Los Angeles Directory Co.

11730 HESBY

Year	Uses	Source
1940	BYRON FRANK B (O)	Los Angeles Directory Co.

11731 HESBY

Year	Uses	Source
1971	Noyes Norman E	Pacific Telephone
1967	Noyes Norman E	Pacific Telephone
1962	Noyes Norman E	Pacific Telephone
1940	RICHARDS WM S (O)	Los Angeles Directory Co.

11738 HESBY

Year	Uses	Source
1940	DANDY JAS L (O)	Los Angeles Directory Co.

11739 HESBY

Year	Uses	Source
1940	SCHOLES FRANK L (O)	Los Angeles Directory Co.
	BROOKINS WM W	Los Angeles Directory Co.

11744 HESBY

Year	Uses	Source
1940	ELLIOTT MARVIN F (O)	Los Angeles Directory Co.
	BRAWLEY AZA D (O)	Los Angeles Directory Co.

11745 HESBY

Year	Uses	Source
1940	ALTERMAN FRANCES MRS (O)	Los Angeles Directory Co.

FINDINGS

11750 HESBY

Year	Uses	Source
1940	VACANT	Los Angeles Directory Co.

11751 HESBY

Year	Uses	Source
1942	Pesek La Verne M nurse	Los Angeles Directory Co.
1940	PESEK JULIA MRS (O)	Los Angeles Directory Co.

11756 HESBY

Year	Uses	Source
1940	KIST CARL (O)	Los Angeles Directory Co.

11758 HESBY

Year	Uses	Source
1940	VACANT	Los Angeles Directory Co.

11760 HESBY

Year	Uses	Source
1940	VACANT	Los Angeles Directory Co.

11802 HESBY

Year	Uses	Source
1940	SATTERFIELD PAUL M (O)	Los Angeles Directory Co.
1930	Merrihew B 0 H	Los Angeles Directory Co.

11808 HESBY

Year	Uses	Source
1940	MERRIHEW BERTOL (O)	Los Angeles Directory Co.

11814 HESBY

Year	Uses	Source
1940	ELLIS JOHN A (O)	Los Angeles Directory Co.

11820 HESBY

Year	Uses	Source
1940	GIEG CLAY C (O)	Los Angeles Directory Co.

11821 HESBY

Year	Uses	Source
1940	PAUL LEO E (O)	Los Angeles Directory Co.

FINDINGS

11827 HESBY

Year	Uses	Source
1971	Hardesty Chas N	Pacific Telephone
1967	Hardesty Chas N	Pacific Telephone
1962	Hardesty Chas N	Pacific Telephone
1940	OROSTEK JOS W (O)	Los Angeles Directory Co.

HESBY DR

11808 HESBY DR

Year	Uses	Source
1935	MERRIHEW BO R	Los Angeles Directory Co.

HESBY ST

11630 HESBY ST

Year	Uses	Source
2008	EL PUEBLO DE LOS NINOS HEADSTART	Cole Information Services
2001	EL PUEBLO DE NINOS	Haines & Company, Inc.

11632 HESBY ST

Year	Uses	Source
2006	No Current Listing	Haines Company, Inc.

11633 HESBY ST

Year	Uses	Source
2001	CAMARILLO Amelia	Haines & Company, Inc.
1980	JOHNSON MARTIN A	Pacific Telephone
1976	Pride Washington ington room Service	Pacific Telephone
1975	Johnson Martin A	Pacific Telephone
1970	JOHNSON MARTIN A	Pacific Telephone
	JOHNSON MARTIN A	Pacific Telephone
1962	JOHNSON MARTIN A	Pacific Telephone
1956	BENNETT HYMAN	Pacific Telephone
1950	HILF SIMON R	Pacific Telephone
	HILF SIMON R	Pacific Telephone

11639 HESBY ST

Year	Uses	Source
2006	o TAN Ban	Haines Company, Inc.

FINDINGS

Year	Uses	Source
2006	TAN Ben H	Haines Company, Inc.
2001	TAN Ben H	Haines & Company, Inc.
1995	Than Ben H & Audrey	Pacific Bell
1991	Tan Ben H	Pacific Bell
1985	Tan Ben H	Pacific Bell
	Than Ben H & Audrey	Pacific Bell
1980	TAN BEN H	Pacific Telephone
	THAN BEN H & AUDREY	Pacific Telephone
1975	Raub Walter H	Pacific Telephone
1970	RAUB WALTER H	Pacific Telephone
	RAUB WALTER H	Pacific Telephone

11640 HESBY ST

Year	Uses	Source
2008	EAST VALLEY MULTIPURPOSE SENIOR CENT	Cole Information Services
	SAN FRNNDO VLY INTERFAITH COUNCIL	Cole Information Services
2006	EASTVLY	Haines Company, Inc.
	MULTIPRPSESRCT	Haines Company, Inc.
2001	EAST VLY MULTIPRPSE SR CT	Haines & Company, Inc.
1991	San Fernando Valley Interfaith Council	Pacific Bell
	San Fernando Valley Interfaith Council	Pacific Bell
1985	North Hollywood	Pacific Bell
	Main Ofc	Pacific Bell
	San Fernando Valley Nutrition & Services Program	Pacific Bell
1980	SAN FERNANDO VALLEY NUTRITION & SERVICES PROGRAM	Pacific Telephone
	SAN FERNANDO VALLEY INTERFAITH COUNCIL NUTRITION AND SERVICES PROGRAM	Pacific Telephone
1975	North Hollywood Nutrition & Services Program	Pacific Telephone

11718 HESBY ST

Year	Uses	Source
1970	SMITH FRANCIS H	Pacific Telephone
	SMITH FRANCIS H	Pacific Telephone
1962	SMITH FRANCIS H	Pacific Telephone
1956	SMITH FRANCIS H	Pacific Telephone
1950	SMITH FRANCIS H R	Pacific Telephone

FINDINGS

Year	Uses	Source
1950	SMITH FRANCIS H R	Pacific Telephone

11719 HESBY ST

Year	Uses	Source
2006	a SACHS Stephen	Haines Company, Inc.
2001	SACHS Stephen	Haines & Company, Inc.
1985	Simgen Robt E	Pacific Bell
1980	SIMGEN ROBT E	Pacific Telephone
1975	Simgen Robt E	Pacific Telephone
1970	SIMGEN ROBT E	Pacific Telephone
	SIMGEN ROBT E	Pacific Telephone
1962	SIMGEN ROBT E	Pacific Telephone
1956	SEDOR BERTHA	Pacific Telephone
1950	BOYD FRANCIS L R	Pacific Telephone
	BOYD FRANCIS L R	Pacific Telephone

11724 HESBY ST

Year	Uses	Source
2006	BENNEITPa Irick	Haines Company, Inc.
1980	WOOD THOS H	Pacific Telephone
1975	Wood Thos H	Pacific Telephone
1970	WOOD THOS H	Pacific Telephone
	WOOD THOS H	Pacific Telephone
1962	WOOD THOS H	Pacific Telephone

11725 HESBY ST

Year	Uses	Source
2006	BELZShamrn	Haines Company, Inc.
2001	BELZ Sharon	Haines & Company, Inc.
1991	Stahley Jos Nor	Pacific Bell
	Stahler Robt F	Pacific Bell
1985	Stahler Robt F	Pacific Bell
1980	STAHLER ROBT F	Pacific Telephone
1975	Stahler Robt F	Pacific Telephone
1970	STAHLER ROBT F	Pacific Telephone
	STAHLER ROBT F	Pacific Telephone
1962	STAHLER ROBT F	Pacific Telephone
1958	Tupper Josephine	Pacific Telephone
	Stahler Robt F	Pacific Telephone

FINDINGS

Year	Uses	Source
1956	STAHLER ROBT F	Pacific Telephone

11730 HESBY ST

Year	Uses	Source
2006	FRONTJerome	Haines Company, Inc.
2001	FRONT Jerome	Haines & Company, Inc.
1985	Schaffer J L	Pacific Bell
1975	Pitcher Jas R III	Pacific Telephone
1970	PITCHER JAS R III	Pacific Telephone
	PITCHER JAS R III	Pacific Telephone
1962	PITCHER JAS R III	Pacific Telephone
1956	WILLIAMS PAUL C MRS	Pacific Telephone
1950	BYRON FRANK B R	Pacific Telephone
	BYRON FRANK B R	Pacific Telephone

11731 HESBY ST

Year	Uses	Source
2006	NOYES Norman E	Haines Company, Inc.
2001	NOYES Norman E	Haines & Company, Inc.
1995	Noyes Norman E	Pacific Bell
1991	Noyes Norman E	Pacific Bell
1985	Noyes Norman E	Pacific Bell
1980	NOYES NORMAN E NORTH HOLLYWOOD	Pacific Telephone
1975	Noyes Norman E	Pacific Telephone
1970	NOYES NORMAN E	Pacific Telephone
	NOYES NORMAN E	Pacific Telephone
1962	NOYES NORMAN E	Pacific Telephone
1958	Noyes Norman E	Pacific Telephone
1956	NOYES NORMAN E	Pacific Telephone
1950	TRUAX O A R	Pacific Telephone
	TRUAX O A R	Pacific Telephone

11738 HESBY ST

Year	Uses	Source
2006	a DONOGHUE Daniel	Haines Company, Inc.
2001	DONOGHUE Daniel	Haines & Company, Inc.
1970	DANDY VIRGINIA	Pacific Telephone
	DANDY VIRGINIA	Pacific Telephone
1962	DANDY VIRGINIA	Pacific Telephone

FINDINGS

Year	Uses	Source
1956	DANDY VIRGINIA	Pacific Telephone
1950	DANDY VIRGINIA R	Pacific Telephone
	DANDY VIRGINIA R	Pacific Telephone

11739 HESBY ST

Year	Uses	Source
2006	HOFFMAN Jos	Haines Company, Inc.
2001	HOFFMAN Jos	Haines & Company, Inc.
1995	Hoffman Aerospace Inc	Pacific Bell
	Hoffman Jos	Pacific Bell
1991	Hoffman Aerospace Inc	Pacific Bell
	Hoffman Al	Pacific Bell
	Hoffman Jos	Pacific Bell
	Hoffman KA	Pacific Bell
	Hoffman Ken	Pacific Bell
1985	Hoffman Aerospace Inc	Pacific Bell
	Hoffman Al	Pacific Bell
	Hoffman Jos	Pacific Bell
1980	HOFFMAN JOS NORTH HOLLYWOOD	Pacific Telephone
1975	Hoffman Jos	Pacific Telephone
1970	HOFFMAN JOS	Pacific Telephone
	HOFFMAN JOS	Pacific Telephone
1962	HOFFMAN JOS	Pacific Telephone

11744 HESBY ST

Year	Uses	Source
2006	FENNELLJerry	Haines Company, Inc.
2001	FENNELL Jerry	Haines & Company, Inc.
1995	Fennell Jerry	Pacific Bell
1991	Fenneli Jerry	Pacific Bell
1985	Fennell Jerry	Pacific Bell
1980	FENNELL JERRY	Pacific Telephone
1975	Fennell Jerry	Pacific Telephone
1970	LOCKMAN JANET	Pacific Telephone
	LOCKMAN JANET	Pacific Telephone
1962	LOCKMAN R C	Pacific Telephone
1956	BEISER RUDOLF	Pacific Telephone
1950	SOLOMON WM R	Pacific Telephone
	SOLOMON WM R	Pacific Telephone

FINDINGS

11745 HESBY ST

Year	Uses	Source
2006	No Current Listing	Haines Company, Inc.
2001	BRASHEAR Charles	Haines & Company, Inc.
1995	Valley Village Enterprises	Pacific Bell
1991	Valley Village Enterprises	Pacific Bell
1975	Kovacs Leslie	Pacific Telephone
1970	GIFFIN ARCH K	Pacific Telephone
	GIFFIN ARCH K	Pacific Telephone
1962	GIFFIN ARCH K	Pacific Telephone
1956	GIFFIN ARCH K	Pacific Telephone
1950	BRUCKER WM A R	Pacific Telephone
	BRUCKER WM A R	Pacific Telephone

11750 HESBY ST

Year	Uses	Source
1956	GLICKMAN MILTON	Pacific Telephone
1950	MAHER HARRY A R	Pacific Telephone
	MAHER HARRY A R	Pacific Telephone

11751 HESBY ST

Year	Uses	Source
2006	COMPANYJuan	Haines Company, Inc.
2001	XXXX	Haines & Company, Inc.
1985	Scardino Richard J Jr	Pacific Bell
1980	JESCHKE CARL L	Pacific Telephone
1975	Jeschke Carl L	Pacific Telephone
1970	JESCHKE CARL L	Pacific Telephone
	JESCHKE CARL L	Pacific Telephone
1962	JESCHKE ELIZABETH H CHR SCL PR	Pacific Telephone
	JESCHKE CARL L CHR SCI PR	Pacific Telephone
	JESCHKE CARL L	Pacific Telephone
1956	JESCHKE CARL L	Pacific Telephone
1950	PESEK JULIA MRS R	Pacific Telephone
	PESEK JULIA MRS R	Pacific Telephone

11756 HESBY ST

Year	Uses	Source
2006	a HEARNKenneth	Haines Company, Inc.
1975	Kist Carl	Pacific Telephone

FINDINGS

Year	Uses	Source
1970	KIST CARL	Pacific Telephone
	KIST CARL	Pacific Telephone
1962	KIST CARL	Pacific Telephone
1956	KIST CARL	Pacific Telephone
1950	KIST CARL R	Pacific Telephone
	KIST CARL R	Pacific Telephone

11757 HESBY ST

Year	Uses	Source
2006	DANG David	Haines Company, Inc.
2001	DANG David	Haines & Company, Inc.
1985	Diamond L	Pacific Bell
	Diamond L E Arleta	Pacific Bell
	Diamond Lady The	Pacific Bell
	Diamond Richard K	Pacific Bell
1980	DIAMOND L	Pacific Telephone
	DIAMOND RICHARD K	Pacific Telephone
1970	BROOKS DIANA M	Pacific Telephone
	BROOKS DIANA M	Pacific Telephone
1956	COX JOHN E	Pacific Telephone
1950	LAMARE NAPPY R	Pacific Telephone
	LAMARE NAPPY R	Pacific Telephone

11802 HESBY ST

Year	Uses	Source
2006	e ADAMSAndrew	Haines Company, Inc.
2001	SORENSEN Paul	Haines & Company, Inc.
	HUBSCHER Luc	Haines & Company, Inc.
	SORENSEN Paul	Haines & Company, Inc.
1995	Sorensen Paul	Pacific Bell
1991	Sorensen David D	Pacific Bell
	Sorensen Paul	Pacific Bell
1985	Sorensen David D	Pacific Bell
1980	SORENSEN DAVID D	Pacific Telephone
	SORENSEN PAUL	Pacific Telephone
1975	May Jacqueline L	Pacific Telephone
	Sorensen Paul	Pacific Telephone
1970	MAY JAQUELINE L	Pacific Telephone
	SORENSEN PAUL	Pacific Telephone

Year	Uses	Source
1970	MAY JAQUELINE L	Pacific Telephone
	SORENSEN PAUL	Pacific Telephone
1962	MAY JAQUELINE L	Pacific Telephone
	SORENSEN PAUL	Pacific Telephone
1956	BLOOM ARNOLD	Pacific Telephone
1950	BLOOM ARNOLD R	Pacific Telephone
	BLOOM ARNOLD R	Pacific Telephone

11803 HESBY ST

Year	Uses	Source
2006	AYALA Darto	Haines Company, Inc.
2001	FREDRICKS John	Haines & Company, Inc.
1995	Fredericks Electric	Pacific Bell
	Fredericks John electrcn	Pacific Bell
	Fredricks D A	Pacific Bell
	O Fredricks John electrcn	Pacific Bell
1991	Fredericks Electric	Pacific Bell
	Frederlcks H&V Sun	Pacific Bell
	Fredericks John electrcn	Pacific Bell
	Fredericks Of Hollywood	Pacific Bell
	FRE DRICKS E LE CTRIC	Pacific Bell
	Fredricks James A	Pacific Bell
	Fredricks John electrcn	Pacific Bell
	Jones Shelby	Pacific Bell
	Jones Sheryl Nor	Pacific Bell
1985	Fredericks Electric	Pacific Bell
	Fredericks G Arleta	Pacific Bell
	Fredericks John electrcn	Pacific Bell
	Fredericks Of Hollywood	Pacific Bell
	FRE DRICKS E LE CTRIC	Pacific Bell
	Fredricks John electrcn	Pacific Bell
	Ponce Xavier D	Pacific Bell
1980	FREDERICKS ELECTRIC	Pacific Telephone
	FREDERICKS JOHN ELECTRCN	Pacific Telephone
	FREDRICKS ELECTRIC	Pacific Telephone
	FREDRICKS JOHN ELECTRCN	Pacific Telephone
1975	Fredericks Electric	Pacific Telephone
	Fredericks John electrcn	Pacific Telephone
	FREDRICKS ELECTRIC	Pacific Telephone

FINDINGS

Year	Uses	Source
1975	Fredricks John electrcn	Pacific Telephone
1970	FREDERICKS ELECTRIC	Pacific Telephone
	FREDERICKS JOHN ELECTRCN	Pacific Telephone
	FREDRICKS ELECTRIC	Pacific Telephone
	FREDRICKS JOHN ELECTRCN	Pacific Telephone
	FREDERICKS ELECTRIC	Pacific Telephone
	FREDERICKS JOHN ELECTRCN	Pacific Telephone
	FREDRICKS ELECTRIC	Pacific Telephone
	FREDRICKS JOHN ELECTRCN	Pacific Telephone
1962	FREDRICKS ELECTRIC	Pacific Telephone
1956	FREDRICKS ELECTRIC	Pacific Telephone
1950	FREDRICKS JOHN PAUL R	Pacific Telephone
	FREDRICKS JOHN PAUL R	Pacific Telephone

11808 HESBY ST

Year	Uses	Source
2006	CINDRIC Patrick	Haines Company, Inc.
2001	CINDRIC Patrick	Haines & Company, Inc.
1985	Murphy J E	Pacific Bell
	Murphy J K	Pacific Bell
	Rager A	Pacific Bell
1980	MURPHY J E	Pacific Telephone
	RAGER A	Pacific Telephone
1975	Murphy Jane	Pacific Telephone
	Rager Audra	Pacific Telephone
1970	MURPHY JANE	Pacific Telephone
	RAGER AUDRA	Pacific Telephone
	RAGER AUDRA	Pacific Telephone
	MURPHY JANE	Pacific Telephone
1962	KERRY LEE	Pacific Telephone
1956	MASON MARJORIE A	Pacific Telephone
1950	CROSET LILY R	Pacific Telephone
	CROSET LILY R	Pacific Telephone

11809 HESBY ST

Year	Uses	Source
2008	NEWMAN JACOBS	Cole Information Services
	ATOS ENGINEERING	Cole Information Services
2006	a JACOBSTeny	Haines Company, Inc.

FINDINGS

Year	Uses	Source
2006	JACOBS Terry	Haines Company, Inc.
	a JACOBS Carot	Haines Company, Inc.
	JACOBS Carol	Haines Company, Inc.
	JACOBS Carol	Haines Company, Inc.
2001	JACOBS Carol	Haines & Company, Inc.
	JACOBS Terry	Haines & Company, Inc.
	JACOBS Carol	Haines & Company, Inc.
	JACOBS Carol	Haines & Company, Inc.
	JACOBS Terry	Haines & Company, Inc.
1985	Hall Roy O	Pacific Bell
1980	HALL ROY O	Pacific Telephone
1975	Hall Roy O	Pacific Telephone
1970	HALL ROY O	Pacific Telephone
	HALL ROY O	Pacific Telephone
1962	CADISH TED H NORTH HOLLYWOODD	Pacific Telephone
1956	CADISH TED H	Pacific Telephone
1950	ADELMAN IRVING R	Pacific Telephone
	ADELMAN IRVING R	Pacific Telephone

11814 HESBY ST

Year	Uses	Source
2008	CASA D REALTY	Cole Information Services
2006	CASA D REALTY	Haines Company, Inc.
	a BOLUARTE Nina	Haines Company, Inc.
2001	BERK Gene	Haines & Company, Inc.
1985	Gale Ben	Pacific Bell
1980	GALE BEN	Pacific Telephone
1975	Gale Ben	Pacific Telephone
1970	GALE BEN	Pacific Telephone
	GALE BEN	Pacific Telephone
1962	GALE BEN	Pacific Telephone
1956	GALE BEN	Pacific Telephone
1950	SWEET H HOWARD R	Pacific Telephone
	SWEET H HOWARD R	Pacific Telephone

11815 HESBY ST

Year	Uses	Source
2006	e HALLERMa S	Haines Company, Inc.

FINDINGS

Year	Uses	Source
1985	Abronson C J	Pacific Bell
	Abron A PCty C	Pacific Bell
	Abroms Geo Mrs	Pacific Bell
1980	ABROMS GEO MRS	Pacific Telephone
1975	Abroms Geo Mrs	Pacific Telephone
1970	ABROMS GAO MRS	Pacific Telephone
	ABROMS GAO MRS	Pacific Telephone
1962	ABROMS GEO MRS	Pacific Telephone
1950	RICE JACK R	Pacific Telephone
	RICE JACK R	Pacific Telephone

11820 HESBY ST

Year	Uses	Source
2006	MENDELSOHN Aan	Haines Company, Inc.
	R ZHOU Xuan Hul	Haines Company, Inc.
2001	MENDELSOHN Alan R	Haines & Company, Inc.
1995	Gieg Clay C	Pacific Bell
1991	Gieg Clay C	Pacific Bell
	Reed L	Pacific Bell
1985	Gieg Clay C	Pacific Bell
	Gieg M D	Pacific Bell
1980	GIEG CLAY C	Pacific Telephone
	GIEG M D	Pacific Telephone
1975	Gieg Clay C	Pacific Telephone
	Gieg M D	Pacific Telephone
1970	GIEG CLAY C	Pacific Telephone
	GIEG LYNN	Pacific Telephone
	GIEG CLAY C	Pacific Telephone
	GIEG LYNN	Pacific Telephone
1962	GIEG CLAY C	Pacific Telephone
1956	GIEG CLAY C	Pacific Telephone
	MORRISON GEO F RL EST	Pacific Telephone
1950	GIEG CLAY C R	Pacific Telephone
	MORRISON GEO F RL EST	Pacific Telephone
	GIEG CLAY C R	Pacific Telephone
	MORRISON GEO F RL EST	Pacific Telephone

FINDINGS

11821 HESBY ST

Year	Uses	Source
2006	o ROTHBLATTDan	Haines Company, Inc.
2001	ROTHBLATT Dan	Haines & Company, Inc.
1975	Warren Wm T Jr	Pacific Telephone
1970	WARREN WM T JR	Pacific Telephone
	WARREN WM T JR	Pacific Telephone
1962	WHIPPLE MARION B	Pacific Telephone

11825 HESBY ST

Year	Uses	Source
2006	o FEINTisha A	Haines Company, Inc.
2001	FEIN Tisha A	Haines & Company, Inc.

11827 HESBY ST

Year	Uses	Source
2006	a FEINTIsha	Haines Company, Inc.
2001	FEIN Tisha	Haines & Company, Inc.
1985	Rabbito Barbara	Pacific Bell
	Fisher Harry	Pacific Bell
1980	ANDERSON THOS	Pacific Telephone
1976	Hardesty Chas N	Pacific Telephone
1975	Hardesty Chas N	Pacific Telephone
1970	HARDESTY CHAS N	Pacific Telephone
	HARDESTY CHAS N	Pacific Telephone
1962	HARDESTY CHAS N	Pacific Telephone
1956	GUSSACK JENNIE	Pacific Telephone

HUSTON

11720 HUSTON

Year	Uses	Source
1940	WOODFILL CLINTON E (O)	Los Angeles Directory Co.

11734 HUSTON

Year	Uses	Source
1940	MALDOAADO ARDIA:	Los Angeles Directory Co.

11736 HUSTON

Year	Uses	Source
1930	Vacant	Los Angeles Directory Co.

FINDINGS

11742 HUSTON

Year	Uses	Source
1940	LUCAS ALBT P(O)	Los Angeles Directory Co.

11746 HUSTON

Year	Uses	Source
1940	LAMB ALICE MRS (O)	Los Angeles Directory Co.

11752 HUSTON

Year	Uses	Source
1940	MURPHY AGNES MRS	Los Angeles Directory Co.
1930	Irvine Mdw	Los Angeles Directory Co.

HUSTON RD

11714 HUSTON RD

Year	Uses	Source
1970	HOYT RICHARD H	Pacific Telephone
	ISAAC F W	Pacific Telephone
	HOYT RICHARD H	Pacific Telephone
	ISAAC F W	Pacific Telephone
1962	HOYT RICHARD H	Pacific Telephone
1956	HOYT RICHARD H	Pacific Telephone
1950	HOYT RICHARD H R	Pacific Telephone
	HOYT RICHARD H R	Pacific Telephone

11720 HUSTON RD

Year	Uses	Source
1970	KING RAYMOND LEE	Pacific Telephone
	KING RAYMOND LEE	Pacific Telephone
1962	KING RAYMOND LEE	Pacific Telephone
1950	SCHWEIKERT EARL R	Pacific Telephone
	SCHWEIKERT EARL R	Pacific Telephone

11726 HUSTON RD

Year	Uses	Source
1956	MILLER LESTER B	Pacific Telephone
1950	MILLER LESTER B R	Pacific Telephone
	MILLER LESTER B R	Pacific Telephone

FINDINGS

11729 HUSTON RD

Year	Uses	Source
1956	SCHWEIKERT EARL	Pacific Telephone

11734 HUSTON RD

Year	Uses	Source
1962	FORSLUND MARGARET	Pacific Telephone
1956	FORSLUND MARGARET	Pacific Telephone
1950	GILLEAN JOHN A R	Pacific Telephone
	GILLEAN JOHN A R	Pacific Telephone

11740 HUSTON RD

Year	Uses	Source
1970	AFTERGOOD ELLA MAE	Pacific Telephone
	AFTERGOOD ELLA MAE	Pacific Telephone
	GARNER ELLA MAE	Pacific Telephone
	GARNER ELLA MAE	Pacific Telephone
1956	AFTERGOOD ELLA MAE	Pacific Telephone
1950	AFTERGOOD ELLA MAE R	Pacific Telephone
	AFTERGOOD ELLA MAE R	Pacific Telephone

11746 HUSTON RD

Year	Uses	Source
1962	TIMMER JOHN J	Pacific Telephone
1956	NOWICKI MITCHELL	Pacific Telephone
1950	CLARK JIMMY PIANO TNR	Pacific Telephone
	CLARK JIMMY PIANO TNR	Pacific Telephone

11752 HUSTON RD

Year	Uses	Source
1956	DAVIS ARTHUR C	Pacific Telephone
1950	TURTON HENRY S R	Pacific Telephone
	TURTON HENRY S R	Pacific Telephone

HUSTON ST

11714 HUSTON ST

Year	Uses	Source
2006	BORODATY Vladimir	Haines Company, Inc.
	RUBINSHTEYN	Haines Company, Inc.
	Akeksandra	Haines Company, Inc.

FINDINGS

Year	Uses	Source
2001	XXXX	Haines & Company, Inc.
1995	i Hoyt Richard H	Pacific Bell
	Hoyt Louis C	Pacific Bell
1991	Hoyt Richard H	Pacific Bell
1985	Hoyt Richard H	Pacific Bell
1980	HOYT RICHARD H	Pacific Telephone
1975	Hoyt Richard H	Pacific Telephone
	Hoyt D M	Pacific Telephone

11720 HUSTON ST

Year	Uses	Source
2006	e LAMPERTu Cadyn	Haines Company, Inc.
2001	LAMPERT Carlyn	Haines & Company, Inc.
1980	SEINFELD JOHN NORTH HOLLYWOOD	Pacific Telephone
	LAMPERT CARLYN	Pacific Telephone

11725 HUSTON ST

Year	Uses	Source
1980	SORBELLO LUCY A	Pacific Telephone

11726 HUSTON ST

Year	Uses	Source
2006	ROSSOUWDeniae	Haines Company, Inc.
	e ROSSOUW Denise	Haines Company, Inc.
2001	AVERSANO Scott	Haines & Company, Inc.
1991	Richards P	Pacific Bell
1985	Richards P	Pacific Bell
1980	TAYLOR FROLIC	Pacific Telephone
1962	MILLER LESTER B	Pacific Telephone

11734 HUSTON ST

Year	Uses	Source
2006	REKER Mar Un	Haines Company, Inc.
	KORECHOFF Norma	Haines Company, Inc.
2001	KORECHOFF Norma	Haines & Company, Inc.
1980	KORECHOFF ROBT	Pacific Telephone

FINDINGS

11740 HUSTON ST

Year	Uses	Source
2008	MEDICAL PACIFIC ADVENTURE INC	Cole Information Services
2006	RUBIN Clifford	Haines Company, Inc.
2001	RUBIN Clifford	Haines & Company, Inc.
1975	Garner E M	Pacific Telephone
	Aftergood E M	Pacific Telephone

11746 HUSTON ST

Year	Uses	Source
2006	GIBBS AL	Haines Company, Inc.
2001	GIBBS A L	Haines & Company, Inc.
1991	Gibbs AL	Pacific Bell
1985	Gibbs A L	Pacific Bell
1980	GIBB A L	Pacific Telephone
1975	Horwitz Stephen	Pacific Telephone

11752 HUSTON ST

Year	Uses	Source
2001	XXXX	Haines & Company, Inc.
1975	Carolla Jas P	Pacific Telephone
1970	GROSS SAM	Pacific Telephone
	GROSS SAM	Pacific Telephone

MORELLA

4949 MORELLA

Year	Uses	Source
1971	Gelfarb Sam	Pacific Telephone
1967	Gelfarb Sam	Pacific Telephone
1962	Gelfarb Sam	Pacific Telephone

MORELLA AVE

4911 MORELLA AVE

Year	Uses	Source
2008	HEALING HARNESS	Cole Information Services
	DORY DUTTON & ASSOCS INC	Cole Information Services
2006	No Current Listing	Haines Company, Inc.
2001	DUTTON Dory	Haines & Company, Inc.
1991	Garver Paul L	Pacific Bell

FINDINGS

Year	Uses	Source
1985	Garver Paul L	Pacific Bell
1980	GARVER PAUL L	Pacific Telephone
1975	Garver Paul L	Pacific Telephone
1970	GARVER PAUL L	Pacific Telephone
	GARVER PAUL L	Pacific Telephone
1962	GARVER PAUL L	Pacific Telephone
1956	GARVER PAUL L	Pacific Telephone
1950	GARVER PAUL L R	Pacific Telephone
	GARVER PAUL L R	Pacific Telephone

4919 MORELLA AVE

Year	Uses	Source
2006	WEXLER Gary	Haines Company, Inc.
2001	WEXLER Gary	Haines & Company, Inc.
1980	METCHEK IRWIN P	Pacific Telephone
	METCHEK LYNN	Pacific Telephone
	METCHEK MITCH	Pacific Telephone
1975	Metchek Irwin P	Pacific Telephone
	Metchek Lynn	Pacific Telephone
1970	METCHEK IRWIN P	Pacific Telephone
	METCHEK IRWIN P	Pacific Telephone
1956	HERMAN LINDA	Pacific Telephone
1950	MOSHER ROBT L JR R	Pacific Telephone
	MOSHER ROBT L JR R	Pacific Telephone
1940	NAIR THOS L (O)	Los Angeles Directory Co.

4925 MORELLA AVE

Year	Uses	Source
2006	BOUL Harry D 21ND	Haines Company, Inc.
2001	POWELL Bradley	Haines & Company, Inc.
1962	SHIKLES GAIL A	Pacific Telephone
1956	QUINN R A	Pacific Telephone
1950	QUINN R A R	Pacific Telephone
	QUINN R A R	Pacific Telephone
1940	QUINN ROBT A (O)	Los Angeles Directory Co.

4935 MORELLA AVE

Year	Uses	Source
2008	LASER HAIR CARE INC	Cole Information Services

FINDINGS

Year	Uses	Source
2006	aBARUCK Jerome S	Haines Company, Inc.
2001	BARUCK Jerome S	Haines & Company, Inc.
1995	Baruck Jerome S	Pacific Bell
1991	I Baruck Jerome S	Pacific Bell
1985	Baruck Jerome S	Pacific Bell
1975	Nahas Richard B	Pacific Telephone
1970	CHURCH HELEN T MRS	Pacific Telephone
	CHURCH HELEN T MRS	Pacific Telephone
1962	CHURCH HELEN T MRS	Pacific Telephone
1956	CHURCH WILLIS E	Pacific Telephone
1950	CHURCH WILLIS E R	Pacific Telephone
	CHURCH WILLIS E R	Pacific Telephone
1940	CHURCH WILLIS (O)	Los Angeles Directory Co.

4939 MORELLA AVE

Year	Uses	Source
1981	GELFARB SAM NH	Pacific Telephone

4945 MORELLA AVE

Year	Uses	Source
2001	SAGE Jefferson	Haines & Company, Inc.
1980	GRAHAM SARAH D	Pacific Telephone
1975	Greenberg Ronald M	Pacific Telephone
1970	GREENBERG RONALD M	Pacific Telephone
	GREENBERG RONALD M	Pacific Telephone
1962	BRADLEY WM J JR	Pacific Telephone
1956	BEYER CHAS E JR	Pacific Telephone
1950	BEYER CHAS E JR R	Pacific Telephone
	BEYER CHAS E JR R	Pacific Telephone
1940	ZELLNER ARTH J (O)	Los Angeles Directory Co.

4949 MORELLA AVE

Year	Uses	Source
2006	o YAIK Michele	Haines Company, Inc.
2001	GELFARB Sam	Haines & Company, Inc.
	GELFARB Natalie	Haines & Company, Inc.
1995	Gelfarb Sam	Pacific Bell
1991	Gelfarb Sam	Pacific Bell
	From Los Angeles Telephones Call	Pacific Bell

Year	Uses	Source
1991	Gelfenbain Irina	Pacific Bell
	Gelffi L	Pacific Bell
1990	GELFARB SAM NH	Pacific Bell
1986	GELFARB SAM NH	Pacific Bell
1985	Gelff Betty	Pacific Bell
	Gelfat Mark	Pacific Bell
	From Los Angeles Telephones Call	Pacific Bell
	Gelfarb Sam	Pacific Bell
1980	GELFARB SAM	Pacific Telephone
1976	Gelfarb Sam	Pacific Telephone
1975	Gelfarb Sam	Pacific Telephone
1970	GELFARB SAM	Pacific Telephone
	GELFARB SAM	Pacific Telephone
1962	GELFARB SAM	Pacific Telephone
1940	HUGHES FRANK E (O)	Los Angeles Directory Co.

4959 MORELLA AVE

Year	Uses	Source
2006	aFESLER Donald	Haines Company, Inc.
2001	FESLER Donald	Haines & Company, Inc.
1975	De Land Greg	Pacific Telephone
1970	RALSTON W J	Pacific Telephone
	RALSTON W J	Pacific Telephone
1962	RALSTON W J	Pacific Telephone
1956	RALSTON W J	Pacific Telephone
1950	RALSTON W J R	Pacific Telephone
	RALSTON W J R	Pacific Telephone
1940	RALSTON WM J (O)	Los Angeles Directory Co.

5026 MORELLA AVE

Year	Uses	Source
1956	BATCHELDER CLYDE W	Pacific Telephone

MORRISON

11646 MORRISON

Year	Uses	Source
1935	DIRNBERGER BERNARD FR	Los Angeles Directory Co.

FINDINGS

11647 MORRISON

Year	Uses	Source
1935	REYNONLDS PATRICIA R	Los Angeles Directory Co.

MORRISON ST

11628 MORRISON ST

Year	Uses	Source
2006	BAUJ Susan	Haines Company, Inc.
2001	VALLECILLOS Joseph	Haines & Company, Inc.
	FUENTES Armando	Haines & Company, Inc.
1991	Fuentes Armando	Pacific Bell
1985	Fuentes Armando	Pacific Bell
1970	VALLECILLOS MARIA A	Pacific Telephone
	VALLECILLOS MARIA A	Pacific Telephone
1956	INGRAM JOE H	Pacific Telephone
1950	THAW WM MRS R	Pacific Telephone
	THAW WM MRS R	Pacific Telephone

11629 MORRISON ST

Year	Uses	Source
2006	WERNER Joseph	Haines Company, Inc.
2001	WERNER Joseph	Haines & Company, Inc.

11634 MORRISON ST

Year	Uses	Source
2006	MEYMANDI Sheba	Haines Company, Inc.
2001	MEYMANDI Sheba	Haines & Company, Inc.
1985	Roelen N	Pacific Bell
1980	KYLES HARVEY K	Pacific Telephone
1970	BYRD GENEVA E	Pacific Telephone
	BYRD GENEVA E	Pacific Telephone
1962	BYRD GENEVA E	Pacific Telephone
1956	BYRD W H	Pacific Telephone
1950	BYRD W H R	Pacific Telephone
	BYRD W H R	Pacific Telephone

11635 MORRISON ST

Year	Uses	Source
2006	GASIOR Malgonata	Haines Company, Inc.
2001	GOLDENSHTEIN Arnold	Haines & Company, Inc.

FINDINGS

Year	Uses	Source
1995	Goldenhar Robert C	Pacific Bell
	I Goldenshtein Arnold	Pacific Bell
1991	Tsadeek Ayelet	Pacific Bell
	Tsabary Yariv	Pacific Bell
	Goldenson Howard & Ann	Pacific Bell
	Goldenshtein Arnold	Pacific Bell
1985	Mc Neal Gertrude	Pacific Bell
1980	MCNEAL GERTRUDE	Pacific Telephone
1970	HALE VINCENT	Pacific Telephone
	HALE VINCENT	Pacific Telephone
1962	WATTS SID	Pacific Telephone
	MENDEZ EMILIO	Pacific Telephone
1956	DEAN EDW L	Pacific Telephone
1950	MENDEZ EMILO R	Pacific Telephone
	MENDEZ EMILO R	Pacific Telephone

11640 MORRISON ST

Year	Uses	Source
2006	REIFF Etha	Haines Company, Inc.
	REIFF Ethan	Haines Company, Inc.
2001	BROCK Misti S	Haines & Company, Inc.
	BLUDAU Peter	Haines & Company, Inc.
1991	Lobunets Dmitry	Pacific Bell
	Lobusta C	Pacific Bell
1980	ROMBAL ALVIN	Pacific Telephone
1970	ROMBAL ALVIN NORTH HOLLYWOOD	Pacific Telephone
	ROMBAL ALVIN NORTH HOLLYWOOD	Pacific Telephone
1956	BENDER VALAREE BRYAN	Pacific Telephone

11641 MORRISON ST

Year	Uses	Source
2006	KISEL Lelbl	Haines Company, Inc.
2001	KISEL Leibl	Haines & Company, Inc.
1991	Guignon Claire	Pacific Bell
	Tunison Claire	Pacific Bell
1985	Ferri Frank	Pacific Bell
1980	FERRI FRANK	Pacific Telephone
1970	NYBERG AL	Pacific Telephone
	NYBERG AL	Pacific Telephone

FINDINGS

Year	Uses	Source
1962	NYBERG AL	Pacific Telephone

11646 MORRISON ST

Year	Uses	Source
2013	LOUDERMILK CHIROPRACTIC CENTER	Cole Information Services
2008	RONALD E LOUDERMILK DC	Cole Information Services
2006	ROLAND E DC	Haines Company, Inc.
	LOUDERMILK	Haines Company, Inc.
2001	LOUDERMILK ROLAND E DC	Haines & Company, Inc.
1991	Loudermilk Sherman	Pacific Bell
	Loudermilk Roland E DC	Pacific Bell
1985	Loudermilk Roland E DC	Pacific Bell
1980	HESSLER PAUL D	Pacific Telephone
1962	DIRNBERGER BERNARD F	Pacific Telephone
1956	DIRNBERGER BERNARD F	Pacific Telephone
1950	DIRNBERGER BERNARD F R	Pacific Telephone
	DIRNBERGER BERNARD F R	Pacific Telephone

11647 MORRISON ST

Year	Uses	Source
2008	GMD TRANSPORTATION INC	Cole Information Services
2006	SHEYNKMAN Marat	Haines Company, Inc.
2001	SHEYNKMAN Marat	Haines & Company, Inc.
1995	Kennedy Wm D	Pacific Bell
1991	Kennedy Wm D	Pacific Bell
1985	Kennedy Wm D	Pacific Bell
1980	KENNEDY WM	Pacific Telephone
1970	KENNEDY WM D	Pacific Telephone
	KENNEDY WM D	Pacific Telephone
1962	KENNEDY WM D	Pacific Telephone
1956	KENNEDY WM D	Pacific Telephone
1950	ANKROM KENNETH A R	Pacific Telephone
	ANKROM KENNETH A R	Pacific Telephone

11653 MORRISON ST

Year	Uses	Source
2006	JAFERIAN Leon	Haines Company, Inc.
2001	JAFERIAN Leon	Haines & Company, Inc.
1985	March Delores Sun	Pacific Bell

Year	Uses	Source
1985	March D	Pacific Bell
	March Chas M	Pacific Bell
1970	CHARLES HENRY	Pacific Telephone
	CHARLES HENRY	Pacific Telephone
1962	CHARLES HENRY	Pacific Telephone
1956	CHARLES HENRY	Pacific Telephone
1950	CHARLES HENRY R	Pacific Telephone
	CHARLES HENRY R	Pacific Telephone

11659 MORRISON ST

Year	Uses	Source
2006	SANCHEZ Jeremy	Haines Company, Inc.
1956	SESSOMS W O MD	Pacific Telephone
1950	GIBSON EARL R	Pacific Telephone
	GIBSON EARL R	Pacific Telephone

OTSEGO

11718 OTSEGO

Year	Uses	Source
1971	Chandler Robt W	Pacific Telephone
1967	Chandler Robt W	Pacific Telephone
1962	Chandler Robt W	Pacific Telephone
1940	FROST JOHN R (O)	Los Angeles Directory Co.

11723 OTSEGO

Year	Uses	Source
1962	Beard Jas W	Pacific Telephone

11724 OTSEGO

Year	Uses	Source
1990	SCHWEIZER FRANK PAINTNG NH	Pacific Bell
1986	SCHWEITZER FRANK PAINTNG NH	Pacific Bell
1981	SCHWEIZER FRANK PAINTNG NH	Pacific Telephone
1971	Scbweizer Frank paintng	Pacific Telephone

11729 OTSEGO

Year	Uses	Source
1962	Martens Rudy W	Pacific Telephone

11730 OTSEGO

Year	Uses	Source
1940	SPANGLER CLARKE B JR (O)	Los Angeles Directory Co.

11735 OTSEGO

Year	Uses	Source
1940	VACANT	Los Angeles Directory Co.

11738 OTSEGO

Year	Uses	Source
1940	VACANT	Los Angeles Directory Co.

11741 OTSEGO

Year	Uses	Source
1940	LASKY ARTH (O)	Los Angeles Directory Co.

11747 OTSEGO

Year	Uses	Source
1971	Mc Neill Robt B	Pacific Telephone

11750 OTSEGO

Year	Uses	Source
1940	VACANT	Los Angeles Directory Co.

OTSEGO ST

11707 OTSEGO ST

Year	Uses	Source
2008	FIRSTCITI MORTGAGE	Cole Information Services
	ON POINT ENTERTAINMENT INC	Cole Information Services
	HAMLET ELECTRIC	Cole Information Services
	PSYCHIC GUIDING LIGHT	Cole Information Services
2006	AYRAZYAN Vachick	Haines Company, Inc.
	HAMLET ELECTRIC	Haines Company, Inc.
2001	HARVATH Eric	Haines & Company, Inc.
	HORVATH Margit M	Haines & Company, Inc.
	KOKANIAN Tetros	Haines & Company, Inc.
	WHITCOMB Stephen	Haines & Company, Inc.
1995	Heschel Day School	Pacific Bell
	I Heschong Eric	Pacific Bell
1991	Pellizzi Kathy	Pacific Bell

FINDINGS

Year	Uses	Source
1991	Rapp James	Pacific Bell
	Rapp Jerome	Pacific Bell
	Rapp Kat Photographic Studios	Pacific Bell
	Rapp L	Pacific Bell
	Rapp MC	Pacific Bell
	Tracy John JII	Pacific Bell
	Walker Dona Id H	Pacific Bell

11710 OTSEGO ST

Year	Uses	Source
2006	DUGAS Taraneh	Haines Company, Inc.
	BRIOCK Mike	Haines Company, Inc.
2001	ARAUZ Walter	Haines & Company, Inc.
	BRIOCK Mike	Haines & Company, Inc.
	GOLAN Sinay	Haines & Company, Inc.
1985	Ayllon Carlos & Arturo	Pacific Bell
1980	VON STERNBERG LEE	Pacific Telephone
1975	von Sternberg Lee	Pacific Telephone
	Mc Kay David	Pacific Telephone
	Malarkey Colleen	Pacific Telephone
1970	WRIGHT DAVID L	Pacific Telephone
	WOLVERTON GEO R	Pacific Telephone
	MEDARIS L	Pacific Telephone
	PETTIT RICHARD B	Pacific Telephone
	WOLVERTON GEO R	Pacific Telephone
	WRIGHT DAVID L	Pacific Telephone
	MEDARIS L	Pacific Telephone
	PETTIT RICHARD B	Pacific Telephone

11718 OTSEGO ST

Year	Uses	Source
2001	CHANDLER Rosemary	Haines & Company, Inc.
1975	Chandler Robt W	Pacific Telephone
1970	CHANDLER ROBT W	Pacific Telephone
	CHANDLER ROBT W	Pacific Telephone
1962	CHANDLER ROBT W	Pacific Telephone
1956	BREITSTEIN LOUIS	Pacific Telephone

FINDINGS

11723 OTSEGO ST

Year	Uses	Source
2006	o WHITFORD Rae	Haines Company, Inc.
2001	FLEMING Jerry N	Haines & Company, Inc.
1995	Rindt Douglas R	Pacific Bell
1991	Rindt Douglas R	Pacific Bell
1985	Beard Jas W	Pacific Bell
1980	BEARD JAS W	Pacific Telephone
1975	Beard Jas W	Pacific Telephone
1970	BEARD JAS W	Pacific Telephone
	BEARD JAS W	Pacific Telephone
1962	BEARD JAS W	Pacific Telephone
1958	Beard Jas W	Pacific Telephone
1956	BEARD JAS W	Pacific Telephone
1950	BORAD JACK J R	Pacific Telephone
	BORAD JACK J R	Pacific Telephone

11724 OTSEGO ST

Year	Uses	Source
2006	BLUMENFIELDJay	Haines Company, Inc.
2001	SCHWEIZER Frank	Haines & Company, Inc.
	SCHWEIZER Frank	Haines & Company, Inc.
1995	Schweizer Frank paintng	Pacific Bell
1991	Schweizer James	Pacific Bell
	Schweizer Frank painong	Pacific Bell
1985	Schweizer Frank paintng	Pacific Bell
1980	SCHWEIZER FRANK PAINTNG	Pacific Telephone
1976	Schweizer Frank paintng	Pacific Telephone
1975	Schweizer Frank paintng	Pacific Telephone
1970	SCHWEIZER FRANK PAINTNG	Pacific Telephone
	SCHWEIZER FRANK PAINTNG	Pacific Telephone
1962	REHM NORMAN R	Pacific Telephone
1956	CHELEW W A	Pacific Telephone
1950	BARR MATTHEW E R	Pacific Telephone
	BARR MATTHEW E R	Pacific Telephone

11729 OTSEGO ST

Year	Uses	Source
2006	SVANRijs	Haines Company, Inc.
2001	HARRINGTON Richard L	Haines & Company, Inc.

FINDINGS

Year	Uses	Source
1995	Harrington Richard L	Pacific Bell
1991	Harrington Richard L	Pacific Bell
1985	Harrington Richard L	Pacific Bell
	Harrington Rick	Pacific Bell
	Harrington Robt G	Pacific Bell
1980	HARRINGTON RICHARD L	Pacific Telephone
1975	Harrington Richard L	Pacific Telephone
1962	MARTENS RUDY W	Pacific Telephone
1958	Martens Rudy W	Pacific Telephone
1956	MARTENS RUDY W	Pacific Telephone

11730 OTSEGO ST

Year	Uses	Source
2006	MCLEOD Beaty	Haines Company, Inc.
2001	MCLEOD Betty	Haines & Company, Inc.
1985	Velasco C	Pacific Bell
	Velasco Bl J	Pacific Bell
1962	SPANGLER CLARKE B JR	Pacific Telephone
1956	SPANGLER CLARKE B JR	Pacific Telephone
1950	SPANGLER CLARKE B JR R	Pacific Telephone
	SPANGLER CLARKE B JR R	Pacific Telephone

11735 OTSEGO ST

Year	Uses	Source
2006	THOMAS Lucy	Haines Company, Inc.
2001	THOMAS Lucy	Haines & Company, Inc.
1962	CALDWELL D H	Pacific Telephone
1950	CAMPBELL S A R	Pacific Telephone
	CAMPBELL S A R	Pacific Telephone

11738 OTSEGO ST

Year	Uses	Source
2006	SCHNEIDER Michael	Haines Company, Inc.
2001	SCHNEIDER Michael	Haines & Company, Inc.
1985	Bell Kimberly	Pacific Bell
	Bell Kirk	Pacific Bell
	Bell Kenneth J	Pacific Bell
	Bell Kimberly	Pacific Bell
1980	BELL KENNETH J NORTHWOOD	Pacific Telephone

FINDINGS

Year	Uses	Source
1975	Bell Kenneth J	Pacific Telephone
1970	BELL KENNETH J	Pacific Telephone
	BELL KENNETH J	Pacific Telephone
1962	BELL KENNETH J	Pacific Telephone
1956	BELL KENNETH J	Pacific Telephone
1950	BELL KENNETH J R	Pacific Telephone
	BELL KENNETH J R	Pacific Telephone

11741 OTSEGO ST

Year	Uses	Source
2008	MARINO RADIO MARKETING INC	Cole Information Services
2006	NOTARO Michael	Haines Company, Inc.
2001	DAWSON Kevin	Haines & Company, Inc.
1956	MUGLER CHAS	Pacific Telephone

11744 OTSEGO ST

Year	Uses	Source
2006	No Current Listing	Haines Company, Inc.
2001	XXXX	Haines & Company, Inc.
1980	GURNEE BRACE T	Pacific Telephone
1975	Gurnee Brace T	Pacific Telephone
1970	GURNEE BRACE T	Pacific Telephone
	GURNEE BRACE T	Pacific Telephone
1962	GURNEE BRACE T	Pacific Telephone
1956	GURNEE BRACE T	Pacific Telephone

11747 OTSEGO ST

Year	Uses	Source
2001	ANAPOL Neil	Haines & Company, Inc.
1980	MCNEILL ROBT B	Pacific Telephone
1976	Mc Neill Robt B	Pacific Telephone
1975	Mc Neill Robt B	Pacific Telephone
1970	MCNEILL ROBT B	Pacific Telephone
	MCNEILL ROBT B	Pacific Telephone
1962	MCNEILL ROBT B	Pacific Telephone
1956	MCNEILL ROBT B	Pacific Telephone
1950	MCNEILL ROBT B R	Pacific Telephone
	MCNEILL ROBT B R	Pacific Telephone

FINDINGS

11750 OTSEGO ST

Year	Uses	Source
2006	OCONNOR Greg	Haines Company, Inc.
	s OCONNORPei	Haines Company, Inc.
	OCONNOR Peri	Haines Company, Inc.
2001	OConnor Peri	Haines & Company, Inc.
	OConnor Greg	Haines & Company, Inc.
1995	Bland Arthur F	Pacific Bell
1991	Bland Arthur F	Pacific Bell
	Bland C	Pacific Bell
1985	Bland Arthur F	Pacific Bell
1980	BLAND ARTHUR F	Pacific Telephone
1975	Bland Arthur F	Pacific Telephone
1970	BLAND ARTHUR F	Pacific Telephone
	BLAND ARTHUR F	Pacific Telephone
1962	BLAND ARTHUR F	Pacific Telephone
1956	BARNGROVEI R G	Pacific Telephone
1950	GRIBIN LAURA R	Pacific Telephone
	GRIBIN LAURA R	Pacific Telephone

11753 OTSEGO ST

Year	Uses	Source
2008	G L ARNOLD CONSULTING	Cole Information Services
2006	No Current Listing	Haines Company, Inc.
2001	XXXX	Haines & Company, Inc.
1995	Snapp George & Meredith	Pacific Bell
1962	LAND ALAN E	Pacific Telephone
	SNAPP GEO E	Pacific Telephone
1956	LAND MEREDITH	Pacific Telephone
1950	LAND HAROLD E R	Pacific Telephone
	LAND HAROLD E R	Pacific Telephone

11756 OTSEGO ST

Year	Uses	Source
2006	e TAMARGOEva	Haines Company, Inc.
2001	DECOVENY Arlene	Haines & Company, Inc.
1985	Andersen Chas H & Thelma	Pacific Bell
1980	ANDERSEN CHAS H & THELMA	Pacific Telephone
1975	Andersen Chas H	Pacific Telephone
1970	ANDERSEN CHAS H	Pacific Telephone

FINDINGS

Year	Uses	Source
1970	ANDERSEN CHAS H	Pacific Telephone
1962	ANDERSEN CHAS H	Pacific Telephone
1956	ANDERSEN CHAS H	Pacific Telephone
1950	ANDERSEN CHAS H R	Pacific Telephone
	ANDERSEN CHAS H R	Pacific Telephone

11759 OTSEGO ST

Year	Uses	Source
2006	GONZALES Marcus	Haines Company, Inc.
2001	GREENBERG M B	Haines & Company, Inc.
1995	Greenberg M B	Pacific Bell
1991	Greenberg MB	Pacific Bell
	Greenberg MW	Pacific Bell
1985	Greenberg M Bl	Pacific Bell
1980	GREENBERG M B	Pacific Telephone
1975	Greenberg Meyer B	Pacific Telephone
1970	OLSTAD DAVID C	Pacific Telephone
	OLSTAD DAVID C	Pacific Telephone
1962	BELL W W	Pacific Telephone
1956	GARTNER KATHERINE	Pacific Telephone
1950	PLUMMER FRANK D R	Pacific Telephone
	PLUMMER FRANK D R	Pacific Telephone

FINDINGS

TARGET PROPERTY: ADDRESS NOT IDENTIFIED IN RESEARCH SOURCE

The following Target Property addresses were researched for this report, and the addresses were not identified in the research source.

Address Researched	Address Not Identified in Research Source
11724 Addison Street	2006, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1981, 1976, 1975, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920

ADJOINING PROPERTY: ADDRESSES NOT IDENTIFIED IN RESEARCH SOURCE

The following Adjoining Property addresses were researched for this report, and the addresses were not identified in research source.

Address Researched	Address Not Identified in Research Source
11627 ADDISON ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1976, 1975, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11627 ADDISON WAY	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1992, 1990, 1986, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11628 ADDISON	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11628 ADDISON ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1976, 1975, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11628 ADDISON ST	2013, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11628 ADDISON WAY	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1992, 1990, 1986, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11628 MORRISON ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1990, 1986, 1981, 1980, 1976, 1975, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920

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Address Researched	Address Not Identified in Research Source
11629 MORRISON ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11630 ADDISON	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11630 HESBY ST	2013, 2008, 2006, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11630 HESBY ST	2013, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11632 HESBY ST	2013, 2008, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11633 HESBY ST	2013, 2008, 2006, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11634 ADDISON ST	2013, 2008, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11634 MORRISON ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1981, 1976, 1975, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11635 MORRISON ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1992, 1990, 1986, 1981, 1976, 1975, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11639 HESBY ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1992, 1990, 1986, 1981, 1976, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11640 ADDISON ST	2013, 2008, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920

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Address Researched	Address Not Identified in Research Source
11640 HESBY ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1990, 1986, 1981, 1976, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11640 HESBY ST	2013, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11640 MORRISON ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1990, 1986, 1985, 1981, 1976, 1975, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11641 MORRISON ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1990, 1986, 1981, 1976, 1975, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11646 ADDISON	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11646 ADDISON ST	2013, 2008, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11646 MORRISON	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11646 MORRISON ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1990, 1986, 1981, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11646 MORRISON ST	2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11647 MORRISON	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11647 MORRISON ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1992, 1990, 1986, 1981, 1976, 1975, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920

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Address Researched	Address Not Identified in Research Source
11647 MORRISON ST	2013, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11652 ADDISON	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1939, 1938, 1937, 1936, 1934, 1933, 1932, 1931, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11652 ADDISON ST	2013, 2008, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11653 MORRISON ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1981, 1980, 1976, 1975, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11658 ADDISON	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11658 ADDISON ST	2013, 2008, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11659 MORRISON ST	2013, 2008, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11707 OTSEGO ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1992, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11707 OTSEGO ST	2013, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11710 OTSEGO ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1981, 1976, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11711 ADDISON ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1976, 1975, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920

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Address Researched	Address Not Identified in Research Source
11711 ADDISON WAY	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1990, 1986, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11714 HUSTON RD	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11714 HUSTON ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1992, 1990, 1986, 1981, 1976, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11718 HESBY ST	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11718 OTSEGO	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1970, 1969, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11718 OTSEGO ST	2013, 2008, 2006, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11719 ADDISON	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11719 ADDISON ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1976, 1975, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11719 HESBY ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1981, 1976, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11720 HESBY	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11720 HUSTON	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920

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Address Researched	Address Not Identified in Research Source
11720 HUSTON RD	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11720 HUSTON ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11723 OTSEGO	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11723 OTSEGO ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1992, 1990, 1986, 1981, 1976, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1957, 1955, 1954, 1952, 1951, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11724 HESBY	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11724 HESBY ST	2013, 2008, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1976, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11724 OTSEGO	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1985, 1980, 1976, 1975, 1972, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11724 OTSEGO ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1992, 1990, 1986, 1981, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11725 ADDISON ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11725 ADDISON WAY	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1990, 1986, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11725 HESBY	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920

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Address Researched	Address Not Identified in Research Source
11725 HESBY ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1990, 1986, 1981, 1976, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1957, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11725 HUSTON ST	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11726 HUSTON RD	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11726 HUSTON ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1990, 1986, 1981, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11729 HUSTON RD	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11729 OTSEGO	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11729 OTSEGO ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1992, 1990, 1986, 1981, 1976, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1957, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11730 HESBY	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11730 HESBY ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1981, 1980, 1976, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11730 OTSEGO	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11730 OTSEGO ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920

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Address Researched	Address Not Identified in Research Source
11731 ADDISON	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11731 ADDISON ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1976, 1975, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11731 ADDISON WAY	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11731 HESBY	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1970, 1969, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11731 HESBY ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1992, 1990, 1986, 1981, 1976, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1957, 1955, 1954, 1952, 1951, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11734 HUSTON	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11734 HUSTON RD	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11734 HUSTON ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11735 OTSEGO	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11735 OTSEGO ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11736 HUSTON	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920

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Address Researched	Address Not Identified in Research Source
11738 HESBY	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11738 HESBY ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11738 OTSEGO	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11738 OTSEGO ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1981, 1976, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11739 ADDISON	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11739 ADDISON ST	2013, 2008, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1976, 1975, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11739 ADDISON WAY	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11739 HESBY	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11739 HESBY ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1992, 1990, 1986, 1981, 1976, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11740 HUSTON RD	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11740 HUSTON ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920

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Address Researched	Address Not Identified in Research Source
11740 HUSTON ST	2013, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11741 OTSEGO	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11741 OTSEGO ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11741 OTSEGO ST	2013, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11742 HUSTON	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11744 HESBY	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11744 HESBY ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1992, 1990, 1986, 1981, 1976, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11744 OTSEGO ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1976, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11745 ADDISON	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11745 ADDISON ST	2013, 2008, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1976, 1975, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11745 ADDISON WAY	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920

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Address Researched	Address Not Identified in Research Source
11745 HESBY	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11745 HESBY ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1992, 1990, 1986, 1985, 1981, 1980, 1976, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11746 HUSTON	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11746 HUSTON RD	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11746 HUSTON ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1990, 1986, 1981, 1976, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11747 OTSEGO	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11747 OTSEGO ST	2013, 2008, 2006, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11750 HESBY	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11750 HESBY ST	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11750 OTSEGO	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11750 OTSEGO ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1992, 1990, 1986, 1981, 1976, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920

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11751 ADDISON ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11751 ADDISON WAY	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11751 HESBY	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11751 HESBY ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1981, 1976, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11752 HUSTON	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11752 HUSTON RD	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11752 HUSTON ST	2013, 2008, 2006, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11753 OTSEGO ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11753 OTSEGO ST	2013, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11755 ADDISON	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11755 ADDISON ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920

FINDINGS

Address Researched	Address Not Identified in Research Source
11756 HESBY	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11756 HESBY ST	2013, 2008, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11756 OTSEGO ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1981, 1976, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11757 HESBY ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1981, 1976, 1975, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11758 HESBY	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11759 OTSEGO ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1992, 1990, 1986, 1981, 1976, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11760 HESBY	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11802 HESBY	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11802 HESBY ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1992, 1990, 1986, 1981, 1976, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11803 ADDISON ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1976, 1975, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11803 HESBY ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1992, 1990, 1986, 1981, 1976, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920

FINDINGS

Address Researched	Address Not Identified in Research Source
11808 HESBY	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11808 HESBY DR	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11808 HESBY ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1981, 1976, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11809 ADDISON	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11809 ADDISON ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1976, 1975, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11809 ADDISON WAY	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1992, 1990, 1986, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11809 HESBY ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1981, 1976, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11809 HESBY ST	2013, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11814 HESBY	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11814 HESBY ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1981, 1976, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11814 HESBY ST	2013, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920

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Address Researched	Address Not Identified in Research Source
11815 ADDISON	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11815 ADDISON ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1976, 1975, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1957, 1955, 1954, 1952, 1951, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11815 ADDISON WAY	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11815 HESBY ST	2013, 2008, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1981, 1976, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11820 HESBY	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11820 HESBY ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1992, 1990, 1986, 1981, 1976, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11821 HESBY	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11821 HESBY ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11825 HESBY ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11827 HESBY	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1970, 1969, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
11827 HESBY ST	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1981, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920

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Address Researched	Address Not Identified in Research Source
4911 MORELLA AVE	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1990, 1986, 1981, 1976, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
4911 MORELLA AVE	2013, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
4914 COLFAX AVE	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1992, 1991, 1990, 1986, 1985, 1981, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1939, 1938, 1937, 1936, 1934, 1933, 1932, 1931, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
4914 COLFAX CT	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
4915 COLFAX AVE	2013, 2008, 2006, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
4916 COLFAX	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
4916 COLFAX AVE	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1990, 1986, 1981, 1976, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
4916 COLFAX CT	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
4919 MORELLA AVE	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1976, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
4925 MORELLA AVE	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
4935 MORELLA AVE	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1992, 1990, 1986, 1981, 1980, 1976, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920

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Address Researched	Address Not Identified in Research Source
4935 MORELLA AVE	2013, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
4939 MORELLA AVE	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
4945 MORELLA AVE	2013, 2008, 2006, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1976, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
4949 COLFAX	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
4949 MORELLA	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1970, 1969, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
4949 MORELLA AVE	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1992, 1981, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
4959 MORELLA AVE	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
5000 COLFAX AVE	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1992, 1990, 1986, 1981, 1976, 1975, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
5000 COLFAX AVE	2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
5000 COLFAX CT	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
5007 COLFAX AVE	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1992, 1990, 1986, 1981, 1976, 1975, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920

FINDINGS

Address Researched	Address Not Identified in Research Source
5007 COLFAX CT	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
5008 COLFAX AVE	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
5009 COLFAX AVE	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
5011 COLFAX AVE	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
5017 COLFAX AVE	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1992, 1990, 1986, 1981, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
5017 COLFAX CT	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
5023 COLFAX AVE	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
5026 MORELLA AVE	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
5027 COLFAX AVE	2013, 2008, 2006, 2004, 2003, 2000, 1999, 1996, 1992, 1990, 1986, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
5027 COLFAX AVE	2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
5035 COLFAX AVE	2013, 2008, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920

FINDINGS

Address Researched	Address Not Identified in Research Source
5038 1/4 COLFAX AVE	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
5038 COLFAX AVE	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
5039 COLFAX AVE	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
5040 1/4 COLFAX AVE	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
5040 COLFAX AVE	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1981, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
5042 1/4 COLFAX AVE	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1976, 1975, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
5042 COLFAX AVE	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1981, 1976, 1975, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
5042 COLFAX CT	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
5044 1/2 COLFAX AVE	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
5044 1/4 COLFAX AVE	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
5044 COLFAX	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920

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Address Researched	Address Not Identified in Research Source
5044 COLFAX AVE	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1981, 1980, 1975, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
5044 COLFAX CT	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
5045 COLFAX AVE	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1949, 1948, 1947, 1946, 1945, 1944, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
5045 COLFAX CT	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
5046 1/4 COLFAX AVE	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
5046 COLFAX AVE	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1992, 1991, 1990, 1986, 1985, 1981, 1976, 1975, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
5048 1/4 COLFAX AVE	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1976, 1975, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
5048 COLFAX AVE	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
5050 1/2 COLFAX AVE	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
5050 COLFAX AVE	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
5050 COLFAX CT	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920

FINDINGS

Address Researched	Address Not Identified in Research Source
5051 1/2 COLFAX AVE	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
5051 COLFAX AVE	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
5051 COLFAX AVE	2013, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
5052 COLFAX AVE	2013, 2008, 2006, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
5052 COLFAX CT	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
5057 COLFAX AVE	2013, 2008, 2004, 2003, 2000, 1999, 1996, 1992, 1976, 1975, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
5057 COLFAX CT	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
5058 1/2 COLFAX AVE	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1976, 1975, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
5058 3/4 COLFAX AVE	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
5058 COLFAX AVE	2013, 2008, 2006, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
5058 COLFAX CT	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920

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Address Researched	Address Not Identified in Research Source
5061 COLFAX AVE	2013, 2008, 2006, 2004, 2003, 2000, 1999, 1996, 1995, 1992, 1990, 1986, 1981, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
5061 COLFAX CT	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920

Colfax Charter Elementary School
11724 Addison Street
Valley Village, CA 91607

Inquiry Number: 4398813.8
August 31, 2015

EDR Building Permit Report

Target Property and Adjoining Properties

Environmental Data Resources Inc

6 Armstrong Road
Shelton, CT 06484
800.352.0050
www.edrnet.com

TABLE OF CONTENTS

SECTION

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

EDR BUILDING PERMIT REPORT

About This Report

The EDR Building Permit Report provides a practical and efficient method to search building department records for indications of environmental conditions. Generated via a search of municipal building permit records gathered from more than 1,600 cities nationwide, this report will assist you in meeting the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13), or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

Building permit data can be used to identify current and/or former operations and structures/features of environmental concern. The data can provide information on a target property and adjoining properties such as the presence of underground storage tanks, pump islands, sumps, drywells, etc., as well as information regarding water, sewer, natural gas, electrical connection dates, and current/former septic tanks.

