DRAFT INITIAL STUDY/MITIGATED NEGATIVE DECLARATION APPENDICES A–J

Parkwest Project



October 2022

City of Fullerton
Community & Economic Development Department
303 W. Commonwealth Avenue
Fullerton, California 92832

PSOMAS

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ACRONYM LIST

AAM	Annual Arithmetic Mean
AB	Assembly Bill
ac	acre
ACM	asbestos-containing materials
af	Acre-feet
AFY	acre-feet per year
AQMP	Air Quality Management Plan
bgs	below the existing ground surface
BMP	Best Management Practice
CAAQS	California Ambient Air Quality Standards
CalARPP	California Accidental Release Prevention Program
CalEEMod	California Emissions Estimator Model
CalEPA	California Environmental Protection Agency
CAL FIRE	California Department of Forestry and Fire Prevention
CALGreen Code	California Green Building Standards Code
CalOSHA	State Occupational Safety and Health Regulations
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CBC	California Building Code
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CGS	California Geological Survey
CH_4	methane
CNEL	Community Noise Equivalent Level
CO	carbon monoxide
CO_2	carbon dioxide
Cortese List	Hazardous Waste and Substances Site List
CPUC	California Public Utilities Commission
CWA	Clean Water Act
cy	cubic yards
dBA	A-weighted decibel scale
DIFs	Development Impact Fees
DOC	Department of Conservation
DOGGR	California Division of Oil, Gas, and Geothermal Resources
DPM	diesel particulate matter
DTSC	Department of Toxic Substances Control
DTSC-SLs	Department of Toxic Substance Control Screening Levels
du	dwelling units
EAP	Energy Action Plan
EIR	Environmental Impact Report
EMFAC	EMissions FACtor
EO	Executive Order
ESA	Environmental Site Assessment
FEMA	Federal Emergency Management Agency
FMMP	Farmland Mapping and Monitoring Program

ft	feet
FTA	Federal Transportation Administration
FTC	Fullerton Town Center
GHG	greenhouse gas
GP	General Plan
gpcd	gallons per capita per day
HCP	Habitat Conservation Plan
HFC	hydrofluorocarbons
HOA	Homeowners Association
HVAC	heating, ventilation, and air conditioning
HWCA	California Hazardous Waste Control Act
I	Interstate
in/sec	inches per second
IRPs	integrated resources plans
IS/MND	Initial Study/Mitigated Negative Declaration
ISSD	Investigative & Support Services Division
ITE	Institute of Transportation Engineers
km	kilometer
LACSD	Los Angeles County Sanitation District
LBP	lead-based paint
L_{eq}	energy average
L_{eq} dBA	Equivalent Continuous Noise Level in A-weighted decibels
L_{max}	maximum noise level
L_{min}	minimum noise level
LOS	Level of Service
LST	localized significance threshold
MBTA	Migratory Bird Treaty Act
MEI	maximally exposed individual
mg	Million Gallons
mgd	million gallons of wastewater per day
mg/m^3	milligrams per cubic meter
mph	miles per hour
MPO	metropolitan planning organization
MRF	Materials Recovery Facility
MRZs	Mineral Resources Zones
MRZ-1	Mineral Resource Zone-1 (an area with no significant mineral deposits)
MRZ-2	Mineral Resource Zone-2 (an area with significant mineral deposits)
MRZ-3	Mineral Resource Zone-3 (an area containing known mineral resources of undetermined significance)
$MTCO_2e$	metric tons of carbon dioxide equivalent metric tons of CO_2 equivalent
$MTCO_2e/yr$	metric tons of CO_2 equivalent per year
NAAQS	National Ambient Air Quality Standards
N-C	Neighborhood Commercial
NCCP	Natural Community Conservation Plan
NHMP	Natural Hazard Mitigation Plan
NPDES	National Pollutant Discharge Elimination System

N_2O	nitrous oxide
NO	nitric oxide
NO_2	nitrogen dioxide
NOI	Notice of Intent
NOx	nitrogen oxide
O_3	ozone
OCPs	organochlorine pesticides
OEHHA	Office of Environmental Health Hazard Assessment
OPR	Governor's Office of Planning and Research
OSHA	Federal Occupational Safety and Health Regulations
PEIR	Program Environmental Impact Report
PFC	perfluorocarbons
PM2.5	fine particulate matter with a diameter of 2.5 microns or less
PM10	respirable particulate matter with a diameter of 10 microns or less
ppm	parts per million
ppv	peak particle velocity
PRD	Permit Registration Document
pvc	polyvinyl chloride
R-1	One-Family Residential
R-3	Limited Density, Multiple Residential
R-4	Medium Density, Multiple Residential
RCP	Regional Comprehensive Plan
RCRA	Resource Conservation and Recovery Act
REC	recognized environmental condition
RHNA	Regional Housing Needs Assessment
RPS	Renewable Portfolio Standard
RSLs	Residential Regional Screening Levels
RTP/SCS	Regional Transportation Plan/Sustainable Communities Strategy
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
S-C	Service Commercial
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCE	Southern California Edison
SCGC	Southern California Gas Company
SCS	Sustainable Communities Strategy
sf	square feet
SF_6	sulfur hexafluoride
SIP	State Implementation Plan
SO_2	sulfur dioxide
SoCAB	South Coast Air Basin
S-P	Specific Plan
SR	State Route
SUSMP	standard urban stormwater mitigation plan
SWP	State Water Project
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TACs	toxic air contaminants

The Fullerton Plan	The Fullerton Plan 2030 General Plan
TPA	Transit Priority Area
µg/m^3	micrograms per cubic meter
USACE	U.S. Army Corps of Engineers
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
UWMP	Urban Water Management Plan
VdB	vibration decibels
VHFHSZ	Very High Fire Hazard Severity Zone
VMT	vehicle miles traveled
VOC	volatile organic compound

Appendix A

Air Quality and Greenhouse Gas Emissions Data

Parkwest Development Project - Orange County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Parkwest Development Project

Orange County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking Structure	1.00	1000sqft	0.02	1,000.00	0
Enclosed Parking with Elevator	660.00	Space	5.94	264,000.00	0
Hotel	124.00	Room	2.87	125,000.00	0
Apartments Mid Rise	286.00	Dwelling Unit	1.96	85,243.00	818
Strip Mall	3.57	1000sqft	0.08	3,570.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	30
Climate Zone	8			**Operational Year**	2025
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	348.64	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - GHG intensity factor based on the web version of CalEEMod

Land Use - Based on Project Description

Construction Phase - Based on data request

Trips and VMT -

Demolition -

Grading -

Architectural Coating -

Vehicle Trips - Based on traffic study. Trip length based on 2 miles average for a cafe.

Parkwest Development Project - Orange County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Woodstoves - No fireplaces

Area Coating -

Water And Wastewater - Outdoor watering assumes 300 gals/day to water the outdoor plants

Construction Off-road Equipment Mitigation -

Mobile Land Use Mitigation -

Waste Mitigation -

Fleet Mix - Fleet mix adjusted to reflect lack of heavy trucks for residential uses.

Stationary Sources - Emergency Generators and Fire Pumps -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	35.00
tblConstructionPhase	NumDays	30.00	45.00
tblConstructionPhase	NumDays	300.00	430.00
tblFireplaces	FireplaceDayYear	25.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberGas	243.10	0.00
tblFireplaces	NumberWood	14.30	0.00
tblFleetMix	HHD	4.9260e-003	5.1615e-003
tblFleetMix	HHD	4.9260e-003	5.1615e-003
tblFleetMix	HHD	4.9260e-003	5.1615e-003
tblFleetMix	HHD	4.9260e-003	5.1615e-003
tblFleetMix	HHD	4.9260e-003	5.1615e-003
tblFleetMix	LDA	0.55	0.57
tblFleetMix	LDA	0.55	0.57
tblFleetMix	LDA	0.55	0.57
tblFleetMix	LDA	0.55	0.57
tblFleetMix	LDA	0.55	0.57
tblFleetMix	LDT1	0.06	0.06

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblFleetMix	LDT1	0.06	0.06
tblFleetMix	LDT1	0.06	0.06
tblFleetMix	LDT1	0.06	0.06
tblFleetMix	LDT1	0.06	0.06
tblFleetMix	LDT2	0.19	0.19
tblFleetMix	LDT2	0.19	0.19
tblFleetMix	LDT2	0.19	0.19
tblFleetMix	LDT2	0.19	0.19
tblFleetMix	LDT2	0.19	0.19
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	6.6790e-003	0.00
tblFleetMix	LHD2	6.6790e-003	0.00
tblFleetMix	LHD2	6.6790e-003	0.00
tblFleetMix	LHD2	6.6790e-003	0.00
tblFleetMix	LHD2	6.6790e-003	0.00
tblFleetMix	MCY	0.02	0.03
tblFleetMix	MCY	0.02	0.03
tblFleetMix	MCY	0.02	0.03
tblFleetMix	MCY	0.02	0.03
tblFleetMix	MCY	0.02	0.03
tblFleetMix	MDV	0.13	0.13
tblFleetMix	MDV	0.13	0.13
tblFleetMix	MDV	0.13	0.13
tblFleetMix	MDV	0.13	0.13
tblFleetMix	MDV	0.13	0.13

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblFleetMix	MH	3.8010e-003	3.9827e-003
tblFleetMix	MH	3.8010e-003	3.9827e-003
tblFleetMix	MH	3.8010e-003	3.9827e-003
tblFleetMix	MH	3.8010e-003	3.9827e-003
tblFleetMix	MH	3.8010e-003	3.9827e-003
tblFleetMix	MHD	0.01	0.00
tblFleetMix	MHD	0.01	0.00
tblFleetMix	MHD	0.01	0.00
tblFleetMix	MHD	0.01	0.00
tblFleetMix	MHD	0.01	0.00
tblFleetMix	OBUS	6.6200e-004	6.9365e-004
tblFleetMix	OBUS	6.6200e-004	6.9365e-004
tblFleetMix	OBUS	6.6200e-004	6.9365e-004
tblFleetMix	OBUS	6.6200e-004	6.9365e-004
tblFleetMix	OBUS	6.6200e-004	6.9365e-004
tblFleetMix	SBUS	7.0500e-004	7.3870e-004
tblFleetMix	SBUS	7.0500e-004	7.3870e-004
tblFleetMix	SBUS	7.0500e-004	7.3870e-004
tblFleetMix	SBUS	7.0500e-004	7.3870e-004
tblFleetMix	SBUS	7.0500e-004	7.3870e-004
tblFleetMix	UBUS	3.7800e-004	3.9607e-004
tblFleetMix	UBUS	3.7800e-004	3.9607e-004
tblFleetMix	UBUS	3.7800e-004	3.9607e-004
tblFleetMix	UBUS	3.7800e-004	3.9607e-004
tblFleetMix	UBUS	3.7800e-004	3.9607e-004
tblGrading	AcresOfGrading	135.00	90.00
tblGrading	MaterialExported	0.00	5,500.00
tblLandUse	LandUseSquareFeet	180,048.00	125,000.00
tblLandUse	LandUseSquareFeet	286,000.00	85,243.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblLandUse	LotAcreage	4.13	2.87
tblLandUse	LotAcreage	7.53	1.96
tblProjectCharacteristics	CO2IntensityFactor	390.98	348.64
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	200.00
tblStationaryGeneratorsPumpsUse	HoursPerDay	0.00	5.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	5.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	2.00
tblVehicleTrips	CC_TL	8.40	2.00
tblVehicleTrips	CNW_TL	6.90	2.00
tblVehicleTrips	CW_TL	16.60	2.00
tblVehicleTrips	ST_TR	4.91	3.54
tblVehicleTrips	ST_TR	8.19	6.66
tblVehicleTrips	ST_TR	42.04	85.82
tblVehicleTrips	SU_TR	4.09	2.95
tblVehicleTrips	SU_TR	5.95	4.83
tblVehicleTrips	SU_TR	20.43	41.71
tblVehicleTrips	WD_TR	5.44	3.92
tblVehicleTrips	WD_TR	8.36	6.79
tblVehicleTrips	WD_TR	44.32	90.48
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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					
2023	0.0990	1.0297	0.8597	2.0800e-003	0.2233	0.0421	0.2654	0.0744	0.0389	0.1133	0.0000	187.7253	187.7253	0.0498	5.0000e-003	190.4623
2024	0.3383	2.3968	3.6295	9.9900e-003	0.6701	0.0892	0.7592	0.1815	0.0837	0.2652	0.0000	921.1153	921.1153	0.1001	0.0399	935.5083
2025	1.1266	1.5790	2.6006	7.0500e-003	0.4279	0.0553	0.4832	0.1149	0.0520	0.1668	0.0000	651.7398	651.7398	0.0701	0.0274	661.6469
Maximum	**1.1266**	**2.3968**	**3.6295**	**9.9900e-003**	**0.6701**	**0.0892**	**0.7592**	**0.1815**	**0.0837**	**0.2652**	**0.0000**	**921.1153**	**921.1153**	**0.1001**	**0.0399**	**935.5083**

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					
2023	0.0990	1.0297	0.8597	2.0800e-003	0.0966	0.0421	0.1387	0.0316	0.0389	0.0705	0.0000	187.7252	187.7252	0.0498	5.0000e-003	190.4621
2024	0.3383	2.3968	3.6294	9.9900e-003	0.6206	0.0892	0.7097	0.1673	0.0837	0.2510	0.0000	921.1149	921.1149	0.1001	0.0399	935.5079
2025	1.1266	1.5790	2.6006	7.0500e-003	0.4279	0.0553	0.4832	0.1149	0.0520	0.1668	0.0000	651.7396	651.7396	0.0701	0.0274	661.6466
Maximum	**1.1266**	**2.3968**	**3.6294**	**9.9900e-003**	**0.6206**	**0.0892**	**0.7097**	**0.1673**	**0.0837**	**0.2510**	**0.0000**	**921.1149**	**921.1149**	**0.1001**	**0.0399**	**935.5079**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	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**	**13.33**	**0.00**	**11.68**	**15.39**	**0.00**	**10.46**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
5	**9-26-2023**	**12-25-2023**	1.0483	1.0483
6	**12-26-2023**	**3-25-2024**	0.7922	0.7922
7	**3-26-2024**	**6-25-2024**	0.6549	0.6549
8	**6-26-2024**	**9-25-2024**	0.6543	0.6543
9	**9-26-2024**	**12-25-2024**	0.6563	0.6563
10	**12-26-2024**	**3-25-2025**	0.6132	0.6132
11	**3-26-2025**	**6-25-2025**	0.6153	0.6153
12	**6-26-2025**	**9-25-2025**	0.5011	0.5011
13	**9-26-2025**	**9-30-2025**	0.0137	0.0137
		Highest	1.0483	1.0483

Parkwest Development Project - Orange County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.9691	0.0340	2.9567	1.6000e-004		0.0164	0.0164		0.0164	0.0164	0.0000	4.8374	4.8374	4.6600e-003	0.0000	4.9540
Energy	0.0401	0.3553	0.2376	2.1900e-003		0.0277	0.0277		0.0277	0.0277	0.0000	977.5998	977.5998	0.0626	0.0139	983.3180
Mobile	0.9058	0.7212	8.7047	0.0176	2.1235	0.0118	2.1353	0.5641	0.0109	0.5751	0.0000	1,668.7828	1,668.7828	0.1182	0.0623	1,690.2877
Stationary	1.6400e-003	4.5900e-003	4.1800e-003	1.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004	0.0000	0.7616	0.7616	1.1000e-004	0.0000	0.7643
Waste						0.0000	0.0000		0.0000	0.0000	41.2478	0.0000	41.2478	2.4377	0.0000	102.1896
Water						0.0000	0.0000		0.0000	0.0000	6.9935	66.9303	73.9239	0.7246	0.0177	97.3229
Total	**1.9166**	**1.1152**	**11.9031**	**0.0200**	**2.1235**	**0.0562**	**2.1797**	**0.5641**	**0.0553**	**0.6194**	**48.2413**	**2,718.9119**	**2,767.1532**	**3.3479**	**0.0939**	**2,878.8365**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

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	0.9691	0.0340	2.9567	1.6000e-004		0.0164	0.0164		0.0164	0.0164	0.0000	4.8374	4.8374	4.6600e-003	0.0000	4.9540
Energy	0.0401	0.3553	0.2376	2.1900e-003		0.0277	0.0277		0.0277	0.0277	0.0000	977.5998	977.5998	0.0626	0.0139	983.3180
Mobile	0.8138	0.6086	7.2713	0.0140	1.6725	9.6200e-003	1.6821	0.4443	8.9000e-003	0.4532	0.0000	1,324.6705	1,324.6705	0.1014	0.0531	1,343.0185
Stationary	1.6400e-003	4.5900e-003	4.1800e-003	1.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004	0.0000	0.7616	0.7616	1.1000e-004	0.0000	0.7643
Waste						0.0000	0.0000		0.0000	0.0000	41.2478	0.0000	41.2478	2.4377	0.0000	102.1896
Water						0.0000	0.0000		0.0000	0.0000	6.9935	66.9303	73.9239	0.7246	0.0177	97.3229
Total	**1.8247**	**1.0025**	**10.4697**	**0.0163**	**1.6725**	**0.0540**	**1.7265**	**0.4443**	**0.0533**	**0.4976**	**48.2413**	**2,374.7996**	**2,423.0409**	**3.3310**	**0.0847**	**2,531.5673**

	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	**4.80**	**10.10**	**12.04**	**18.20**	**21.24**	**3.90**	**20.79**	**21.24**	**3.67**	**19.67**	**0.00**	**12.66**	**12.44**	**0.50**	**9.77**	**12.06**

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	9/26/2023	11/13/2023	5	35	
2	Grading	Grading	11/14/2023	1/15/2024	5	45	

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3	Building Construction	Building Construction	1/16/2024	9/8/2025	5	430	
4	Paving	Paving	9/27/2025	10/24/2025	5	20	
5	Architectural Coating	Architectural Coating	10/25/2025	11/21/2025	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 90

Acres of Paving: 5.96

Residential Indoor: 172,617; Residential Outdoor: 57,539; Non-Residential Indoor: 192,855; Non-Residential Outdoor: 64,285; Striped Parking Area: 15,900 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	6	15.00	0.00	529.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	688.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	371.00	95.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	74.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Demolition - 2023

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					0.0572	0.0000	0.0572	8.6700e-003	0.0000	8.6700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0397	0.3760	0.3438	6.8000e-004		0.0175	0.0175		0.0162	0.0162	0.0000	59.4861	59.4861	0.0167	0.0000	59.9026
Total	**0.0397**	**0.3760**	**0.3438**	**6.8000e-004**	**0.0572**	**0.0175**	**0.0747**	**8.6700e-003**	**0.0162**	**0.0249**	**0.0000**	**59.4861**	**59.4861**	**0.0167**	**0.0000**	**59.9026**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Demolition - 2023

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	5.4000e-004	0.0332	0.0109	1.5000e-004	4.5400e-003	2.0000e-004	4.7400e-003	1.2500e-003	1.9000e-004	1.4400e-003	0.0000	15.3519	15.3519	1.5500e-003	2.4600e-003	16.1244
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	7.4000e-004	5.3000e-004	7.6600e-003	2.0000e-005	2.8800e-003	2.0000e-005	2.9000e-003	7.7000e-004	1.0000e-005	7.8000e-004	0.0000	2.2185	2.2185	5.0000e-005	5.0000e-005	2.2355
Total	**1.2800e-003**	**0.0337**	**0.0185**	**1.7000e-004**	**7.4200e-003**	**2.2000e-004**	**7.6400e-003**	**2.0200e-003**	**2.0000e-004**	**2.2200e-003**	**0.0000**	**17.5704**	**17.5704**	**1.6000e-003**	**2.5100e-003**	**18.3600**

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					0.0223	0.0000	0.0223	3.3800e-003	0.0000	3.3800e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0397	0.3760	0.3438	6.8000e-004		0.0175	0.0175		0.0162	0.0162	0.0000	59.4861	59.4861	0.0167	0.0000	59.9025
Total	**0.0397**	**0.3760**	**0.3438**	**6.8000e-004**	**0.0223**	**0.0175**	**0.0398**	**3.3800e-003**	**0.0162**	**0.0196**	**0.0000**	**59.4861**	**59.4861**	**0.0167**	**0.0000**	**59.9025**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Demolition - 2023

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	5.4000e-004	0.0332	0.0109	1.5000e-004	4.5400e-003	2.0000e-004	4.7400e-003	1.2500e-003	1.9000e-004	1.4400e-003	0.0000	15.3519	15.3519	1.5500e-003	2.4600e-003	16.1244
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	7.4000e-004	5.3000e-004	7.6600e-003	2.0000e-005	2.8800e-003	2.0000e-005	2.9000e-003	7.7000e-004	1.0000e-005	7.8000e-004	0.0000	2.2185	2.2185	5.0000e-005	5.0000e-005	2.2355
Total	**1.2800e-003**	**0.0337**	**0.0185**	**1.7000e-004**	**7.4200e-003**	**2.2000e-004**	**7.6400e-003**	**2.0200e-003**	**2.0000e-004**	**2.2200e-003**	**0.0000**	**17.5704**	**17.5704**	**1.6000e-003**	**2.5100e-003**	**18.3600**

3.3 Grading - 2023

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					0.1504	0.0000	0.1504	0.0615	0.0000	0.0615	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0565	0.5868	0.4769	1.0600e-003		0.0242	0.0242		0.0223	0.0223	0.0000	92.7099	92.7099	0.0300	0.0000	93.4595
Total	**0.0565**	**0.5868**	**0.4769**	**1.0600e-003**	**0.1504**	**0.0242**	**0.1746**	**0.0615**	**0.0223**	**0.0838**	**0.0000**	**92.7099**	**92.7099**	**0.0300**	**0.0000**	**93.4595**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2023

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	5.3000e-004	0.0326	0.0107	1.5000e-004	4.4600e-003	2.0000e-004	4.6600e-003	1.2200e-003	1.9000e-004	1.4100e-003	0.0000	15.0855	15.0855	1.5200e-003	2.4200e-003	15.8447
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	9.6000e-004	6.9000e-004	9.9200e-003	3.0000e-005	3.7300e-003	2.0000e-005	3.7500e-003	9.9000e-004	2.0000e-005	1.0100e-003	0.0000	2.8735	2.8735	7.0000e-005	7.0000e-005	2.8956
Total	**1.4900e-003**	**0.0333**	**0.0206**	**1.8000e-004**	**8.1900e-003**	**2.2000e-004**	**8.4100e-003**	**2.2100e-003**	**2.1000e-004**	**2.4200e-003**	**0.0000**	**17.9590**	**17.9590**	**1.5900e-003**	**2.4900e-003**	**18.7403**

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					0.0587	0.0000	0.0587	0.0240	0.0000	0.0240	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0565	0.5868	0.4769	1.0600e-003		0.0242	0.0242		0.0223	0.0223	0.0000	92.7097	92.7097	0.0300	0.0000	93.4594
Total	**0.0565**	**0.5868**	**0.4769**	**1.0600e-003**	**0.0587**	**0.0242**	**0.0829**	**0.0240**	**0.0223**	**0.0463**	**0.0000**	**92.7097**	**92.7097**	**0.0300**	**0.0000**	**93.4594**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2023

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	5.3000e-004	0.0326	0.0107	1.5000e-004	4.4600e-003	2.0000e-004	4.6600e-003	1.2200e-003	1.9000e-004	1.4100e-003	0.0000	15.0855	15.0855	1.5200e-003	2.4200e-003	15.8447
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	9.6000e-004	6.9000e-004	9.9200e-003	3.0000e-005	3.7300e-003	2.0000e-005	3.7500e-003	9.9000e-004	2.0000e-005	1.0100e-003	0.0000	2.8735	2.8735	7.0000e-005	7.0000e-005	2.8956
Total	**1.4900e-003**	**0.0333**	**0.0206**	**1.8000e-004**	**8.1900e-003**	**2.2000e-004**	**8.4100e-003**	**2.2100e-003**	**2.1000e-004**	**2.4200e-003**	**0.0000**	**17.9590**	**17.9590**	**1.5900e-003**	**2.4900e-003**	**18.7403**

3.3 Grading - 2024

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					0.0812	0.0000	0.0812	0.0234	0.0000	0.0234	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0177	0.1781	0.1525	3.4000e-004		7.3400e-003	7.3400e-003		6.7600e-003	6.7600e-003	0.0000	29.9857	29.9857	9.7000e-003	0.0000	30.2282
Total	**0.0177**	**0.1781**	**0.1525**	**3.4000e-004**	**0.0812**	**7.3400e-003**	**0.0885**	**0.0234**	**6.7600e-003**	**0.0302**	**0.0000**	**29.9857**	**29.9857**	**9.7000e-003**	**0.0000**	**30.2282**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2024