ASTM and EPA Requirements

ASTM E 1527-13 lists building department records as a "standard historical source," as detailed in § 8.3.4.7: "Building Department Records - The term building department records means those records of the local government in which the property is located indicating permission of the local government to construct, alter, or demolish improvements on the property." ASTM also states that "Uses in the area surrounding the property shall be identified in the report, but this task is required only to the extent that this information is revealed in the course of researching the property itself."

EPA's Standards and Practices for All Appropriate Inquires (AAI) states: "§312.24: Reviews of historical sources of information. (a) Historical documents and records must be reviewed for the purposes of achieving the objectives and performance factors of §312.20(e) and (f). Historical documents and records may include, but are not limited to, aerial photographs, fire insurance maps, building department records, chain of title documents, and land use records."

Methodology

EDR has developed the EDR Building Permit Report through our partnership with BuildFax, the nation's largest repository of building department records. BuildFax collects, updates, and manages building department records from local municipal governments. The database now includes 30 million permits, on more than 10 million properties across 1,600 cities in the United States.

The EDR Building Permit Report comprises local municipal building permit records, gathered directly from local jurisdictions, including both target property and adjoining properties. Years of coverage vary by municipality. Data reported includes (where available): date of permit, permit type, permit number, status, valuation, contractor company, contractor name, and description.

Incoming permit data is checked at seven stages in a regimented quality control process, from initial data source interview, to data preparation, through final auditing. To ensure the building department is accurate, each of the seven quality control stages contains, on average, 15 additional quality checks, resulting in a process of approximately 105 quality control "touch points."

For more information about the EDR Building Permit Report, please contact your EDR Account Executive at (800) 352-0050.

EDR® Environmental Data Resources Inc

BUILD FAX® PROPERTY HISTORY

EXECUTIVE SUMMARY: SEARCH DOCUMENTATION

A search of building department records was conducted by Environmental Data Resources, Inc (EDR) on behalf of WorleyParsons on Aug 31, 2015.

TARGET PROPERTY

11724 Addison Street
Valley Village, CA 91607

SEARCH METHODS

EDR searches available lists for both the Target Property and Surrounding Properties.

RESEARCH SUMMARY

Building permits identified: **YES**

The following research sources were consulted in the preparation of this report. An "X" indicates where information was identified in the source and provided in this report.

Los Angeles

Year	*Source*	*TP*	*Adjoining*
2015	City of Los Angeles, Department of Building and Safety		X
2014	City of Los Angeles, Department of Building and Safety		X
2013	City of Los Angeles, Department of Building and Safety		X
2012	City of Los Angeles, Department of Building and Safety		X
2011	City of Los Angeles, Department of Building and Safety		X
2010	City of Los Angeles, Department of Building and Safety		X
2009	City of Los Angeles, Department of Building and Safety		X
2008	City of Los Angeles, Department of Building and Safety		X
2007	City of Los Angeles, Department of Building and Safety		X
2006	City of Los Angeles, Department of Building and Safety		X
2005	City of Los Angeles, Department of Building and Safety		X
2004	City of Los Angeles, Department of Building and Safety		X
2003	City of Los Angeles, Department of Building and Safety		X
2002	City of Los Angeles, Department of Building and Safety		X
2001	City of Los Angeles, Department of Building and Safety		X
2000	City of Los Angeles, Department of Building and Safety		X
1999	City of Los Angeles, Department of Building and Safety		X
1998	City of Los Angeles, Department of Building and Safety		X
1997	City of Los Angeles, Department of Building and Safety		X
1996	City of Los Angeles, Department of Building and Safety		X
1995	City of Los Angeles, Department of Building and Safety		
1994	City of Los Angeles, Department of Building and Safety		
1993	City of Los Angeles, Department of Building and Safety		
1992	City of Los Angeles, Department of Building and Safety		
1991	City of Los Angeles, Department of Building and Safety		
1990	City of Los Angeles, Department of Building and Safety		
1989	City of Los Angeles, Department of Building and Safety		
1988	City of Los Angeles, Department of Building and Safety		

BUILDING DEPARTMENT RECORDS SEARCHED

Name: Los Angeles
Years: 1988-2015
Source: City of Los Angeles, Department of Building and Safety, VALLEY VILLAGE, CA
Phone: (213) 482-6800

Name: San Bernardino County
Years: 2002-2015
Source: San Bernardino County, Land Use, Building & Safety, FONTANA, CA
Phone: (909) 387-8311

TARGET PROPERTY FINDINGS

TARGET PROPERTY DETAIL

11724 Addison Street
Valley Village, CA 91607

No Permits Found

ADJOINING PROPERTY FINDINGS

ADJOINING PROPERTY DETAIL

The following Adjoining Property addresses were researched for this report. Detailed findings are provided for each address.

ADDISON ST

11627 ADDISON ST

Date:	**4/1/2004**
Permit Type:	
Description:	**No Plan Check SEWER LINE REPAIR**
Permit Description:	**Plumbing**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	040429000009460
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	DRAIN SURGEON INC THE

Date:	**3/16/2004**
Permit Type:	
Description:	**No Plan Check 200 AMP SERVICE UPGRADE**
Permit Description:	**Electrical**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	040412000006186
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	DEPENDABLE ELECTRIC

ADJOINING PROPERTY FINDINGS

11634 ADDISON ST

Date:	**2/24/2012**
Permit Type:	
Description:	**No Plan Check Inspection of existing SGSOV**
Permit Description:	**Plumbing**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	120429000003429
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	METRO RETROFITTING INC

Date:	**4/30/2010**
Permit Type:	
Description:	**No Plan Check replacement dishwasher valley village 91**
Permit Description:	**Plumbing**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	100429000007087
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	ARNDT & TRAINA INC

Date:	**8/9/2002**
Permit Type:	
Description:	**Plan Check ADD 12' X 23'6" OPEN TRELLIS PER CITY ST**
Permit Description:	**Bldg-Addition**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling Single Family Residence
Permit Number:	020142000005302
Status:	
Valuation:	$4,500.00
Contractor Company:	
Contractor Name:	OWNER-BUILDER

ADJOINING PROPERTY FINDINGS

Date: **6/3/2002**
Permit Type:
Description: **Plan Check NEW IRR-SHAPED POOL (30'x15') AND SPA (7**

Permit Description: **Swimming-Pool/Spa**
Work Class:
Proposed Use: 1 or 2 Family Dwelling Suimming Pools/Spa
Permit Number: 020472000000640
Status:
Valuation: $18,500.00
Contractor Company:
Contractor Name: CALIFORNIA POOLS & SPAS

Date: **9/25/2001**
Permit Type:
Description: **Plan Check NEW 2 STORY SFD W/ ATT 2 CAR GARAGE**

Permit Description: **Bldg-New**
Work Class:
Proposed Use: 1 or 2 Family Dwelling Single Family Residence
Permit Number: 010102000001908
Status:
Valuation: $220,000.00
Contractor Company:
Contractor Name:

Date: **7/18/2001**
Permit Type:
Description: **Plan Check REMOVE AND RECOMPACT 3' DEEP PER PLAN; 8**

Permit Description: **Grading**
Work Class:
Proposed Use: 1 or 2 Family Dwelling Grading Non-Hill
Permit Number: 010302000001675
Status:
Valuation: $2,008.00
Contractor Company:
Contractor Name: OWNER-BUILDER

ADJOINING PROPERTY FINDINGS

11640 ADDISON ST

Date:	**11/30/2012**
Permit Type:	
Description:	**No Plan Check dish washer replacement same location**
Permit Description:	**Plumbing**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	120429000021862
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	JOEL'S PLUMBING

Date:	**9/25/2001**
Permit Type:	
Description:	**Plan Check NEW 2 STORY SFD W/ ATT 2 CAR GARAGE**
Permit Description:	**Bldg-New**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling Single Family Residence
Permit Number:	010102000001907
Status:	
Valuation:	$220,000.00
Contractor Company:	
Contractor Name:	

ADJOINING PROPERTY FINDINGS

11646 ADDISON ST

Date:	**8/31/2001**
Permit Type:	
Description:	**Plan Check NEW 2 STORY SFD W/ ATTACHED 2 CAR GARAGE**
Permit Description:	**Bldg-New**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling Single Family Residence
Permit Number:	010102000001705
Status:	
Valuation:	$224,000.00
Contractor Company:	
Contractor Name:	OWNER-BUILDER

11652 ADDISON ST

Date:	**10/7/2014**
Permit Type:	
Description:	**Plan Check New 15'-4"x32' irrgular swimming pool w th 8' diameter spa per standard plan # 268.**
Permit Description:	**Swimming-Pool/Spa**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling Suimming Pools/Spa
Permit Number:	140472000001451
Status:	
Valuation:	$25,000.00
Contractor Company:	
Contractor Name:	ULTIMATE WATER CREATIONS INC

ADJOINING PROPERTY FINDINGS

Date: **10/22/2013**
Permit Type:
Description: **No Plan Check INSTALL ROOF MOUNTED SOLAR SYSTEM WITH M IAN SERVICE PANEL SYSTEM SIZE 9.5 KW USING 8KW INVERTERS**

Permit Description: **Electrical**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 130412000029402
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: SOLARCITY CORPORATION

Date: **8/31/2001**
Permit Type:
Description: **Plan Check NEW 2 STORY SFD W/ ATTACHED 2 CAR GARAGE**

Permit Description: **Bldg-New**
Work Class:
Proposed Use: 1 or 2 Family Dwelling Single Family Residence
Permit Number: 010102000001706
Status:
Valuation: $224,000.00
Contractor Company:
Contractor Name: OWNER-BUILDER

Date: **8/7/2001**
Permit Type:
Description: **No Plan Check SUPPLEMENTAL- ADD CTS.**

Permit Description: **Electrical**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 010412000116302
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: S & S RENT-A-FENCE

ADJOINING PROPERTY FINDINGS

Date:	**8/6/2001**
Permit Type:	
Description:	**No Plan Check INSTALL 100 AMP CTS. (TEMP. POWER POLE)**
Permit Description:	**Electrical**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	010412000016302
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	S & S RENT-A-FENCE

11658 ADDISON ST

Date:	**8/31/2001**
Permit Type:	
Description:	**Plan Check NEW 2 STORY SFD W/ ATTACHED 2 CAR GARAGE**
Permit Description:	**Bldg-New**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling Single Family Residence
Permit Number:	010102000001707
Status:	
Valuation:	$205,000.00
Contractor Company:	
Contractor Name:	OWNER-BUILDER

ADJOINING PROPERTY FINDINGS

11731 ADDISON ST

Date: **9/15/2011**
Permit Type:
Description: **No Plan Check REPLACEMENT DISHWASHER 818-506-1250, BRA NTLEY VALLEY VILLAGE, 91607**

Permit Description: **Plumbing**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 110429000016298
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: ARNDT & TRAINA INC

Date: **6/27/2007**
Permit Type:
Description: **Plan Check SUPPLEMENTAL PERMIT TO # 07016-20000-077**

Permit Description: **Bldg-Alter/Repair**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 070162000107744
Status:
Valuation: $1,000.00
Contractor Company:
Contractor Name: TRI - TECH RESTORATION CO INC

ADJOINING PROPERTY FINDINGS

Date:	**4/27/2007**
Permit Type:	
Description:	**No Plan Check REPAIR ROOF DAMAGED BY TREE, <10% DAMAGE**
Permit Description:	**Bldg-Alter/Repair**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	070162000007744
Status:	
Valuation:	$10,000.00
Contractor Company:	
Contractor Name:	TRI - TECH RESTORATION CO INC

11739 ADDISON ST

Date:	**6/22/2006**
Permit Type:	
Description:	**No Plan Check Reroof with 20 sqrs COMP SHINGLE roofing**
Permit Description:	**Bldg-Alter/Repair**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	060169000012097
Status:	
Valuation:	$6,000.00
Contractor Company:	
Contractor Name:	DR HOME REMODELING INC

ADJOINING PROPERTY FINDINGS

11745 ADDISON ST

Date: **10/24/2011**
Permit Type:
Description: **Plan Check (N) DETACHED 2-CAR GARAGE @ 20' X 20' ON REAR-HALF OF LOT, PER ENGINEERING. (EXISTING DETACHED GARAGE TO BE DEMOLISHED).**

Permit Description: **Bldg-New**
Work Class:
Proposed Use: 1 or 2 Family Dwelling Private Garage
Permit Number: 110102000002102
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: ADVANCED B C INC

Date: **10/24/2011**
Permit Type:
Description: **Plan Check DEMO (E) 18' X 18' DETACHED GARAGE. SEW ER PERMIT NOT NEEDED BUT PEDESTRIAN PROTECTION FENCE IS REQUIRED PER DPI**

Permit Description: **Bldg-Demolition**
Work Class:
Proposed Use: 1 or 2 Family Dwelling Misc. Bldg or Structure
Permit Number: 110192000001753
Status:
Valuation: $1,100.00
Contractor Company:
Contractor Name: ADVANCED B C INC

ADJOINING PROPERTY FINDINGS

11751 ADDISON ST

Date:	**3/14/2001**
Permit Type:	
Description:	**Plan Check NEW 14' X 30' POOL/SPA PER STD PLAN # 26**
Permit Description:	**Swimming-Pool/Spa**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling Suimming Pools/Spa
Permit Number:	010472000000207
Status:	
Valuation:	$22,500.00
Contractor Company:	
Contractor Name:	POOLS BY PERT

11755 ADDISON ST

Date:	**8/11/2009**
Permit Type:	
Description:	**No Plan Check 200 AMP SERVICE UPGRADE AND RELOCATION**
Permit Description:	**Electrical**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	090412000014983
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	RYFFEL CONST

ADJOINING PROPERTY FINDINGS

C.O. Issued Date:	**11/5/2009**
Date:	**7/16/2009**
Permit Type:	
Description:	**Plan Check 24'-2" X 20'-6" IRR ONE STORY ADDITION T**
Permit Description:	**Bldg-Addition**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling Single Family Residence
Permit Number:	090144000001935
Status:	
Valuation:	$38,000.00
Contractor Company:	
Contractor Name:	RYFFEL CONST

Date:	**6/10/2009**
Permit Type:	
Description:	**No Plan Check KITCHEN REMODEL (FOR RESIDENTIAL BUILDIN**
Permit Description:	**Bldg-Alter/Repair**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	090164000008341
Status:	
Valuation:	$22,000.00
Contractor Company:	
Contractor Name:	RYFFEL CONST

Date:	**5/6/2009**
Permit Type:	
Description:	**No Plan Check TEAR OFF EXISTING ROOFING. RE-ROOF 35 S**
Permit Description:	**Bldg-Alter/Repair**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	090164000006628
Status:	
Valuation:	$10,500.00
Contractor Company:	
Contractor Name:	AMARAL MARK ROOFING

ADJOINING PROPERTY FINDINGS

Date:	**10/23/1996**
Permit Type:	
Description:	**REPAIR EQ DAMAGED CHIMNEY PER LA CITY STD. METAL STUDS REQ'D SMOKE DET**
Permit Description:	**Bldg-Alter/Repair**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	960162000002745
Status:	
Valuation:	$3,000.00
Contractor Company:	
Contractor Name:	DELTAX CONSTRUCTION

11809 ADDISON ST

Date:	**7/8/2009**
Permit Type:	
Description:	**Plan Check Build (N)wall to South, install (N)door,**
Permit Description:	**Bldg-Alter/Repair**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	090162000010247
Status:	
Valuation:	$3,000.00
Contractor Company:	
Contractor Name:	OWNER-BUILDER

ADJOINING PROPERTY FINDINGS

Date:	**6/30/2009**
Permit Type:	
Description:	**No Plan Check INSTALL SUB PANEL AND CIRCUITS FOR LIGHT**
Permit Description:	**Electrical**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	090412000012039
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	OWNER-BUILDER

Date:	**6/30/2009**
Permit Type:	
Description:	**No Plan Check INSTALL 2 TON MINI SPLIT HVAC SYSTEM.**
Permit Description:	**HVAC**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	090442000005709
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	OWNER-BUILDER

Date:	**5/20/2009**
Permit Type:	
Description:	**No Plan Check DRYWALL LIVING ROOM AND ENTRY.**
Permit Description:	**Bldg-Alter/Repair**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	090162000007408
Status:	
Valuation:	$2,500.00
Contractor Company:	
Contractor Name:	OWNER-BUILDER

ADJOINING PROPERTY FINDINGS

Date: **5/20/2009**
Permit Type:
Description: **No Plan Check INSTALL 10 NEW CANNED LIGHTS - CHANGE 2**

Permit Description: **Electrical**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 090412000009291
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: OWNER-BUILDER

Date: **5/5/2009**
Permit Type:
Description: **No Plan Check INSTALLATION OF SGSOV**

Permit Description: **Plumbing**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 090429000007250
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: METRO RETROFITTING INC

11815 ADDISON ST

Date: **1/3/2013**
Permit Type:
Description: **No Plan Check INSTALL SUBMETER**

Permit Description: **Plumbing**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 130429000000167
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: FRANKEL WILLIAM PLUMBING OF WOODLAND HILLS INC

ADJOINING PROPERTY FINDINGS

Date:	**10/31/2005**
Permit Type:	
Description:	**No Plan Check E.Q. VALVE.**
Permit Description:	**Plumbing**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	050421000027307
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	J L PLUMBING

C.O. Issued Date:	**2/27/2009**
Date:	**4/28/2003**
Permit Type:	
Description:	**Plan Check ADD 2 BEDROOMS W/ 2-BATHROOMS (18'X20'6"**
Permit Description:	**Bldg-Addition**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	020142000008263
Status:	
Valuation:	$68,750.00
Contractor Company:	
Contractor Name:	BARHOUM CONSTRUCTION

ADJOINING PROPERTY FINDINGS

COLFAX AVE

4914 COLFAX AVE

Date: **3/17/2005**
Permit Type:
Description: **No Plan Check ADD 8 LIGHTS TO BLOCKWALL NO CIRCUITS**

Permit Description: **Electrical**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 050412000005887
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: THOMAS ELECTRIC

Date: **2/24/2005**
Permit Type:
Description: **Plan Check PROPOSED 6' HT. X 100' LONG CMU FENCE ..**

Permit Description: **Nonbldg-New**
Work Class:
Proposed Use: 1 or 2 Family Dwelling Misc. Bldg or Structure
Permit Number: 050202000000542
Status:
Valuation: $8,000.00
Contractor Company:
Contractor Name: H I C DEVELOPMENT

Date: **1/9/2004**
Permit Type:
Description: **Plan Check ADD IRR 42' X 66' ONE STORY BEDRMS, BATH**

Permit Description: **Bldg-Addition**
Work Class:
Proposed Use: 1 or 2 Family Dwelling Single Family Residence
Permit Number: 030142000009398
Status:
Valuation: $132,000.00
Contractor Company:
Contractor Name: OWNER-BUILDER

Date: **1/9/2004**
Permit Type:
Description: **Plan Check DEMO EXIST 20' X 20' DETACHED GARAGE.**

Permit Description: **Bldg-Demolition**
Work Class:
Proposed Use: 1 or 2 Family Dwelling Misc. Bldg or Structure
Permit Number: 040192000000044
Status:
Valuation: $1,200.00
Contractor Company:
Contractor Name: OWNER-BUILDER

4916 COLFAX AVE

Date: **3/17/2010**
Permit Type:
Description: **No Plan Check Reroof with 25 sqrs COMP SHINGLE roofing**

Permit Description: **Bldg-Alter/Repair**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 100169000004743
Status:
Valuation: $5,000.00
Contractor Company:
Contractor Name: MILLENNIA CONSTRUCTION

ADJOINING PROPERTY FINDINGS

Date: **1/21/2010**
Permit Type:
Description: **No Plan Check Bathroom remodel for residential buildin**

Permit Description: **Bldg-Alter/Repair**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 100162000001207
Status:
Valuation: $5,000.00
Contractor Company:
Contractor Name: MILLENIA CONSTRUCTION

Date: **12/15/2009**
Permit Type:
Description: **No Plan Check REWIRE 8 BRANCH CIRCUITS. REPLACE LIGHT**

Permit Description: **Electrical**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 090412000023788
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: MILLENNIA CONSTRUCTION

Date: **12/2/2009**
Permit Type:
Description: **No Plan Check Interior kitchen remodel/repair (no chan**

Permit Description: **Bldg-Alter/Repair**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 090169000019943
Status:
Valuation: $6,000.00
Contractor Company:
Contractor Name: MILLENNIA CONSTRUCTION

ADJOINING PROPERTY FINDINGS

Date:	**12/1/2005**
Permit Type:	
Description:	**No Plan Check 200 AMP. SERVICE UPGRADE.**
Permit Description:	**Electrical**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	050412000029238
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	ALEX ELECTRICAL

5000 COLFAX AVE

Date:	**3/29/2013**
Permit Type:	
Description:	**No Plan Check SUPPLEMENTAL PERMIT TO ADD DUCT TYPE SMO KE DETECTORS**
Permit Description:	**HVAC**
Work Class:	
Proposed Use:	Commercial
Permit Number:	130442000201827
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	U S COMFORT

ADJOINING PROPERTY FINDINGS

Date: **3/20/2013**
Permit Type:
Description: **No Plan Check INSTALL DEDICATED A/C CIRCUITS.**

Permit Description: **Electrical**
Work Class:
Proposed Use: Commercial
Permit Number: 130412000007278
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: U S COMFORT

Date: **3/20/2013**
Permit Type:
Description: **No Plan Check SUPPLEMENTAL PERMIT FOR INCIDENTAL GAS L INE FOR HVAC UNITS.**

Permit Description: **HVAC**
Work Class:
Proposed Use: Commercial
Permit Number: 130442000101827
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: U S COMFORT

Date: **2/19/2013**
Permit Type:
Description: **No Plan Check INSTALL 2 GAS ELECTRIC PACKAGE UNITS AND 2 HEAT PUMP PACKAGE UNITS.**

Permit Description: **HVAC**
Work Class:
Proposed Use: Commercial
Permit Number: 130442000001827
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: U S COMFORT

ADJOINING PROPERTY FINDINGS

Date: **4/19/2005**
Permit Type:
Description: **No Plan Check REMOVE & REPLACE 10sq. MISSION 2-PIECE T**

Permit Description: **Bldg-Alter/Repair**
Work Class:
Proposed Use: Commercial
Permit Number: 050169100007065
Status:
Valuation: $8,000.00
Contractor Company:
Contractor Name: BILT-WELL ROOF AND MATERIAL

Date: **4/1/2003**
Permit Type:
Description: **No Plan Check SUPPLEMENTAL TO 02044 40000 12002 FOR AI**

Permit Description: **HVAC**
Work Class:
Proposed Use: Commercial
Permit Number: 020444000112002
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: H G M CONSTRUCTION

Date: **2/21/2003**
Permit Type:
Description: **No Plan Check INSTALL 2 NEW CIRCUITS**

Permit Description: **Electrical**
Work Class:
Proposed Use: Commercial
Permit Number: 030412000003694
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: VOLT'S ELECTRIC

ADJOINING PROPERTY FINDINGS

Date: **1/30/2003**
Permit Type:
Description: **Plan Check INSTALL ONE WHEELCHAIR LIFT.**

Permit Description: **Elevator**
Work Class:
Proposed Use: Commercial
Permit Number: 030461000000090
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: SHIELD T L & ASSOCIATES

Date: **1/29/2003**
Permit Type:
Description: **No Plan Check REROOF OVER EXISTING (1) LAYER W/BLT UP**

Permit Description: **Bldg-Alter/Repair**
Work Class:
Proposed Use: Commercial
Permit Number: 030164000001857
Status:
Valuation: $7,200.00
Contractor Company:
Contractor Name: TAYLOR J ROOFING

Date: **1/15/2003**
Permit Type:
Description: **Plan Check Remove Ex. southerly stairway & replace**

Permit Description: **Bldg-Alter/Repair**
Work Class:
Proposed Use: Commercial School
Permit Number: 020163000023593
Status:
Valuation: $10,000.00
Contractor Company:
Contractor Name: STILLION CONSTRUCTION

ADJOINING PROPERTY FINDINGS

Date: **1/15/2003**
Permit Type:
Description: **Plan Check COMPACTION UNDER PROPOSED FOUNDATION AND**

Permit Description: **Grading**
Work Class:
Proposed Use: Commercial Grading Non-Hill
Permit Number: 030303000000105
Status:
Valuation: $50.00
Contractor Company:
Contractor Name: STILLION CONSTRUCTION

Date: **12/17/2002**
Permit Type:
Description: **No Plan Check REPLACE 2 WATER HEATERS**

Permit Description: **Plumbing**
Work Class:
Proposed Use: Commercial
Permit Number: 020422000039104
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: B B C ROTOR & PLUMBING

Date: **12/12/2002**
Permit Type:
Description: **No Plan Check install 5 bath fans**

Permit Description: **HVAC**
Work Class:
Proposed Use: Commercial
Permit Number: 020444000012002
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: H G M CONSTRUCTION

ADJOINING PROPERTY FINDINGS

Date: **12/10/2002**
Permit Type:
Description: **No Plan Check SUPPLEMENTAL PERMIT**

Permit Description: **Plumbing**
Work Class:
Proposed Use: Commercial
Permit Number: 020423000132720
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: ROBISON-COLE PLUMBING

Date: **12/9/2002**
Permit Type:
Description: **No Plan Check ADD 6 LIGHTS, 4 SWITCHES.**

Permit Description: **Electrical**
Work Class:
Proposed Use: Commercial
Permit Number: 020412000027090
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: VOLT'S ELECTRIC

Date: **10/23/2002**
Permit Type:
Description: **No Plan Check ADDING AND RELOCATING FIXTURES. RELOCAT**

Permit Description: **Plumbing**
Work Class:
Proposed Use: Commercial
Permit Number: 020423000032720
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: ROBISON-COLE PLUMBING

ADJOINING PROPERTY FINDINGS

Date:	**10/7/2002**
Permit Type:	
Description:	**Plan Check TENANT IMPROVEMENT AT (E) SPACE; REMOVE**
Permit Description:	**Bldg-Alter/Repair**
Work Class:	
Proposed Use:	Commercial
Permit Number:	020163000018274
Status:	
Valuation:	$15,000.00
Contractor Company:	
Contractor Name:	STILLION CONSTRUCTION

Date:	**2/12/1998**
Permit Type:	
Description:	**No Plan Check INSTALLATION OF BR. CIRCUITS FOR PARKING**
Permit Description:	**Electrical**
Work Class:	
Proposed Use:	Commercial
Permit Number:	980412000002503
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	CONWAY ELECTRIC

Date:	**12/16/1997**
Permit Type:	
Description:	**No Plan Check 1 BACKFLOW AND 7 LAWN SPRINKLER DEVICES**
Permit Description:	**Plumbing**
Work Class:	
Proposed Use:	Commercial
Permit Number:	970422000013667
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	PLANTSCAPE INC

ADJOINING PROPERTY FINDINGS

5011 COLFAX AVE

Date:	**4/30/2001**
Permit Type:	
Description:	**No Plan Check RELOCATE SERVICE METER**
Permit Description:	**Electrical**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	010412000008712
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	OWNER-BUILDER

5044 COLFAX AVE

Date:	**10/27/2000**
Permit Type:	
Description:	**No Plan Check C/O WATER HEATER. ACTUAL UNIT # 5044 1/4**
Permit Description:	**Plumbing**
Work Class:	
Proposed Use:	Apartment
Permit Number:	000422000016761
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	ROTO ROOTER SERV & PLUMBING CO

ADJOINING PROPERTY FINDINGS

5046 COLFAX AVE

Date:	**1/3/2002**
Permit Type:	
Description:	**No Plan Check WATER HEATER REPLACEMENT.**
Permit Description:	**Plumbing**
Work Class:	
Proposed Use:	Apartment
Permit Number:	020422000000090
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	ROTO ROOTER SERV & PLUMBING CO

5050 COLFAX AVE

Date:	**2/13/2004**
Permit Type:	
Description:	**No Plan Check INSTALL 3 EQ VALVES.**
Permit Description:	**Plumbing**
Work Class:	
Proposed Use:	Apartment
Permit Number:	040422000004275
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	L A PLUMBING

ADJOINING PROPERTY FINDINGS

5052 COLFAX AVE

Date:	**8/13/1997**
Permit Type:	
Description:	**No Plan Check t/o existing, install 1/2" cdx plywood,**
Permit Description:	**Bldg-Alter/Repair**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	970162000017516
Status:	
Valuation:	$5,000.00
Contractor Company:	
Contractor Name:	G E S ROOFING INC

5061 COLFAX AVE

Date:	**10/21/2003**
Permit Type:	
Description:	**No Plan Check INSTALLED 1 EARTHQUAKE VALVE**
Permit Description:	**Plumbing**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	030429000033144
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	PRC MECHANICAL

ADJOINING PROPERTY FINDINGS

COLFAX AVE # 102

5027 COLFAX AVE # 102

Date: **5/13/2013**
Permit Type:
Description: **No Plan Check REPAIRRED DAMAGED 6 GANG METER SECTION. LIKE FOR LIKE REPLACEMENT.**

Permit Description: **Electrical**
Work Class:
Proposed Use: Apartment
Permit Number: 130413000012332
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: POWELL ELECTRIC

HESBY ST

11630 HESBY ST

Date: **9/23/1997**
Permit Type:
Description: **No Plan Check WATER HEATER INSTALLATION**

Permit Description: **Plumbing**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 970422000009577
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: PEET WM A & SON INCORPORATED

ADJOINING PROPERTY FINDINGS

11633 HESBY ST

Date:	**9/9/2009**
Permit Type:	
Description:	**No Plan Check new 200 amp service**
Permit Description:	**Electrical**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	090419000016922
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	ELECTRICIAN MAGICIAN THE

Date:	**8/8/2006**
Permit Type:	
Description:	**No Plan Check Earth Quake valve**
Permit Description:	**Plumbing**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	060429000017713
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	PLOTKE PLUMBING INC

ADJOINING PROPERTY FINDINGS

11718 HESBY ST

Date: **6/7/2002**
Permit Type:
Description: **No Plan Check CIRCUITS FOR FURNACE AND A/C**

Permit Description: **Electrical**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 020412000012287
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: HUNTER ELECTRIC

Date: **6/6/2002**
Permit Type:
Description: **No Plan Check SUPPLEMENTAL PERMIT FOR INCIDENTAL GAS.**

Permit Description: **HVAC**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 020449000105302
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: RAPID REFRIGERATION

Date: **6/3/2002**
Permit Type:
Description: **No Plan Check Install new High Efficiency air-conditio**

Permit Description: **HVAC**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 020449000005302
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: RAPID REFRIGERATION

ADJOINING PROPERTY FINDINGS

11719 HESBY ST

Date:	**9/19/2013**
Permit Type:	
Description:	**No Plan Check (8) Window change-out (same size & type) for residential buildings. Dual glazing, labeled and certified by National Fenestration Rating Council (NFRC), is required for doors and windows replaced in all residential buildings, three stories or less, per Section 152(b) of Title 24. Valuation to be verified by Inspector.**
Permit Description:	**Bldg-Alter/Repair**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling Single Family Residence
Permit Number:	130162000019483
Status:	
Valuation:	$7,198.00
Contractor Company:	
Contractor Name:	TOPCHAIN CONSTRUCTION INC

Date:	**9/19/2013**
Permit Type:	
Description:	**No Plan Check (4) Window change-out (same size & type) for residential buildings. Dual glazing, labeled and certified by National Fenestration Rating Council (NFRC), is required for doors and windows replaced in all residential buildings, three stories or less, per Section 152(b) of Title 24. Valuation to be verified by Inspector.**
Permit Description:	**Bldg-Alter/Repair**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling Single Family Residence
Permit Number:	130162000019484
Status:	
Valuation:	$2,104.00
Contractor Company:	
Contractor Name:	TOPCHAIN CONSTRUCTION INC

ADJOINING PROPERTY FINDINGS

Date:	**11/30/2004**
Permit Type:	
Description:	**No Plan Check Reroof with 30 sqrs COMP SHINGLE roofing**
Permit Description:	**Bldg-Alter/Repair**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	040169000023548
Status:	
Valuation:	$9,000.00
Contractor Company:	
Contractor Name:	ALL SEASONS ENTERPRISES INC

Date:	**11/9/2000**
Permit Type:	
Description:	**No Plan Check REPLACE 7-WINDOWS**
Permit Description:	**Bldg-Alter/Repair**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	000164000022043
Status:	
Valuation:	$6,900.00
Contractor Company:	
Contractor Name:	SEARS HOME IMPROVEMENT PRODUCTS

11725 HESBY ST

Date:	**9/28/2011**
Permit Type:	
Description:	**No Plan Check INSTALL SUB WATER METER**
Permit Description:	**Plumbing**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	110422000017129
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	EMERALD GREEN PLUMBING INC

ADJOINING PROPERTY FINDINGS

Date: **3/30/2004**
Permit Type:
Description: **No Plan Check TEAR-OFF EXIST. WOOD SHAKE. INSTALL 1/2**

Permit Description: **Bldg-Alter/Repair**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 040161000005811
Status:
Valuation: $9,760.00
Contractor Company:
Contractor Name: ALL SEASONS HOME IMPROVEMENT

Date: **11/19/1998**
Permit Type:
Description: **No Plan Check WATER HEATER CHANGE OUT**

Permit Description: **Plumbing**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 980424000015217
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: ACTION CONTRACTORS

Date: **6/11/1998**
Permit Type:
Description: **No Plan Check INSTALL 200 AMP SERVICE**

Permit Description: **Electrical**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 980412000011388
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: ELECTRIC CONNECTION THE

ADJOINING PROPERTY FINDINGS

11730 HESBY ST

Date: **12/11/2000**
Permit Type:
Description: **No Plan Check RELOCATE RISER**

Permit Description: **Electrical**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 000412000025071
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: PRECISE ELECTRICAL SERVICES

Date: **11/16/2000**
Permit Type:
Description: **No Plan Check ADD 3 CIRCUITS FOR NEW ADDITION**

Permit Description: **Electrical**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 000412000023515
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: PRECISE ELECTRICAL SERVICES

Date: **11/13/2000**
Permit Type:
Description: **No Plan Check HVAC CHANGE OUT.**

Permit Description: **HVAC**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 000442000009773
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: AIR MASTER

Date: **10/2/2000**
Permit Type:
Description: **Plan Check Addition of 14' x17'6 to extend existing**

Permit Description: **Bldg-Addition**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 000142000005501
Status:
Valuation: $30,000.00
Contractor Company:
Contractor Name: OWNER-BUILDER

11731 HESBY ST

Date: **4/10/2012**
Permit Type:
Description: **No Plan Check 200 AMP SERVICE UPGRADE.**

Permit Description: **Electrical**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 120412000008215
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: EVERY WIRE ELECTRIC

ADJOINING PROPERTY FINDINGS

11738 HESBY ST

Date:	**4/18/2002**
Permit Type:	
Description:	**No Plan Check RELOCATE WATER HEATER.**
Permit Description:	**Plumbing**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	020422000009757
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	LIVINGSTON PLUMBING

11744 HESBY ST

Date:	**9/3/2014**
Permit Type:	
Description:	**No Plan Check 100amp cts**
Permit Description:	**Electrical**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	140419000024059
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	BURNS BRIAN

ADJOINING PROPERTY FINDINGS

Date: **8/14/2014**
Permit Type:
Description: **Plan Check 45'-7" x 49' irreg. shaped kitchen/dini g room extension/family room addition to side/rear & 32'-5" x 31' irreg. shaped living room extension/bedroom/patio cover addition to front. Remodel entire house and reframe entire roof.**

Permit Description: **Bldg-Addition**
Work Class:
Proposed Use: 1 or 2 Family Dwelling Single Family Residence
Permit Number: 140142000003053
Status:
Valuation: $250,000.00
Contractor Company:
Contractor Name: OWNER-BUILDER

Date: **7/29/2014**
Permit Type:
Description: **No Plan Check Bathroom (1) remodel for residential bu ldings (no structural changes).**

Permit Description: **Bldg-Alter/Repair**
Work Class:
Proposed Use: 1 or 2 Family Dwelling Single Family Residence
Permit Number: 140162000014979
Status:
Valuation: $2,000.00
Contractor Company:
Contractor Name: OWNER-BUILDER

ADJOINING PROPERTY FINDINGS

Date:	**3/29/2007**
Permit Type:	
Description:	**No Plan Check 1 - 2.5TON HEAT PUMP 1 AIR HANDLER 7- DU**
Permit Description:	**HVAC**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	070449000003273
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	MEDITERRANEAN HEATING & AIR CONDITIONING INC

11750 HESBY ST

Date:	**3/8/2005**
Permit Type:	
Description:	**No Plan Check Reroof with 32 sqrs COMP SHINGLE roofing**
Permit Description:	**Bldg-Alter/Repair**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	050169000003976
Status:	
Valuation:	$9,600.00
Contractor Company:	
Contractor Name:	RADTKE CONSTRUCTION

ADJOINING PROPERTY FINDINGS

11751 HESBY ST

Date: **2/15/2008**
Permit Type:
Description: **No Plan Check REPLACE 40 GALLON GAS WATER HEATER - SAM**

Permit Description: **Plumbing**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 080429000002986
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: AFFORDABLE WATER HEATERS AND PLUMBING INC

Date: **10/8/1997**
Permit Type:
Description: **No Plan Check Block wall 65' L 6' ht**

Permit Description: **Nonbldg-New**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 970202000002645
Status:
Valuation: $3,000.00
Contractor Company:
Contractor Name: OWNER-BUILDER

Date: **5/19/1997**
Permit Type:
Description: **No Plan Check ROOFTOP GAS/ELECTRIC**

Permit Description: **Electrical**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 970412000006950
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: HOFFMAN COOLING & HEATING

Date:	**5/19/1997**
Permit Type:	
Description:	**No Plan Check ROOFTOP GAS/ELECTRIC**
Permit Description:	**HVAC**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	970442000002921
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	HOFFMAN COOLING & HEATING

11756 HESBY ST

Date:	**7/7/2006**
Permit Type:	
Description:	**Plan Check ADD [13'-0" X 16'-6"] FRONT LATTICE POR**
Permit Description:	**Bldg-Alter/Repair**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	060161000012635
Status:	
Valuation:	$10,000.00
Contractor Company:	
Contractor Name:	OWNER-BUILDER

Date:	**1/24/2006**
Permit Type:	
Description:	**Plan Check ADD [4'6"X 6'] REAR PORCH.**
Permit Description:	**Bldg-Addition**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	060141000000588
Status:	
Valuation:	$800.00
Contractor Company:	
Contractor Name:	OWNER-BUILDER

ADJOINING PROPERTY FINDINGS

Date:	**7/26/2005**
Permit Type:	
Description:	**Plan Check ONE STORY ADDITION [12'x33'6"] TO WEST S**
Permit Description:	**Bldg-Addition**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	050141000007151
Status:	
Valuation:	$40,000.00
Contractor Company:	
Contractor Name:	OWNER-BUILDER

11757 HESBY ST

Date:	**6/2/1997**
Permit Type:	
Description:	**Plan Check REMOVE CARPORT, ADD GARAGE (18FT X 23.25**
Permit Description:	**Bldg-Alter/Repair**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	970164000011967
Status:	
Valuation:	$10,000.00
Contractor Company:	
Contractor Name:	OWNER-BUILDER

ADJOINING PROPERTY FINDINGS

11802 HESBY ST

Date:	**1/12/2015**
Permit Type:	
Description:	**No Plan Check**
Permit Description:	**Electrical**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	150411000000825
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	ZERO ENERGY CONTRACTING INC

Date:	**12/8/2014**
Permit Type:	
Description:	**No Plan Check Install roof mounted photovoltaic solar system with enphase microinverters. 1.0KW system. The solar PV installation shall comply with Los Angeles Fire Department's Fire Prevention Bureau (FPB) Requirement No. 96.**
Permit Description:	**Electrical**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	140412000033879
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	ZERO ENERGY CONTRACTING INC

ADJOINING PROPERTY FINDINGS

Date: **6/5/2014**
Permit Type:
Description: **Plan Check add 2 piers and girders under existing athroom to leveling and support floor above, all work per wfpp**

Permit Description: **Bldg-Alter/Repair**
Work Class:
Proposed Use: 1 or 2 Family Dwelling Single Family Residence
Permit Number: 140162000010910
Status:
Valuation: $6,000.00
Contractor Company:
Contractor Name: OWNER-BUILDER

Date: **4/24/2014**
Permit Type:
Description: **Plan Check CONVERT (E) CLOSET TO FULL BATH AND ADD 24" X 30" ATTIC ACCESS TO (E) SFD.**

Permit Description: **Bldg-Alter/Repair**
Work Class:
Proposed Use: 1 or 2 Family Dwelling Single Family Residence
Permit Number: 140162000007856
Status:
Valuation: $5,000.00
Contractor Company:
Contractor Name: OWNER-BUILDER

ADJOINING PROPERTY FINDINGS

Date: **5/12/2011**
Permit Type:
Description: **No Plan Check rEPLACEMENT FURNACE COIL CONDENSER AND A CCESSIBLE DUCT.**

Permit Description: **HVAC**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 110449000005166
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: KILOWATT HEATING AIR CONDITIONING & ELECTRIC

Date: **11/10/2003**
Permit Type:
Description: **No Plan Check Whole house re-wire**

Permit Description: **Electrical**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 030419000025932
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: ELECTRIC CONNECTION THE

Date: **10/7/2003**
Permit Type:
Description: **No Plan Check Earthquake Valve**

Permit Description: **Plumbing**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 030429000031701
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: PLUMBER JOHN

Date:	**1/6/2003**
Permit Type:	
Description:	**No Plan Check INSTALL ANCHOR/BRACING PER L.A. STANDARD**
Permit Description:	**Bldg-Alter/Repair**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	030162000000207
Status:	
Valuation:	$2,500.00
Contractor Company:	
Contractor Name:	WEINSTEIN CONSTRUCTION CORPORATION

Date:	**10/27/1997**
Permit Type:	
Description:	**No Plan Check COMBINED PERMIT: T/O AND REROOF W/ 34 SQ**
Permit Description:	**Bldg-Alter/Repair**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	970162000025314
Status:	
Valuation:	$6,100.00
Contractor Company:	
Contractor Name:	ESPINOZA ROOFING CO

11803 HESBY ST

Date:	**8/3/2005**
Permit Type:	
Description:	**No Plan Check Chimney repair per L.A. City standard pl**
Permit Description:	**Bldg-Alter/Repair**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	050169000016107
Status:	
Valuation:	$8,000.00
Contractor Company:	
Contractor Name:	FOOTHILL FIREPLACE

ADJOINING PROPERTY FINDINGS

Date: **7/23/1997**
Permit Type:
Description: **No Plan Check CIRCUITS FOR FAU AND A/C**

Permit Description: **Electrical**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 970413000011099
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: H G M HEATOMG & AIR CONDITIONING

Date: **7/23/1997**
Permit Type:
Description: **No Plan Check GAS OUTLET FOR FAU**

Permit Description: **Plumbing**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 970423000006607
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: H G M HEATING AND AIR CONDITIONING

Date: **7/23/1997**
Permit Type:
Description: **No Plan Check INSTALL NEW FAU & A//C**

Permit Description: **HVAC**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 970443000004674
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: H G M HEATING AND AIR CONDITIONING

ADJOINING PROPERTY FINDINGS

11809 HESBY ST

Date:	**2/2/2015**
Permit Type:	
Description:	**No Plan Check**
Permit Description:	**Electrical**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	150412000003043
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	J A Z ELECTRIC

Date:	**8/14/2003**
Permit Type:	
Description:	**No Plan Check Install Seismic Gas Shut-off valve to sa**
Permit Description:	**Plumbing**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	030429000025932
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	OWNER-BUILDER

ADJOINING PROPERTY FINDINGS

11814 HESBY ST

Date:	**11/20/2002**
Permit Type:	
Description:	**No Plan Check Installation of earthquake gas shut-off**
Permit Description:	**Plumbing**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	020429000036128
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	SEISMIC SERVICES SPECIALISTS

Date:	**10/15/2001**
Permit Type:	
Description:	**No Plan Check D/W Chg out**
Permit Description:	**Plumbing**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	010421000015733
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	APPLIANCE INSTALLERS

ADJOINING PROPERTY FINDINGS

11815 HESBY ST

Date:	**12/17/2013**
Permit Type:	
Description:	**No Plan Check Install Level 2 40A/240V EVB40-SPT CAR C HARGER**
Permit Description:	**Electrical**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	130419000034994
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	I E S RESIDENTIAL INC

Date:	**6/22/2011**
Permit Type:	
Description:	**No Plan Check SOLAR POOL HEATER**
Permit Description:	**Plumbing**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	110422000010812
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	ALL VALLEY SOLAR INC

ADJOINING PROPERTY FINDINGS

Date: **6/13/2011**
Permit Type:
Description: **No Plan Check INSTALL NEW SERVICE , CONVERT EXISTING S ERVICE TO SUB PANEL**

Permit Description: **Electrical**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 110412000012116
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: A V ELECTRIC

Date: **4/26/2011**
Permit Type:
Description: **No Plan Check new electrical circuit for outdoor bbq**

Permit Description: **Electrical**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 110419000008419
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: COASTAL AQUATIC CREATIONS

Date: **4/26/2011**
Permit Type:
Description: **No Plan Check adding gas line for outdoor bbq**

Permit Description: **Plumbing**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 110429000007149
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: COASTAL AQUATIC CREATIONS

ADJOINING PROPERTY FINDINGS

C.O. Issued Date: **8/9/2011**
Date: **3/22/2011**
Permit Type:
Description: **Plan Check (N) POOL (35' X 18') & SPA (6' X 7') W/ AUTOMATIC POOL COVER PER LA CITY STD PLAN #268 **** SEE COMMENTS ******

Permit Description: **Swimming-Pool/Spa**
Work Class:
Proposed Use: 1 or 2 Family Dwelling Suimming Pools/Spa
Permit Number: 110472000000240
Status:
Valuation: $27,000.00
Contractor Company:
Contractor Name: COASTAL AQUATIC CREATIONS

Date: **4/8/2009**
Permit Type:
Description: **No Plan Check SOLAR ELECTRIC SYSTEM.**

Permit Description: **Electrical**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 090413000006309
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: ALL VALLEY SOLAR INC

C.O. Issued Date: **9/20/2006**
Date: **7/22/2005**
Permit Type:
Description: **Plan Check ADD IRR-SHAPED 1-STORY ADDITION TO (E) S**

Permit Description: **Bldg-Addition**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 050142000006459
Status:
Valuation: $55,000.00
Contractor Company:
Contractor Name: OWNER-BUILDER

ADJOINING PROPERTY FINDINGS

Date: **6/17/2005**
Permit Type:
Description: **Plan Check REVISE DIMENSION OF NEW 2- CAR GARAGE TO**

Permit Description: **Bldg-Alter/Repair**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 050102000102676
Status:
Valuation: $3,500.00
Contractor Company:
Contractor Name: ABC BUILDER

Date: **6/13/2005**
Permit Type:
Description: **Plan Check DPI ONLY - DEMO (E) 2- CAR GARAGE. SEE**

Permit Description: **Bldg-Demolition**
Work Class:
Proposed Use: 1 or 2 Family Dwelling Misc. Bldg or Structure
Permit Number: 050192000001290
Status:
Valuation: $1,080.00
Contractor Company:
Contractor Name: ABC BUILDER

C.O. Issued Date: **9/20/2006**
Date: **6/13/2005**
Permit Type:
Description: **Plan Check NEW 2- CAR GARAGE.**

Permit Description: **Bldg-New**
Work Class:
Proposed Use: 1 or 2 Family Dwelling Private Garage
Permit Number: 050102000002676
Status:
Valuation: $8,200.00
Contractor Company:
Contractor Name: ABC BUILDER

ADJOINING PROPERTY FINDINGS

11820 HESBY ST

Date:	**5/5/2010**
Permit Type:	
Description:	**No Plan Check REPLACE/CLEAN OUT WASTELINE.**
Permit Description:	**Plumbing**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	100422000007379
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	FRIMER PLUMBING AND CONSTRUCTION INC

Date:	**4/14/2010**
Permit Type:	
Description:	**No Plan Check UPGRADE SERVICE TO 200 AMP**
Permit Description:	**Electrical**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	100412000006774
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	SAUNDERS LEZAR

Date:	**2/19/1999**
Permit Type:	
Description:	**No Plan Check INSTALL EQ VALVE**
Permit Description:	**Plumbing**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	990422000002283
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	PEET WM A & SON INCORPORATED

Date: **12/24/1997**
Permit Type:
Description: **No Plan Check WALL HEATER CHANGE OUT**

Permit Description: **HVAC**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 970443000009392
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: CONTINENTAL REFRIGERATION / HEATING & AIR INC

11825 HESBY ST

Date: **7/2/1999**
Permit Type:
Description: **No Plan Check INSTALL EQ VALVE**

Permit Description: **Plumbing**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 990422000008900
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: TRENT MICHAEL

Date: **11/17/1998**
Permit Type:
Description: **No Plan Check REPLACE MASONRY FIREPLACE CHIMNEY WITH P**

Permit Description: **Bldg-Alter/Repair**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 980162000024912
Status:
Valuation: $2,500.00
Contractor Company:
Contractor Name: O'CONNOR CO

Date: **9/14/1998**
Permit Type:
Description: **No Plan Check INSTALLING NEW AC/FURN, AIR INLETS/OUTLE**

Permit Description: **HVAC**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 980442000007893
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: A B M SERVICES

Date: **7/13/1998**
Permit Type:
Description: **Plan Check ADD BATHROOM & EXTEND BEDROOM AT REAR(15**

Permit Description: **Bldg-Addition**
Work Class:
Proposed Use: 1 or 2 Family Dwelling Single Family Residence
Permit Number: 980142000003409
Status:
Valuation: $20,000.00
Contractor Company:
Contractor Name: OWNER-BUILDER

11830 HESBY ST

Date: **3/31/2012**
Permit Type:
Description: **No Plan Check install sub-meter**

Permit Description: **Plumbing**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 120429000005895
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: OWNER-BUILDER

Date:	**12/1/2011**
Permit Type:	
Description:	**Plan Check Add 24'7" X 28'6" irr-shaped familiy roo m/laundry room, and 10'9" X 2'6" extension of kitchen, add 38'2" X 37'0" irr-shaped bedroom/2 bathrooms. Remodel kitchen**
Permit Description:	**Bldg-Addition**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling Single Family Residence
Permit Number:	110142000003869
Status:	
Valuation:	$180,000.00
Contractor Company:	
Contractor Name:	FIRST POINT CONSTRUCTION

HUSTON ST

11714 HUSTON ST

Date:	**6/1/2007**
Permit Type:	
Description:	**No Plan Check 200 AMP SERVICE UPGRADE.**
Permit Description:	**Electrical**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	070412000013195
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	G R ELECTRICAL SERVICES

Date:	**5/31/2007**
Permit Type:	
Description:	**No Plan Check INSTALL HVAC SPLIT SYSTEM.**
Permit Description:	**HVAC**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	070442000005593
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	AIR TECH HEATING & A/C

Date:	**1/25/2000**
Permit Type:	
Description:	**No Plan Check INSTALL COMPOSITION SHINGLES CLASS "A" O**
Permit Description:	**Bldg-Alter/Repair**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	000162000001387
Status:	
Valuation:	$3,000.00
Contractor Company:	
Contractor Name:	HILLHOUSE ROOFING

11720 HUSTON ST

Date:	**3/19/2015**
Permit Type:	
Description:	**No Plan Check**
Permit Description:	**HVAC**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	150449000002508
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	MOCKINGBIRD H V A C

ADJOINING PROPERTY FINDINGS

Date: **6/6/2013**
Permit Type:
Description: **No Plan Check Replace 5 window(s). Same size, location number, type.**

Permit Description: **Bldg-Alter/Repair**
Work Class:
Proposed Use: 1 or 2 Family Dwelling Single Family Residence
Permit Number: 130169000011277
Status:
Valuation: $1,250.00
Contractor Company:
Contractor Name: PROGRESSIVE BUSINESS CORP

Date: **3/15/2004**
Permit Type:
Description: **No Plan Check Panel Upgrade**

Permit Description: **Electrical**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 040419000006075
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: A D R ELECTRIC

Date: **6/27/1997**
Permit Type:
Description: **Plan Check FAMILY ROOM ADDITION (18 X 7'6") & STUDY**

Permit Description: **Bldg-Addition**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 970142000003506
Status:
Valuation: $16,000.00
Contractor Company:
Contractor Name: MC BURNEY MATTHEW CONSTRUCTION

Date:	**6/16/1997**
Permit Type:	
Description:	**No Plan Check RELOCATE GAS METER, LAUNDRY AND DRYER**
Permit Description:	**Plumbing**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	970422000004970
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	LOPEZ JIM D

11734 HUSTON ST

Date:	**7/25/2013**
Permit Type:	
Description:	**No Plan Check Change out of a split system and a new d uctless mini split system.**
Permit Description:	**HVAC**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	130449000007746
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	A / C CONTROL INC

ADJOINING PROPERTY FINDINGS

11746 HUSTON ST

Date: **11/8/2004**
Permit Type:
Description: **No Plan Check electrical panel upgrade**

Permit Description: **Electrical**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 040419000027968
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: OWNER-BUILDER

MORELLA AVE

4911 MORELLA AVE

Date: **8/13/2013**
Permit Type:
Description: **No Plan Check CHANGE OUT #2 WINDOW(S) (SAME SIZE & TY PE FOR RESIDENTIAL BUILDINGS ONLY) DUAL GLAZING, LABELED AND CERTIFIED BY NATIONAL FENESTRATION RATING COUNCIL (NFRC), IS REQUIRED FOR DOORS AND WINDOWS REPLACED IN ALL RESIDENTIAL BUILDINGS, THREE STORIES OR LESS, PER SECTION 152(B) OF TITLE 24.**

Permit Description: **Bldg-Alter/Repair**
Work Class:
Proposed Use: 1 or 2 Family Dwelling Single Family Residence
Permit Number: 130163000016492
Status:
Valuation: $20,000.00
Contractor Company:
Contractor Name: ROCK CONSTRUCTION AND MANAGEMENT

ADJOINING PROPERTY FINDINGS

Date: **8/13/2013**
Permit Type:
Description: **No Plan Check REPLACE (E) ELECTRICAL PANEL WITH NEW 20 AMP SERVICE**

Permit Description: **Electrical**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 130413000021814
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: ROCK CONSTRUCTION AND MANAGEMENT

Date: **9/19/2000**
Permit Type:
Description: **Plan Check Propose 16'x32' pool with max. depth of**

Permit Description: **Swimming-Pool/Spa**
Work Class:
Proposed Use: 1 or 2 Family Dwelling Suimming Pools/Spa
Permit Number: 000472000001024
Status:
Valuation: $19,400.00
Contractor Company:
Contractor Name: GROVE & ASSOCIATES

Date: **11/2/1998**
Permit Type:
Description: **No Plan Check SHOWER PAN**

Permit Description: **Plumbing**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 980422000014161
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: LUSTER TILE OF CALIFORNIA INCORPORATED

ADJOINING PROPERTY FINDINGS

4919 MORELLA AVE

Date:	**10/4/2010**
Permit Type:	
Description:	**No Plan Check spot repair with cleanout installation**
Permit Description:	**Plumbing**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	100429000016953
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	RESCUE ROOTER

Date:	**5/4/2010**
Permit Type:	
Description:	**No Plan Check Add sill plate anchor bolts and cripple**
Permit Description:	**Bldg-Alter/Repair**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	100169000007922
Status:	
Valuation:	$2,000.00
Contractor Company:	
Contractor Name:	WHITECASTLE CONST

Date:	**8/31/2001**
Permit Type:	
Description:	**No Plan Check replace water heater**
Permit Description:	**Plumbing**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	010423000013183
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	SUSSMAN IRWIN

ADJOINING PROPERTY FINDINGS

4925 MORELLA AVE

Date:	**6/3/2005**
Permit Type:	
Description:	**No Plan Check CHANGE-OUT DISHWASHER**
Permit Description:	**Plumbing**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	050422000013839
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	GARRCO PLUMBING

4935 MORELLA AVE

Date:	**8/26/2014**
Permit Type:	
Description:	**No Plan Check Reroof with 21 sqrs COMP SHINGLE roofin over new solid sheathing.**
Permit Description:	**Bldg-Alter/Repair**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling Single Family Residence
Permit Number:	140169000017164
Status:	
Valuation:	$6,300.00
Contractor Company:	
Contractor Name:	OWNER-BUILDER

Date:	**12/6/2013**
Permit Type:	
Description:	**No Plan Check put in 9 runs of ductwork**
Permit Description:	**HVAC**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	130449000013165
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	MEDITERRANEAN HEATING & AIR CONDITIONING INC

Date:	**9/24/2013**
Permit Type:	
Description:	**Plan Check ONE STORY ADDITION & REMODEL:ADD 3'7" X 8'7" TO KITCHEN AT FRONT & ADD 7' X 7' CLOSET @ REAR PER ENGINEER'S DESIGN.REMODEL KITCHEN.**
Permit Description:	**Bldg-Addition**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling Single Family Residence
Permit Number:	130142000003591
Status:	
Valuation:	$20,000.00
Contractor Company:	
Contractor Name:	OWNER-BUILDER

Date:	**5/31/2001**
Permit Type:	
Description:	**No Plan Check Reroof : Tear off (E) shake, apply OSB p**
Permit Description:	**Bldg-Alter/Repair**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	010164000009934
Status:	
Valuation:	$12,000.00
Contractor Company:	
Contractor Name:	ALLEN TODD CONSTRUCTION

ADJOINING PROPERTY FINDINGS

4945 MORELLA AVE

Date: **11/4/2008**
Permit Type:
Description: **Plan Check 12' X 40' (480 SQ FT) LAP POOL PER LA**

Permit Description: **Swimming-Pool/Spa**
Work Class:
Proposed Use: 1 or 2 Family Dwelling Suimming Pools/Spa
Permit Number: 080472000001310
Status:
Valuation: $25,000.00
Contractor Company:
Contractor Name: OWNER-BUILDER

Date: **11/13/2006**
Permit Type:
Description: **No Plan Check upgrade existing 100 amp service for the**

Permit Description: **Electrical**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 060419000028282
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: OWNER-BUILDER

Date: **9/25/2000**
Permit Type:
Description: **No Plan Check INSTALL NEW SPLIT HVAC SYSTEM.**

Permit Description: **HVAC**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 000442000008184
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: A B M SERVICES

ADJOINING PROPERTY FINDINGS

4949 MORELLA AVE

Date:	**7/30/2012**
Permit Type:	
Description:	**Plan Check NEW ATTACHED 2 CAR TANDEM CARPORT TO THE SFD. PER CITY STD.**
Permit Description:	**Bldg-Addition**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling Single Family Residence Single Family Residence
Permit Number:	120142000002678
Status:	
Valuation:	$6,336.00
Contractor Company:	
Contractor Name:	OWNER-BUILDER

Date:	**7/30/2012**
Permit Type:	
Description:	**Plan Check CONVERT GARAGE TO NEW RECROOM.**
Permit Description:	**Bldg-Alter/Repair**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling Misc. Bldg or Structure Private Garage
Permit Number:	120162000015014
Status:	
Valuation:	$16,830.00
Contractor Company:	
Contractor Name:	OWNER-BUILDER

ADJOINING PROPERTY FINDINGS

Date: **7/24/2006**
Permit Type:
Description: **No Plan Check installation of one earthquake valve**

Permit Description: **Plumbing**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 060429000016405
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: PRC MECHANICAL

Date: **11/14/2001**
Permit Type:
Description: **No Plan Check T/O (E) ROOF. RE-ROOF WITH 1/2" CDX PLYW**

Permit Description: **Bldg-Alter/Repair**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 010162000022041
Status:
Valuation: $9,000.00
Contractor Company:
Contractor Name: CECIL PATRICK ROOFING CO

4959 MORELLA AVE

Date: **3/23/2010**
Permit Type:
Description: **No Plan Check Chimney repair per L.A. City standard pl**

Permit Description: **Bldg-Alter/Repair**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 100169000005149
Status:
Valuation: $5,500.00
Contractor Company:
Contractor Name: CHIMNEY SWEEPER THE

ADJOINING PROPERTY FINDINGS

Date: **11/2/2009**
Permit Type:
Description: **Plan Check (N) 6' MAX HIGH, 22' LONG (3 SIDES, 5'**

Permit Description: **Nonbldg-New**
Work Class:
Proposed Use: 1 or 2 Family Dwelling Misc. Bldg or Structure
Permit Number: 090202000002590
Status:
Valuation: $1,900.00
Contractor Company:
Contractor Name: OWNER-BUILDER

C.O. Issued Date: **10/20/2010**
Date: **10/20/2009**
Permit Type:
Description: **Plan Check 4'-6" x 20' addition to enlarge (E)garag**

Permit Description: **Bldg-Addition**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 090142000003642
Status:
Valuation: $5,000.00
Contractor Company:
Contractor Name: OWNER-BUILDER

Date: **7/30/2009**
Permit Type:
Description: **No Plan Check upgrade main panel to 200 amps**

Permit Description: **Electrical**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 090419000014180
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: GOMEZ & GOMEZ INC

ADJOINING PROPERTY FINDINGS

MORRISON ST

11628 MORRISON ST

Date: **2/3/2009**
Permit Type:
Description: **Plan Check SUPPLEMENTAL TO PERMIT # 07014-20000-036**

Permit Description: **Bldg-Alter/Repair**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 070142000103601
Status:
Valuation: $501.00
Contractor Company:
Contractor Name: OWNER-BUILDER

Date: **12/13/2007**
Permit Type:
Description: **No Plan Check 100 AMP CTS**

Permit Description: **Electrical**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 070412000029946
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: OWNER-BUILDER

ADJOINING PROPERTY FINDINGS

C.O. Issued Date: **8/7/2009**
Date: **10/12/2007**
Permit Type:
Description: **Plan Check PROPOSED 2132 S. F. ADD. TO(E) ONE STOR**

Permit Description: **Bldg-Addition**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 070142000003601
Status:
Valuation: $400,000.00
Contractor Company:
Contractor Name: OWNER-BUILDER

C.O. Issued Date: **8/7/2009**
Date: **8/28/2003**
Permit Type:
Description: **Plan Check ROOM ADDITION**

Permit Description: **Bldg-Addition**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 030142000006877
Status:
Valuation: $58,000.00
Contractor Company:
Contractor Name: OWNER-BUILDER

Date: **10/1/2001**
Permit Type:
Description: **Plan Check Repair 10% fire damnege & plywood sheath**

Permit Description: **Bldg-Alter/Repair**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 010162000115160
Status:
Valuation: $301.00
Contractor Company:
Contractor Name: OWNER-BUILDER

Date: **9/10/2001**
Permit Type:
Description: **Plan Check Repair 10% fire damnege & plywood sheath**

Permit Description: **Bldg-Alter/Repair**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 010162000015160
Status:
Valuation: $20,000.00
Contractor Company:
Contractor Name: OWNER-BUILDER

11635 MORRISON ST

Date: **4/23/2002**
Permit Type:
Description: **Plan Check PROPOSE 18'X32' POOL PER STANDARD PLAN #**

Permit Description: **Swimming-Pool/Spa**
Work Class:
Proposed Use: 1 or 2 Family Dwelling Suimming Pools/Spa
Permit Number: 020472000000449
Status:
Valuation: $15,360.00
Contractor Company:
Contractor Name: G M S DEVELOPMENT CO INC

11641 MORRISON ST

Date:	**3/1/2011**
Permit Type:	
Description:	**No Plan Check REPLACE HVAC.**
Permit Description:	**HVAC**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	110442000002191
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	SOUTHWEST HVAC INC