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	1.7000e-004	0.0105	3.5300e-003	5.0000e-005	1.4400e-003	7.0000e-005	1.5100e-003	4.0000e-004	6.0000e-005	4.6000e-004	0.0000	4.8138	4.8138	5.0000e-004	7.7000e-004	5.0565
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	2.9000e-004	2.0000e-004	2.9900e-003	1.0000e-005	1.2100e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	0.9073	0.9073	2.0000e-005	2.0000e-005	0.9140
Total	**4.6000e-004**	**0.0107**	**6.5200e-003**	**6.0000e-005**	**2.6500e-003**	**8.0000e-005**	**2.7200e-003**	**7.2000e-004**	**7.0000e-005**	**7.9000e-004**	**0.0000**	**5.7211**	**5.7211**	**5.2000e-004**	**7.9000e-004**	**5.9705**

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					0.0317	0.0000	0.0317	9.1300e-003	0.0000	9.1300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0177	0.1781	0.1525	3.4000e-004		7.3400e-003	7.3400e-003		6.7600e-003	6.7600e-003	0.0000	29.9857	29.9857	9.7000e-003	0.0000	30.2282
Total	**0.0177**	**0.1781**	**0.1525**	**3.4000e-004**	**0.0317**	**7.3400e-003**	**0.0390**	**9.1300e-003**	**6.7600e-003**	**0.0159**	**0.0000**	**29.9857**	**29.9857**	**9.7000e-003**	**0.0000**	**30.2282**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2024

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	1.7000e-004	0.0105	3.5300e-003	5.0000e-005	1.4400e-003	7.0000e-005	1.5100e-003	4.0000e-004	6.0000e-005	4.6000e-004	0.0000	4.8138	4.8138	5.0000e-004	7.7000e-004	5.0565
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	2.9000e-004	2.0000e-004	2.9900e-003	1.0000e-005	1.2100e-003	1.0000e-005	1.2100e-003	3.2000e-004	1.0000e-005	3.3000e-004	0.0000	0.9073	0.9073	2.0000e-005	2.0000e-005	0.9140
Total	**4.6000e-004**	**0.0107**	**6.5200e-003**	**6.0000e-005**	**2.6500e-003**	**8.0000e-005**	**2.7200e-003**	**7.2000e-004**	**7.0000e-005**	**7.9000e-004**	**0.0000**	**5.7211**	**5.7211**	**5.2000e-004**	**7.9000e-004**	**5.9705**

3.4 Building Construction - 2024

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	0.1847	1.6872	2.0289	3.3800e-003		0.0770	0.0770		0.0724	0.0724	0.0000	290.9706	290.9706	0.0688	0.0000	292.6908
Total	**0.1847**	**1.6872**	**2.0289**	**3.3800e-003**		**0.0770**	**0.0770**		**0.0724**	**0.0724**	**0.0000**	**290.9706**	**290.9706**	**0.0688**	**0.0000**	**292.6908**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2024

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	0.0117	0.4364	0.1745	2.1100e-003	0.0751	2.2500e-003	0.0774	0.0217	2.1500e-003	0.0238	0.0000	210.3800	210.3800	0.0128	0.0303	219.7408
Worker	0.1238	0.0844	1.2671	4.1000e-003	0.5111	2.5300e-003	0.5137	0.1357	2.3300e-003	0.1381	0.0000	384.0578	384.0578	8.2100e-003	8.7800e-003	386.8781
Total	**0.1355**	**0.5208**	**1.4415**	**6.2100e-003**	**0.5863**	**4.7800e-003**	**0.5910**	**0.1574**	**4.4800e-003**	**0.1619**	**0.0000**	**594.4378**	**594.4378**	**0.0210**	**0.0391**	**606.6189**

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	0.1847	1.6872	2.0289	3.3800e-003		0.0770	0.0770		0.0724	0.0724	0.0000	290.9703	290.9703	0.0688	0.0000	292.6904
Total	**0.1847**	**1.6872**	**2.0289**	**3.3800e-003**		**0.0770**	**0.0770**		**0.0724**	**0.0724**	**0.0000**	**290.9703**	**290.9703**	**0.0688**	**0.0000**	**292.6904**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2024

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	0.0117	0.4364	0.1745	2.1100e-003	0.0751	2.2500e-003	0.0774	0.0217	2.1500e-003	0.0238	0.0000	210.3800	210.3800	0.0128	0.0303	219.7408
Worker	0.1238	0.0844	1.2671	4.1000e-003	0.5111	2.5300e-003	0.5137	0.1357	2.3300e-003	0.1381	0.0000	384.0578	384.0578	8.2100e-003	8.7800e-003	386.8781
Total	**0.1355**	**0.5208**	**1.4415**	**6.2100e-003**	**0.5863**	**4.7800e-003**	**0.5910**	**0.1574**	**4.4800e-003**	**0.1619**	**0.0000**	**594.4378**	**594.4378**	**0.0210**	**0.0391**	**606.6189**

3.4 Building Construction - 2025

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	0.1224	1.1160	1.4396	2.4100e-003		0.0472	0.0472		0.0444	0.0444	0.0000	207.5679	207.5679	0.0488	0.0000	208.7877
Total	**0.1224**	**1.1160**	**1.4396**	**2.4100e-003**		**0.0472**	**0.0472**		**0.0444**	**0.0444**	**0.0000**	**207.5679**	**207.5679**	**0.0488**	**0.0000**	**208.7877**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2025

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	8.1800e-003	0.3097	0.1239	1.4700e-003	0.0536	1.6100e-003	0.0552	0.0155	1.5400e-003	0.0170	0.0000	147.2252	147.2252	9.2600e-003	0.0213	153.8096
Worker	0.0835	0.0546	0.8504	2.8300e-003	0.3645	1.7300e-003	0.3663	0.0968	1.5900e-003	0.0984	0.0000	267.2120	267.2120	5.3300e-003	5.8900e-003	269.0989
Total	**0.0917**	**0.3642**	**0.9743**	**4.3000e-003**	**0.4181**	**3.3400e-003**	**0.4214**	**0.1123**	**3.1300e-003**	**0.1154**	**0.0000**	**414.4372**	**414.4372**	**0.0146**	**0.0272**	**422.9085**

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	0.1224	1.1160	1.4396	2.4100e-003		0.0472	0.0472		0.0444	0.0444	0.0000	207.5677	207.5677	0.0488	0.0000	208.7875
Total	**0.1224**	**1.1160**	**1.4396**	**2.4100e-003**		**0.0472**	**0.0472**		**0.0444**	**0.0444**	**0.0000**	**207.5677**	**207.5677**	**0.0488**	**0.0000**	**208.7875**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2025

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	8.1800e-003	0.3097	0.1239	1.4700e-003	0.0536	1.6100e-003	0.0552	0.0155	1.5400e-003	0.0170	0.0000	147.2252	147.2252	9.2600e-003	0.0213	153.8096
Worker	0.0835	0.0546	0.8504	2.8300e-003	0.3645	1.7300e-003	0.3663	0.0968	1.5900e-003	0.0984	0.0000	267.2120	267.2120	5.3300e-003	5.8900e-003	269.0989
Total	**0.0917**	**0.3642**	**0.9743**	**4.3000e-003**	**0.4181**	**3.3400e-003**	**0.4214**	**0.1123**	**3.1300e-003**	**0.1154**	**0.0000**	**414.4372**	**414.4372**	**0.0146**	**0.0272**	**422.9085**

3.5 Paving - 2025

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	9.1500e-003	0.0858	0.1458	2.3000e-004		4.1900e-003	4.1900e-003		3.8500e-003	3.8500e-003	0.0000	20.0193	20.0193	6.4700e-003	0.0000	20.1811
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**9.1500e-003**	**0.0858**	**0.1458**	**2.3000e-004**		**4.1900e-003**	**4.1900e-003**		**3.8500e-003**	**3.8500e-003**	**0.0000**	**20.0193**	**20.0193**	**6.4700e-003**	**0.0000**	**20.1811**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Paving - 2025

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	3.8000e-004	2.5000e-004	3.8400e-003	1.0000e-005	1.6500e-003	1.0000e-005	1.6500e-003	4.4000e-004	1.0000e-005	4.4000e-004	0.0000	1.2071	1.2071	2.0000e-005	3.0000e-005	1.2156
Total	**3.8000e-004**	**2.5000e-004**	**3.8400e-003**	**1.0000e-005**	**1.6500e-003**	**1.0000e-005**	**1.6500e-003**	**4.4000e-004**	**1.0000e-005**	**4.4000e-004**	**0.0000**	**1.2071**	**1.2071**	**2.0000e-005**	**3.0000e-005**	**1.2156**

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	9.1500e-003	0.0858	0.1458	2.3000e-004		4.1900e-003	4.1900e-003		3.8500e-003	3.8500e-003	0.0000	20.0192	20.0192	6.4700e-003	0.0000	20.1811
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**9.1500e-003**	**0.0858**	**0.1458**	**2.3000e-004**		**4.1900e-003**	**4.1900e-003**		**3.8500e-003**	**3.8500e-003**	**0.0000**	**20.0192**	**20.0192**	**6.4700e-003**	**0.0000**	**20.1811**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Paving - 2025

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	3.8000e-004	2.5000e-004	3.8400e-003	1.0000e-005	1.6500e-003	1.0000e-005	1.6500e-003	4.4000e-004	1.0000e-005	4.4000e-004	0.0000	1.2071	1.2071	2.0000e-005	3.0000e-005	1.2156
Total	**3.8000e-004**	**2.5000e-004**	**3.8400e-003**	**1.0000e-005**	**1.6500e-003**	**1.0000e-005**	**1.6500e-003**	**4.4000e-004**	**1.0000e-005**	**4.4000e-004**	**0.0000**	**1.2071**	**1.2071**	**2.0000e-005**	**3.0000e-005**	**1.2156**

3.6 Architectural Coating - 2025

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	0.8995					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.7100e-003	0.0115	0.0181	3.0000e-005		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	2.5533	2.5533	1.4000e-004	0.0000	2.5567
Total	**0.9012**	**0.0115**	**0.0181**	**3.0000e-005**		**5.2000e-004**	**5.2000e-004**		**5.2000e-004**	**5.2000e-004**	**0.0000**	**2.5533**	**2.5533**	**1.4000e-004**	**0.0000**	**2.5567**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2025

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	1.8600e-003	1.2200e-003	0.0190	6.0000e-005	8.1200e-003	4.0000e-005	8.1600e-003	2.1600e-003	4.0000e-005	2.1900e-003	0.0000	5.9551	5.9551	1.2000e-004	1.3000e-004	5.9972
Total	**1.8600e-003**	**1.2200e-003**	**0.0190**	**6.0000e-005**	**8.1200e-003**	**4.0000e-005**	**8.1600e-003**	**2.1600e-003**	**4.0000e-005**	**2.1900e-003**	**0.0000**	**5.9551**	**5.9551**	**1.2000e-004**	**1.3000e-004**	**5.9972**

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	0.8995					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.7100e-003	0.0115	0.0181	3.0000e-005		5.2000e-004	5.2000e-004		5.2000e-004	5.2000e-004	0.0000	2.5533	2.5533	1.4000e-004	0.0000	2.5567
Total	**0.9012**	**0.0115**	**0.0181**	**3.0000e-005**		**5.2000e-004**	**5.2000e-004**		**5.2000e-004**	**5.2000e-004**	**0.0000**	**2.5533**	**2.5533**	**1.4000e-004**	**0.0000**	**2.5567**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2025

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	1.8600e-003	1.2200e-003	0.0190	6.0000e-005	8.1200e-003	4.0000e-005	8.1600e-003	2.1600e-003	4.0000e-005	2.1900e-003	0.0000	5.9551	5.9551	1.2000e-004	1.3000e-004	5.9972
Total	**1.8600e-003**	**1.2200e-003**	**0.0190**	**6.0000e-005**	**8.1200e-003**	**4.0000e-005**	**8.1600e-003**	**2.1600e-003**	**4.0000e-005**	**2.1900e-003**	**0.0000**	**5.9551**	**5.9551**	**1.2000e-004**	**1.3000e-004**	**5.9972**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Transit Accessibility

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	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	0.8138	0.6086	7.2713	0.0140	1.6725	9.6200e-003	1.6821	0.4443	8.9000e-003	0.4532	0.0000	1,324.6705	1,324.6705	0.1014	0.0531	1,343.0185
Unmitigated	0.9058	0.7212	8.7047	0.0176	2.1235	0.0118	2.1353	0.5641	0.0109	0.5751	0.0000	1,668.7828	1,668.7828	0.1182	0.0623	1,690.2877

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	1,121.12	1,012.44	843.70	3,642,557	2,868,914
Enclosed Parking Structure	0.00	0.00	0.00		
Enclosed Parking with Elevator	0.00	0.00	0.00		
Hotel	841.96	825.84	598.92	1,920,718	1,512,776
Strip Mall	323.01	306.38	148.90	120,039	94,544
Total	2,286.09	2,144.66	1,591.52	5,683,314	4,476,235

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
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Enclosed Parking Structure	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Enclosed Parking with Elevator	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Strip Mall	2.00	2.00	2.00	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.573623	0.063058	0.193885	0.132534	0.000000	0.000000	0.000000	0.005161	0.000694	0.000396	0.025928	0.000739	0.003983
Enclosed Parking Structure	0.573623	0.063058	0.193885	0.132534	0.000000	0.000000	0.000000	0.005161	0.000694	0.000396	0.025928	0.000739	0.003983
Enclosed Parking with Elevator	0.573623	0.063058	0.193885	0.132534	0.000000	0.000000	0.000000	0.005161	0.000694	0.000396	0.025928	0.000739	0.003983
Hotel	0.573623	0.063058	0.193885	0.132534	0.000000	0.000000	0.000000	0.005161	0.000694	0.000396	0.025928	0.000739	0.003983
Strip Mall	0.573623	0.063058	0.193885	0.132534	0.000000	0.000000	0.000000	0.005161	0.000694	0.000396	0.025928	0.000739	0.003983

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	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	580.5920	580.5920	0.0550	6.6600e-003	583.9509
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	580.5920	580.5920	0.0550	6.6600e-003	583.9509
NaturalGas Mitigated	0.0401	0.3553	0.2376	2.1900e-003		0.0277	0.0277		0.0277	0.0277	0.0000	397.0078	397.0078	7.6100e-003	7.2800e-003	399.3670
NaturalGas Unmitigated	0.0401	0.3553	0.2376	2.1900e-003		0.0277	0.0277		0.0277	0.0277	0.0000	397.0078	397.0078	7.6100e-003	7.2800e-003	399.3670

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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					
Apartments Mid Rise	3.18879e+006	0.0172	0.1469	0.0625	9.4000e-004		0.0119	0.0119		0.0119	0.0119	0.0000	170.1661	170.1661	3.2600e-003	3.1200e-003	171.1773
Enclosed Parking Structure	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
Enclosed Parking with Elevator	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
Hotel	4.24375e+006	0.0229	0.2080	0.1747	1.2500e-003		0.0158	0.0158		0.0158	0.0158	0.0000	226.4627	226.4627	4.3400e-003	4.1500e-003	227.8084
Strip Mall	7104.3	4.0000e-005	3.5000e-004	2.9000e-004	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.3791	0.3791	1.0000e-005	1.0000e-005	0.3814
Total		**0.0401**	**0.3553**	**0.2376**	**2.1900e-003**		**0.0277**	**0.0277**		**0.0277**	**0.0277**	**0.0000**	**397.0078**	**397.0078**	**7.6100e-003**	**7.2800e-003**	**399.3671**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

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					
Apartments Mid Rise	3.18879e+006	0.0172	0.1469	0.0625	9.4000e-004		0.0119	0.0119		0.0119	0.0119	0.0000	170.1661	170.1661	3.2600e-003	3.1200e-003	171.1773
Enclosed Parking Structure	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
Enclosed Parking with Elevator	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
Hotel	4.24375e+006	0.0229	0.2080	0.1747	1.2500e-003		0.0158	0.0158		0.0158	0.0158	0.0000	226.4627	226.4627	4.3400e-003	4.1500e-003	227.8084
Strip Mall	7104.3	4.0000e-005	3.5000e-004	2.9000e-004	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.3791	0.3791	1.0000e-005	1.0000e-005	0.3814
Total		**0.0401**	**0.3553**	**0.2376**	**2.1900e-003**		**0.0277**	**0.0277**		**0.0277**	**0.0277**	**0.0000**	**397.0078**	**397.0078**	**7.6100e-003**	**7.2800e-003**	**399.3671**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	1.09648e+006	173.3971	0.0164	1.9900e-003	174.4003
Enclosed Parking Structure	5250	0.8302	8.0000e-005	1.0000e-005	0.8350
Enclosed Parking with Elevator	1.43616e+006	227.1150	0.0215	2.6100e-003	228.4289
Hotel	1.09375e+006	172.9661	0.0164	1.9800e-003	173.9668
Strip Mall	39734.1	6.2836	5.9000e-004	7.0000e-005	6.3199
Total		**580.5920**	**0.0550**	**6.6600e-003**	**583.9509**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	1.09648e+006	173.3971	0.0164	1.9900e-003	174.4003
Enclosed Parking Structure	5250	0.8302	8.0000e-005	1.0000e-005	0.8350
Enclosed Parking with Elevator	1.43616e+006	227.1150	0.0215	2.6100e-003	228.4289
Hotel	1.09375e+006	172.9661	0.0164	1.9800e-003	173.9668
Strip Mall	39734.1	6.2836	5.9000e-004	7.0000e-005	6.3199
Total		**580.5920**	**0.0550**	**6.6600e-003**	**583.9509**

6.0 Area Detail

6.1 Mitigation Measures Area

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	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	0.9691	0.0340	2.9567	1.6000e-004		0.0164	0.0164		0.0164	0.0164	0.0000	4.8374	4.8374	4.6600e-003	0.0000	4.9540
Unmitigated	0.9691	0.0340	2.9567	1.6000e-004		0.0164	0.0164		0.0164	0.0164	0.0000	4.8374	4.8374	4.6600e-003	0.0000	4.9540

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	0.0900					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.7897					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	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
Landscaping	0.0894	0.0340	2.9567	1.6000e-004		0.0164	0.0164		0.0164	0.0164	0.0000	4.8374	4.8374	4.6600e-003	0.0000	4.9540
Total	**0.9691**	**0.0340**	**2.9567**	**1.6000e-004**		**0.0164**	**0.0164**		**0.0164**	**0.0164**	**0.0000**	**4.8374**	**4.8374**	**4.6600e-003**	**0.0000**	**4.9540**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.2 Area by SubCategory

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	0.0900					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.7897					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	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
Landscaping	0.0894	0.0340	2.9567	1.6000e-004		0.0164	0.0164		0.0164	0.0164	0.0000	4.8374	4.8374	4.6600e-003	0.0000	4.9540
Total	**0.9691**	**0.0340**	**2.9567**	**1.6000e-004**		**0.0164**	**0.0164**		**0.0164**	**0.0164**	**0.0000**	**4.8374**	**4.8374**	**4.6600e-003**	**0.0000**	**4.9540**

7.0 Water Detail

7.1 Mitigation Measures Water

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	73.9239	0.7246	0.0177	97.3229
Unmitigated	73.9239	0.7246	0.0177	97.3229

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	18.6341 / 11.7476	64.9217	0.6128	0.0150	84.7153
Enclosed Parking Structure	0 / 0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Hotel	3.14548 / 0.349498	8.0890	0.1032	2.5000e-003	11.4136
Strip Mall	0.264439 / 0.162075	0.9132	8.7000e-003	2.1000e-004	1.1940
Total		**73.9239**	**0.7247**	**0.0177**	**97.3229**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	18.6341 / 11.7476	64.9217	0.6128	0.0150	84.7153
Enclosed Parking Structure	0 / 0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Hotel	3.14548 / 0.349498	8.0890	0.1032	2.5000e-003	11.4136
Strip Mall	0.264439 / 0.162075	0.9132	8.7000e-003	2.1000e-004	1.1940
Total		**73.9239**	**0.7247**	**0.0177**	**97.3229**

8.0 Waste Detail

8.1 Mitigation Measures Waste

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	41.2478	2.4377	0.0000	102.1896
Unmitigated	41.2478	2.4377	0.0000	102.1896

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	131.56	26.7055	1.5783	0.0000	66.1617
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Hotel	67.89	13.7811	0.8144	0.0000	34.1420
Strip Mall	3.75	0.7612	0.0450	0.0000	1.8859
Total		**41.2478**	**2.4377**	**0.0000**	**102.1896**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	131.56	26.7055	1.5783	0.0000	66.1617
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Hotel	67.89	13.7811	0.8144	0.0000	34.1420
Strip Mall	3.75	0.7612	0.0450	0.0000	1.8859
Total		**41.2478**	**2.4377**	**0.0000**	**102.1896**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	2	5	5	200	0.73	Diesel

Boilers

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/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
Equipment Type	tons/yr										MT/yr					
Emergency Generator - Diesel (175 - 300 HP)	1.6400e-003	4.5900e-003	4.1800e-003	1.0000e-005		2.4000e-004	2.4000e-004		2.4000e-004	2.4000e-004	0.0000	0.7616	0.7616	1.1000e-004	0.0000	0.7643
Total	**1.6400e-003**	**4.5900e-003**	**4.1800e-003**	**1.0000e-005**		**2.4000e-004**	**2.4000e-004**		**2.4000e-004**	**2.4000e-004**	**0.0000**	**0.7616**	**0.7616**	**1.1000e-004**	**0.0000**	**0.7643**

11.0 Vegetation

Parkwest Development Project - Orange County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Parkwest Development Project

Orange County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking Structure	1.00	1000sqft	0.02	1,000.00	0
Enclosed Parking with Elevator	660.00	Space	5.94	264,000.00	0
Hotel	124.00	Room	2.87	125,000.00	0
Apartments Mid Rise	286.00	Dwelling Unit	1.96	85,243.00	818
Strip Mall	3.57	1000sqft	0.08	3,570.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	30
Climate Zone	8			**Operational Year**	2025
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	348.64	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - GHG intensity factor based on the web version of CalEEMod

Land Use - Based on Project Description

Construction Phase - Based on data request

Trips and VMT -

Demolition -

Grading -

Architectural Coating -

Vehicle Trips - Based on traffic study. Trip length based on 2 miles average for a cafe.

Parkwest Development Project - Orange County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Woodstoves - No fireplaces

Area Coating -

Water And Wastewater - Outdoor watering assumes 300 gals/day to water the outdoor plants

Construction Off-road Equipment Mitigation -

Mobile Land Use Mitigation -

Waste Mitigation -

Fleet Mix - Fleet mix adjusted to reflect lack of heavy trucks for residential uses.