Date:	**8/30/2010**
Permit Type:	
Description:	**No Plan Check INSTALL PHOTOVOLTAIC SYSTEM.**
Permit Description:	**Electrical**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	100411000017079
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	DAILY ELECTRIC

ADJOINING PROPERTY FINDINGS

11646 MORRISON ST

Date:	**11/30/2009**
Permit Type:	
Description:	**No Plan Check 400 amp service upgrade**
Permit Description:	**Electrical**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	090412000022697
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	PERMACITY CONSTRUCTION CORP

Date:	**10/29/2009**
Permit Type:	
Description:	**No Plan Check INSTALL ROOF MOUNTED PHOTOVOLTAIC SYSTEM**
Permit Description:	**Electrical**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	090412000020696
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	PERMACITY CONSTRUCTION CORP

Date:	**3/4/2002**
Permit Type:	
Description:	**No Plan Check INSTALL SOLAR ELECTRIC SYSTEM.**
Permit Description:	**Electrical**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	020412000004419
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	FLORENTIN CONSTRUCTION

ADJOINING PROPERTY FINDINGS

11647 MORRISON ST

Date:	**9/29/2000**
Permit Type:	
Description:	**No Plan Check (N) pool/spa per LA City Standard Plan #**
Permit Description:	**Swimming-Pool/Spa**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling Suimming Pools/Spa
Permit Number:	000472000101004
Status:	
Valuation:	$300.00
Contractor Company:	
Contractor Name:	COAST & VALLEY POOLS

Date:	**9/13/2000**
Permit Type:	
Description:	**Plan Check (N) pool/spa per LA City Standard Plan #**
Permit Description:	**Swimming-Pool/Spa**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling Suimming Pools/Spa
Permit Number:	000472000001004
Status:	
Valuation:	$29,346.00
Contractor Company:	
Contractor Name:	COAST & VALLEY POOLS

ADJOINING PROPERTY FINDINGS

11653 MORRISON ST

Date:	**1/4/2004**
Permit Type:	
Description:	**No Plan Check UPGRADING EXISTING SERVICE PANEL TO 200**
Permit Description:	**Electrical**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	040419000000034
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	A E ELECTRICAL

Date:	**10/17/2003**
Permit Type:	
Description:	**Plan Check ADD 16'4" X 27'4" MASTER BED/BATH ADDITI**
Permit Description:	**Bldg-Addition**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	030142000007519
Status:	
Valuation:	$85,000.00
Contractor Company:	
Contractor Name:	OWNER-BUILDER

ADJOINING PROPERTY FINDINGS

MORRISON ST # PV1

11640 MORRISON ST # PV1

Date: **4/12/2013**
Permit Type:
Description: **No Plan Check INSTALL ROOF MOUNTED PHOTO VOLTAIC SYSTE M 6.37 KW**

Permit Description: **Electrical**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 130412000009423
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: SOLARCITY CORPORATION

Date: **2/26/2004**
Permit Type:
Description: **Plan Check PROPOSED IRR 16' X 30' POOL/SPA.**

Permit Description: **Swimming-Pool/Spa**
Work Class:
Proposed Use: 1 or 2 Family Dwelling Suimming Pools/Spa
Permit Number: 040472000000236
Status:
Valuation: $23,000.00
Contractor Company:
Contractor Name: SOUTHLAND POOLS

ADJOINING PROPERTY FINDINGS

Date: **10/29/2001**
Permit Type:
Description: **Plan Check REVISION TO PERMIT #00010-20000-04568 TO**

Permit Description: **Bldg-Alter/Repair**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 000101000104568
Status:
Valuation: $301.00
Contractor Company:
Contractor Name: OWNER-BUILDER

Date: **3/1/2001**
Permit Type:
Description: **Plan Check NEW 2-STORY SFD W/ATT 2-CAR GARAGE**

Permit Description: **Bldg-New**
Work Class:
Proposed Use: 1 or 2 Family Dwelling Single Family Residence
Permit Number: 000102000004568
Status:
Valuation: $274,000.00
Contractor Company:
Contractor Name: OWNER-BUILDER

Date: **1/2/2001**
Permit Type:
Description: **Plan Check Demolish (e) Type V 1-story SFD and gara**

Permit Description: **Bldg-Demolition**
Work Class:
Proposed Use: 1 or 2 Family Dwelling Misc. Bldg or Structure
Permit Number: 010192000000001
Status:
Valuation: $5,274.00
Contractor Company:
Contractor Name: ALL CONTRACTORS INC

Date:	**12/21/2000**
Permit Type:	
Description:	**No Plan Check INSTALL 100 AMP CTS. (TEMP. POWER POLE)**
Permit Description:	**Electrical**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	000412000025836
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	OWNER-BUILDER

OTSEGO ST

11710 OTSEGO ST

Date:	**3/28/2007**
Permit Type:	
Description:	**No Plan Check water heater change out**
Permit Description:	**Plumbing**
Work Class:	
Proposed Use:	Commercial
Permit Number:	070429000006774
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	GENERAL INSTALLATION COMPANY

Date: **11/5/2003**
Permit Type:
Description: **No Plan Check INSTALLED 7 EARTHQUAKE VALVES**

Permit Description: **Plumbing**
Work Class:
Proposed Use: Commercial
Permit Number: 030429000034828
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: PRC MECHANICAL

11718 OTSEGO ST

Date: **5/16/2006**
Permit Type:
Description: **Plan Check NEW POOL PER STANDARD PLAN # 266**

Permit Description: **Swimming-Pool/Spa**
Work Class:
Proposed Use: 1 or 2 Family Dwelling Suimming Pools/Spa
Permit Number: 060472000000665
Status:
Valuation: $20,000.00
Contractor Company:
Contractor Name: CALIFORNIA POOLS & SPAS

Date: **11/25/2002**
Permit Type:
Description: **Plan Check SUPPLEMENTAL TO PERMIT#02VN13275: WORK D**

Permit Description: **Bldg-Addition**
Work Class:
Proposed Use: 1 or 2 Family Dwelling Single Family Residence
Permit Number: 020142000104263
Status:
Valuation: $5,500.00
Contractor Company:
Contractor Name: OWNER-BUILDER

ADJOINING PROPERTY FINDINGS

Date: **7/30/2002**
Permit Type:
Description: **Plan Check Remove existing pool shell and fill with**

Permit Description: **Grading**
Work Class:
Proposed Use: 1 or 2 Family Dwelling Grading Non-Hill
Permit Number: 020302000001972
Status:
Valuation: $100.00
Contractor Company:
Contractor Name: OWNER-BUILDER

Date: **7/10/2002**
Permit Type:
Description: **Plan Check REMODEL & ADDITION: REMODEL EXISTING DWG**

Permit Description: **Bldg-Addition**
Work Class:
Proposed Use: 1 or 2 Family Dwelling Single Family Residence
Permit Number: 020142000004263
Status:
Valuation: $130,000.00
Contractor Company:
Contractor Name: OWNER-BUILDER

Date: **7/10/2002**
Permit Type:
Description: **Plan Check CONVERT EXISTING ACCESSORY 2-CAR GARAGE**

Permit Description: **Bldg-Alter/Repair**
Work Class:
Proposed Use: 1 or 2 Family Dwelling Warehouse
Permit Number: 020192000000872
Status:
Valuation: $2,500.00
Contractor Company:
Contractor Name: OWNER-BUILDER

ADJOINING PROPERTY FINDINGS

11724 OTSEGO ST

Date: **8/7/2012**
Permit Type:
Description: **No Plan Check replacement dishwasher 310-920-5829 Lieb er Valley Village 91607**

Permit Description: **Plumbing**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 120429000014330
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: ARNDT & TRAINA INC

Date: **4/8/2008**
Permit Type:
Description: **No Plan Check Reroof with 28 sqrs COMP SHINGLE roofing**

Permit Description: **Bldg-Alter/Repair**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 080169000005726
Status:
Valuation: $8,400.00
Contractor Company:
Contractor Name: ALLIED WATERPROOFING SYSTEMS INC

Date: **12/7/2004**
Permit Type:
Description: **No Plan Check 200 amp service 20 recessed lights**

Permit Description: **Electrical**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 040419000030452
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: LIGHTING PLUS

Date: **3/31/2003**
Permit Type:
Description: **No Plan Check Install seismic shut-off valve**

Permit Description: **Plumbing**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 030429000010236
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: HENRY PLUMBING AND HEATING

11729 OTSEGO ST

Date: **1/31/2006**
Permit Type:
Description: **No Plan Check T/O (E) ROOF, INSTALL 50 YEAR COMPOSITIO**

Permit Description: **Bldg-Alter/Repair**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 060162000001906
Status:
Valuation: $3,000.00
Contractor Company:
Contractor Name: OWNER-BUILDER

Date: **3/1/2001**
Permit Type:
Description: **No Plan Check REPIPE - 6 FIXTURES, CHANGE OUT WATER HE**

Permit Description: **Plumbing**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 010422000003216
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: COHEN RAFI INCORPORATED

ADJOINING PROPERTY FINDINGS

Date: **2/7/2001**
Permit Type:
Description: **Plan Check PROPOSED 7'x12' KITCHEN EXTENSION @ FRON**

Permit Description: **Bldg-Addition**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 010142000000575
Status:
Valuation: $6,000.00
Contractor Company:
Contractor Name: MANZORI MENASHE

Date: **2/2/2001**
Permit Type:
Description: **No Plan Check INSTALL ANCHOR/BRACING PER L.A. STANDARD**

Permit Description: **Bldg-Alter/Repair**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 010162000001648
Status:
Valuation: $1,800.00
Contractor Company:
Contractor Name: MANZORI MENASHE

Date: **1/30/2001**
Permit Type:
Description: **No Plan Check REWIRE.**

Permit Description: **Electrical**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 010412000001925
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: E D ELECTRIC AND ASSOCIATES

ADJOINING PROPERTY FINDINGS

Date: **12/27/2000**
Permit Type:
Description: **Plan Check Enlarge living room and dining room.**

Permit Description: **Bldg-Addition**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 000142000007029
Status:
Valuation: $22,496.00
Contractor Company:
Contractor Name: MANZORI MENASHE

11738 OTSEGO ST

Date: **7/29/2010**
Permit Type:
Description: **No Plan Check INSTALL SOLAR HEAT FOR SWIMMING POOL.**

Permit Description: **Plumbing**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 100422000012635
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: SOLAR UNLIMITED INC

ADJOINING PROPERTY FINDINGS

11741 OTSEGO ST

Date:	**1/7/2009**
Permit Type:	
Description:	**No Plan Check REPLACED 5OG WATER HEATER**
Permit Description:	**Plumbing**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	090429000000226
Status:	
Valuation:	$0.00
Contractor Company:	
Contractor Name:	ACCENT PLUMBING INC

Date:	**7/25/2001**
Permit Type:	
Description:	**No Plan Check REPAIR DAMAGED CHIMNEY PER CITY STANDARD**
Permit Description:	**Bldg-Alter/Repair**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling
Permit Number:	010162000013937
Status:	
Valuation:	$3,500.00
Contractor Company:	
Contractor Name:	CUMBO CHRIS CONSTRUCTION

ADJOINING PROPERTY FINDINGS

11744 OTSEGO ST

Date: **8/29/2012**
Permit Type:
Description: **No Plan Check electrical service upgrade to 200 amps**

Permit Description: **Electrical**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 120412000020401
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: J - MASTER'S ELECTRIC COMPANY

Date: **9/13/2010**
Permit Type:
Description: **No Plan Check REPLACED WATER HEATER**

Permit Description: **Plumbing**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 100429000015627
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: ACCENT PLUMBING INC

Date: **2/11/2002**
Permit Type:
Description: **No Plan Check REPLACE FAU IN ATTIC**

Permit Description: **HVAC**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 020442000001377
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: ADVANCED AIR SYSTEMS

ADJOINING PROPERTY FINDINGS

11750 OTSEGO ST

Date:	**6/16/2011**
Permit Type:	
Description:	**Plan Check NEW 13' X 28' POOL AND 7' X 7' SPA PER S TANDARD PLAN# 268.**
Permit Description:	**Swimming-Pool/Spa**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling Suimming Pools/Spa
Permit Number:	110472000000612
Status:	
Valuation:	$28,000.00
Contractor Company:	
Contractor Name:	CASTRO STEEL

Date:	**7/12/2006**
Permit Type:	
Description:	**Plan Check Addition to existing 1-story single fami**
Permit Description:	**Bldg-Addition**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling Single Family Residence
Permit Number:	060143000003886
Status:	
Valuation:	$280,000.00
Contractor Company:	
Contractor Name:	OWNER-BUILDER

Date:	**7/12/2006**
Permit Type:	
Description:	**Plan Check Demo existing 2-car garage with handwrec**
Permit Description:	**Bldg-Demolition**
Work Class:	
Proposed Use:	1 or 2 Family Dwelling Misc. Bldg or Structure
Permit Number:	060193000001212
Status:	
Valuation:	$1,000.00
Contractor Company:	
Contractor Name:	OWNER-BUILDER

ADJOINING PROPERTY FINDINGS

Date: **12/28/1999**
Permit Type:
Description: **Plan Check KITCHEN & BATH REMODEL - REPLACE CABINET**

Permit Description: **Bldg-Alter/Repair**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 990162000024191
Status:
Valuation: $10,000.00
Contractor Company:
Contractor Name:

Date: **12/28/1999**
Permit Type:
Description: **No Plan Check UPGRADE SERVICE TO 200 AMPS**

Permit Description: **Electrical**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 990412000025280
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: OWNER-BUILDER

11756 OTSEGO ST

Date: **5/18/2011**
Permit Type:
Description: **No Plan Check Installation of SGSOV**

Permit Description: **Plumbing**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 110429000008585
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: METRO RETROFITTING INC

11759 OTSEGO ST

Date: **3/20/2000**
Permit Type:
Description: **No Plan Check REPLACE WATER SERVICE, PRESSURE REGULATO**

Permit Description: **Plumbing**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 000422000004223
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: TRENT MICHAEL

Date: **3/23/1999**
Permit Type:
Description: **No Plan Check ADD A/C CIRCUIT**

Permit Description: **Electrical**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 990412000005369
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: EIDE ELECTRIC

Date: **3/23/1999**
Permit Type:
Description: **No Plan Check Add one (1) 4-ton condensing unit to exi**

Permit Description: **HVAC**
Work Class:
Proposed Use: 1 or 2 Family Dwelling
Permit Number: 990443000002322
Status:
Valuation: $0.00
Contractor Company:
Contractor Name: MALIBU HEATING & AIR CONDITIONING

GLOSSARY

General Building Department concepts

- **ICC:** The International Code Council. The governing body for the building/development codes used by all jurisdictions who've adopted the ICC guidelines. MOST of the US has done this. Canada, Mexico, and other countries use ICC codes books and guides as well. There are a few states who have added guidelines to the ICC codes to better fit their needs. For example, California has added seismic retrofit requirements for most commercial structures.
- **Building Department (Permitting Authority, Building Codes, Inspections Department, Building and Inspections):** This is the department in a jurisdiction where an owner or contractor goes to obtain permits and inspections for building, tearing down, remodeling, adding to, re-roofing, moving or otherwise making changes to any structure, Residential or Commercial.
- **Jurisdiction:** This is the geographic area representing the properties over which a Permitting Authority has responsibility.
- **GC:** General Contractor. Usually the primary contractor hired for any Residential or Commercial construction work.
- **Sub:** Subordinate contracting companies or subcontractors. Usually a "trades" contractor working for the GC. These contractors generally have an area of expertise in which they are licensed like Plumbing, Electrical, Heating and Air systems, Gas Systems, Pools etc. (called "trades").
- **Journeymen:** Sub contractors who have their own personal licenses in one or more trades and work for different contracting companies, wherever they are needed or there is work.
- **HVAC (Mechanical, Heating & Air companies):** HVAC = Heating, Ventilation, and Air Conditioning.
- **ELEC (Electrical, TempPole, TPole, TPower, Temporary Power, Panel, AMP Change, Power Release):** Electrical permits can be pulled for many reasons. The most common reason is to increase the AMPs of power in an electrical power panel. This requires a permit in almost every jurisdiction. Other commons reason for Electrical permits is to insert a temporary power pole at a new construction site. Construction requires electricity, and in a new development, power has yet to be run to the lot. The temporary power pole is usually the very first permit pulled for new development. The power is released to the home owner when construction is complete and this sometimes takes the form of a Power Release permit or inspection.
- **"Pull" a permit:** To obtain and pay for a building permit.
- **CBO:** Chief Building Official
- **Planning Department:** The department in the development process where the building /structural plans are reviewed for their completeness and compliance with building codes
- **Zoning Department:** The department in the development process where the site plans are reviewed for their compliance with the regulations associated with the zoning district in which they are situated.
- **Zoning District:** A pre-determined geographic boundary within a jurisdiction where certain types of structures are permitted / prohibited. Examples are Residential structure, Commercial/Retail structures, Industrial/Manufacturing structures etc. Each zoning district has regulations associated with it like the sizes of the lots, the density of the structures on the lots, the number of parking spaces required for certain types of structures on the lots etc.
- **PIN (TMS, GIS ID, Parcel#):** Property Identification Number and Tax Map System number.
- **State Card (Business license):** A license card issued to a contractor to conduct business.
- **Building Inspector (Inspector):** The inspector is a building department employee that inspects building construction for compliance to codes.
- **C.O.:** Certificate of Occupancy. This is the end of the construction process and designates that the owners now have permission to occupy a structure after its building is complete. Sometimes also referred to as a Certificate of Compliance.

GLOSSARY

Permit Content Definitions

- Permit Number: The alphanumerical designation assigned to a permit for tracking within the building department system. Sometimes the permit number gives clues to its role, e.g. a "PL" prefix may designate a plumbing permit.
- Description: A field on the permit form that allows the building department to give a brief description of the work being done. More often than not, this is the most important field for EP's to find clues to the prior use(s) of the property.
- Permit Type: Generally a brief designation of the type of job being done. For example BLDG-RES, BLDG-COM, ELEC, MECH etc.

Sample Building Permit Data

Date: Nov 09, 2000
Permit Type: Bldg -
New Permit Number: 101000000405
Status: Valuation: $1,000,000.00
Contractor Company: OWNER-BUILDER
Contractor Name:

Description: New one store retail (SAV-ON) with drive-thru pharmacy. Certificate of Occupancy.

Colfax Charter Elementary School
11724 Addison Street
Valley Village, CA 91607

Inquiry Number: 4398813.7S
September 08, 2015

The EDR Environmental LienSearch™

EDR® Environmental Data Resources Inc

6 Armstrong Road,
Fourth Floor
Shelton, CT 06484
800.352.0050
www.edrnet.com

EDR Environmental LienSearch™ Report

The EDR Environmental LienSearch Report provides results from a search of available current land title records for environmental cleanup liens and other activity and use limitations, such as engineering controls and institutional controls.

A network of professional, trained researchers, following established procedures, uses client supplied address information to:

- search for parcel information and/or legal description;
- search for ownership information;
- research official land title documents recorded at jurisdictional agencies such as recorders' offices, registries of deeds, county clerks' offices, etc.;
- access a copy of the deed;
- search for environmental encumbering instrument(s) associated with the deed;
- provide a copy of any environmental encumbrance(s) based upon a review of key words in the instrument(s) (title, parties involved, and description); and
- provide a copy of the deed or cite documents reviewed.

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

EDR Environmental LienSearch™ Report

TARGET PROPERTY INFORMATION

ADDRESS

COLFAX CHARTER ELEMENTARY SCHOOL
11724 ADDISON STREET
VALLEY VILLAGE, CA 91607

RESEARCH SOURCE

Source 1: Los Angeles Assessor
Los Angeles County, California

Source 2: Los Angeles Recorder
Los Angeles County, California

PROPERTY INFORMATION

Deed 1:

Type of Deed: Grant Deed

Title is vested in: Los Angeles City School District of Los Angeles County

Title received from: A. F. Schiffman

Deed Dated: 07/28/1949

Deed Recorded: 09/28/1949

Instrument: 1239

Legal Description: All that certain piece or parcel of land being Lot 1 of Tract No. 14573, filed 12/07/1950 in Book 397, Page 4, situate and lying in the County of Los Angeles, State of California.

Legal Current Owner: Los Angeles City School District of Los Angeles County, now known as the Los Angeles Unified School District

Property Identifiers: 2355-013-900

ENVIRONMENTAL LIEN

Environmental Lien: Found ☐ Not Found ☒

If found:

1st Party:

2nd Party:

Dated:

Recorded:

Book:

Page:

Docket:

Volume:

Instrument:

Comments:

Miscellaneous:

EDR Environmental LienSearch™ Report

OTHER ACTIVITY AND USE LIMITATIONS (AULs)

Other AUL's: Found ☐ Not Found ☒

If found:

1st Party:

2nd Party:

Dated:

Recorded:

Book:

Page:

Docket:

Volume:

Instrument:

Comments:

Miscellaneous:

DEED EXHIBIT

PLACE INTERNAL REVENUE STAMPS IN THIS SPACE

Grant Deed

Form Rev. 3-49

THIS FORM FURNISHED BY TITLE INSURANCE AND TRUST COMPANY

Affix I. R. S. $ none

FOR A VALUABLE CONSIDERATION, receipt of which is hereby acknowledged,

A. F. SCHIFFMAN

, do es hereby

GRANT to LOS ANGELES CITY SCHOOL DISTRICT OF LOS ANGELES COUNTY

the real property in the city of Los Angeles county of Los Angeles, state of California, described as:

The northeast quarter of lot 181 of the Lankershim Ranch Land and Water Company's Subdivision of the East 12,000 acres of the south half of the Rancho Ex-Mission of San Fernando, as per map recorded in book 31 page 39 et seq., Miscellaneous Records, in the office of the county recorder of said county.

SUBJECT TO:

1. Taxes for the fiscal year 1949-1950, a lien not yet payable.
2. Covenants, conditions, restrictions and easements of record.

Dated: July 28, 1949

A. F. Schiffman

A.F. SCHIFFMAN

STATE OF CALIFORNIA
COUNTY OF Los Angeles } SS.

On July 28 1949 before me, the undersigned, a Notary Public in and for said County and State, personally appeared A. F. SCHIFFMAN

known to me to be the person whose name is subscribed to the within instrument and acknowledged that he executed the same.

WITNESS my hand and official seal.

SPACE BELOW FOR RECORDER'S USE ONLY

DOCUMENT No. 1230
RECORDED AT R[illegible]
TITLE INSURANCE & [illegible]
SEP 28 1949 AT 8 A. M.
IN OFFICIAL RECORDS
County of Los Angeles, California
Fee $
MAME B. BEATTY, County Recorder
Deputy

[illegible] Real Estate, Board of Education [illegible]
[illegible] July 26, 1949, from A. F. SCHIFFMAN, conveying the northeast quarter of lot [illegible] of the Lankershim Ranch Land and Water Company's Subdivision of the East 12,000 acres of the South half of the Rancho Ex-Mission of San Fernando to LOS ANGELES CITY SCHOOL DISTRICT OF LOS ANGELES COUNTY, in connection with the New Elementary School Site—Colfax Avenue, was accepted by the Board of Education of the City of Los Angeles at a regular meeting of said Board held on September 26, 1949.

Ariel Burns

Subscribed and sworn to before me this 27 day of September, 1949

Robert N. Burgess
Notary Public in and for the County of Los Angeles, State of California

My Commission Expires June 17, 1953

fb

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the real property in the city of Los Angeles county of Los Angeles, state of California, described as:

The northeast quarter of lot 181 of the Lankershim Ranch Land and Water Company's Subdivision of the East 12,000 acres of the south half of the Rancho Ex-Mission of San Fernando, as per map recorded in book 31 page 39 et seq., Miscellaneous Records, in the office of the county recorder of said county.

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A. F. Schiffman
A.F. SCHIFFMAN

STATE OF CALIFORNIA
COUNTY OF Los Angeles } SS.

On July 28, 1949 before me, the undersigned, a Notary Public in and for said County and State, personally appeared A. F. SCHIFFMAN

known to me to be the person whose name is subscribed to the within instrument and acknowledged that he executed the same.

WITNESS my hand and official seal

(Seal) [illegible]
Notary Public in and for said County and State.

SPACE BELOW FOR RECORDER'S USE ONLY

DOCUMENT No. 1239
RECORDED AT R[illegible]
TITLE INSURANCE & [illegible]
SEP 28 1949 AT 8 A. M.
IN OFFICIAL RECORDS
County of Los Angeles California
Fee $
MAME B. BEATTY, County Recorder
By Deputy

1239

Fee 5.1

Instrument No...

Title Order No...

Escrow or Loan No. 3061776-WJT

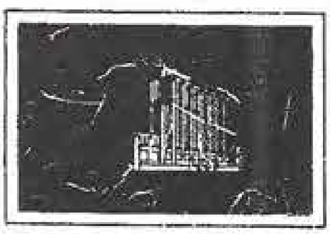
Recorded at the request of:

WHEN RECORDED MAIL TO

L. A. BITY BOARD OF EDUCATION
B siness Division -Realty Section
25 S. San Pedro St.

LosAngeles, California.

REALTY SECTION ... IVISION
LOS ANGELES ... D OF EDUCATION
1425 SOUTH ... STREET
LOS ANGELES 54, CALIFORNIA



REALTY SECTION, BUSINESS DIVISION
LOS ANGELES CITY BOARD OF EDUCATION
1425 SOUTH SAN PEDRO STREET
LOS ANGELES 54, CALIFORNIA

TITLE INSURANCE AND TRUST COMPANY

INCORPORATED 1893
HOME OFFICE
433 SOUTH SPRING STREET, LOS ANGELES 13
U. S. A.

TITLE INSURANCE AND TRUST COMPANY

INYO-MONO COUNTIES
149 NO. EDWARDS STREET, INDEPENDENCE

KERN COUNTY
1715 CHESTER AVENUE, BAKERSFIELD

RIVERSIDE COUNTY
3940 MAIN STREET, RIVERSIDE

SAN DIEGO COUNTY
1028 SECOND AVENUE, SAN DIEGO 12

SAN LUIS OBISPO COUNTY
777 HIGUERA STREET, SAN LUIS OBISPO

SANTA BARBARA COUNTY
920 STATE STREET, SANTA BARBARA

TULARE COUNTY
204 WEST MAIN STREET, VISALIA

VENTURA COUNTY
471 EAST MAIN STREET, VENTURA

Colfax Charter Elementary School
11724 Addison Street
Valley Village, CA 91607

Inquiry Number: 4398813.6
August 31, 2015

The EDR Property Tax Map Report

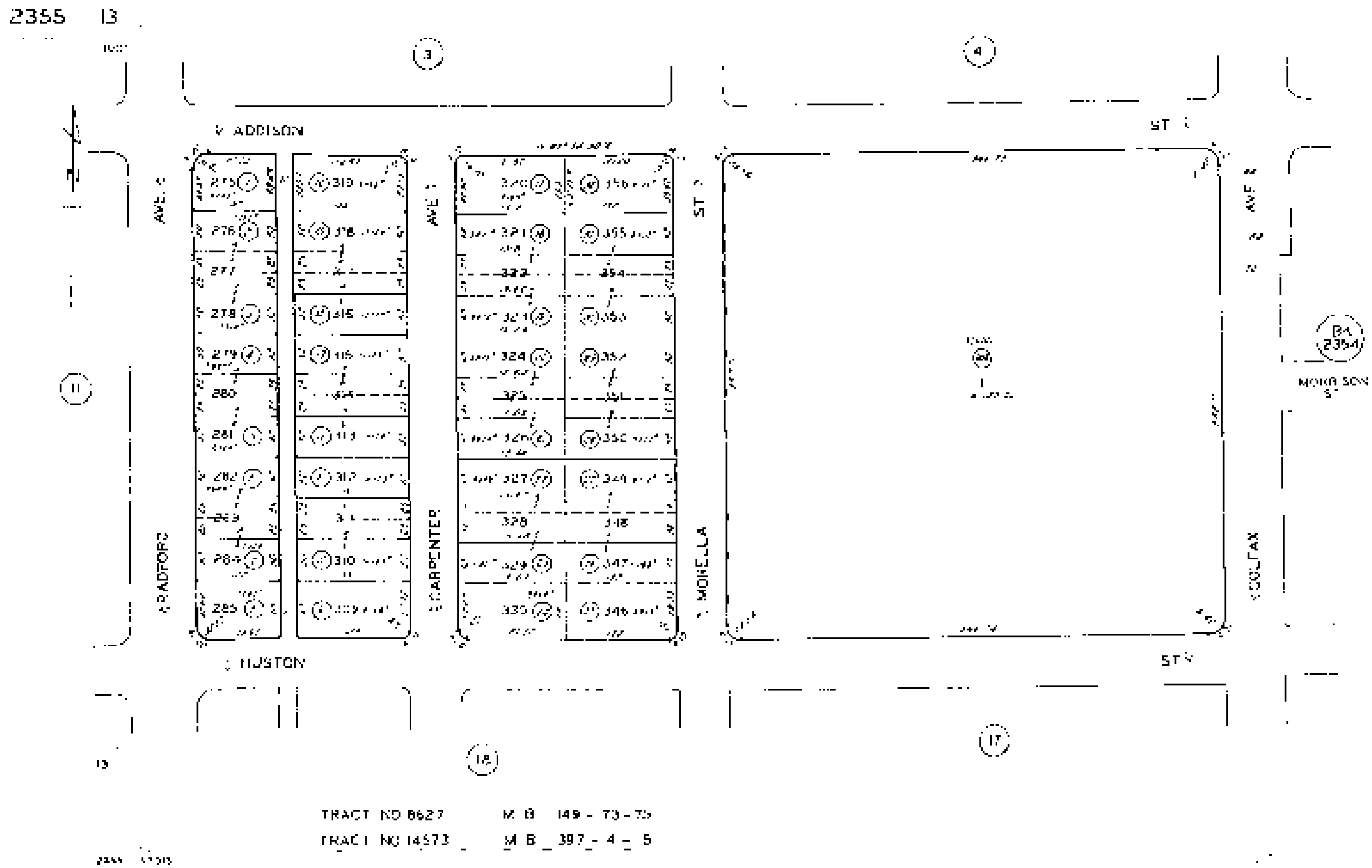
EDR® Environmental Data Resources Inc

6 Armstrong Road
Shelton, CT 06484
800.352.0050
www.edrnet.com

EDR Property Tax Map Report

Environmental Data Resources, Inc.'s EDR Property Tax Map Report is designed to assist environmental professionals in evaluating potential environmental conditions on a target property by understanding property boundaries and other characteristics. The report includes a search of available property tax maps, which include information on boundaries for the target property and neighboring properties, addresses, parcel identification numbers, as well as other data typically used in property location and identification.

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.



2355 13
ADDISON
ST
HUSTON
ST
BRADFORD AVE
CARPENTER AVE
MORELLA ST
COLFAX AVE
MORRISON ST
BK 2354
TRACT NO 8627 M B 149 - 73 - 75
TRACT NO 14573 M B 397 - 4 - 5

APPENDIX 4

REGULATORY AGENCY CORRESPONDENCE

WorleyParsons
resources & energy

FACSIMILE

DATE	September 14, 2015	**PROJ. NAME**	LAUSD Colfax Elementary School Phase I ESA
PAGES	1	**PROJ. NO.**	308038-08520
TO	Building Records Section	**CC TO**	
COMPANY	City of Los Angeles Department of Building and Safety	**CC COMPANY**	
FAX NO.	213-482-6862	**CC FAX NO.**	
FROM	Michael Huma, 310-736-0964	**FILE LOC.**	Monrovia
SUBJECT	Records Request	**PRIORITY**	Regular

To whom it may concern:

I would like to review information regarding Site occupants, dates of building construction, installation of underground storage tanks, above ground storage tanks, wastewater treatment systems, clarifiers and other potential hazardous materials or petroleum product-containing features for the following location:

a) 11724 Addison Street, Los Angeles, CA 91607; APN 2355-013-900

This information will be used for an environmental site assessment of the above-listed property for the Los Angeles Unified School District for the Colfax Elementary School.

Please contact me by phone at 310-736-0964, if you have any questions regarding this request or to confirm receipt of this letter. Responses via email (Michael.Huma@Advisian.com) is preferred. However, if faxes are necessary, please fax to: 1-888-753-9007

Thank you for your assistance.

Sincerely,

Michael Huma

Hydrogeologist

Michael.Huma@ Advisian.com

Huma, Michael (Orange County)

From: NoReply@MyFax.com
Sent: Monday, September 14, 2015 2:17 PM
To: Huma, Michael (Orange County)
Subject: Successful transmission to 12134826862. Re:

Dear Michael,

Re:

The 1 page fax you sent through MyFax to 12134826862 was successfully transmitted at 2015-09-14 21:17:17 (GMT).

The length of transmission was 48 seconds

The receiving machine's fax ID: 2134826862

If you need assistance, please visit our online help center at www.myfax.com/support.
Thank you for using the MyFax service.

Best Regards,
The MyFax Team

Contact Customer Support

Hours: 24 hours per day, 7 days a week.
Email: support@myfax.com

North America
Toll-Free: (866) 563-9212

UK
Free Phone: 0808 804 0015
International: (613) 260-6325

Reference ID:

CITY LA DBS
DEPARTMENT OF BUILDING AND SAFETY

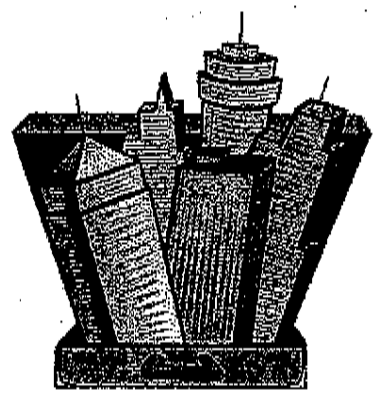
FAX TRANSMITTAL

TO: MICHAEL HUMA **FAX#** 888-753-9007

FROM: KANISHA

DATE: 9/15/15

SUBJECT: 11724 ADDISON ST



COMMENTS:

YOUR FAX IS REQUESTING A LOT OF INFORMATION THAT IS NOT MAINTAINED AT RECORDS. PLEASE COMPLETE THE ATTACHED 'RESEARCH REQUEST FORM' AND SELECT FROM BOXES PROVIDED FOR WHAT DOCUMENTS YOU WANT PRINTED FOR A FEE.

PAGES INCLUDING COVER SHEET 3

LA DBS
DEPARTMENT OF BUILDING AND SAFETY

Research Request Form

DATE: ______________ Q-MATIC TICKET # (office use only) ______________

NAME: ______________ COMPANY NAME: ______________

TELEPHONE #: ______________ FAX # : ______________

REFERRED BY: ______________ PHONE #: ______________

FAXING OPTIONS: Records Counter, LADBS Fax to one of the numbers below (check one):

☐ (213) 482-6862
Metro Office
201 N. Figueroa St., 1st. Flr,Rm 110
Los Angeles, CA 90012

☐ (818) 374-5013
Van Nuys Office
6262 Van Nuys Bl.
Van Nuys, CA 91401

PROPERTY ADDRESS(ES): Please research the following addresses **(IN PERSON: One Address submitted at a time)**
(FAXING: Up to 3 addresses per request)

____

____

Use of Existing Building:

COMMENTS: Reason for Records Request:

Information Requested:

Copies of Documents range from **$0.10 to $1.50** per page (excluding blueprint copies)
Select from the following by checking the box next to it - for further clarification of request, use comments box

☐ BUILDING PERMITS ☐ PLOT PLAN	☐ CERTIFICATES OF OCCUPANCY	☐ GRADING DOCUMENTS	**For Office Use Only:** _____PCIS
☐ MECHANICAL PERMITS ☐ ELECTRICAL PERMITS 1985 - 1990 and 1997 - Present	☐ VIOLATIONS	☐ MODIFICATIONS/BOARD FILES	_____IDIS _____Microfilm
AFFIDAVITS/Z.I.NO.______________			_____Manual Search

☐ BLUEPRINTS ($8.00 Service Fee, plus a SD Surcharge Fee (Section 98.0416 of the LAMC) and $1.00 per page.

No plans available for Single Family Dwellings and Commercial buildings 3 stories and under, prior to 1978.

To obtain copies of blueprints on file, all of the following requirements must be submitted:

1. A release letter from the current owner.
2. A copy of the current owner's Grant Deed.
3. A release letter from the architect and engineer whose stamp is on the plans.
   Letters must be on Letterhead and have engineer/architect's stamp and signature.

WorleyParsons

resources & energy

FACSIMILE

DATE	September 14, 2015	**PROJ. NAME**	LAUSD Colfax Elementary School Phase I ESA
PAGES	1	**PROJ. NO.**	308038-08520
TO	Building Records Section	**CC TO**	
COMPANY	City of Los Angeles Department of Building and Safety	**CC COMPANY**	
FAX NO.	213-482-6862	**CC FAX NO.**	
FROM	Michael Huma, 310-736-0964	**FILE LOC.**	Monrovia
SUBJECT	Records Request	**PRIORITY**	Regular

To whom it may concern:

I would like to review information regarding Site occupants, dates of building construction, installation of underground storage tanks, above ground storage tanks, wastewater treatment systems, clarifiers and other potential hazardous materials or petroleum product-containing features for the following location:

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This information will be used for an environmental site assessment of the above-listed property for the Los Angeles Unified School District for the Colfax Elementary School.

Please contact me by phone at 310-736-0964, if you have any questions regarding this request or to confirm receipt of this letter. Responses via email (Michael.Huma@Advisian.com) is preferred. However, if faxes are necessary, please fax to: 1-888-753-9007

Thank you for your assistance.

Sincerely,

Michael Huma

Hydrogeologist

Michael.Huma@ Advisian.com

WorleyParsons
resources & energy

FACSIMILE

DATE	September 14, 2015	**PROJ. NAME**	LAUSD Colfax Elementary School Phase I ESA
PAGES	1	**PROJ. NO.**	308038-08520
TO	Los Angeles County Certified Unified Program Agency (CUPA) – Health Hazardous Materials Division	**CC TO**	
COMPANY	CUPA	**CC COMPANY**	
FAX NO.	323-728-0217	**CC FAX NO.**	
FROM	Michael Huma, 310-736-0964	**FILE LOC.**	Monrovia
SUBJECT	Records Request	**PRIORITY**	Regular

To whom it may concern:

I would like to review information regarding the following location:

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Thank you for your assistance.

Sincerely,

Michael Huma

Hydrogeologist

Michael.Huma@ Advisian.com

Huma, Michael (Orange County)

From: NoReply@MyFax.com
Sent: Monday, September 14, 2015 2:16 PM
To: Huma, Michael (Orange County)
Subject: Successful transmission to 13237280217. Re:

Dear Michael,

Re:

The 1 page fax you sent through MyFax to 13237280217 was successfully transmitted at 2015-09-14 21:16:23 (GMT).

The length of transmission was 53 seconds

The receiving machine's fax ID: 3237280217

If you need assistance, please visit our online help center at www.myfax.com/support.
Thank you for using the MyFax service.

Best Regards,
The MyFax Team

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Hours: 24 hours per day, 7 days a week.
Email: support@myfax.com

North America
Toll-Free: (866) 563-9212

UK
Free Phone: 0808 804 0015
International: (613) 260-6325

Reference ID:

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WorleyParsons

resources & energy

FACSIMILE

DATE	September 14, 2015	**PROJ. NAME**	LAUSD Colfax Elementary School Phase I ESA
PAGES	1	**PROJ. NO.**	308038-08520
TO	County of Los Angeles Department of Public Works – Environmental Programs Division	**CC TO**	
COMPANY	LACDPW	**CC COMPANY**	
FAX NO.	626-458-3569	**CC FAX NO.**	
FROM	Michael Huma, 310-736-0964	**FILE LOC.**	Monrovia
SUBJECT	Records Request	**PRIORITY**	Regular

To whom it may concern:

I would like to review information regarding the following location:

a) 11724 Addison Street, Los Angeles, CA 91607; APN 2355-013-900

This information will be used for an environmental site assessment of the above-listed property for the Los Angeles Unified School District for the Colfax Elementary School.

Please contact me by phone at 310-736-0964, if you have any questions regarding this request or to confirm receipt of this letter. Responses via email (Michael.Huma@Advisian.com) is preferred. However, if faxes are necessary, please fax to: 1-888-753-9007

Thank you for your assistance.

Sincerely,

Michael Huma

Hydrogeologist

Michael.Huma@ Advisian.com

Huma, Michael (Orange County)

From:	NoReply@MyFax.com
Sent:	Monday, September 14, 2015 2:17 PM
To:	Huma, Michael (Orange County)
Subject:	Successful transmission to 16264583569. Re:

Dear Michael,

Re:

The 1 page fax you sent through MyFax to 16264583569 was successfully transmitted at 2015-09-14 21:16:38 (GMT).

The length of transmission was 47 seconds

The receiving machine's fax ID: 626 458 3569

If you need assistance, please visit our online help center at www.myfax.com/support.
Thank you for using the MyFax service.

Best Regards,
The MyFax Team

Contact Customer Support

Hours: 24 hours per day, 7 days a week.
Email: support@myfax.com

North America
Toll-Free: (866) 563-9212

UK
Free Phone: 0808 804 0015
International: (613) 260-6325

Reference ID:

Huma, Michael (Orange County)

From: Huma, Michael (Orange County)
Sent: Monday, September 14, 2015 2:08 PM
To: 'kwarren@dpw.lacounty.gov'
Subject: File Records Review - 11724 Addison Street, Los Angeles, CA 91607; APN 2355-013-900

Hi Kim,

I would like to review information your department may have regarding the following location:

a) 11724 Addison Street, Los Angeles, CA 91607; APN 2355-013-900

This information will be used for a Phase I Environmental Site Assessment of the above-listed property for Los Angeles Unified School District for the Colfax Elementary School.
Please contact me by phone at 310-736-0964, if you have any questions regarding this request or to confirm receipt of this letter. Responses via email (Michael.Huma@Advisian.com) is preferred. However, if faxes are necessary, please fax to: 1-888-753-9007

Regards,

Michael Huma
Hydrogeologist, Decommissioning & Restoration, Americas
181 West Huntington Drive, Suite 110 | Monrovia, CA 91016 | U.S.A.
T +1 626 803 9000 | **F** +1 626 803 9030 | **M** +1 310 736 0964 | **GMT** -8

Huma, Michael (Orange County)

From: Huma, Michael (Orange County)
Sent: Monday, September 14, 2015 2:06 PM
To: 'Phicor@ph.lacounty.gov'
Subject: File Records Review - 11724 Addison Street, Los Angeles, CA 91607; APN 2355-013-900

Custodian of Records,

I would like to review information your department may have regarding the following location:

a) 11724 Addison Street, Los Angeles, CA 91607; APN 2355-013-900

This information will be used for a Phase I Environmental Site Assessment of the above-listed property for the Los Angeles Unified School District for the Colfax Elementary School.
Please contact me by phone at 310-736-0964, if you have any questions regarding this request or to confirm receipt of this letter. Responses via email (Michael.Huma@Advisian.com) is preferred. However, if faxes are necessary, please fax to: 1-888-753-9007

Regards,

Michael Huma
Hydrogeologist, Decommissioning & Restoration, Americas
181 West Huntington Drive, Suite 110 | Monrovia, CA 91016 | U.S.A.
T +1 626 803 9000 | **F** +1 626 803 9030 | **M** +1 310 736 0964 | **GMT** -8

Huma, Michael (Orange County)

From: Huma, Michael (Orange County)
Sent: Monday, September 14, 2015 2:09 PM
To: 'tsten@ph.lacounty.gov'
Subject: File Records Review - 11724 Addison Street, Los Angeles, CA 91607; APN 2355-013-900

Hi Ted,

I would like to review information your department may have regarding the following location:

a) 11724 Addison Street, Los Angeles, CA 91607; APN 2355-013-900

This information will be used for a Phase I Environmental Site Assessment of the above-listed property for the Los Angeles Unified School District for the Colfax Elementary School.
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Regards,

Michael Huma
Hydrogeologist, Decommissioning & Restoration, Americas
181 West Huntington Drive, Suite 110 | Monrovia, CA 91016 | U.S.A.
T +1 626 803 9000 | **F** +1 626 803 9030 | **M** +1 310 736 0964 | **GMT** -8

COUNTY OF LOS ANGELES
Public Health

CYNTHIA A. HARDING, M.P.H.
Interim Director

JEFFREY D. GUNZENHAUSER, M.D., M.P.H.
Interim Health Officer

Public Health Investigation Administration
LEOLA MERCADEL
Chief, Public Health Investigation

5555 Ferguson Drive, Suite 120-04
Commerce, California 90022
TEL (323) 890-7801 • FAX (323) 728-0217

www.publichealth.lacounty.gov

October 23, 2015

WORLEYPARSONS
MICHAEL HUMA
181 W. HUNTINGTON DR., STE 110
MONROVIA, CA 91016

RE: 11724 ADDISON ST., LOS ANGELES, CA 91607

I, the undersigned, being the Custodian or the Keeper of Records, certify that a thorough search for the records you requested was carried out under my direction and control.

This search revealed no records.

It should be understood that this does not mean that the records you requested do not exist. It is possible that such records may be misfiled; exist under another spelling, another name, or under another classification. However, with the information furnished to our office, and to the best of our knowledge, no records were located.

If you have any questions regarding your request, please contact our office at (323) 890-7806.

Sincerely,

Malissa Lau, Deputy Health Officer
Public Health Investigation

COR ID No.156158

WorleyParsons
resources & energy

FACSIMILE

DATE	September 14, 2015	**PROJ. NAME**	LAUSD Colfax Elementary School Phase I ESA
PAGES	1	**PROJ. NO.**	308038-08520
TO	County of Los Angeles Department of Public Works – Environmental Programs Division	**CC TO**	
COMPANY	LACDPW	**CC COMPANY**	
FAX NO.	626-458-3569	**CC FAX NO.**	
FROM	Michael Huma, 310-736-0964	**FILE LOC.**	Monrovia
SUBJECT	Records Request	**PRIORITY**	Regular

To whom it may concern:

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Please contact me by phone at 310-736-0964, if you have any questions regarding this request or to confirm receipt of this letter. Responses via email (Michael.Huma@Advisian.com) is preferred. However, if faxes are necessary, please fax to: 1-888-753-9007

Thank you for your assistance.

Note: Please see attached sheet for online file review

Sincerely,

Michael Huma

Hydrogeologist

Michael.Huma@ Advisian.com

COUNTY OF LOS ANGELES
DEPARTMENT OF PUBLIC WORKS
900 SOUTH FREMONT AVENUE
ALHAMBRA, CA 91803-1331

ANNOUNCEMENT
WEBPAGE FOR ONLINE FILE REVIEW

In order to improve access to public information with respect to public records for the Industrial Waste, Hazardous Materials Underground Storage Tank, and Stormwater Certification programs, the County of Los Angeles Department of Public Works, Environmental Programs Division has produced a website which allows the public to search for specific addresses to determine if any records exist. This webpage provides those documents that are in electronic format to be viewed and downloaded, enables the public, public agencies, and businesses better access to information, and assists those performing inquiries concerning environmental site assessments. Public Works encourages you to utilize the webpage for online file review.

County of Los Angeles Department of Public Works
Environmental Programs Division
Webpage for Online File Review
Go To: www.ladpw.org/epd/cleanla/OpenFileReview.aspx

-or-

Go To: www.CleanLA.com.
Click on the link: Online File Review- UST/IW/SW

PLEASE NOTE: All documents have not been digitized and uploaded to this webpage. Our office is continuing to work hard to provide you easy online access for all related files. If additional information is needed, hard copy files may be available at our Public Counter. Please contact our public counter at:

Environmental Programs Division Public Counter,
900 South Fremont Avenue
Alhambra, CA 91803-1331
Annex Building, 3rd floor (626) 458-3517
Monday through Thursday, 7 a.m. to 5:00 p.m.

Department of Public Works
dpw.lacounty.gov

Clean LA for Residents
Clean LA for Business
Clean LA for Government
Clean LA is for ALL
Los Angeles County

Reduce, Reuse, Recycle
Trash Collection / Illegal Dumping
Household Hazardous Waste / Electronic Waste
Used Motor Oil Recycling
Industrial Waste
Underground Storage Tanks
Solid Waste
Stormwater
Water Conservation
Youth Education

Online File Review

Industrial Waste / Underground Storage Tanks / Stormwater

Back

You searched the following address:

Street Number: 11724 Street Name: Addison Street

Our office does not have any records (related to industrial waste/underground storage tanks/stormwater) for the requested site address.

Please double check the spelling of the street name or search a different address. Both street number and street name must be exact and spelled correctly as they appear for the facility on file. Do not include street direction prefix (i.e. N, S, E, W, etc...) or suffix (i.e. ST, AVE, RD, BLVD, etc...) unless they appear in the street name (i.e. AVENUE K, AVENIDA CESAR CHAVEZ, 10TH ST EAST, CROSSROADS PKWY N, etc...). Do not include any extra spaces after the street number or after the street name.

Back

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Department of Public Works
dpw.lacounty.gov

Online File Review

Industrial Waste / Underground Storage Tanks / Stormwater

Back

You searched the following address:

Street Number: 11724 Street Name: Addison St

Our office does not have any records (related to industrial waste/underground storage tanks/stormwater) for the requested site address.

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Back

Department of Public Works
dpw.lacounty.gov

Online File Review

Industrial Waste / Underground Storage Tanks / Stormwater

Back

You searched the following address:

Street Number: 11724 Street Name: Addison

Our office does not have any records (related to industrial waste/underground storage tanks/stormwater) for the requested site address.

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Back

LOS ANGELES FIRE DEPARTMENT

UNDERGROUND TANKS REQUEST FOR FIRE PREVENTION RECORDS

ADDRESS: 200 NORTH MAIN ST., 17TH FLR.RM.1700

NEW OFFICE# - 213-978-3700 NEW EMAIL lafd.usttestnotify@lacity.org

PLEASE GIVE US 7 TO 10 BUSINESS DAYS TO HONOR YOUR REQUEST.

ONE ADDRESS ONLY – PER SHEET

➜ COMPLETE THIS BOX. ONE FOR EACH PROPERTY CONCERNED ➜

PHONE NO: (310) 736-0964________________________ EMAIL: Michael.Huma@Advisian.com

NAME OF REQUESTER (PLEASE PRINT): Michael Huma______________________________________

REPRESENTING (COMPANY NAME): WorleyParsons____

SIGNATURE:

DATE: __7____/__31____/__15____

DRIVER LIC NO: ___E2618411_______________________ EXP:___July 3, 2016______________________

ADDRESS FOR WHICH RECORDS ARE REQUESTED: ____11724 Addison Street, Los Angeles, CA 91607 (APN 2355-013-900). Note that this property may have had different addresses historically which is why I referenced the APN. __

REASON FOR REQUEST: _Phase I Environmental Site Assessment being conducted for the Los Angeles Unified School District for the Colfax Elementary School.

____

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FOR OFFICE USE ONLY:

☐ REVIEW ONLY (NO COPIES)

☐ REQUEST COPIES

NUMBER OF PAGES: ___________

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= _______________

+ $11.00

TOTAL FEE AMOUNT: _______________

BILLING & ACCOUNTS RECEIVABLE

16TH FL, Rm. 1620, 200 N. MAIN (REV CODE #3887)

LOS ANGELES FIRE DEPARTMENT
UNDERGROUND TANKS REQUEST FOR FIRE PREVENTION RECORDS

ADDRESS: 200 NORTH MAIN ST., 17TH FLR.RM.1700

NEW OFFICE# - 213-978-3700 NEW EMAIL lafd.usttestnotify@lacity.org

PLEASE GIVE US 7 TO 10 BUSINESS DAYS TO HONOR YOUR REQUEST.

ONE ADDRESS ONLY - PER SHEET

COMPLETE THIS BOX. ONE FOR EACH PROPERTY CONCERNED

PHONE NO: (310) 736-0964 EMAIL: Michael.Huma@Advisian.com

NAME OF REQUESTER (PLEASE PRINT): Michael Huma

REPRESENTING (COMPANY NAME): WorleyParsons

SIGNATURE:

DATE: 7 / 31 / 15

DRIVER LIC NO: E2618411 EXP: July 3, 2016

ADDRESS FOR WHICH RECORDS ARE REQUESTED: 11724 Addison Street, Los Angeles, CA 91607 (APN 2355-013-900). Note that this property may have had different addresses historically which is why I referenced the APN.

REASON FOR REQUEST: Phase I Environmental Site Assessment being conducted for the Los Angeles Unified School District for the Colfax Elementary School.

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+ $11.00

TOTAL FEE AMOUNT: ______

BILLING & ACCOUNTS RECEIVABLE
16TH FL. Rm. 1620, 200 N. MAIN (REV CODE #3887)

NO FILE FOUND

Huma, Michael (Orange County)

From: NoReply@MyFax.com
Sent: Monday, September 14, 2015 2:20 PM
To: Huma, Michael (Orange County)
Subject: Successful transmission to 12134826511. Re:

Dear Michael,

Re:

The 1 page fax you sent through MyFax to 12134826511 was successfully transmitted at 2015-09-14 21:19:54 (GMT).

The length of transmission was 60 seconds

The receiving machine's fax ID: 2134826508

If you need assistance, please visit our online help center at www.myfax.com/support.
Thank you for using the MyFax service.

Best Regards,
The MyFax Team

Contact Customer Support

Hours: 24 hours per day, 7 days a week.
Email: support@myfax.com

North America
Toll-Free: (866) 563-9212

UK
Free Phone: 0808 804 0015
International: (613) 260-6325

Reference ID:

Huma, Michael (Orange County)

From:	Kelley, Keisha@Waterboards <Keisha.Kelley@waterboards.ca.gov>
Sent:	Monday, September 14, 2015 3:03 PM
To:	Huma, Michael (Orange County)
Subject:	RE: File Records Review - 11724 Addison Street, Los Angeles, CA 91607; APN 2355-013-900

Good afternoon Michael,

The Division of Financial Assistance holds no records/documents pertaining to the following location:

- 11724 Addison Street
  Los Angeles, CA 91607

Please contact me if you have any questions.

Sincerely,

Keisha Kelley

Division of Financial Assistance

From: Huma, Michael (Orange County) [mailto:MICHAEL.HUMA@advisian.com]
Sent: Monday, September 14, 2015 2:05 PM
To: Kelley, Keisha@Waterboards
Subject: File Records Review - 11724 Addison Street, Los Angeles, CA 91607; APN 2355-013-900

Hi Keisha,

I would like to review information your department may have regarding the following location:

a) 11724 Addison Street, Los Angeles, CA 91607; APN 2355-013-900

This information will be used for a Phase I Environmental Site Assessment of the above-listed property for the Los Angeles Unified School District for the Colfax Elementary School.
Please contact me by phone at 310-736-0964, if you have any questions regarding this request or to confirm receipt of this letter. Responses via email (Michael.Huma@Advisian.com) is preferred. However, if faxes are necessary, please fax to: 1-888-753-9007

Regards,

Michael Huma
Hydrogeologist, Decommissioning & Restoration, Americas
181 West Huntington Drive, Suite 110 | Monrovia, CA 91016 | U.S.A.
T +1 626 803 9000 | **F** +1 626 803 9030 | **M** +1 310 736 0964 | **GMT** -8

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resources & energy

FACSIMILE

DATE	September 14, 2015	**PROJ. NAME**	LAUSD Colfax Elementary School Phase I ESA
PAGES	1	**PROJ. NO.**	308038-08520
TO	State Fire Marshal	**CC TO**	
COMPANY	Office of State Fire Marshal	**CC COMPANY**	
FAX NO.	916-445-8526	**CC FAX NO.**	
FROM	Michael Huma, 310-736-0964	**FILE LOC.**	Monrovia
SUBJECT	Pipeline Location Request	**PRIORITY**	Regular

Lisa:

I would like to review information regarding the presence of oil and gas pipelines on and in the vicinity of the following location:

a) 11724 Addison Street, Los Angeles, CA 91607; APN 2355-013-900

This information will be used for an environmental site assessment of the above-listed property for the Los Angeles Unified School District for the Colfax Elementary School.

Please contact me by phone at 310-736-0964, if you have any questions regarding this request or to confirm receipt of this letter. Responses via email (Michael.Huma@Advisian.com) is preferred. However, if faxes are necessary, please fax to: 1-888-753-9007

Thank you for your assistance.

Sincerely,

Michael Huma

Hydrogeologist

Michael.Huma@Advisian.com

Huma, Michael (Orange County)

From:	NoReply@MyFax.com
Sent:	Monday, September 14, 2015 2:21 PM
To:	Huma, Michael (Orange County)
Subject:	Successful transmission to 19164458526. Re:

Dear Michael,

Re:

The 1 page fax you sent through MyFax to 19164458526 was successfully transmitted at 2015-09-14 21:20:33 (GMT).

The length of transmission was 54 seconds

The receiving machine's fax ID: 9164458526

If you need assistance, please visit our online help center at www.myfax.com/support.
Thank you for using the MyFax service.

Best Regards,
The MyFax Team

Contact Customer Support

Hours: 24 hours per day, 7 days a week.
Email: support@myfax.com

North America
Toll-Free: (866) 563-9212

UK
Free Phone: 0808 804 0015
International: (613) 260-6325

Reference ID:

Your use of the MyFax service is subject to the terms of the MyFax Customer Agreement.

Office of the State Fire Marshal

Pipeline Safety Division
P.O. Box 944246
Sacramento, CA 94244-2460

Request ID: 09142015SFM001

TO: WORLEY PARSONS
MICHAEL HUMA

Phone: 310 736 0964
Fax: 888 753 9007

FROM: Lisa Dowdy

Phone: (916) 445-8477
Fax: (916) 445-8526

PIPELINE LOCATION REQUEST FOR:

11724 ADDISON STREET
LOS ANGELES, CA 91607

THERE ARE NO PIPELINES JURISDICTIONAL TO THE STATE FIRE MARSHAL IN THE AREA FOR WHICH YOU HAVE INQUIRED.

- FOR NATURAL GAS PIPELINES PLEASE CONTACT YOUR LOCAL GAS COMPANY

- FOR OTHER TYPES OF PIPELINE PLEASE CONTACT THE DIVISION OF OIL AND GAS AT (714) 816-6847

- FOR PUBLIC UTILITIES PLEASE CONTACT THE PUBLIC UTILITIES COMMISSION AT (415) 703-2782

Disclaimer: The pipeline information and data represented in this correspondence varies in accuracy, scale, origin and completeness and may be changed at any time without notice. While the Office of the State Fire Marshal, Pipeline Safety Division (OSFM/PSD) makes every effort to provide accurate information, OSFM/PSD makes no warranties as to the suitability of this product for any particular purpose. Any use of this information is at the user's own risk.

For further information or suggestions regarding the data on this site, please contact the Office of the State Fire Marshal, Pipeline Safety Division at P.O. Box 944246, Sacramento, CA 94244 or call (916) 445-8477.

Huma, Michael (Orange County)

From: Huma, Michael (Orange County)
Sent: Monday, September 14, 2015 2:03 PM
To: 'Daniel.Knight@dtsc.ca.gov'
Subject: File Records Review - 11724 Addison Street, Los Angeles, CA 91607; APN 2355-013-900

Hi Daniel,

I would like to review information your department may have regarding the following location:

a) 11724 Addison Street, Los Angeles, CA 91607; APN 2355-013-900

This information will be used for a Phase I Environmental Site Assessment of the above-listed property for the Los Angeles Unified School District for the Colfax Elementary School.
Please contact me by phone at 310-736-0964, if you have any questions regarding this request or to confirm receipt of this letter. Responses via email (Michael.Huma@Advisian.com) is preferred. However, if faxes are necessary, please fax to: 1-888-753-9007

Regards,

Michael Huma
Hydrogeologist, Decommissioning & Restoration, Americas
181 West Huntington Drive, Suite 110 | Monrovia, CA 91016 | U.S.A.
T +1 626 803 9000 | **F** +1 626 803 9030 | **M** +1 310 736 0964 | **GMT** -8

Department of Toxic Substances Control

Matthew Rodriquez
Secretary for
Environmental Protection

Barbara A. Lee, Director
9211 Oakdale Avenue
Chatsworth, California 91311

Edmund G. Brown Jr.
Governor

September 15, 2015

Mr. Michael Huma
Advisian
Michael.Huma@Advisian.com

11724 Addison Street, Los Angeles, CA 91607; APN: 2355-013-900
PR3-091515-04

Dear Mr. Huma:

We have received your Public Records Act Request for records from the Department of Toxic Substances Control.

After a thorough review of our files we have found that no such records exist at this office pertaining to the site/facility referenced above.

We would like to inform you about EnviroStor, a database that provides information and documents on over 5,000 DTSC cleanup sites. EnviroStor can be accessed at: http://www.envirostor.dtsc.ca.gov/public. Also, a computer is available in the Central Files of each DTSC Regional Office for use by community members to view EnviroStor.

If you have any questions, would like further information regarding your request or would like an appointment to visit Chatsworth's Central Files, please contact me at (818) 717-6521.

Sincerely,

Vivien Tutaan/cs
Regional Records Coordinator

APPENDIX 5

INTERVIEW DOCUMENTATION

Phase I ESA Key Site Contact Questionnaire

1. Name and title of interview subject.

Mr. Rodrigo Ricon, Plant Manager, Colfax Elementary School.

Mr. Andrew Fowler, LAUSD OEHS, Project Manager

2. How long have they been associated (worked at) the Site?

3 years (i.e. since 2012).

3. What is the Site currently used for and for how long has it been in its current use?

The Site is currently used as a kindergarten and elementary school and to Mr. Ricon's best knowledge; the Site has always been used as a school.

4. Are any hazardous materials and/or petroleum products used at the Site? If so, what are they used for and where are they stored?

Common janitorial supplies are used to clean the classroom building and associated restrooms. Mr. Ricon indicated that gasoline-powered mowers and leaf blowers are used to maintain the landscaping at the Site; gasoline is stored in three 5-gallon portable gasoline containers, two of which were full at the time of the Site reconnaissance, in the art supply intermodal container at the Site. No evidence of spills or stains was observed at this location.

5. Are you aware of any releases of hazardous materials or petroleum products at the Site?

Neither Mr. Ricon nor Mr. Fowler was aware of any releases at the Site.

6. Are hazardous wastes generated at the Site? If so, where are they stored? How often and by who are they disposed?

According to Mr. Ricon, no hazardous wastes are stored at the Site with the exception of gasoline in three 5-gallon portable gasoline containers in the art supply intermodal container.

7. Before its current use, do you know what the Site was used for?

Mr. Fowler indicated that the Site's use prior to it being used as a school was for an arboretum.

8. Have you ever noticed pools of unidentified liquids or staining on the ground at the Site?

No evidence of pools, unidentified liquids, or staining was observed on the ground at the Site.

9. Are you aware of the presence of any wells at the Site?

Mr. Ricon and Mr. Fowler reported no knowledge of any wells at the Site.

10. Are you aware of the existence of the following documents related to the Site?

a. Any previously conducted environmental site assessment or audit reports.

None per Mr. Ricon and Mr. Fowler.

b. Any environmental permits (solid waste disposal, hazardous waste disposal, wastewater treatment/disposal, NPDES).

None per Mr. Ricon and Mr. Fowler.

c. Any registrations or plans for USTs, ASTs, wastewater clarifiers/treatment systems or septic systems.

None per Mr. Ricon and Mr. Fowler.

d. Any spill control and countermeasure plans.

Mr. Ricon indicated that spill control and countermeasure plans are stored in the supply intermodal container next to the Plant Manager’s office and comprise of absorbent pads and solidifiers/powders for small gasoline spills.

e. Any geologic, geotechnical or hydrogeologic reports.

None per Mr. Ricon and Mr. Fowler.

f. Any notices or correspondence from any government agencies regarding past or current violations of environmental regulations.

None per Mr. Ricon and Mr. Fowler.

g. Any environmental liens against the Site.

None per Mr. Ricon and Mr. Fowler.

h. Any hazardous waste generator reports.

None per Mr. Ricon and Mr. Fowler.

i. Any risk assessment reports.

None per Mr. Ricon and Mr. Fowler.

j. Any deed or land use restrictions or limitations for the Site related to environmental conditions.

None per Mr. Ricon and Mr. Fowler.

k. Any pending, current or past litigation or administrative action related to hazardous materials or petroleum products at the Site.

None per Mr. Ricon and Mr. Fowler.

8. Are you aware of any current or previous environmental issues/problems on the neighboring properties?

None per Mr. Ricon and Mr. Fowler.

APPENDIX 6

OEHS PRELIMINARY ENVIRONMENTAL SCREENING OF CANDIDATE SCHOOL SITES CHECKLIST

Preliminary Environmental Screening of Proposed Project at Existing School Site

Project: LAUSD Colfax Elementary School Phase I ESA

Selection Criteria	Yes	No	Comments
Powerlines/Electromagnetic Fields [CCR, Title 5, 14010(c)]			
Will the project create any new significant safety hazards or exacerbate any existing safety hazards students from 50-133 kV powerlines/electromagnetic fields within 100 feet of the site		X	
Will the project create any new significant safety hazards or exacerbate any existing safety hazards students from 220-230 kV powerlines/electromagnetic fields within 150 feet of the site		X	
Will the project create any new significant safety hazards or exacerbate any existing safety hazards students from 500-550 kV powerlines/electromagnetic fields within 350 feet of the site		X	
Railroads [CCR, Title 5, 14010(d)]			
Will the project create any new significant safety hazards or exacerbate any existing safety hazards students from railroads within 1,500 feet of the site		X	
Traffic Noise [CCR, Title 5, 14010(e)]			
Will the project create any new significant safety hazards or exacerbate any existing safety hazards to students from adjacent roads or freeways that will adversely affect the educational program?		X	
Faults [CCR, Title 5, 14010(f)]			
Will the project create any new significant safety hazards or exacerbate any existing safety hazards students from an active earthquake fault or fault trace which may be onsite		X	
Flood or Inundation Area [CCR, Title 5, 14010(g)]			
Will the project create any new significant safety hazards or exacerbate any existing safety hazards students from flooding or dam inundation		X	
Pipelines and Above Ground Tanks [CCR, Title 5, 14010(h)]			
Will the project create any new significant safety hazards or exacerbate any existing safety hazards students from nearby above-ground water or fuel storage tanks		X	
Will the project create any new significant safety hazards or exacerbate any existing safety hazards to students from above-ground or underground pipelines located within 1,500 feet of the site?		X	
Liquefaction and Landslides [CCR, Title 5, 14010(i)]			
Will the project create any new significant safety hazards or exacerbate any existing safety hazards students from liquefaction or landslides		X	
Traffic and Pedestrian Safety [CCR, Title 5, 14010(l)]			
Will the project create any new significant safety hazards or exacerbate any existing safety hazards students from an adjacent major arterial street		X	

Preliminary Environmental Screening of Proposed Project at Existing School Site

Project: LAUSD Colfax Elementary School Phase I ESA

Selection Criteria	Yes	No	Comments
Compatible Zoning [CCR, Title 5, 14010(m)]			
Will the project create any new significant safety hazards or exacerbate any existing safety hazards to students from the zoning surrounding the site		X	
Light, Wind, Air Pollution [CCR, Title 5, 14010(q)]			
Will the project create any new significant safety hazards or exacerbate any existing safety hazards to students from light, wind or air pollution?		X	
Easements [CCR, Title 5, 14010(r)]			
Will the project create any new significant safety hazards or exacerbate any existing safety hazards to students from easements on or adjacent to the site which may restrict access or building placement?	X		Based on the EDR Overview Map, a natural gas pipeline is located in the center of the Site traversing through it in a north-south direction.
Border Zone Property [CCR, Title 5, 14010(t)]			
Will the project create any new significant safety hazards or exacerbate any existing safety hazards to students from a significant disposal of hazardous waste within 2,000 ft. of the site		X	
Cellular Phone Towers [LAUSD Board Resolution]			
Will the project create any new significant safety hazards or exacerbate any existing safety hazards to students from a cellular phone tower on or adjacent to the site		X	
Air Pollution [LAUSD Board Resolution]			
Will the project create any new significant safety hazards or exacerbate any existing safety hazards to students from a major transportation corridor (freeway, major rail line) within 500 feet		X	
Will the project create any new significant safety hazards or exacerbate any existing safety hazards to students from a major stationary source of emissions within 500 feet		X	
Is the school on the Priority List of Schools Most at Risk from Air Pollution?		X	
Will the project create any new significant safety hazards or exacerbate any existing safety hazards to students from a high-risk facility previously identified by OEHS		X	
Methane Zone			
Will the project create any new significant safety hazards or exacerbate any existing safety hazards to students from a known methane zone or oil field		X	
Oil Wells			
Will the project create any new significant safety hazards or exacerbate any existing safety hazards to students from an onsite oil well?		X	
Airports			
Will the project create any new significant safety hazards or exacerbate any existing safety hazards to students from an airport within two nautical miles of the site		X	

Appendix F
Noise Calculations

Appendix F.1
Construction Noise Calculations without Noise Barrier

PCR

Project: Colfax Charter Elementary School Classroom Addition

Construction Phase: Demolition and Removal of Portable Classrooms

Receptor: *R1*

Construction Equipment	No. of Equip. (A)	Reference Noise Level at 50ft, Lmax (B)	Daily Usage Factor (C)	Distance to Receptor, ft (D)	Estimated Noise Shielding, dBA (E)	Construction Equipment Noise Level at A Sensitive Receptor Location (F)
Cranes	1	81	40%	100	0	71
Air Compressors	1	78	50%	100	0	69
Concrete/Industrial Saws	1	90	20%	100	0	77
Rubber Tired Dozers	1	82	40%	100	0	72
Tractors/Loaders/Backhoes	1	80	25%	100	0	68

Construction Noise Levels of Each Construction Equipment at A Sensitive Receptor

dBA, Leq = [AxB-20Log(De/50)-E+10Log(C/100)]

Construction Hour:

12	Hours during daytime (7 am to 7 pm)
0	Hours during evening (7 pm to 10 pm)
0	Hours during nighttime (10 pm to 7 am)

Construction Noise Level at R1	**80 dBA, Leq**	Combined Noise Levels of Each Construction Equipment Noise Level at A Sensitive Receptor Location

Source for Ref. Noise Levels: LA CEQA Guides, 2006 & FHWA RCNM, 2005

PCR

Project: Colfax Charter Elementary School Classroom Addition

Construction Phase: Utility Relocation

Receptor: *R1*

Construction Equipment	No. of Equip. (A)	Reference Noise Level at 50ft, Lmax (B)	Daily Usage Factor (C)	Distance to Receptor, ft (D)	Estimated Noise Shielding, dBA (E)	Construction Equipment Noise Level at A Sensitive Receptor Location (F)
Tractors/Loaders/Backhoes	1	80	25%	100	0	68
Trencher(Other Equipment)	1	85	50%	100	0	76
Tractors/Loaders/Backhoes	1	80	25%	100	0	68

Construction Noise Levels of Each Construction Equipment at A Sensitive Receptor

dBA, Leq = [AxB-20Log(De/50)-E+10Log(C/100)]

Construction Hour:

12	Hours during daytime (7 am to 7 pm)
0	Hours during evening (7 pm to 10 pm)
0	Hours during nighttime (10 pm to 7 am)

Construction Noise Level at R1	77 dBA, Leq	Combined Noise Levels of Each Construction Equipment Noise Level at A Sensitive Receptor Location

Source for Ref. Noise Levels: LA CEQA Guides, 2006 & FHWA RCNM, 2005

PCR

Project: Colfax Charter Elementary School Classroom Addition

Construction Phase: Excavation and Grading

Receptor: ***R1***

Construction Equipment	No. of Equip. (A)	Reference Noise Level at 50ft, Lmax (B)	Daily Usage Factor (C)	Distance to Receptor, ft (D)	Estimated Noise Shielding, dBA (E)	Construction Equipment Noise Level at A Sensitive Receptor Location (F)
Excavators	1	81	40%	100	0	71
Other Equipment	1	85	50%	100	0	76
Rubber Tired Loaders	1	79	50%	100	0	70
Water Trucks	1	80	10%	100	0	64

Construction Noise Levels of Each Construction Equipment at A Sensitive Receptor

dBA, Leq = [AxB-20Log(De/50)-E+10Log(C/100)]

Construction Hour:

12	Hours during daytime (7 am to 7 pm)
0	Hours during evening (7 pm to 10 pm)
0	Hours during nighttime (10 pm to 7 am)

Construction Noise Level at R1	**78 dBA, Leq**	Combined Noise Levels of Each Construction Equipment Noise Level at A Sensitive Receptor Location

Source for Ref. Noise Levels: LA CEQA Guides, 2006 & FHWA RCNM, 2005

Project: Colfax Charter Elementary School Classroom Addition

Construction Phase: **Foundation (Concrete Pouring)**
Receptor: ***R1***

Construction Equipment	No. of Equip. (A)	Reference Noise Level at 50ft, Lmax (B)	Daily Usage Factor (C)	Distance to Receptor, ft (D)	Estimated Noise Shielding, dBA (E)	Construction Equipment Noise Level at A Sensitive Receptor Location (F)
Cement and Mortar Mixers	2	79	40%	100	0	72
Cranes	1	81	40%	100	0	71
Tractors/Loaders/Backhoes	1	80	25%	100	0	68
Pumps	1	81	50%	100	0	72

Construction Noise Levels of Each Construction Equipment at A Sensitive Receptor

dBA, Leq = [AxB-20Log(De/50)-E+10Log(C/100)]

Construction Hour:

12 Hours during daytime (7 am to 7 pm)
0 Hours during evening (7 pm to 10 pm)
0 Hours during nighttime (10 pm to 7 am)

Construction Noise Level at R1 **77 dBA, Leq**

Combined Noise Levels of Each Construction Equipment Noise Level at A Sensitive Receptor Location

Source for Ref. Noise Levels: LA CEQA Guides, 2006 & FHWA RCNM, 2005

PCR

Project: Colfax Charter Elementary School Classroom Addition

Construction Phase: **Classroom and Kindergarten Buildings**
Receptor: ***R1***

Construction Equipment	No. of Equip. (A)	Reference Noise Level at 50ft, Lmax (B)	Daily Usage Factor (C)	Distance to Receptor, ft (D)	Estimated Noise Shielding, dBA (E)	Construction Equipment Noise Level at A Sensitive Receptor Location (F)
Cranes	1	81	40%	550	0	56
Forklifts	1	75	10%	550	0	44
Other Equipment	1	85	50%	550	0	61
Tractors/Loaders/Backhoes	1	80	25%	550	0	53
Welders	1	74	40%	550	0	49

Construction Noise Levels of Each Construction Equipment at A Sensitive Receptor

dBA, Leq = [AxB-20Log(De/50)-E+10Log(C/100)]

Construction Hour:

12	Hours during daytime (7 am to 7 pm)
0	Hours during evening (7 pm to 10 pm)
0	Hours during nighttime (10 pm to 7 am)

Construction Noise Level at R1	**63 dBA, Leq**	Combined Noise Levels of Each Construction Equipment Noise Level at A Sensitive Receptor Location

Source for Ref. Noise Levels: LA CEQA Guides, 2006 & FHWA RCNM, 2005

Project: Colfax Charter Elementary School Classroom Addition

Construction Phase: Kitchen Upgrades and Administration Building Reuse & Landscaping
Receptor: ***R1***

Construction Equipment	No. of Equip. (A)	Reference Noise Level at 50ft, Lmax (B)	Daily Usage Factor (C)	Distance to Receptor, ft (D)	Estimated Noise Shielding, dBA (E)	Construction Equipment Noise Level at A Sensitive Receptor Location (F)
Cranes	1	81	40%	70	0	74
Forklifts	2	75	10%	70	0	65
Other Equipment	1	85	50%	70	0	79
Tractors/Loaders/Backhoes	1	80	25%	70	0	71
Welders	1	74	40%	70	0	67
Paver	1	77	50%	70	0	71

Construction Noise Levels of Each Construction Equipment at A Sensitive Receptor

dBA, Leq = [AxB-20Log(De/50)-E+10Log(C/100)]

Construction Hour:

12	Hours during daytime (7 am to 7 pm)
0	Hours during evening (7 pm to 10 pm)
0	Hours during nighttime (10 pm to 7 am)

Construction Noise Level at R1	**81 dBA, Leq**	Combined Noise Levels of Each Construction Equipment Noise Level at A Sensitive Receptor Location

Source for Ref. Noise Levels: LA CEQA Guides, 2006 & FHWA RCNM, 2005

PCR

Project: Colfax Charter Elementary School Classroom Addition

Construction Phase: Demolition and Removal of Portable Classrooms
Receptor: ***R2***

Construction Equipment	No. of Equip. (A)	Reference Noise Level at 50ft, Lmax (B)	Daily Usage Factor (C)	Distance to Receptor, ft (D)	Estimated Noise Shielding, dBA (E)	Construction Equipment Noise Level at A Sensitive Receptor Location (F)
Cranes	1	81	40%	340	10	50
Air Compressors	1	78	50%	340	10	48
Concrete/Industrial Saws	1	90	20%	340	10	56
Rubber Tired Dozers	1	82	40%	340	10	51
Tractors/Loaders/Backhoes	1	80	25%	340	10	47

Construction Noise Levels of Each Construction Equipment at A Sensitive Receptor

dBA, Leq = [AxB-20Log(De/50)-E+10Log(C/100)]

Construction Hour:

12 Hours during daytime (7 am to 7 pm)
0 Hours during evening (7 pm to 10 pm)
0 Hours during nighttime (10 pm to 7 am)

Construction Noise Level at R2	**59 dBA, Leq**	Combined Noise Levels of Each Construction Equipment Noise Level at A Sensitive Receptor Location

Source for Ref. Noise Levels: LA CEQA Guides, 2006 & FHWA RCNM, 2005

Project: Colfax Charter Elementary School Classroom Addition

Construction Phase: Utility Relocation

Receptor: ***R2***

Construction Equipment	No. of Equip. (A)	Reference Noise Level at 50ft, Lmax (B)	Daily Usage Factor (C)	Distance to Receptor, ft (D)	Estimated Noise Shielding, dBA (E)	Construction Equipment Noise Level at A Sensitive Receptor Location (F)
Tractors/Loaders/Backhoes	1	80	25%	160	10	54
Trencher(Other Equipment)	1	85	50%	160	10	62
Tractors/Loaders/Backhoes	1	80	25%	160	10	54

Construction Noise Levels of Each Construction Equipment at A Sensitive Receptor

dBA, Leq = [AxB-20Log(De/50)-E+10Log(C/100)]

Construction Hour:

12	Hours during daytime (7 am to 7 pm)
0	Hours during evening (7 pm to 10 pm)
0	Hours during nighttime (10 pm to 7 am)

Construction Noise Level at R2	**63 dBA, Leq**	Combined Noise Levels of Each Construction Equipment Noise Level at A Sensitive Receptor Location

Source for Ref. Noise Levels: LA CEQA Guides, 2006 & FHWA RCNM, 2005

Project: Colfax Charter Elementary School Classroom Addition

Construction Phase: Excavation and Grading

Receptor: ***R2***

Construction Equipment	No. of Equip. (A)	Reference Noise Level at 50ft, Lmax (B)	Daily Usage Factor (C)	Distance to Receptor, ft (D)	Estimated Noise Shielding, dBA (E)	Construction Equipment Noise Level at A Sensitive Receptor Location (F)
Excavators	1	81	40%	340	10	50
Other Equipment	1	85	50%	340	10	55
Rubber Tired Loaders	1	79	50%	340	10	49
Water Trucks	1	80	10%	340	10	43

Construction Noise Levels of Each Construction Equipment at A Sensitive Receptor

dBA, Leq = [AxB-20Log(De/50)-E+10Log(C/100)]

Construction Hour:

12 Hours during daytime (7 am to 7 pm)
0 Hours during evening (7 pm to 10 pm)
0 Hours during nighttime (10 pm to 7 am)

Construction Noise Level at R2	57 dBA, Leq

Combined Noise Levels of Each Construction Equipment Noise Level at A Sensitive Receptor Location

Source for Ref. Noise Levels: LA CEQA Guides, 2006 & FHWA RCNM, 2005

Project: Colfax Charter Elementary School Classroom Addition

Construction Phase: **Foundation (Concrete Pouring)**
Receptor: ***R2***

Construction Equipment	No. of Equip. (A)	Reference Noise Level at 50ft, Lmax (B)	Daily Usage Factor (C)	Distance to Receptor, ft (D)	Estimated Noise Shielding, dBA (E)	Construction Equipment Noise Level at A Sensitive Receptor Location (F)
Cement and Mortar Mixers	2	79	40%	340	10	51
Cranes	1	81	40%	340	10	50
Tractors/Loaders/Backhoes	1	80	25%	340	10	47
Pumps	1	81	50%	340	10	51

Construction Noise Levels of Each Construction Equipment at A Sensitive Receptor

dBA, Leq = [AxB-20Log(De/50)-E+10Log(C/100)]

Construction Hour:

12 Hours during daytime (7 am to 7 pm)
0 Hours during evening (7 pm to 10 pm)
0 Hours during nighttime (10 pm to 7 am)

Construction Noise Level at R2	**56 dBA, Leq**	Combined Noise Levels of Each Construction Equipment Noise Level at A Sensitive Receptor Location

Source for Ref. Noise Levels: LA CEQA Guides, 2006 & FHWA RCNM, 2005

Project: Colfax Charter Elementary School Classroom Addition

Construction Phase: **Classroom and Kindergarten Buildings**
Receptor: ***R2***

Construction Equipment	No. of Equip. (A)	Reference Noise Level at 50ft, Lmax (B)	Daily Usage Factor (C)	Distance to Receptor, ft (D)	Estimated Noise Shielding, dBA (E)	Construction Equipment Noise Level at A Sensitive Receptor Location (F)
Cranes	1	81	40%	250	10	53
Forklifts	1	75	10%	250	10	41
Other Equipment	1	85	50%	250	10	58
Tractors/Loaders/Backhoes	1	80	25%	250	10	50
Welders	1	74	40%	250	10	46

Construction Noise Levels of Each Construction Equipment at A Sensitive Receptor

dBA, Leq = [AxB-20Log(De/50)-E+10Log(C/100)]

Construction Hour:

12	Hours during daytime (7 am to 7 pm)
0	Hours during evening (7 pm to 10 pm)
0	Hours during nighttime (10 pm to 7 am)

Construction Noise Level at R2	**60 dBA, Leq**	Combined Noise Levels of Each Construction Equipment Noise Level at A Sensitive Receptor Location

Source for Ref. Noise Levels: LA CEQA Guides, 2006 & FHWA RCNM, 2005

Project: Colfax Charter Elementary School Classroom Addition

Construction Phase: Kitchen Upgrades and Administration Building Reuse & Landscaping
Receptor: ***R2***

Construction Equipment	No. of Equip. (A)	Reference Noise Level at 50ft, Lmax (B)	Daily Usage Factor (C)	Distance to Receptor, ft (D)	Estimated Noise Shielding, dBA (E)	Construction Equipment Noise Level at A Sensitive Receptor Location (F)
Cranes	1	81	40%	70	0	74
Forklifts	2	75	10%	70	0	65
Other Equipment	1	85	50%	70	0	79
Tractors/Loaders/Backhoes	1	80	25%	70	0	71
Welders	1	74	40%	70	0	67
Paver	1	77	50%	70	0	71

Construction Noise Levels of Each Construction Equipment at A Sensitive Receptor

dBA, Leq = [AxB-20Log(De/50)-E+10Log(C/100)]

Construction Hour:

12 Hours during daytime (7 am to 7 pm)
0 Hours during evening (7 pm to 10 pm)
0 Hours during nighttime (10 pm to 7 am)

Construction Noise Level at	R2	81 dBA, Leq

Combined Noise Levels of Each Construction Equipment Noise Level at A Sensitive Receptor Location

Source for Ref. Noise Levels: LA CEQA Guides, 2006 & FHWA RCNM, 2005

Project: Colfax Charter Elementary School Classroom Addition

Construction Phase: Demolition and Removal of Portable Classrooms

Receptor: *R3*

Construction Equipment	No. of Equip. (A)	Reference Noise Level at 50ft, Lmax (B)	Daily Usage Factor (C)	Distance to Receptor, ft (D)	Estimated Noise Shielding, dBA (E)	Construction Equipment Noise Level at A Sensitive Receptor Location (F)
Cranes	1	81	40%	500	0	57
Air Compressors	1	78	50%	500	0	55
Concrete/Industrial Saws	1	90	20%	500	0	63
Rubber Tired Dozers	1	82	40%	500	0	58
Tractors/Loaders/Backhoes	1	80	25%	500	0	54

Construction Noise Levels of Each Construction Equipment at A Sensitive Receptor

dBA, Leq = [AxB-20Log(De/50)-E+10Log(C/100)]

Construction Hour:

12	Hours during daytime (7 am to 7 pm)
0	Hours during evening (7 pm to 10 pm)
0	Hours during nighttime (10 pm to 7 am)

Construction Noise Level at R3	66 dBA, Leq	Combined Noise Levels of Each Construction Equipment Noise Level at A Sensitive Receptor Location

Source for Ref. Noise Levels: LA CEQA Guides, 2006 & FHWA RCNM, 2005

Project: Colfax Charter Elementary School Classroom Addition

Construction Phase: Utility Relocation

Receptor: *R3*

Construction Equipment	No. of Equip. (A)	Reference Noise Level at 50ft, Lmax (B)	Daily Usage Factor (C)	Distance to Receptor, ft (D)	Estimated Noise Shielding, dBA (E)	Construction Equipment Noise Level at A Sensitive Receptor Location (F)
Tractors/Loaders/Backhoes	1	80	25%	210	0	62
Trencher(Other Equipment)	1	85	50%	210	0	70
Tractors/Loaders/Backhoes	1	80	25%	210	0	62

Construction Noise Levels of Each Construction Equipment at A Sensitive Receptor

dBA, Leq = [AxB-20Log(De/50)-E+10Log(C/100)]

Construction Hour:

12	Hours during daytime (7 am to 7 pm)
0	Hours during evening (7 pm to 10 pm)
0	Hours during nighttime (10 pm to 7 am)

Construction Noise Level at R3	**71 dBA, Leq**	Combined Noise Levels of Each Construction Equipment Noise Level at A Sensitive Receptor Location

Source for Ref. Noise Levels: LA CEQA Guides, 2006 & FHWA RCNM, 2005

Project: Colfax Charter Elementary School Classroom Addition

Construction Phase: Excavation and Grading

Receptor: ***R3***

Construction Equipment	No. of Equip. (A)	Reference Noise Level at 50ft, Lmax (B)	Daily Usage Factor (C)	Distance to Receptor, ft (D)	Estimated Noise Shielding, dBA (E)	Construction Equipment Noise Level at A Sensitive Receptor Location (F)
Excavators	1	81	40%	500	0	57
Other Equipment	1	85	50%	500	0	62
Rubber Tired Loaders	1	79	50%	500	0	56
Water Trucks	1	80	10%	500	0	50

Construction Noise Levels of Each Construction Equipment at A Sensitive Receptor

dBA, Leq = [AxB-20Log(De/50)-E+10Log(C/100)]

Construction Hour:

12 Hours during daytime (7 am to 7 pm)
0 Hours during evening (7 pm to 10 pm)
0 Hours during nighttime (10 pm to 7 am)

Construction Noise Level at R3	**64 dBA, Leq**	Combined Noise Levels of Each Construction Equipment Noise Level at A Sensitive Receptor Location

Source for Ref. Noise Levels: LA CEQA Guides, 2006 & FHWA RCNM, 2005

Project: Colfax Charter Elementary School Classroom Addition

Construction Phase: Foundation (Concrete Pouring)
Receptor: ***R3***

Construction Equipment	No. of Equip. (A)	Reference Noise Level at 50ft, Lmax (B)	Daily Usage Factor (C)	Distance to Receptor, ft (D)	Estimated Noise Shielding, dBA (E)	Construction Equipment Noise Level at A Sensitive Receptor Location (F)
Cement and Mortar Mixers	2	79	40%	500	0	58
Cranes	1	81	40%	500	0	57
Tractors/Loaders/Backhoes	1	80	25%	500	0	54
Pumps	1	81	50%	500	0	58

Construction Noise Levels of Each Construction Equipment at A Sensitive Receptor

dBA, Leq = [AxB-20Log(De/50)-E+10Log(C/100)]

Construction Hour:

12 Hours during daytime (7 am to 7 pm)
0 Hours during evening (7 pm to 10 pm)
0 Hours during nighttime (10 pm to 7 am)

Construction Noise Level at R3	**63 dBA, Leq**	Combined Noise Levels of Each Construction Equipment Noise Level at A Sensitive Receptor Location

Source for Ref. Noise Levels: LA CEQA Guides, 2006 & FHWA RCNM, 2005

PCR

Project: Colfax Charter Elementary School Classroom Addition

Construction Phase: Classroom and Kindergarten Buildings

Receptor: *R3*

Construction Equipment	No. of Equip. (A)	Reference Noise Level at 50ft, Lmax (B)	Daily Usage Factor (C)	Distance to Receptor, ft (D)	Estimated Noise Shielding, dBA (E)	Construction Equipment Noise Level at A Sensitive Receptor Location (F)
Cranes	1	81	40%	80	0	73
Forklifts	1	75	10%	80	0	61
Other Equipment	1	85	50%	80	0	78
Tractors/Loaders/Backhoes	1	80	25%	80	0	70
Welders	1	74	40%	80	0	66

Construction Noise Levels of Each Construction Equipment at A Sensitive Receptor

dBA, Leq = [AxB-20Log(De/50)-E+10Log(C/100)]

Construction Hour:

12	Hours during daytime (7 am to 7 pm)
0	Hours during evening (7 pm to 10 pm)
0	Hours during nighttime (10 pm to 7 am)

Construction Noise Level at R3	**80 dBA, Leq**	Combined Noise Levels of Each Construction Equipment Noise Level at A Sensitive Receptor Location

Source for Ref. Noise Levels: LA CEQA Guides, 2006 & FHWA RCNM, 2005

Project: Colfax Charter Elementary School Classroom Addition

Construction Phase: **Kitchen Upgrades and Administration Building Reuse & Landscaping**
Receptor: ***R3***

Construction Equipment	No. of Equip. (A)	Reference Noise Level at 50ft, Lmax (B)	Daily Usage Factor (C)	Distance to Receptor, ft (D)	Estimated Noise Shielding, dBA (E)	Construction Equipment Noise Level at A Sensitive Receptor Location (F)
Cranes	1	81	40%	80	0	73
Forklifts	2	75	10%	80	0	64
Other Equipment	1	85	50%	80	0	78
Tractors/Loaders/Backhoes	1	80	25%	80	0	70
Welders	1	74	40%	80	0	66
Paver	1	77	50%	80	0	70

Construction Noise Levels of Each Construction Equipment at A Sensitive Receptor

dBA, Leq = [AxB-20Log(De/50)-E+10Log(C/100)]

Construction Hour:

12	Hours during daytime (7 am to 7 pm)
0	Hours during evening (7 pm to 10 pm)
0	Hours during nighttime (10 pm to 7 am)

Construction Noise Level at R3	**80 dBA, Leq**	Combined Noise Levels of Each Construction Equipment Noise Level at A Sensitive Receptor Location

Source for Ref. Noise Levels: LA CEQA Guides, 2006 & FHWA RCNM, 2005

Project: Colfax Charter Elementary School Classroom Addition

Construction Phase: Demolition and Removal of Portable Classrooms

Receptor: ***R4***

Construction Equipment	No. of Equip. (A)	Reference Noise Level at 50ft, Lmax (B)	Daily Usage Factor (C)	Distance to Receptor, ft (D)	Estimated Noise Shielding, dBA (E)	Construction Equipment Noise Level at A Sensitive Receptor Location (F)
Cranes	1	81	40%	180	5	61
Air Compressors	1	78	50%	180	5	59
Concrete/Industrial Saws	1	90	20%	180	5	67
Rubber Tired Dozers	1	82	40%	180	5	62
Tractors/Loaders/Backhoes	1	80	25%	180	5	58

Construction Noise Levels of Each Construction Equipment at A Sensitive Receptor

dBA, Leq = [AxB-20Log(De/50)-E+10Log(C/100)]

Construction Hour:

12	Hours during daytime (7 am to 7 pm)
0	Hours during evening (7 pm to 10 pm)
0	Hours during nighttime (10 pm to 7 am)

Construction Noise Level at R4	**70 dBA, Leq**	Combined Noise Levels of Each Construction Equipment Noise Level at A Sensitive Receptor Location

Source for Ref. Noise Levels: LA CEQA Guides, 2006 & FHWA RCNM, 2005

Project: Colfax Charter Elementary School Classroom Addition

Construction Phase: Utility Relocation
Receptor: ***R4***

Construction Equipment	No. of Equip. (A)	Reference Noise Level at 50ft, Lmax (B)	Daily Usage Factor (C)	Distance to Receptor, ft (D)	Estimated Noise Shielding, dBA (E)	Construction Equipment Noise Level at A Sensitive Receptor Location (F)
Tractors/Loaders/Backhoes	1	80	25%	300	0	58
Trencher(Other Equipment)	1	85	50%	300	0	66
Tractors/Loaders/Backhoes	1	80	25%	300	0	58

Construction Noise Levels of Each Construction Equipment at A Sensitive Receptor

dBA, Leq = [AxB-20Log(De/50)-E+10Log(C/100)]

Construction Hour:

12	Hours during daytime (7 am to 7 pm)
0	Hours during evening (7 pm to 10 pm)
0	Hours during nighttime (10 pm to 7 am)

Construction Noise Level at R4	**68 dBA, Leq**	Combined Noise Levels of Each Construction Equipment Noise Level at A Sensitive Receptor Location

Source for Ref. Noise Levels: LA CEQA Guides, 2006 & FHWA RCNM, 2005

PCR

Project: Colfax Charter Elementary School Classroom Addition

Construction Phase: Excavation and Grading
Receptor: *R4*

Construction Equipment	No. of Equip. (A)	Reference Noise Level at 50ft, Lmax (B)	Daily Usage Factor (C)	Distance to Receptor, ft (D)	Estimated Noise Shielding, dBA (E)	Construction Equipment Noise Level at A Sensitive Receptor Location (F)
Excavators	1	81	40%	180	5	61
Other Equipment	1	85	50%	180	5	66
Rubber Tired Loaders	1	79	50%	180	5	60
Water Trucks	1	80	10%	180	5	54

Construction Noise Levels of Each Construction Equipment at A Sensitive Receptor

dBA, Leq = [AxB-20Log(De/50)-E+10Log(C/100)]

Construction Hour:

12 Hours during daytime (7 am to 7 pm)
0 Hours during evening (7 pm to 10 pm)
0 Hours during nighttime (10 pm to 7 am)

Construction Noise Level at R4	**68 dBA, Leq**	Combined Noise Levels of Each Construction Equipment Noise Level at A Sensitive Receptor Location

Source for Ref. Noise Levels: LA CEQA Guides, 2006 & FHWA RCNM, 2005

Project: Colfax Charter Elementary School Classroom Addition

Construction Phase: Foundation (Concrete Pouring)
Receptor: *R4*

Construction Equipment	No. of Equip. (A)	Reference Noise Level at 50ft, Lmax (B)	Daily Usage Factor (C)	Distance to Receptor, ft (D)	Estimated Noise Shielding, dBA (E)	Construction Equipment Noise Level at A Sensitive Receptor Location (F)
Cement and Mortar Mixers	2	79	40%	180	5	62
Cranes	1	81	40%	180	5	61
Tractors/Loaders/Backhoes	1	80	25%	180	5	58
Pumps	1	81	50%	180	5	62

Construction Noise Levels of Each Construction Equipment at A Sensitive Receptor

dBA, Leq = [AxB-20Log(De/50)-E+10Log(C/100)]

Construction Hour:

12	Hours during daytime (7 am to 7 pm)
0	Hours during evening (7 pm to 10 pm)
0	Hours during nighttime (10 pm to 7 am)

Construction Noise Level at R4 **67 dBA, Leq**

Combined Noise Levels of Each Construction Equipment Noise Level at A Sensitive Receptor Location

Source for Ref. Noise Levels: LA CEQA Guides, 2006 & FHWA RCNM, 2005

Project: Colfax Charter Elementary School Classroom Addition

Construction Phase: **Classroom and Kindergarten Buildings**

Receptor: ***R4***

Construction Equipment	No. of Equip. (A)	Reference Noise Level at 50ft, Lmax (B)	Daily Usage Factor (C)	Distance to Receptor, ft (D)	Estimated Noise Shielding, dBA (E)	Construction Equipment Noise Level at A Sensitive Receptor Location (F)
Cranes	1	81	40%	400	0	59
Forklifts	1	75	10%	400	0	47
Other Equipment	1	85	50%	400	0	64
Tractors/Loaders/Backhoes	1	80	25%	400	0	56
Welders	1	74	40%	400	0	52

Construction Noise Levels of Each Construction Equipment at A Sensitive Receptor

dBA, Leq = [AxB-20Log(De/50)-E+10Log(C/100)]

Construction Hour:

12	Hours during daytime (7 am to 7 pm)
0	Hours during evening (7 pm to 10 pm)
0	Hours during nighttime (10 pm to 7 am)

Construction Noise Level at R4	66 dBA, Leq	Combined Noise Levels of Each Construction Equipment Noise Level at A Sensitive Receptor Location

Source for Ref. Noise Levels: LA CEQA Guides, 2006 & FHWA RCNM, 2005

Project: Colfax Charter Elementary School Classroom Addition

Construction Phase: Kitchen Upgrades and Administration Building Reuse & Landscaping

Receptor: *R4*

Construction Equipment	No. of Equip. (A)	Reference Noise Level at 50ft, Lmax (B)	Daily Usage Factor (C)	Distance to Receptor, ft (D)	Estimated Noise Shielding, dBA (E)	Construction Equipment Noise Level at A Sensitive Receptor Location (F)
Cranes	1	81	40%	100	0	71
Forklifts	2	75	10%	100	0	62
Other Equipment	1	85	50%	100	0	76
Tractors/Loaders/Backhoes	1	80	25%	100	0	68
Welders	1	74	40%	100	0	64
Paver	1	77	50%	100	0	68

Construction Noise Levels of Each Construction Equipment at A Sensitive Receptor

dBA, Leq = [AxB-20Log(De/50)-E+10Log(C/100)]

Construction Hour:

12	Hours during daytime (7 am to 7 pm)
0	Hours during evening (7 pm to 10 pm)
0	Hours during nighttime (10 pm to 7 am)

Construction Noise Level at R4	**78 dBA, Leq**	Combined Noise Levels of Each Construction Equipment Noise Level at A Sensitive Receptor Location

Source for Ref. Noise Levels: LA CEQA Guides, 2006 & FHWA RCNM, 2005

PCR

Project: Colfax Charter Elementary School Classroom Addition

Construction Phase: Demolition and Removal of Portable Classrooms
Receptor: *Colfax Charter Elementary School Classrooms*

Construction Equipment	No. of Equip. (A)	Reference Noise Level at 50ft, Lmax (B)	Daily Usage Factor (C)	Distance to Receptor, ft (D)	Estimated Noise Shielding, dBA (E)	Construction Equipment Noise Level at A Sensitive Receptor Location (F)
Cranes	1	81	40%	100	0	71
Air Compressors	1	78	50%	100	0	69
Concrete/Industrial Saws	1	90	20%	100	0	77
Rubber Tired Dozers	1	82	40%	100	0	72
Tractors/Loaders/Backhoes	1	80	25%	100	0	68

Construction Noise Levels of Each Construction Equipment at A Sensitive Receptor

dBA, Leq = [AxB-20Log(De/50)-E+10Log(C/100)]

Construction Hour:

12	Hours during daytime (7 am to 7 pm)
0	Hours during evening (7 pm to 10 pm)
0	Hours during nighttime (10 pm to 7 am)

Construction Noise Level at Colfax (	**80 dBA, Leq**	Combined Noise Levels of Each Construction Equipment Noise Level at A Sensitive Receptor Location

Source for Ref. Noise Levels: LA CEQA Guides, 2006 & FHWA RCNM, 2005

Project: Colfax Charter Elementary School Classroom Addition

Construction Phase: **Utility Relocation**
Receptor: ***Colfax Charter Elementary School Classrooms***

Construction Equipment	No. of Equip. (A)	Reference Noise Level at 50ft, Lmax (B)	Daily Usage Factor (C)	Distance to Receptor, ft (D)	Estimated Noise Shielding, dBA (E)	Construction Equipment Noise Level at A Sensitive Receptor Location (F)
Tractors/Loaders/Backhoes	1	80	25%	50	0	74
Trencher(Other Equipment)	1	85	50%	50	0	82
Tractors/Loaders/Backhoes	1	80	25%	50	0	74

Construction Noise Levels of Each Construction Equipment at A Sensitive Receptor

dBA, Leq = [AxB-20Log(De/50)-E+10Log(C/100)]

Construction Hour:

12	Hours during daytime (7 am to 7 pm)
0	Hours during evening (7 pm to 10 pm)
0	Hours during nighttime (10 pm to 7 am)

Construction Noise Level at Colfax (	**83 dBA, Leq**	Combined Noise Levels of Each Construction Equipment Noise Level at A Sensitive Receptor Location

Source for Ref. Noise Levels: LA CEQA Guides, 2006 & FHWA RCNM, 2005

PCR

Project: Colfax Charter Elementary School Classroom Addition

Construction Phase: Excavation and Grading
Receptor: *Colfax Charter Elementary School Classrooms*

Construction Equipment	No. of Equip. (A)	Reference Noise Level at 50ft, Lmax (B)	Daily Usage Factor (C)	Distance to Receptor, ft (D)	Estimated Noise Shielding, dBA (E)	Construction Equipment Noise Level at A Sensitive Receptor Location (F)
Excavators	1	81	40%	100	0	71
Other Equipment	1	85	50%	100	0	76
Rubber Tired Loaders	1	79	50%	100	0	70
Water Trucks	1	80	10%	100	0	64

Construction Noise Levels of Each Construction Equipment at A Sensitive Receptor

dBA, Leq = [AxB-20Log(De/50)-E+10Log(C/100)]

Construction Hour:

12 Hours during daytime (7 am to 7 pm)
0 Hours during evening (7 pm to 10 pm)
0 Hours during nighttime (10 pm to 7 am)

Construction Noise Level at Colfax (	**78 dBA, Leq**	Combined Noise Levels of Each Construction Equipment Noise Level at A Sensitive Receptor Location

Source for Ref. Noise Levels: LA CEQA Guides, 2006 & FHWA RCNM, 2005

PCR

Project: Colfax Charter Elementary School Classroom Addition

Construction Phase: **Foundation (Concrete Pouring)**
Receptor: ***Colfax Charter Elementary School Classrooms***

Construction Equipment	No. of Equip. (A)	Reference Noise Level at 50ft, Lmax (B)	Daily Usage Factor (C)	Distance to Receptor, ft (D)	Estimated Noise Shielding, dBA (E)	Construction Equipment Noise Level at A Sensitive Receptor Location (F)
Cement and Mortar Mixers	2	79	40%	100	0	72
Cranes	1	81	40%	100	0	71
Tractors/Loaders/Backhoes	1	80	25%	100	0	68
Pumps	1	81	50%	100	0	72

Construction Noise Levels of Each Construction Equipment at A Sensitive Receptor

dBA, Leq = [AxB-20Log(De/50)-E+10Log(C/100)]

Construction Hour:

12	Hours during daytime (7 am to 7 pm)
0	Hours during evening (7 pm to 10 pm)
0	Hours during nighttime (10 pm to 7 am)

Construction Noise Level at	**Colfax (**	**77**	**dBA, Leq**

Combined Noise Levels of Each Construction Equipment Noise Level at A Sensitive Receptor Location

Source for Ref. Noise Levels: LA CEQA Guides, 2006 & FHWA RCNM, 2005

PCR

Project: Colfax Charter Elementary School Classroom Addition

Construction Phase: **Classroom and Kindergarten Buildings**
Receptor: ***Colfax Charter Elementary School Classrooms***

Construction Equipment	No. of Equip. (A)	Reference Noise Level at 50ft, Lmax (B)	Daily Usage Factor (C)	Distance to Receptor, ft (D)	Estimated Noise Shielding, dBA (E)	Construction Equipment Noise Level at A Sensitive Receptor Location (F)
Cranes	1	81	40%	25	0	83
Forklifts	1	75	10%	25	0	71
Other Equipment	1	85	50%	25	0	88
Tractors/Loaders/Backhoes	1	80	25%	25	0	80
Welders	1	74	40%	25	0	76

Construction Noise Levels of Each Construction Equipment at A Sensitive Receptor

dBA, Leq = [AxB-20Log(De/50)-E+10Log(C/100)]

Construction Hour:

12	Hours during daytime (7 am to 7 pm)
0	Hours during evening (7 pm to 10 pm)
0	Hours during nighttime (10 pm to 7 am)

Construction Noise Level at	**Colfax (**	**90**	**dBA, Leq**

Combined Noise Levels of Each Construction Equipment Noise Level at A Sensitive Receptor Location

Source for Ref. Noise Levels: LA CEQA Guides, 2006 & FHWA RCNM, 2005

Project: Colfax Charter Elementary School Classroom Addition

Construction Phase: **Kitchen Upgrades and Administration Building Reuse & Landscaping**
Receptor: ***Colfax Charter Elementary School Classrooms***

Construction Equipment	No. of Equip. (A)	Reference Noise Level at 50ft, Lmax (B)	Daily Usage Factor (C)	Distance to Receptor, ft (D)	Estimated Noise Shielding, dBA (E)	Construction Equipment Noise Level at A Sensitive Receptor Location (F)
Cranes	1	81	40%	25	0	83
Forklifts	2	75	10%	25	0	74
Other Equipment	1	85	50%	25	0	88
Tractors/Loaders/Backhoes	1	80	25%	25	0	80
Welders	1	74	40%	25	0	76
Paver	1	77	50%	25	0	80

Construction Noise Levels of Each Construction Equipment at A Sensitive Receptor

dBA, Leq = [AxB-20Log(De/50)-E+10Log(C/100)]

Construction Hour:

12	Hours during daytime (7 am to 7 pm)
0	Hours during evening (7 pm to 10 pm)
0	Hours during nighttime (10 pm to 7 am)

Construction Noise Level at	**Colfax (**	**90**	**dBA, Leq**

Combined Noise Levels of Each Construction Equipment Noise Level at A Sensitive Receptor Location

Source for Ref. Noise Levels: LA CEQA Guides, 2006 & FHWA RCNM, 2005

Appendix F.2

Construction Noise Calculations with Noise Barrier

PCR

Project: Colfax Charter Elementary School Classroom Addition

Construction Phase: Demolition and Removal of Portable Classrooms
Receptor: *R1*

Construction Equipment	No. of Equip. (A)	Reference Noise Level at 50ft, Lmax (B)	Daily Usage Factor (C)	Distance to Receptor, ft (D)	Estimated Noise Shielding, dBA (E)	Construction Equipment Noise Level at A Sensitive Receptor Location (F)
Cranes	1	81	40%	100	10	61
Air Compressors	1	78	50%	100	10	59
Concrete/Industrial Saws	1	90	20%	100	10	67
Rubber Tired Dozers	1	82	40%	100	10	62
Tractors/Loaders/Backhoes	1	80	25%	100	10	58

Construction Noise Levels of Each Construction Equipment at A Sensitive Receptor

dBA, Leq = [AxB-20Log(De/50)-E+10Log(C/100)]

Construction Hour:

12	Hours during daytime (7 am to 7 pm)
0	Hours during evening (7 pm to 10 pm)
0	Hours during nighttime (10 pm to 7 am)

Construction Noise Level at R1	**70 dBA, Leq**	Combined Noise Levels of Each Construction Equipment Noise Level at A Sensitive Receptor Location

Source for Ref. Noise Levels: LA CEQA Guides, 2006 & FHWA RCNM, 2005

Project: Colfax Charter Elementary School Classroom Addition

Construction Phase: Utility Relocation

Receptor: *R1*

Construction Equipment	No. of Equip. (A)	Reference Noise Level at 50ft, Lmax (B)	Daily Usage Factor (C)	Distance to Receptor, ft (D)	Estimated Noise Shielding, dBA (E)	Construction Equipment Noise Level at A Sensitive Receptor Location (F)
Tractors/Loaders/Backhoes	1	80	25%	100	10	58
Trencher(Other Equipment)	1	85	50%	100	10	66
Tractors/Loaders/Backhoes	1	80	25%	100	10	58

Construction Noise Levels of Each Construction Equipment at A Sensitive Receptor

dBA, Leq = [AxB-20Log(De/50)-E+10Log(C/100)]

Construction Hour:

12	Hours during daytime (7 am to 7 pm)
0	Hours during evening (7 pm to 10 pm)
0	Hours during nighttime (10 pm to 7 am)

Construction Noise Level at R1	**67 dBA, Leq**	Combined Noise Levels of Each Construction Equipment Noise Level at A Sensitive Receptor Location

Source for Ref. Noise Levels: LA CEQA Guides, 2006 & FHWA RCNM, 2005

PCR

Project: Colfax Charter Elementary School Classroom Addition

Construction Phase: Excavation and Grading

Receptor: ***R1***

Construction Equipment	No. of Equip. (A)	Reference Noise Level at 50ft, Lmax (B)	Daily Usage Factor (C)	Distance to Receptor, ft (D)	Estimated Noise Shielding, dBA (E)	Construction Equipment Noise Level at A Sensitive Receptor Location (F)
Excavators	1	81	40%	100	10	61
Other Equipment	1	85	50%	100	10	66
Rubber Tired Loaders	1	79	50%	100	10	60
Water Trucks	1	80	10%	100	10	54

Construction Noise Levels of Each Construction Equipment at A Sensitive Receptor

dBA, Leq = [AxB-20Log(De/50)-E+10Log(C/100)]

Construction Hour:

12 Hours during daytime (7 am to 7 pm)
0 Hours during evening (7 pm to 10 pm)
0 Hours during nighttime (10 pm to 7 am)

Construction Noise Level at R1	**68 dBA, Leq**	Combined Noise Levels of Each Construction Equipment Noise Level at A Sensitive Receptor Location

Source for Ref. Noise Levels: LA CEQA Guides, 2006 & FHWA RCNM, 2005

Project: Colfax Charter Elementary School Classroom Addition

Construction Phase: Foundation (Concrete Pouring)

Receptor: *R1*

Construction Equipment	No. of Equip. (A)	Reference Noise Level at 50ft, Lmax (B)	Daily Usage Factor (C)	Distance to Receptor, ft (D)	Estimated Noise Shielding, dBA (E)	Construction Equipment Noise Level at A Sensitive Receptor Location (F)
Cement and Mortar Mixers	2	79	40%	100	10	62
Cranes	1	81	40%	100	10	61
Tractors/Loaders/Backhoes	1	80	25%	100	10	58
Pumps	1	81	50%	100	10	62

Construction Noise Levels of Each Construction Equipment at A Sensitive Receptor

dBA, Leq = [AxB-20Log(De/50)-E+10Log(C/100)]

Construction Hour:

12 Hours during daytime (7 am to 7 pm)
0 Hours during evening (7 pm to 10 pm)
0 Hours during nighttime (10 pm to 7 am)

Construction Noise Level at R1 — 67 dBA, Leq

Combined Noise Levels of Each Construction Equipment Noise Level at A Sensitive Receptor Location

Source for Ref. Noise Levels: LA CEQA Guides, 2006 & FHWA RCNM, 2005

Project: Colfax Charter Elementary School Classroom Addition

Construction Phase: **Kitchen Upgrades and Administration Building Reuse & Landscaping**
Receptor: ***R1***

Construction Equipment	No. of Equip. (A)	Reference Noise Level at 50ft, Lmax (B)	Daily Usage Factor (C)	Distance to Receptor, ft (D)	Estimated Noise Shielding, dBA (E)	Construction Equipment Noise Level at A Sensitive Receptor Location (F)
Cranes	1	81	40%	70	10	64
Forklifts	2	75	10%	70	10	55
Other Equipment	1	85	50%	70	10	69
Tractors/Loaders/Backhoes	1	80	25%	70	10	61
Welders	1	74	40%	70	10	57
Paver	1	77	50%	70	10	61

Construction Noise Levels of Each Construction Equipment at A Sensitive Receptor

dBA, Leq = [AxB-20Log(De/50)-E+10Log(C/100)]

Construction Hour:

12 Hours during daytime (7 am to 7 pm)
0 Hours during evening (7 pm to 10 pm)
0 Hours during nighttime (10 pm to 7 am)

Construction Noise Level at R1	**71 dBA, Leq**	Combined Noise Levels of Each Construction Equipment Noise Level at A Sensitive Receptor Location

Source for Ref. Noise Levels: LA CEQA Guides, 2006 & FHWA RCNM, 2005

PCR

Project: Colfax Charter Elementary School Classroom Addition

Construction Phase: Kitchen Upgrades and Administration Building Reuse & Landscaping

Receptor: ***R2***

Construction Equipment	No. of Equip. (A)	Reference Noise Level at 50ft, Lmax (B)	Daily Usage Factor (C)	Distance to Receptor, ft (D)	Estimated Noise Shielding, dBA (E)	Construction Equipment Noise Level at A Sensitive Receptor Location (F)
Cranes	1	81	40%	70	10	64
Forklifts	2	75	10%	70	10	55
Other Equipment	1	85	50%	70	10	69
Tractors/Loaders/Backhoes	1	80	25%	70	10	61
Welders	1	74	40%	70	10	57
Paver	1	77	50%	70	10	61

Construction Noise Levels of Each Construction Equipment at A Sensitive Receptor

dBA, Leq = [AxB-20Log(De/50)-E+10Log(C/100)]

Construction Hour:

12	Hours during daytime (7 am to 7 pm)
0	Hours during evening (7 pm to 10 pm)
0	Hours during nighttime (10 pm to 7 am)

Construction Noise Level at R2	**71 dBA, Leq**	Combined Noise Levels of Each Construction Equipment Noise Level at A Sensitive Receptor Location

Source for Ref. Noise Levels: LA CEQA Guides, 2006 & FHWA RCNM, 2005

PCR

Project: Colfax Charter Elementary School Classroom Addition

Construction Phase: **Classroom and Kindergarten Buildings**
Receptor: ***R3***

Construction Equipment	No. of Equip. (A)	Reference Noise Level at 50ft, Lmax (B)	Daily Usage Factor (C)	Distance to Receptor, ft (D)	Estimated Noise Shielding, dBA (E)	Construction Equipment Noise Level at A Sensitive Receptor Location (F)
Cranes	1	81	40%	80	10	63
Forklifts	1	75	10%	80	10	51
Other Equipment	1	85	50%	80	10	68
Tractors/Loaders/Backhoes	1	80	25%	80	10	60
Welders	1	74	40%	80	10	56

Construction Noise Levels of Each Construction Equipment at A Sensitive Receptor

dBA, Leq = [AxB-20Log(De/50)-E+10Log(C/100)]

Construction Hour:

12	Hours during daytime (7 am to 7 pm)
0	Hours during evening (7 pm to 10 pm)
0	Hours during nighttime (10 pm to 7 am)

Construction Noise Level at R3 **70 dBA, Leq**	Combined Noise Levels of Each Construction Equipment Noise Level at A Sensitive Receptor Location

Source for Ref. Noise Levels: LA CEQA Guides, 2006 & FHWA RCNM, 2005

Project: Colfax Charter Elementary School Classroom Addition

Construction Phase: **Kitchen Upgrades and Administration Building Reuse & Landscaping**
Receptor: ***R3***

Construction Equipment	No. of Equip. (A)	Reference Noise Level at 50ft, Lmax (B)	Daily Usage Factor (C)	Distance to Receptor, ft (D)	Estimated Noise Shielding, dBA (E)	Construction Equipment Noise Level at A Sensitive Receptor Location (F)
Cranes	1	81	40%	80	10	63
Forklifts	2	75	10%	80	10	54
Other Equipment	1	85	50%	80	10	68
Tractors/Loaders/Backhoes	1	80	25%	80	10	60
Welders	1	74	40%	80	10	56
Paver	1	77	50%	80	10	60

Construction Noise Levels of Each Construction Equipment at A Sensitive Receptor

dBA, Leq = [AxB-20Log(De/50)-E+10Log(C/100)]

Construction Hour:

12	Hours during daytime (7 am to 7 pm)
0	Hours during evening (7 pm to 10 pm)
0	Hours during nighttime (10 pm to 7 am)

Construction Noise Level at R3	**70 dBA, Leq**	Combined Noise Levels of Each Construction Equipment Noise Level at A Sensitive Receptor Location

Source for Ref. Noise Levels: LA CEQA Guides, 2006 & FHWA RCNM, 2005

Project: Colfax Charter Elementary School Classroom Addition

Construction Phase: Kitchen Upgrades and Administration Building Reuse & Landscaping
Receptor: *R4*

Construction Equipment	No. of Equip. (A)	Reference Noise Level at 50ft, Lmax (B)	Daily Usage Factor (C)	Distance to Receptor, ft (D)	Estimated Noise Shielding, dBA (E)	Construction Equipment Noise Level at A Sensitive Receptor Location (F)
Cranes	1	81	40%	100	10	61
Forklifts	2	75	10%	100	10	52
Other Equipment	1	85	50%	100	10	66
Tractors/Loaders/Backhoes	1	80	25%	100	10	58
Welders	1	74	40%	100	10	54
Paver	1	77	50%	100	10	58

Construction Noise Levels of Each Construction Equipment at A Sensitive Receptor

dBA, Leq = [AxB-20Log(De/50)-E+10Log(C/100)]

Construction Hour:

12	Hours during daytime (7 am to 7 pm)
0	Hours during evening (7 pm to 10 pm)
0	Hours during nighttime (10 pm to 7 am)

Construction Noise Level at R4	**68 dBA, Leq**	Combined Noise Levels of Each Construction Equipment Noise Level at A Sensitive Receptor Location

Source for Ref. Noise Levels: LA CEQA Guides, 2006 & FHWA RCNM, 2005

PCR

Project: Colfax Charter Elementary School Classroom Addition

Construction Phase: Demolition and Removal of Portable Classrooms
Receptor: *Colfax Charter Elementary School Classrooms*

Construction Equipment	No. of Equip. (A)	Reference Noise Level at 50ft, Lmax (B)	Daily Usage Factor (C)	Distance to Receptor, ft (D)	Estimated Noise Shielding, dBA (E)	Construction Equipment Noise Level at A Sensitive Receptor Location (F)
Cranes	1	81	40%	100	15	56
Air Compressors	1	78	50%	100	15	54
Concrete/Industrial Saws	1	90	20%	100	15	62
Rubber Tired Dozers	1	82	40%	100	15	57
Tractors/Loaders/Backhoes	1	80	25%	100	15	53

Construction Noise Levels of Each Construction Equipment at A Sensitive Receptor

dBA, Leq = [AxB-20Log(De/50)-E+10Log(C/100)]

Construction Hour:

12	Hours during daytime (7 am to 7 pm)
0	Hours during evening (7 pm to 10 pm)
0	Hours during nighttime (10 pm to 7 am)

Construction Noise Level at Colfax (	**65 dBA, Leq**	Combined Noise Levels of Each Construction Equipment Noise Level at A Sensitive Receptor Location

Source for Ref. Noise Levels: LA CEQA Guides, 2006 & FHWA RCNM, 2005

Project: Colfax Charter Elementary School Classroom Addition

Construction Phase: **Utility Relocation**

Receptor: ***Colfax Charter Elementary School Classrooms***

Construction Equipment	No. of Equip. (A)	Reference Noise Level at 50ft, Lmax (B)	Daily Usage Factor (C)	Distance to Receptor, ft (D)	Estimated Noise Shielding, dBA (E)	Construction Equipment Noise Level at A Sensitive Receptor Location (F)
Tractors/Loaders/Backhoes	1	80	25%	50	15	59
Trencher(Other Equipment)	1	85	50%	50	15	67
Tractors/Loaders/Backhoes	1	80	25%	50	15	59

Construction Noise Levels of Each Construction Equipment at A Sensitive Receptor

dBA, Leq = [AxB-20Log(De/50)-E+10Log(C/100)]

Construction Hour:

12	Hours during daytime (7 am to 7 pm)
0	Hours during evening (7 pm to 10 pm)
0	Hours during nighttime (10 pm to 7 am)

Construction Noise Level at Colfax (**68 dBA, Leq**

Combined Noise Levels of Each Construction Equipment Noise Level at A Sensitive Receptor Location

Source for Ref. Noise Levels: LA CEQA Guides, 2006 & FHWA RCNM, 2005

PCR

Project: Colfax Charter Elementary School Classroom Addition

Construction Phase: Excavation and Grading
Receptor: ***Colfax Charter Elementary School Classrooms***

Construction Equipment	No. of Equip. (A)	Reference Noise Level at 50ft, Lmax (B)	Daily Usage Factor (C)	Distance to Receptor, ft (D)	Estimated Noise Shielding, dBA (E)	Construction Equipment Noise Level at A Sensitive Receptor Location (F)
Excavators	1	81	40%	100	15	56
Other Equipment	1	85	50%	100	15	61
Rubber Tired Loaders	1	79	50%	100	15	55
Water Trucks	1	80	10%	100	15	49

Construction Noise Levels of Each Construction Equipment at A Sensitive Receptor

dBA, Leq = [AxB-20Log(De/50)-E+10Log(C/100)]

Construction Hour:

12	Hours during daytime (7 am to 7 pm)
0	Hours during evening (7 pm to 10 pm)
0	Hours during nighttime (10 pm to 7 am)

Construction Noise Level at Colfax (	**63 dBA, Leq**

Combined Noise Levels of Each Construction Equipment Noise Level at A Sensitive Receptor Location

Source for Ref. Noise Levels: LA CEQA Guides, 2006 & FHWA RCNM, 2005

Project: Colfax Charter Elementary School Classroom Addition

Construction Phase: **Foundation (Concrete Pouring)**
Receptor: ***Colfax Charter Elementary School Classrooms***

Construction Equipment	No. of Equip. (A)	Reference Noise Level at 50ft, Lmax (B)	Daily Usage Factor (C)	Distance to Receptor, ft (D)	Estimated Noise Shielding, dBA (E)	Construction Equipment Noise Level at A Sensitive Receptor Location (F)
Cement and Mortar Mixers	2	79	40%	100	15	57
Cranes	1	81	40%	100	15	56
Tractors/Loaders/Backhoes	1	80	25%	100	15	53
Pumps	1	81	50%	100	15	57

Construction Noise Levels of Each Construction Equipment at A Sensitive Receptor

dBA, Leq = [AxB-20Log(De/50)-E+10Log(C/100)]

Construction Hour:

12	Hours during daytime (7 am to 7 pm)
0	Hours during evening (7 pm to 10 pm)
0	Hours during nighttime (10 pm to 7 am)

Construction Noise Level at	**Colfax (**	**62**	**dBA, Leq**

Combined Noise Levels of Each Construction Equipment Noise Level at A Sensitive Receptor Location

Source for Ref. Noise Levels: LA CEQA Guides, 2006 & FHWA RCNM, 2005

Project: Colfax Charter Elementary School Classroom Addition

Construction Phase: **Classroom and Kindergarten Buildings**
Receptor: ***Colfax Charter Elementary School Classrooms***

Construction Equipment	No. of Equip. (A)	Reference Noise Level at 50ft, Lmax (B)	Daily Usage Factor (C)	Distance to Receptor, ft (D)	Estimated Noise Shielding, dBA (E)	Construction Equipment Noise Level at A Sensitive Receptor Location (F)
Cranes	1	81	40%	25	15	68
Forklifts	1	75	10%	25	15	56
Other Equipment	1	85	50%	25	15	73
Tractors/Loaders/Backhoes	1	80	25%	25	15	65
Welders	1	74	40%	25	15	61

Construction Noise Levels of Each Construction Equipment at A Sensitive Receptor

dBA, Leq = [AxB-20Log(De/50)-E+10Log(C/100)]

Construction Hour:

12	Hours during daytime (7 am to 7 pm)
0	Hours during evening (7 pm to 10 pm)
0	Hours during nighttime (10 pm to 7 am)

Construction Noise Level at Colfax (	75 dBA, Leq

Combined Noise Levels of Each Construction Equipment Noise Level at A Sensitive Receptor Location

Source for Ref. Noise Levels: LA CEQA Guides, 2006 & FHWA RCNM, 2005

PCR

Project: Colfax Charter Elementary School Classroom Addition

Construction Phase: **Kitchen Upgrades and Administration Building Reuse & Landscaping**
Receptor: ***Colfax Charter Elementary School Classrooms***

Construction Equipment	No. of Equip. (A)	Reference Noise Level at 50ft, Lmax (B)	Daily Usage Factor (C)	Distance to Receptor, ft (D)	Estimated Noise Shielding, dBA (E)	Construction Equipment Noise Level at A Sensitive Receptor Location (F)
Cranes	1	81	40%	25	15	68
Forklifts	2	75	10%	25	15	59
Other Equipment	1	85	50%	25	15	73
Tractors/Loaders/Backhoes	1	80	25%	25	15	65
Welders	1	74	40%	25	15	61
Paver	1	77	50%	25	15	65

Construction Noise Levels of Each Construction Equipment at A Sensitive Receptor

dBA, Leq = [AxB-20Log(De/50)-E+10Log(C/100)]

Construction Hour:

12 Hours during daytime (7 am to 7 pm)
0 Hours during evening (7 pm to 10 pm)
0 Hours during nighttime (10 pm to 7 am)

Construction Noise Level at	**Colfax (**	**75 dBA, Leq**	Combined Noise Levels of Each Construction Equipment Noise Level at A Sensitive Receptor Location

Source for Ref. Noise Levels: LA CEQA Guides, 2006 & FHWA RCNM, 2005

Appendix F.3

Off-Site Construction Traffic Noise Calculations

Project: Colfax Charter Elementary School Classroom Addition

Off-site Truck Traffic Noise

Existing									
	Traffic Volumes			Leq			CNEL		
Roadway/Segment	AM	PM	ADT	ROW	25 Feet	50 Feet	ROW	25 Feet	50 Feet
Colfax Avenue			10	50.8	48.2	46.5	47.8	45.2	43.5
Addison Street			10	51.6	48.7	46.9	48.6	45.6	43.9
--			0	-	-	-	-	-	-
--			0	-	-	-	-	-	-
--			0	-	-	-	-	-	-
Future No Project									
	Traffic Volumes			Leq			CNEL		
Roadway/Segment	AM	PM	ADT	ROW	25 Feet	50 Feet	ROW	25 Feet	50 Feet
Colfax Avenue			0	-	-	-	-	-	-
Addison Street			0	-	-	-	-	-	-
--			0	-	-	-	-	-	-
--			0	-	-	-	-	-	-
--			0	-	-	-	-	-	-
Future With Project									
	Traffic Volumes			Leq			CNEL		
Roadway/Segment	AM	PM	ADT	ROW	25 Feet	50 Feet	ROW	25 Feet	50 Feet
Colfax Avenue			0	-	-	-	-	-	-
Addison Street			0	-	-	-	-	-	-
--			0	-	-	-	-	-	-
--			0	-	-	-	-	-	-
--			0	-	-	-	-	-	-

	CNEL			
Summary	25 ft. from ROW		At ROW	
Roadway/Segment	Project Increment	Cumulative Increment	Project Increment	Cumulative Increment
Colfax Avenue	-	-	-	-
Addison Street	-	-	-	-
--	-	-	-	-
--	-	-	-	-
--	-	-	-	-

Appendix F.4
Off-Site Traffic Noise Calculations

Roadway Traffic Noise Calculations

Project: Colfax Charter Elementary School Classroom Addition

Existing											
	Speed	Traffic Volumes			Leq			CNEL			
Roadway/Segment	MPH	AM	PM	ADT	ROW	25 Feet	50 Feet	ROW	25 Feet	50 Feet	
Colfax Avenue n/o Magnolia Blvd	35	1180	1180	0	66.8	64.4	62.8	68.0	65.6	64.0	
Colfax Avenue between Magnolia Blvd and Addison St	35	1370	1370	0	67.5	65.0	63.5	68.7	66.2	64.7	
Colfax Avenue between Addison St and Riverside Dr	35	1495	1495	0	67.8	65.4	63.8	69.0	66.6	65.1	
Colfax Avenue s/o Riverside Dr	35	1685	1685	0	68.4	65.9	64.4	69.6	67.1	65.6	
0	0			0	-	-	-	-	-	-	
Future Without Project											
	Speed	Traffic Volumes			Leq			CNEL			
Roadway/Segment	MPH	AM	PM	ADT	ROW	25 Feet	50 Feet	ROW	25 Feet	50 Feet	
Colfax Avenue n/o Magnolia Blvd	35	1240	1240	0	67.0	64.6	63.0	68.2	65.8	64.2	
Colfax Avenue between Magnolia Blvd and Addison St	35	1440	1440	0	67.7	65.2	63.7	68.9	66.4	64.9	
Colfax Avenue between Addison St and Riverside Dr	35	1573	1573	0	68.1	65.6	64.1	69.3	66.8	65.3	
Colfax Avenue s/o Riverside Dr	35	1775	1775	0	68.6	66.1	64.6	69.8	67.4	65.8	
0	0			0	-	-	-	-	-	-	
Future With Project											
	Speed	Traffic Volumes			Leq			CNEL			
Roadway/Segment	MPH	AM	PM	ADT	ROW	25 Feet	50 Feet	ROW	25 Feet	50 Feet	
Colfax Avenue n/o Magnolia Blvd	35	1250	1250	0	67.1	64.6	63.1	68.3	65.8	64.3	
Colfax Avenue between Magnolia Blvd and Addison St	35	1463	1463	0	67.7	65.3	63.7	69.0	66.5	65.0	
Colfax Avenue between Addison St and Riverside Dr	35	1598	1598	0	68.1	65.7	64.1	69.3	66.9	65.3	
Colfax Avenue s/o Riverside Dr	35	1785	1785	0	68.6	66.2	64.6	69.8	67.4	65.8	
0	0			0	-	-	-	-	-	-	

CNEL

Summary	25 ft. from ROW		At ROW	
Roadway/Segment	Project Increment	Cumulative Increment	Project Increment	Cumulative Increment
Colfax Avenue n/o Magnolia Blvd	0.0	0.2	0.1	0.3
Colfax Avenue between Magnolia Blvd and Addison St	0.1	0.3	0.1	0.3
Colfax Avenue between Addison St and Riverside Dr	0.1	0.3	0.0	0.3
Colfax Avenue s/o Riverside Dr	0.0	0.3	0.0	0.2
0	-	-	-	-