Stationary Sources - Emergency Generators and Fire Pumps -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	35.00
tblConstructionPhase	NumDays	30.00	45.00
tblConstructionPhase	NumDays	300.00	430.00
tblFireplaces	FireplaceDayYear	25.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberGas	243.10	0.00
tblFireplaces	NumberWood	14.30	0.00
tblFleetMix	HHD	4.9260e-003	5.1615e-003
tblFleetMix	HHD	4.9260e-003	5.1615e-003
tblFleetMix	HHD	4.9260e-003	5.1615e-003
tblFleetMix	HHD	4.9260e-003	5.1615e-003
tblFleetMix	HHD	4.9260e-003	5.1615e-003
tblFleetMix	LDA	0.55	0.57
tblFleetMix	LDA	0.55	0.57
tblFleetMix	LDA	0.55	0.57
tblFleetMix	LDA	0.55	0.57
tblFleetMix	LDA	0.55	0.57
tblFleetMix	LDT1	0.06	0.06

Parkwest Development Project - Orange County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblFleetMix	LDT1	0.06	0.06
tblFleetMix	LDT1	0.06	0.06
tblFleetMix	LDT1	0.06	0.06
tblFleetMix	LDT1	0.06	0.06
tblFleetMix	LDT2	0.19	0.19
tblFleetMix	LDT2	0.19	0.19
tblFleetMix	LDT2	0.19	0.19
tblFleetMix	LDT2	0.19	0.19
tblFleetMix	LDT2	0.19	0.19
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	6.6790e-003	0.00
tblFleetMix	LHD2	6.6790e-003	0.00
tblFleetMix	LHD2	6.6790e-003	0.00
tblFleetMix	LHD2	6.6790e-003	0.00
tblFleetMix	LHD2	6.6790e-003	0.00
tblFleetMix	MCY	0.02	0.03
tblFleetMix	MCY	0.02	0.03
tblFleetMix	MCY	0.02	0.03
tblFleetMix	MCY	0.02	0.03
tblFleetMix	MCY	0.02	0.03
tblFleetMix	MDV	0.13	0.13
tblFleetMix	MDV	0.13	0.13
tblFleetMix	MDV	0.13	0.13
tblFleetMix	MDV	0.13	0.13
tblFleetMix	MDV	0.13	0.13

Parkwest Development Project - Orange County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblFleetMix	MH	3.8010e-003	3.9827e-003
tblFleetMix	MH	3.8010e-003	3.9827e-003
tblFleetMix	MH	3.8010e-003	3.9827e-003
tblFleetMix	MH	3.8010e-003	3.9827e-003
tblFleetMix	MH	3.8010e-003	3.9827e-003
tblFleetMix	MHD	0.01	0.00
tblFleetMix	MHD	0.01	0.00
tblFleetMix	MHD	0.01	0.00
tblFleetMix	MHD	0.01	0.00
tblFleetMix	MHD	0.01	0.00
tblFleetMix	OBUS	6.6200e-004	6.9365e-004
tblFleetMix	OBUS	6.6200e-004	6.9365e-004
tblFleetMix	OBUS	6.6200e-004	6.9365e-004
tblFleetMix	OBUS	6.6200e-004	6.9365e-004
tblFleetMix	OBUS	6.6200e-004	6.9365e-004
tblFleetMix	SBUS	7.0500e-004	7.3870e-004
tblFleetMix	SBUS	7.0500e-004	7.3870e-004
tblFleetMix	SBUS	7.0500e-004	7.3870e-004
tblFleetMix	SBUS	7.0500e-004	7.3870e-004
tblFleetMix	SBUS	7.0500e-004	7.3870e-004
tblFleetMix	UBUS	3.7800e-004	3.9607e-004
tblFleetMix	UBUS	3.7800e-004	3.9607e-004
tblFleetMix	UBUS	3.7800e-004	3.9607e-004
tblFleetMix	UBUS	3.7800e-004	3.9607e-004
tblFleetMix	UBUS	3.7800e-004	3.9607e-004
tblGrading	AcresOfGrading	135.00	90.00
tblGrading	MaterialExported	0.00	5,500.00
tblLandUse	LandUseSquareFeet	180,048.00	125,000.00
tblLandUse	LandUseSquareFeet	286,000.00	85,243.00

Parkwest Development Project - Orange County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblLandUse	LotAcreage	4.13	2.87
tblLandUse	LotAcreage	7.53	1.96
tblProjectCharacteristics	CO2IntensityFactor	390.98	348.64
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	200.00
tblStationaryGeneratorsPumpsUse	HoursPerDay	0.00	5.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	5.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	2.00
tblVehicleTrips	CC_TL	8.40	2.00
tblVehicleTrips	CNW_TL	6.90	2.00
tblVehicleTrips	CW_TL	16.60	2.00
tblVehicleTrips	ST_TR	4.91	3.54
tblVehicleTrips	ST_TR	8.19	6.66
tblVehicleTrips	ST_TR	42.04	85.82
tblVehicleTrips	SU_TR	4.09	2.95
tblVehicleTrips	SU_TR	5.95	4.83
tblVehicleTrips	SU_TR	20.43	41.71
tblVehicleTrips	WD_TR	5.44	3.92
tblVehicleTrips	WD_TR	8.36	6.79
tblVehicleTrips	WD_TR	44.32	90.48
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

Parkwest Development Project - Orange County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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					
2023	3.4100	36.3737	29.2882	0.0726	8.6471	1.4374	10.0845	3.6737	1.3228	4.9965	0.0000	7,182.3416	7,182.3416	2.0471	0.1610	7,281.4880
2024	3.3026	34.2182	28.9320	0.0776	8.6471	1.3487	9.9958	3.6736	1.2413	4.9149	0.0000	7,897.5162	7,897.5162	2.0474	0.3376	8,017.7969
2025	90.3023	16.3175	27.4096	0.0761	4.7543	0.5649	5.3192	1.2746	0.5312	1.8058	0.0000	7,778.2523	7,778.2523	0.7791	0.3295	7,895.9055
Maximum	**90.3023**	**36.3737**	**29.2882**	**0.0776**	**8.6471**	**1.4374**	**10.0845**	**3.6737**	**1.3228**	**4.9965**	**0.0000**	**7,897.5162**	**7,897.5162**	**2.0474**	**0.3376**	**8,017.7969**

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					
2023	3.4100	36.3737	29.2882	0.0726	3.6714	1.4374	5.1087	1.5134	1.3228	2.8362	0.0000	7,182.3416	7,182.3416	2.0471	0.1610	7,281.4880
2024	3.3026	34.2182	28.9320	0.0776	4.7544	1.3487	5.4057	1.5134	1.2413	2.7547	0.0000	7,897.5162	7,897.5162	2.0474	0.3376	8,017.7969
2025	90.3023	16.3175	27.4096	0.0761	4.7543	0.5649	5.3192	1.2746	0.5312	1.8058	0.0000	7,778.2523	7,778.2523	0.7791	0.3295	7,895.9055
Maximum	**90.3023**	**36.3737**	**29.2882**	**0.0776**	**4.7544**	**1.4374**	**5.4057**	**1.5134**	**1.3228**	**2.8362**	**0.0000**	**7,897.5162**	**7,897.5162**	**2.0474**	**0.3376**	**8,017.7969**

Parkwest Development Project - Orange County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	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**	**40.22**	**0.00**	**37.66**	**50.11**	**0.00**	**36.87**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

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	5.5354	0.2723	23.6533	1.2500e-003		0.1311	0.1311		0.1311	0.1311	0.0000	42.6585	42.6585	0.0411	0.0000	43.6869
Energy	0.2198	1.9469	1.3017	0.0120		0.1519	0.1519		0.1519	0.1519		2,397.9519	2,397.9519	0.0460	0.0440	2,412.2017
Mobile	5.4285	3.7921	50.1710	0.1049	12.4814	0.0683	12.5497	3.3113	0.0632	3.3745		10,970.6847	10,970.6847	0.7310	0.3745	11,100.5474
Stationary	3.2821	9.1734	8.3688	0.0158		0.4828	0.4828		0.4828	0.4828		1,679.0282	1,679.0282	0.2354		1,684.9132
Total	**14.4659**	**15.1847**	**83.4948**	**0.1339**	**12.4814**	**0.8341**	**13.3155**	**3.3113**	**0.8290**	**4.1403**	**0.0000**	**15,090.3233**	**15,090.3233**	**1.0535**	**0.4184**	**15,241.3492**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

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	5.5354	0.2723	23.6533	1.2500e-003		0.1311	0.1311		0.1311	0.1311	0.0000	42.6585	42.6585	0.0411	0.0000	43.6869
Energy	0.2198	1.9469	1.3017	0.0120		0.1519	0.1519		0.1519	0.1519		2,397.9519	2,397.9519	0.0460	0.0440	2,412.2017
Mobile	4.9049	3.2077	41.6133	0.0833	9.8305	0.0556	9.8861	2.6080	0.0514	2.6595		8,706.0044	8,706.0044	0.6236	0.3198	8,816.8831
Stationary	3.2821	9.1734	8.3688	0.0158		0.4828	0.4828		0.4828	0.4828		1,679.0282	1,679.0282	0.2354		1,684.9132
Total	**13.9422**	**14.6003**	**74.9370**	**0.1123**	**9.8305**	**0.8214**	**10.6519**	**2.6080**	**0.8172**	**3.4252**	**0.0000**	**12,825.6430**	**12,825.6430**	**0.9461**	**0.3637**	**12,957.6849**

	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	**3.62**	**3.85**	**10.25**	**16.17**	**21.24**	**1.52**	**20.00**	**21.24**	**1.42**	**17.27**	**0.00**	**15.01**	**15.01**	**10.19**	**13.07**	**14.98**

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	9/26/2023	11/13/2023	5	35	
2	Grading	Grading	11/14/2023	1/15/2024	5	45	
3	Building Construction	Building Construction	1/16/2024	9/8/2025	5	430	
4	Paving	Paving	9/27/2025	10/24/2025	5	20	

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5	Architectural Coating	Architectural Coating	10/25/2025	11/21/2025	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 90

Acres of Paving: 5.96

Residential Indoor: 172,617; Residential Outdoor: 57,539; Non-Residential Indoor: 192,855; Non-Residential Outdoor: 64,285; Striped Parking Area: 15,900 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Parkwest Development Project - Orange County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	6	15.00	0.00	529.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	688.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	371.00	95.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	74.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Demolition - 2023

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					3.2704	0.0000	3.2704	0.4952	0.0000	0.4952			0.0000			0.0000
Off-Road	2.2691	21.4844	19.6434	0.0388		0.9975	0.9975		0.9280	0.9280		3,746.9840	3,746.9840	1.0494		3,773.2183
Total	**2.2691**	**21.4844**	**19.6434**	**0.0388**	**3.2704**	**0.9975**	**4.2679**	**0.4952**	**0.9280**	**1.4232**		**3,746.9840**	**3,746.9840**	**1.0494**		**3,773.2183**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Demolition - 2023

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	0.0315	1.8012	0.6175	8.4800e-003	0.2636	0.0116	0.2752	0.0722	0.0111	0.0833		966.6350	966.6350	0.0975	0.1551	1,015.2813
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
Worker	0.0423	0.0270	0.4593	1.4100e-003	0.1677	8.6000e-004	0.1685	0.0445	7.9000e-004	0.0453		144.7966	144.7966	3.1400e-003	3.0900e-003	145.7958
Total	**0.0738**	**1.8283**	**1.0768**	**9.8900e-003**	**0.4313**	**0.0125**	**0.4437**	**0.1167**	**0.0119**	**0.1285**		**1,111.4316**	**1,111.4316**	**0.1007**	**0.1582**	**1,161.0771**

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					1.2755	0.0000	1.2755	0.1931	0.0000	0.1931			0.0000			0.0000
Off-Road	2.2691	21.4844	19.6434	0.0388		0.9975	0.9975		0.9280	0.9280	0.0000	3,746.9840	3,746.9840	1.0494		3,773.2183
Total	**2.2691**	**21.4844**	**19.6434**	**0.0388**	**1.2755**	**0.9975**	**2.2730**	**0.1931**	**0.9280**	**1.1211**	**0.0000**	**3,746.9840**	**3,746.9840**	**1.0494**		**3,773.2183**

Parkwest Development Project - Orange County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Demolition - 2023

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	0.0315	1.8012	0.6175	8.4800e-003	0.2636	0.0116	0.2752	0.0722	0.0111	0.0833		966.6350	966.6350	0.0975	0.1551	1,015.2813
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
Worker	0.0423	0.0270	0.4593	1.4100e-003	0.1677	8.6000e-004	0.1685	0.0445	7.9000e-004	0.0453		144.7966	144.7966	3.1400e-003	3.0900e-003	145.7958
Total	**0.0738**	**1.8283**	**1.0768**	**9.8900e-003**	**0.4313**	**0.0125**	**0.4437**	**0.1167**	**0.0119**	**0.1285**		**1,111.4316**	**1,111.4316**	**0.1007**	**0.1582**	**1,161.0771**

3.3 Grading - 2023

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					8.1569	0.0000	8.1569	3.5413	0.0000	3.5413			0.0000			0.0000
Off-Road	3.3217	34.5156	28.0512	0.0621		1.4245	1.4245		1.3105	1.3105		6,011.4777	6,011.4777	1.9442		6,060.0836
Total	**3.3217**	**34.5156**	**28.0512**	**0.0621**	**8.1569**	**1.4245**	**9.5814**	**3.5413**	**1.3105**	**4.8519**		**6,011.4777**	**6,011.4777**	**1.9442**		**6,060.0836**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2023

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	0.0319	1.8220	0.6246	8.5800e-003	0.2666	0.0117	0.2784	0.0730	0.0112	0.0842		977.8018	977.8018	0.0987	0.1569	1,027.0101
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
Worker	0.0564	0.0361	0.6124	1.8900e-003	0.2236	1.1400e-003	0.2247	0.0593	1.0500e-003	0.0603		193.0621	193.0621	4.1900e-003	4.1200e-003	194.3944
Total	**0.0882**	**1.8581**	**1.2370**	**0.0105**	**0.4902**	**0.0129**	**0.5031**	**0.1323**	**0.0123**	**0.1446**		**1,170.8639**	**1,170.8639**	**0.1029**	**0.1610**	**1,221.4044**

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					3.1812	0.0000	3.1812	1.3811	0.0000	1.3811			0.0000			0.0000
Off-Road	3.3217	34.5156	28.0512	0.0621		1.4245	1.4245		1.3105	1.3105	0.0000	6,011.4777	6,011.4777	1.9442		6,060.0836
Total	**3.3217**	**34.5156**	**28.0512**	**0.0621**	**3.1812**	**1.4245**	**4.6057**	**1.3811**	**1.3105**	**2.6917**	**0.0000**	**6,011.4777**	**6,011.4777**	**1.9442**		**6,060.0836**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2023

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	0.0319	1.8220	0.6246	8.5800e-003	0.2666	0.0117	0.2784	0.0730	0.0112	0.0842		977.8018	977.8018	0.0987	0.1569	1,027.0101
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
Worker	0.0564	0.0361	0.6124	1.8900e-003	0.2236	1.1400e-003	0.2247	0.0593	1.0500e-003	0.0603		193.0621	193.0621	4.1900e-003	4.1200e-003	194.3944
Total	**0.0882**	**1.8581**	**1.2370**	**0.0105**	**0.4902**	**0.0129**	**0.5031**	**0.1323**	**0.0123**	**0.1446**		**1,170.8639**	**1,170.8639**	**0.1029**	**0.1610**	**1,221.4044**

3.3 Grading - 2024

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					8.1569	0.0000	8.1569	3.5413	0.0000	3.5413			0.0000			0.0000
Off-Road	3.2181	32.3770	27.7228	0.0621		1.3354	1.3354		1.2286	1.2286		6,009.7487	6,009.7487	1.9437		6,058.3405
Total	**3.2181**	**32.3770**	**27.7228**	**0.0621**	**8.1569**	**1.3354**	**9.4923**	**3.5413**	**1.2286**	**4.7699**		**6,009.7487**	**6,009.7487**	**1.9437**		**6,058.3405**

Parkwest Development Project - Orange County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2024

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	0.0315	1.8089	0.6384	8.4400e-003	0.2666	0.0122	0.2789	0.0730	0.0117	0.0847		964.4020	964.4020	0.0999	0.1548	1,013.0302
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
Worker	0.0530	0.0324	0.5708	1.8300e-003	0.2236	1.0900e-003	0.2246	0.0593	1.0000e-003	0.0603		188.4176	188.4176	3.8000e-003	3.8500e-003	189.6606
Total	**0.0845**	**1.8413**	**1.2092**	**0.0103**	**0.4902**	**0.0133**	**0.5035**	**0.1323**	**0.0127**	**0.1450**		**1,152.8196**	**1,152.8196**	**0.1037**	**0.1587**	**1,202.6908**

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					3.1812	0.0000	3.1812	1.3811	0.0000	1.3811			0.0000			0.0000
Off-Road	3.2181	32.3770	27.7228	0.0621		1.3354	1.3354		1.2286	1.2286	0.0000	6,009.7487	6,009.7487	1.9437		6,058.3405
Total	**3.2181**	**32.3770**	**27.7228**	**0.0621**	**3.1812**	**1.3354**	**4.5166**	**1.3811**	**1.2286**	**2.6097**	**0.0000**	**6,009.7487**	**6,009.7487**	**1.9437**		**6,058.3405**

Parkwest Development Project - Orange County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2024

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	0.0315	1.8089	0.6384	8.4400e-003	0.2666	0.0122	0.2789	0.0730	0.0117	0.0847		964.4020	964.4020	0.0999	0.1548	1,013.0302
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
Worker	0.0530	0.0324	0.5708	1.8300e-003	0.2236	1.0900e-003	0.2246	0.0593	1.0000e-003	0.0603		188.4176	188.4176	3.8000e-003	3.8500e-003	189.6606
Total	**0.0845**	**1.8413**	**1.2092**	**0.0103**	**0.4902**	**0.0133**	**0.5035**	**0.1323**	**0.0127**	**0.1450**		**1,152.8196**	**1,152.8196**	**0.1037**	**0.1587**	**1,202.6908**

3.4 Building Construction - 2024

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	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**		**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

Parkwest Development Project - Orange County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2024

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	0.0000
Vendor	0.0945	3.3196	1.3701	0.0168	0.6074	0.0179	0.6253	0.1748	0.0171	0.1919		1,846.6704	1,846.6704	0.1127	0.2661	1,928.7848
Worker	0.9827	0.6009	10.5886	0.0339	4.1469	0.0202	4.1671	1.0998	0.0186	1.1184		3,495.1468	3,495.1468	0.0705	0.0715	3,518.2045
Total	**1.0773**	**3.9205**	**11.9587**	**0.0507**	**4.7544**	**0.0381**	**4.7924**	**1.2746**	**0.0357**	**1.3103**		**5,341.8173**	**5,341.8173**	**0.1832**	**0.3376**	**5,446.9893**

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	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**	**0.0000**	**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

Parkwest Development Project - Orange County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2024

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	0.0000
Vendor	0.0945	3.3196	1.3701	0.0168	0.6074	0.0179	0.6253	0.1748	0.0171	0.1919		1,846.6704	1,846.6704	0.1127	0.2661	1,928.7848
Worker	0.9827	0.6009	10.5886	0.0339	4.1469	0.0202	4.1671	1.0998	0.0186	1.1184		3,495.1468	3,495.1468	0.0705	0.0715	3,518.2045
Total	**1.0773**	**3.9205**	**11.9587**	**0.0507**	**4.7544**	**0.0381**	**4.7924**	**1.2746**	**0.0357**	**1.3103**		**5,341.8173**	**5,341.8173**	**0.1832**	**0.3376**	**5,446.9893**

3.4 Building Construction - 2025

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	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**		**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

Parkwest Development Project - Orange County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2025

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	0.0000
Vendor	0.0931	3.3032	1.3646	0.0164	0.6074	0.0180	0.6254	0.1748	0.0172	0.1920		1,812.0989	1,812.0989	0.1141	0.2622	1,893.0940
Worker	0.9281	0.5446	9.9603	0.0327	4.1469	0.0193	4.1662	1.0998	0.0178	1.1176		3,409.6790	3,409.6790	0.0640	0.0672	3,431.3135
Total	**1.0212**	**3.8478**	**11.3250**	**0.0492**	**4.7543**	**0.0373**	**4.7916**	**1.2746**	**0.0350**	**1.3096**		**5,221.7779**	**5,221.7779**	**0.1782**	**0.3295**	**5,324.4074**

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	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963	0.0000	2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**	**0.0000**	**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

Parkwest Development Project - Orange County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2025

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	0.0000
Vendor	0.0931	3.3032	1.3646	0.0164	0.6074	0.0180	0.6254	0.1748	0.0172	0.1920		1,812.0989	1,812.0989	0.1141	0.2622	1,893.0940
Worker	0.9281	0.5446	9.9603	0.0327	4.1469	0.0193	4.1662	1.0998	0.0178	1.1176		3,409.6790	3,409.6790	0.0640	0.0672	3,431.3135
Total	**1.0212**	**3.8478**	**11.3250**	**0.0492**	**4.7543**	**0.0373**	**4.7916**	**1.2746**	**0.0350**	**1.3096**		**5,221.7779**	**5,221.7779**	**0.1782**	**0.3295**	**5,324.4074**

3.5 Paving - 2025

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	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850		2,206.7452	2,206.7452	0.7137		2,224.5878
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9152**	**8.5816**	**14.5780**	**0.0228**		**0.4185**	**0.4185**		**0.3850**	**0.3850**		**2,206.7452**	**2,206.7452**	**0.7137**		**2,224.5878**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Paving - 2025

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	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
Worker	0.0375	0.0220	0.4027	1.3200e-003	0.1677	7.8000e-004	0.1685	0.0445	7.2000e-004	0.0452		137.8576	137.8576	2.5900e-003	2.7200e-003	138.7324
Total	**0.0375**	**0.0220**	**0.4027**	**1.3200e-003**	**0.1677**	**7.8000e-004**	**0.1685**	**0.0445**	**7.2000e-004**	**0.0452**		**137.8576**	**137.8576**	**2.5900e-003**	**2.7200e-003**	**138.7324**

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	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850	0.0000	2,206.7452	2,206.7452	0.7137		2,224.5878
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9152**	**8.5816**	**14.5780**	**0.0228**		**0.4185**	**0.4185**		**0.3850**	**0.3850**	**0.0000**	**2,206.7452**	**2,206.7452**	**0.7137**		**2,224.5878**

Parkwest Development Project - Orange County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Paving - 2025

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	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
Worker	0.0375	0.0220	0.4027	1.3200e-003	0.1677	7.8000e-004	0.1685	0.0445	7.2000e-004	0.0452		137.8576	137.8576	2.5900e-003	2.7200e-003	138.7324
Total	**0.0375**	**0.0220**	**0.4027**	**1.3200e-003**	**0.1677**	**7.8000e-004**	**0.1685**	**0.0445**	**7.2000e-004**	**0.0452**		**137.8576**	**137.8576**	**2.5900e-003**	**2.7200e-003**	**138.7324**

3.6 Architectural Coating - 2025

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	89.9464					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**90.1172**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

Parkwest Development Project - Orange County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2025

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	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
Worker	0.1851	0.1086	1.9867	6.5300e-003	0.8272	3.8600e-003	0.8310	0.2194	3.5500e-003	0.2229		680.0977	680.0977	0.0128	0.0134	684.4129
Total	**0.1851**	**0.1086**	**1.9867**	**6.5300e-003**	**0.8272**	**3.8600e-003**	**0.8310**	**0.2194**	**3.5500e-003**	**0.2229**		**680.0977**	**680.0977**	**0.0128**	**0.0134**	**684.4129**

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	89.9464					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319
Total	**90.1172**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.8319**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2025

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	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
Worker	0.1851	0.1086	1.9867	6.5300e-003	0.8272	3.8600e-003	0.8310	0.2194	3.5500e-003	0.2229		680.0977	680.0977	0.0128	0.0134	684.4129
Total	**0.1851**	**0.1086**	**1.9867**	**6.5300e-003**	**0.8272**	**3.8600e-003**	**0.8310**	**0.2194**	**3.5500e-003**	**0.2229**		**680.0977**	**680.0977**	**0.0128**	**0.0134**	**684.4129**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Transit Accessibility

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	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	4.9049	3.2077	41.6133	0.0833	9.8305	0.0556	9.8861	2.6080	0.0514	2.6595		8,706.0044	8,706.0044	0.6236	0.3198	8,816.8831
Unmitigated	5.4285	3.7921	50.1710	0.1049	12.4814	0.0683	12.5497	3.3113	0.0632	3.3745		10,970.6847	10,970.6847	0.7310	0.3745	11,100.5474

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	1,121.12	1,012.44	843.70	3,642,557	2,868,914
Enclosed Parking Structure	0.00	0.00	0.00		
Enclosed Parking with Elevator	0.00	0.00	0.00		
Hotel	841.96	825.84	598.92	1,920,718	1,512,776
Strip Mall	323.01	306.38	148.90	120,039	94,544
Total	2,286.09	2,144.66	1,591.52	5,683,314	4,476,235

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
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Enclosed Parking Structure	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Enclosed Parking with Elevator	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Strip Mall	2.00	2.00	2.00	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.573623	0.063058	0.193885	0.132534	0.000000	0.000000	0.000000	0.005161	0.000694	0.000396	0.025928	0.000739	0.003983
Enclosed Parking Structure	0.573623	0.063058	0.193885	0.132534	0.000000	0.000000	0.000000	0.005161	0.000694	0.000396	0.025928	0.000739	0.003983
Enclosed Parking with Elevator	0.573623	0.063058	0.193885	0.132534	0.000000	0.000000	0.000000	0.005161	0.000694	0.000396	0.025928	0.000739	0.003983
Hotel	0.573623	0.063058	0.193885	0.132534	0.000000	0.000000	0.000000	0.005161	0.000694	0.000396	0.025928	0.000739	0.003983
Strip Mall	0.573623	0.063058	0.193885	0.132534	0.000000	0.000000	0.000000	0.005161	0.000694	0.000396	0.025928	0.000739	0.003983

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	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	0.2198	1.9469	1.3017	0.0120		0.1519	0.1519		0.1519	0.1519		2,397.9519	2,397.9519	0.0460	0.0440	2,412.2017
NaturalGas Unmitigated	0.2198	1.9469	1.3017	0.0120		0.1519	0.1519		0.1519	0.1519		2,397.9519	2,397.9519	0.0460	0.0440	2,412.2017