% of ADT				
Vehicle Type	Day	Eve	Night	Sub total
Auto	77.6%	9.7%	9.7%	97.0%
Medium Truck	1.6%	0.2%	0.2%	2.0%
Heavy Truck	0.8%	0.1%	0.1%	1.0%
	80.0%	10.0%	10.0%	100.0%

Roadway Traffic Noise Calculations

Project: Colfax Charter Elementary School Classroom Addition

Existing										
	Speed	Traffic Volumes			Leq			CNEL		
Roadway/Segment	MPH	AM	PM	ADT	ROW	25 Feet	50 Feet	ROW	25 Feet	50 Feet
Addison Street e/o Colfax Ave	25	135	135	0	55.9	52.9	51.2	57.1	54.2	52.4
Addison Street between Colfax Ave and Laurel Canyon Blvd	25	205	205	0	57.7	54.8	53.0	58.9	56.0	54.2
Addison Street w/o Laurel Canyon Blvd	25	145	145	0	56.2	53.2	51.5	57.4	54.5	52.7
Riverside Drive e/o Colfax Ave	40	1880	1880	0	69.8	67.5	66.0	71.0	68.7	67.2
Riverside Drive between Colfax Ave and Laurel Cannyon Blvd	40	2130	2130	0	70.3	68.1	66.6	71.5	69.3	67.8
Future Without Project										
	Speed	Traffic Volumes			Leq			CNEL		
Roadway/Segment	MPH	AM	PM	ADT	ROW	25 Feet	50 Feet	ROW	25 Feet	50 Feet
Addison Street e/o Colfax Ave	25	145	145	0	56.2	53.2	51.5	57.4	54.5	52.7
Addison Street between Colfax Ave and Laurel Canyon Blvd	25	213	213	0	57.9	54.9	53.2	59.1	56.1	54.4
Addison Street w/o Laurel Canyon Blvd	25	150	150	0	56.4	53.4	51.6	57.6	54.6	52.9
Riverside Drive e/o Colfax Ave	40	1990	1990	0	70.0	67.8	66.3	71.2	69.0	67.5
Riverside Drive between Colfax Ave and Laurel Cannyon Blvd	40	2245	2245	0	70.6	68.3	66.8	71.8	69.5	68.0
Future With Project										
	Speed	Traffic Volumes			Leq			CNEL		
Roadway/Segment	MPH	AM	PM	ADT	ROW	25 Feet	50 Feet	ROW	25 Feet	50 Feet
Addison Street e/o Colfax Ave	25	150	150	0	56.4	53.4	51.6	57.6	54.6	52.9
Addison Street between Colfax Ave and Laurel Canyon Blvd	25	238	238	0	58.4	55.4	53.6	59.6	56.6	54.9
Addison Street w/o Laurel Canyon Blvd	25	160	160	0	56.6	53.7	51.9	57.9	54.9	53.1
Riverside Drive e/o Colfax Ave	40	2000	2000	0	70.0	67.8	66.3	71.3	69.0	67.5
Riverside Drive between Colfax Ave and Laurel Cannyon Blvd	40	2245	2245	0	70.6	68.3	66.8	71.8	69.5	68.0

	CNEL			
Summary	25 ft. from ROW		At ROW	
Roadway/Segment	Project Increment	Cumulative Increment	Project Increment	Cumulative Increment
Addison Street e/o Colfax Ave	0.1	0.4	0.2	0.5
Addison Street between Colfax Ave and Laurel Canyon Blvd	0.5	0.6	0.5	0.7
Addison Street w/o Laurel Canyon Blvd	0.3	0.4	0.3	0.5
Riverside Drive e/o Colfax Ave	0.0	0.3	0.1	0.3
Riverside Drive between Colfax Ave and Laurel Cannyon Blvd	0.0	0.2	0.0	0.3

	% of ADT			
Vehicle Type	Day	Eve	Night	Sub total
Auto	77.6%	9.7%	9.7%	97.0%
Medium Truck	1.6%	0.2%	0.2%	2.0%
Heavy Truck	0.8%	0.1%	0.1%	1.0%
	80.0%	10.0%	10.0%	100.0%

Roadway Traffic Noise Calculations

Project: Colfax Charter Elementary School Classroom Addition

Existing										
	Speed	Traffic Volumes			Leq			CNEL		
Roadway/Segment	MPH	AM	PM	ADT	ROW	25 Feet	50 Feet	ROW	25 Feet	50 Feet
Riverside Drive w/o Laurel Cannyon Blvd	40	2360	2360	0	70.8	68.5	67.0	72.0	69.7	68.2
Magnolia Boulevard e/o Colfax Avenue	35	1980	1980	0	68.6	66.4	64.9	69.9	67.6	66.1
Magnolia Boulevard between Colfax Avenue Laurel Canyon Blvd	35	1845	1845	0	68.3	66.1	64.6	69.6	67.3	65.8
Magnolia Boulevard w/o Laurel Canyon Blvd	35	1835	1835	0	68.3	66.0	64.6	69.5	67.3	65.8
0	0			0	-	-	-	-	-	-
Future Without Project										
	Speed	Traffic Volumes			Leq			CNEL		
Roadway/Segment	MPH	AM	PM	ADT	ROW	25 Feet	50 Feet	ROW	25 Feet	50 Feet
Riverside Drive w/o Laurel Cannyon Blvd	40	2505	2505	0	71.0	68.8	67.3	72.2	70.0	68.5
Magnolia Boulevard e/o Colfax Avenue	35	2130	2130	0	69.0	66.7	65.2	70.2	67.9	66.4
Magnolia Boulevard between Colfax Avenue Laurel Canyon Blvd	35	1988	1988	0	68.7	66.4	64.9	69.9	67.6	66.1
Magnolia Boulevard w/o Laurel Canyon Blvd	35	1950	1950	0	68.6	66.3	64.8	69.8	67.5	66.0
0	0			0	-	-	-	-	-	-
Future With Project										
	Speed	Traffic Volumes			Leq			CNEL		
Roadway/Segment	MPH	AM	PM	ADT	ROW	25 Feet	50 Feet	ROW	25 Feet	50 Feet
Riverside Drive w/o Laurel Cannyon Blvd	40	2505	2505	0	71.0	68.8	67.3	72.2	70.0	68.5
Magnolia Boulevard e/o Colfax Avenue	35	2135	2135	0	69.0	66.7	65.2	70.2	67.9	66.4
Magnolia Boulevard between Colfax Avenue Laurel Canyon Blvd	35	1988	1988	0	68.7	66.4	64.9	69.9	67.6	66.1
Magnolia Boulevard w/o Laurel Canyon Blvd	35	1950	1950	0	68.6	66.3	64.8	69.8	67.5	66.0
0	0			0	-	-	-	-	-	-

	CNEL			
Summary	25 ft. from ROW		At ROW	
Roadway/Segment	Project Increment	Cumulative Increment	Project Increment	Cumulative Increment
Riverside Drive w/o Laurel Cannyon Blvd	0.0	0.3	0.0	0.2
Magnolia Boulevard e/o Colfax Avenue	0.0	0.3	0.0	0.3
Magnolia Boulevard between Colfax Avenue Laurel Canyon Blvd	0.0	0.3	0.0	0.3
Magnolia Boulevard w/o Laurel Canyon Blvd	0.0	0.2	0.0	0.3
0	-	-	-	-

	% of ADT			
Vehicle Type	Day	Eve	Night	Sub total
Auto	77.6%	9.7%	9.7%	97.0%
Medium Truck	1.6%	0.2%	0.2%	2.0%
Heavy Truck	0.8%	0.1%	0.1%	1.0%
	80.0%	10.0%	10.0%	100.0%

Roadway Traffic Noise Calculations

Project: Colfax Charter Elementary School Classroom Addition

Existing	Speed	Traffic Volumes			Leq			CNEL		
Roadway/Segment	MPH	AM	PM	ADT	ROW	25 Feet	50 Feet	ROW	25 Feet	50 Feet
Laurel Canyon Boulevard n/o Magnolia Blvd	40	2435	2435	0	70.9	68.6	67.1	72.1	69.8	68.4
Laurel Canyon Boulevard between Addison St and Magnolia Blvd	40	2570	2570	0	71.1	68.9	67.4	72.4	70.1	68.6
Laurel Canyon Boulevard between Riverside Dr and Addison St	40	2528	2528	0	71.1	68.8	67.3	72.3	70.0	68.5
Laurel Canyon Boulevard s/o Riverside Dr.	40	3050	3050	0	71.9	69.6	68.1	73.1	70.8	69.3
0	0			0	-	-	-	-	-	-
Future Without Project										
	Speed	Traffic Volumes			Leq			CNEL		
Roadway/Segment	MPH	AM	PM	ADT	ROW	25 Feet	50 Feet	ROW	25 Feet	50 Feet
Laurel Canyon Boulevard n/o Magnolia Blvd	40	2655	2655	0	71.3	69.0	67.5	72.5	70.2	68.7
Laurel Canyon Boulevard between Addison St and Magnolia Blvd	40	2803	2803	0	71.5	69.2	67.8	72.7	70.5	69.0
Laurel Canyon Boulevard between Riverside Dr and Addison St	40	2758	2758	0	71.4	69.2	67.7	72.7	70.4	68.9
Laurel Canyon Boulevard s/o Riverside Dr.	40	3295	3295	0	72.2	69.9	68.5	73.4	71.2	69.7
0	0			0	-	-	-	-	-	-
Future With Project										
	Speed	Traffic Volumes			Leq			CNEL		
Roadway/Segment	MPH	AM	PM	ADT	ROW	25 Feet	50 Feet	ROW	25 Feet	50 Feet
Laurel Canyon Boulevard n/o Magnolia Blvd	40	2655	2655	0	71.3	69.0	67.5	72.5	70.2	68.7
Laurel Canyon Boulevard between Addison St and Magnolia Blvd	40	2805	2805	0	71.5	69.2	67.8	72.7	70.5	69.0
Laurel Canyon Boulevard between Riverside Dr and Addison St	40	2760	2760	0	71.4	69.2	67.7	72.7	70.4	68.9
Laurel Canyon Boulevard s/o Riverside Dr.	40	3300	3300	0	72.2	70.0	68.5	73.4	71.2	69.7
0	0			0	-	-	-	-	-	-

CNEL

Summary	25 ft. from ROW		At ROW	
Roadway/Segment	Project Increment	Cumulative Increment	Project Increment	Cumulative Increment
Laurel Canyon Boulevard n/o Magnolia Blvd	0.0	0.4	0.0	0.4
Laurel Canyon Boulevard between Addison St and Magnolia Blvd	0.0	0.4	0.0	0.3
Laurel Canyon Boulevard between Riverside Dr and Addison St	0.0	0.4	0.0	0.4
Laurel Canyon Boulevard s/o Riverside Dr.	0.0	0.4	0.0	0.3
0	-	-	-	-

% of ADT				
Vehicle Type	Day	Eve	Night	Sub total
Auto	77.6%	9.7%	9.7%	97.0%
Medium Truck	1.6%	0.2%	0.2%	2.0%
Heavy Truck	0.8%	0.1%	0.1%	1.0%
	80.0%	10.0%	10.0%	100.0%

Appendix G
Traffic Study

FINAL TRAFFIC STUDY
FOR THE
COLFAX ELEMENTARY SCHOOL
CLASSROOM ADDITION PROJECT

Prepared for:

PCR Services Corporation

OCTOBER 2016

Submitted by:

RAJU Associates, Inc.

FINAL TRAFFIC STUDY
FOR THE
COLFAX ELEMENTARY SCHOOL CLASSROOM ADDITION PROJECT

OCTOBER 2016

Prepared for:

PCR Services Corporation

Prepared by:

RAJU ASSOCIATES, INC.
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Ref: RA 494

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EXECUTIVE SUMMARY

A detailed traffic study has been performed by Raju Associates, Inc. to assess the traffic impacts of the proposed Colfax Elementary School classroom addition project (Proposed Project) located in the North Hollywood-Valley Village community of the City of Los Angeles, California. The Proposed Project address is 11724 Addison Street in the City of Los Angeles.

The Proposed Project would consist of the addition of 160 new elementary school students for a total of 823 students as well as eight additional staff members. The Proposed Project includes a new two-story building with 16 classrooms and a new kindergarten building with two classrooms. Ten portable classrooms will be removed as part of the Proposed Project. The existing 35-space staff parking lot along Colfax Avenue will be relocated to the southeast corner of the Proposed Project site and the proposed surface parking lot would provide 74 parking spaces (a net gain of 39 spaces in this lot).

The existing school parking lot on Addison Street provides 13 parking spaces which will be reduced to 12 parking spaces as part of the Proposed Project (a net loss of one space in this lot). In total, the existing site provides 48 on-site parking spaces, which will be increased to 86 parking spaces as part of the Proposed Project (a total net gain of 38 spaces). The existing drop-off/pick-up locations and operations on Addison Street and Morella Avenue would remain unchanged. The existing drop-off/pick-up area within the parking lot on Colfax Avenue will be relocated to the south of its existing location. The Proposed Project would provide a separate student drop-off/pick-up lane with increased vehicle queuing area and wider on-site sidewalks. Currently, student drop-off/pick-ups in the parking lot occur in the drive aisles with no separate area.

Current and future traffic analyses during the morning peak hour at six intersections were conducted in this study. At these locations, traffic operations were studied prior to and after implementation of the Proposed Project, deficiencies and impacts were identified, improvements and mitigation measures were developed, their effectiveness determined and residual traffic impacts, if any, ascertained as part of this study. The executive summary highlighting the key findings of this study is presented in the follow page.

- The Proposed Project consists of the addition of 160 new elementary school students and eight additional staff. The Proposed Project is estimated to generate an additional 206 daily trips of which 94 trips would be anticipated to occur during the morning peak hour.

- A total of six intersections were analyzed within the study area for this Proposed Project. These locations are within the area bounded by Magnolia Boulevard to the north, Riverside Drive to the south, Laurel Canyon Boulevard to the west and Colfax Avenue to the east.

- In the Existing (Year 2016) Base condition, all six of the analyzed intersection locations are operating at levels of service (LOS) D or better during the morning peak hour.

- In the Existing (Year 2016) plus Project scenario, the AM peak hour operating conditions would be similar to those for the Existing conditions (without the Proposed Project). All six of the analyzed intersection locations are projected to continue to operate at LOS D or better during the morning peak hour

- The Existing (Year 2016) plus Project traffic conditions indicate that the Proposed Project would not cause significant traffic impacts at any of the analysis locations during the weekday morning peak hour.

- In the Future (Year 2018) Base conditions, i.e., future conditions without the implementation of the Proposed Project, five of the six analyzed intersection locations are projected to continue to operate at LOS D or better during the morning peak hour. The Laurel Canyon Boulevard and Riverside Drive intersection is projected to operate at LOS E during the morning peak hour.

- In the Future (Year 2018) plus Project conditions, the AM peak hour operating conditions would be similar to those projected for the Future (Year 2018) Base conditions. Traffic generated by the Proposed Project would not change the intersection levels of service from future base conditions.

- The Future (Year 2018) plus Project traffic conditions indicate that the Proposed Project would not cause significant traffic impacts at any of the analysis locations during the weekday morning peak hour.

- The Proposed Project would add less than 50 trips to the nearest Congestion Management Program (CMP) arterial monitoring locations and would add less than 150 trips in either direction to the nearest CMP mainline freeway monitoring locations during the weekday morning peak hour. Per CMP guidelines, no further CMP analysis is required.

Summarizing, the Proposed Project would not cause significant impacts at any of the analyzed intersections. Therefore, no project-specific mitigation measures would be required.

I. INTRODUCTION

This report documents the assumptions, methodologies and findings of a study conducted by Raju Associates, Inc., to evaluate the potential traffic impacts of the proposed Colfax Elementary School classroom addition project (Proposed Project) located in the North Hollywood-Valley Village community of the City of Los Angeles, California. The Proposed Project address is 11724 Addison Street in the City of Los Angeles.

PROJECT DESCRIPTION

The Proposed Project site is bounded by Addison Street on the north, Colfax Avenue on the east, Huston Street on the south, and Morella Avenue on the west. Figure 1 illustrates the location of the Proposed Project in relation to the surrounding street system.

The Proposed Project would consist of the addition of 160 new elementary school students for a total of 823 students and eight additional staff. The Proposed Project includes a new two-story building with 16 classrooms and a new kindergarten building with two classrooms. Ten portable classrooms will be removed as part of the Proposed Project.

The proposed surface parking lot along Colfax Avenue would provide 74 parking spaces (a net gain of 39 spaces in this lot). The existing 35-space staff parking lot on Colfax Avenue will be relocated south on the Proposed Project site. The existing school parking lot on Addison Street provides 13 parking spaces which will be reduced to 12 parking spaces as part of the Proposed Project (a net loss of one space in this lot). In total the site currently provides 48 on-site parking spaces, which will be increased to 86 parking spaces as part of the Proposed Project (a total net gain of 38 spaces).

The Proposed Project site plan is shown in Figure 2. From the site plan, it can be observed that the relocated surface parking and drop-off/pick-up areas would obtain access off of Colfax Avenue and Huston Street.

PROJECT ACCESS AND CIRCULATION

Pedestrian access gates are currently provided on Addison Street, Morella Avenue and within the parking lot on Colfax Avenue during the morning arrival and afternoon dismissal times. One additional pedestrian access gate is provided on Huston Street during the afternoon dismissal time period only. Pedestrian and bicycle access is provided on the south side of Addison Street, the east side of Morella Avenue, the west side of Colfax Avenue, and the north side of Huston Street. The access points for the Proposed Project will continue to be provided on Addison Street, Colfax Avenue, Morella Avenue, and Huston Street.

The existing drop-off/pick-up locations and operations on Addison Street and Morella Avenue would remain unchanged. The existing drop-off/pick-up area within the parking lot on Colfax Avenue will be relocated south on the Proposed Project site. Currently, student drop-off/pick-ups in the existing parking lot along Colfax Avenue occur in the drive aisles with no separate area. The Proposed Project would provide a separate student drop-off/pick-up lane with increased vehicle queuing area and wider on-site sidewalks. Access to the relocated parking lot on Colfax Avenue would be provided on Colfax Avenue (ingress only) and Huston Street (egress only) as part of the Proposed Project.

A school route map published by the City of Los Angeles Department of Transportation (LADOT), “Pedestrian Routes For Colfax Avenue Elementary School, September 2015”, shows the recommended pedestrian routes to the Colfax Elementary School around the adjacent neighborhoods. The LADOT pedestrian route map is provided in Appendix A.

Pedestrian routes adjacent to the school include Addison Street, Morella Avenue, Huston Street, Colfax Avenue, and Morrison Street. A signalized intersection at Addison Street and Colfax Avenue provides crosswalks on all approaches, allowing pedestrians to cross to and from the school. Sidewalks are present on the south side of Addison Street, the west side of Colfax Avenue, the north side of Huston Street, and the east side of Morella Avenue.

A detailed vehicular and pedestrian circulation system evaluation is provided in a technical memorandum in Appendix B.

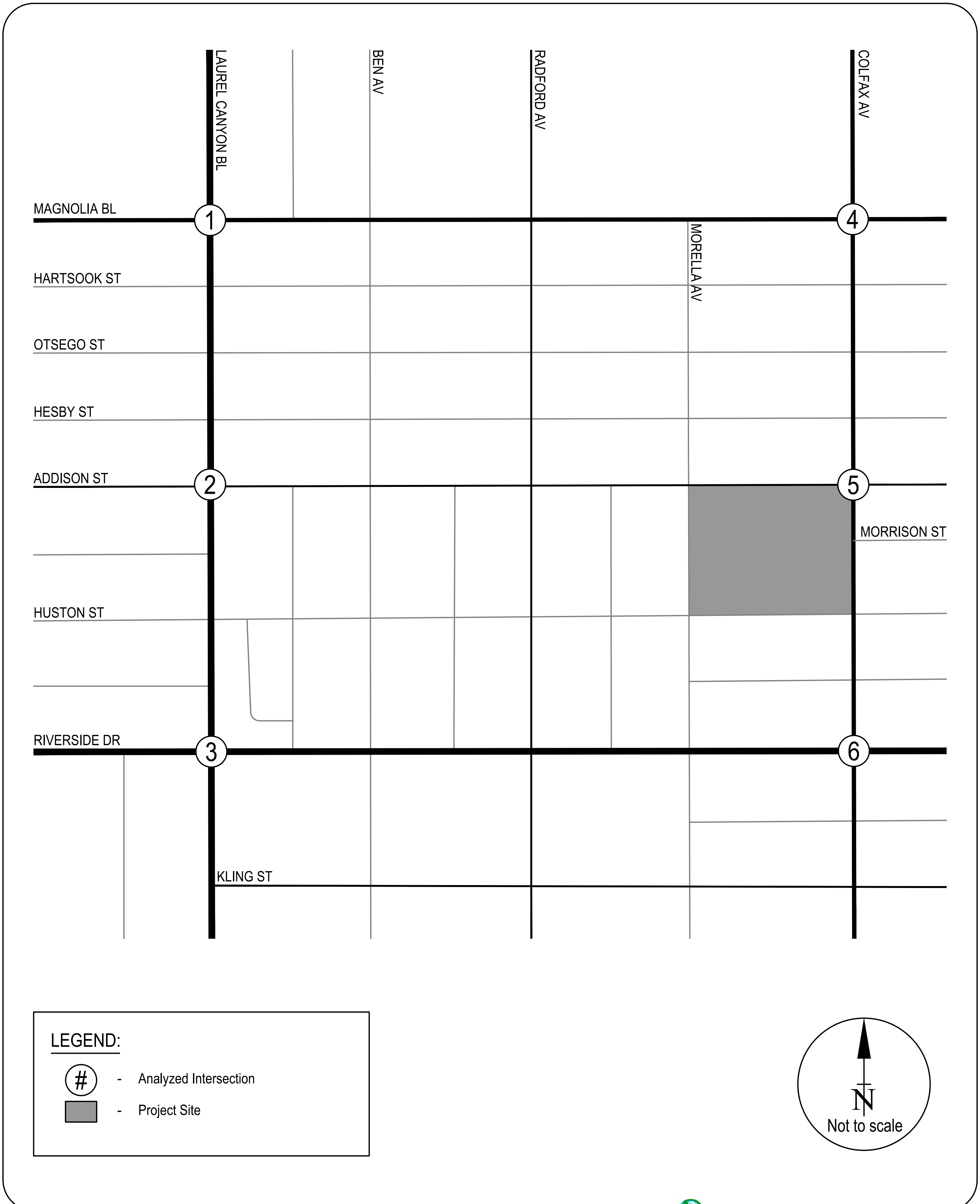
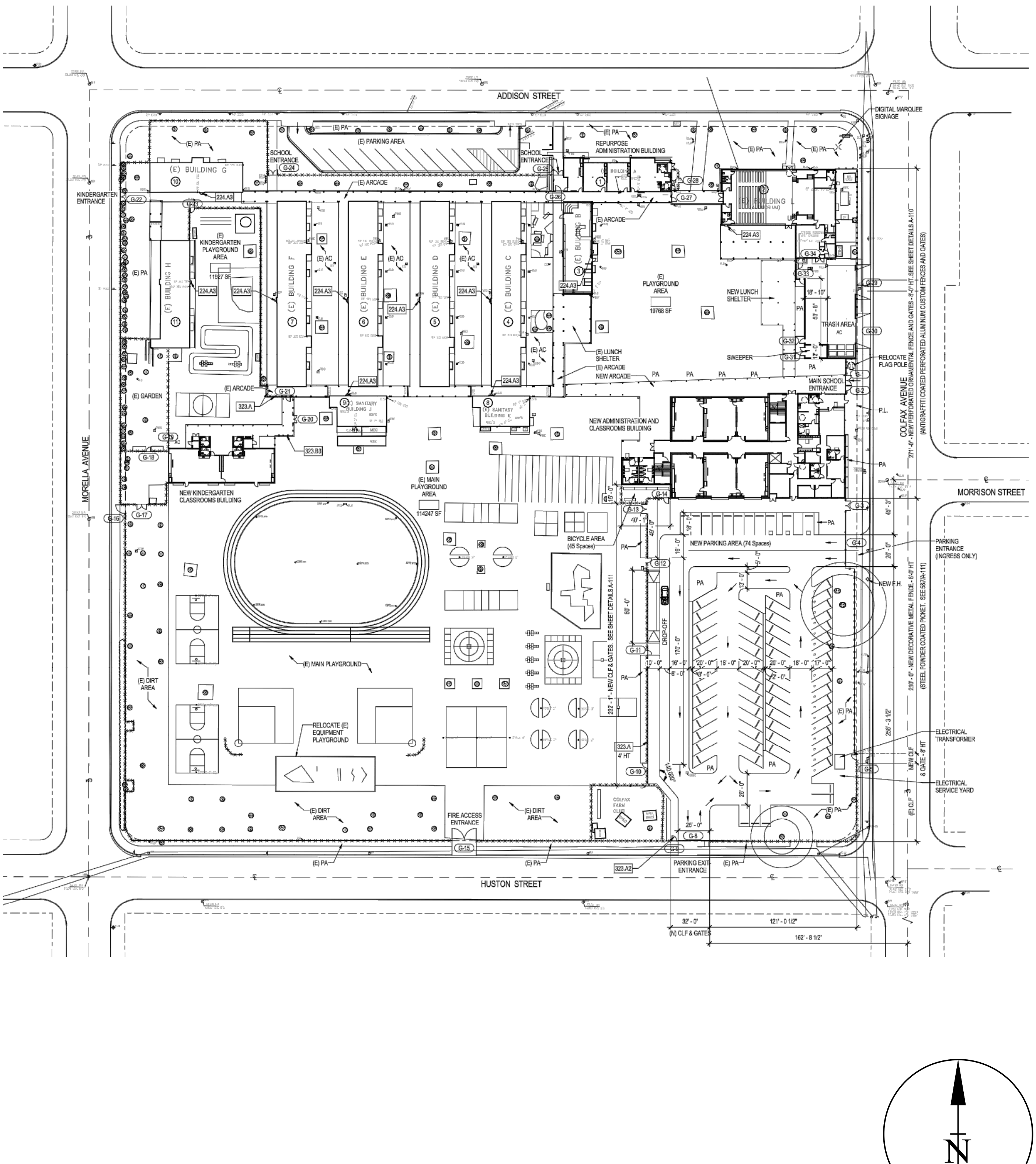


FIGURE 1
LOCATION OF PROJECT AND ANALYZED INTERSECTIONS

RAJU Associates, Inc.



SOURCE: AC MARTIN ARCHITECTS

FIGURE 2
PROJECT SITE PLAN

RAJU Associates, Inc.

STUDY SCOPE

The scope of work for this study was developed working closely with the City of Los Angeles Department of Transportation staff and the Los Angeles Unified School District (LAUSD) staff. The base assumptions, technical methodologies and geographic coverage of the study were all identified as part of the study approach. The study is directed at the analysis of potential traffic impacts on the street system produced by the Proposed Project and includes an analysis of the following scenarios:

- Existing (Year 2016) Base Conditions - The analysis of existing traffic conditions is intended to provide a basis for the remainder of the study. The existing conditions analysis includes an assessment of streets, traffic volumes, and operating conditions.

- Existing (Year 2016) plus Project Conditions – The net traffic expected to be generated by the Proposed Project is estimated and added to the Existing (2016) traffic volumes. The impacts of the Proposed Project on existing traffic operating conditions are then identified.

- Future (Year 2018) Base Conditions - Future traffic conditions in the year 2018 without the Proposed Project has been developed. The objective of this analysis is to project future traffic growth and operating conditions, which could be expected to result from regional growth and related projects in the vicinity of the study area by the year 2018.

- Future (Year 2018) plus Project Conditions – The net traffic expected to be generated by the Proposed Project is estimated and added to the Future (Year 2018) Base traffic forecasts. The impacts of the Proposed Project on future traffic operating conditions are then identified.

For this traffic study, six locations were defined as study intersections (see Figure 1). All six study intersections are controlled by traffic signals and include the following:

1. Laurel Canyon Boulevard and Magnolia Boulevard
2. Laurel Canyon Boulevard and Addison Street
3. Laurel Canyon Boulevard and Riverside Drive
4. Colfax Avenue and Magnolia Boulevard
5. Colfax Avenue and Addison Street
6. Colfax Avenue and Riverside Drive

A detailed Memorandum of Understanding (MOU) was prepared working closely with the City of Los Angeles Department of Transportation. A copy of the City-approved MOU is attached in Appendix C of this report.

ORGANIZATION OF REPORT

An executive summary presenting key details of this study is provided at the beginning of this report. The rest of the report is divided into seven chapters. Chapter I presents an introduction and provides details on the Proposed Project and various elements of the study. Chapter II describes the existing circulation system, traffic volumes, and transit conditions within the study area. Chapter III describes the development of the Proposed Project's traffic projections. The methodology to develop Future (Year 2018) traffic volume forecasts with and without the Proposed Project is described and applied in Chapter IV. Chapter V presents an assessment of traffic conditions with and without the Proposed Project and the potential traffic impacts due to the Proposed Project. The results of the analysis of the Proposed Project's impacts on the CMP regional transportation system are provided in Chapter VI. A summary of the analysis and study conclusions is included in Chapter VII. Appendices to this report include details of the technical analyses.

II. EXISTING CONDITIONS

A comprehensive data collection effort was undertaken to develop a detailed description of existing conditions within the study area. The assessment of conditions relevant to this study includes an inventory of the street system, traffic volumes on these facilities, and operating conditions at key intersections. A detailed description of these elements is presented in this chapter. The existing transit system and bicycle facilities serving the study area is also described in this chapter.

STUDY AREA

The Proposed Project is located at 11724 Addison Street in the City of Los Angeles, as shown in Figure 1. The Proposed Project is bounded by Addison Street on the north, Colfax Avenue on the east, Huston Street on the south, and Morella Avenue on the west.

EXISTING STREET SYSTEM

The existing street system within the study area consists of a regional highway system including major and secondary arterials and a local street system including collectors and local streets. A description of the regional and local access and circulation offered by the various roadways follows.

The Ventura Freeway (U.S. 101 and SR-134) and Hollywood (SR-170) Freeway provide regional access, connectivity and circulation opportunities within the study area. The major and other arterial streets used to access the study area include Laurel Canyon Boulevard, Colfax Avenue, Magnolia Boulevard, and Riverside Drive. Local access and circulation is provided by Addison Street, Huston Street, and Morella Avenue. Brief descriptions of these facilities serving the study area are included in the following section. The existing lane configurations of the analyzed intersections are included in Appendix D.

- Laurel Canyon Boulevard – Laurel Canyon Boulevard is classified as an Avenue I arterial roadway and traverses in a north-south direction. This roadway generally provides four travel lanes, two lanes in each direction with a center-left-turn lane. Bicycle lanes are provided on both sides the roadway, north of Riverside Drive in the study area. Within the study area, restricted parking is allowed on both sides of the street. The posted speed limit is 40 miles per hour along this roadway.

- Colfax Avenue– Colfax Avenue is classified as an Avenue II arterial roadway and runs in a north-south direction. This roadway provides two travel lanes, one lane in each direction with a center-left-turn lane. Bicycle lanes are provided on both sides the roadway in the study area. Within the study area, restricted parking is allowed on both sides of the street. The posted speed limit is 35 miles per hour along this roadway. The speed limit is 25 miles per hour during school hours along this roadway.

- Magnolia Avenue – Magnolia Avenue is classified as an Avenue II arterial roadway and traverses in an east-west direction. The roadway provides two travel lanes, one lane in each direction with a center-left-turn lane. Within the study area, restricted parking is allowed on either side of the street. The posted speed limit is 35 miles per hour along this roadway. The speed limit is 25 miles per hour during school hours along this roadway.

- Addison Street – Addison Street is classified as a Collector street and traverses in an east-west direction. This roadway provides two travel lanes, one lane in each direction. Within the study area, parking is allowed on either side of the street. The prima facie speed limit is 25 miles per hour along this roadway.

- Riverside Drive – Riverside Drive is classified as an Avenue I arterial roadway and traverses in an east-west direction. The roadway provides four travel lanes, two lanes in each direction with a center-left-turn lane. Bicycle lanes are provided on both sides the roadway in the study area. Within the study area, restricted parking is allowed on either side of the street. The posted speed limit is 40 miles per hour along this roadway.

- Huston Street – Huston Street is classified as a Local street and traverses in an east-west direction. This roadway provides two travel lanes, one lane in each direction. Within the study area, unrestricted parking is allowed on either side of the street. The prima facie speed limit is 25 miles per hour along this roadway.

- Morella Avenue – Morella Avenue is classified as a Local street and traverses in a north-south direction. This roadway provides two travel lanes, one lane in each direction. Within the study area, parking is allowed on either side of the street. The prima facie speed limit is 25 miles per hour along this roadway.

EXISTING TRAFFIC VOLUMES AND LEVELS OF SERVICE

The following sections present the existing intersection peak hour traffic volumes, a description of the methodology utilized to analyze the intersection traffic conditions, and the resulting level of service conditions at each of the study intersections.

Existing Traffic Volumes

Weekday morning peak hour traffic counts were compiled from data collected in May 2016 when the local schools were in session. These traffic volumes reflect typical weekday operations during current year 2016 conditions and are shown on Figure 3. The raw data showing the traffic counts are attached in Appendix E.

Level of Service Methodology

Level of service (LOS) is a qualitative measure used to describe the condition of traffic flow, ranging from excellent conditions at LOS A to overloaded conditions at LOS F. LOS D is typically recognized as the minimum acceptable level of service in urban areas. The Level of Service definitions for signalized intersections is provided in Table 1.

The "Critical Movement Analysis-Planning", (Transportation Research Board, 1980) method of intersection capacity analysis was used to determine the intersection volume to capacity (V/C) ratio and corresponding level of service at the signalized intersections. Level of service spreadsheets developed by LADOT were used to implement the CMA (Circular 212 Method) methodology. Table 1 defines the ranges of V/C ratios and corresponding levels of service for signalized intersections.

All of the study intersections are currently controlled by the City of Los Angeles' Automated Traffic Surveillance and Control (ATSAC) System and Adaptive Traffic Control System (ATCS). In accordance with LADOT procedures, a capacity increase of 10% (0.07 V/C adjustment for ATSAC and 0.03 V/C adjustment for ATCS) was applied to reflect the benefits of ATSAC/ATCS control at these intersections.

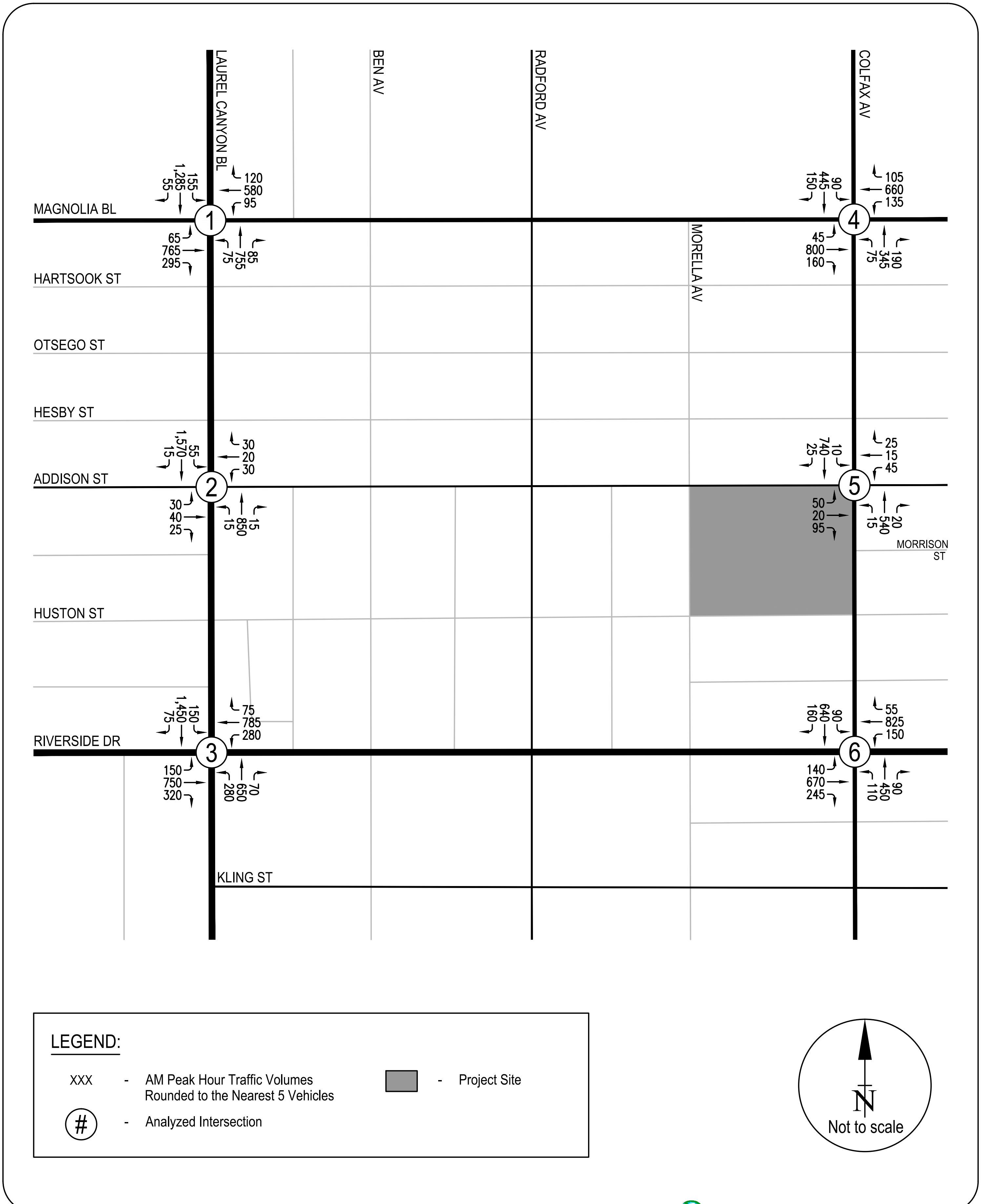


FIGURE 3
EXISTING (YEAR 2016) CONDITIONS - AM PEAK HOUR TRAFFIC VOLUMES

RAJU Associates, Inc.

TABLE 1
LEVEL OF SERVICE DEFINITIONS FOR SIGNALIZED INTERSECTIONS

Level of Service	Volume/Capacity Ratio	Definition
A	0.000 - 0.600	EXCELLENT. No vehicle waits longer than one red light and no approach phase is fully used.
B	>0.600 - 0.700	VERY GOOD. An occasional approach phase is fully utilized; many drivers begin to feel somewhat restricted within groups of vehicles.
C	>0.700 - 0.800	GOOD. Occasionally drivers may have to wait through more than one red light; backups may develop behind turning vehicles.
D	>0.800 - 0.900	FAIR. Delays may be substantial during portions of the rush hours, but enough lower volume periods occur to permit clearing of developing lines, preventing excessive backups.
E	>0.900 - 1.000	POOR. Represents the most vehicles intersection approaches can accommodate; may be long lines of waiting vehicles through several signal cycles.
F	> 1.000	FAILURE. Backups from nearby locations or on cross streets may restrict or prevent movement of vehicles out of the intersection approaches. Tremendous delays with continuously increasing queue lengths.

Source: Transportation Research Board, *Transportation Research Circular No. 212, Interim Materials on Highway Capacity* , 1980.

Existing Levels of Service

The existing traffic volumes presented in Figure 3 for AM peak hour were used in conjunction with the level of service methodology described in the previous section, and the current intersection characteristics illustrated in Appendix D, to determine the existing operating conditions at the analyzed intersections.

Table 2 summarizes the results of the intersection capacity analysis for existing conditions at each of the six intersections in the study area. The table indicates the existing V/C ratio during the morning peak hour and the corresponding LOS at the study intersections. As illustrated in the table, all six of the study intersections are currently operating at LOS D or better during the morning peak hour. Capacity calculation worksheets for Existing (Year 2016) conditions are provided in Appendix F of the report.

EXISTING TRANSIT CONDITIONS

Three bus lines currently serve the study area and are operated by the Los Angeles County Metropolitan Transportation Authority (LACMTA) or METRO. These transit lines are described below.

- Metro Line 155 - Line 155 is a local east/west line that provides service from Sherman Oaks to Burbank and travels primarily along Riverside Drive within the study area. This line runs every day, including holidays, at a frequency of approximately 25-40 minutes during peak commute hours. The western terminus is at the intersection of Moorpark Boulevard/ Van Nuys Boulevard in Sherman Oaks. The western terminus is at the Burbank Metrolink Station.

- Metro Line 183 - Line 183 is a local east/west line that provides service from Sherman Oaks to Glendale and travels primarily along Magnolia Boulevard within the study area. This line runs every day, including holidays, at a frequency of approximately 30-60 minutes during peak commute hours. The western terminus is at the intersection of Sepulveda Boulevard/ Ventura Boulevard in Sherman Oaks. The eastern terminus is at the Glendale Metrolink Station.

- Metro Line 230 - Line 230 is a local north/south line that provides service from Studio City to Sylmar and travels primarily along Laurel Canyon Boulevard within the study area. This line runs every day, including holidays, at a frequency of approximately 12-20 minutes during peak commute hours. The southern terminus is at the intersection of Ventura Boulevard/ Ventura Place in Studio City. The northern terminus is at the intersection of Hubbard Street/ Eldridge Avenue in Sylmar.

These transit lines within the study area are illustrated in Figure 4.

TABLE 2
EXISTING (YEAR 2016) INTERSECTION LEVEL OF SERVICE ANALYSIS

		Existing (2016) Conditions	
		AM Peak Hour	
No.	Intersection	V/C	LOS
1.	Laurel Canyon Boulevard & Magnolia Boulevard	0.795	C
2.	Laurel Canyon Boulevard & Addison Street	0.516	A
3.	Laurel Canyon Boulevard & Riverside Drive	0.896	D
4.	Colfax Avenue & Magnolia Boulevard	0.715	C
5.	Colfax Avenue & Addison Street	0.545	B
6.	Colfax Avenue & Riverside Drive	0.803	B

V/C - Volume to Capacity Ratio
LOS - Level of Service

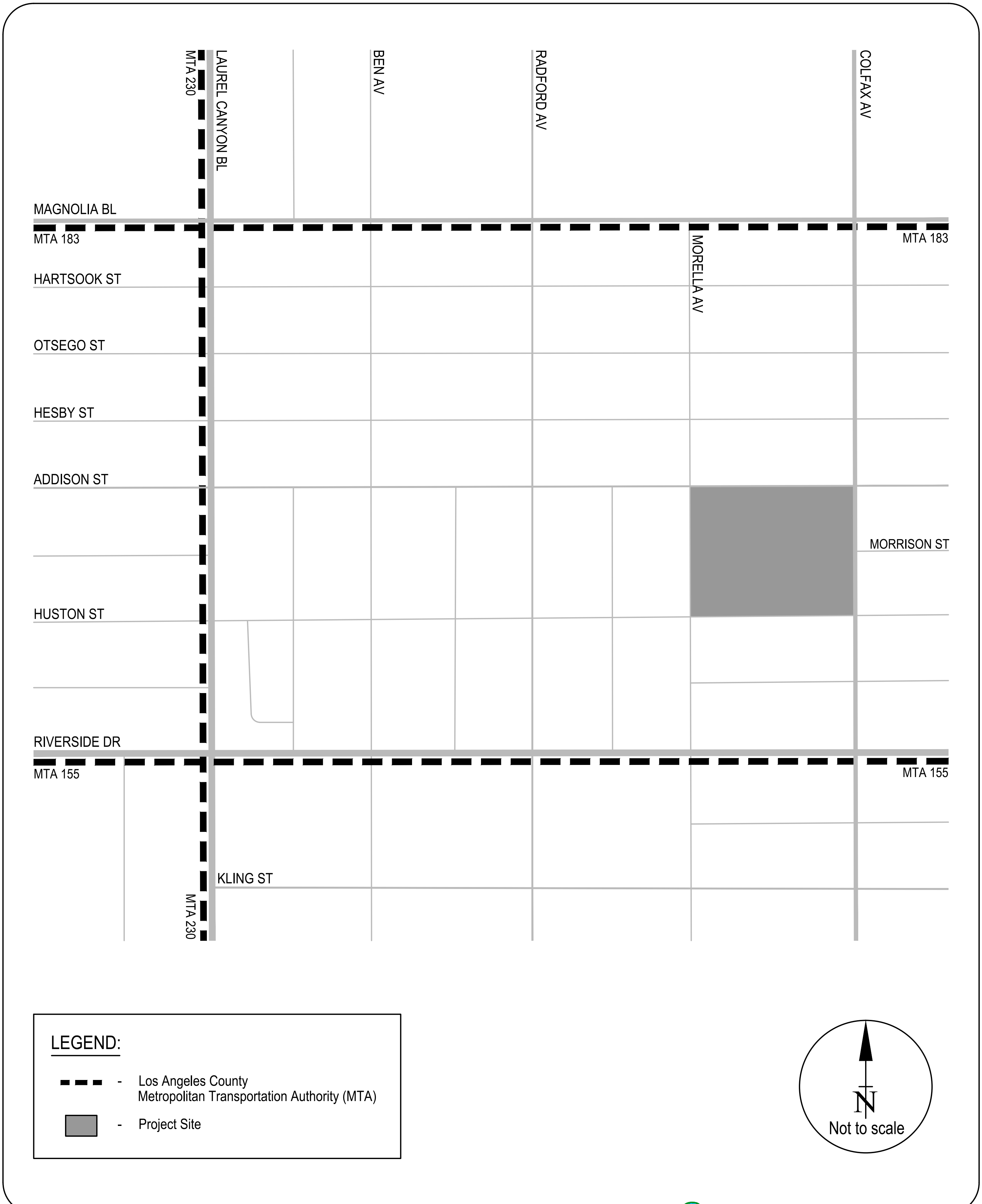


FIGURE 4
EXISTING TRANSIT LINES

RAJU Associates, Inc.

EXISTING BICYCLE FACILITIES

The City of Los Angeles Mobility Plan 2035 and 2010 Bicycle Plan document the existing and planned bicycle facilities within the City of Los Angeles. The Mobility Plan 2035 provides a prioritization of the bicycle network. The 2010 Bicycle Plan designates the bicycle network and provides a list of policies and programs to implement new bicycle facilities. The City of Los Angeles Mobility Plan 2035 and 2010 Bicycle Plan bicycle networks are provided in Appendix G.

Class I Bikeways (Bike Paths) provide an exclusive, paved right-of-way that is separated from the street or highway. Class II Bikeways (Bike Lanes) provide a striped bike lane with posted signage for one-way travel on a street or highway. Class III Bikeways (Bike Routes or Bike Friendly Streets) provide for a shared use of the roadway with posted signage for bicycle use and can include Sharrow pavement markings.

In the study area, existing bicycle facilities are available on the following roadways:

- Laurel Canyon Boulevard from Riverside Drive to Oxnard Street (Bike Lanes)
- Colfax Avenue from Ventura Boulevard to Hatteras Street (Bike Lanes)
- Riverside Drive from Laurel Canyon Boulevard to Tyrone Avenue (Bike Lanes)
- Riverside Drive from Laurel Canyon Boulevard to Agnes Avenue (Bike Route-Sharrow)
- Riverside Drive from Agnes Avenue to Farmdale Avenue (Bike Lanes)

Future bike routes or bike friendly streets (Class III) are planned on the following roadway within the study area:

- Addison Street from Westpark Drive to Lemona Avenue

III. PROJECT TRAFFIC PROJECTIONS

In order to properly evaluate the potential impact of the Proposed Project on the local street system, estimates of the Project traffic volumes were developed. The traffic generated by the Proposed Project was estimated and assigned separately to the street system. The addition of Proposed Project traffic to existing traffic volumes represents the Existing (Year 2016) plus Project scenario.

PROJECT TRAFFIC VOLUMES

The development of traffic generation estimates for the Proposed Project involves the use of a three-step process: trip generation, trip distribution and traffic assignment.

Project Trip Generation

Implementation of the Proposed Project includes the addition of 160 new elementary school students.

Utilizing the ITE's *Trip Generation Manual*, 9th Edition trip rates, the Proposed Project's trip generation was determined. Table 3 presents details of the Proposed Project's trip generation including size, applicable rate and trip generation estimates.

From Table 3, it can be observed that the Proposed Project's trip generation would result in a net total of 206 daily trips of which 94 trips would occur during the morning peak hour.

TABLE 3
ESTIMATED PROJECT TRIP GENERATION

	Size	Daily	AM Peak Hour IN	AM Peak Hour OUT	AM Peak Hour TOTAL
Proposed Project					
Elementary School	160 students	206	49	45	94
Trip Rates [1]					
Elementary School	Trips per student	1.29	53%	47%	0.59

[1] Daily trip rates used are from Trip Generation Manual, 9th Edition, ITE 2012. AM peak hour trip rates for the Valley Region were used from the Memorandum of Cooperation between LAUSD and LADOT, June 2005.

Project Trip Distribution

Per the MOU between LAUSD and LADOT (Appendix C), the geographic distribution for Proposed Project trips was assumed to be the following:

- To and From the North: 20%
- To and From the South: 30%
- To and From the East: 20%
- To and From the West: 30%

Intersection level trip distribution percentages are shown in Figure 5. Based on these distribution assumptions, location and points of access of the Proposed Project driveways, and trip generation estimates from the Proposed Project, traffic estimates of project-only trips were developed. These project-only trips are presented in Figure 6.

EXISTING (YEAR 2016) PLUS PROJECT TRAFFIC VOLUMES

Utilizing the project-only traffic estimates developed for the AM peak hour, traffic forecasts for the Existing (Year 2016) plus Project conditions were developed. The Existing (Year 2016) traffic volumes were combined with the project-only traffic volumes to obtain the Existing (Year 2016) plus Project traffic volume forecasts. The Existing (Year 2016) plus Project traffic volumes during the AM peak hour are presented in Figure 7.

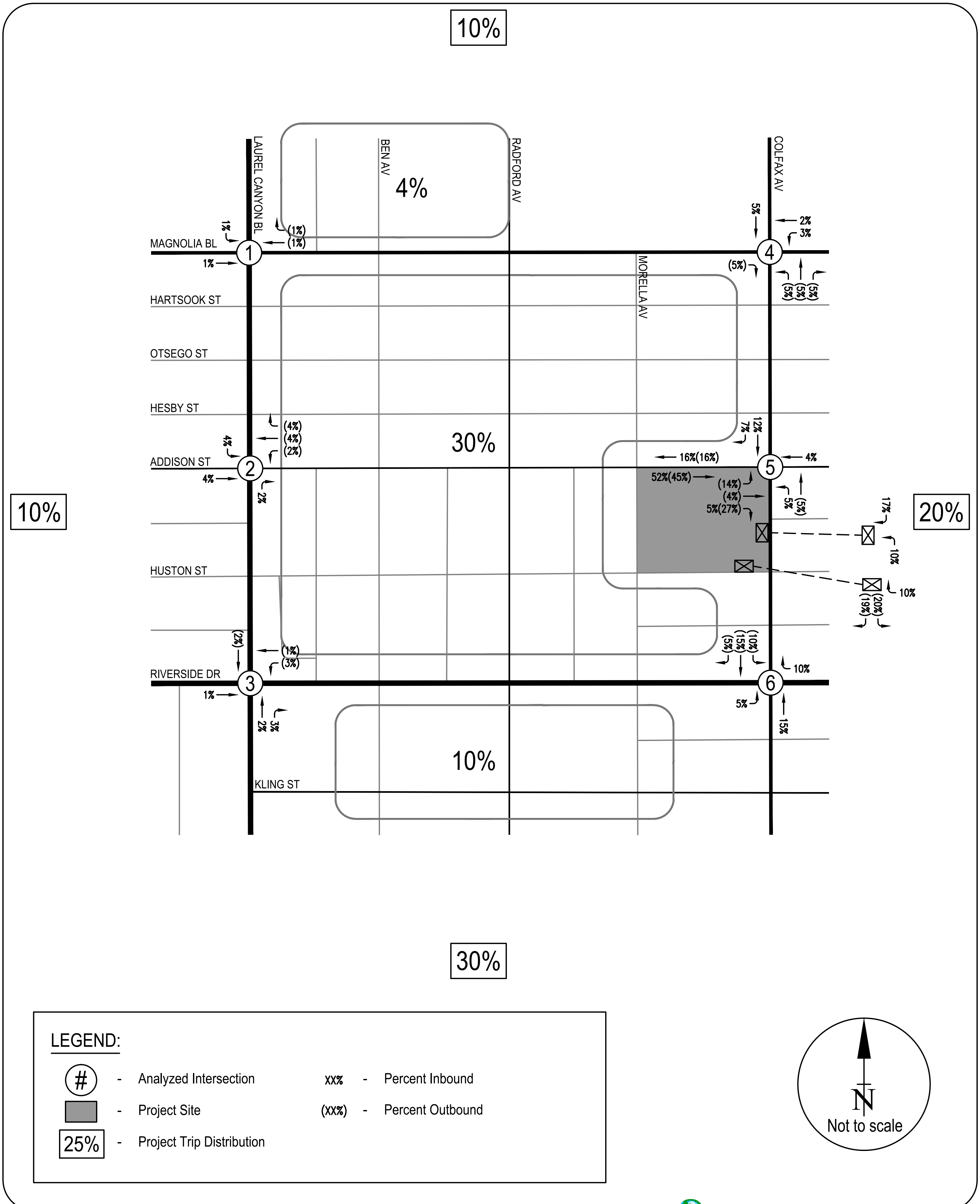


FIGURE 5
PROJECT TRIP DISTRIBUTION

RAJU Associates, Inc.

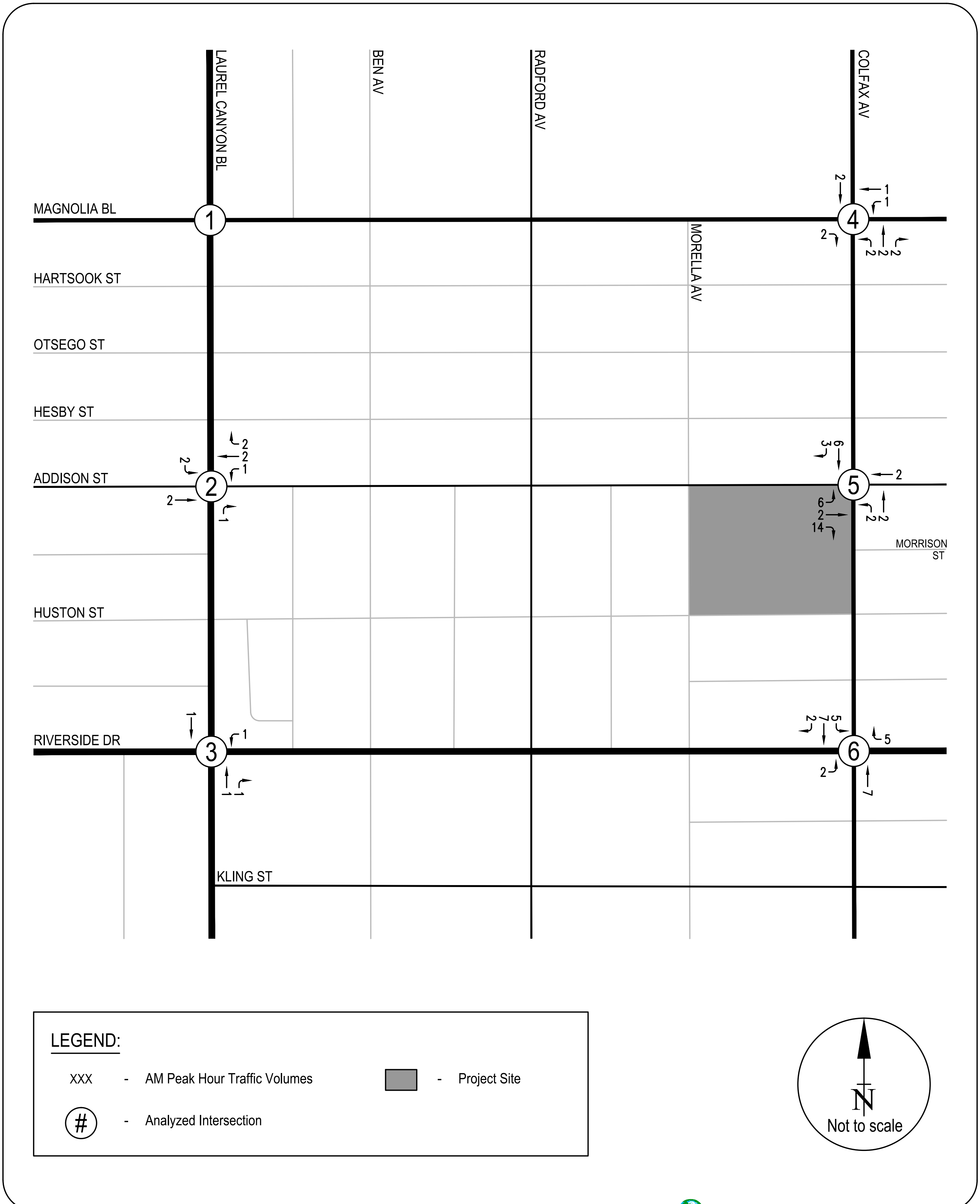


FIGURE 6
PROJECT ONLY - AM PEAK HOUR TRAFFIC VOLUMES

RAJU Associates, Inc.

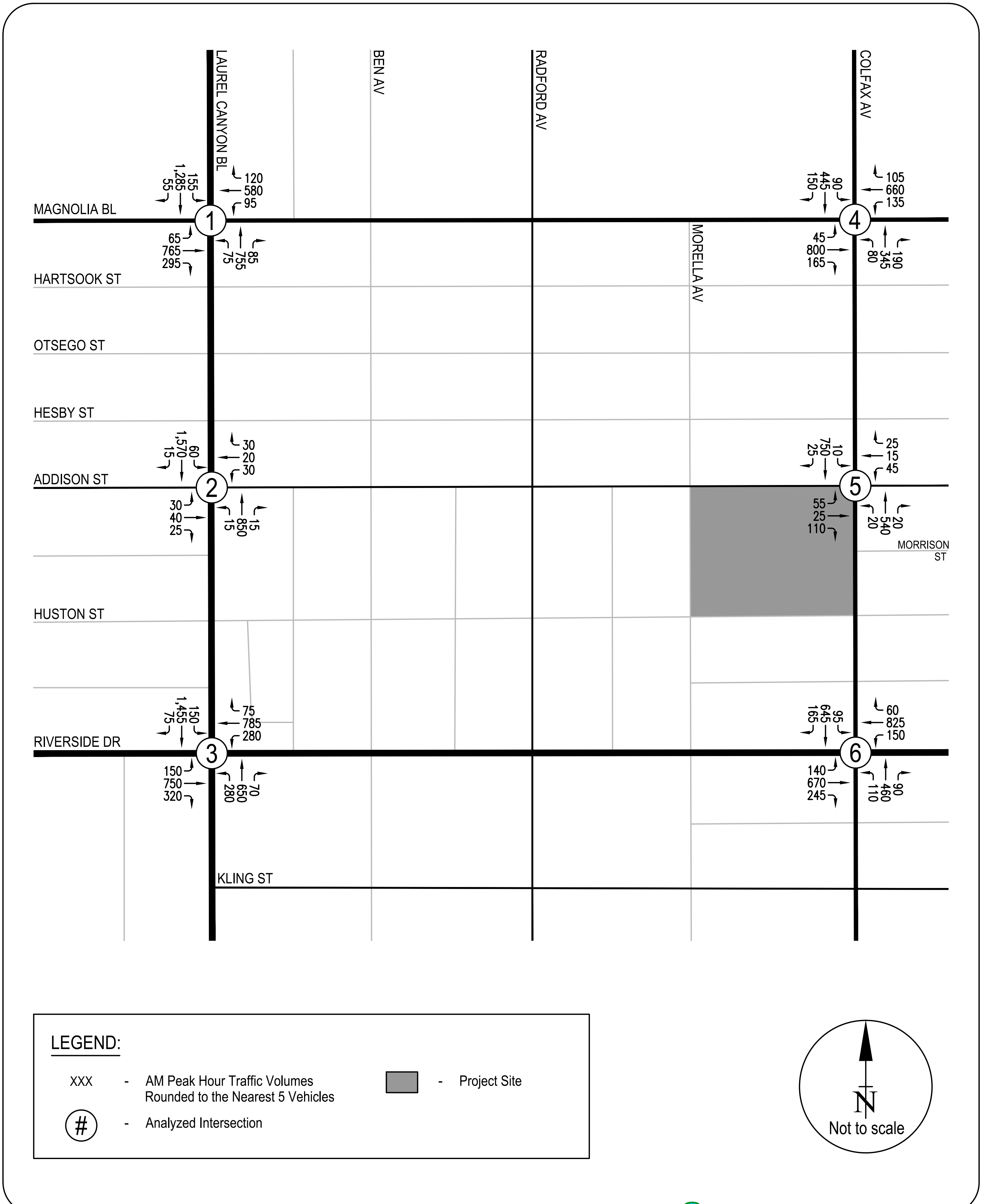


FIGURE 7
EXISTING (YEAR 2016) PLUS PROJECT CONDITIONS - AM PEAK HOUR TRAFFIC VOLUMES

RAJU Associates, Inc.

IV. FUTURE YEAR 2018 TRAFFIC PROJECTIONS

In order to properly evaluate the potential impact of the Proposed Project on the local street system, estimates of the Future (Year 2018) traffic volumes both with and without the Proposed Project were developed. The Future (Year 2018) Base conditions (i.e., without the Proposed Project) was first developed including estimates for background growth in area-wide trip making and trips generated by future developments (related projects) in the vicinity of the study area. Next, the traffic generated by the Proposed Project was estimated and assigned separately to the street system. The addition of Proposed Project-related traffic to the Future (Year 2018) Base traffic volumes provides traffic volume estimates for the Future (Year 2018) plus Project scenario. Each of these future traffic scenarios is described further in this chapter.

FUTURE (YEAR 2018) BASE TRAFFIC PROJECTIONS

The Future (Year 2018) Base traffic projections reflect growth in traffic from two primary sources: Firstly, the background or ambient growth to reflect the effects of overall area-wide regional growth both within and outside the study area; and secondly, from traffic generated by specific related (cumulative) projects located within, or in the vicinity of, the study area. Each of these components is described below.

Area-wide Ambient Traffic Growth

The traffic in the vicinity of the study area was estimated to increase at a rate of about 2% per year per the Memorandum of Understanding. Future increases in background traffic volumes due to regional growth and development are expected to continue at this rate. With the assumed completion date of 2018, the Existing 2016 traffic volumes were adjusted upward by a factor of 4% to reflect this area-wide regional growth. The resulting Existing plus Ambient Growth (2018) traffic volumes are illustrated in Figure 8.

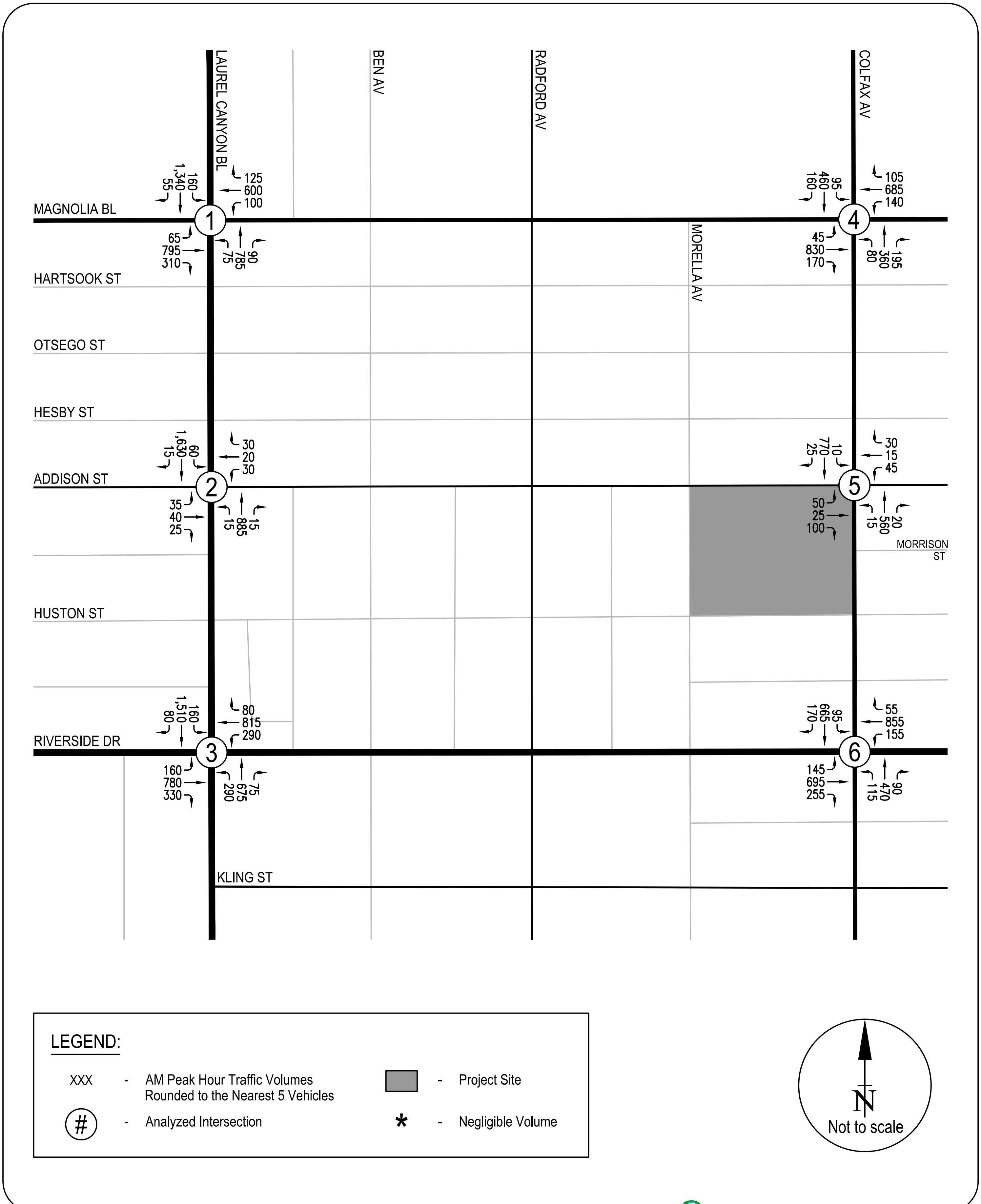


FIGURE 8
EXISTING WITH AMBIENT GROWTH (2018) CONDITIONS -
AM PEAK HOUR TRAFFIC VOLUMES

RAJU Associates, Inc.

Related Projects Traffic Generation and Assignment

As indicated, the second potential source of traffic growth in the study area is that expected from other future development projects in the vicinity. These related or "cumulative" projects are those developments that are planned and expected to be in place within the same timeframe as the Proposed Project. Data describing related projects in the area was solicited from the City of Los Angeles. Twenty-four related projects were identified within the study area and are listed in Table 4. The locations of these projects are shown in Figure 9.

The trip generation estimates for the related projects were also provided by the City of Los Angeles Department of Transportation and is included in Table 4. As summarized in Table 4, the related projects are expected to generate approximately 1,924 trips during the morning peak hour. The geographic distribution and the traffic assignment of the related projects were performed and the results showing the related project trips are included in Figure 10.

Future (Year 2018) Base Traffic Volumes

The related projects' traffic estimates were added to the Existing plus Ambient Growth traffic to obtain the Cumulative (2018) Base traffic volumes. Figure 11 provides the Cumulative (2018) Base traffic volumes at each of the analysis intersections during the AM peak hour. These volumes represent Future (2018) Cumulative Base (without project) projections.

FUTURE (YEAR 2018) PLUS PROJECT TRAFFIC VOLUMES

Utilizing the project-only traffic estimates developed for the AM peak hour, traffic forecasts for the Future Year 2018 plus Project projections were developed. The Future (Year 2018) Base traffic forecasts were combined with the project-only traffic volumes to obtain the Future plus Project traffic volume forecasts. The Future (Year 2018) plus Project traffic volumes during the AM peak hour are presented in Figure 12.

TABLE 4
ESTIMATED WEEKDAY TRIP GENERATION OF RELATED PROJECTS

Map No.	Project Name	Location	Description	Daily	AM Peak Hour IN	AM Peak Hour OUT	AM Peak Hour TOTAL
1	CBS Radford Studios	4200 Radford Av	Master Plan Expansion	1,634	102	13	115
2	Cohen Apartments	10601 Riverside Dr	82 Unit Apartments & 13,327Sf Retail	1,083	17	39	56
3	Valley Plaza and Laurel Plaza	6301 Laurel Canyon Bl	488 Condos + 572 Apts; Redevelop Existing Shopping Center + Dept Store	3,456	-236	158	-78
4	Mixed-Use Project	12425 W Victory Bl	54 Condos, 6900 S.F.Shop Ctr & 1,450 S.F. Coffee House	460	3	21	24
5	Condominium	11331 Ventura Bl	57 Condomuniums Will Replace Existing Office Building.	189	-24	25	1
6	No Ho Lankershim Station	5401 N Lankershim Bl	Mixed Use Project	1,826	36	15	51
7	New NoHo Artwalk Project	11126 Chandler Bl		903	-27	67	40
8	Mixed-Use	11617 Ventura Bl	391 Apartments, 5000 S.F. Retail Replacing 20,000 S.F. Commercial Uses	2,077	36	169	205
9	Mixed-Use	12548 Ventura Bl	Mixed-Use	1,000	23	41	64
10	Wesley School, North Hollywood	4832 Tujunga Ave	Increasing Enrollment Cap From 199 Students To 290 Students.	244	45	37	82
11	Apartment Building	11120 W Chandler Bl	324 Apartment Units	2,082	38	119	157
12	84 unit apartment bldg	5500 N Klump Ave	84 Unit Apartment Bldg	559	9	34	43
13	96 unit apartments	11036 W Moorpark St	96 Unit Apartments Bldg	506	7	32	39
14	NoHo San Marino	11405 W Chandler Bl	82 Apartment Units	545	8	34	42
15	Valley Village Hotel Project	12828 Riverside Drive	94 Guestroom Hotel	768	30	20	50
16	NOHOWEST Project	6150 N Laurel Canyon Bl	Mixed Use Project(Apartments, Movie Theater, Office & Retail)	7,270	423	287	710
17	144 unit apartments	11011 Otsego St	144 Unit Apartments	885	14	53	67
18	90 unit apartment bldg	5513 Case Ave	90 Unit Apartment Bldg	599	9	37	46
19	28 unit small sub-division	Weddington St & Hermitage Ave	28 Unit Apartments	207	4	12	16
20	46 unit apt./condo	5508 N Fulcher Av	46 Residential Apartments	306	4	19	23
21	Expansion of School enrolement	11600 W Magnolia Blvd	School Enrollment Increase From 452 To 530 Students	164	38	23	61
22	Help Group School	13042 Burbank Bl	Private School For Students With Special Needs	0	47	5	52
23	Apartments or Condos	11106 Hartsook St	61 Unit Apartments	361	5	22	27
24	Homeplace Retirement Community	4141 Whitsett Av	240 Senior Apartment Units	835	11	20	31
			RELATED PROJECTS TRIP GENERATION TOTAL	27,959	622	1,302	1,924

[1] List of related projects and their trip generation totals provided by LADOT, May 2016. Trip directionality based on *Trip Generation Manual, 9th Edition, ITE 2012* .

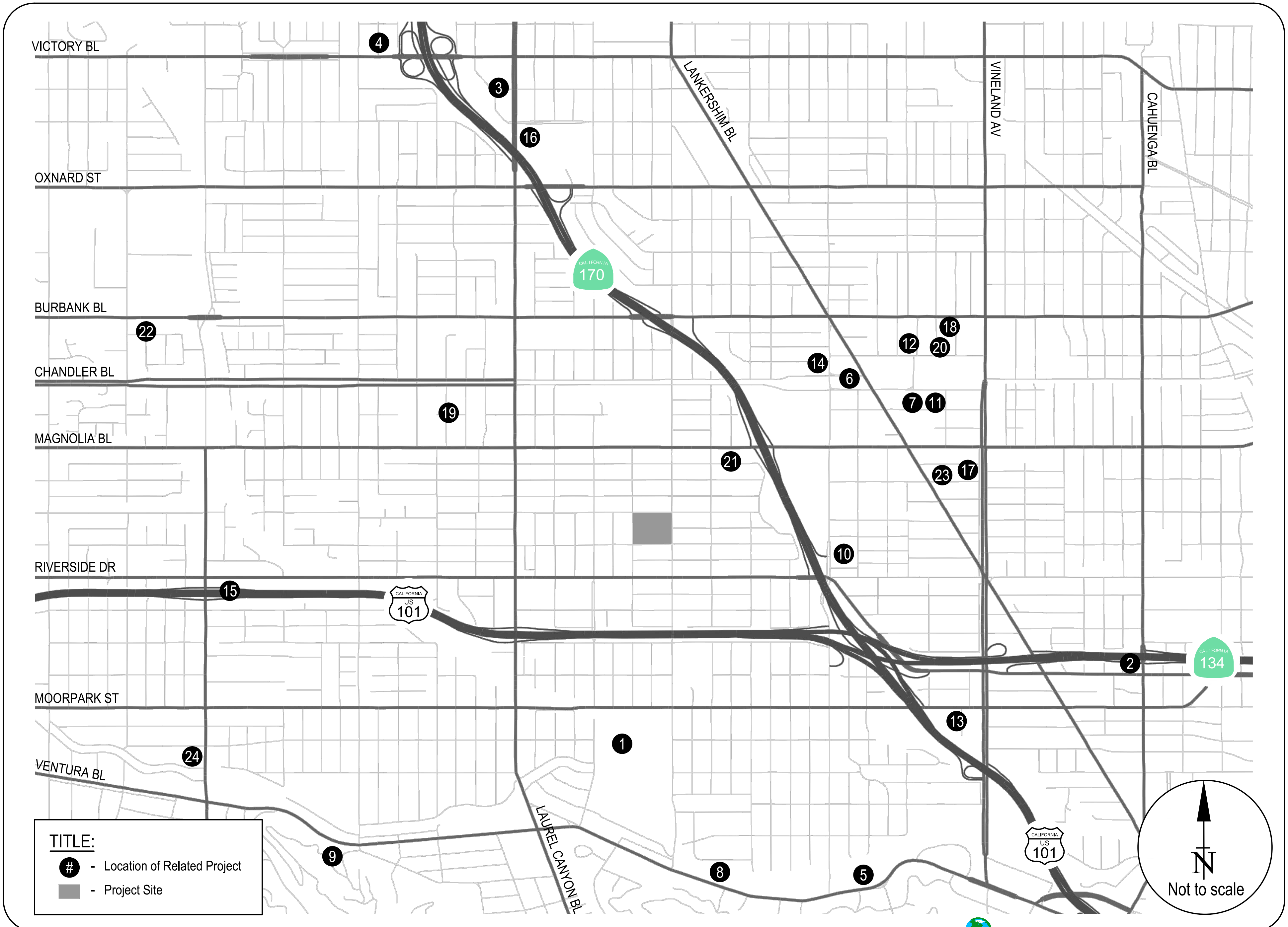
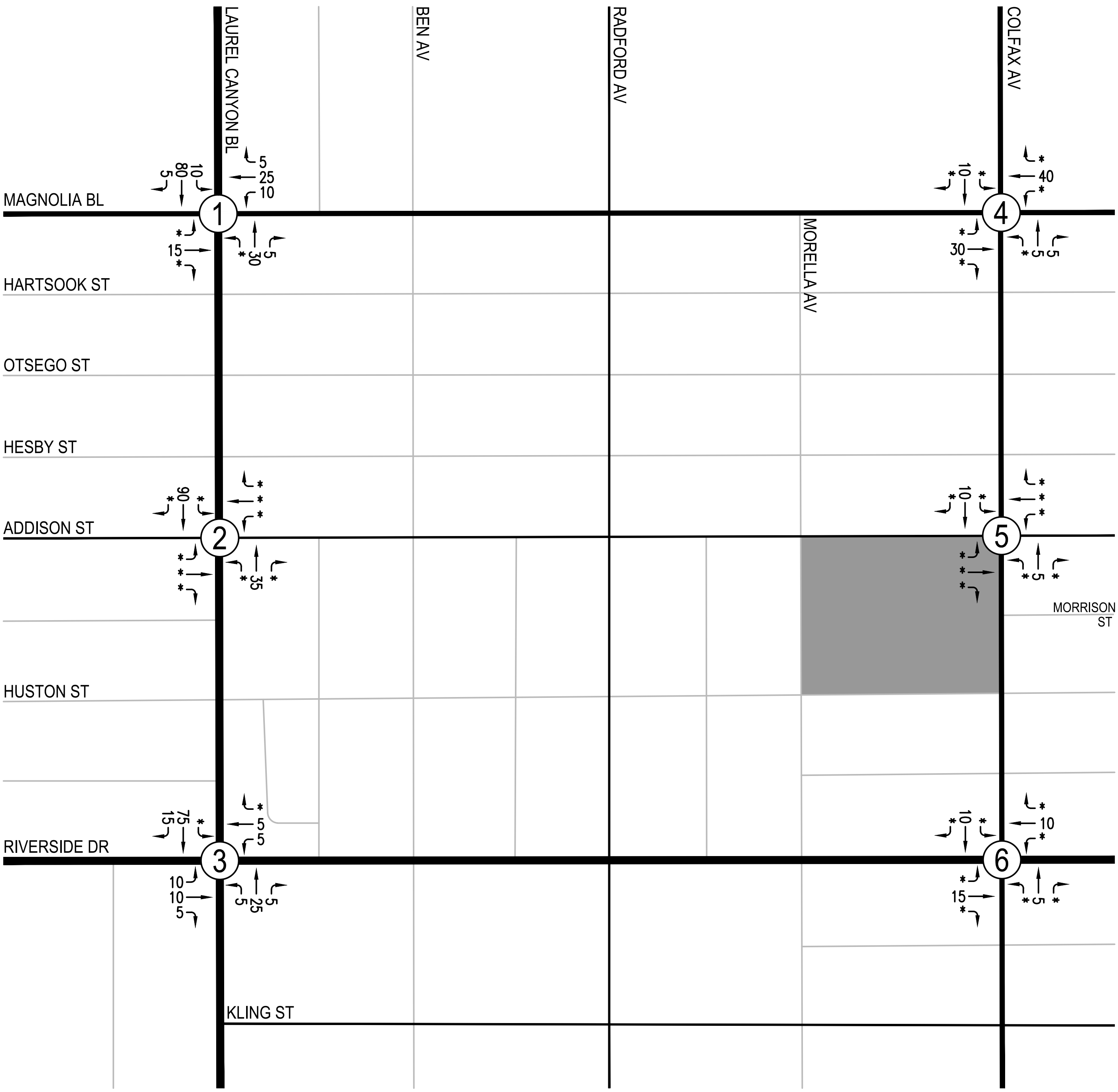


FIGURE 9
LOCATION OF RELATED PROJECTS

RAJU Associates, Inc.



LEGEND:

XXX - AM Peak Hour Traffic Volumes Rounded to the Nearest 5 Vehicles

\# - Analyzed Intersection

Project Site

* - Negligible Volume

N

Not to scale

FIGURE 10
RELATED PROJECTS - AM PEAK HOUR TRAFFIC VOLUMES

RAJU Associates, Inc.

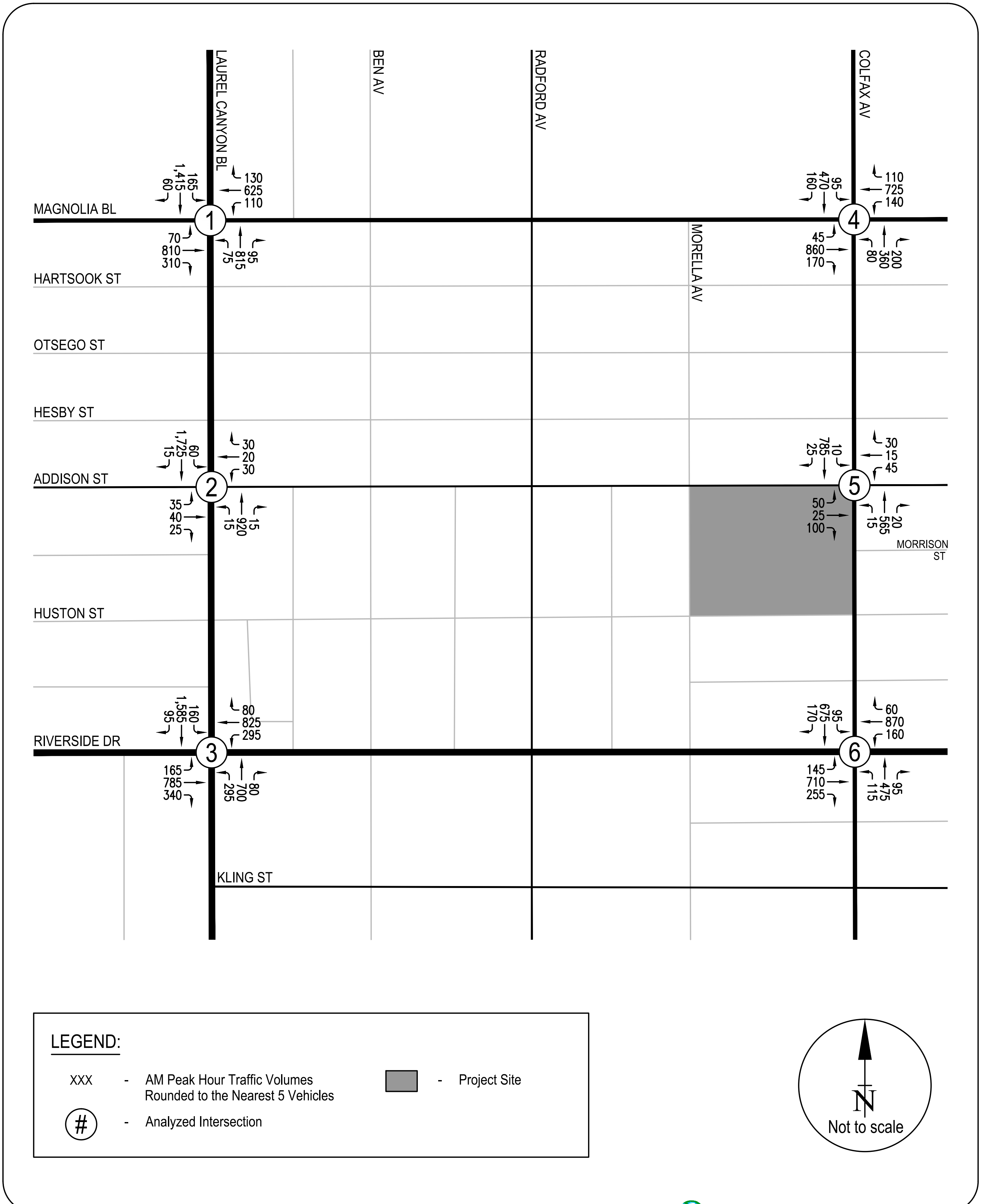
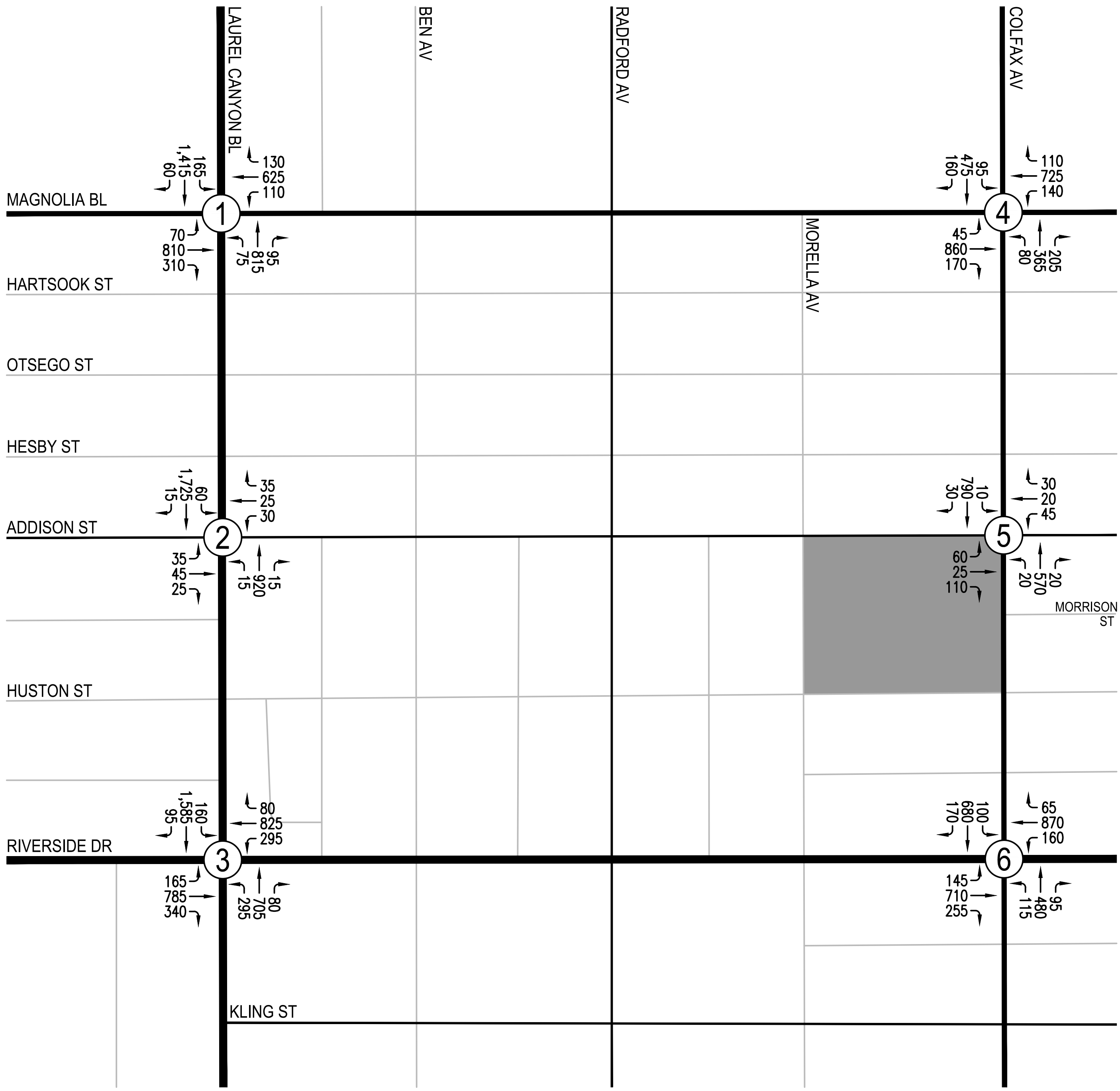


FIGURE 11
FUTURE (YEAR 2018) BASE CONDITIONS -
AM PEAK HOUR TRAFFIC VOLUMES

RAJU Associates, Inc.



LEGEND:

XXX - AM Peak Hour Traffic Volumes Rounded to the Nearest 5 Vehicles

\# - Analyzed Intersection

Project Site

FIGURE 12
FUTURE (YEAR 2018) PLUS PROJECT CONDITIONS - AM PEAK HOUR TRAFFIC VOLUMES

RAJU Associates, Inc.

V. TRAFFIC CONDITIONS & IMPACT ANALYSIS

The Existing (Year 2016) plus Project, Future (Year 2018) Base and Future (Year 2018) plus Project conditions were analyzed utilizing the methodologies and assumptions per the City of Los Angeles traffic study guidelines. The results were then used to assess the potential impact of the proposed project on the local street system.

The traffic impact analysis compares the volume to capacity (V/C) ratios at each study location under the Existing (Year 2016) Base and Existing (Year 2016) plus Project; and Future (Year 2018) Base and Future (Year 2018) plus Project projections to determine the incremental difference in V/C ratios caused by the proposed project. These values provide the information needed to assess the potential impact of the project using significance criteria established by the City of Los Angeles.

SIGNIFICANT TRAFFIC IMPACT CRITERIA

The City of Los Angeles Department of Transportation has established threshold criteria that determine if a project has a significant traffic impact at a specific signalized intersection. According to the criteria provided by the City of Los Angeles, a project impact is considered significant if the following conditions are met:

Intersection Condition With Project Traffic		Project-Related Increase in V/C Ratio
LOS	V/C Ratio	
C	0.701 – 0.800	equal to or greater than 0.040
D	0.801 – 0.900	equal to or greater than 0.020
E, F	> 0.900	equal to or greater than 0.010

Using these criteria, for example, a project would not have a significant impact at a signalized intersection if it is operating at LOS C after the addition of project traffic and the incremental change in the V/C ratio is less than 0.040. However, if the intersection is operating at a LOS F after the addition of project traffic and the incremental change in V/C ratio is 0.010 or greater, the project would be considered to have a significant impact.

EXISTING (YEAR 2016) PLUS PROJECT TRAFFIC CONDITIONS

The Existing (Year 2016) plus Project peak hour traffic volumes were analyzed at each of the study intersections to determine the V/C ratio and corresponding level of service. Table 5 presents the results of the Existing (Year 2016) plus Project traffic analysis. As indicated in the table, all six of the study intersections are projected to continue to operate at LOS D or better during the morning peak hour.

Capacity calculation worksheets for Existing (Year 2016) plus Project conditions are attached in Appendix F of the report.

FUTURE (YEAR 2018) BASE TRAFFIC CONDITIONS

The Future (Year 2018) Base (without the Proposed Project) peak hour traffic volumes were analyzed at each of the study intersections to determine the V/C ratio and corresponding level of service. Table 5 presents the results of the Future (Year 2018) Base (without project) traffic analysis. As indicated in the table, five of the six study intersections are projected to operate at LOS D or better during the morning peak hour. The Laurel Canyon Boulevard and Riverside Drive intersection is projected to operate at LOS E during the morning peak hour.

Capacity calculation worksheets for Future (Year 2018) Base conditions are attached in Appendix F of the report.

TABLE 5
SUMMARY OF INTERSECTION LEVEL OF SERVICE ANALYSIS

No.	Intersection	Peak Hour	Existing (2016) Conditions		Existing (2016) Plus Project Conditions		Project Increase in V/C	Significant Project Impact	Future (Year 2018) Base Conditions [a]		Future (Year 2018) Plus Project Conditions [a]		Project Increase in V/C	Significant Project Impact
			V/C	LOS	V/C	LOS			V/C	LOS	V/C	LOS		
1.	Laurel Canyon Boulevard & Magnolia Boulevard	AM	0.795	C	0.795	C	0.000	No	0.871	D	0.871	D	0.000	No
2.	Laurel Canyon Boulevard & Addison Street	AM	0.516	A	0.518	A	0.002	No	0.571	A	0.573	A	0.002	No
3.	Laurel Canyon Boulevard & Riverside Drive	AM	0.896	D	0.897	D	0.001	No	0.971	E	0.971	E	0.000	No
4.	Colfax Avenue & Magnolia Boulevard	AM	0.715	C	0.719	C	0.004	No	0.781	C	0.784	C	0.003	No
5.	Colfax Avenue & Addison Street	AM	0.545	A	0.565	A	0.020	No	0.580	A	0.600	A	0.020	No
6.	Colfax Avenue & Riverside Drive	AM	0.803	D	0.808	D	0.005	No	0.851	D	0.856	D	0.005	No

V/C - Volume to Capacity Ratio
LOS - Level of Service

FUTURE (YEAR 2018) PLUS PROJECT TRAFFIC CONDITIONS

The Future (Year 2018) Plus Project peak hour traffic volumes were analyzed to determine the V/C ratio and corresponding level of service at each of the analyzed intersections. The results of this analysis are also summarized in Table 5. Table 5 indicates that traffic generated by the Project would not change the intersection levels of service from Future (Year 2018) Base conditions at the study intersections during the morning peak hour.

Capacity calculation worksheets for Future (Year 2018) plus Project conditions are attached in Appendix F of the report.

PROJECT IMPACTS

Using the specified significant impact criteria, the traffic impacts at the analysis locations were determined. Table 5 identifies the individual impacts during AM peak hour at each of the analysis locations. It can be observed that the Proposed Project does not cause significant impacts at any of the analyzed intersections under both Existing (Year 2016) and Future (Year 2018) conditions. Therefore, no project-specific mitigation measures would be required.

VI. REGIONAL/CMP ANALYSIS

This section presents the Congestion Management Program (CMP) transportation impact analysis. This analysis was conducted in accordance with the procedures outlined in the *2010 Congestion Management Program for Los Angeles County* (Los Angeles County Metropolitan Transportation Authority, 2010). The CMP requires that when a traffic impact report is prepared for a project, traffic impact analyses be conducted for select regional facilities based on the quantity of project traffic expected to use these facilities.

CMP TRAFFIC IMPACT ANALYSIS

The CMP guidelines for determining the study area for analysis of CMP arterial monitoring intersections and for freeway monitoring locations are as follows:

- All CMP arterial monitoring intersections where the proposed project will add 50 or more trips during either the AM or PM weekday peak hours of adjacent street traffic.

- All CMP mainline freeway monitoring locations where the proposed project will add 150 or more trips, in either direction, during either the AM or PM weekday peak hours.

The nearest CMP arterial monitoring locations to the Project site are:

- Ventura Boulevard and Lankershim Boulevard (CMP ID# 73)
- Ventura Boulevard and Laurel Canyon Boulevard (CMP ID# 74)

Based on the incremental Project trip generation estimates presented in Chapter III, the Proposed Project will not add 50 or more new trips per hour to this location. Therefore, no further analysis of CMP arterial monitoring locations is required.

The nearest mainline freeway monitoring locations to the Project site include the Ventura Freeway (US-101) at Coldwater Canyon Avenue. Based on the incremental Project trip generation estimates, the Proposed Project will not add 150 or more new trips per hour to these locations in either direction. Therefore, no further analysis of CMP freeway monitoring stations is required.

VII. SUMMARY OF CONCLUSIONS

This study was undertaken to assess existing traffic conditions, estimate future conditions with and without the Proposed Project, analyze potential traffic impacts, if any, of the Proposed Project, assess required improvements and identify/recommend project mitigation to alleviate the significant traffic impacts, if any, on the transportation system. Raju Associates, Inc. performed this detailed study and the following summarizes the results of the analysis:

- The Proposed Project consists of the addition of 160 new elementary school students. The Proposed Project is estimated to generate an additional 206 daily trips of which 94 trips would occur during the morning peak hour.

- A total of six intersections were analyzed within the study area for this Proposed Project.

- In the Existing (Year 2016) Base condition, all six of the analyzed intersection locations are operating at levels of service (LOS) D or better during the morning peak hour.

- In the Existing (Year 2016) plus Project scenario, the AM peak hour operating conditions would be similar to those for the Existing conditions (without the project). All six of the analyzed intersection locations are projected to continue to operate at LOS D or better during the morning peak hour

- The Existing (Year 2016) plus Project traffic conditions indicate that the Proposed Project would not cause significant traffic impacts at any of the analysis locations during the weekday morning peak hour.

- In the Future (Year 2018) Base conditions, i.e., future conditions without the implementation of the Proposed Project, five of the six analyzed intersection locations are projected to continue to operate at LOS D or better during the morning peak hour. The Laurel Canyon Boulevard and Riverside Drive intersection is projected to operate at LOS E during the morning peak hour.

- In the Future (Year 2018) plus Project conditions, the AM peak hour operating conditions would be similar to those projected for the Future (Year 2018) Base conditions. Traffic generated by the Proposed Project would not change the intersection levels of service from future base conditions.

- The Future (Year 2018) plus Project traffic conditions indicate that the Proposed Project would not cause significant traffic impacts at any of the analysis locations during the weekday morning peak hour.

- The Proposed Project would add less than 50 trips to the nearest Congestion Management Program (CMP) arterial monitoring locations and would add less than 150 trips in either direction to the nearest CMP mainline freeway monitoring locations during the weekday morning peak hour. Per CMP guidelines, no further CMP analysis is required.

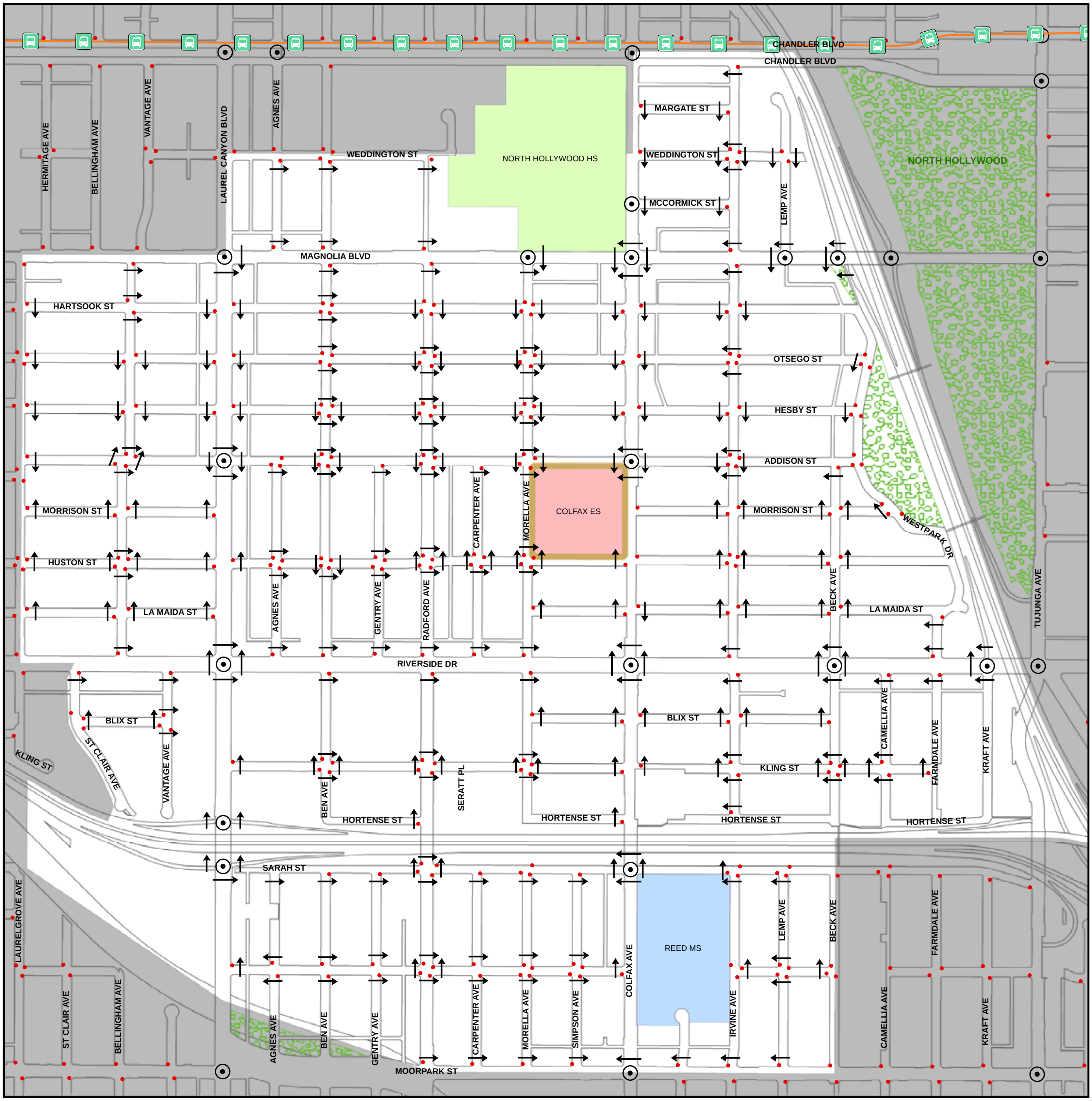
APPENDIX A

LADOT Pedestrian Routes for Colfax Avenue Elementary School

CITY OF LOS ANGELES - DEPARTMENT OF TRANSPORTATION

September 2015

PEDESTRIAN ROUTES FOR COLFAX AVENUE ELEMENTARY SCHOOL



Legend

- Recommended Crossing
- Stop Sign
- Traffic Signal
- Crossing Guard
- Flashing Warning Light
- Stairs or Walkway
- Pedestrian Bridge
- Pedestrian Tunnel
- Parks

N W E S

0 300 600

Feet

Parents:

This map shows the recommended crossings to be used from each block in your school attendance area. Following the arrows, select the best route from your home to the school and mark it with a colored pencil or crayon. This is the route your child should take. Instruct your child to use this route and to cross streets only at locations shown. You and your child should become familiar with the route by walking it together. Obey marked crosswalks, stop signs, traffic signals and other traffic controls. Crossing points have been located at these controls wherever possible, even though a longer walk may be necessary. Instruct your child to always look both ways before crossing the street. If no sidewalk exists, your child should walk facing traffic.

Estimados Padres:

Este mapa muestra los cruzados recomendados para los peatones de cada cuadra en la area de su escuela. Siguiendo las flechas en el mapa, selecione la ruta mas segura de su casa a la Escuela y marquelo con un lapis o tiza de color. Esta es la ruta que su hijo (a) debe de usar. Digale a su hijo (a) que use esta ruta y que cruce las calles solamente en los lugares indicados. Usted y su hijo (a) deberian de familiarizarce con esta ruta. Obedezcan los rotulos de peatones, de altos, semaforos y todos los señales de trafico. Puntos para cruzar estan localizados en areas controladas, aunque sea necesario de alargar el tiempo para cruzar. Instruye a su hijo (a) que siempre se fije de los dos lados antes de cruzar la calle. El estudiante debe de siempre caminar en la direccion opuesta del trafico si no existe una banqueta.

APPENDIX B

Technical Memorandum

Vehicular and Pedestrian Circulation System Evaluation

RAJU Associates, Inc.

505 E. Colorado Blvd.,
Suite 202
Pasadena, CA 91101
Voice: (626) 792-
Fax: (626) 792-2772

TECHNICAL MEMORANDUM

TO: Ms. Christine Abraham. ESA PCR

FROM: Srinath Raju, P.E.
Bruce Chow

SUBJECT: Colfax Charter Elementary School
Vehicular and Pedestrian Circulation System Evaluation

DATE: September 23, 2016 **REF:** RA 494

The State of California, Department of Transportation (Caltrans) and local law enforcement/transportation agencies establish traffic safety requirements for school sites, including guidance associated with the posting of warning signs, pavement markings, crossing guards, on-street parking restrictions, pedestrian routes to school maps, stop signs, and traffic signals. To ensure compliance with established traffic safety requirements, the Los Angeles Unified School District (LAUSD) Office of Environmental Health and Safety (OEHS) conducts pedestrian circulation evaluations as a component of traffic studies when a proposed project results in an increase in student capacity of more than 25 percent or an increase of 10 classrooms (SUP EIR 2015[1]).

This technical memorandum documents an evaluation of the vehicular and pedestrian circulation system serving the Colfax Charter Elementary School located at 11724 Addison Street in the community plan area of North Hollywood-Valley Village in the City of Los Angeles, California. The evaluation was conducted in support of proposed improvements to the campus, including the construction of 18 new classrooms, removal of ten portable classrooms situated in five buildings, internal modifications to administrative spaces, an expanded lunch shelter and arcade, relocation of the school's main entry (from Addison Street to Colfax Avenue), and construction of a new surface parking lot (Proposed Project). Colfax Charter Elementary School is bounded by Addison Street on the north, Colfax Avenue on the east, Huston Street on the south, and Morella Avenue on the west. Figure 1 illustrates the location of the Colfax Charter Elementary School in relation to the surrounding street system.

The vehicular and pedestrian circulation system evaluation includes a description of the current condition of the streets, sidewalks, crosswalks and traffic control associated with access to the school and an evaluation of the changes to the vehicular and pedestrian circulation patterns associated with the proposed project.

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[1] LAUSD 2015. *Final Environmental Impact Report, School Upgrade Program*. Available at: http://achieve.lausd.net/Page/ceqa.

This memorandum was drafted following the LAUSD OEHS *Traffic and Safety Requirements for New Schools* (see Attachment A) guidance and includes the evaluation of four categories:

- Student Drop-off Areas
- Vehicle Access
- Pedestrian Routes to School
- General Signage

Included in this evaluation are descriptions of the four categories as well as a brief evaluation of observations, requirements and recommendations for consideration. The purpose of this review is to ensure that foot traffic is adequately separated from vehicular traffic to minimize potential pedestrian safety risks to students, staff, and visitors at LAUSD schools.

VEHICLE AND PEDESTRIAN CIRCULATION AND ACCESS

Colfax Elementary School contains two surface parking lots – one along Addison Street and the other along Colfax Avenue. The Addison Street parking lot currently has 13 parking spaces while the Colfax Avenue parking lot currently has 35 spaces. Pick-up and drop-off operations currently occur along Morella Avenue for kindergarten. Pick-up and drop-off for the remainder of the students occur along Addison Street and within the surface parking lot along Colfax Avenue.

Vehicular Circulation and Access

Vehicular access to the school is obtained from Colfax Avenue, Addison Street, Morella Avenue, and Huston Street. A brief description of these streets as it relates to vehicular circulation and access follows.

Colfax Avenue

Colfax Avenue is classified as an Avenue II arterial roadway per the City of Los Angeles' Mobility Plan 2035[2] and runs in a north-south direction. Colfax Avenue has a roadway width (curb to curb) of 58 feet adjacent to the project site and provides two travel lanes, one lane in each direction with a center-left-turn lane. The posted speed limit is 35 miles per hour along this roadway. The speed limit is 25 miles per hour during school hours along this roadway. Parking is prohibited on the west side of Colfax Avenue between Addison Street and Huston Street with signs indicating "No Stopping" from 7:00 AM to 5:00 PM during school days posted. There are no parking restrictions on the east side of Colfax Avenue between Addison Street and Huston Street.

The existing 35-space parking lot has two driveways providing full access along Colfax Avenue. Currently, vehicles access this parking lot for student drop-off/pick-up operations within the drive aisles in the lot.

As part of the Proposed Project, the Colfax Avenue parking lot will be relocated to the southeast corner of the Proposed Project site. This proposed surface parking lot would provide 74 parking spaces (a net gain of 39 spaces in this lot). The proposed driveway on Colfax Avenue will be located approximately 150 feet south of the existing driveway and have a width of 28 feet. As shown on the Proposed Project site plan on Figure 2, a separate eight-foot student drop-off/pick-up lane with a 16-foot drive aisle and 10-foot on-site sidewalks would be provided. The proposed

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2 *Mobility Plan 2035, An Element of the General Plan, January 20, 2016*. Los Angeles Department of City Planning.

drop-off/pick-up lane would be approximately 170 feet in length with an additional 150 feet of queuing area within the proposed Colfax Avenue surface parking lot.

Addison Street

Addison Street is classified as a Collector street per the City of Los Angeles' Mobility Plan 2035 and traverses in an east-west direction. Addison Street has an approximate roadway width of 34 feet and provides two travel lanes, one lane in each direction. On the south side of Addison Street between Morella Avenue and the Addison parking lot west driveway, parking is restricted with signs indicating "No Stopping" from 7:00 AM to 5:00 PM during school days posted. Parking is restricted to two hours from 8:00 AM to 6:00 PM on south side of Addison Street between the Addison parking lot west driveway and east driveway. Parking is restricted for passenger loading on school days from 6:30 AM to 9:00 AM and 1:30 PM to 4:00 PM with two hour parking available 9:00 AM to 1:30 PM on the south side of Addison Street, between the Addison parking lot east driveway and Colfax Avenue. Parking is unrestricted on the north side of Addison Street between Morella Avenue and Colfax Avenue. The prima facie speed limit is 25 miles per hour.

The existing school staff parking lot on Addison Street is served by two access driveways. Drop-off/pick-up operation occurs on the south side of Addison Street between the school entrance and Colfax Avenue. The existing drop-off/pick-up operations on Addison Street would remain unchanged with the Proposed Project.

Morella Avenue

Morella Avenue is classified as a Local street per the City of Los Angeles' Mobility Plan 2035 and traverses in a north-south direction. Morella Avenue has a roadway width of approximately 36 feet and provides two travel lanes, one lane in each direction. Within the study area, unrestricted parking is allowed on either side of the street. The prima facie speed limit is 25 miles per hour along this roadway.

The east side of Morella Avenue, south of Addison Street and adjacent to the kindergarten gate, is restricted with signs indicating passenger loading on school days from 6:30 AM to 9:00 AM and 1:30 PM to 4:00 PM with two hour parking available 9:00 AM to 1:30 PM posted. Parking is unrestricted on the west side of Morella Avenue between Addison Street and Huston Street. The prima facie speed limit is 25 miles per hour. Existing drop-off/pick-up operations occur on the east side of Morella Avenue adjacent to the school's kindergarten entrance. The existing drop-off/pick-up operations on Morella Avenue would remain unchanged with the Proposed Project.

Huston Street

Huston Street is classified as a Local street per the City of Los Angeles' Mobility Plan 2035 and traverses in an east-west direction. Huston Street has a roadway width of approximately 40 feet and provides two travel lanes, one lane in each direction. Within the study area, unrestricted parking is allowed on either side of the street. The prima facie speed limit is 25 miles per hour along this roadway.

As part of the Proposed Project, a driveway on the north side of Huston Street, approximately 120 feet west of Colfax Avenue, will be provided. This proposed driveway will have a width of 28 feet.

Pedestrian Circulation and Access

Pedestrian access to the school is obtained from Colfax Avenue, Addison Street, Morella Avenue, and Huston Street.

Colfax Avenue

School pedestrian gates are located within the parking lot on Colfax Avenue. Pedestrian access and circulation is provided on the west side of Colfax Avenue. Colfax Avenue on the west side of the road has a sidewalk width of approximately 8 feet between Addison Street and Huston Street and 4 feet between Huston Street and south of La Maida Street. North of the school, Colfax Avenue between Magnolia Boulevard and Addison Street, has a sidewalk width of approximately 8 feet on the west side and approximately 5 to 10 feet on the east side. The east side of Colfax Avenue near the school site from south of La Maida Street to Addison Street does not have sidewalks. Bicycle lanes are provided on both sides the roadway in the study area.

The Colfax Avenue and Addison Street intersection is controlled by a traffic signal and has "yellow school crosswalk" pavement markings on all four legs. There are no crosswalk pavement markings on Colfax Avenue south of the school site between Huston Street and Riverside Drive, and north of the school site between south of Magnolia Boulevard and north of Addison Street.

Addison Street

School pedestrian gates are located at the school entrance on the south side of Addison Street. Pedestrian access is provided on the south side of Addison Street.

The south side of Addison Street, between Morella Avenue and Colfax Avenue, has a sidewalk width of approximately 8 feet. There are no sidewalks on north side of Addison Street between Morella Avenue and Colfax Avenue adjacent to the school site. There are no sidewalks on either side of Addison Street between Morella Avenue and Laurel Canyon Boulevard. Sidewalks are available on both sides of Addison Street east of Colfax Avenue that have a width of approximately 5 feet.

The Colfax Avenue and Addison Street intersection is controlled by a traffic signal and has "yellow school crosswalk" pavement markings on all four legs. The Morella Avenue/Addison Street intersection is stop-controlled on all approaches with "yellow school crosswalk" pavement markings on three legs of the intersection. There are no crosswalk pavement markings on Addison Street west of the school site between west of Morella Avenue and east of Laurel Canyon Boulevard and east of the school site between east of Colfax Avenue and Westpark Drive.

Morella Avenue

School pedestrian gates are located on the east side of Morella Avenue, south of Addison Street. Pedestrian and bicycle access is provided on the east side of Morella Avenue.

Morella Avenue has a sidewalk width of approximately 7 feet on the east side along the school site between Addison Street and Huston Street. The west side of Morella Avenue between Addison Street and Huston Street does not have a sidewalk. There are no sidewalks on either side of Morella Avenue between Addison Street and Magnolia Boulevard to the north, and between Huston Street and Riverside Drive to the south.

The Morella Avenue/Huston Street intersection is stop-controlled on all approaches but there are no crosswalk pavement markings. There are no crosswalk pavement markings on Morella Avenue north of the school site between north of Addison Street and south of Magnolia Boulevard, and south of the school site between Huston Street and north of Riverside Drive since there are no sidewalks present within those limits.

Huston Street

A pedestrian gate is located on Huston Street, west of Colfax Avenue, and is used during the afternoon dismissal time period. Pedestrian access is provided on the north side of Huston Street.

Huston Street has a sidewalk width of approximately 7 feet on the north side between Morella Avenue and Colfax Avenue adjacent to the school site. The south side of Huston Street near the school site does not have sidewalks. There are no sidewalks on either side of Huston Street between Morella Avenue and Laurel Canyon Boulevard. Both sides of Huston Street, between Colfax Avenue and Beck Avenue, have a sidewalk width of approximately 5 feet. The intersection of Huston Street at Colfax Avenue is controlled by two-way stop signs along Huston Street, with Colfax Avenue traffic uncontrolled at the intersection. There are no crosswalks at this intersection. Additionally, there are no crosswalk pavement markings on Huston Street east and west of the school site between Laurel Canyon Boulevard and Westpark Drive.

STUDENT DROP-OFF AREAS

Existing drop-off/pick-up operations on Addison Street and Morella Avenue would remain unchanged with the Proposed Project. Currently, student drop-off/pick-ups in the existing parking lot along Colfax Avenue occur in the north and south side of the lot within the drive aisles. Staff and volunteers, as part of the school's Safety Valet program, help the school children exit or enter vehicles during the drop-off/pick-up time periods at the designated areas on Addison Street, Morella Avenue, and in the Colfax Avenue parking lot. The Safety Valet Program is a collaboration between the school, Los Angeles Department of Transportation, and the Los Angeles Police Department to help prevent accidents and keep the students safe. The OEHS and Colfax Charter Elementary School Safety Valet Program information is provided in Attachment B.

The parking lot on Colfax Avenue will be relocated to the southeast corner of the Proposed Project site. As shown on the Proposed Project site plan on Figure 2, a separate eight-foot student drop-off/pick-up lane with a 16-foot drive aisle and 10-foot on-site sidewalks would be provided. The proposed drop-off/pick-up lane would be approximately 170 feet in length with an additional 150 feet of queuing area within the parking lot. The proposed student drop-off/pick-up lane and wide on-site sidewalks would provide for safer and more efficient drop-off/pick-up operations.

PEDESTRIAN ROUTES TO SCHOOL

The existing school pedestrian gates are provided on Addison Street, Morella Avenue and within the parking lot on Colfax Avenue. One additional pedestrian gate is provided on Huston Street which is used during the afternoon dismissal period. Pedestrian and bicycle access is provided on the south side of Addison Street, the east side of Morella Avenue, the west side of Colfax Avenue, and the north side of Huston Street. The access points for the Colfax Elementary School Classroom Addition Project (Proposed Project) will continue to be provided on Addison Street, Colfax Avenue, Morella Avenue, and Huston Street.

A school route map published by the City of Los Angeles Department of Transportation (LADOT), "Pedestrian Routes For Colfax Avenue Elementary School, September 2015", shows the various routes to the Colfax Charter Elementary School around the adjacent neighborhoods. The LADOT pedestrian route map is provided in Attachment B.

Pedestrian routes adjacent to the school include Colfax Avenue, Addison Street, Morella Avenue, and Huston Street. A brief description of the routes are as follows:

Colfax Avenue

The pedestrian route on Colfax Avenue for school children south of the school site is along the west side of the road. North of the school site, the pedestrian route is on both sides of Colfax Avenue between Magnolia Boulevard and Addison Street. There are no crosswalk pavement markings on Colfax Avenue south of the school site between Huston Street and Riverside Drive, and north of the school site between Magnolia Boulevard and Addison Street.

A signal at the intersection of Addison Street and Colfax Avenue has "yellow school crosswalk" pavement markings on all four legs.

Addison Street

The pedestrian route on Addison Street for school children west of the school site is along the south side of the road between Laurel Canyon Boulevard and Morella Avenue. The pedestrian route on Addison Street for school children east of the school site is along both sides of the road between Colfax Avenue and Irvine Avenue. The Morella Avenue/Addison Street intersection is stop-controlled on all approaches with "yellow school crosswalk" pavement markings on the north, east, south legs of the intersection. There are no crosswalk pavement markings on Addison Street west of the school site between Morella Avenue and Laurel Canyon Boulevard and east of the school site between Colfax Avenue and Westpark Drive.

Morella Avenue

The pedestrian routes on Morella Avenue for school children south of the schools site is along the east side of the road between Riverside Drive and Addison Street. The pedestrian routes on Morella Avenue for school children north of the school site is on both sides of the road between Hartsook Street and Addison Street. The Morella Avenue/Addison Street intersection is stop-controlled on all approaches with "yellow school crosswalk" pavement markings on the north, east, south legs of the intersection. The Morella Avenue/Huston Street intersection is stop-controlled on all approaches but there are no crosswalk pavement markings. There are no crosswalk pavement markings on Morella Avenue north of the school site between Addison Street and Magnolia Boulevard, and south of the school site between Huston Street and Riverside Drive.

Huston Street

The pedestrian routes on Huston Street for school children west of the school site is along the south side of the road between Laurel Canyon Boulevard and Morella Avenue. The pedestrian routes near Huston Street for school children east of the school are along both sides of Irvine Avenue and Beck Avenue to Addison Street. There are no crosswalk pavement markings on Huston Street east and west of the school site between Laurel Canyon Boulevard and Westpark Drive.

GENERAL SIGNAGE

This section provides details of posted speed limits, school speed limits, school warning signs and signage for parking restrictions adjacent to the Proposed Project. Descriptions of the Colfax Avenue, Addison Street, Morella Avenue, and Huston Street signage are provided below:

Colfax Avenue

The posted speed limit is 35 miles per hour along Colfax Avenue. The speed limit is 25 miles per hour during school hours along this roadway and these signs are posted on Colfax Avenue approximately 225 feet south of the school site and approximately 300 feet north of the school site. School warning signs are posted approximately 400 feet south of the school site and 470 feet north of the school site. Parking is restricted on the west side of Colfax Avenue between Addison Street and Huston Street with signs indicating "No Stopping" from 7:00 AM to 5:00 PM during school days.

Addison Street

School warning signs are posted on Addison Street west of Morella Avenue and east of Colfax Avenue. Parking is prohibited on the south side of Addison Street between Morella Avenue and Addison parking lot west driveway with signs indicating "No Stopping" from 7:00 AM to 5:00 PM during school days. Parking is restricted to two hours from 8:00 AM to 6:00 PM between the Addison parking lot west driveway and east driveway. Between the Addison parking lot east driveway and Colfax Avenue, parking is restricted for passenger loading on school days from 6:30 AM to 9:00 AM and 1:30 PM to 4:00 PM, with two hour parking available 9:00 AM to 1:30 PM. The prima facie speed limit is 25 miles per hour.

Morella Avenue

School warning signs are posted on Morella Avenue north of Addison Street and north of La Maida Street. The east side of Morella Avenue, south of Addison Street and adjacent to the kindergarten gate is restricted to passenger loading on school days from 6:30 AM to 9:00 AM and 1:30 PM to 4:00 PM, with two hour parking available 9:00 AM to 1:30 PM. The prima facie speed limit is 25 miles per hour.

Huston Street

School warning signs are posted on Huston Street west of Morella Avenue and east of Colfax Avenue. There are no parking restrictions along Huston Street adjacent to the school site. The prima facie speed limit is 25 miles per hour.

RECOMMENDATIONS

The following recommendations are provided for consideration as project design features:

- The school's Safety Valet Program should be extended to the drop-off and pick-up area in the proposed parking lot on Colfax Avenue.
- As part of the Proposed Project, LAUSD should coordinate with the City of Los Angeles to install "yellow school crosswalk" pavement markings across Huston Street on the west side of Colfax Avenue at the intersection of Colfax Avenue and Huston Street. Additionally, it was observed that there were 21 elementary school children that cross Huston Street on the west side of Colfax Avenue during the morning hour. One of LADOT's criteria for a crossing guard is a minimum of 20 or more children attending elementary school who cross an intersection. Per LAUSD Reference Guide (REF-1404) for School Traffic Safety, a request for a crossing guard should be coordinated with LADOT.
- At the beginning of every school year, pedestrian route to school information is provided to all parents. This information, shown in Attachment C is also available on the LAUSD website. The Proposed Project shall continue to provide this information to all parents.
- As part of the project design features, appropriate sight distance provisions should be made at the parking lot access driveways along Colfax Avenue and Huston Street.

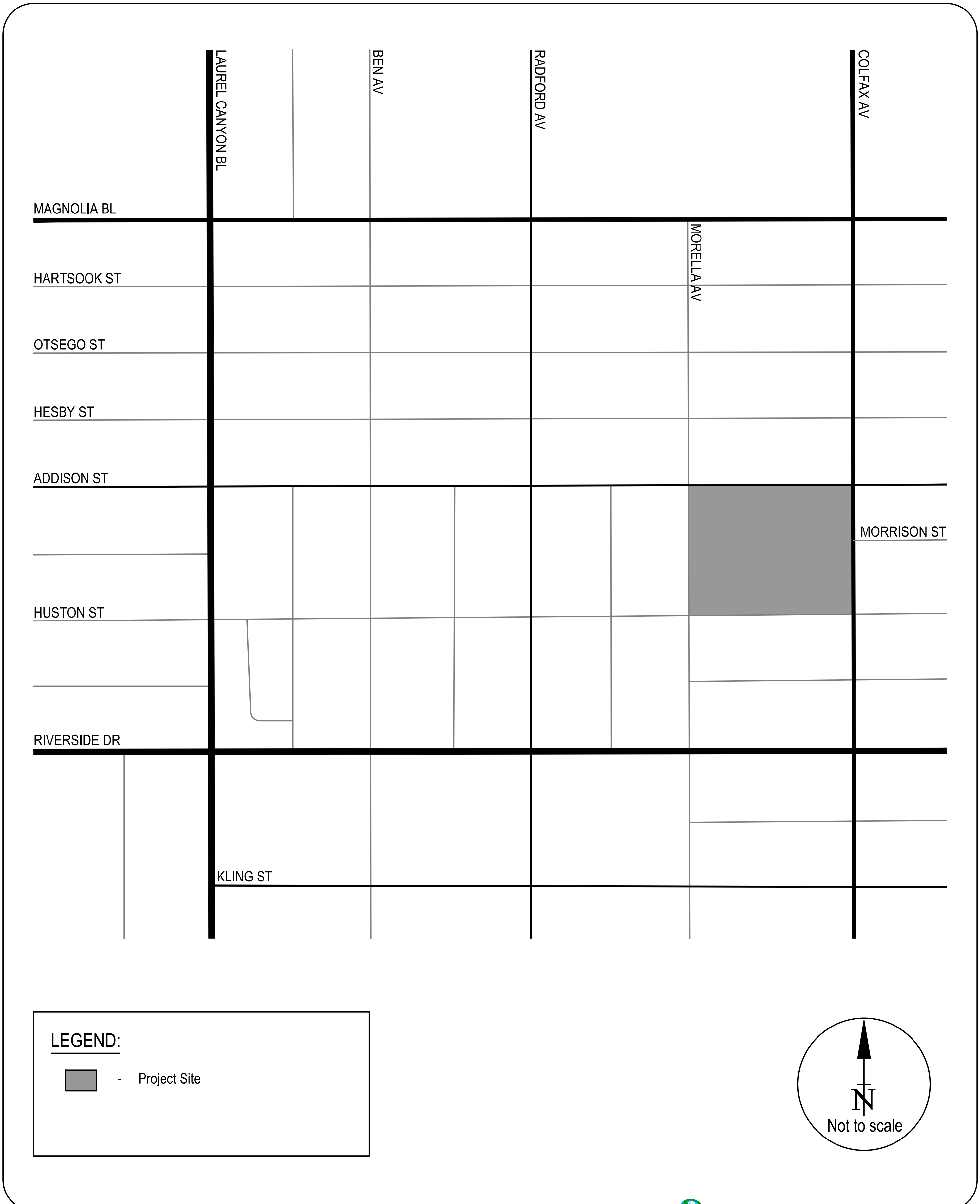
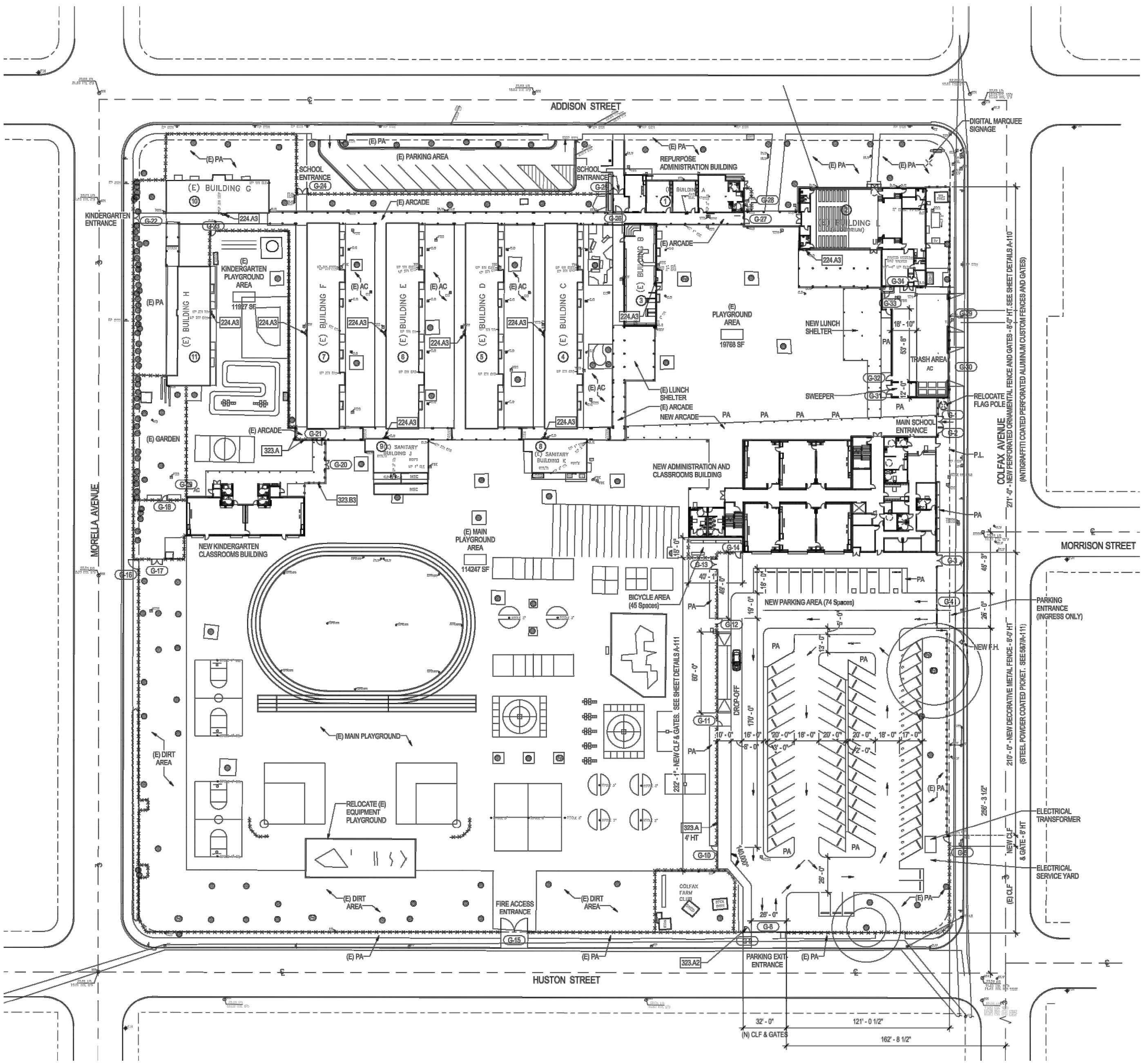


FIGURE 1
LOCATION OF PROJECT

RAJU Associates, Inc.



SOURCE: AC MARTIN ARCHITECTS

FIGURE 2
PROJECT SITE PLAN

RAJU Associates, Inc.

ATTACHMENT A

LAUSD OEHS Traffic and Pedestrian Safety Requirements for New Schools

Los Angeles Unified School District
Office of Environmental Health and Safety
Traffic and Pedestrian Safety Requirements for New Schools

The purpose of this document is to identify performance requirements to minimize potential pedestrian safety risks to students, staff, and visitors at LAUSD schools. Exceptions to these requirements can be made, if supported by traffic and/or safety studies and approved by OEHS.

Student Drop-off Areas

a) Whenever feasible, student and bus drop-offs shall be located out of the active traffic flow. Student drop-off areas shall be located off "major streets" (i.e., consisting of four or more active traffic lanes or streets experiencing 500 or more vehicles trips during the AM peak hour.). When a student drop-off area on a "major street" is unavoidable, an interior onsite drop-off area is required. When a student drop-off area is on a "non-major street" a minimum 8-foot wide curb cut out of the active traffic flow is required for the drop-off/pickup of passengers.

b) School access driveways and student drop-off areas shall be separated a minimum distance of 60 feet to minimize the extent to which passenger drop-off/pickup impede the flow of vehicles into and out of school access driveways.

c) When feasible, bus drop-off zones shall not be located along the main school entrance in order to minimize the potential for busses to impede parent drop-off/pickup of students.

d) All student drop-off areas shall be clearly marked and signed.

Vehicle Access

a) "Right Turn Only" controls are required if turning movements have the potential to create safety hazards or traffic congestion. Vehicle access, including driveways, and service roads to the school site shall, where feasible, be aligned with opposing streets to form four way intersections with sufficient traffic controls.

b) School site access ways shall be located and designed in concert with student drop-off areas and the dominant existing traffic flow in the area to promote safe and orderly turning movements and pedestrian crossings.

Pedestrian Routes to School

a) "Safe Routes to School" maps shall be prepared and distributed by the LAUSD or appropriate City entity to parents and students prior to opening of new schools.

b) Pedestrian Safety Studies shall identify the need for sidewalks, bike paths or other measures to ensure separation between pedestrians and vehicles along proposed pedestrian routes. Problematic pedestrian routes such as those intersecting railroads or drainage canals not on school property, shall be identified to the controlling agency or entity and appropriate mitigation measures shall be requested.

c) The traffic and pedestrian safety studies shall identify as necessary, all mitigation measures and safety features (e.g., crosswalks, traffic signals, stop signs, warning signs, and/or crossing guards) along the recommended pedestrian school route.