Parkwest Development Project - Orange County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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					
Apartments Mid Rise	8736.41	0.0942	0.8051	0.3426	5.1400e-003		0.0651	0.0651		0.0651	0.0651		1,027.8135	1,027.8135	0.0197	0.0188	1,033.9213
Enclosed Parking Structure	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
Enclosed Parking with Elevator	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
Hotel	11626.7	0.1254	1.1399	0.9575	6.8400e-003		0.0866	0.0866		0.0866	0.0866		1,367.8485	1,367.8485	0.0262	0.0251	1,375.9770
Strip Mall	19.4638	2.1000e-004	1.9100e-003	1.6000e-003	1.0000e-005		1.5000e-004	1.5000e-004		1.5000e-004	1.5000e-004		2.2899	2.2899	4.0000e-005	4.0000e-005	2.3035
Total		**0.2198**	**1.9469**	**1.3017**	**0.0120**		**0.1519**	**0.1519**		**0.1519**	**0.1519**		**2,397.9519**	**2,397.9519**	**0.0460**	**0.0440**	**2,412.2017**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

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					
Apartments Mid Rise	8.73641	0.0942	0.8051	0.3426	5.1400e-003		0.0651	0.0651		0.0651	0.0651		1,027.8135	1,027.8135	0.0197	0.0188	1,033.9213
Enclosed Parking Structure	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
Enclosed Parking with Elevator	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
Hotel	11.6267	0.1254	1.1399	0.9575	6.8400e-003		0.0866	0.0866		0.0866	0.0866		1,367.8485	1,367.8485	0.0262	0.0251	1,375.9770
Strip Mall	0.0194638	2.1000e-004	1.9100e-003	1.6000e-003	1.0000e-005		1.5000e-004	1.5000e-004		1.5000e-004	1.5000e-004		2.2899	2.2899	4.0000e-005	4.0000e-005	2.3035
Total		**0.2198**	**1.9469**	**1.3017**	**0.0120**		**0.1519**	**0.1519**		**0.1519**	**0.1519**		**2,397.9519**	**2,397.9519**	**0.0460**	**0.0440**	**2,412.2017**

6.0 Area Detail

6.1 Mitigation Measures Area

Parkwest Development Project - Orange County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	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	5.5354	0.2723	23.6533	1.2500e-003		0.1311	0.1311		0.1311	0.1311	0.0000	42.6585	42.6585	0.0411	0.0000	43.6869
Unmitigated	5.5354	0.2723	23.6533	1.2500e-003		0.1311	0.1311		0.1311	0.1311	0.0000	42.6585	42.6585	0.0411	0.0000	43.6869

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	0.4929					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	4.3274					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	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
Landscaping	0.7152	0.2723	23.6533	1.2500e-003		0.1311	0.1311		0.1311	0.1311		42.6585	42.6585	0.0411		43.6869
Total	**5.5354**	**0.2723**	**23.6533**	**1.2500e-003**		**0.1311**	**0.1311**		**0.1311**	**0.1311**	**0.0000**	**42.6585**	**42.6585**	**0.0411**	**0.0000**	**43.6869**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.2 Area by SubCategory

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	0.4929					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	4.3274					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	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
Landscaping	0.7152	0.2723	23.6533	1.2500e-003		0.1311	0.1311		0.1311	0.1311		42.6585	42.6585	0.0411		43.6869
Total	**5.5354**	**0.2723**	**23.6533**	**1.2500e-003**		**0.1311**	**0.1311**		**0.1311**	**0.1311**	**0.0000**	**42.6585**	**42.6585**	**0.0411**	**0.0000**	**43.6869**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	2	5	5	200	0.73	Diesel

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/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
Equipment Type	lb/day										lb/day					
Emergency Generator - Diesel (175 - 300 HP)	3.2821	9.1734	8.3688	0.0158		0.4828	0.4828		0.4828	0.4828		1,679.0282	1,679.0282	0.2354		1,684.9132
Total	**3.2821**	**9.1734**	**8.3688**	**0.0158**		**0.4828**	**0.4828**		**0.4828**	**0.4828**		**1,679.0282**	**1,679.0282**	**0.2354**		**1,684.9132**

11.0 Vegetation

Parkwest Development Project - Orange County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Parkwest Development Project

Orange County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking Structure	1.00	1000sqft	0.02	1,000.00	0
Enclosed Parking with Elevator	660.00	Space	5.94	264,000.00	0
Hotel	124.00	Room	2.87	125,000.00	0
Apartments Mid Rise	286.00	Dwelling Unit	1.96	85,243.00	818
Strip Mall	3.57	1000sqft	0.08	3,570.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	30
Climate Zone	8			**Operational Year**	2025
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	348.64	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - GHG intensity factor based on the web version of CalEEMod

Land Use - Based on Project Description

Construction Phase - Based on data request

Trips and VMT -

Demolition -

Grading -

Architectural Coating -

Vehicle Trips - Based on traffic study. Trip length based on 2 miles average for a cafe.

Parkwest Development Project - Orange County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Woodstoves - No fireplaces

Area Coating -

Water And Wastewater - Outdoor watering assumes 300 gals/day to water the outdoor plants

Construction Off-road Equipment Mitigation -

Mobile Land Use Mitigation -

Waste Mitigation -

Fleet Mix - Fleet mix adjusted to reflect lack of heavy trucks for residential uses.

Stationary Sources - Emergency Generators and Fire Pumps -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	20.00	35.00
tblConstructionPhase	NumDays	30.00	45.00
tblConstructionPhase	NumDays	300.00	430.00
tblFireplaces	FireplaceDayYear	25.00	0.00
tblFireplaces	FireplaceHourDay	3.00	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberGas	243.10	0.00
tblFireplaces	NumberWood	14.30	0.00
tblFleetMix	HHD	4.9260e-003	5.1615e-003
tblFleetMix	HHD	4.9260e-003	5.1615e-003
tblFleetMix	HHD	4.9260e-003	5.1615e-003
tblFleetMix	HHD	4.9260e-003	5.1615e-003
tblFleetMix	HHD	4.9260e-003	5.1615e-003
tblFleetMix	LDA	0.55	0.57
tblFleetMix	LDA	0.55	0.57
tblFleetMix	LDA	0.55	0.57
tblFleetMix	LDA	0.55	0.57
tblFleetMix	LDA	0.55	0.57
tblFleetMix	LDT1	0.06	0.06

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblFleetMix	LDT1	0.06	0.06
tblFleetMix	LDT1	0.06	0.06
tblFleetMix	LDT1	0.06	0.06
tblFleetMix	LDT1	0.06	0.06
tblFleetMix	LDT2	0.19	0.19
tblFleetMix	LDT2	0.19	0.19
tblFleetMix	LDT2	0.19	0.19
tblFleetMix	LDT2	0.19	0.19
tblFleetMix	LDT2	0.19	0.19
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD1	0.02	0.00
tblFleetMix	LHD2	6.6790e-003	0.00
tblFleetMix	LHD2	6.6790e-003	0.00
tblFleetMix	LHD2	6.6790e-003	0.00
tblFleetMix	LHD2	6.6790e-003	0.00
tblFleetMix	LHD2	6.6790e-003	0.00
tblFleetMix	MCY	0.02	0.03
tblFleetMix	MCY	0.02	0.03
tblFleetMix	MCY	0.02	0.03
tblFleetMix	MCY	0.02	0.03
tblFleetMix	MCY	0.02	0.03
tblFleetMix	MDV	0.13	0.13
tblFleetMix	MDV	0.13	0.13
tblFleetMix	MDV	0.13	0.13
tblFleetMix	MDV	0.13	0.13
tblFleetMix	MDV	0.13	0.13

Parkwest Development Project - Orange County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblFleetMix	MH	3.8010e-003	3.9827e-003
tblFleetMix	MH	3.8010e-003	3.9827e-003
tblFleetMix	MH	3.8010e-003	3.9827e-003
tblFleetMix	MH	3.8010e-003	3.9827e-003
tblFleetMix	MH	3.8010e-003	3.9827e-003
tblFleetMix	MHD	0.01	0.00
tblFleetMix	MHD	0.01	0.00
tblFleetMix	MHD	0.01	0.00
tblFleetMix	MHD	0.01	0.00
tblFleetMix	MHD	0.01	0.00
tblFleetMix	OBUS	6.6200e-004	6.9365e-004
tblFleetMix	OBUS	6.6200e-004	6.9365e-004
tblFleetMix	OBUS	6.6200e-004	6.9365e-004
tblFleetMix	OBUS	6.6200e-004	6.9365e-004
tblFleetMix	OBUS	6.6200e-004	6.9365e-004
tblFleetMix	SBUS	7.0500e-004	7.3870e-004
tblFleetMix	SBUS	7.0500e-004	7.3870e-004
tblFleetMix	SBUS	7.0500e-004	7.3870e-004
tblFleetMix	SBUS	7.0500e-004	7.3870e-004
tblFleetMix	SBUS	7.0500e-004	7.3870e-004
tblFleetMix	UBUS	3.7800e-004	3.9607e-004
tblFleetMix	UBUS	3.7800e-004	3.9607e-004
tblFleetMix	UBUS	3.7800e-004	3.9607e-004
tblFleetMix	UBUS	3.7800e-004	3.9607e-004
tblFleetMix	UBUS	3.7800e-004	3.9607e-004
tblGrading	AcresOfGrading	135.00	90.00
tblGrading	MaterialExported	0.00	5,500.00
tblLandUse	LandUseSquareFeet	180,048.00	125,000.00
tblLandUse	LandUseSquareFeet	286,000.00	85,243.00

Parkwest Development Project - Orange County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblLandUse	LotAcreage	4.13	2.87
tblLandUse	LotAcreage	7.53	1.96
tblProjectCharacteristics	CO2IntensityFactor	390.98	348.64
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	200.00
tblStationaryGeneratorsPumpsUse	HoursPerDay	0.00	5.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	5.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	2.00
tblVehicleTrips	CC_TL	8.40	2.00
tblVehicleTrips	CNW_TL	6.90	2.00
tblVehicleTrips	CW_TL	16.60	2.00
tblVehicleTrips	ST_TR	4.91	3.54
tblVehicleTrips	ST_TR	8.19	6.66
tblVehicleTrips	ST_TR	42.04	85.82
tblVehicleTrips	SU_TR	4.09	2.95
tblVehicleTrips	SU_TR	5.95	4.83
tblVehicleTrips	SU_TR	20.43	41.71
tblVehicleTrips	WD_TR	5.44	3.92
tblVehicleTrips	WD_TR	8.36	6.79
tblVehicleTrips	WD_TR	44.32	90.48
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

2.0 Emissions Summary

Parkwest Development Project - Orange County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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					
2023	3.4133	36.4547	29.2531	0.0725	8.6471	1.4374	10.0845	3.6737	1.3228	4.9965	0.0000	7,173.9946	7,173.9946	2.0471	0.1614	7,273.2622
2024	3.3059	34.2985	28.9002	0.0760	8.6471	1.3488	9.9958	3.6736	1.2413	4.9150	0.0000	7,733.4508	7,733.4508	2.0474	0.3427	7,855.3027
2025	90.3208	16.5186	26.7866	0.0746	4.7543	0.5650	5.3193	1.2746	0.5313	1.8059	0.0000	7,618.6063	7,618.6063	0.7805	0.3343	7,737.7397
Maximum	**90.3208**	**36.4547**	**29.2531**	**0.0760**	**8.6471**	**1.4374**	**10.0845**	**3.6737**	**1.3228**	**4.9965**	**0.0000**	**7,733.4508**	**7,733.4508**	**2.0474**	**0.3427**	**7,855.3027**

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					
2023	3.4133	36.4547	29.2531	0.0725	3.6714	1.4374	5.1088	1.5134	1.3228	2.8363	0.0000	7,173.9946	7,173.9946	2.0471	0.1614	7,273.2622
2024	3.3059	34.2985	28.9002	0.0760	4.7544	1.3488	5.4058	1.5134	1.2413	2.7547	0.0000	7,733.4508	7,733.4508	2.0474	0.3427	7,855.3027
2025	90.3208	16.5186	26.7866	0.0746	4.7543	0.5650	5.3193	1.2746	0.5313	1.8059	0.0000	7,618.6063	7,618.6063	0.7805	0.3343	7,737.7397
Maximum	**90.3208**	**36.4547**	**29.2531**	**0.0760**	**4.7544**	**1.4374**	**5.4058**	**1.5134**	**1.3228**	**2.8363**	**0.0000**	**7,733.4508**	**7,733.4508**	**2.0474**	**0.3427**	**7,855.3027**

Parkwest Development Project - Orange County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	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**	**40.22**	**0.00**	**37.66**	**50.11**	**0.00**	**36.87**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

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	5.5354	0.2723	23.6533	1.2500e-003		0.1311	0.1311		0.1311	0.1311	0.0000	42.6585	42.6585	0.0411	0.0000	43.6869
Energy	0.2198	1.9469	1.3017	0.0120		0.1519	0.1519		0.1519	0.1519		2,397.9519	2,397.9519	0.0460	0.0440	2,412.2017
Mobile	5.3699	4.1187	50.0613	0.1005	12.4814	0.0683	12.5497	3.3113	0.0632	3.3745		10,508.2423	10,508.2423	0.7585	0.3945	10,644.7530
Stationary	3.2821	9.1734	8.3688	0.0158		0.4828	0.4828		0.4828	0.4828		1,679.0282	1,679.0282	0.2354		1,684.9132
Total	**14.4072**	**15.5113**	**83.3850**	**0.1295**	**12.4814**	**0.8341**	**13.3155**	**3.3113**	**0.8290**	**4.1403**	**0.0000**	**14,627.8810**	**14,627.8810**	**1.0810**	**0.4384**	**14,785.5548**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

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	5.5354	0.2723	23.6533	1.2500e-003		0.1311	0.1311		0.1311	0.1311	0.0000	42.6585	42.6585	0.0411	0.0000	43.6869
Energy	0.2198	1.9469	1.3017	0.0120		0.1519	0.1519		0.1519	0.1519		2,397.9519	2,397.9519	0.0460	0.0440	2,412.2017
Mobile	4.8389	3.4837	41.9080	0.0798	9.8305	0.0556	9.8861	2.6080	0.0515	2.6595		8,342.6325	8,342.6325	0.6512	0.3370	8,459.3444
Stationary	3.2821	9.1734	8.3688	0.0158		0.4828	0.4828		0.4828	0.4828		1,679.0282	1,679.0282	0.2354		1,684.9132
Total	**13.8762**	**14.8763**	**75.2318**	**0.1088**	**9.8305**	**0.8214**	**10.6519**	**2.6080**	**0.8172**	**3.4253**	**0.0000**	**12,462.2711**	**12,462.2711**	**0.9737**	**0.3810**	**12,600.1462**

	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	**3.69**	**4.09**	**9.78**	**15.99**	**21.24**	**1.52**	**20.00**	**21.24**	**1.42**	**17.27**	**0.00**	**14.80**	**14.80**	**9.93**	**13.10**	**14.78**

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	9/26/2023	11/13/2023	5	35	
2	Grading	Grading	11/14/2023	1/15/2024	5	45	
3	Building Construction	Building Construction	1/16/2024	9/8/2025	5	430	
4	Paving	Paving	9/27/2025	10/24/2025	5	20	

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5	Architectural Coating	Architectural Coating	10/25/2025	11/21/2025	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 90

Acres of Paving: 5.96

Residential Indoor: 172,617; Residential Outdoor: 57,539; Non-Residential Indoor: 192,855; Non-Residential Outdoor: 64,285; Striped Parking Area: 15,900 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Parkwest Development Project - Orange County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	6	15.00	0.00	529.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	688.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	371.00	95.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	74.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Demolition - 2023

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					3.2704	0.0000	3.2704	0.4952	0.0000	0.4952			0.0000			0.0000
Off-Road	2.2691	21.4844	19.6434	0.0388		0.9975	0.9975		0.9280	0.9280		3,746.9840	3,746.9840	1.0494		3,773.2183
Total	**2.2691**	**21.4844**	**19.6434**	**0.0388**	**3.2704**	**0.9975**	**4.2679**	**0.4952**	**0.9280**	**1.4232**		**3,746.9840**	**3,746.9840**	**1.0494**		**3,773.2183**

Parkwest Development Project - Orange County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Demolition - 2023

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	0.0297	1.8778	0.6242	8.4900e-003	0.2636	0.0116	0.2752	0.0722	0.0111	0.0833		967.5088	967.5088	0.0974	0.1552	1,016.1948
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
Worker	0.0462	0.0297	0.4279	1.3500e-003	0.1677	8.6000e-004	0.1685	0.0445	7.9000e-004	0.0453		137.8735	137.8735	3.2200e-003	3.2900e-003	138.9334
Total	**0.0758**	**1.9075**	**1.0521**	**9.8400e-003**	**0.4313**	**0.0125**	**0.4437**	**0.1167**	**0.0119**	**0.1286**		**1,105.3822**	**1,105.3822**	**0.1006**	**0.1585**	**1,155.1282**

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					1.2755	0.0000	1.2755	0.1931	0.0000	0.1931			0.0000			0.0000
Off-Road	2.2691	21.4844	19.6434	0.0388		0.9975	0.9975		0.9280	0.9280	0.0000	3,746.9840	3,746.9840	1.0494		3,773.2183
Total	**2.2691**	**21.4844**	**19.6434**	**0.0388**	**1.2755**	**0.9975**	**2.2730**	**0.1931**	**0.9280**	**1.1211**	**0.0000**	**3,746.9840**	**3,746.9840**	**1.0494**		**3,773.2183**

Parkwest Development Project - Orange County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Demolition - 2023

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	0.0297	1.8778	0.6242	8.4900e-003	0.2636	0.0116	0.2752	0.0722	0.0111	0.0833		967.5088	967.5088	0.0974	0.1552	1,016.1948
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
Worker	0.0462	0.0297	0.4279	1.3500e-003	0.1677	8.6000e-004	0.1685	0.0445	7.9000e-004	0.0453		137.8735	137.8735	3.2200e-003	3.2900e-003	138.9334
Total	**0.0758**	**1.9075**	**1.0521**	**9.8400e-003**	**0.4313**	**0.0125**	**0.4437**	**0.1167**	**0.0119**	**0.1286**		**1,105.3822**	**1,105.3822**	**0.1006**	**0.1585**	**1,155.1282**

3.3 Grading - 2023

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					8.1569	0.0000	8.1569	3.5413	0.0000	3.5413			0.0000			0.0000
Off-Road	3.3217	34.5156	28.0512	0.0621		1.4245	1.4245		1.3105	1.3105		6,011.4777	6,011.4777	1.9442		6,060.0836
Total	**3.3217**	**34.5156**	**28.0512**	**0.0621**	**8.1569**	**1.4245**	**9.5814**	**3.5413**	**1.3105**	**4.8519**		**6,011.4777**	**6,011.4777**	**1.9442**		**6,060.0836**

Parkwest Development Project - Orange County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2023

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	0.0300	1.8995	0.6314	8.5900e-003	0.2666	0.0118	0.2784	0.0730	0.0113	0.0843		978.6856	978.6856	0.0985	0.1570	1,027.9341
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
Worker	0.0616	0.0396	0.5705	1.8000e-003	0.2236	1.1400e-003	0.2247	0.0593	1.0500e-003	0.0603		183.8313	183.8313	4.2900e-003	4.3800e-003	185.2446
Total	**0.0916**	**1.9391**	**1.2019**	**0.0104**	**0.4902**	**0.0129**	**0.5031**	**0.1323**	**0.0123**	**0.1446**		**1,162.5169**	**1,162.5169**	**0.1028**	**0.1614**	**1,213.1787**

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					3.1812	0.0000	3.1812	1.3811	0.0000	1.3811			0.0000			0.0000
Off-Road	3.3217	34.5156	28.0512	0.0621		1.4245	1.4245		1.3105	1.3105	0.0000	6,011.4777	6,011.4777	1.9442		6,060.0836
Total	**3.3217**	**34.5156**	**28.0512**	**0.0621**	**3.1812**	**1.4245**	**4.6057**	**1.3811**	**1.3105**	**2.6917**	**0.0000**	**6,011.4777**	**6,011.4777**	**1.9442**		**6,060.0836**

Parkwest Development Project - Orange County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2023

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	0.0300	1.8995	0.6314	8.5900e-003	0.2666	0.0118	0.2784	0.0730	0.0113	0.0843		978.6856	978.6856	0.0985	0.1570	1,027.9341
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
Worker	0.0616	0.0396	0.5705	1.8000e-003	0.2236	1.1400e-003	0.2247	0.0593	1.0500e-003	0.0603		183.8313	183.8313	4.2900e-003	4.3800e-003	185.2446
Total	**0.0916**	**1.9391**	**1.2019**	**0.0104**	**0.4902**	**0.0129**	**0.5031**	**0.1323**	**0.0123**	**0.1446**		**1,162.5169**	**1,162.5169**	**0.1028**	**0.1614**	**1,213.1787**

3.3 Grading - 2024

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					8.1569	0.0000	8.1569	3.5413	0.0000	3.5413			0.0000			0.0000
Off-Road	3.2181	32.3770	27.7228	0.0621		1.3354	1.3354		1.2286	1.2286		6,009.7487	6,009.7487	1.9437		6,058.3405
Total	**3.2181**	**32.3770**	**27.7228**	**0.0621**	**8.1569**	**1.3354**	**9.4923**	**3.5413**	**1.2286**	**4.7699**		**6,009.7487**	**6,009.7487**	**1.9437**		**6,058.3405**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2024

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	0.0296	1.8860	0.6451	8.4500e-003	0.2666	0.0123	0.2789	0.0730	0.0117	0.0848		965.2898	965.2898	0.0998	0.1550	1,013.9584
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
Worker	0.0581	0.0356	0.5323	1.7400e-003	0.2236	1.0900e-003	0.2246	0.0593	1.0000e-003	0.0603		179.4231	179.4231	3.9000e-003	4.1000e-003	180.7416
Total	**0.0877**	**1.9216**	**1.1774**	**0.0102**	**0.4902**	**0.0134**	**0.5035**	**0.1323**	**0.0127**	**0.1450**		**1,144.7129**	**1,144.7129**	**0.1037**	**0.1591**	**1,194.6999**

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					3.1812	0.0000	3.1812	1.3811	0.0000	1.3811			0.0000			0.0000
Off-Road	3.2181	32.3770	27.7228	0.0621		1.3354	1.3354		1.2286	1.2286	0.0000	6,009.7487	6,009.7487	1.9437		6,058.3405
Total	**3.2181**	**32.3770**	**27.7228**	**0.0621**	**3.1812**	**1.3354**	**4.5166**	**1.3811**	**1.2286**	**2.6097**	**0.0000**	**6,009.7487**	**6,009.7487**	**1.9437**		**6,058.3405**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2024

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	0.0296	1.8860	0.6451	8.4500e-003	0.2666	0.0123	0.2789	0.0730	0.0117	0.0848		965.2898	965.2898	0.0998	0.1550	1,013.9584
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
Worker	0.0581	0.0356	0.5323	1.7400e-003	0.2236	1.0900e-003	0.2246	0.0593	1.0000e-003	0.0603		179.4231	179.4231	3.9000e-003	4.1000e-003	180.7416
Total	**0.0877**	**1.9216**	**1.1774**	**0.0102**	**0.4902**	**0.0134**	**0.5035**	**0.1323**	**0.0127**	**0.1450**		**1,144.7129**	**1,144.7129**	**0.1037**	**0.1591**	**1,194.6999**

3.4 Building Construction - 2024

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	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**		**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

Parkwest Development Project - Orange County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2024

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	0.0000
Vendor	0.0912	3.4679	1.4133	0.0168	0.6074	0.0180	0.6254	0.1748	0.0172	0.1920		1,849.4536	1,849.4536	0.1124	0.2667	1,931.7391
Worker	1.0776	0.6597	9.8749	0.0323	4.1469	0.0202	4.1671	1.0998	0.0186	1.1184		3,328.2983	3,328.2983	0.0723	0.0760	3,352.7560
Total	**1.1688**	**4.1276**	**11.2881**	**0.0491**	**4.7544**	**0.0382**	**4.7925**	**1.2746**	**0.0358**	**1.3104**		**5,177.7519**	**5,177.7519**	**0.1847**	**0.3427**	**5,284.4950**

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	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077
Total	**1.4716**	**13.4438**	**16.1668**	**0.0270**		**0.6133**	**0.6133**		**0.5769**	**0.5769**	**0.0000**	**2,555.6989**	**2,555.6989**	**0.6044**		**2,570.8077**

Parkwest Development Project - Orange County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2024