General Signage

a) All school zone approaches shall have a posted speed limit of 25 MPH.

ATTACHMENT B

OEHS and Colfax Charter Elementary School

Safety Valet Program Information

OEHS

SAFETY VALET PROGRAM

Resources for Parents

HOW DO I GET MY CHILD TO SCHOOL SAFELY?

As a parent, one important daily duty is to travel safely with your child from your home to school. If you are not walking to school, then most likely, you are driving. With so many cars on the road going to the same place, you might ask yourself, "What is LAUSD doing to provide safe passage for students and parents?"

THE SAFETY VALET PROGRAM

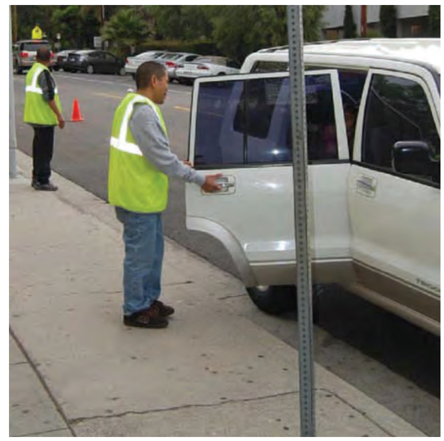
In a nutshell, the program is designed so parents will not have to park or exit their car when dropping off their children in the morning for school. You

don't have to find parking and your child gets to school safely. Sounds great, doesn't it? If your school participates in the program, you probably already know about.

Your principal will provide information to parents with specific directions on how the program is implemented at your school. If your school doesn't participate, talk with your principal about setting up a program. It's easy and the Office of Environmental Health and Safety will assist every school that wants to improve traffic safety through the program.

How does the Safety Valet Program work?

- You pull your car up to the designated drop-off area.
- This area will be demarcated with traffic cones.
- A trained volunteer wearing a highly visible vest will direct you into the valet line.
- You pull up to the front of the line and safely come to a stop.
- Another volunteer will open your car door for your child to exit.
- Your door is closed, your child is escorted onto campus and you are on your way!



SIMPLE , SAFE & A TIMESAVER!

Now that you know about the Safety Valet Program, don't you want to find out how to become a volunteer safety valet?

BECOMING A SCHOOLVOLUNTEER

You can find out everything you need to know about becoming an official school volunteer by contacting your school's main office.

Not only can you volunteer as a safety valet, but you may help out in various ways at your school.

As a volunteer, you have a direct impact on student's lives. What better way is there to present a positive example for your child? Your efforts will help support a safe and healthy school!

The Purpose of Volunteering

School volunteers may assist in classrooms, allowing teachers to give special attention to students needing more help.

Volunteerism strengthens school-community relations by providing opportunities for interested parents be part of vital school programs.

Volunteering will help parents learn more about their school and the District. It broadens students' experiences through interaction with volunteers by providing adult role models to assist the students through tutoring and mentor opportunities. It's the right thing to do!

Contact your school today for more information.

Safety Valet

Resources

Emergency Information

Safety

Safety Valet

School Safe Plan

COLFAX VOICE ARCHIVES

Archives

SBAC TESTING

Student Testing

VALET PROGRAM

PPT, Word, Excel Viewers [Go]

Acrobat Reader [Go]

Bike Safety
3/11/14 7:17 PM - Susana Gomez-Judkins

Pedestrian Routes
3/11/14 5:11 PM - Susana Gomez-Judkins

PEDESTRIAN SAFETY & TRAFFIC CONTROL

Safety Valet is available after 7:40 a.m. Please do not drop off your child(ren) before then.

In collaboration with the Los Angeles Department of Transportation and LAPD, Colfax implements a *safety valet program* to help prevent accidents and keep our children safe. The valet program is operated by dedicated volunteers every morning. We hope the program will help you get off to a more relaxing morning by reducing traffic jams and promoting child safety.

How can you help? Please follow these rules:

1) Please have your child's backpack in his/her hands ready before entering the *safety valet zone*

2) Make eye contact with the volunteer indicating approval for them to open the passenger door

3) The volunteer will open and close the door

4) All children MUST exit the passenger side/curbside ONLY! Please arrange car seats to facilitate this.

5) Drivers may not exit the vehicles

6) Smile and thank our volunteers before you say, "Good-bye, I love you" to your child.

Colfax Parking Lot Valet

Please help us clear traffic off of Colfax Avenue. Do not allow your child to exit the vehicle until you have pulled up to the safety volunteer. You are placing your child in harms way when you allow your child to exit the vehicle unattended. You will also cause traffic to back-up because you did not wait for the person in front of you to exit.

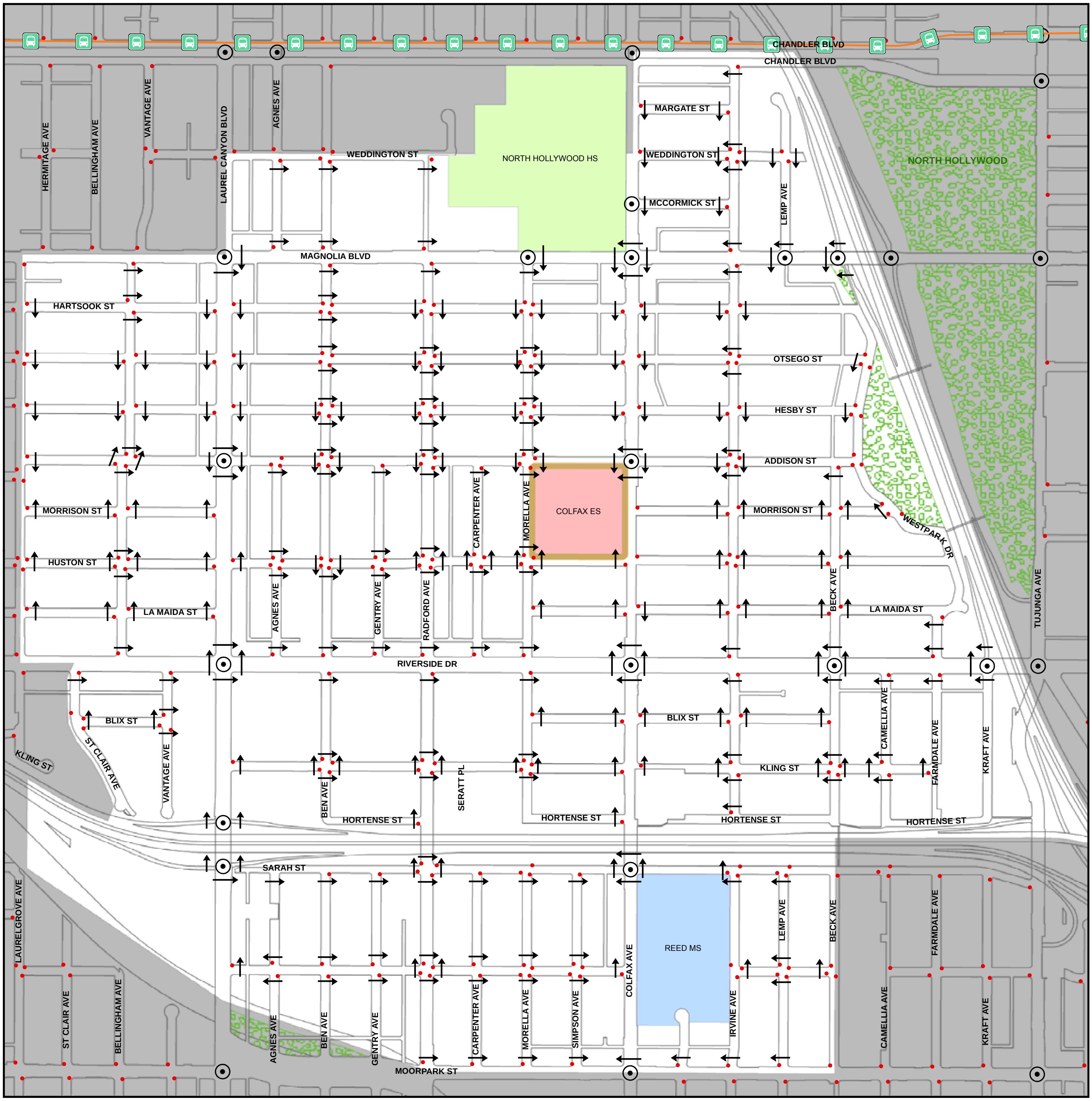
ATTACHMENT C

LADOT Pedestrian Routes for Colfax Avenue Elementary School

CITY OF LOS ANGELES - DEPARTMENT OF TRANSPORTATION

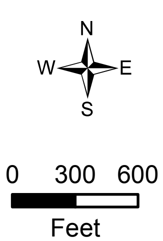
September 2015

PEDESTRIAN ROUTES FOR COLFAX AVENUE ELEMENTARY SCHOOL



Legend

- Recommended Crossing
- Stop Sign
- Traffic Signal
- Crossing Guard
- Flashing Warning Light
- Stairs or Walkway
- Pedestrian Bridge
- Pedestrian Tunnel
- Parks



Parents:

This map shows the recommended crossings to be used from each block in your school attendance area. Following the arrows, select the best route from your home to the school and mark it with a colored pencil or crayon. This is the route your child should take. Instruct your child to use this route and to cross streets only at locations shown. You and your child should become familiar with the route by walking it together. Obey marked crosswalks, stop signs, traffic signals and other traffic controls. Crossing points have been located at these controls wherever possible, even though a longer walk may be necessary. Instruct your child to always look both ways before crossing the street. If no sidewalk exists, your child should walk facing traffic.

Estimados Padres:

Este mapa muestra los cruzados recomendados para los peatones de cada cuadra en la area de su escuela. Siguiendo las flechas en el mapa, selecione la ruta mas segura de su casa a la Escuela y marquelo con un lapis o tiza de color. Esta es la ruta que su hijo (a) debe de usar. Digale a su hijo (a) que use esta ruta y que cruce las calles solamente en los lugares indicados. Usted y su hijo (a) deberian de familiarizarce con esta ruta. Obedezcan los rotulos de peatones, de altos, semaforos y todos los señales de trafico. Puntos para cruzar estan localizados en areas controladas, aunque sea necesario de alargar el tiempo para cruzar. Instruye a su hijo (a) que siempre se fije de los dos lados antes de cruzar la calle. El estudiante debe de siempre caminar en la direccion opuesta del trafico si no existe una banqueta.

APPENDIX C

Memorandum of Understanding

TRAFFIC STUDY - MEMORANDUM OF UNDERSTANDING (MOU)

This MOU acknowledges that the traffic study for the following project will be prepared in accordance with the latest version of LADOT's Traffic Study Policies and Procedures:

Project Name: Colfax Elementary School Classroom Addition Project

Project Address: 11724 Addison Street, North Hollywood, Los Angeles, CA 91607

Project Description: Project consists of the addition of 160 new students for a total of 823 students.

Geographic Distribution: N 20% S 30 % E 20 % W 30 %

Attach graphic illustrating project trip distribution percentages (See Exhibit 1)

Trip Generation Rate(s): ITE 9th Edition / Other ____________

Attach trip generation table with a description of the proposed land uses, ITE rates, estimated morning peak hour volumes (ins/outs/totals) (See Exhibit 2)

	in	out	total
AM Trips	49	45	94
PM Trips			

Project Buildout Year: 2018 Ambient or CMP Growth Rate: 2 % Per Year

Related Projects: (to be researched by the consultant and approved by LADOT)

Subject to Freeway Impact Analysis Screening review: ___YES X NO

Study Intersections
(Subject to LADOT revision after initial impact analysis)

1. Laurel Canyon Boulevard/Magnolia Boulevard	6. Colfax Avenue//Riverside Drive
2. Laurel Canyon Boulevard/Addison Street	
3. Laurel Canyon Boulevard/Riverside Drive	
4. Colfax Avenue/Magnolia Boulevard	
5. Colfax Avenue/Addison Street	

Trip Credits: (Exact amount of credit subject to approval by LADOT)

	Yes	No
Transit Usage		X
Transportation Demand Management		X
Existing Active Land Use		X
Previous Land Use		X
Internal Trip		X
Pass-By Trip		X

	Consultant	Developer/Applicant
Name:	Raju Associates, Inc	LAUSD Facilities Services Dept.
Address:	505 E. Colorado Bl, Suite 202, Pasadena, CA 91101	333 S. Beaudry Ave. 23rd Fl., Los Angeles CA 90017
Phone No.:	(626) 792-2700	(213) 241-4138
E-Mail	srinath.raju@rajuassociates.com	mitra.nehorai@lausd.net

Approved by: [signature] 6/14/16 [signature] 6/13/16

Consultant's Representative Date LADOT Representative Date

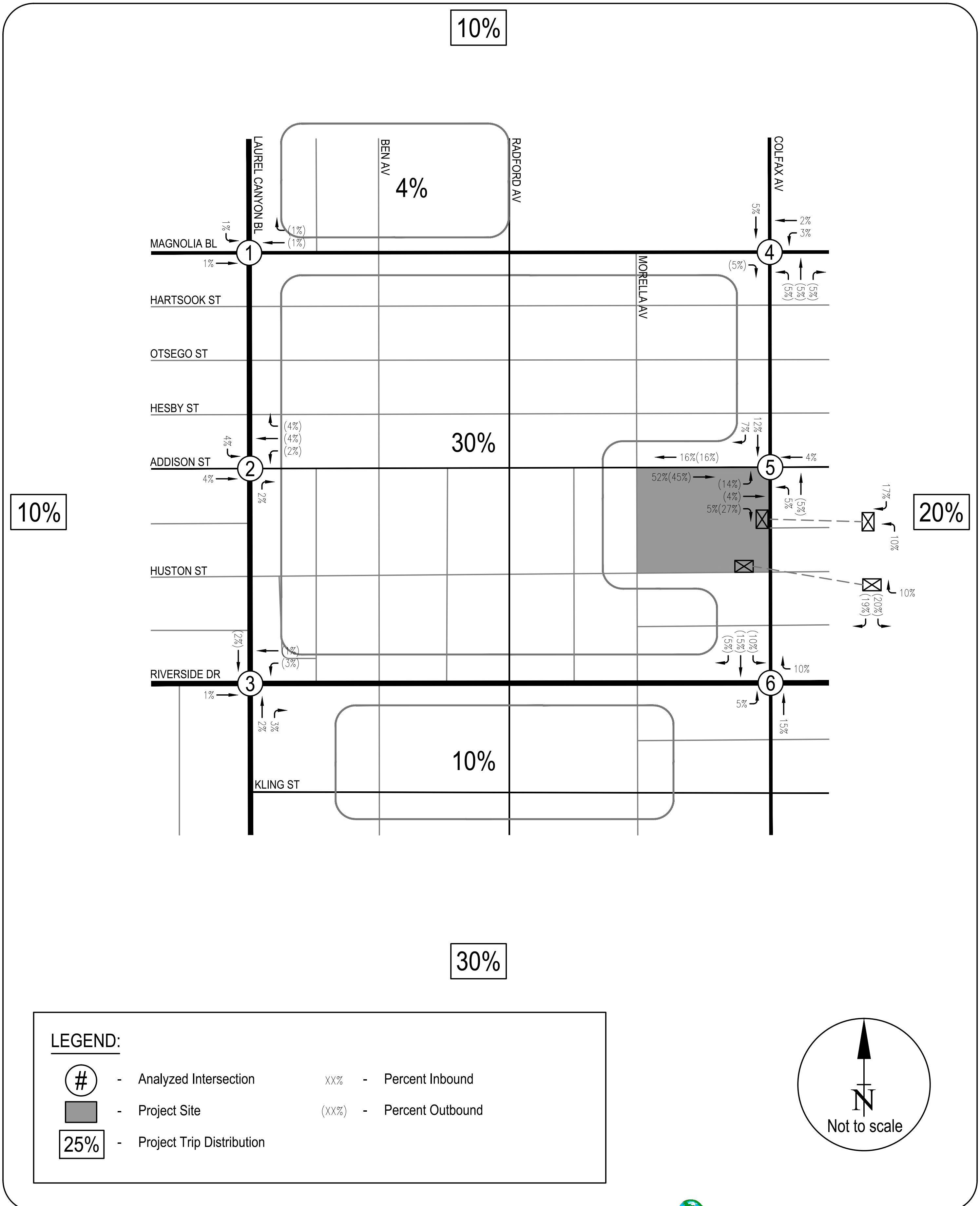


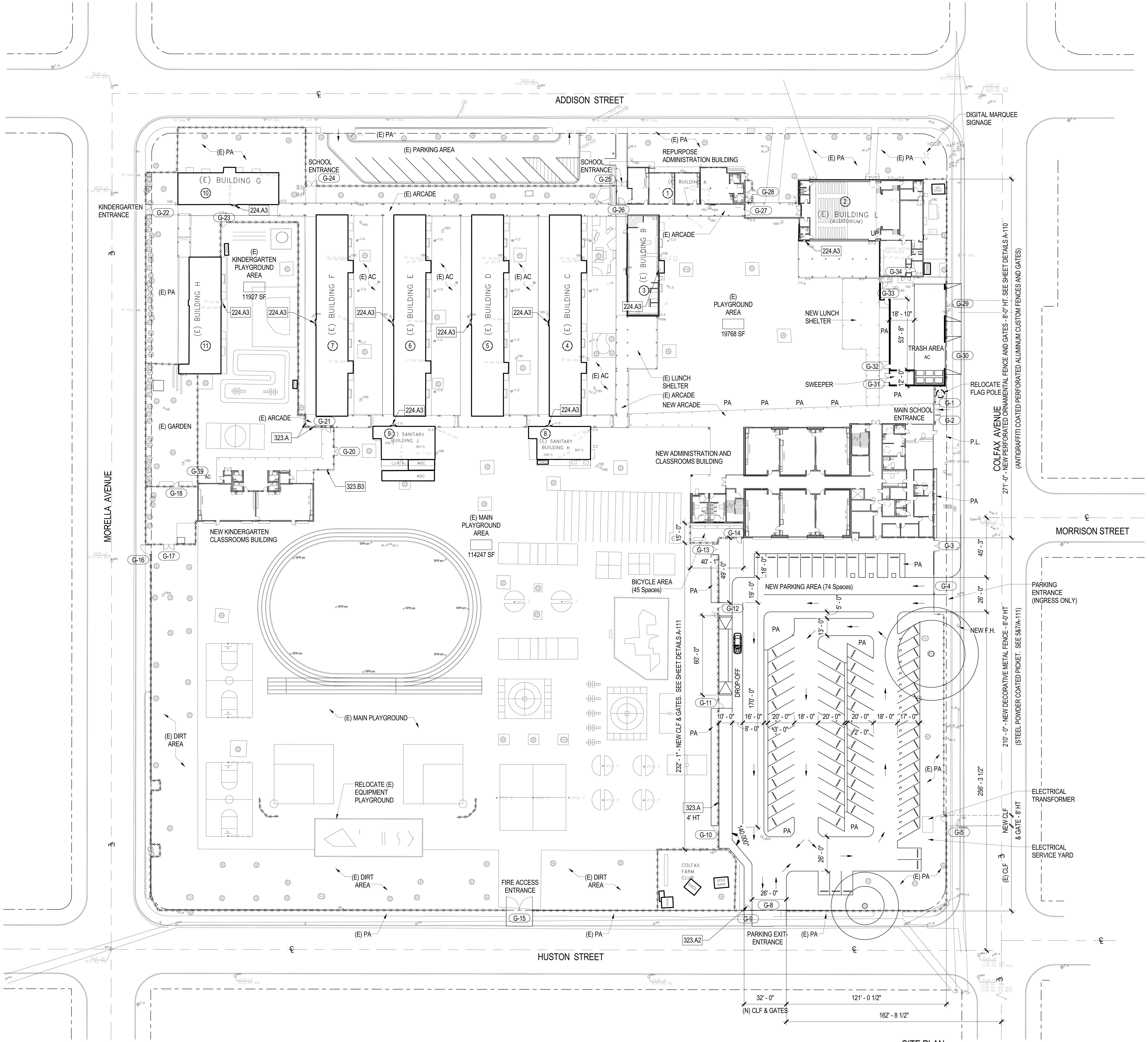
EXHIBIT 1
PROJECT TRIP DISTRIBUTION

RAJU Associates, Inc.

EXHIBIT 2
ESTIMATED PROJECT TRIP GENERATION

	Size	Daily	AM Peak Hour IN	AM Peak Hour OUT	AM Peak Hour TOTAL
Proposed Project					
Elementary School	160 students	206	49	45	94
Trip Rates [1]					
Elementary School	Trips per student	1.29	53%	47%	0.59

[1] Daily trip rates used are from Trip Generation Manual, 9th Edition, ITE 2012. AM peak hour trip rates for the Valley Region were used from the Memorandum of Cooperation Between LAUSD and LADOT, June 2005.



SITE PLAN

SCALE: 1" = 30'-0"

1" = 30'-0"

0 15 30 75

KEYNOTES

224.A3	EXISTING DRINKING FOUNTAIN
323.A	CHAIN LINK FENCES AND GATES
323.A2	CHAIN LINK GATE. SEE 1/A-111
323.B3	PERFORATED ORNAMENTAL FENCES AND GATES. SEE DETAILS ON SHEET A-110

LEGEND

EXISTING PORTABLE STORAGE OR SHED TO BE REMOVED OR RELOCATED

EXISTING TREE TO BE REMOVED

RELOCATE FLAG POLE, NEW FOUNDATION

8" CMU WALL, 6'-0" HIGH PAINTED STEEL GATE

GATE

8' HIGH POWDER COATED 1/8" THICK ALUMINUM PERFORATED SCREEN W/ CUSTOM PATTERN SUPPORTED BY ALUMINUM FRAME 8'-0" HIGH W/ VERTICAL PICKETS (EXCEPT WHERE SCREEN IS SUPPORTED DIRECTLY BY THE CMU WALL)

CHAIN LINK FENCE

NOTES:

1. SEE A-701 FOR GATE SCHEDULE

consultant

project information

job number	2015305
project director	AC
project designer	GB
project architect	
plan check submittal date	
drawn by	Author
checked by	Checker
construction issue date	Issue Date

revision information

no.	date	revision	by

ac martin™ ARCHITECTURE INTERIOR ARCHITECTURE PLANNING RESEARCH
444 South Flower Street, Ste 1200 Los Angeles CA 90071
t /213 683 1900
f /213 614 6002

project

COLFAX CHARTER ELEMENTARY SCHOOL

CLASSROOM ADDITION PROJECT
11724 ADDISON STREET
NORTH HOLLYWOOD, CA 91607

LOS ANGELES UNIFIED SCHOOL DISTRICT · BOARD OF EDUCATION

LAUSD Project # 10366871

sheet title

OVERALL SITE PLAN

DESIGN DEVELOPMENT SUBMITTAL - 04/25/2016

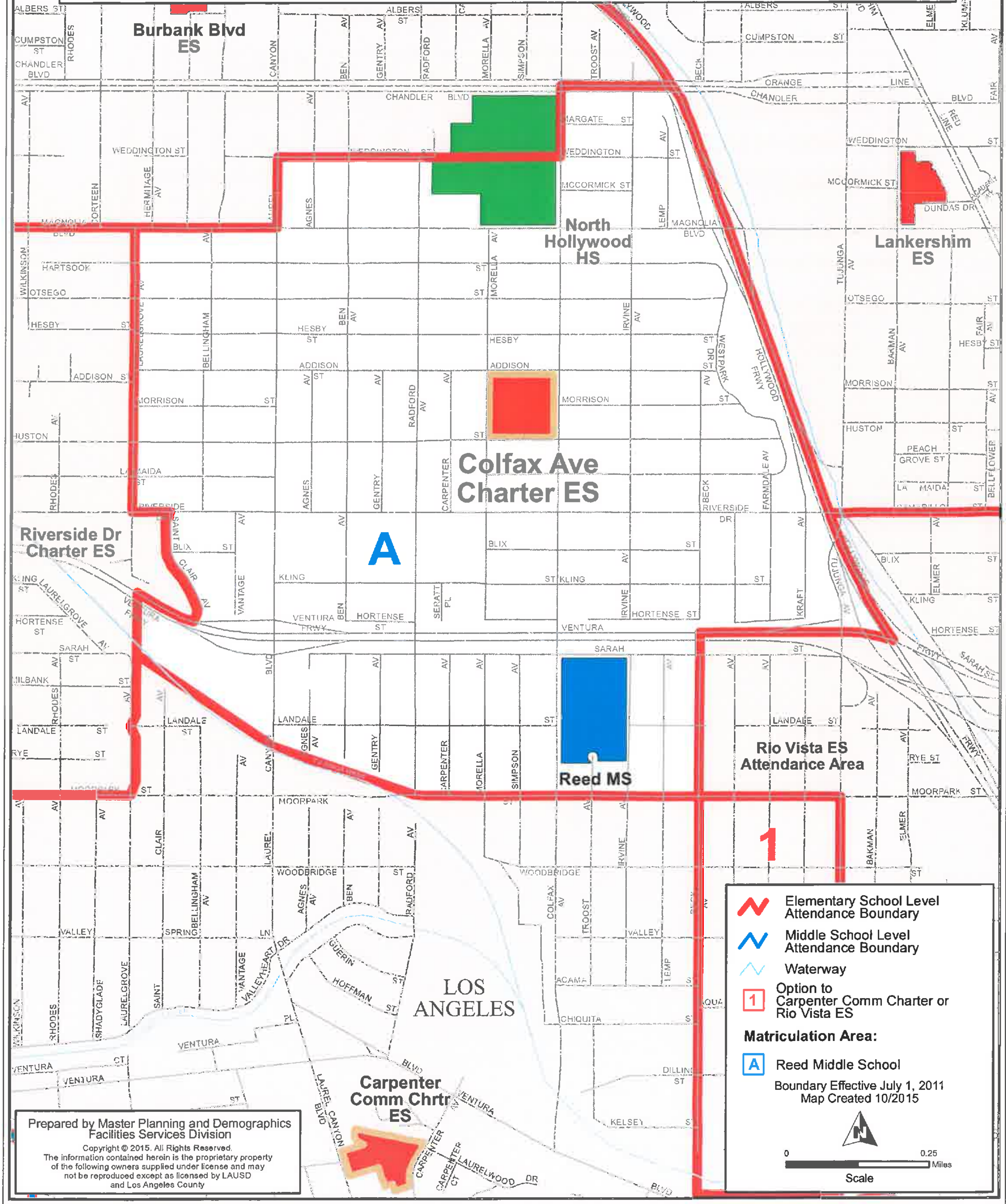
sheet number

A-101

plot date: 6/6/2016 10:22:58 AM

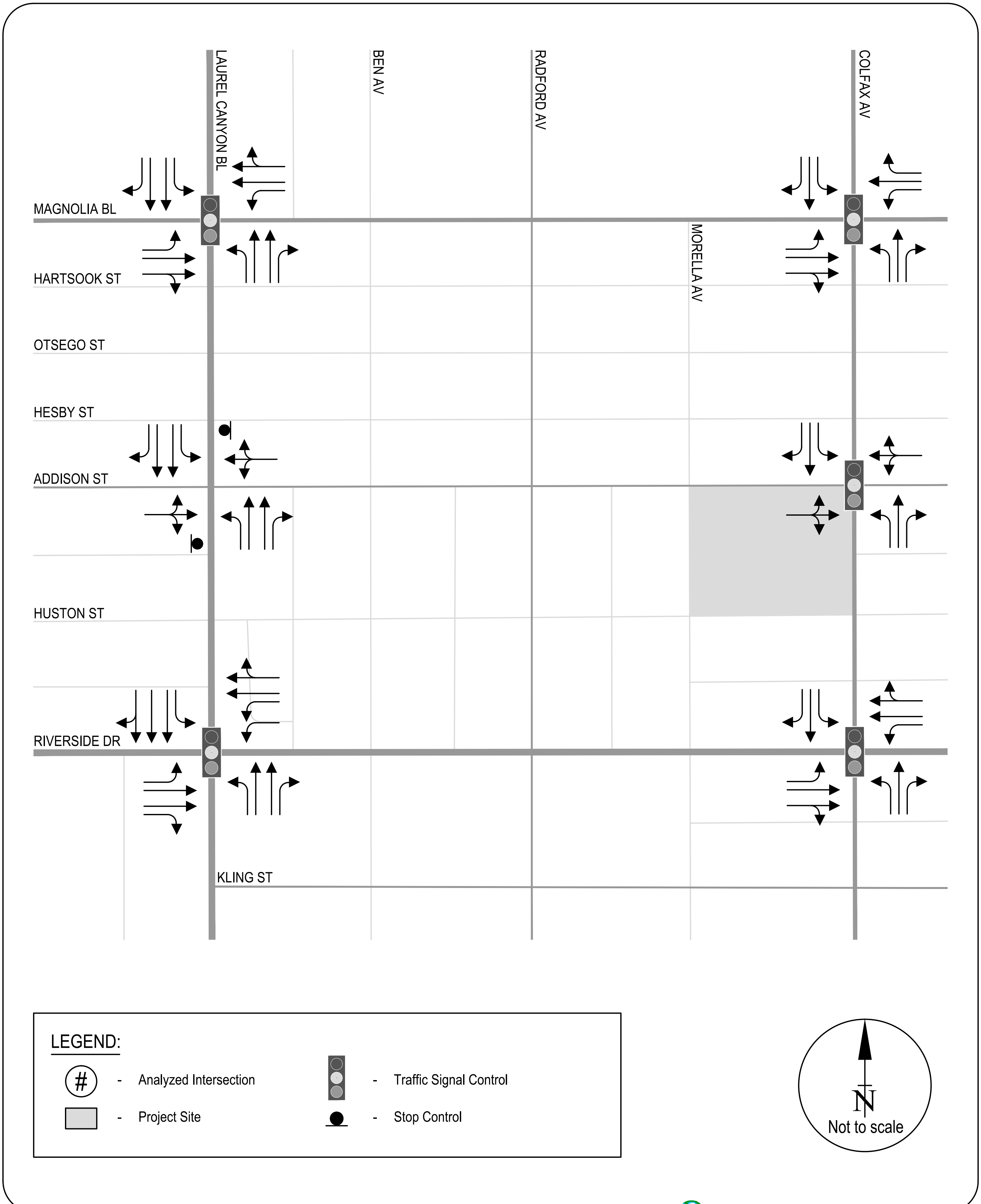
Los Angeles Unified School District

Colfax Avenue Charter Elementary School Attendance Area



APPENDIX D

Intersection Lane Configurations



APPENDIX D
EXISTING INTERSECTION LANE CONFIGURATIONS

RAJU Associates, Inc.

APPENDIX E

Traffic Counts

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE:	LOCATION:	North Hollywood	PROJECT #:	SC0934
Wed, May 4, 16	NORTH & SOUTH:	Laurel Canyon	LOCATION #:	1
	EAST & WEST:	Magnolia	CONTROL:	SIGNAL

NOTES:

AM / PM / MD / OTHER / OTHER

N ▲ ◄ W E ► S ▼

		NORTHBOUND Laurel Canyon			SOUTHBOUND Laurel Canyon			EASTBOUND Magnolia			WESTBOUND Magnolia			
		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	LANES:	1	3	0	1	3	0	1	1	0	1	2	0	
AM	6:30 AM	6	51	7	20	349	6	3	61	28	25	38	9	603
	6:45 AM	6	54	10	20	356	16	5	86	32	40	57	6	688
	7:00 AM	7	88	16	33	354	13	12	122	39	24	78	14	800
	7:15 AM	6	114	13	41	334	10	13	152	52	32	117	33	917
	7:30 AM	11	149	16	47	307	6	16	197	70	23	141	45	1,028
	7:45 AM	21	233	23	39	336	11	19	198	89	17	138	34	1,158
	8:00 AM	25	216	21	37	311	20	16	172	78	27	149	26	1,098
	8:15 AM	16	157	26	30	333	17	12	199	59	27	150	14	1,040
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	98	1,062	132	267	2,680	99	96	1,187	447	215	868	181	7,332
	APPROACH %	8%	82%	10%	9%	88%	3%	6%	69%	26%	17%	69%	14%	
	APP/DEPART	1,292	/	1,339	3,046	/	3,342	1,730	/	1,586	1,264	/	1,065	0
	BEGIN PEAK HR		7:30 AM											
	VOLUMES	73	755	86	153	1,287	54	63	766	296	94	578	119	4,324
	APPROACH %	8%	83%	9%	10%	86%	4%	6%	68%	26%	12%	73%	15%	
	PEAK HR FACTOR		0.825			0.968			0.919			0.946		0.934
	APP/DEPART	914	/	937	1,494	/	1,677	1,125	/	1,005	791	/	705	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
	BEGIN PEAK HR		3:00 PM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0

Laurel Canyon

NORTH SIDE

Magnolia WEST SIDE

EAST SIDE **Magnolia**

SOUTH SIDE

Laurel Canyon

City Of Los Angeles
Department Of Transportation
MANUAL TRAFFIC COUNT SUMMARY

STREET:
North / Sounth: Laurel Canyon

East/West: Magnolia

Day: Wednesday Date: May 4, 2016 Weather: Sunny

Hours:

School Day: Yes District I/S CODE

	N/B	S/B	E/B	W/B
DUAL-WHEELED	59	283	76	60
BIKES	6	5	5	2
BUSES	10	16	10	16

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
AM PK 15 MIN	277	7:45:00 AM	400	7:00:00 AM	306	7:45:00 AM	209	7:30:00 AM
PM PK 15 MIN	0	5:45:00 PM	400	7:00:00 AM	306	7:45:00 AM	209	7:30:00 AM
AM PK HOUR	914	7:30:00 AM	1552	6:30:00 AM	1125	7:30:00 AM	791	7:30:00 AM
PM PK HOUR	0	5:45:00 PM	0	5:45:00 PM	0	5:45:00 PM	0	5:45:00 PM

NORTHBOUND Approach

Hours	Lt	Th	Rt	Total
6:30-7:30	25	307	46	378
7:30-8:30	73	755	86	914
8:30-9:30	0	0	0	0
3-4	0	0	0	0
4-5	0	0	0	0
5-6	0	0	0	0
TOTAL	98	1062	132	1292

SOUTHBOUND Approach

Hours	Lt	Th	Rt	Total
6:30-7:30	114	1393	45	1552
7:30-8:30	164	1621	54	1839
8:30-9:30	0	0	0	0
3-4	0	0	0	0
4-5	0	0	0	0
5-6	0	0	0	0
TOTAL	278	3014	99	3391

	TOTAL	XING S/L		XING N/L	
Hours	N-S	Ped	Sch	Ped	Sch
6:30-7:30	1930	2	1	17	1
7:30-8:30	2753	17	2	28	0
8:30-9:30	0	0	0	0	0
3-4	0	0	0	0	0
4-5	0	0	0	0	0
5-6	0	0	0	0	0
TOTAL	4683	19	3	45	1

EASTBOUND Approach

Hours	Lt	Th	Rt	Total
6:30-7:30	33	421	151	605
7:30-8:30	63	1188	296	1547
8:30-9:30	0	0	0	0
3-4	0	0	0	0
4-5	0	0	0	0
5-6	0	0	0	0
TOTAL	96	1609	447	2152

WESTBOUND Approach

Hours	Lt	Th	Rt	Total
6:30-7:30	121	290	62	473
7:30-8:30	94	578	119	791
8:30-9:30	0	0	0	0
3-4	0	0	0	0
4-5	0	0	0	0
5-6	0	0	0	0
TOTAL	215	868	181	1264

	TOTAL	XING W/L		XING E/L	
Hours	E-W	Ped	Sch	Ped	Sch
6:30-7:30	1078	6	2	8	1
7:30-8:30	2338	20	0	9	0
8:30-9:30	0	0	0	0	0
3-4	0	0	0	0	0
4-5	0	0	0	0	0
5-6	0	0	0	0	0
TOTAL	3416	26	2	17	1

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE:	LOCATION:	North Hollywood	PROJECT #:	SC0934
Wed, May 18, 16	NORTH & SOUTH:	Laurel Canyon	LOCATION #:	7
	EAST & WEST:	Addison	CONTROL:	SIGNAL

NOTES:

AM
PM
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OTHER
OTHER

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		NORTHBOUND Laurel Canyon			SOUTHBOUND Laurel Canyon			EASTBOUND Addison			WESTBOUND Addison			
		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	LANES:	1	2	0	1	2	0	0	1	0	0	1	0	
AM	6:30 AM	1	70	1	4	425	1	0	0	5	1	0	1	509
AM	6:45 AM	1	78	1	0	409	0	0	0	4	5	0	2	500
AM	7:00 AM	3	99	3	6	458	2	1	1	2	7	0	0	582
AM	7:15 AM	2	133	2	5	419	5	1	1	7	4	2	3	584
AM	7:30 AM	5	195	4	16	403	3	8	8	6	7	2	6	663
AM	7:45 AM	3	221	5	14	405	4	9	17	4	5	3	12	702
AM	8:00 AM	5	232	3	15	387	4	6	9	7	8	9	5	690
AM	8:15 AM	2	201	3	11	374	2	9	6	7	8	6	7	636
AM	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
AM	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
AM	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
AM	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
AM	VOLUMES	22	1,229	22	71	3,280	21	34	42	42	45	22	36	4,866
AM	APPROACH %	2%	97%	2%	2%	97%	1%	29%	36%	36%	44%	21%	35%	
AM	APP/DEPART	1,273	/	1,299	3,372	/	3,369	118	/	135	103	/	63	0
AM	BEGIN PEAK HR		7:30 AM											
AM	VOLUMES	15	849	15	56	1,569	13	32	40	24	28	20	30	2,691
AM	APPROACH %	2%	97%	2%	3%	96%	1%	33%	42%	25%	36%	26%	38%	
AM	PEAK HR FACTOR		0.916			0.968			0.800			0.886		0.958
AM	APP/DEPART	879	/	911	1,638	/	1,622	96	/	111	78	/	47	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
PM	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
PM	BEGIN PEAK HR		3:00 PM											
PM	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
PM	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
PM	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0

Laurel Canyon

NORTH SIDE

Addison WEST SIDE EAST SIDE **Addison**

SOUTH SIDE

Laurel Canyon

City Of Los Angeles
Department Of Transportation
MANUAL TRAFFIC COUNT SUMMARY

STREET:
North / Sounth: Laurel Canyon

East/West: Addison

Day: Wednesday   Date: May 18, 2016   Weather: Sunny

Hours:

School Day: Yes   District   I/S CODE

	N/B	S/B	E/B	W/B
DUAL-WHEELED	64	283	0	3
BIKES	3	7	0	0
BUSES	13	20	0	0

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
AM PK 15 MIN	240	8:00:00 AM	466	7:00:00 AM	30	7:45:00 AM	22	8:00:00 AM
PM PK 15 MIN	0	5:45:00 PM	466	7:00:00 AM	30	7:45:00 AM	22	8:00:00 AM
AM PK HOUR	879	7:30:00 AM	1740	7:00:00 AM	96	7:30:00 AM	78	7:30:00 AM
PM PK HOUR	0	5:45:00 PM	0	5:45:00 PM	0	5:45:00 PM	0	5:45:00 PM

NORTHBOUND Approach

Hours	Lt	Th	Rt	Total
6:30-7:30	7	380	7	394
7:30-8:30	15	849	15	879
8:30-9:30	0	0	0	0
3-4	0	0	0	0
4-5	0	0	0	0
5-6	0	0	0	0
TOTAL	22	1229	22	1273

SOUTHBOUND Approach

Hours	Lt	Th	Rt	Total
6:30-7:30	15	1711	8	1734
7:30-8:30	50	1988	13	2051
8:30-9:30	0	0	0	0
3-4	0	0	0	0
4-5	0	0	0	0
5-6	0	0	0	0
TOTAL	65	3699	21	3785

	TOTAL	XING S/L		XING N/L	
Hours	N-S	Ped	Sch	Ped	Sch
6:30-7:30	2128	0	0	1	0
7:30-8:30	2930	4	2	6	0
8:30-9:30	0	0	0	0	0
3-4	0	0	0	0	0
4-5	0	0	0	0	0
5-6	0	0	0	0	0
TOTAL	5058	4	2	7	0

EASTBOUND Approach

Hours	Lt	Th	Rt	Total
6:30-7:30	2	2	18	22
7:30-8:30	32	43	24	99
8:30-9:30	0	0	0	0
3-4	0	0	0	0
4-5	0	0	0	0
5-6	0	0	0	0
TOTAL	34	45	42	121

WESTBOUND Approach

Hours	Lt	Th	Rt	Total
6:30-7:30	17	2	6	25
7:30-8:30	28	20	30	78
8:30-9:30	0	0	0	0
3-4	0	0	0	0
4-5	0	0	0	0
5-6	0	0	0	0
TOTAL	45	22	36	103

	TOTAL	XING W/L		XING E/L	
Hours	E-W	Ped	Sch	Ped	Sch
6:30-7:30	47	6	0	6	0
7:30-8:30	177	9	0	3	0
8:30-9:30	0	0	0	0	0
3-4	0	0	0	0	0
4-5	0	0	0	0	0
5-6	0	0	0	0	0
TOTAL	224	15	0	9	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE:	LOCATION:	North Hollywood	PROJECT #:	SC0934
Wed, May 4, 16	NORTH & SOUTH:	Laurel Canyon	LOCATION #:	2
	EAST & WEST:	Riverside	CONTROL:	SIGNAL

NOTES:

AM PM MD OTHER OTHER

N ▲ ◄ W E ► S ▼

		NORTHBOUND Laurel Canyon			SOUTHBOUND Laurel Canyon			EASTBOUND Riverside			WESTBOUND Riverside			
		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	LANES:	1	2	1	1	3	0	1	3	0	2	2	0	
AM	6:30 AM	8	59	9	13	386	14	5	33	13	34	32	5	611
AM	6:45 AM	21	84	16	22	375	10	11	51	15	54	67	8	734
AM	7:00 AM	17	91	14	16	374	21	13	82	40	64	83	13	828
AM	7:15 AM	53	145	20	32	471	24	21	148	72	79	156	18	1,239
AM	7:30 AM	88	133	17	40	337	16	23	158	72	42	201	21	1,148
AM	7:45 AM	80	202	16	48	311	24	57	207	80	75	219	18	1,337
AM	8:00 AM	57	169	17	32	333	12	51	235	94	82	209	19	1,310
AM	8:15 AM	67	143	21	20	323	22	46	208	126	78	170	12	1,236
AM	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
AM	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
AM	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
AM	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
AM	VOLUMES	391	1,026	130	223	2,910	143	227	1,122	512	508	1,137	114	8,443
AM	APPROACH %	25%	66%	8%	7%	89%	4%	12%	60%	28%	29%	65%	6%	
AM	APP/DEPART	1,547	/	1,367	3,276	/	3,931	1,861	/	1,475	1,759	/	1,670	0
AM	BEGIN PEAK HR		7:15 AM											
AM	VOLUMES	278	649	70	152	1,452	76	152	748	318	278	785	76	5,034
AM	APPROACH %	28%	65%	7%	9%	86%	5%	12%	61%	26%	24%	69%	7%	
AM	PEAK HR FACTOR		0.836			0.797			0.801			0.913		0.941
AM	APP/DEPART	997	/	877	1,680	/	2,048	1,218	/	970	1,139	/	1,139	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
PM	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
PM	BEGIN PEAK HR		3:00 PM											
PM	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
PM	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
PM	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0

Laurel Canyon

NORTH SIDE

Riverside WEST SIDE EAST SIDE **Riverside**

SOUTH SIDE

Laurel Canyon

City Of Los Angeles
Department Of Transportation
MANUAL TRAFFIC COUNT SUMMARY

STREET:
North / South: Laurel Canyon

East/West: Riverside

Day: Wednesday | Date: May 4, 2016 | Weather: Sunny

Hours:

School Day: Yes | District | I/S CODE

	N/B	S/B	E/B	W/B
DUAL-WHEELED	79	294	64	44
BIKES	1	7	3	2
BUSES	19	21	11	12

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
AM PK 15 MIN	298	7:45:00 AM	527	7:15:00 AM	380	8:15:00 AM	312	7:45:00 AM
PM PK 15 MIN	0	5:45:00 PM	527	7:15:00 AM	380	8:15:00 AM	312	7:45:00 AM
AM PK HOUR	1010	7:30:00 AM	1758	6:30:00 AM	1357	7:30:00 AM	1146	7:30:00 AM
PM PK HOUR	0	5:45:00 PM	0	5:45:00 PM	0	5:45:00 PM	0	5:45:00 PM

NORTHBOUND Approach

Hours	Lt	Th	Rt	Total
6:30-7:30	99	379	59	537
7:30-8:30	292	647	71	1010
8:30-9:30	0	0	0	0
3-4	0	0	0	0
4-5	0	0	0	0
5-6	0	0	0	0
TOTAL	391	1026	130	1547

SOUTHBOUND Approach

Hours	Lt	Th	Rt	Total
6:30-7:30	83	1606	69	1758
7:30-8:30	152	1775	74	2001
8:30-9:30	0	0	0	0
3-4	0	0	0	0
4-5	0	0	0	0
5-6	0	0	0	0
TOTAL	235	3381	143	3759

Hours	TOTAL N-S	XING S/L Ped	XING S/L Sch	XING N/L Ped	XING N/L Sch
6:30-7:30	2295	23	0	11	0
7:30-8:30	3011	18	0	25	0
8:30-9:30	0	0	0	0	0
3-4	0	0	0	0	0
4-5	0	0	0	0	0
5-6	0	0	0	0	0
TOTAL	5306	41	0	36	0

EASTBOUND Approach

Hours	Lt	Th	Rt	Total
6:30-7:30	50	314	140	504
7:30-8:30	177	1125	372	1674
8:30-9:30	0	0	0	0
3-4	0	0	0	0
4-5	0	0	0	0
5-6	0	0	0	0
TOTAL	227	1439	512	2178

WESTBOUND Approach

Hours	Lt	Th	Rt	Total
6:30-7:30	231	338	44	613
7:30-8:30	277	799	70	1146
8:30-9:30	0	0	0	0
3-4	0	0	0	0
4-5	0	0	0	0
5-6	0	0	0	0
TOTAL	508	1137	114	1759

Hours	TOTAL E-W	XING W/L Ped	XING W/L Sch	XING E/L Ped	XING E/L Sch
6:30-7:30	1117	10	0	14	0
7:30-8:30	2820	17	0	13	0
8:30-9:30	0	0	0	0	0
3-4	0	0	0	0	0
4-5	0	0	0	0	0
5-6	0	0	0	0	0
TOTAL	3937	27	0	27	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE:	LOCATION:	North Hollywood	PROJECT #:	SC0934
Wed, May 4, 16	NORTH & SOUTH:	Colfax	LOCATION #:	3
	EAST & WEST:	Magnolia	CONTROL:	SIGNAL

NOTES:

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PM
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OTHER

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		NORTHBOUND Colfax			SOUTHBOUND Colfax			EASTBOUND Magnolia			WESTBOUND Magnolia			
		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	LANES:	1	2	0	1	2	0	1	2	0	1	1	1	
AM	6:30 AM	10	17	13	18	110	22	6	73	9	22	51	2	353
AM	6:45 AM	19	20	8	16	119	30	12	115	27	27	86	7	486
AM	7:00 AM	13	25	19	40	110	20	4	137	15	28	86	17	514
AM	7:15 AM	15	40	23	31	117	43	9	194	27	25	136	16	676
AM	7:30 AM	13	84	35	24	119	50	8	188	36	33	156	25	771
AM	7:45 AM	21	85	52	27	107	47	12	201	42	32	177	42	845
AM	8:00 AM	22	90	56	22	104	37	11	213	31	32	161	20	799
AM	8:15 AM	20	85	46	18	114	18	12	197	53	36	166	16	781
AM	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
AM	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
AM	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
AM	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
AM	VOLUMES	133	446	252	196	900	267	74	1,318	240	235	1,019	145	5,225
AM	APPROACH %	16%	54%	30%	14%	66%	20%	5%	81%	15%	17%	73%	10%	
AM	APP/DEPART	831	/	665	1,363	/	1,375	1,632	/	1,766	1,399	/	1,419	0
AM	BEGIN PEAK HR		7:30 AM											
AM	VOLUMES	76	344	189	91	444	152	43	799	162	133	660	103	3,196
AM	APPROACH %	12%	56%	31%	13%	65%	22%	4%	80%	16%	15%	74%	11%	
AM	PEAK HR FACTOR		0.906			0.890			0.958			0.892		0.946
AM	APP/DEPART	609	/	490	687	/	739	1,004	/	1,079	896	/	888	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
PM	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
PM	BEGIN PEAK HR		3:00 PM											
PM	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
PM	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
PM	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0

Colfax

NORTH SIDE

Magnolia WEST SIDE

EAST SIDE **Magnolia**

SOUTH SIDE

Colfax

City Of Los Angeles
Department Of Transportation
MANUAL TRAFFIC COUNT SUMMARY

STREET:
North / South: Colfax

East/West: Magnolia

Day: Wednesday | Date: May 4, 2016 | Weather: Sunny

Hours:

School Day: Yes | District | I/S CODE

	N/B	S/B	E/B	W/B
DUAL-WHEELED	12	56	89	85
BIKES	6	6	2	8
BUSES	6	29	14	16

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
AM PK 15 MIN	168	8:00:00 AM	193	7:30:00 AM	262	8:15:00 AM	251	7:45:00 AM
PM PK 15 MIN	0	5:45:00 PM	193	7:30:00 AM	262	8:15:00 AM	251	7:45:00 AM
AM PK HOUR	609	7:30:00 AM	735	7:00:00 AM	1004	7:30:00 AM	896	7:30:00 AM
PM PK HOUR	0	5:45:00 PM	0	5:45:00 PM	0	5:45:00 PM	0	5:45:00 PM

NORTHBOUND Approach

Hours	Lt	Th	Rt	Total
6:30-7:30	57	102	63	222
7:30-8:30	76	344	189	609
8:30-9:30	0	0	0	0
3-4	0	0	0	0
4-5	0	0	0	0
5-6	0	0	0	0
TOTAL	133	446	252	831

SOUTHBOUND Approach

Hours	Lt	Th	Rt	Total
6:30-7:30	105	456	115	676
7:30-8:30	104	561	152	817
8:30-9:30	0	0	0	0
3-4	0	0	0	0
4-5	0	0	0	0
5-6	0	0	0	0
TOTAL	209	1017	267	1493

	TOTAL	XING S/L		XING N/L	
Hours	N-S	Ped	Sch	Ped	Sch
6:30-7:30	898	25	1	93	0
7:30-8:30	1426	160	0	316	0
8:30-9:30	0	0	0	0	0
3-4	0	0	0	0	0
4-5	0	0	0	0	0
5-6	0	0	0	0	0
TOTAL	2324	185	1	409	0

EASTBOUND Approach

Hours	Lt	Th	Rt	Total
6:30-7:30	31	519	78	628
7:30-8:30	43	1320	162	1525
8:30-9:30	0	0	0	0
3-4	0	0	0	0
4-5	0	0	0	0
5-6	0	0	0	0
TOTAL	74	1839	240	2153

WESTBOUND Approach

Hours	Lt	Th	Rt	Total
6:30-7:30	102	359	42	503
7:30-8:30	133	660	103	896
8:30-9:30	0	0	0	0
3-4	0	0	0	0
4-5	0	0	0	0
5-6	0	0	0	0
TOTAL	235	1019	145	1399

	TOTAL	XING W/L		XING E/L	
Hours	E-W	Ped	Sch	Ped	Sch
6:30-7:30	1131	67	0	36	0
7:30-8:30	2421	240	1	169	0
8:30-9:30	0	0	0	0	0
3-4	0	0	0	0	0
4-5	0	0	0	0	0
5-6	0	0	0	0	0
TOTAL	3552	307	1	205	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE:	LOCATION:	North Hollywood	PROJECT #:	SC0934
Wed, May 4, 16	NORTH & SOUTH:	Colfax	LOCATION #:	4
	EAST & WEST:	Addison	CONTROL:	SIGNAL

NOTES:

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		NORTHBOUND Colfax			SOUTHBOUND Colfax			EASTBOUND Addison			WESTBOUND Addison			
		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	LANES:	1	2	0	1	2	0	0	1	0	0	1	0	
AM	6:30 AM	0	35	3	1	134	2	0	0	3	1	0	1	180
AM	6:45 AM	2	55	14	9	179	0	1	0	5	2	1	1	269
AM	7:00 AM	1	49	3	3	143	1	1	0	4	3	0	0	208
AM	7:15 AM	3	86	0	3	181	3	2	0	5	2	4	1	290
AM	7:30 AM	2	137	0	1	188	0	3	0	10	12	2	3	358
AM	7:45 AM	8	141	3	2	179	7	11	4	31	9	6	4	405
AM	8:00 AM	4	137	6	5	173	11	27	15	37	17	6	12	450
AM	8:15 AM	2	123	10	2	202	6	9	3	16	6	1	8	388
AM	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
AM	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
AM	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
AM	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
AM	VOLUMES	22	763	39	26	1,379	30	54	22	111	52	20	30	2,548
AM	APPROACH %	3%	93%	5%	2%	96%	2%	29%	12%	59%	51%	20%	29%	
AM	APP/DEPART	824	/	848	1,435	/	1,542	187	/	86	102	/	72	0
AM	BEGIN PEAK HR		7:30 AM											
AM	VOLUMES	16	538	19	10	742	24	50	22	94	44	15	27	1,601
AM	APPROACH %	3%	94%	3%	1%	96%	3%	30%	13%	57%	51%	17%	31%	
AM	PEAK HR FACTOR		0.942			0.924			0.525			0.614		0.889
AM	APP/DEPART	573	/	615	776	/	880	166	/	51	86	/	55	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
PM	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
PM	BEGIN PEAK HR		3:00 PM											
PM	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
PM	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
PM	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0

Colfax

NORTH SIDE

Addison WEST SIDE EAST SIDE **Addison**

SOUTH SIDE

Colfax

City Of Los Angeles

Department Of Transportation

MANUAL TRAFFIC COUNT SUMMARY

STREET:

North / Sounth: Colfax

East/West: Addison

Day: Wednesday   Date: May 4, 2016   Weather: Sunny

Hours:

School Day: Yes   District   I/S CODE

	N/B	S/B	E/B	W/B
DUAL-WHEELED	11	63	0	1
BIKES	8	11	2	1
BUSES	0	24	4	0

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
AM PK 15 MIN	152	7:45:00 AM	210	8:15:00 AM	79	8:00:00 AM	35	8:00:00 AM
PM PK 15 MIN	0	5:45:00 PM	210	8:15:00 AM	79	8:00:00 AM	35	8:00:00 AM
AM PK HOUR	573	7:30:00 AM	776	7:30:00 AM	166	7:30:00 AM	86	7:30:00 AM
PM PK HOUR	0	5:45:00 PM	0	5:45:00 PM	0	5:45:00 PM	0	5:45:00 PM

NORTHBOUND Approach

Hours	Lt	Th	Rt	Total
6:30-7:30	6	225	20	251
7:30-8:30	16	538	19	573
8:30-9:30	0	0	0	0
3-4	0	0	0	0
4-5	0	0	0	0
5-6	0	0	0	0
TOTAL	22	763	39	824

SOUTHBOUND Approach

Hours	Lt	Th	Rt	Total
6:30-7:30	16	637	6	659
7:30-8:30	11	923	24	958
8:30-9:30	0	0	0	0
3-4	0	0	0	0
4-5	0	0	0	0
5-6	0	0	0	0
TOTAL	27	1560	30	1617

Hours	TOTAL N-S	XING S/L Ped	XING S/L Sch	XING N/L Ped	XING N/L Sch
6:30-7:30	910	3	0	1	0
7:30-8:30	1531	75	32	17	4
8:30-9:30	0	0	0	0	0
3-4	0	0	0	0	0
4-5	0	0	0	0	0
5-6	0	0	0	0	0
TOTAL	2441	78	32	18	4

EASTBOUND Approach

Hours	Lt	Th	Rt	Total
6:30-7:30	4	0	17	21
7:30-8:30	50	23	94	167
8:30-9:30	0	0	0	0
3-4	0	0	0	0
4-5	0	0	0	0
5-6	0	0	0	0
TOTAL	54	23	111	188

WESTBOUND Approach

Hours	Lt	Th	Rt	Total
6:30-7:30	8	5	3	16
7:30-8:30	44	15	27	86
8:30-9:30	0	0	0	0
3-4	0	0	0	0
4-5	0	0	0	0
5-6	0	0	0	0
TOTAL	52	20	30	102

Hours	TOTAL E-W	XING W/L Ped	XING W/L Sch	XING E/L Ped	XING E/L Sch
6:30-7:30	37	10	0	5	0
7:30-8:30	253	45	20	17	5
8:30-9:30	0	0	0	0	0
3-4	0	0	0	0	0
4-5	0	0	0	0	0
5-6	0	0	0	0	0
TOTAL	290	55	20	22	5

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 pacific@aimtd.com

DATE:	LOCATION:	North Hollywood	PROJECT #:	SC0934
Wed, May 4, 16	NORTH & SOUTH:	Colfax	LOCATION #:	6
	EAST & WEST:	Riverside	CONTROL:	SIGNAL

NOTES:

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		NORTHBOUND Colfax			SOUTHBOUND Colfax			EASTBOUND Riverside			WESTBOUND Riverside			
		NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	LANES:	1	2	0	1	2	0	1	2	0	1	2	0	
AM	6:30 AM	3	24	3	10	108	23	13	38	13	19	46	3	303
AM	6:45 AM	7	48	11	8	141	32	22	66	24	19	75	5	458
AM	7:00 AM	21	40	8	8	124	25	8	95	24	16	82	4	455
AM	7:15 AM	19	73	11	7	154	22	21	113	34	29	154	2	639
AM	7:30 AM	31	129	26	14	168	29	26	137	60	37	186	10	853
AM	7:45 AM	29	143	38	24	157	44	31	171	67	31	243	22	1,000
AM	8:00 AM	27	103	16	31	147	53	46	180	63	40	208	16	930
AM	8:15 AM	23	76	8	20	166	35	35	180	55	42	187	6	833
AM	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
AM	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
AM	9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
AM	9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
AM	VOLUMES	160	636	121	122	1,165	263	202	980	340	233	1,181	68	5,471
AM	APPROACH %	17%	69%	13%	8%	75%	17%	13%	64%	22%	16%	80%	5%	
AM	APP/DEPART	917	/	906	1,550	/	1,738	1,522	/	1,223	1,482	/	1,604	0
AM	BEGIN PEAK HR		7:30 AM											
AM	VOLUMES	110	451	88	89	638	161	138	668	245	150	824	54	3,616
AM	APPROACH %	17%	69%	14%	10%	72%	18%	13%	64%	23%	15%	80%	5%	
AM	PEAK HR FACTOR		0.773			0.961			0.909			0.868		0.904
AM	APP/DEPART	649	/	643	888	/	1,033	1,051	/	845	1,028	/	1,095	0
PM	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
PM	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
PM	BEGIN PEAK HR		3:00 PM											
PM	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
PM	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
PM	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0

Colfax

NORTH SIDE

Riverside WEST SIDE

EAST SIDE **Riverside**

SOUTH SIDE

Colfax

City Of Los Angeles

Department Of Transportation

MANUAL TRAFFIC COUNT SUMMARY

STREET:
North / Sounth: Colfax

East/West: Riverside

Day: Wednesday   Date: May 4, 2016   Weather: Sunny

Hours:

School Day: Yes   District   I/S CODE

	N/B	S/B	E/B	W/B
DUAL-WHEELED	12	73	53	38
BIKES	9	14	5	4
BUSES	2	20	9	11

	N/B	TIME	S/B	TIME	E/B	TIME	W/B	TIME
AM PK 15 MIN	210	7:45:00 AM	231	8:00:00 AM	289	8:00:00 AM	296	7:45:00 AM
PM PK 15 MIN	0	5:45:00 PM	231	8:00:00 AM	289	8:00:00 AM	296	7:45:00 AM
AM PK HOUR	649	7:30:00 AM	888	7:30:00 AM	1051	7:30:00 AM	1028	7:30:00 AM
PM PK HOUR	0	5:45:00 PM	0	5:45:00 PM	0	5:45:00 PM	0	5:45:00 PM

NORTHBOUND Approach

Hours	Lt	Th	Rt	Total
6:30-7:30	50	185	33	268
7:30-8:30	110	451	88	649
8:30-9:30	0	0	0	0
3-4	0	0	0	0
4-5	0	0	0	0
5-6	0	0	0	0
TOTAL	160	636	121	917

SOUTHBOUND Approach

Hours	Lt	Th	Rt	Total
6:30-7:30	33	527	102	662
7:30-8:30	76	792	161	1029
8:30-9:30	0	0	0	0
3-4	0	0	0	0
4-5	0	0	0	0
5-6	0	0	0	0
TOTAL	109	1319	263	1691

Hours	TOTAL N-S	XING S/L Ped	XING S/L Sch	XING N/L Ped	XING N/L Sch
6:30-7:30	930	10	0	1	0
7:30-8:30	1678	14	3	16	4
8:30-9:30	0	0	0	0	0
3-4	0	0	0	0	0
4-5	0	0	0	0	0
5-6	0	0	0	0	0
TOTAL	2608	24	3	17	4

EASTBOUND Approach

Hours	Lt	Th	Rt	Total
6:30-7:30	64	312	95	471
7:30-8:30	138	982	245	1365
8:30-9:30	0	0	0	0
3-4	0	0	0	0
4-5	0	0	0	0
5-6	0	0	0	0
TOTAL	202	1294	340	1836

WESTBOUND Approach

Hours	Lt	Th	Rt	Total
6:30-7:30	83	357	14	454
7:30-8:30	150	824	54	1028
8:30-9:30	0	0	0	0
3-4	0	0	0	0
4-5	0	0	0	0
5-6	0	0	0	0
TOTAL	233	1181	68	1482

Hours	TOTAL E-W	XING W/L Ped	XING W/L Sch	XING E/L Ped	XING E/L Sch
6:30-7:30	925	9	0	5	0
7:30-8:30	2393	36	5	15	1
8:30-9:30	0	0	0	0	0
3-4	0	0	0	0	0
4-5	0	0	0	0	0
5-6	0	0	0	0	0
TOTAL	3318	45	5	20	1

APPENDIX F

Level of Service Worksheets

Moving LA Forward

Level of Service Workheet
(Circular 212 Method)

I/S #:	North-South Street:	Laurel Canyon Boulevard	Year of Count:	2016	Ambient Growth: (%):	2	Conducted by:	RA	Date:	6/16/2016
1	East-West Street:	Magnolia Boulevard	Projection Year:	2018	Peak Hour:	AM	Reviewed by:	RA	Project:	RA494

	EXISTING CONDITION		EXISTING PLUS PROJECT		FUTURE CONDITION W/O PROJECT		FUTURE CONDITION W/ PROJECT		FUTURE W/ PROJECT W/ MITIGATION	
No. of Phases		2		2		2		2		2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?		0		0		0		0		0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0	SB-- 0	NB-- 0	SB-- 0	NB-- 0	SB-- 0	NB-- 0	SB-- 0	NB-- 0	SB-- 0
	EB-- 0	WB-- 0	EB-- 0	WB-- 0	EB-- 0	WB-- 0	EB-- 0	WB-- 0	EB-- 0	WB-- 0
ATSAC-1 or ATSAC+ATCS-2?		2		2		2		2		2
Override Capacity		0		0		0		0		0

	MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	73	1	73	0	73	73	1	77	1	77	0	77	1	77	0	77	1	77
	Left-Through		0							0				0				0	
	Through	755	2	378	0	755	378	29	815	2	408	0	815	2	408	0	815	2	408
	Through-Right		0							0				0				0	
	Right	86	1	39	0	86	39	6	95	1	41	0	95	1	41	0	95	1	41
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	153	1	153	0	153	153	8	167	1	167	0	167	1	167	0	167	1	167
	Left-Through		0							0				0				0	
	Through	1287	2	644	0	1287	644	78	1417	2	709	0	1417	2	709	0	1417	2	709
	Through-Right		0							0				0				0	
	Right	54	1	23	0	54	23	5	61	1	27	0	61	1	27	0	61	1	27
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	63	1	63	0	63	63	2	68	1	68	0	68	1	68	0	68	1	68
	Left-Through		0							0				0				0	
	Through	766	1	531	0	766	531	15	812	1	561	0	812	1	561	0	812	1	561
	Through-Right		1							1				1				1	
	Right	296	0	296	0	296	296	2	310	0	310	0	310	0	310	0	310	0	310
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	94	1	94	0	94	94	11	109	1	109	0	109	1	109	0	109	1	109
	Left-Through		0							0				0				0	
	Through	578	1	349	0	578	349	24	625	1	377	0	625	1	377	0	625	1	377
	Through-Right		1							1				1				1	
	Right	119	0	119	0	119	119	4	128	0	128	0	128	0	128	0	128	0	128
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	

	EXISTING CONDITION		EXISTING PLUS PROJECT		FUTURE CONDITION W/O PROJECT		FUTURE CONDITION W/ PROJECT		FUTURE W/ PROJECT W/ MITIGATION	
CRITICAL VOLUMES	*North-South:*	717	*North-South:*	717	*North-South:*	786	*North-South:*	786	*North-South:*	786
	East-West:	625	*East-West:*	625	*East-West:*	670	*East-West:*	670	*East-West:*	670
	SUM:	1342	*SUM:*	1342	*SUM:*	1456	*SUM:*	1456	*SUM:*	1456
VOLUME/CAPACITY *(V/C)* RATIO:		0.895		0.895		0.971		0.971		0.971
V/C LESS ATSAC/ATCS ADJUSTMENT:		0.795		0.795		0.871		0.871		0.871
LEVEL OF SERVICE (LOS):		C		C		D		D		D

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.000	Δ*v/c* after mitigation:	0.000
Significant impacted?	NO	Fully mitigated?	N/A

LADOT Moving LA Forward

Level of Service Workheet
(Circular 212 Method)

I/S #:	North-South Street:	Laurel Canyon Boulevard	Year of Count:	2016	Ambient Growth: (%):	2	Conducted by:	RA	Date:	6/16/2016
2	East-West Street:	Addison Street	Projection Year:	2018	Peak Hour:	AM	Reviewed by:	RA	Project:	RA494

	EXISTING CONDITION	EXISTING PLUS PROJECT	FUTURE CONDITION W/O PROJECT	FUTURE CONDITION W/ PROJECT	FUTURE W/ PROJECT W/ MITIGATION
No. of Phases	2	2	2	2	2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?	0	0	0	0	0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0 SB-- 0	NB-- 0 SB-- 0	NB-- 0 SB-- 0	NB-- 0 SB-- 0	NB-- 0 SB-- 0
	EB-- 0 WB-- 0	EB-- 0 WB-- 0	EB-- 0 WB-- 0	EB-- 0 WB-- 0	EB-- 0 WB-- 0
ATSAC-1 or ATSAC+ATCS-2?	2	2	2	2	2
Override Capacity	0	0	0	0	0

	MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	15	1	15	0	15	15	0	16	1	16	0	16	1	16	0	16	1	16
	Left-Through		0							0				0				0	
	Through	849	2	425	0	849	425	36	919	2	460	0	919	2	460	0	919	2	460
	Through-Right		0							0				0				0	
	Right	15	1	15	1	16	16	0	16	1	16	1	17	1	17	0	17	1	17
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	56	1	56	2	58	58	0	58	1	58	2	60	1	60	0	60	1	60
	Left-Through		0							0				0				0	
	Through	1569	2	785	0	1569	785	92	1724	2	862	0	1724	2	862	0	1724	2	862
	Through-Right		0							0				0				0	
	Right	13	1	13	0	13	13	0	14	1	14	0	14	1	14	0	14	1	14
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	32	0	32	0	32	32	0	33	0	33	0	33	0	33	0	33	0	33
	Left-Through		0							0				0				0	
	Through	40	0	96	2	42	98	0	42	0	100	2	44	0	102	0	44	0	102
	Through-Right		0							0				0				0	
	Right	24	0	0	0	24	0	0	25	0	0	0	25	0	0	0	25	0	0
	Left-Through-Right		1							1				1				1	
	Left-Right		0							0				0				0	
WESTBOUND	Left	28	0	28	1	29	29	0	29	0	29	1	30	0	30	0	30	0	30
	Left-Through		0							0				0				0	
	Through	20	0	78	2	22	83	0	21	0	81	2	23	0	86	0	23	0	86
	Through-Right		0							0				0				0	
	Right	30	0	0	2	32	0	0	31	0	0	2	33	0	0	0	33	0	0
	Left-Through-Right		1							1				1				1	
	Left-Right		0							0				0				0	

		EXISTING CONDITION	EXISTING PLUS PROJECT	FUTURE CONDITION W/O PROJECT	FUTURE CONDITION W/ PROJECT	FUTURE W/ PROJECT W/ MITIGATION
CRITICAL VOLUMES	*North-South:*	800	800	878	878	878
	East-West:	124	127	129	132	132
	SUM:	924	927	1007	1010	1010
VOLUME/CAPACITY *(V/C)* RATIO:		0.616	0.618	0.671	0.673	0.673
V/C LESS ATSAC/ATCS ADJUSTMENT:		0.516	0.518	0.571	0.573	0.573
LEVEL OF SERVICE (LOS):		A	A	A	A	A

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.002	Δ*v/c* after mitigation:	0.002
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Workheet
(Circular 212 Method)

I/S #:	North-South Street:	Laurel Canyon Boulevard	Year of Count:	2016	Ambient Growth: (%):	2	Conducted by:	RA	Date:	6/16/2016
3	East-West Street:	Riverside Drive	Projection Year:	2018	Peak Hour:	AM	Reviewed by:	RA	Project:	RA494

	Existing Condition	Existing Plus Project	Future Condition W/O Project	Future Condition W/ Project	Future W/ Project W/ Mitigation
No. of Phases	4	4	4	4	4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?	0	0	0	0	0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0 SB-- 0 EB-- 0 WB-- 0	NB-- 0 SB-- 0 EB-- 0 WB-- 0	NB-- 0 SB-- 0 EB-- 0 WB-- 0	NB-- 0 SB-- 0 EB-- 0 WB-- 0	NB-- 0 SB-- 0 EB-- 0 WB-- 0
ATSAC-1 or ATSAC+ATCS-2?	2	2	2	2	2
Override Capacity	0	0	0	0	0

	MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	278	1	**278**	0	278	**278**	4	293	1	**293**	0	293	1	**293**	0	293	1	**293**
	Left-Through		0							0				0				0	
	Through	649	2	325	1	650	325	27	702	2	351	1	703	2	352	0	703	2	352
	Through-Right		0							0				0				0	
	Right	70	1	0	1	71	0	5	78	1	0	1	79	1	0	0	79	1	0
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	152	1	152	0	152	152	1	159	1	159	0	159	1	159	0	159	1	159
	Left-Through		0							0				0				0	
	Through	1452	2	**509**	1	1453	**510**	73	1584	2	**560**	1	1585	2	**560**	0	1585	2	**560**
	Through-Right		1							1				1				1	
	Right	76	0	76	0	76	76	17	96	0	96	0	96	0	96	0	96	0	96
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	152	1	**152**	0	152	**152**	9	167	1	**167**	0	167	1	**167**	0	167	1	**167**
	Left-Through		0							0				0				0	
	Through	748	2	374	0	748	374	8	786	2	393	0	786	2	393	0	786	2	393
	Through-Right		0							0				0				0	
	Right	318	1	179	0	318	179	7	338	1	192	0	338	1	192	0	338	1	192
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	278	2	153	1	279	153	4	293	2	161	1	294	2	162	0	294	2	162
	Left-Through		0							0				0				0	
	Through	785	1	**431**	0	785	**431**	7	824	1	**452**	0	824	1	**452**	0	824	1	**452**
	Through-Right		1							1				1				1	
	Right	76	0	76	0	76	76	0	79	0	79	0	79	0	79	0	79	0	79
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	

	Existing Condition	Existing Plus Project	Future Condition W/O Project	Future Condition W/ Project	Future W/ Project W/ Mitigation
CRITICAL VOLUMES — *North-South:*	787	788	853	853	853
East-West:	583	583	619	619	619
SUM:	1370	1371	1472	1472	1472
VOLUME/CAPACITY *(V/C)* RATIO:	0.996	0.997	1.071	1.071	1.071
V/C LESS ATSAC/ATCS ADJUSTMENT:	0.896	0.897	0.971	0.971	0.971
LEVEL OF SERVICE (LOS):	D	D	E	E	E

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.000	∆*v/c* after mitigation:	0.000
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Workheet
(Circular 212 Method)

I/S #:	North-South Street:	Colfax Avenue	Year of Count:	2016	Ambient Growth: (%):	2	Conducted by:	RA	Date:	6/16/2016
4	East-West Street:	Magnolia Boulevard	Projection Year:	2018	Peak Hour:	AM	Reviewed by:	RA	Project:	RA494

	Existing Condition	Existing Plus Project	Future Condition W/O Project	Future Condition W/ Project	Future W/ Project W/ Mitigation
No. of Phases	2	2	2	2	2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?	0	0	0	0	0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0 SB-- 0 EB-- 0 WB-- 0	NB-- 0 SB-- 0 EB-- 0 WB-- 0	NB-- 0 SB-- 0 EB-- 0 WB-- 0	NB-- 0 SB-- 0 EB-- 0 WB-- 0	NB-- 0 SB-- 0 EB-- 0 WB-- 0
ATSAC-1 or ATSAC+ATCS-2?	2	2	2	2	2
Override Capacity	0	0	0	0	0

	MOVEMENT	EXISTING CONDITION Volume	No. of Lanes	Lane Volume	EXISTING PLUS PROJECT Project Traffic	Total Volume	Lane Volume	FUTURE CONDITION W/O PROJECT Added Volume	Total Volume	No. of Lanes	Lane Volume	FUTURE CONDITION W/ PROJECT Project Traffic	Total Volume	No. of Lanes	Lane Volume	FUTURE W/ PROJECT W/ MITIGATION Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	76	1	76	2	78	78	0	79	1	79	2	81	1	81	0	81	1	81
	Left-Through		0							0				0				0	
	Through	344	1	344	2	346	346	3	361	1	361	2	363	1	363	0	363	1	363
	Through-Right		0							0				0				0	
	Right	189	1	123	2	191	124	4	201	1	131	2	203	1	133	0	203	1	133
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	91	1	91	0	91	91	2	97	1	97	0	97	1	97	0	97	1	97
	Left-Through		0							0				0				0	
	Through	444	1	444	2	446	446	9	471	1	471	2	473	1	473	0	473	1	473
	Through-Right		0							0				0				0	
	Right	152	1	131	0	152	131	0	158	1	136	0	158	1	136	0	158	1	136
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	43	1	43	0	43	43	0	45	1	45	0	45	1	45	0	45	1	45
	Left-Through		0							0				0				0	
	Through	799	1	481	0	799	482	29	860	1	515	0	860	1	516	0	860	1	516
	Through-Right		1							1				1				1	
	Right	162	0	162	2	164	164	1	170	0	170	2	172	0	172	0	172	0	172
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	133	1	133	1	134	134	2	140	1	140	1	141	1	141	0	141	1	141
	Left-Through		0							0				0				0	
	Through	660	1	660	1	661	661	39	726	1	726	1	727	1	727	0	727	1	727
	Through-Right		0							0				0				0	
	Right	103	1	58	0	103	58	1	108	1	60	0	108	1	60	0	108	1	60
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	

	Existing Condition	Existing Plus Project	Future Condition W/O Project	Future Condition W/ Project	Future W/ Project W/ Mitigation
CRITICAL VOLUMES — *North-South:*	520	524	550	554	554
East-West:	703	704	771	772	772
SUM:	1223	1228	1321	1326	1326
VOLUME/CAPACITY (*V/C*) RATIO:	0.815	0.819	0.881	0.884	0.884
V/C LESS ATSAC/ATCS ADJUSTMENT:	0.715	0.719	0.781	0.784	0.784
LEVEL OF SERVICE (LOS):	C	C	C	C	C

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.003	Δ*v/c* after mitigation:	0.003
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Workheet
(Circular 212 Method)

I/S #:	North-South Street:	Colfax Avenue	Year of Count:	2016	Ambient Growth: (%):	2	Conducted by:	RA	Date:	6/16/2016
5	East-West Street:	Addison Street	Projection Year:	2018	Peak Hour:	AM	Reviewed by:	RA	Project:	RA494

	Existing Condition	Existing Plus Project	Future Condition W/O Project	Future Condition W/ Project	Future W/ Project W/ Mitigation
No. of Phases	2	2	2	2	2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?	0	0	0	0	0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0 SB-- 0; EB-- 0 WB-- 0	NB-- 0 SB-- 0; EB-- 0 WB-- 0	NB-- 0 SB-- 0; EB-- 0 WB-- 0	NB-- 0 SB-- 0; EB-- 0 WB-- 0	NB-- 0 SB-- 0; EB-- 0 WB-- 0
ATSAC-1 or ATSAC+ATCS-2?	2	2	2	2	2
Override Capacity	0	0	0	0	0

	MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	16	1	**16**	2	18	**18**	0	17	1	**17**	2	19	1	**19**	0	19	1	**19**
	Left-Through		0							0				0				0	
	Through	538	1	538	2	540	540	7	567	1	567	2	569	1	569	0	569	1	569
	Through-Right		0							0				0				0	
	Right	19	1	19	0	19	19	0	20	1	20	0	20	1	20	0	20	1	20
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	10	1	10	0	10	10	0	10	1	10	0	10	1	10	0	10	1	10
	Left-Through		0							0				0				0	
	Through	742	1	**742**	6	748	**748**	12	784	1	**784**	6	790	1	**790**	0	790	1	**790**
	Through-Right		0							0				0				0	
	Right	24	1	24	3	27	27	0	25	1	25	3	28	1	28	0	28	1	28
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	50	0	50	6	56	56	0	52	0	52	6	58	0	58	0	58	0	58
	Left-Through		0							0				0				0	
	Through	22	0	**166**	2	24	**188**	0	23	0	**173**	2	25	0	**195**	0	25	0	**195**
	Through-Right		0							0				0				0	
	Right	94	0	0	14	108	0	0	98	0	0	14	112	0	0	0	112	0	0
	Left-Through-Right		1							1				1				1	
	Left-Right		0							0				0				0	
WESTBOUND	Left	44	0	**44**	0	44	**44**	0	46	0	**46**	0	46	0	**46**	0	46	0	**46**
	Left-Through		0							0				0				0	
	Through	15	0	86	2	17	88	0	16	0	90	2	18	0	92	0	18	0	92
	Through-Right		0							0				0				0	
	Right	27	0	0	0	27	0	0	28	0	0	0	28	0	0	0	28	0	0
	Left-Through-Right		1							1				1				1	
	Left-Right		0							0				0				0	

	Existing Condition	Existing Plus Project	Future Condition W/O Project	Future Condition W/ Project	Future W/ Project W/ Mitigation
CRITICAL VOLUMES *North-South:*	758	766	801	809	809
East-West:	210	232	219	241	241
SUM:	968	998	1020	1050	1050
VOLUME/CAPACITY *(V/C)* RATIO:	0.645	0.665	0.680	0.700	0.700
V/C LESS ATSAC/ATCS ADJUSTMENT:	0.545	0.565	0.580	0.600	0.600
LEVEL OF SERVICE (LOS):	A	A	A	A	A

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v/c* due to project:	0.020	Δ*v/c* after mitigation:	0.020
Significant impacted?	NO	Fully mitigated?	N/A

Level of Service Workheet
(Circular 212 Method)

I/S #:	North-South Street:	Colfax Avenue	Year of Count:	2016	Ambient Growth: (%):	2	Conducted by:	RA	Date:	6/16/2016
6	East-West Street:	Riverside Drive	Projection Year:	2018	Peak Hour:	AM	Reviewed by:	RA	Project:	RA494

	Existing Condition	Existing Plus Project	Future Condition W/O Project	Future Condition W/ Project	Future W/ Project W/ Mitigation
No. of Phases	2	2	2	2	2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?	0	0	0	0	0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0 SB-- 0	NB-- 0 SB-- 0	NB-- 0 SB-- 0	NB-- 0 SB-- 0	NB-- 0 SB-- 0
	EB-- 0 WB-- 0	EB-- 0 WB-- 0	EB-- 0 WB-- 0	EB-- 0 WB-- 0	EB-- 0 WB-- 0
ATSAC-1 or ATSAC+ATCS-2?	2	2	2	2	2
Override Capacity	0	0	0	0	0

	MOVEMENT	EXISTING CONDITION			EXISTING PLUS PROJECT			FUTURE CONDITION W/O PROJECT				FUTURE CONDITION W/ PROJECT				FUTURE W/ PROJECT W/ MITIGATION			
		Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left	110	1	**110**	0	110	**110**	0	114	1	**114**	0	114	1	**114**	0	114	1	**114**
	Left-Through		0							0				0				0	
	Through	451	1	451	7	458	458	6	475	1	475	7	482	1	482	0	482	1	482
	Through-Right		0							0				0				0	
	Right	88	1	13	0	88	13	2	94	1	15	0	94	1	15	0	94	1	15
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
SOUTHBOUND	Left	89	1	89	5	94	94	2	95	1	95	5	100	1	100	0	100	1	100
	Left-Through		0							0				0				0	
	Through	638	1	**638**	7	645	**645**	9	673	1	**673**	7	680	1	**680**	0	680	1	**680**
	Through-Right		0							0				0				0	
	Right	161	1	92	2	163	93	0	168	1	96	2	170	1	97	0	170	1	97
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
EASTBOUND	Left	138	1	138	2	140	140	0	144	1	144	2	146	1	146	0	146	1	146
	Left-Through		0							0				0				0	
	Through	668	1	**457**	0	668	**457**	14	709	1	**482**	0	709	1	**482**	0	709	1	**482**
	Through-Right		1							1				1				1	
	Right	245	0	245	0	245	245	0	255	0	255	0	255	0	255	0	255	0	255
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
WESTBOUND	Left	150	1	**150**	0	150	**150**	2	158	1	**158**	0	158	1	**158**	0	158	1	**158**
	Left-Through		0							0				0				0	
	Through	824	1	439	0	824	442	11	868	1	463	0	868	1	466	0	868	1	466
	Through-Right		1							1				1				1	
	Right	54	0	54	5	59	59	2	58	0	58	5	63	0	63	0	63	0	63
	Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
CRITICAL VOLUMES	*North-South:*			748			755				787				794				794
	East-West:			607			607				640				640				640
	SUM:			1355			1362				1427				1434				1434
VOLUME/CAPACITY *(V/C)* RATIO:				0.903			0.908				0.951				0.956				0.956
V/C LESS ATSAC/ATCS ADJUSTMENT:				0.803			0.808				0.851				0.856				0.856
LEVEL OF SERVICE (LOS):				D			D				D				D				D

REMARKS:

Version: 1i Beta; 8/4/2011

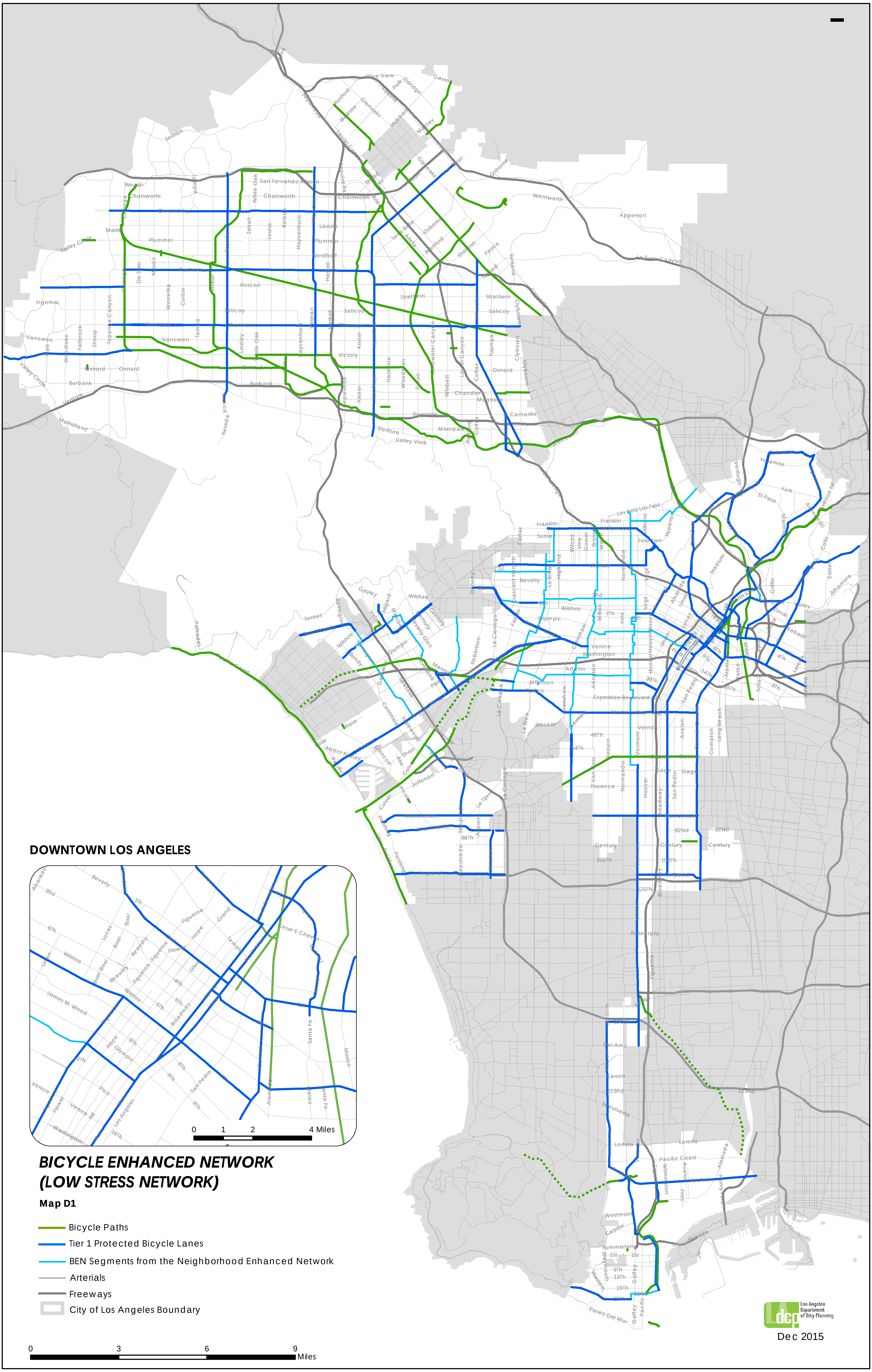
PROJECT IMPACT

Change in *v/c* due to project:	0.005	Δ*v/c* after mitigation:	0.005
Significant impacted?	NO	Fully mitigated?	N/A

APPENDIX G

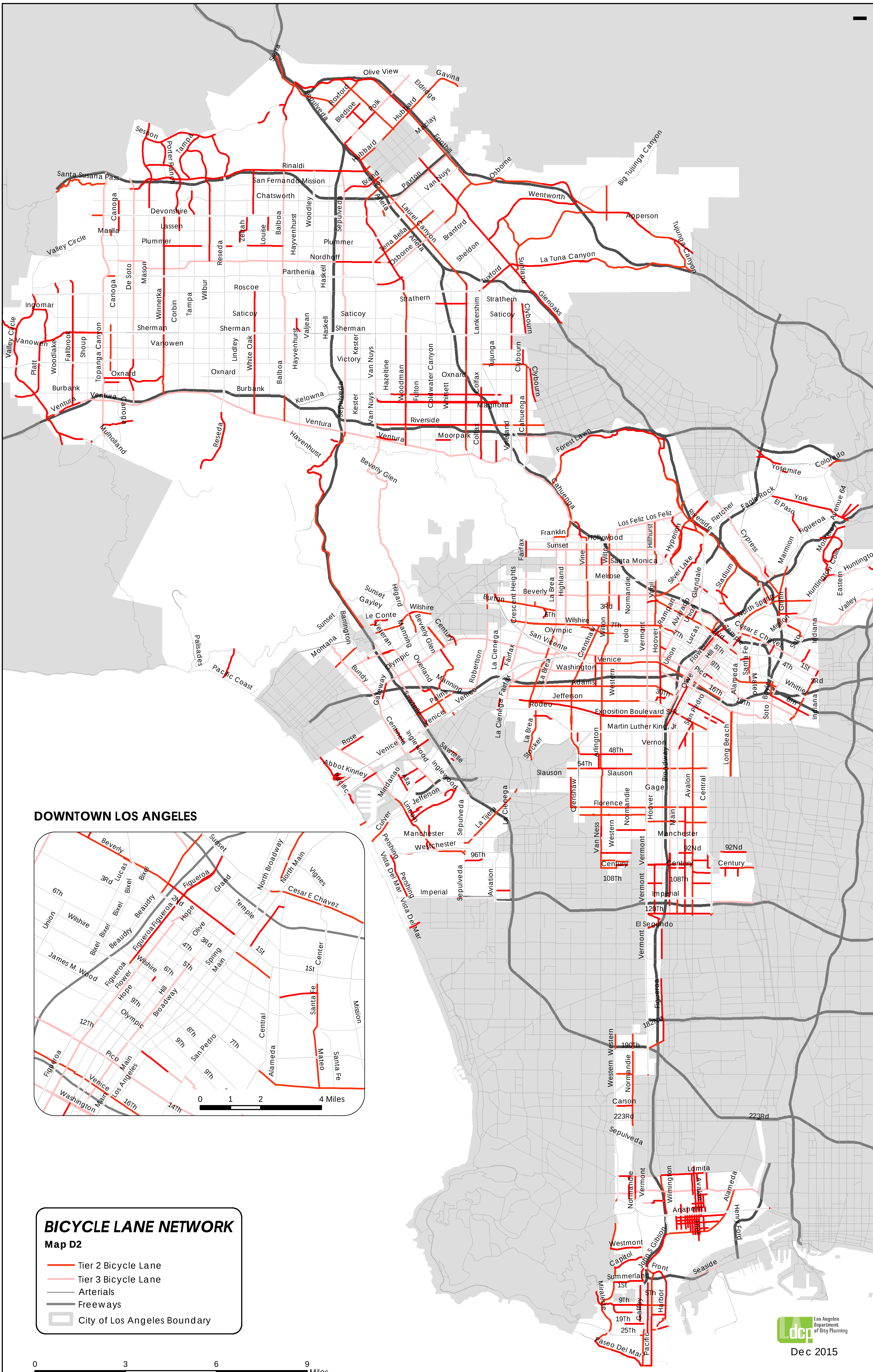
Mobility Plan 2035 and 2010 Bicycle Plan

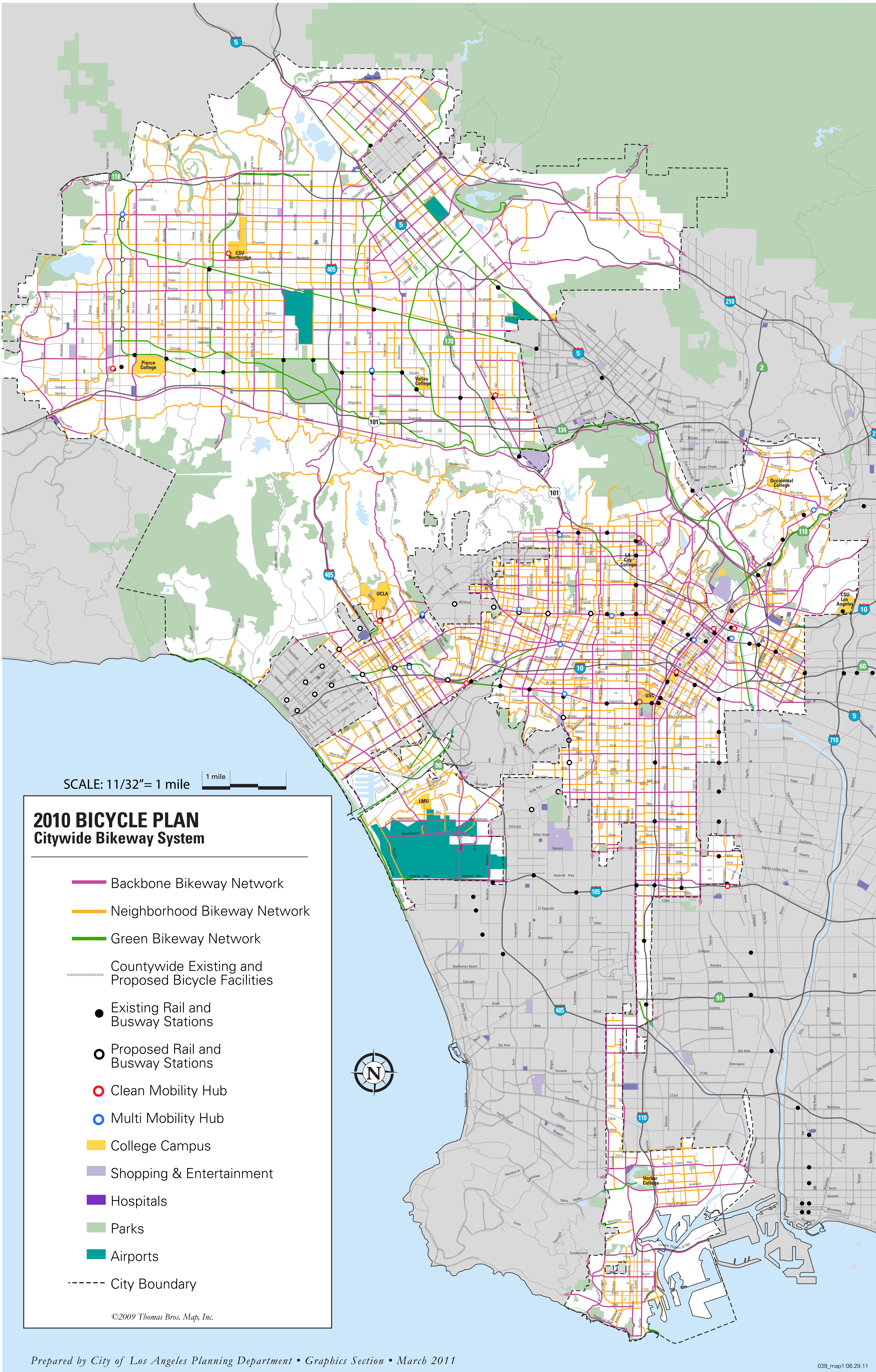
Bicycle Network Maps

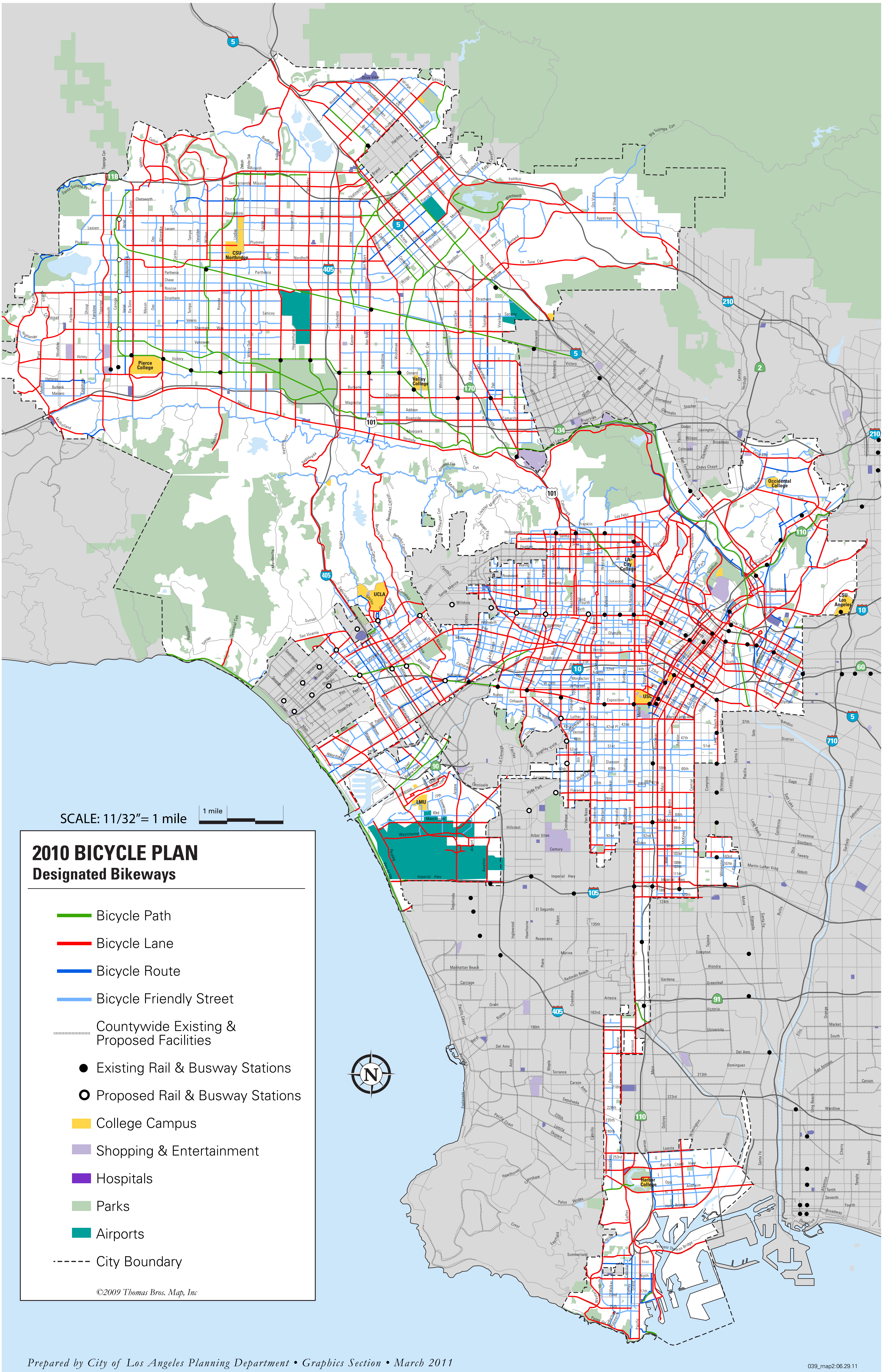


BICYCLE ENHANCED NETWORK (LOW STRESS NETWORK)

Map D1


BICYCLE LANE NETWORK
Map D2
Tier 2 Bicycle Lane
Tier 3 Bicycle Lane
Arterials
Freeways
City of Los Angeles Boundary
DOWNTOWN LOS ANGELES
0 1 2 4 Miles
0 3 6 9 Miles
Los Angeles Department of City Planning
Dec 2015


SCALE: 11/32"= 1 mile
1 mile
2010 BICYCLE PLAN
Citywide Bikeway System
Backbone Bikeway Network
Neighborhood Bikeway Network
Green Bikeway Network
Countywide Existing and Proposed Bicycle Facilities
Existing Rail and Busway Stations
Proposed Rail and Busway Stations
Clean Mobility Hub
Multi Mobility Hub
College Campus
Shopping & Entertainment
Hospitals
Parks
Airports
City Boundary
©2009 Thomas Bros. Map, Inc.
N
CSU Northridge
Pierce College
Valley College
UCLA
LA City College
USC
LMU
Occidental College
CSU Los Angeles
Harbor College
Prepared by City of Los Angeles Planning Department • Graphics Section • March 2011
039_map1:06.29.11



SCALE: 11/32"= 1 mile
1 mile
2010 BICYCLE PLAN
Designated Bikeways
Bicycle Path
Bicycle Lane
Bicycle Route
Bicycle Friendly Street
Countywide Existing & Proposed Facilities
Existing Rail & Busway Stations
Proposed Rail & Busway Stations
College Campus
Shopping & Entertainment
Hospitals
Parks
Airports
City Boundary
©2009 Thomas Bros. Map, Inc
Prepared by City of Los Angeles Planning Department • Graphics Section • March 2011
039_map2:06.29.11

Appendix H
Comments Received on the Draft MND

STATE OF CALIFORNIA Edmund G. Brown Jr., Governor

NATIVE AMERICAN HERITAGE COMMISSION
1550 Harbor Blvd., Suite 100
West Sacramento, CA 95691
Phone (916) 373-3710
Fax (916) 373-5471
Email: nahc@nahc.ca.gov
Website: http://www.nahc.ca.gov
Twitter: @CA_NAHC

February 7, 2017

Linda Wilde
Los Angeles Unified School District
333 S. Beaudry Avenue, 21st Floor
Los Angeles, CA 90017

sent via e-mail:
CEQA-comments@lausd.net

Re: SCH# 2017021009, Colfax Charter Elementary School Classroom Addition Project, Communities of North Hollywood and Valley Village; Los Angeles County, California

Dear Ms. Wilde:

1-1

The Native American Heritage Commission (NAHC) has reviewed the Mitigated Negative Declaration prepared for the project referenced above. The review included the Introduction and Project Description, the Initial Study Checklist, and the Explanation of Checklist Determinations, prepared by ESA/PCR for the Los Angeles Unified School District. We have the following concerns:

1-2

- While documentation of no government-to-government consultation with Native American tribes traditionally and culturally affiliated to the project area by the lead agency under AB-52 shows technical fulfillment of the law, please refer to the NAHC Best Practices for Consultation at http://nahc.ca.gov/wp-content/uploads/2015/04/AB52TribalConsultationRequirementsAndBestPractices_Revised_3_9_16.pdf.

1-3

- There are no mitigation measures specifically addressing Tribal Cultural Resources separately. Mitigation measures must take Tribal Cultural Resources into consideration as required under AB-52, **with or without consultation** occurring. Mitigation language for archaeological resources is not always appropriate for or similar to measures specifically for handling Tribal Cultural Resources. Mitigation Measure SC-CUL-13 refers to archaeological "recovery, analysis, and curation".

1-4

- Cultural Resources and Tribal Cultural Resources assessments are not documented (Historic Resources only). These should adequately assess the existence and significance of tribal cultural resources and plan for avoidance, preservation in place, or barring both, mitigation of project-related impacts to tribal cultural resources.

1-5

The California Environmental Quality Act (CEQA)[1], specifically Public Resources Code section 21084.1, states that a project that may cause a substantial adverse change in the significance of a historical resource is a project that may have a significant effect on the environment.[2] If there is substantial evidence, in light of the whole record before a lead agency, that a project may have a significant effect on the environment, an environmental impact report (EIR) shall be prepared.[3] In order to determine whether a project will cause a substantial adverse change in the significance of a historical resource, a lead agency will need to determine whether there are historical resources with the area of project effect (APE).

1-6

CEQA was amended in 2014 by Assembly Bill 52. (AB 52).[4] **AB 52 applies to any project for which a notice of preparation or a notice of negative declaration or mitigated negative declaration is filed on or after July 1, 2015.** AB 52 created a separate category for "tribal cultural resources"[5], that now includes "a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment.[6] Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource.[7] Your project may also be subject to

1-7

Senate Bill 18 (SB 18) (Burton, Chapter 905, Statutes of 2004), Government Code 65352.3, if it also involves the adoption of or amendment to a general plan or a specific plan, or the designation or proposed designation of open space. **Both SB 18 and AB 52 have tribal consultation requirements**. Additionally, if your project is also subject to the federal National Environmental

[1] Pub. Resources Code § 21000 et seq.
[2] Pub. Resources Code § 21084.1; Cal. Code Regs., tit.14, § 15064.5 (b); CEQA Guidelines Section 15064.5 (b)
[3] Pub. Resources Code § 21080 (d); Cal. Code Regs., tit. 14, § 15064 subd.(a)(1); CEQA Guidelines § 15064 (a)(1)
[4] Government Code 65352.3
[5] Pub. Resources Code § 21074
[6] Pub. Resources Code § 21084.2
[7] Pub. Resources Code § 21084.3 (a)

Policy Act (42 U.S.C. § 4321 et seq.) (NEPA), the tribal consultation requirements of Section 106 of the National Historic Preservation Act of 1966[8] may also apply. 1-7 Cont.

Consult your legal counsel about compliance with AB 52 and SB 18 as well as compliance with any other applicable laws. 1-8

Agencies should be aware that AB 52 does not preclude agencies from initiating tribal consultation with tribes that are traditionally and culturally affiliated with their jurisdictions before the timeframes provided in AB 52. For that reason, we urge you to continue to request Native American Tribal Consultation Lists and Sacred Lands File searches from the NAHC. The request forms can be found online at: http://nahc.ca.gov/resources/forms/. Additional information regarding AB 52 can be found online at http://nahc.ca.gov/wp-content/uploads/2015/10/AB52TribalConsultation_CalEPAPDF.pdf, entitled "Tribal Consultation Under AB 52: Requirements and Best Practices". 1-9

The NAHC recommends lead agencies consult with all California Native American tribes that are traditionally and culturally affiliated with the geographic area of your proposed project as early as possible in order to avoid inadvertent discoveries of Native American human remains and best protect tribal cultural resources.

A brief summary of portions of AB 52 and SB 18 as well as the NAHC's recommendations for conducting cultural resources assessments is also attached.

Please contact me at gayle.totton@nahc.ca.gov or call (916) 373-3710 if you have any questions.

Sincerely,

Gayle Totton

Gayle Totton, B.S., M.A., Ph.D
Associate Governmental Project Analyst

Attachment

cc: State Clearinghouse

[8] 154 U.S.C. 300101, 36 C.F.R. § 800 et seq.

Pertinent Statutory Information:

Under AB 52:

AB 52 has added to CEQA the additional requirements listed below, along with many other requirements: 1-10

Within fourteen (14) days of determining that an application for a project is complete or of a decision by a public agency to undertake a project, a **lead agency** shall provide formal notification to a designated contact of, or tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice.

A **lead agency** shall begin the consultation process within 30 days of receiving a request for consultation from a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project.[9] and **prior to the release of a negative declaration, mitigated negative declaration or environmental impact report**. For purposes of AB 52, "consultation shall have the same meaning as provided in Gov. Code § 65352.4 (SB 18).[10]

The following topics of consultation, if a tribe requests to discuss them, are mandatory topics of consultation:

a. Alternatives to the project.
b. Recommended mitigation measures.
c. Significant effects.[11]

1. The following topics are discretionary topics of consultation:

a. Type of environmental review necessary.
b. Significance of the tribal cultural resources.
c. Significance of the project's impacts on tribal cultural resources.

If necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend to the lead agency. [12]

With some exceptions, any information, including but not limited to, the location, description, and use of tribal cultural resources submitted by a California Native American tribe during the environmental review process **shall not be included in the environmental document or otherwise disclosed by the lead agency or any other public agency to the public, consistent with Government Code sections 6254 (r) and 6254.10.** Any information submitted by a California Native American tribe during the consultation or environmental review process shall be published in a confidential appendix to the environmental document unless the tribe that provided the information consents, in writing, to the disclosure of some or all of the information to the public.[13]

If a project may have a significant impact on a tribal cultural resource, **the lead agency's environmental document shall discuss** both of the following:

a. Whether the proposed project has a significant impact on an identified tribal cultural resource.
b. Whether feasible alternatives or mitigation measures, including those measures that may be agreed to pursuant to Public Resources Code section 21082.3, subdivision (a), avoid or substantially lessen the impact on the identified tribal cultural resource.[14]

Consultation with a tribe shall be considered concluded when either of the following occurs:

a. The parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource; or
b. A party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached.[15]

Any mitigation measures agreed upon in the consultation conducted pursuant to Public Resources Code section 21080.3.2 **shall be recommended for inclusion in the environmental document and in an adopted mitigation monitoring and reporting program,** if determined to avoid or lessen the impact pursuant to Public Resources Code section 21082.3, subdivision (b), paragraph 2, and shall be fully enforceable.[16]

If mitigation measures recommended by the staff of the lead agency as a result of the consultation process are not included in the environmental document or if there are no agreed upon mitigation measures at the conclusion of consultation, or if consultation does not occur, and if substantial evidence demonstrates that a project will cause a significant effect to a tribal cultural resource, **the lead agency shall consider feasible mitigation** pursuant to Public Resources Code section 21084.3 (b).[17]

An environmental impact report **may not be certified**, nor may a mitigated negative declaration or a negative declaration be adopted unless one of the following occurs:

a. The consultation process between the tribes and the lead agency has occurred as provided in Public Resources Code sections 21080.3.1 and 21080.3.2 and concluded pursuant to Public Resources Code section 21080.3.2.
b. The tribe that requested consultation failed to provide comments to the lead agency or otherwise failed to engage in the consultation process.

---

[9] Pub. Resources Code § 21080.3.1, subds. (d) and (e)
[10] Pub. Resources Code § 21080.3.1 (b)
[11] Pub. Resources Code § 21080.3.2 (a)
[12] Pub. Resources Code § 21080.3.2 (a)
[13] Pub. Resources Code § 21082.3 (c)(1)
[14] Pub. Resources Code § 21082.3 (b)
[15] Pub. Resources Code § 21080.3.2 (b)
[16] Pub. Resources Code § 21082.3 (a)
[17] Pub. Resources Code § 21082.3 (e)

c. The lead agency provided notice of the project to the tribe in compliance with Public Resources Code section 21080.3.1 (d) and the tribe failed to request consultation within 30 days.[18] 1-10 Cont.

This process should be documented in the Tribal Cultural Resources section of your environmental document.

Under SB 18:

Government Code § 65352.3 (a) (1) requires consultation with Native Americans on general plan proposals for the purposes of "preserving or mitigating impacts to places, features, and objects described § 5097.9 and § 5091.993 of the Public Resources Code that are located within the city or county's jurisdiction. Government Code § 65560 (a), (b), and (c) provides for consultation with Native American tribes on the open-space element of a county or city general plan for the purposes of protecting places, features, and objects described in Sections 5097.9 and 5097.993 of the Public Resources Code.

- SB 18 applies to **local governments** and requires them to contact, provide notice to, refer plans to, and consult with tribes prior to the adoption or amendment of a general plan or a specific plan, or the designation of open space. Local governments should consult the Governor's Office of Planning and Research's "Tribal Consultation Guidelines," which can be found online at: https://www.opr.ca.gov/docs/09_14_05_Updated_Guidelines_922.pdf
- Tribal Consultation: If a local government considers a proposal to adopt or amend a general plan or a specific plan, or to designate open space it is required to contact the appropriate tribes identified by the NAHC by requesting a "Tribal Consultation List." If a tribe, once contacted, requests consultation the local government must consult with the tribe on the plan proposal. **A tribe has 90 days from the date of receipt of notification to request consultation unless a shorter timeframe has been agreed to by the tribe.**[19]
- There is no Statutory Time Limit on Tribal Consultation under the law.
- Confidentiality: Consistent with the guidelines developed and adopted by the Office of Planning and Research,[20] the city or county shall protect the confidentiality of the information concerning the specific identity, location, character, and use of places, features and objects described in Public Resources Code sections 5097.9 and 5097.993 that are within the city's or county's jurisdiction.[21]
- Conclusion Tribal Consultation: Consultation should be concluded at the point in which:
  - The parties to the consultation come to a mutual agreement concerning the appropriate measures for preservation or mitigation; or
  - Either the local government or the tribe, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached concerning the appropriate measures of preservation or mitigation.[22]

NAHC Recommendations for Cultural Resources Assessments:

- Contact the NAHC for:
  - A Sacred Lands File search. Remember that tribes do not always record their sacred sites in the Sacred Lands File, nor are they required to do so. A Sacred Lands File search is not a substitute for consultation with tribes that are traditionally and culturally affiliated with the geographic area of the project's APE.
  - A Native American Tribal Contact List of appropriate tribes for consultation concerning the project site and to assist in planning for avoidance, preservation in place, or, failing both, mitigation measures.
    - The request form can be found at http://nahc.ca.gov/resources/forms/.
- Contact the appropriate regional California Historical Research Information System (CHRIS) Center (http://ohp.parks.ca.gov/?page_id=1068) for an archaeological records search. The records search will determine:
  - If part or the entire APE has been previously surveyed for cultural resources.
  - If any known cultural resources have been already been recorded on or adjacent to the APE.
  - If the probability is low, moderate, or high that cultural resources are located in the APE.
  - If a survey is required to determine whether previously unrecorded cultural resources are present.
- If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.
  - The final report containing site forms, site significance, and mitigation measures should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum and not be made available for public disclosure.
  - The final written report should be submitted within 3 months after work has been completed to the appropriate regional CHRIS center.

[18] Pub. Resources Code § 21082.3 (d)
[19] (Gov. Code § 65352.3 (a)(2)).
[20] pursuant to Gov. Code section 65040.2,
[21] (Gov. Code § 65352.3 (b)).
[22] (Tribal Consultation Guidelines, Governor's Office of Planning and Research (2005) at p. 18).

1-10 Cont.

Examples of Mitigation Measures That May Be Considered to Avoid or Minimize Significant Adverse Impacts to Tribal Cultural Resources:

- Avoidance and preservation of the resources in place, including, but not limited to:
  - Planning and construction to avoid the resources and protect the cultural and natural context.
  - Planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.
- Treating the resource with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:
  - Protecting the cultural character and integrity of the resource.
  - Protecting the traditional use of the resource.
  - Protecting the confidentiality of the resource.
- Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.
- Please note that a federally recognized California Native American tribe or a non-federally recognized California Native American tribe that is on the contact list maintained by the NAHC to protect a California prehistoric, archaeological, cultural, spiritual, or ceremonial place may acquire and hold conservation easements if the conservation easement is voluntarily conveyed.[23]
- Please note that it is the policy of the state that Native American remains and associated grave artifacts shall be repatriated.[24]

The lack of surface evidence of archaeological resources (including tribal cultural resources) does not preclude their subsurface existence.

- Lead agencies should include in their mitigation and monitoring reporting program plan provisions for the identification and evaluation of inadvertently discovered archaeological resources.[25] In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American with knowledge of cultural resources should monitor all ground-disturbing activities.
- Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the disposition of recovered cultural items that are not burial associated in consultation with culturally affiliated Native Americans.
- Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the treatment and disposition of inadvertently discovered Native American human remains. Health and Safety Code section 7050.5, Public Resources Code section 5097.98, and Cal. Code Regs., tit. 14, section 15064.5, subdivisions (d) and (e) (CEQA Guidelines section 15064.5, subds. (d) and (e)) address the processes to be followed in the event of an inadvertent discovery of any Native American human remains and associated grave goods in a location other than a dedicated cemetery.

[23] (Civ. Code § 815.3 (c)).
[24] (Pub. Resources Code § 5097.991).
[25] per Cal. Code Regs., tit. 14, section 15064.5(f) (CEQA Guidelines section 15064.5(f)).

From: Carlyn Lampert [mailto:carlynlampert@gmail.com]
Sent: Friday, February 10, 2017 1:38 PM
To: Wilde, Linda <linda.wilde@lausd.net>
Subject: traffic on Huston Street

Thank you so much for helping us understand what will be happening at Colfax School and answering our questions. 2-1

From: Carlyn Lampert [mailto:carlynlampert@gmail.com]
Sent: Friday, February 10, 2017 1:49 PM
To: Wilde, Linda <linda.wilde@lausd.net>
Subject: Colfax construction

Thank you for being so helpful last night at the school meeting. 3-1

I am the woman that lives on Huston Street fairly close to what looks to be the exit driveway for the school. As my neighbor points out, there is a concern that traffic will bog down when cars try to reach the short distance to Colfax to turn right or left. Many people park on Huston to walk to pick up their children. The street becomes clogged without the further addition of the exist. 3-2

I am hoping that another solution can be found. Are they able to put the entrance and exit driveway on Colfax? I have seen that at other schools. 3-3

Thank you so much for answering our questions.

Carlyn Lampert

From: Lisa Walco [mailto:law4law4@gmail.com]
Sent: Sunday, February 12, 2017 8:49 PM
To: Wilde, Linda <linda.wilde@lausd.net>
Subject: CEQA - Colfax Charter

Dear Ms. Wilde:

Thank you for taking the time to come to speak at Colfax Charter the other night and field various inquiries concerning the project. I wish to express to you my serious concerns about the plan as it relates to traffic and safety. As I understand it, the proposed drive-thru drop-off would have entry on Colfax and exit onto Huston Street. From both a traffic perspective in terms of the immense back up and congestion this would create onto Huston Street, a small residential street, as well as the monumental safety hazard it would present for the innumerable pedestrians that will be along Huston and Colfax, I believe this to be an extremely poorly planned solution to the problem. In a school of more than 600 students where large numbers of them are driven to school, it is extremely unrealistic to believe that to be either the best, most efficient, or safest means of drop off for our student body. I would highly encourage LAUSD and DOT to reevaluate this plan. Otherwise, I truly believe it is an accident waiting to happen. 4-1 4-2

Thank you for your time and attention.

Respectfully,

Lisa Walco

From: Joanna Belson [mailto:joannabelson@gmail.com]
Sent: Tuesday, February 14, 2017 6:36 AM
To: Wilde, Linda <linda.wilde@lausd.net>
Cc: Schmerelson, Scott M. <scott.schmerelson@lausd.net>; Irlando, Arlene <arlene.irlando@lausd.net>
Subject: CEQA School Building Report - Colfax elementary Issue with new Traffic Patter

Hi Linda: I wanted to write you regarding my concerns about the new traffic flow for the proposed new 5-1
building at Colfax Elementary in Valley Village CA.
Colfax Avenue heading south currently gets completely blocked up from Walter Reed To Colfax Elementary 5-2
without this new traffic pattern. (This is due to Walter Reeds drop off on Colfax ave)
Also, Colfax Ave is extremely dangerous. We have already had a parent and student hit by a car while crossing
Colfax Ave. There are not enough traffic signals, crosswalks, AND crossing guards. This new purposed traffic
pattern will be guaranteed to cause a mega backup on Colfax and additional injuries without the proper safety 5-3
mechanisms put into place. Help us get our kid to school safely and not just within budget. Thank you! Joanna
Belson

From: Kira Goldberg [mailto:kiraegoldberg@gmail.com]
Sent: Tuesday, February 14, 2017 11:20 AM
To: Wilde, Linda <linda.wilde@lausd.net>
Subject: Colfax construction

To whom it may concern:
It was brought to my attention that during and post construction at Colfax Elementary, there will be no additional parking light for the drop off at Colfax and exit on Huston - this is a grave concern to me as a parent, not only for the traffic back up in the neighborhood but also for the safety of the students and pedestrians. 6-1
Please reconsider having DOT add a new stop light. 6-2
Thanks.
Kira Goldberg
11932 Hesby St
Valley Village ca 91607

From: Lynne Gelman [mailto:lynne.gelman@gmail.com]
Sent: Tuesday, February 14, 2017 12:38 PM
To: Wilde, Linda <linda.wilde@lausd.net>
Subject: Colfax Charter Elementary proposed drop-off line

Linda

I have been a parent at Colfax Charter Elementary since 2010. Now with one child in middle school and one at Colfax, I have to use the valet drop-off, which is currently on Addison, quite frequently. We drop off in the front of the school and then we go to a traffic light. It would be nicer if the line could begin sooner so the line for the traffic light doesn't hold up the valet queue. But at least I do not feel that my children and I are not in danger during drop off. This would not be the case if the drop off is on Colfax. 7-1

The proposed drop-off line for Colfax is a recipe for disaster. Even though the main drop-off line is on Addison right now, the traffic backs up on Colfax. The drivers are aggressive and impatient and I've seen people pass in the bike lane numerous times. And the speeding is out of control. I have contacted North Hollywood police and they told me that it was a LAUSD matter. I told our school and we did have a cross guard for a couple of months. This will not do much good when a speeding car decides to pass on the bike lane again. 7-2

I think before you go ahead with this proposal, there needs to be more thought put into the safety of the children. Somebody needs to come out to our school and observe the traffic in real time, multiple times. In addition, we need better signage and warning for drivers to alert them when school is in session. 7-3

Sincerely,

Lynne Gelman

From: MsLumagu . [mailto:lumagu01@gmail.com]
Sent: Tuesday, February 14, 2017 1:42 PM
To: Wilde, Linda <linda.wilde@lausd.net>
Subject: CEQA - Colfax Charter Construction

Dear Ms. Wilde -

It has recently come to my attention that the upcoming construction to Colfax Charter Elementary that we are all so very excited about will result in a very dangerous drop off pattern for our community! It is my understanding that the construction requires parents dropping off their children to exit onto Huston Street, a residential street, and that there is no plan to add any for of stop sign or traffic light at this location to keep our children in families safe! (not to mention the obvious traffic back up this will cause on the already crowded Colfax Ave) 8-1

I am writing to urge you to take a stand to protect our families, and especially our children!!! In light of the tragic loss of life last year by a student from Oakwood School just around the corner due to a careless driver, I would imagine LAUSD would want to do everything in their power to protect it's students by working with the DOT to create a solution! 8-2

Thank you in advance for taking action to keep our children and community safe.

Best Regards,

Lucina Guerrero
Concerned Parent

From: Andrea Sirota [mailto:andreasirota@gmail.com]
Sent: Tuesday, February 14, 2017 3:19 PM
To: Wilde, Linda <linda.wilde@lausd.net>
Subject: CEQA report - Colfax Charter

Hi Linda,

I reviewed the CEQA report for the proposed construction at our school, Colfax Charter Elementary School in Valley 9-1
Village, and attended the meeting with LAUSD. Of MAJOR concern was where the intended drive-thru student drop-off
line will be when construction is completed. The plan is to have drop off run in a segregated line through the new
parking lot on Colfax Avenue. It will involve entry on Colfax and exiting onto Huston Street, a small, residential street.
There will be no addition of a traffic light or a stop light or anything. Just simply having cars pull out onto Huston. You 9-2
can imagine the potential safety hazards, not to mention extreme traffic back up of cars waiting to pull out of the lot and
onto Huston, further exacerbating the back up of cars attempting to enter the lot for drop off... It was made clear at the 9-3
meeting that this is the time for comments and that the window to do so will be closing pretty soon.

Please consider a stop light or sign. Many of us walk our children home from school. We want everyone to be safe. 9-4

Thank you,
Andrea Sirota
818.667.2588

Sent from my iPhone

STATE OF CALIFORNIA—CALIFORNIA STATE TRANSPORTATION AGENCY EDMUND G. BROWN Jr., Governor

DEPARTMENT OF TRANSPORTATION
District 7 – Office of Regional Planning
100 S. MAIN STREET, MS 16
LOS ANGELES, CA 90012
PHONE (213) 897-0673
FAX (213) 897-1337
www.dot.ca.gov

Serious drought.
Help save water!

February 21, 2017

Ms. Linda Wilde
Los Angeles Unified School District
333 S. Beaudry Avenue, 21st Floor
Los Angeles, CA 90017

RE: Colfax Charter Elementary School
Classroom Addition Project
Mitigated Negative Declaration
SCH#2017021009
GTS#07-LA-2017-00609-FL
Vic. LA/ 170/ PM R 14.972

Dear Ms. Wilde:

10-1

Thank you for including the California Department of Transportation (Caltrans) in the environmental review process for the above referenced project. The proposed project includes the construction of 18 new classrooms, removal of 10 portable classrooms, internal modification to administrative spaces, and expanded lunch shelter and arcade, relocation of the school's school main entry, and construction of a new surface parking lot.

10-2

In Appendix G, Traffic Study prepared by RAJU Associates dated October 2016, indicated that the project will generate a net total of 206 daily trips of which 94 trips would occur during the morning peak hour. In addition, there are 24 related project identified within the study area and expected to generate 1,924 trips during the morning peak hours.

The nearest facilities to the proposed project is US-101 and SR-170. Although, Caltrans does not expect project approval to result in a direct adverse impact to the existing State transportation facilities, the incremental effect of the project, combined with the effects of the other past, present and reasonably foreseeable future projects within the vicinity of this project, cumulative impact may occur. As a reminder, the decision makers should be aware of this issue and be prepared to mitigate cumulative traffic impact in the future.

10-3

Caltrans acknowledges that in Attachment B of the Draft Initial study dated February 2017, Page B-72, "the City of Los Angeles Department of Transportation has provided the District with a Safe Routes to School map for the students… which details travel routes to the school and identifies the best intersections for students to cross to access the school…", and Page B-84, "…encourages ride-sharing programs for students and teachers, as well as riding bicycles to school."

In view of SB 743, the Governor's Office of Planning and Research (OPR) is working to develop an alternative to LOS for evaluating transportation impacts pursuant to CEQA. Such as using Vehicle Miles Traveled (VMT) as the primary metric in identifying transportation impacts for all future development projects. Once OPR provides new guidance, Caltrans hopes to collaborate with the City to adopt methods of traffic analysis and new thresholds that are mutually acceptable. 10-4

Caltrans continues to strive to improve its standards and processes to provide flexibility while maintaining the safety and integrity of the State's transportation system. It is our goal to implement strategies that are in keeping with our mission statement, which is to "*provide a safe, sustainable, integrated, and efficient transportation system to enhance California's economy and livability.*" 10-5

As a reminder, transportation of heavy construction equipment and/or materials, which requires the use of oversized-transport vehicles on State highways, will require a Caltrans transportation permit. Caltrans recommends that large size truck trips be limited to off-peak commute periods. 10-6

Storm water run-off is a sensitive issue for Los Angeles and Ventura counties. Please be mindful that project needs to be designed to discharge clean run-off water and it is not permitted to discharge onto State highway facilities. 10-7

If you have any questions or concerns regarding these comments, please contact project coordinator, Frances Lee at (213) 897-0673 or electronically at frances.lee@dot.ca.gov. 10-8

Sincerely,

Dianna Watson

DIANNA WATSON
Branch Chief, LD-IGR Review

cc: Scott Morgan, State Clearinghouse

From: David Shluker <davidshluker@yahoo.com>
Sent: Friday, February 24, 2017 12:42 PM
To: California Environmental Quality Act Comments
Subject: Colfax Charter Elementary School Project

I live on Addison street directly across from Colfax Charter Elementary School. I am strongly opposed to any large scale construction at the school. I have Duchenne Muscular Dystrophy, in a wheelchair, I'm on a Ventilator that breaths for me, and I have 24/7 Nursing Care. The dust and noise of construction will be very dangerous to my health. 11-1

Sent from my iPhone

From: Jerry Baruck [mailto:Jerry@morellanest.com]
Sent: Thursday, March 02, 2017 1:15 PM
To: California Environmental Quality Act Comments <CEQA-Comments@lausd.net>
Cc: Tapia, Fortunato <fortunato.tapia@lausd.net>; Wilde, Linda <linda.wilde@lausd.net>
Subject: Colfax Charter Elementary School Project

I am very concerned about the adoption of the initial study/mitigated negative declaration. The proposed exit from the parking lot/drop off area on the south east corner (Huston) would create an extensive amount of traffic through the residential area and be extremely dangerous due to the close proximity to vehicles turning west from Colfax. It is highly likely that exiting the parking lot/drop off area would be backed up and the entrance to the drop off area from Colfax would then be extensively backed up to the north on Colfax causing a dangerous traffic condition. 12-1 It is my understanding that a dedicated lane is being provided for the vehicles to make a right turn into the parking lot/drop off area when traveling south on Colfax. The same lane should be accessible when exiting the parking lot/drop off area allowing vehicles to exit at the south east corner directly onto Colfax in the continuation of the dedicated lane. 12-2

C.P.A. JEROME S. BARUCK

4935 Morella Avenue
Valley Village, CA 91607-3211
(818) 506-6157 (tele)
(818) 726-6157 (cell)
(818) 509-7882 (fax)
Jerry@Morellanest.com (Note new e-mail address)

Thank you

Letter No. 13

From: Karen Kaysing [mailto:Karen@morellanest.com]
Sent: Thursday, March 02, 2017 1:34 PM
To: California Environmental Quality Act Comments <CEQA-Comments@lausd.net>
Cc: Wilde, Linda <linda.wilde@lausd.net>; Tapia, Fortunato <fortunato.tapia@lausd.net>
Subject: Colfax Charter Elementary School Project

I am a homeowner across the street from Colfax Charter Elementary School (CCES). I have attended the meetings presented for the benefit of the community in connection with the proposed expansion of the school and have the following comments and concerns regarding the adoption of the Initial Study/Mitigated Negative Declaration (MND): 13-1

1. The project estimates that approximately 40 mature trees will have to be removed. While it has been promised that they will be replaced by "new, large trees," the environmental impact sustained by removal of mature trees merits further review. As many existing trees as possible must be preserved and maintained for their continued ecological benefit. 13-2
2. The new parking/drop off configuration proposes to have vehicles exit onto Huston Street on the south side of the school. It seems that the proximity to Colfax Avenue, a busy street, will create a congestion issue, backing up traffic through the drop off area (and, perhaps, back up southbound Colfax to the north of the school), 13-3 and/or create more traffic through the residential area to the west. Additionally, the back-up of cars trying to exit the drop-off area will increase the pollution and particulates into the neighborhood. 13-4 The new parking/drop off configuration should be reviewed for a more efficient design. 13-5
3. It has been our experience that the maintenance of the landscaping of CCES leaves quite a bit to be desired. (Perhaps this historic neglect has caused the "need" for removal of so many trees…) We would like the proposed expansion of CCES to include provisions for adequate, ongoing care for the grounds (hardscape AND plants) and that the project be designed and funded accordingly. 13-6

Very truly yours,

Karen Kaysing

Letter No. 14

From: Dan Caplan <dancaplanart@yahoo.com>
Sent: Sunday, March 05, 2017 10:49 PM
To: California Environmental Quality Act Comments
Subject: Colfax Charter Elementary School Project

Hello,

Regarding the proposed traffic flow for entry and exit to and from the new parking lot and drop off/pick up route that puts outgoing traffic onto Huston Street, I would like to draw your attention to the existing poor visibility and substandard sidewalk on the south corner of Huston Street, where outgoing traffic will attempt to rejoin the flow on Colfax Avenue. 14-1

Below are some pictures taken at the time of morning drop off, looking east from Huston, and south onto Colfax. As you will see, there is a large hedge encroaching on the street, with no sidewalk on the south side of Huston, and a narrow asphalt walkway around the corner. 14-2

Whereas these conditions are not in the scope of the renovation, the proposed traffic flow will interface with this situation. Cars that currently rejoin traffic from the lot on Colfax will increase the number of cars making this turn, which is potentially hazardous to pedestrians approaching the school from around the hedge. And take note that there is **no** sidewalk on the east side of Colfax Avenue. I also fear that these conditions will push traffic into the neighborhood onto other side streets, seeking a better route to a main street. 14-3

I suggest that if LAUSD must redirect the traffic flow to Huston, that it work with the City to improve visibility and conditions on this corner. 14-4

Thank you,

Dan
Caplan


STOP