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	0.0000
Vendor	0.0912	3.4679	1.4133	0.0168	0.6074	0.0180	0.6254	0.1748	0.0172	0.1920		1,849.4536	1,849.4536	0.1124	0.2667	1,931.7391
Worker	1.0776	0.6597	9.8749	0.0323	4.1469	0.0202	4.1671	1.0998	0.0186	1.1184		3,328.2983	3,328.2983	0.0723	0.0760	3,352.7560
Total	**1.1688**	**4.1276**	**11.2881**	**0.0491**	**4.7544**	**0.0382**	**4.7925**	**1.2746**	**0.0358**	**1.3104**		**5,177.7519**	**5,177.7519**	**0.1847**	**0.3427**	**5,284.4950**

3.4 Building Construction - 2025

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	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**		**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

Parkwest Development Project - Orange County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2025

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	0.0000
Vendor	0.0898	3.4512	1.4068	0.0165	0.6074	0.0181	0.6255	0.1748	0.0173	0.1921		1,814.8888	1,814.8888	0.1138	0.2628	1,896.0514
Worker	1.0207	0.5978	9.2951	0.0312	4.1469	0.0193	4.1662	1.0998	0.0178	1.1176		3,247.2431	3,247.2431	0.0658	0.0715	3,270.1903
Total	**1.1105**	**4.0489**	**10.7020**	**0.0476**	**4.7543**	**0.0374**	**4.7917**	**1.2746**	**0.0351**	**1.3097**		**5,062.1320**	**5,062.1320**	**0.1796**	**0.3343**	**5,166.2417**

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	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963	0.0000	2,556.4744	2,556.4744	0.6010		2,571.4981
Total	**1.3674**	**12.4697**	**16.0847**	**0.0270**		**0.5276**	**0.5276**		**0.4963**	**0.4963**	**0.0000**	**2,556.4744**	**2,556.4744**	**0.6010**		**2,571.4981**

Parkwest Development Project - Orange County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2025

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	0.0000
Vendor	0.0898	3.4512	1.4068	0.0165	0.6074	0.0181	0.6255	0.1748	0.0173	0.1921		1,814.8888	1,814.8888	0.1138	0.2628	1,896.0514
Worker	1.0207	0.5978	9.2951	0.0312	4.1469	0.0193	4.1662	1.0998	0.0178	1.1176		3,247.2431	3,247.2431	0.0658	0.0715	3,270.1903
Total	**1.1105**	**4.0489**	**10.7020**	**0.0476**	**4.7543**	**0.0374**	**4.7917**	**1.2746**	**0.0351**	**1.3097**		**5,062.1320**	**5,062.1320**	**0.1796**	**0.3343**	**5,166.2417**

3.5 Paving - 2025

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	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850		2,206.7452	2,206.7452	0.7137		2,224.5878
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9152**	**8.5816**	**14.5780**	**0.0228**		**0.4185**	**0.4185**		**0.3850**	**0.3850**		**2,206.7452**	**2,206.7452**	**0.7137**		**2,224.5878**

Parkwest Development Project - Orange County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Paving - 2025

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	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
Worker	0.0413	0.0242	0.3758	1.2600e-003	0.1677	7.8000e-004	0.1685	0.0445	7.2000e-004	0.0452		131.2902	131.2902	2.6600e-003	2.8900e-003	132.2179
Total	**0.0413**	**0.0242**	**0.3758**	**1.2600e-003**	**0.1677**	**7.8000e-004**	**0.1685**	**0.0445**	**7.2000e-004**	**0.0452**		**131.2902**	**131.2902**	**2.6600e-003**	**2.8900e-003**	**132.2179**

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	0.9152	8.5816	14.5780	0.0228		0.4185	0.4185		0.3850	0.3850	0.0000	2,206.7452	2,206.7452	0.7137		2,224.5878
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9152**	**8.5816**	**14.5780**	**0.0228**		**0.4185**	**0.4185**		**0.3850**	**0.3850**	**0.0000**	**2,206.7452**	**2,206.7452**	**0.7137**		**2,224.5878**

Parkwest Development Project - Orange County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Paving - 2025

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	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
Worker	0.0413	0.0242	0.3758	1.2600e-003	0.1677	7.8000e-004	0.1685	0.0445	7.2000e-004	0.0452		131.2902	131.2902	2.6600e-003	2.8900e-003	132.2179
Total	**0.0413**	**0.0242**	**0.3758**	**1.2600e-003**	**0.1677**	**7.8000e-004**	**0.1685**	**0.0445**	**7.2000e-004**	**0.0452**		**131.2902**	**131.2902**	**2.6600e-003**	**2.8900e-003**	**132.2179**

3.6 Architectural Coating - 2025

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	89.9464					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	**90.1172**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**		**281.4481**	**281.4481**	**0.0154**		**281.8319**

Parkwest Development Project - Orange County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2025

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	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
Worker	0.2036	0.1192	1.8540	6.2200e-003	0.8272	3.8600e-003	0.8310	0.2194	3.5500e-003	0.2229		647.6981	647.6981	0.0131	0.0143	652.2752
Total	**0.2036**	**0.1192**	**1.8540**	**6.2200e-003**	**0.8272**	**3.8600e-003**	**0.8310**	**0.2194**	**3.5500e-003**	**0.2229**		**647.6981**	**647.6981**	**0.0131**	**0.0143**	**652.2752**

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	89.9464					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319
Total	**90.1172**	**1.1455**	**1.8091**	**2.9700e-003**		**0.0515**	**0.0515**		**0.0515**	**0.0515**	**0.0000**	**281.4481**	**281.4481**	**0.0154**		**281.8319**

Parkwest Development Project - Orange County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2025

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	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
Worker	0.2036	0.1192	1.8540	6.2200e-003	0.8272	3.8600e-003	0.8310	0.2194	3.5500e-003	0.2229		647.6981	647.6981	0.0131	0.0143	652.2752
Total	**0.2036**	**0.1192**	**1.8540**	**6.2200e-003**	**0.8272**	**3.8600e-003**	**0.8310**	**0.2194**	**3.5500e-003**	**0.2229**		**647.6981**	**647.6981**	**0.0131**	**0.0143**	**652.2752**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Transit Accessibility

Parkwest Development Project - Orange County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	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	4.8389	3.4837	41.9080	0.0798	9.8305	0.0556	9.8861	2.6080	0.0515	2.6595		8,342.6325	8,342.6325	0.6512	0.3370	8,459.3444
Unmitigated	5.3699	4.1187	50.0613	0.1005	12.4814	0.0683	12.5497	3.3113	0.0632	3.3745		10,508.2423	10,508.2423	0.7585	0.3945	10,644.7530

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	1,121.12	1,012.44	843.70	3,642,557	2,868,914
Enclosed Parking Structure	0.00	0.00	0.00		
Enclosed Parking with Elevator	0.00	0.00	0.00		
Hotel	841.96	825.84	598.92	1,920,718	1,512,776
Strip Mall	323.01	306.38	148.90	120,039	94,544
Total	2,286.09	2,144.66	1,591.52	5,683,314	4,476,235

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
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Enclosed Parking Structure	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Enclosed Parking with Elevator	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Hotel	16.60	8.40	6.90	19.40	61.60	19.00	58	38	4
Strip Mall	2.00	2.00	2.00	16.60	64.40	19.00	45	40	15

4.4 Fleet Mix

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.573623	0.063058	0.193885	0.132534	0.000000	0.000000	0.000000	0.005161	0.000694	0.000396	0.025928	0.000739	0.003983
Enclosed Parking Structure	0.573623	0.063058	0.193885	0.132534	0.000000	0.000000	0.000000	0.005161	0.000694	0.000396	0.025928	0.000739	0.003983
Enclosed Parking with Elevator	0.573623	0.063058	0.193885	0.132534	0.000000	0.000000	0.000000	0.005161	0.000694	0.000396	0.025928	0.000739	0.003983
Hotel	0.573623	0.063058	0.193885	0.132534	0.000000	0.000000	0.000000	0.005161	0.000694	0.000396	0.025928	0.000739	0.003983
Strip Mall	0.573623	0.063058	0.193885	0.132534	0.000000	0.000000	0.000000	0.005161	0.000694	0.000396	0.025928	0.000739	0.003983

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	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	0.2198	1.9469	1.3017	0.0120		0.1519	0.1519		0.1519	0.1519		2,397.9519	2,397.9519	0.0460	0.0440	2,412.2017
NaturalGas Unmitigated	0.2198	1.9469	1.3017	0.0120		0.1519	0.1519		0.1519	0.1519		2,397.9519	2,397.9519	0.0460	0.0440	2,412.2017

Parkwest Development Project - Orange County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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					
Apartments Mid Rise	8736.41	0.0942	0.8051	0.3426	5.1400e-003		0.0651	0.0651		0.0651	0.0651		1,027.8135	1,027.8135	0.0197	0.0188	1,033.9213
Enclosed Parking Structure	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
Enclosed Parking with Elevator	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
Hotel	11626.7	0.1254	1.1399	0.9575	6.8400e-003		0.0866	0.0866		0.0866	0.0866		1,367.8485	1,367.8485	0.0262	0.0251	1,375.9770
Strip Mall	19.4638	2.1000e-004	1.9100e-003	1.6000e-003	1.0000e-005		1.5000e-004	1.5000e-004		1.5000e-004	1.5000e-004		2.2899	2.2899	4.0000e-005	4.0000e-005	2.3035
Total		**0.2198**	**1.9469**	**1.3017**	**0.0120**		**0.1519**	**0.1519**		**0.1519**	**0.1519**		**2,397.9519**	**2,397.9519**	**0.0460**	**0.0440**	**2,412.2017**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

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					
Apartments Mid Rise	8.73641	0.0942	0.8051	0.3426	5.1400e-003		0.0651	0.0651		0.0651	0.0651		1,027.8135	1,027.8135	0.0197	0.0188	1,033.9213
Enclosed Parking Structure	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
Enclosed Parking with Elevator	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
Hotel	11.6267	0.1254	1.1399	0.9575	6.8400e-003		0.0866	0.0866		0.0866	0.0866		1,367.8485	1,367.8485	0.0262	0.0251	1,375.9770
Strip Mall	0.0194638	2.1000e-004	1.9100e-003	1.6000e-003	1.0000e-005		1.5000e-004	1.5000e-004		1.5000e-004	1.5000e-004		2.2899	2.2899	4.0000e-005	4.0000e-005	2.3035
Total		**0.2198**	**1.9469**	**1.3017**	**0.0120**		**0.1519**	**0.1519**		**0.1519**	**0.1519**		**2,397.9519**	**2,397.9519**	**0.0460**	**0.0440**	**2,412.2017**

6.0 Area Detail

6.1 Mitigation Measures Area

Parkwest Development Project - Orange County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	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	5.5354	0.2723	23.6533	1.2500e-003		0.1311	0.1311		0.1311	0.1311	0.0000	42.6585	42.6585	0.0411	0.0000	43.6869
Unmitigated	5.5354	0.2723	23.6533	1.2500e-003		0.1311	0.1311		0.1311	0.1311	0.0000	42.6585	42.6585	0.0411	0.0000	43.6869

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	0.4929					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	4.3274					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	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
Landscaping	0.7152	0.2723	23.6533	1.2500e-003		0.1311	0.1311		0.1311	0.1311		42.6585	42.6585	0.0411		43.6869
Total	**5.5354**	**0.2723**	**23.6533**	**1.2500e-003**		**0.1311**	**0.1311**		**0.1311**	**0.1311**	**0.0000**	**42.6585**	**42.6585**	**0.0411**	**0.0000**	**43.6869**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.2 Area by SubCategory

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	0.4929					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	4.3274					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	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
Landscaping	0.7152	0.2723	23.6533	1.2500e-003		0.1311	0.1311		0.1311	0.1311		42.6585	42.6585	0.0411		43.6869
Total	**5.5354**	**0.2723**	**23.6533**	**1.2500e-003**		**0.1311**	**0.1311**		**0.1311**	**0.1311**	**0.0000**	**42.6585**	**42.6585**	**0.0411**	**0.0000**	**43.6869**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

10.0 Stationary Equipment

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	2	5	5	200	0.73	Diesel

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/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
Equipment Type	lb/day										lb/day					
Emergency Generator - Diesel (175 - 300 HP)	3.2821	9.1734	8.3688	0.0158		0.4828	0.4828		0.4828	0.4828		1,679.0282	1,679.0282	0.2354		1,684.9132
Total	**3.2821**	**9.1734**	**8.3688**	**0.0158**		**0.4828**	**0.4828**		**0.4828**	**0.4828**		**1,679.0282**	**1,679.0282**	**0.2354**		**1,684.9132**

11.0 Vegetation

Appendix B

Cultural Resources Records Search

South Central Coastal Information Center
California State University, Fullerton
Department of Anthropology MH-426
800 North State College Boulevard
Fullerton, CA 92834-6846
657.278.5395 / FAX 657.278.5542
sccic@fullerton.edu
California Historical Resources Information System
Orange, Los Angeles, and Ventura Counties

3/25/2021 Records Search File No.: 22154.8319

Charles Cisneros
Psomas
225 South Lake Ave, Suite 1000
Pasadena, CA 91101

Re: Records Search Results for the 3FUL020101 Project

The South Central Coastal Information Center received your records search request for the project area referenced above, located on the Anaheim, CA USGS 7.5' quadrangle. Due to the COVID-19 emergency, we have temporarily implemented new records search protocols. With the exception of some reports that have not yet been scanned, we are operationally digital for Los Angeles, Orange, and Ventura Counties. See attached document for your reference on what data is available in this format. The following reflects the results of the records search for the project area and a ½-mile radius:

As indicated on the data request form, the locations of all archaeological resources and reports are provided in the following format: ☐ custom GIS maps ☒ shape files ☐ hand drawn maps

Archaeological resources within project area: 0	None
Archaeological resources within ½-mile radius: 1	SEE ATTACHED LIST
Reports within project area: 0	None
Reports within ½-mile radius: 9	SEE ATTACHED LIST

Resource Database Printout (list):	☐ enclosed	☒ not requested	☐ nothing listed
Resource Database Printout (details):	☐ enclosed	☒ not requested	☐ nothing listed
Resource Digital Database (spreadsheet):	☒ enclosed	☐ not requested	☐ nothing listed
Report Database Printout (list):	☐ enclosed	☒ not requested	☐ nothing listed
Report Database Printout (details):	☐ enclosed	☒ not requested	☐ nothing listed
Report Digital Database (spreadsheet):	☒ enclosed	☐ not requested	☐ nothing listed
Resource Record Copies:	☐ enclosed	☐ not requested	☒ nothing listed
Report Copies:	☐ enclosed	☐ not requested	☒ nothing listed
OHP Built Environment Resources Directory (BERD) 2019:	☒ available online; please go to https://ohp.parks.ca.gov/?page_id=30338		
Archaeo Determinations of Eligibility 2012:	☐ enclosed	☒ not requested	☐ nothing listed
Historical Maps:	☐ enclosed	☒ not requested	☐ nothing listed

Ethnographic Information: ☒ not available at SCCIC
Historical Literature: ☒ not available at SCCIC
GLO and/or Rancho Plat Maps: ☒ not available at SCCIC
Caltrans Bridge Survey: ☒ not available at SCCIC; please go to http://www.dot.ca.gov/hq/structur/strmaint/historic.htm
Shipwreck Inventory: ☒ not available at SCCIC; please go to http://shipwrecks.slc.ca.gov/ShipwrecksDatabase/Shipwrecks_Database.asp
Soil Survey Maps: (see below) ☒ not available at SCCIC; please go to http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx

Please forward a copy of any resulting reports from this project to the office as soon as possible. Due to the sensitive nature of archaeological site location data, we ask that you do not include resource location maps and resource location descriptions in your report if the report is for public distribution. If you have any questions regarding the results presented herein, please contact the office at the phone number listed above.

The provision of CHRIS Data via this records search response does not in any way constitute public disclosure of records otherwise exempt from disclosure under the California Public Records Act or any other law, including, but not limited to, records related to archeological site information maintained by or on behalf of, or in the possession of, the State of California, Department of Parks and Recreation, State Historic Preservation Officer, Office of Historic Preservation, or the State Historical Resources Commission.

Due to processing delays and other factors, not all of the historical resource reports and resource records that have been submitted to the Office of Historic Preservation are available via this records search. Additional information may be available through the federal, state, and local agencies that produced or paid for historical resource management work in the search area. Additionally, Native American tribes have historical resource information not in the CHRIS Inventory, and you should contact the California Native American Heritage Commission for information on local/regional tribal contacts.

Should you require any additional information for the above referenced project, reference the record search number listed above when making inquiries. Requests made after initial invoicing will result in the preparation of a separate invoice.

Thank you for using the California Historical Resources Information System,

Digitally signed by Michelle Galaz
Date: 2021.03.25 12:01:45 -07'00'

Michelle Galaz
Assistant Coordinator

Enclosures:

(X) Emergency Protocols for LA, Orange, and Ventura County BULK Processing Standards – 2 pages

(X) GIS Shapefiles – 10 shapes

(X) Resource Digital Database (spreadsheet) – 1 line

(X) Report Digital Database (spreadsheet) – 9 lines

(X) Invoice # 22154.8319

Emergency Protocols for LA, Orange, and Ventura County BULK or SINGLE PROJECT Records Searches IF YOU HAVE A GIS PERSON ON STAFF ONLY!!

These instructions are for qualified consultants with a valid Access and Use Agreement.
WE ARE ONLY PROVIDING DATA THAT IS ALREADY DIGITAL AT THIS TIME. SAN BERNARDINO COUNTY IS NOT DIGITAL AND THESE INSTRUCTIONS DO NOT APPLY.

Some of you have a fully digital operation and have GIS staff on board who can process a fully digital deliverable from the Information Center. IF you can accept shape file data and do not require a custom map made for you by the SCCIC, and you are willing to sort the data we provide to you then these instructions are for you. Read further to be sure. You may have only one project at this time or some of you have a lot of different search locations that can be processed all at once. This may save you a lot of time getting results back and if we process your jobs in bulk, and you may enjoy significant cost savings as well. If you need individual invoice or summaries for each search location, then bulk processing is not for you and you need to submit a data request form for each search location.

Bulk processing will work for you if you have a GIS person on staff who can sort bulk data for you and make you any necessary project maps. This type of job can have as many job locations as you want but the point is that we will do them in bulk – at the same time - not one at a time. We send all the bulk data back to you and you sort it. This will work if you need searches in LA, Orange, or Ventura AND if they all have the same search radius and if all the other search criteria is the same– no exceptions. This will not work for San Bernardino County because we are not fully digital for San Bernardino County. You must submit all your shape files for each location at the same time and this will count as one search. If you have some that need a different radius, or different search criteria, then you should submit that job separately with its own set of instructions.

INSTRUCTIONS FOR BULK PROCESSING:

Please send in your requests via email using the data request form along with the associated shape files and pdf maps of the project area(s) at 1-24k scale. PDFs must be able to be printed out on 8.5X 11 paper. We check your shape file data against the pdf maps. This is where we find discrepancies between your shape files and your maps. This is required.

Please use this data request form and make sure you fill it out properly.
http://web.sonoma.edu/nwic/docs/CHRISDataRequestForm.pdf

DELIVERABLES:

1. A copy of the Built Environment Resources Directory or BERD for Los Angeles, Orange, Ventura, or San Bernardino County can now be found at the OHP Website for you to do your own research. This replaces the old Historic Properties Directory or HPD. We will not be searching this for you at this time but you can search it while you are waiting for our results to save time.

   You will only get shapefiles back, which means that you will have to make your own maps for

each project location. WARNING! If you don't request the shape files, you won't be able to tell which reports are in the project area or the search radius. Please note that you are charged for each map feature even if you opt out of receiving shape files. You cannot get secondary products such as bibliographies or pdfs of records in the project area or search radius if you don't pay for the primary products (shape files) as this is the scaffolding upon which the secondary products are derived. If you do not understand the digital fee structure, ask before we process your request and send you data. You can find the digital fee structure on the OHP website under the CHRIS tab. In order to keep costs down, you must be willing to make adjustments to the search radius or what you are expecting to receive as part of the search. Remember that some areas are loaded with data and others are sparse – our fees will reflect that.

2. You will get a bulk processed bibliographies for resources and reports as selected; you will not get individual bibliographies for each project location.

3. You will get pdfs of resources and reports if you request them, provided that they are in digital formats. We will not be scanning records or reports at this time.

4. You will get one invoice for the bulk data processing. We can't bill this as individual jobs on separate invoices for you. If there are multiple project names, we are willing to reference all the job names on the invoice if needed. If there a lot of job id's we may ask you to send them in an email so that we can copy and paste it into the invoice details. If you need to bill your clients for the data, you can refer to our fee schedule on the OHP website under the CHRIS tab and apply the fees accordingly.

5. We will be billing you at the staff rate of $150 per hour and you will be charged for all resources and report locations according to the CHRIS Fee Structure. ($12 per GIS shape file; 0.15 per pdf page, or 0.25 per excel line; quad fees will apply if your research includes more than 2 quads). Discounts offered early on in our Covid-19 response will no longer be offered on any records searched submitted after October 5th, 2020.

6. Your packet will be sent to you electronically via Dropbox. We use 7-zip to password protect the files so you will need both on your computers. We email you the password. If you can't use Dropbox for some reason, then you will need to provide us with your Fed ex account number and we will ship you a disc with the results. As a last resort, we will ship on a disc via the USPS. You may be billed for our shipping and handling costs.

I may not have been able to cover every possible contingency in this set of instructions and will update it if necessary. You can email me with questions at sccic@fullerton.edu

Thank you,

Stacy St. James
South Central Coastal Information Center

Los Angeles, Orange, Ventura, and San Bernardino Counties

ReportNum	DocAddlCitLetter	Status	OtherIDs	Xrefs	Authors	CitYear	CitMonth	CitTitle	CitPublisher	CitPages	CitMaps
OR-01596					Clewlow, William C. Jr.	1974		Preliminary Report of the Potential Impact on Archaeological Resources of the Proposed Gas Transmission Pipeline From Los Angeles Harbor to Yorba Linda - Southern California Gas Co.: Environmental Analysis	University of California, Los Angeles	10	
OR-02102					Duke, Curt	2000		Cultural Resource Assessment for At&t Wireless Services Facility Number C937.1, County of Orange	LSA Associates, Inc.	4	
OR-02191					Allen, Kathleen C.	1998		Report of Phase I Archaeological Assessment for Proposed Anaheim Promenade Project, City of Anaheim	Archaeological Resource Management Corp.		
OR-02362					Ballard, Hanna	2001		Archaeological Survey and Record Search for World Com 905 Discovery Lane Project	Pacific Legacy, Inc.		
OR-02564					Demcak, Carol R.	2002		Archaeological Assessment for Paseo Park, City of Fullerton, California	Archaeological Resource Management Corp.		
OR-02761					Demcak, Carol R.	2002		Archaeological Assessment for Harbor Boulevard Reconstruction Project (#4436), City of Fullerton, California	Archaeological Resource Management Corp.	17	
OR-02768					Holson, John	2002		Archaeological Survey and Record Search for Ospc-0038, La/fullerton, Fullerton, Orange County (800-42)	Pacific Legacy, Inc.	15	
OR-03864					Wood, Catharine M.	2008		Archaeological Survey Report - Finding of no Archaeological Resources present for the State Route 91 Westbound Widening Project from State Route 57 to Interstate 5, Cities of Anaheim and Fullerton, Orange County, CA	ICF Jones and Stokes	46	
OR-03865					Paul, Daniel	2008		Historic Resources Evaluation Report - State Route 91 Westbound Widening Project from State Route 57 to Interstate 5, Cities of Anaheim and Fullerton, Orange County, CA District 12 - Orange _ 91 - PM 5.4 to 0.9 (KP 1.4 to 8.8)	ICF Jones and Stokes	148	

ReportNum	ReportType	InventorySize	InventoryDisclosure	InventoryCollections	InventoryNotes	Resources	ResourceCount	HasInformals	Counties	Maps	Address	PLSS
OR-01596	Literature search	QC	Not for publication	No	Also LA-03707	30-000277	1	No	Orange	ANAHEIM, LONG BEACH, LOS ALAMITOS, ORANGE, SAN PEDRO, YORBA LINDA		
OR-02102	Archaeological, Field study	1 ac	Not for publication	No			0	No	Orange	ANAHEIM		
OR-02191	Archaeological, Field study	27 ac					0	No	Orange	ANAHEIM		
OR-02362	Archaeological, Field study					30-001596	1	No	Orange	ANAHEIM		
OR-02564	Archaeological, Field study	2 ac					0	No	Orange	ANAHEIM		
OR-02761	Archaeological, Field study	.5 limi	Not for publication	No	Santa Fe Depot (Fullerton Station), Union Pacific Depot (Old Spaghetti Factory now) are .25 mile from project		0	No	Orange	ANAHEIM		
OR-02768	Archaeological, Field study	2 limi	Not for publication	No			0	No	Orange	ANAHEIM		
OR-03864	Archaeological, Field study		Not for publication	No		30-176663	1	No	Orange	ANAHEIM		
OR-03865	Architectural/historical, Evaluation		Not for publication	No		30-176952, 30-176990	2	No	Orange	ANAHEIM		

PrimaryString	TrinomialString	ResourceName	Status	OtherIDs	Xrefs	ResType	Age	InfoBase	Attribs	ResourceDisclosure	ResourceCollections	AccessionNo
P-30-001724	CA-ORA-001724/H	Union Pacific Park		Resource Name - Union Pacific Park		Site	Prehistoric, Historic	Survey, Excavation	AH04; AH07; AP02; AP15	Not for publication	Yes	

PrimaryString	CollectionsFacility	ResourceNotes	RecordingEvents	Reports	CountyName	Maps	Address	PLSS	UTM
P-30-001724			2013 (Alan Garfinkel Gold, AECOM)	OR-04467	Orange	ANAHEIM	W Truslow Ave at S Harbor Blvd Fullerton		

Appendix C

Energy Data

Energy Use Summary

Construction Phase (gallons/construction perioc	Gasoline	Diesel
Construction Vehicles	17,919	19,186
Worker Trips	93,031	442
Vendor Trips	13,333	223
Haul Trucks	4	3,407
Total	**124,286**	**23,257**

Operations Phase (gallons/year)		Gasoline	Diesel	Natural Gas (kBTU/yr)	Electricity (kWh/yr)
Apartments Mid Rise		97,312	8,212	3,188,790	1,096,480
Hotel		51,313	4,330	4,243,750	0
Strip Mall		3,207	271	7,104	0
	0	0	0	0	1,093,750
	0	0	0	0	39,734
	0	0	0	0	0
All Land Uses		151,832	12,813	7,439,644	2,229,964

Operations Onroad Energy Use

Year 2025

Vehicle Types	MPG by Fuel Type			Population by Fuel Type			
	GAS	DSL	ELEC	GAS	DSL	ELEC	Total
LDA	33.5	52.6		6,805,727	68,722	205,237	6,874,449
LDT1	28.5	23.7		800,497	314	11,260	800,811
LDT2	27.3	38.6		2,364,309	18,091	43,109	2,382,400
LHDT1	10.9	22.6		173,430	137,400		310,830
LHDT2	9.5	20.4		30,280	55,100		85,381
MCY	36.2			322,405			322,405
MDV	22.0	29.7		1,610,759	41,295	27,150	1,652,054
MH	5.4	11.0		33,995	13,797		47,793
MHDT	5.3	11.5		25,991	132,893		158,884
HHDT	4.5	7.4		74	114,510		114,584
OBUS	5.3	9.0		5,954	4,685		10,639
SBUS	9.4	7.9		3,093	6,746		9,839
UBUS	5.4	5.7		969	6	16	976

Trips/Day Land Use	Trips/day Weekday	Trips/day Saturday	Trips/day Sunday	Total Weekly	VMT/day Weekday	VMT/day Saturday	VMT/day Sunday	Trip Length
Apartments Mid Rise	1,121.00	1,012.00	844.00	7461	8,289	7,483	6,241	7.39
Hotel	842.00	826.00	599.00	5635	4,347	4,264	3,092	5.16
Strip Mall	323.00	306.00	149.00	2070	284	269	131	0.88
Total	**2,286**	**2,144**	**1,592**					

Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH	Total
Apartments Mid Rise	0.547453	0.060181	0.185039	0.126487	0.024236	0.006679	0.014707	0.004926	0.000662	0.000378	0.024745	0.000705	0.003801	100.0%
Hotel	0.547453	0.060181	0.185039	0.126487	0.024236	0.006679	0.014707	0.004926	0.000662	0.000378	0.024745	0.000705	0.003801	100.0%
Strip Mall	0.547453	0.060181	0.185039	0.126487	0.024236	0.006679	0.014707	0.004926	0.000662	0.000378	0.024745	0.000705	0.003801	100.0%

Vehicle Trips

Weekday Trips		LDA	LDT1	LDT2	MDV	LHDT1	LHDT2	MHDT	HHDT	Obus	Ubus	MCY	Sbus	MH	Total	Daily VMT
Apartments Mid Rise		614	67	207	142	27	7	16	6	1	0	28	1	4	1,121	8,289.39
Hotel		461	51	156	107	20	6	12	4	1	0	21	1	3	842	4,347.00
Strip Mall		177	19	60	41	8	2	5	2	0	0	8	0	1	323	283.70
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
Total		**1251**	**138**	**423**	**289**	**55**	**15**	**34**	**11**	**2**	**1**	**57**	**2**	**9**	**2,286**	

Saturday Trips		LDA	LDT1	LDT2	MDV	LHDT1	LHDT2	MHDT	HHDT	Obus	Ubus	MCY	Sbus	MH	Total	Daily VMT
Apartments Mid Rise		554	61	187	128	25	7	15	5	1	0	25	1	4	1,012	7,483.38
Hotel		452	50	153	104	20	6	12	4	1	0	20	1	3	826	4,264.40
Strip Mall		168	18	57	39	7	2	5	2	0	0	8	0	1	306	268.77
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
Total		**1174**	**129**	**397**	**271**	**52**	**14**	**32**	**11**	**1**	**1**	**53**	**2**	**8**	**2,144**	

Sunday Trips		LDA	LDT1	LDT2	MDV	LHDT1	LHDT2	MHDT	HHDT	Obus	Ubus	MCY	Sbus	MH	Total	Daily VMT
Apartments Mid Rise		462	51	156	107	20	6	12	4	1	0	21	1	3	844	6,241.08
Hotel		328	36	111	76	15	4	9	3	0	0	15	0	2	599	3,092.46
Strip Mall		82	9	28	19	4	1	2	1	0	0	4	0	1	149	130.87
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
Total		**872**	**96**	**295**	**201**	**39**	**11**	**23**	**8**	**1**	**1**	**39**	**1**	**6**	**1,592**	

Gallons of Fuel

Gasoline		LDA	LDT1	LDT2	MDV	LHDT1	LHDT2	MHDT	HHD	Obus	Ubus	MCY	Sbus	MH	Total	
Apartments Mid Rise		46,469	6,046	19,299	16,051	3,555	717	1,303	2	201	198	1,962	68	1,440	97,312	
Hotel		24,503	3,188	10,176	8,464	1,875	378	687	1	106	104	1,035	36	759	51,313	
Strip Mall		1,531	199	636	529	117	24	43	0	7	7	65	2	47	3,207	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		72,504	**9,434**	**30,111**	**25,044**	**5,547**	**1,118**	**2,034**	**3**	**314**	**309**	**3,061**	**106**	**2,247**	**151,832**	**Total Gallons Gasoline**

Diesel		LDA	LDT1	LDT2	MDV	OBUS	LHDT2	MHDT	HHD	Obus	Ubus	MCY	Sbus	MH	Total	
Apartments Mid Rise		298	3	104	306	1,362	607	3,059	1,915	93	1	0	176	287	8,212	
Hotel		157	2	55	161	718	320	1,613	1,010	49	1	0	93	151	4,330	
Strip Mall		10	0	3	10	45	20	101	63	3	0	0	6	9	271	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		466	**4**	**163**	**477**	**2,126**	**948**	**4,773**	**2,987**	**145**	**2**	**0**	**275**	**448**	**12,813**	**Total Gallons Diesel**

164,645 **Total Gallons of Diesel and Gasoline**

27 **Average MPG**

Utilities

		NaturalGas Use	**Electricity Use**
Land Use		kBTU/yr	kWh/yr
Apartments Mid Rise		3188790	1096480
Hotel		4.24E+06	1.09E+06
Strip Mall		7104	39734
	0		5250
	0		1436160
	0		
Total		**7,439,644**	**3,671,374**

Offroad Construction Equipment Energy Use

PhaseName	OffRoadEquipmentType	OffRoadEquipmentUnitAmount	UsageHours	HorsePower	Load Factor	Horsepower Category	Num Days	Year	Fuel Consumption Rate (gal/hour)	Fuel Type	Total Fuel Consumption (gal/construction period)
Demolition	Concrete/Industrial Saws	1	8	81	0.73	100	35	2023	4.7	Gasoline	964
Demolition	Excavators	3	8	158	0.38	175	35	2023	2.9	Diesel	921
Demolition	Rubber Tired Dozers	2	8	247	0.4	300	35	2023	4.5	Diesel	1,001
Grading	Excavators	2	8	158	0.38	175	45	2023	2.9	Diesel	790
Grading	Graders	1	8	187	0.41	175	45	2023	3.2	Diesel	466
Grading	Rubber Tired Dozers	1	8	247	0.4	300	45	2023	4.5	Diesel	644
Grading	Scrapers	2	8	367	0.48	300	45	2023	5.5	Diesel	1,916
Grading	Tractors/Loaders/Backhoes	2	8	97	0.37	100	45	2023	1.6	Diesel	424
Building Construction	Cranes	1	7	231	0.29	300	430	2023	3.3	Diesel	2,861
Building Construction	Forklifts	3	8	89	0.2	100	430	2023	2.0	Diesel	4,138
Building Construction	Generator Sets	1	8	84	0.74	100	430	2023	5.2	Gasoline	13,223
Building Construction	Tractors/Loaders/Backhoes	3	7	97	0.37	100	430	2023	1.6	Diesel	5,321
Building Construction	Welders	1	8	46	0.45	50	430	2023	2.4	Gasoline	3,732
Paving	Pavers	2	8	130	0.42	100	20	2023	1.7	Diesel	233
Paving	Paving Equipment	2	8	132	0.36	100	20	2023	1.6	Diesel	189
Paving	Rollers	2	8	80	0.38	100	20	2023	1.7	Diesel	206
Architectural Coating	Air Compressors	1	6	78	0.48	100	20	2023	1.3	Diesel	76

Total	**Gasoline**	**17,919**
Total	**Diesel**	**19,186**

Onroad Construction Energy Use

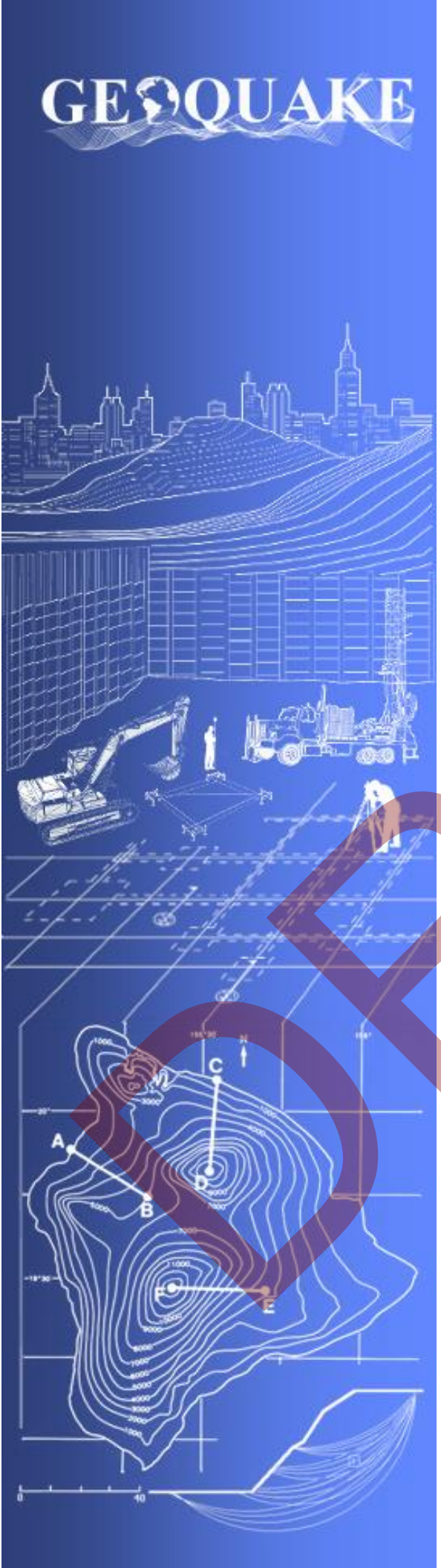
Year 2023

Vehicle Types	MPG by Fuel Type			Population by Fuel Type			
	GAS	DSL	ELEC	GAS	DSL	ELEC	Total
LDA	31.7	50.0		6,635,002	62,493	150,700	6,697,495
LDT1	27.2	22.9		758,468	361	7,123	758,828
LDT2	25.5	36.7		2,285,150	15,595	28,810	2,300,745
LHDT1	10.7	21.9		174,910	125,545		300,455
LHDT2	9.3	19.8		30,103	50,003		80,106
MCY	36.4			305,045			305,045
MDV	20.7	28.1		1,589,863	36,128	16,377	1,625,991
MH	5.2	10.7		34,680	13,123		47,802
MHDT	5.1	11.2		25,624	122,124		147,749
HHDT	4.3	7.1		75	109,819		109,894
OBUS	5.1	8.7		5,955	4,287		10,242
SBUS	9.2	7.7		2,784	6,672		9,455
UBUS	5.1	5.9		958	13	16	971

Input							Gasoline Consumption			Diesel Consumption		
Phase Name	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker	Vendor	Haul	Worker	Vendor	Haul
Demolition	15	0	529	14.7	6.9	20						
Grading	20	0	688	14.7	6.9	20						
Building Construction	371	95	0	14.7	6.9	20						
Paving	15	0	0	14.7	6.9	20						
Architectural Coating	74	0	0	14.7	6.9	20						
Adjusted												
Demolition	525	0	529	14.7	6.9	20	300	0	2	1	0	1,481
Grading	900	0	688	14.7	6.9	20	515	0	2	2	0	1,926
Building Construction	159530	40850	0	14.7	6.9	20	91,198	13,333	0	434	223	0
Paving	300	0	0	14.7	6.9	20	172	0	0	1	0	0
Architectural Coating	1480	0	0	14.7	6.9	20	846	0	0	4	0	0
Total							**93,031**	**13,333**	**4**	**442**	**223**	**3,407**

Appendix D

Preliminary Geotechnical Investigation Report and Paleontological Records Search



PRELIMINARY GEOTECHNICAL INVESTIGATION REPORT
PROPOSED FIVE-STORY HOTEL AND
A FOUR-LEVEL PARKING STRUCUTRE
FULLERTON TRANSPORTATION CENTER
200 EAST SANTA FE AVENUE
FULLERTON, CALIFORNIA

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Project No.: 19-0351
August 20, 2019

Prepared for:

PLUMP ENGINEERING, INC.
914 E. Katella Avenue
Anaheim, CA 92805

Submitted by:

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PLUMP ENGINEERING, INC.
914 E. Katella Avenue
Anaheim, CA 92805

August 20, 2019

Attention: Mr. Rich Frei
Director of Surveying/Business Development
rfrei@peica.com

Subject: Preliminary Geotechnical Investigation, Proposed Five-Story Hotel and a Four-Level Parking Structure. Fullerton Transportation Center to be Located at 200 East Santa Fe Avenue, Fullerton, California.

References: Appendix A.

Dear Mr. Frei,

In accordance with your request and authorization, GEOQUAKE, INC. has completed this preliminary geotechnical investigation for the proposed project at the subject site.

It is our understanding that the proposed project consists of constructing two separate buildings within the subject site, a five story hotel and a four level parking structure.

Based on our geotechnical investigation, we consider the proposed buildings suitable from a geotechnical viewpoint, provided the recommendations in this report are incorporated during design and construction of the buildings. GEOQUAKE, INC. should be retained to review plans and specifications prior to final plans approval by the reviewing agency.

The accompanying report summarizes our review of available geologic and geotechnical literature, and presents the findings of our preliminary geotechnical investigation and infiltration testing results, our engineering analysis includes potential seismic hazards and site seismicity, and provides our conclusions and geotechnical design recommendations for the proposed project.

We appreciate this opportunity to be of service and trust this report meets your needs. If you have any questions regarding this report, please do not hesitate to contact this office.

Respectfully submitted,

GEOQUAKE, INC.

REGISTERED PROFESSIONAL ENGINEER ZAHER J. YAZEJI No. C070387 EXP 9-30-20 CIVIL STATE OF CALIFORNIA

Zaher J. Yazeji, P.E. 70387
C.E.O. / Principal Engineer

PROFESSIONAL GEOLOGIST FRED AFLAKIAN No. 2051 Certified Engineering Geologist STATE OF CALIFORNIA

Fred Aflakian, C.E.G. 2051
Engineering Geologist

Distribution: (4) Addressee

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1.0 INTRODUCTION

This report presents the results of our preliminary geotechnical investigation for the proposed five story hotel and four level parking structure the subject site. The purpose of the investigation is to evaluate the subsurface soils conditions within the area proposed for construction. The evaluation was performed by conducting a limited number of geotechnical boreholes and/or other geotechnical exploratory techniques accepted throughout the practice of geotechnical engineering, and by performing in-situ field testing and laboratory testing on the recovered soils samples.

Our conclusions and engineering recommendations pertaining to the design and construction of the project were developed based on filed conditions encountered and our interpretation of the obtained geotechnical data and soils testing, and based on our engineering judgement and professional opinions.

1.1 Site Description

The subject site is located at 200 East Santa Fe Avenue, within the City of Fullerton, California. The subject site is located south of the intersection of Pomona Avenue and East Santa Fe Avenue The regional site location is presented on the attached Figure 1, in Appendix A.

The subject site has an approximate rectangular shaped parcel and is currently partially occupied at the south of the property with the Fullerton Amtrak and Metro Link Station and the Fullerton Train Museum, the remainder of the site is occupied with an asphalt paved parking lot. The subject site is bound by a commercial property occupied with an automotive retailer to the east, East Santa Fe Avenue to the north, an asphalt paved parking lot to the west, and train tacks to the south. The current state of the subject site including the investigated area proposed for the subject project is shown on the attached Figure 2, in Appendix A.

Generally, the site topography is relatively flat with no significant changes in site grade elevations. Surface water at the site consists of direct precipitation onto the property, the drainage appear to be slight by sheet flow to the southeast.

1.2 Site Background

A records search was performed at the City of Fullerton Department of Records, no geology and/or geotechnical records pertaining to the subject site were found on file. However based on our review of historic aerial photographs, the subject site was occupied with multiple buildings/structures circa 1995 and earlier years. The previous buildings/structures have been demolished over the approximate period between 1995 and 2003.

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1.3 Project Description

Based on the information submitted to this office, it is our understanding that the proposed project consists of constructing two separate buildings within the subject site, a five-story hotel within the western half of the designated area and a four-level parking structure within the east half of the subject site. The design drawings were not available at the time this report is prepared, only a conceptual plan and a site plan were submitted. The provided site plan shows the location of the proposed addition and is presented on the Geotechnical Map, Plate A attached in Appendix A.

Based on the preliminary structural loads submitted to this office, it is our understanding that the hotel's maximum dead plus live loads should not exceed a uniform load of 18 kips per lineal foot for exterior walls and 750 kips for interior columns load. The seismic reaction loads are not anticipated to exceed 225 kips at four corners of the building.

Also, it is our understanding that the parking structure's maximum dead plus live loads should not exceed 436 kips for the perimeter columns load and 1,800 kips for the interior columns load. The seismic reaction loads are not anticipated to exceed 52 kips at four corners of the building.

The project architect and/or structural engineer shall ensure our assumptions are valid, if the actual design loads exceed or differ from those indicated above this office should be notified to review and/or re-evaluated the design recommendations presented in this report. Once the design phase and foundation loading configuration are finalized and are available, they should be submitted to our office for review, the recommendations presented in this report shall also be reviewed and revised if necessary. Any changes in the design, location, configuration or elevation of any structure, as outlined in this report, should be reviewed by this office.

2.0 SCOPE OF WORK

The scope of work for this preliminary geotechnical investigation consisted of the following:

- Site reconnaissance.
- Sampling and logging eight (8) hollow stem auger borings to an approximate maximum depth of seventy-five (75) feet, or drilling refusal. The borings were backfilled with cuttings and patched with cold patch asphalt.
- Perform two (2) infiltration tests to an approximate depth of six (6) feet below grade in conformance with the County of Orange requirements to recommend infiltration rates. The location of infiltration tests was delineated by the project civil engineer.
- Laboratory testing of selected samples includes: in-situ moisture density, particle size analysis, shear strengths, consolidation potential, unconfined compressive strength, Atterberg limits, expansion potential, and corrosion series including sulfates.

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- Preparation of an appropriately illustrated preliminary geotechnical report summarizing current subsurface soil conditions and findings, infiltration tests, laboratory testing, engineering analysis, and presenting our foundation and earthwork recommendations for proposed developments.

2.1 Field Investigation

The preliminary field exploration and the infiltration testing were performed between June 6 and June 8, 2019 inclusive, under the continuous technical supervision of our field engineer who logged the borings and assisted in obtaining representative samples for evaluation and testing. Subsequently, the recovered samples were securely transported to the laboratory for further review and testing.

The site subsurface conditions were investigated by drilling, sampling, and logging a total of six (6) hollow stem auger borings to an approximate maximum depth of seventy-five (75) feet below existing site grade. Subsequent to drilling, all borings were backfilled with soil cuttings and patched with asphalt. Two (2) borings were drilled to an approximate depth of six (6) feet below existing grade for the purpose of infiltration testing. The approximate location of the drilled borings and infiltration tests is presented on the enclosed Geotechnical Map, PLATE A.

The drill rig was equipped with a sampling apparatus to allow for recovery of manually driven modified California Ring Sampler (CRS), 3-inch outside diameter, and 2.42-inch inside diameter and SPT samples. The samples were driven utilizing the auto-trip 140 pounds hammer travelling freely from a height of 30 inches (ASTM D-1587 procedures). The blow counts were recorded and subsequently blow counts for CRS were converted to equivalent SPT blow counts for presentation in the boring logs (Appendix B).

Driven samples and bulk samples of the soils encountered at selected intervals were recovered from the borings. The locations and depths of the soil samples recovered are indicated on the logs of borings in Appendix B.

The soil descriptions were provided based on visual classification per ASTM D-2487 and D-2488 designation, and laboratory tests on selected samples were entered on the logs of borings in accordance with the Unified Soil Classification System (USCS). The logs of borings together with an explanation of symbols used are given in Appendix B.

2.2 Laboratory Testing

Subsequent to our field exploration, the recovered soil samples were securely transported to the laboratory for further evaluation and testing. Additional tests were performed on representative recovered samples to verify the field soil classification and to evaluate the geotechnical properties of the subsurface soils. The following tests were performed:

- In-situ moisture content (ASTM D2216) and dry density (ASTM D7263);
- Atterberg Limits (ASTM D4318);
- Particle size analysis including:

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  - Percent passing No.200 Sieve (ASTM D1140);
- Consolidation potential (ASTM D2435);
- Direct shear strength (ASTM D3080); and
- Corrosion Series including:
  - PH;
  - Soluble Sulfates (CAL.417A);
  - Soluble Chlorides (CAL.422); and
  - Minimum Resistivity (CAL.643).

Laboratory tests for geotechnical characteristics were performed in general accordance with the ASTM procedures. The results of the in-situ moisture content and density tests are shown on the boring logs (Appendix B). Details of the laboratory testing program including the test results are presented in Appendix C.

2.3 Analysis Assumptions and Report

All geotechnical information obtained from our field investigation and review of available geotechnical and geologic literatures and public reports for the subject site, and from our laboratory testing program were reviewed, analyzed, and evaluated.

A preliminary foundation plans along with preliminary structural loads were submitted to this office. Once the architectural and structural plans are complete and available, they should be submitted to our office for review.

The preliminary design drawings were not available at the time of preparing this report. Once the architectural and/or structural plans are available, they should be submitted to our office for review.

Our engineering analysis was performed based on submitted preliminary foundation plans and structural loads presented herein under Section 1.2 above, it shall be the responsibility of the architect/structural engineer to ensure any actual design structural loads that differ from the loads assumed for the geotechnical engineering analysis and recommendations presented in this report be reported to this office to determine the necessity for review and possible revision of this report.

The subject site is located in an area with potential for earthquake induced liquefaction hazard as delineated by the California Geologic Survey (CGS), therefore a liquefaction analysis was performed. Our liquefaction and consequent seismic settlements analysis were performed assuming that our recommendations will be implemented during design and construction of the project. Earthwork and grading recommendations shall be implemented to minimize, but not eliminate, the seismic settlements and shall not be minimized without the review and consent of the project geotechnical engineer. We assume that GEOQUAKE, INC. will be retained to observe the grading on a full time basis.

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This preliminary geotechnical investigation report is prepared to provide our findings, conclusions, and recommendations developed during our investigation and evaluation and engineering analysis.

An important document prepared by the Geoprofessional Business Association (GBA) entitled “Important Information about your Geotechnical-Engineering Report” is attached in Appendix G for your consideration. This document summarizes project specific factors, limitations, content interpretation, responsibilities, and other pertinent information.

We recommend that the client and his design consultants and contractors should develop their conclusion and design recommendation based on this geotechnical investigation report. Clarification should be presented to the current geotechnical consultant through a written request for information.

3.0 GEOTECHNICAL FINDINGS

3.1 Site Geologic Setting

The project is generally in the Orange County portion of the Central Block (Central Plain) within the Los Angeles Basin. This portion of Orange County is part of the Peninsular Range Geomorphic Province of California. The basin is infilled with Holocene to Pleistocene non-marine sediments. The depth of the sediments is generally shallower near the project site, and becomes deeper towards the south.

The project is located within an alluvial plain that is composed of a mixture of soils including sand, silt, clay, and gravel. The project area includes multiple alluvial soils associated with the Santa Ana River system. The site Regional Geology Map is shown on the attached Figure 4 in Appendix A.

The project is located within seismically active southern California. The regional tectonics of the area includes many subparallel northwest-southeast trending right lateral strike slip faults (i.e., Newport-Inglewood, Palos Verdes, and Whittier-Elsinore Fault Zones), which are part of the larger San Andreas Fault system, and a series of reverse and blind thrust faults (e.g., San Joaquin Hills Blind Thrust, and Puente Hills Blind Thrust Faults).

The Puente Hills Fault, or the Puente Hills thrust system is a thrust fault located across the Los Angeles Basin, in California. It runs about 25 miles from the Puente Hills region in the southeast to just south of Griffith Park, Los Angeles in the northwest. The fault is often referred to as a blind thrust fault due to a lack of superficial ground features normally associated with thrust faults that have recently experienced seismic activity. The so called Coyote Hills portion of the fault is the closest to the subject site, faults descriptions and distances to the site are discussed in Section 4.1.

3.2 Subsurface Conditions

Based on our subsurface exploration, the site is underlain with undocumented fill materials underlain with young alluvial fan deposits.

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Generally, the site underlain with approximately five (5) to six (6) feet of undocumented fill materials, however the fill encountered in borings B-4 extends to approximately 15 feet below existing grade. The presence of deeper fills may be attributed to demolishing the previous buildings at the subject site which may had basements, cesspools or seepage pits and/or other underground facilities. Fill materials of greater depth maybe encountered beneath the subject site, the extent and depth of fill should be verified when grading for the building pads during earthwork construction. The undocumented fill generally consists of light to dark brown silty sand with variable amount of fine to medium sized gravel, some localized areas are underlain with low plastic sandy to clayey silt. Generally the encountered undocumented fill materials are loose to medium dense and medium firm, and are moist. However the density and consistency may vary across the subject site.

Beneath the undocumented fill, native young alluvial fan deposits were encountered to the maximum depth explored for this project, approximately 75 feet below existing site grades. The native young alluvial fan deposits consist predominantly of interlayered stratums of silt clay and sand with varying amount of silt. Generally, the silt and clay alluvial deposits vary from firm to very stiff with depth. The sandy stratums vary from loose to medium dense to dense with depth. The alluvial deposits are generally moist. More detailed description of these materials are provided in the log of exploratory borings included in Appendix B.

3.3 Groundwater and Caving

Seepage water was not encountered, however static groundwater was encountered at approximately 71.5 feet below existing surface grades.

A review of the CGS seismic hazard report for the Anaheim and Newport Beach 7.5-Minute Quadrangle (1998) presented herein as Figure 5 indicates that the historic high groundwater level at the subject site has been mapped at approximately forty-five (45) feet below existing grade surface.

Caving was not observed during drilling of soil borings. Seasonal and long-term fluctuations in the groundwater may occur as a result of variations in subsurface conditions, rainfall, run-off conditions and other factors. Storm water infiltration and irrigation of landscaped areas can also lead to an increase in soil moisture content and fluctuations of intermittent shallow perched groundwater levels. Therefore, variations from our observations may occur.

4.0 SEISMICITY REVIEW

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4.1 Faulting and Seismicity

The subject site is located in North Orange County within Southern California. Like the rest of Southern California, it is located in a seismically active region. This region is located near the active margin between the North American and Pacific tectonic plates. The seismicity is due to movement along the northwest trending regional active faults such as the Newport-Inglewood, Elsinore, San Jacinto, and San Andreas faults.

According to the State Mining and Geology Board, an active fault is defined which has had surface displacement within the Holocene Epoch (roughly within the last 11,000 years). The State Mining and Geology Board define a potentially active fault as a fault which has been active during the Quaternary Period (roughly within the last 1.6 Million years). Historic and Holocene age faults are considered active, Late Quaternary and Quaternary age faults are considered potentially active, and pre-Quaternary age faults are considered inactive.

The above definitions are used in delineating Earthquake Fault Zones as mandated by the Alquist-Priolo Geologic Hazard Zones Act of 1972 and as subsequently revised in 1994 (Hart, 1997) as the Alquist-Priolo Geologic Hazard Zoning Act and Earthquake Fault Zones. The Act regulates development and construction of buildings intended for human occupancy to mitigate the hazards of surface fault rupture. It defines areas where ground rupture is likely to occur during future earthquakes. Where such zones are designated, a geologic study must be conducted to determine the locations of all active fault lines in the zone before any construction is allowed and to determine whether building setbacks should be established, and no building may be constructed on the fault lines.

The subject site is not included within an Earthquake Fault Zone as created by the Alquist-Priolo Earthquake Fault Zoning Act (Hart, 1997). Our review of published geologic literature and maps pertaining to the site vicinity indicates that there are no known or potentially active faults with the potential for surface rupture crossing or projecting towards the site. No evidence for active or potentially active faulting was encountered in any of our explorations within the project site. Although this can only be confirmed by trenching and additional fault study, fault rupture through the site is not anticipated. However, because of the high tectonic activity of the region and proximity of the Puente Hills Blind Thrust Fault system and other faults such as Elsinore Fault system the potential for surface rupture on the subsurface faults cannot be precluded.

Based on the search output results of the USGS Fault Source Parameters, the nearest know major active fault is the Puente Hills (Coyote Hills) thrust located approximately 0.17 miles (0.27 kilometers) away from the subject site. Other faults close to the site are the Elsinore Fault located approximately 5.26 miles (8.4 kilometers) away, the Puente Hills (Santa Fe Springs) Fault located approximately 7.05 miles (11.3 kilometers) away. Other faults within 30 miles from the subject site are listed in the attached Appendix D.

Relevant seismic design parameters, including site coefficients and mapped and design spectral response accelerations for both a short period (0.2 second) and a 1 second period are provided in Section 6.1 of this report. Deterministic site parameters within the regional

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area of the project are also provided in the USGS Fault Source and Seismic Design Parameters, Appendix D.

It should be noted that the Southern California region is an area of moderate to high seismic risk and it is not considered feasible to render structures fully resistant to seismic related hazards. The minimum seismic design should comply with the 2016 California Building Code (CBC) and ASCE 7-10 using the seismic parameters recommended in Section 6.1 of this report.

4.2 Secondary Seismic Hazards

Secondary effects of seismic activity include surface fault rupture, differential compaction, soil liquefaction, differential settlement and ground lurching, lateral spreading, landslides, earthquake-induced flooding, tsunami and seiches. Site-specific potential of seismic hazards that may affect the subject site are discussed in the following sections. A seismic hazard zones map prepared by the California Geological Survey (CGS) is presented on the attached Figure 3 in Appendix A. The map shows the subject site is located in a zone delineated as having potential for seismically induced liquefaction.

4.2.1 Surface Fault Rupture and Ground Shaking

The site is not located within a designated State of California Earthquake Fault Zone. Ground rupture is generally considered most likely to occur along pre-existing active faults of Holocene age.

Based on our review of existing geologic information, no active or potentially active faults are known to cross within or immediately adjacent to the subject site. As such the potential for ground rupture at the subject site is considered low.
Surface fault rupture resulting from the movement of nearby major faults is unknown and uncertain. However, due to the close proximity of known active and potentially active faults, severe ground shaking should be expected during the life of the proposed structures.

4.2.2 Liquefaction and Cyclic Softening

Liquefaction is a soil behavior phenomenon in which a loose, saturated soil loses a substantial amount of strength due to high excess pore pressure generated during cyclic loading imposed by strong earthquake ground shaking. The amount of pore pressure generation and subsequent loss of strength in the material is dependent on the density and other characteristics of the soil and the level and duration of shaking experienced. As a result, the soil mass is distorted, and interparticulate effective stresses are reduced to zero, the soil behaves temporarily as viscous fluid (liquefaction) and, consequently, loses its capacity to support the structures founded thereon.

Soils most susceptible to liquefaction are clean, loose, saturated, uniformly-graded, and fine to medium-grained sands. Empirical evidence indicates that loose to medium-dense gravels, silty sands, and low to moderate plasticity silts and clays

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may be susceptible to liquefaction. In addition, sensitive high-plastic soils may be susceptible to significant strains and/or strength loss as a result of significant cyclic loading. The current practice categorizes the behavior of the fine grained materials during failure into “sand-like” behavior and “clay-like” behavior. The term liquefaction is reserved for the materials with the “sand-like” behavior during the seismic loading, and the term cyclic softening is reserved for the materials with “clay-like” behavior during a seismic event.

According to current Seismic Hazard Zones map for the Anaheim Quadrangle published by the California Division of Mines and Geology (CDMG, 1998) presented herein as Figure 3 in Appendix A, the subject site is located in an area delineated as having potential for liquefaction.
To assess the likelihood of liquefaction of the site materials during earthquake ground shaking, sampler penetration resistance (SPT) data collected from layers encountered in the borings were used as indices of liquefaction resistance (see boring logs in Appendix B). The approach used to assess liquefaction potential is the empirically based approach published by Youd et al. (2001) originally presented by the National Center for Engineering Research (NCEER) for their 1999 workshop.

The SPT consists of driving a standard sampler, as described in the ASTM 1586 Standard Method, using a 140 pound hammer falling 30 inches. An automatic Trip Hammer was used to drive samplers 18 inches into the soil. For the measured 90 percent hammer efficiency of an automatic hammer, the energy ratio value of 1.25 is utilized in the liquefaction analysis. A borehole diameter correction factor (CB) of 1.0 is used in our liquefaction evaluation. The blow counts recorded for soils samples driven utilizing the Modified California Ring Sampler (ASTM D3550) were converted to an equivalent SPT blow counts using a reduction factor of 0.67.

In accordance with special publication117A, clayey soils which meet the criteria of liquefiable soils defined by Bray and Sancio (2006), loose/soft soils with a plasticity index (PI) less than 12 and saturated moisture content greater than 85 percent of the liquid limit, are considered to be susceptible to liquefaction. Sensitive soils with a degree of sensitivity greater than six (6) and with a plasticity index (PI) greater than 18 are also considered susceptible to liquefaction. The clay sensitivity was evaluated based on the soils physical properties such as the moisture content, Atterberg limits, and effective vertical stresses utilizing the procedures and relationships by Mitchell, K. and Soga, K. (2005) and/or determined by comparing the undrained shear strength to the remolded shear strength of the clays per the procedure recommended by Terzaghi-Peck-Mesri (1996).

The sensitivity analysis of the subsurface saturated fine-grained soils indicates that the fine grained clayey soils at the subject site possess a sensitivity degree varying between 1 and 4 which is less than sensitivity threshold value of 6. Therefore, the potential for cyclic softening of clayey layers during seismic event is considered low. The results of the sensitivity analysis are tabulated in Appendix C, attached.

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The site-specific liquefaction potential is performed for the Maximum Considered Earthquake Geometric Mean Peak Ground Acceleration (PGA) with a 2% probability of being exceeded in 50 years. A site modified peak ground acceleration (PGA_M) equal to 0.646g and a shear-wave velocity of 259 m/s for a Site Class "D", a predominant earthquake magnitude of 6.71 M_w for a causative earthquake at approximately 6.06 miles away (9.69 km), and a historic high groundwater table of 45 feet below existing grade were used in our liquefaction analysis. The source and seismic design parameters are presented in Appendix D, attached.

The computer program LiquefyPro developed by CivilTech Software was used for evaluation of liquefaction at the site utilizing the SPT data. The program is based on the most recent publications of NCEER Workshop and SP117A Implementation. The results of our liquefaction analysis are attached in Appendix E.

The local geological-geotechnical conditions indicate the potential for liquefaction at the site is considered low during significant seismic shaking. The design and earthwork recommendations presented in this report are developed to minimize, but not eliminate, the effect of seismically-induced liquefaction. It is important to understand that the engineering evaluations and recommendations present herein are based on available data.

4.2.3 Seismically Induced Settlements

Ground accelerations generated from a seismic event can produce settlements in sands or in granular earth materials both above and below the groundwater table. This phenomenon is often referred to as seismic settlement and is most common in relatively clean sands, although it can also occur in other soil materials.

The total and differential seismically-induced settlements are anticipated to be on the order of 1½ inch and ¾ inch in 30 feet.

4.2.4 Lateral Spreading

Seismically induced lateral spreading involves lateral movement of earth materials due to the ground shaking. Lateral spreading is characterized by near-vertical cracks with predominately horizontal movement of the soil mass involved.

In consideration of relatively flat ground level and absence of nearby slopes the potential for lateral spreading at subject site is considered negligible.

5.0 DISCUSSION AND CONCLUSION

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5.1 General

Based on our literature review and our field exploration, laboratory testing, and geotechnical engineering analysis, the proposed project is considered suitable from a geotechnical viewpoint, provided the recommendations contained in this report are incorporated into the design and construction of the project. The primary conditions affecting the proposed project site development are as follows:

- The site is situated within a seismically active region.
- Presence of fill materials with different depths.
- Presence of subgrade materials severely corrosive to metals.
- Potential wet and pumping condition during subgrade preparation.
- Site subject to low liquefaction potential.
- Approximate seismically induced settlements of up to 1½ -inch.
- Subgrade materials not suitable for storm water infiltration.

5.3 Conclusion

It is our understanding that the proposed project consists of building two structures at the subject site, a five-story hotel and a four-level parking structure at grade. Based on the preliminary foundation plan and structural loads and our preliminary field exploration, laboratory testing, and geotechnical engineering analysis, the construction of the proposed project is considered suitable from a geotechnical viewpoint, provided the recommendations contained in this report are incorporated into the design and construction.

The engineering evaluation performed concerning site preparation and the recommendations presented are based upon geotechnical conditions encountered in our field investigation and laboratory data, as well as upon information provided to us by the client. Surface and subsurface conditions could vary across the subject site. Variations in these conditions may not become evident until the commencement of grading operations and any unusual conditions which may be encountered in the course of the project development may require the need for addition study and revised recommendations. This report is prepared for the proposed addition and may be subject to approval by the governing agencies.

GEOQUAKE, INC. should be retained on a full-time basis to observe any recommended grading and foundation construction and any required geotechnical testing for implementing the recommendations of this report. Any and all earthwork procedures within the proposed buildings pads to a minimum lateral distance of 10 feet away from the proposed building should be observed by an engineering representative of this firm on a full time basis. Any utilities proposed within the building pad should be observed and backfill tested by this firm. In the event that any significant changes are made to the proposed development, and/or the addition is not built within a one (1) year time frame,

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the conclusion and recommendations contained in this report shall not be considered valid unless the changes are reviewed and the recommendations of this report are verified or modified in writing by GEOQUAKE, INC.

6.0 DESIGN RECOMMENDATIONS

6.1 Seismic Design Parameters

When reviewing the 2016 California Building Code, IBC 2015 and ASCE 7-10 the following seismic data should be incorporated into the design.

Seismic Parameter – 2016 CBC (IBC 2015/ASCE 7-10 Section 11.4)
Latitude: 33.869025 (Degrees) **Longitude**: -117.921213 (Degrees) **MCE:** 2% Probability of Exceedance in 50 Years **Site Class:** D **Seismic Design Category:** D
Mapped Spectral Acceleration **Ss:** 1.740g (Site Class B) **S1:** 0.632g (Site Class B)
Adjusted/Modified Spectral Response Accelerations: Site Coefficient **Fa:** 1.0 Site Coefficient **Fv:** 1.5 **0.2-Sec Period, SMs:** 1.740g (Adjusted for Site Class D) **1.0-Sec Period, SM1:** 0.948g (Adjusted for Site Class D)
Design Spectral Response Accelerations: **0.2-Sec Period, SDs:** 1.160g **1.0-Sec Period, SD1:** 0.632g
Modified Peak Ground Acceleration **PGA_M = 0.646**
Earthquake Magnitude **M_W = 6.54**

The Structural Consultant should review the above parameters and the 2016 California Building Code (IBC 2015/ASCE 7-10) to evaluate the seismic design. Also, the structural consultant should verify that the fundamental period of the proposed structure meets the condition above, otherwise a site specific response analysis is required. Upon the request, GEOQUAKE, Inc. will be pleased to provide the site specific seismic analysis for the subject site.

Conformance to the criteria presented in the above table for seismic design does not constitute any type of guarantee or assurance that significant structural damage or ground

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failure will not occur during a large earthquake event. The intent of the code is "life safety" and not to completely prevent damage of the structure, since such design may be economically prohibitive.

6.2 Foundation Design Recommendations

The following recommendations were developed based on the conditions encountered during our field exploration and subsequent to visual examination of soil samples collected in the field, analytical considerations of the site conditions, laboratory testing, seismic and engineering analysis.

As previously discussed in the Project Description Section 1.3 and the submitted preliminary foundation plan and structural loads, we have assumed that the proposed five-story hotel will generally impose a maximum column load not exceeding 750 kips (dead-plus-live loads) and an earthquake load of 225 kips at the building's four corners. The maximum perimeter wall load for the hotel structure has been assumed to be on the order of about 18 kips per lineal foot. Also, we have assumed that the four-level parking structure will generally impose a maximum column load of 1,800 Kips (dead-plus-live loads) and an earthquake load of 52 kips at the building's corners.

The proposed structures may be supported on cast-in-drilled-hole (CDIH) piles. The hotel's perimeter walls and lightly loaded columns, as well as ancillary and minor structures, may be supported on conventional shallow foundations. All proposed conventional shallow foundations shall be supported on, and embedded into, properly compacted engineered fill. The project Structural Engineer should design the proposed foundations in accordance with the requirements of the applicable building code.

Grading the subject site is required to remove and replace existing undocumented fill materials and/or to provide a blanket of engineered fill as recommended in this report to minimize the effect of liquefaction hazards and associated seismic settlements. Earthwork recommendations are presented in Section 9.0 of this report. Based on our field exploration, deeper undocumented fill encountered in the vicinity of borings B-4 and B-6 shall also be removed and replaced with engineered fill.

As the soils condition becomes more fully exposed during subgrade preparation, these recommendations will be confirmed or modified based upon geotechnical observation and additional laboratory testing.

6.2.1 Conventional Shallow Foundations

6.2.1.1 Perimeter-Wall Footing

The structures/building's perimeter walls may be supported on continuous shallow foundations. We have assumed the perimeter walls will impose a dead-plus-live load of approximately 18 kips per lineal foot (klf) or less.

Shallow continuous footings should extend a minimum of 36 inches below the lowest adjacent grade. The minimum recommended footing width is 18 inches for continuous

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footings. A minimum reinforcement of four (4) No. 5 steel bars, two (2) top and two (2) bottom are required for continuous footings. The actual reinforcement shall be designed by the project structural engineer.

For continuous foundations supported on minimum six (6) feet of engineered fill compacted to minimum ninety-five (95) percent and moisture conditioned as recommended in Section 9.6, an allowable bearing pressure of 2,200 pounds-per-square foot (psf) may be used in design. The allowable bearing pressure presented hereto is net value; the weight of the concrete in the footings may be taken as 50 pcf. A one-third (1/3) increase on the aforementioned bearing pressure may be used in design for short-term wind or seismic loads.

6.2.1.2 Perimeter-Wall Footing Settlement

Provided the recommendations presented above are implemented during design and construction of the project, the static total and differential settlements of footings under sustained loads and supported on properly and uniformly compacted soil are not anticipated to exceed 1¾ inch and 1 inch over 30 feet, respectively. Most of the settlement is anticipated to occur during construction. Total and differential seismically-induced settlements are discussed in Section 4.2.3.

6.2.1.3 Minor Footings

Minor pad footings may be required for some light columns or some small ancillary structures. These minor footings should have a minimum width of 24 inches and should extend a minimum of 24 inches below the lowest adjacent grade. For these type of footings supported on a minimum six (6) feet of engineered fill compacted to 95 percent and moisture conditioned as recommended in Section 9.6, a maximum vertical bearing pressure of 1,800 psf may be used in design.

Other minor footings may be required for low height exterior walls (3½ feet or less). These footings should be supported on at least 4 feet of engineered fill compacted to 95 percent and should be embedded at least 18 inches. A vertical bearing pressure of 1,500 psf may be used for these footings.

6.2.1.1 Minor Footings Settlement

Provided the recommendations presented above are implemented during design and construction of the project, the static total and differential settlements between adjacent footings supported on properly and uniformly compacted soil are not anticipated to exceed 1¼ inch and 1 inch over 30 feet, respectively. Most of the static settlement is anticipated to occur during construction. Total and differential seismically-induced settlements are discussed in Section 4.2.3.

6.2.1.4 Lateral Resistance

Lateral load resistance may be derived from passive resistance along the vertical sides of the foundations, friction acting at the base of the foundations, or a combination of the two. A coefficient of friction of 0.35 may be used between the footings, floor slabs, and the

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supporting soils comprised of compacted sand. The passive resistance of level properly compacted fill soils in direct contact with the footings may be assumed to be equal to the pressure developed by a fluid with a density of 200 pcf, to a maximum pressure of 2,000 psf. A one-third increase in the passive value may be used for wind or seismic loads. The frictional resistance and the passive resistance of the soils may be combined provided that the passive resistance is reduced by one third. We recommend that the first foot of soil cover be neglected in the passive resistance calculations if the ground surface is not protected from erosion or disturbance by a slab, pavement or in a similar manner.

6.2.2 Cast-In-Drilled Hole (CIDH) Pile Foundation

6.2.2.1 Vertical Capacity

The piles will derive their resistance from side friction and end bearing by penetrating the denser soils at the proper depth. The pile capacities provided are based on the strength of the soils, not the pile section, which should be designed and checked by the project Structural Engineer.

Generally, the safety factors utilized in design are 3.0 for end bearing and 2.0 for side resistance under static conditions and are greater than 1.1 for temporary seismic condition. The following Table summarizes the determined axial pile capacities for a 60 feet deep 30-inch diameter pile. These capacities include the drag down loads from the soils and they can be used against the demand loads with no further reduction for drag down loads.

Vertical Capacities for a Single CIDH Pile					
Pile Diameter (inch)	Design Pile Length (ft)	Allowable Capacity - Static Condition (kips)		Allowable Capacity - Seismic Condition (kips)	
		Compression	Uplift	Compression	Uplift
30	60	145	72	190	95

Typically for piles in granular soils, no reduction in pile capacity is necessary when the piles are at least three (3) diameters apart. The efficiency of a pile group can also be obtained by utilizing the following Converse – Labarre formula:

$$\eta_g = 1 - \frac{\theta}{90}\left(\frac{(n-1)m + (m-1)n}{m \times n}\right)$$

Where:

$\theta = \tan^{-1}\frac{d}{s}$ *where* θ is in degrees;

m = number rows; d = diameter of pile end; and

n = number of piles in a row; S = spacing of piles.

6.2.2.2 Lateral Capacity

The lateral capacity of the pile depends on the permissible deflection and the degree of fixity at the pile top. For this project, we have assumed lateral deflections of ½ and 1 inch

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at the bottom of the pile cap, no interpolation is allowed. Lateral loads may be resisted by the pile and the passive resistance of the soils against the pile cap. The capacities presented are based on the strength of the soils encountered in our field explorations. The pile sections should be checked to verify the structural capacity of the piles.

The preliminary lateral capacities of free-head and fixed-head, cast-in-place 30-inch diameter concrete cast piles are presented in the following Table. Once the shear force, bending moment, and vertical load at the top of the piles have been defined by the Structural Engineer, the values presented in this Table should be updated and the lateral capacity curves (deflection vs. depth, shear vs. depth, and moment vs. depth) can be provided.

Lateral Capacities for a Single CIDH Pile				
	Pile Condition			
Pile Diameter	30-inch		30-inch	
Pile Head	Free Head		Fixed Head	
Pile top deflection	1/2-inch	1-inch	1/2-inch	1-inch
Required Lateral Load (kips)	37.4	71.7	97.9	174.69
Maximum Negative Moment (kips-ft)	15.25	34.1	650.0	1,216.9
Maximum Positive Moment (kips-ft)	213	423.8	169.2	323.3
Depth to Maximum Positive Moment (ft)	9.8	9.8	14.6	14.3
Depth to Maximum Negative Moment (ft)	32.5	32.5	0	0

The above table presents the lateral capacity for a single pile and do not consider a reduction for group action. Lateral load reduction factors to be applied for various pile spacing for in-line loading are presented in the table below. For spacing in between those provided below, a linear interpolation may be utilized to calculate the reduction factor.

Lateral Load Reduction Factors	
Center-to-center Pile Spacing for In-line Loading	Ratio of Load Resistance of Piles in Group to Single Pile
8D	1.0
5D	0.9
3D	0.7

Note: *D = Diameter of the pile*

For lateral resistance of pile caps and grade beams, we recommend an allowable equivalent passive fluid pressure of 200 psf per foot of depth. The allowable passive earth pressures should not exceed 2,000 psf. The friction resistance should be neglected.

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6.2.2.4 CIDH Pile Installation

The performance of CIDH piles is strongly dependent on the construction methods and procedures. Construction methods that create large zones of disturbance around the CIDH piles can lead to lower than anticipated side friction due to excessive stress relief around the shaft length. Proper construction techniques should be used to limit disturbance of the soils during pile installation. Disturbance of the soils at the bottom of the pile excavation or improper bottom cleanout may result in excessive pile settlement. Disturbance at the top of the pile may result in greater lateral deflection than calculated. Any disturbance should be corrected by over excavation and/or re-compaction. We recommend full-time observation to be performed by the project geotechnical engineer.

Based on our experience and the soil types encountered, the probable caving, squeezing and bottom heaving should be anticipated during drilling for the piles. It is the contractor's responsibility to take precautions and choose the appropriate means and methods of drilling and pile construction to reduce the above-mentioned potential hazard of the drilled holes. Competent contractors experienced in deep foundation construction should be retained to construct drilled pile foundations.

After completion of drilling, the bottom of the hole should be cleaned of all loose or disturbed materials. We recommend that the piles be cast within 4 hours of completion of each drill hole, no holes should be left open overnight or partially drilled. Before casting concrete, the drilled hole should be observed by the project geotechnical engineer or engineering geologist, and suitable condition at the bottom of the hole should be confirmed. Because pile support counts on end bearing, a properly designed flat bottom cleaning bucket must be used to clean all drill holes bottom. The Geotechnical Engineer representative should re-check the bottom for accumulation of sediment immediately before lowering the tremie, and the bottom should be re-cleaned if more than 1½ inches of sediments have accumulated at the bottom.

The drilled hole should be filled with concrete as soon as possible and should not be left open overnight or partially drilled unless cased. Where groundwater is present in the drill holes, or there is a wet hole, we recommend increasing the concrete strength by 1,000 psi above the design strength.

6.2.3 Differential Settlement Between Shallow and Deep Foundation

Based on our engineering analysis, the total static settlement of the conventional shallow foundation (ie. perimeter-wall footing) is on the order of 1¾ -inch, and due to the stiffness and depth of the piles the total static settlement of the deep foundations is negligible. Therefore, the foundation system consisting of shallow and deep foundation should be designed for a static differential settlement of 1¾ inch in addition to the differential seismic settlement. The Structural Engineer should take careful consideration when the deep and shallow foundations are in proximity of each other due to the significant differential static settlement (1¾ inch) in addition to differential seismic settlement which will occur along the spanning distance.

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If the perimeter-wall would be supported on pile foundation similar to the rest of the structure, then the static differential settlement is negligible.

6.3 Slab-on-Grade

Generally, we recommend designing a stiff structural slab with a minimum thickness of 6-inches (particularly within the vicinity of boring B-4) due to the total and differential settlements (static and seismic) and different fill thickness. The project structural engineer should design the slab thickness, reinforcing, joint design spacing, any possible connections to other element of the structure such as pile cap and/or shallow foundation, and other pertaining details. Proper control of concrete slump and curing to minimize slab "curling" and the resultant voids under the slab is also critical.

Reinforcing should be properly supported to ensure placement near the vertical midpoint of the slab. "Hooking" of the reinforcement is not considered an acceptable method of positioning the steel. Provisions for cracks should be incorporated into the design and construction of the foundation system, slabs, and proposed floor coverings.

These recommendations are considered minimums unless superseded by the project structural engineer. The actual slab thickness, reinforcement, joint design spacing and other details shall be designed by the structural engineer and should include the anticipated loading conditions and settlement.

In areas where dampness of the floor slab would be undesirable, the slab should be underlain by an impermeable polyethylene membrane (Stego Wrap, Moistop Plus, or any equivalent meeting the requirements of ASTM D1745) as a capillary break. The membrane shall be a minimum 15-mil. thick and both underlain and overlain by a minimum of 2-inch thick layer of moistened (not saturated) sand to both protect the membrane and provide proper concrete curing. The polyethylene membrane joints should be lapped not less than 6 inches. If the California Green Building Code requirements apply to this project, the vapor retarder may be placed in direct contact with the concrete slab and should be underlain by 4 inches of clean aggregate. The vapor barrier should be puncture resistant since it will be in direct contact with angular gravel.

To prevent warped, curled, or bubbled floor coverings, the moisture emission through the concrete and the alkalinity/pH, and relative humidity of the concrete should meet the flooring or adhesive manufacturer's recommendations and requirements. Concrete floors to receive resilient flooring should be prepared in accordance with ASTM F710-03. Unless a qualified specialist is retained for the flooring design, the above should be incorporated in the design and construction of concrete floors to receive resilient flooring.

6.3 Flatwork Design

Flatwork should be a minimum of 4-inches thick, and should be reinforced with a minimum of No. 4 reinforcing bar on 24-inch centers in two horizontally perpendicular directions. Flatwork slabs or sidewalks should have sufficient control joints spaced at a maximum of approximately 10 feet. Reinforcing should be properly supported to ensure placement near

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the vertical midpoint of the slab. "Hooking" of the reinforcement is not considered an acceptable method of positioning the steel. The slab should not be structurally connected to the buildings or proposed foundations.

The flatwork subgrade material should be moisture conditioned to within 120 percent of optimum moisture content and compacted to a minimum of 90 percent of the maximum laboratory dry density (ASTM D1557) to a minimum depth of 12 inches below finished grade. The actual thickness and reinforcement of the flatwork shall be designed by the structural engineer and should include the anticipated loading condition.

6.4 Cement Type and Corrosion

Concrete used should be designed in accordance with Section 1904.1 and Section 1904.2 of the 2016 California Building Code, and the provisions of ACI 318, Section 4.2 and Chapter 19 and Table 19.3.1.1 for concrete exposed to soils containing negligible sulfates exposure, which indicates an exposure Class S0.

Corrosion tests of near-surface soils indicate severe corrosion potential for ferrous metals exposed to site soils. Laboratory soils corrosivity tests are presented in the attached Appendix C.

GEOQUAKE, INC. does not practice corrosion engineering. If needed, a qualified specialist should review the site conditions and evaluate the corrosion potential of the site soil to the proposed improvements, and to provide the appropriate corrosion mitigations for the project.

6.5 Expansion Potential

The expansion potential of selected materials was evaluated by the Expansion Index Test as per ASTM D 4829. An Expansion Index of 25 was determined, which indicates a low expansion potential. However, based on variable expansiveness of the fill materials, additional expansion index tests should be performed in the field during grading.

6.6 Drainage

Proper surface drainage is critical to the future performance of the project. Uncontrolled infiltration of excessive irrigation water and storm runoff into the soils can adversely affect the performance of planned improvements. Saturation of the 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 all the time.

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 2016 CBC 1805.4.2 and 1805.4.3 or applicable standards. In addition, drainage should not be allowed to flow uncontrolled over any descending slope. Discharge from downspouts, roof drains and

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scuppers are not recommended onto unprotected soils within five feet of the building perimeter or any retaining wall foundation.

Landscape irrigation is not anticipated near the area proposed for the subject facilities, however we don't recommended any landscape or planters within 10 feet of the proposed foundations except when enclosed in protected planters. Protected planters should be sealed to prevent moisture intrusion into the soils providing foundation support.

7.0 INFILTRATION

Infiltration testing was performed to determine the infiltration rate of the near surface soils in accordance with the requirements of the County of Orange Technical Guidance Document (TGD) for evaluation of infiltration rates.

The infiltration test was performed within the proposed infiltration areas allocated by the project civil engineer within the parking lot area west of to the location proposed for the building addition. It is our understanding that the result of the infiltration tests will be used to prepare the design for the stormwater infiltration system that will be used for retention, detention, infiltration, and water reuse. The location of the infiltration tests is presented on the attached Geotechnical Map, PLATE A.

The "Shallow Percolation Test" procedure was performed to determine the infiltration rate of the near surface soils in accordance with the requirement of Appendix VII of the County of Orange Technical Guidance Document (TGD) for the Preparation of Conceptual/Preliminary and/or Project Water Quality Management Plans (WQMPs), Exhibit 7.III.

Two (2) test borings were drilled utilizing an 8-inch diameter auger to an approximate depth of five (5) feet below existing grade. A couple of inches of gravel were placed in the borings bottom, and a 4-inch perforated PVC pipe was installed in each of the holes and the gap between the pipe and the hole walls was filled with gravel to prevent caving during saturation and testing.

Prior to performing the infiltration testing the test holes were continuously saturated. Subsequent to saturation, the test holes were filled with water and a falling head percolation test was performed by measuring the drop in water from a fixed reference point. Multiple test trials were performed in general conformance with the County guidelines. Infiltration evaluation is presented in Appendix E, attached. The measured percolation rates were converted to infiltration rates utilizing the Porchet Method (aka Inverse Borehole Method), as presented on attached Plates D-1 and D-2. It should be noted that a factor of safety of 2.0 was applied to the determined infiltration rates. The following percolation rates may be used for design purposes:

Percolation Boring Location	Infiltration Rate (inch/hour)
IN-1	0.02
IN-2	0.01

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7.1 Suitability and Location of Infiltration System

Subsurface materials where tested do not meet the minimum design infiltration rate of 0.3 inches per hour required by the County of Orange TGD Manual for preparation of WQMPs, in addition, static groundwater was encountered at approximately 10 feet below site grades. An alternative system such as a bio-detention trench or bio-swale may be constructed. The project civil engineer should be consulted for appropriate design and measures.

The use of on-site storm water infiltration systems will increase the moisture content of soils beneath the infiltration system and surrounding areas. Increasing the moisture content of the soil can cause loss of internal shear strength, increase the potential for liquefaction and seismic settlements, reduce cohesion strength in saturated soils, increase in hydro-collapsible potential of loose and dry soils, and generally increase the compressibility of the soils. We do not recommend alteration in the subgrade engineering properties. The site is underlain with fill materials and is subject to moderate seismic settlements, alteration in the subgrade engineering properties carries an increased risk of creating adverse geotechnical conditions for structures adjacent to the subsurface infiltration systems. Infiltrating storm water into the site subgrade soils is not recommended within a lateral distance of 40 feet from the proposed structures.

8.0 PRELIMINARY PAVEMENT DESIGN

The Caltrans method of design was utilized to develop the following asphalt pavement section. The section is developed based on an estimated R-Value of 25 for the site subgrade soils. The tested R-value was for soils sampled at on location within the site and shall be verified during grading, and if necessary the pavement design shall be re-evaluated.

Traffic Index utilized in the pavement design was estimated based on the pavement utilization and is subject to approval by the project Civil Engineer and/or controlling authorities' traffic engineer.

Pavement Utilization	Asphalt Pavement Section			
	Traffic Index	Asphalt (Inches)	Aggregate Base (Inches)	Total (Inches)
Parking Stalls and Auto Driveway	5.0	3.0	7.0	10.0
Heavy Traffic	7.0	4.0	12.0	16.0

Pavement Utilization	Portland Cement Concrete Pavement Section				
	Traffic Index	PCCP (Inches)	Strength (psi)	Aggregate Base (Inches)	Total (Inches)
Parking Stalls and Auto Driveway	5.0	4.0	4,000	4.0	8.0
Heavy Traffic	7.0	7.0	4,500	4.0	11.0

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Aggregate base material should consist of Crushed Aggregate Base complying with the specifications in Section 200.2.2 of the current "Standard Specifications for Public Works Construction" and should be compacted to at least ninety-five (95) percent of the maximum dry density (ASTM D1557). The surface of the aggregate base should exhibit a firm and unyielding condition just prior to the placement of asphalt concrete paving.

The upper twelve (12) inches of the pavement subgrade should be moisture conditioned to within 120 percent of optimum moisture and compacted to minimum ninety-three (93) percent minimum relative compaction.

The recommendation presented above for the pavement subgrade preparation assume that the owner and/or developer can tolerate minor amounts of settlement within the proposed parking areas. The grading recommendations presented above do not completely mitigate the extent of undocumented fill soils in the parking areas. As such, settlement and associated pavement distress could occur. In case such risk cannot be tolerated, the parking and driveway areas should be graded in a manner similar to that of the proposed building pad.

9.0 EARTHWORK/ SITE DEVELOPMENT

9.1 General

During earthwork construction, all site preparation and the general procedures of the contractor should be observed, and the fill selectively tested by a representative of GEOQUAKE, INC. Should any unusual or unexpected conditions are exposed in the field, they should be reviewed by this office and if warranted, modified and/or additional recommendations will be offered.

9.2 Site Clearing

If encountered within the proposed construction area, all debris including top soil, asphaltic concrete, concrete slab, underground utilities, and other generated deleterious materials should be removed and legally disposed of off-site.

Underground facilities such as utilities, pipes or underground storage tanks, if any, should be removed in accordance with, and subject to, State law as regulated by the County or City Health and/or Fire Department agencies. If storage tanks containing hazardous or unknown substances are encountered, the proper authorities must be notified prior to any attempts at removing such objects. Depressions, resulting from the removal of underground facilities should be backfilled with properly compacted materials.

9.3 Grading and Subgrade Preparation

No preliminary grading plans are made available to this office at this time. All grading should conform to the guidelines presented in the California Building Code (2016 edition), except where specifically superseded in the text of this report. Prior to grading,

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GEOQUAKE's representative should be present at the pre-construction meeting to provide grading guidelines, if needed, and review any earthwork.

Subgrade Preparation

After clearing the site, remedial grading should be performed within the proposed buildings pad and to a minimum lateral distance of 10 feet beyond, where possible, the remedial grading should consists of over excavating to remove existing undocumented fill materials and provide a minimum six (6) foot thick or more fill blanket below bottom of proposed footings and slab, the bottom ten (10) inches of overexcavation may be processed in place. The exposed bottoms should be evaluated and approved by the geotechnical engineer prior to proceeding with placing fill lifts. Some localized areas of deeper excavation may be required if additional fill materials or unsuitable materials are encountered at the base of the over excavations.

If highly unstable soils are identified or a wet and pumping condition occurs due to the presence of moist soft and cohesive soils near the base of over excavation, bottom stabilization may be necessary. Typically, scarification and air drying of the materials is sufficiently expected to obtain a stable subgrade. However, if highly unstable soils are encountered, and if construction schedule does not allow for delays associated with drying, stabilization should be achieved by placing a layer of coarse crushed stone and geotextile. Typically, the depth of stone varies approximately between 18 inches to 24 inches and even deeper depending on the severity of the unstable condition.

After a suitable over excavation subgrade has been achieved and/or after approval by the geotechnical engineer, the exposed bottoms should be scarified to an approximate depth of 8 inches, moisture conditioned to within 120 percent of optimum moisture content and re-compacted to minimum ninety-three (93) percent relative compaction per ASTM D1557 maximum dry density. The building pad areas may then be raised to grade with on-site excavated soils or import structural fills.

On-site soils are acceptable to be used as engineered fill provided they possess an expansion index (EI<20) and are free of any deleterious materials and screened for particles greater than 3-inch in largest dimension. The fill should be moisture conditioned to slightly above optimum moisture content, and should be compacted to minimum 95 percent relative compaction.

Any subsurface obstruction buried structural elements, and unsuitable material encountered during grading, should be immediately brought to the attention of the Geotechnical Consultant for proper exposure, removal and processing, as recommended. An estimated 15 percent shrinkage factor may be used in earth quantities due to removal and re-compaction of existing soils.

9.4 Temporary Excavation

Temporary excavations adjacent to un-surcharged areas are anticipated to be stable vertically without any shoring to a depth up to four (4) feet in fill and alluvial soils below

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adjacent grade. For cuts to a maximum depth of eight (8) feet with an adjacent flat grade, the slopes should be properly shored or sloped back to at least 1:1 (Horizontal:Vertical) or flatter. For excavations to a maximum depth of twelve (12) feet below adjacent flat grade, the slopes should be properly shored or sloped back to at least 1.5:1 (Horizontal:Vertical) or flatter. For deeper excavations, shoring may be needed as recommended in Section 9.5 below.

No surcharge loads should be permitted within a horizontal distance equal to six (6) feet or half the height of cut from the toe of excavation, whichever is greater unless the cut is properly shored. A greater setback may be necessary when considering heavy vehicles, such as concrete trucks and cranes; we should be advised of such heavy vehicle loadings so that specific setback requirements can be established. When excavating adjacent to existing footings or building supports, proper means should be employed to prevent any possible damage to the existing structures. Un-shored excavations should not extend below a 1½:1 (Horizontal:Vertical) plane extending downward from the lower edge of adjacent footings and should start at least two feet away from the footings. Where there is insufficient space to slope back an excavation, shoring may be required. All regulations of State and Federal OSHA should be followed. Some sloughing and caving of excavations may occur.

Temporary excavations are assumed to be those that will remain un-shored for a period of time not exceeding two weeks. In dry weather, the excavation's exposed slopes face should be kept moist, but not saturated, to reduce local sloughing. If excavations are made during the rainy season (normally from November through April), particular care should be taken to protect slopes against erosion. Mitigative measures, such as installation of berms, plastic sheeting, or other devices, may be warranted to prevent surface water from flowing over or ponding at the top of excavations.

Temporary over excavations adjacent to existing buildings at the site not exceeding six (6) feet in depth may be performed utilizing the A-B-C slot-cutting method. This method employs the use of the earth as a buttress and allows the excavation to proceed in phases. All slot-cuts shall be of equal width, the initial slot "A" is cut in width not exceeding six (6) feet leaving the "B" and "C" slots to buttress the excavation. The depth of excavation shall three (3) feet underside the existing building foundation.

9.5 Temporary Shoring

Due to the depth of removals and presence of adjacent surcharge and/or structures and other facilities, shoring may be required for this project. The most common method of shoring, and likely the most practical method for the site, consists of placing steel beams in drilled holes (soldier piles), and then backfilling with concrete and/or slurry, depending on the design employed. The soldier piles may be designed either as cantilever (16 feet maximum height) or may be laterally braced utilizing raker braces (for more than 16 feet height), which is recommended for this project. Other shoring alternatives should be reviewed and approved by this firm, the contractor should be responsible for shoring.

Drilled cast-in-place soldier piles should be placed no closer than 2½ diameters on center. The minimum diameter of the soldier piles should be 18 inches. Depending on the design,

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structural concrete may be used below the excavation, and lean-mix (2 sack per cubic yard) concrete may be used above that level.

For design purposes, allowable passive pressure values for the soils below the bottom plane of excavation may be assumed to be 220 pounds per square foot per foot of depth, respectively, up to a maximum of 2,200 pounds per square foot. These values may be increased by 100 percent for isolated soldier piles spaced at least 3 diameters on center. To develop the full lateral resistance value, provisions should be implemented to assure firm contact between the soldier piles and the undisturbed soils. These values apply only to level ground surface.

The portion of soldier piles below the plane of excavation may also be employed to resist the downward loads. The downward capacity may be determined using a frictional resistance of 250 pounds per square foot.

For level ground condition, a triangular distribution of lateral earth pressure of 38 psf/foot may be utilized for the design of a cantilevered shoring system not exceeding 20 feet in height.

A trapezoidal distribution of lateral earth pressure of 28H psf for level ground, where H is the retained height in feet, may be utilized where shoring is to be restrained by rakers or other types of internal bracing and tiebacks. These uniform pressure distributions may be assumed over the sixth tenth of the wall height; the pressures should taper to zero at the base and the top of the excavation. Surcharge loads occurring as a result of vehicular traffic, and any surcharge loading imposed by any other adjacent loading or structures, including slope surcharges, should be added to the above pressure for the design of the proposed shoring system. For vehicular surcharge, the upper 10 feet of shoring adjacent to access road traffic should resist an additional uniform lateral pressure of 100 pounds per square foot, acting as a result of an assumed 300 pounds per square foot traffic surcharge. If traffic is kept back at least 10 feet or 0.6 times the height of shoring, whichever is the greater distance from the shoring, the traffic surcharge may be neglected.

Soldier piles or rakers should be designed for the full anticipated pressures. Due to arching in the soils, the pressure on the lagging will be less. It is recommended that the lagging be designed for the full design pressure but be limited to a maximum of 400 pounds per square foot. If lagging is to be left in place, treated lumber should be used. Voids between the soil and lagging should be grouted as necessary to mitigate the potential for the voids to propagate. The shoring should be designed by a Civil Engineer registered in the state of California.

It is difficult to accurately predict the amount of deflection of a shored excavation. It should be realized that some deflection will occur. It is recommended that the shoring be designed for a maximum horizontal deflection of no more than ½ inch if foundations are being supported. If greater deflection occurs during construction, additional bracing may be necessary to reduce earth movement in adjacent areas. If desired to reduce the deflection, a greater active retaining pressure should be used in the shoring design.

Some means of monitoring the performance of the shoring system is suggested. The monitoring should consist of periodic surveying of the lateral and vertical locations of the

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tops of all soldier piles, and the lateral movement along the entire lengths of selected soldier piles.

9.5 Fill Placement

Prior to any fill placement an engineering representative from GEOQUAKE, INC. should observe and approve the exposed surface soils. Subsequently, the exposed bottom surface shall be scarified a minimum of 6 inches, unless otherwise superseded in Section 9.3 above, and compacted per the recommendation of Section 9.6. Fill shall be placed in lifts not exceeding 6 inches in compacted thickness for cohesionless fill, and not exceeding 8 inches in compacted thickness for cohesive fill. Any import soils shall be granular non-expansive (EI<20) and approved by GEOQUAKE, INC.

The site soils may be re-used as engineered fill provided they are free of organic content and particles size greater than 3-inches. Particles up to 6-inch in largest dimension may be used at the site within a minimum lateral distance of 5 feet from any structures, underground structures or utilities.

9.6 Compaction

All engineered fill materials shall be moisture conditioned to near optimum moisture content if granular (EI<20) and within 120 percent of optimum moisture for clayey or on-site cohesive soils, and compacted to a minimum relative compaction of ninety-three (93) percent in accordance with ASTM D 1557.

Grading should be performed under the full time observation of the geotechnical engineer's representative, compaction tests should be performed periodically as random verification of compaction and moisture content. These tests are intended to aid the contractor, and to ensure the placed fill achieves required strength in order to minimize the effect of seismically-induced settlements. However, since the tests are performed at discrete locations and depths, they may not be indicative of the entire fill and do not relieve the contractor of his responsibilities.

9.7 Shrinkage and Subsidence

Removal and re-compaction of near surface fill to prepare the building pad subgrade is estimated to result in an average shrinkage of 15 to 20 percent. Minor ground subsidence is expected to occur in the soils below the zone of removal. The subsidence may be estimated as ± 0.2 feet.

The above estimates are based on previous experience with similar subsurface conditions. The actual amount of subsidence is expected to be variable and is dependent on the earthwork operations and machinery used, the repetitions of use and dynamic effects, all of which are difficult to assess precisely. If more accurate shrinkage and subsidence factors are required, it is recommended that field testing utilizing the actual equipment and grading techniques should be performed.

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9.8 Utility Trench Backfill

All utility trench backfill in structural areas and beneath hardscape features should be brought to near-optimum moisture content and compacted to a minimum relative compaction of 95 percent of the laboratory standard. Flooding/jetting is not recommended. sand backfill, (unless trench excavation material), should not be allowed in parallel exterior trenches adjacent to and within an area extending below a 2:1 plane projected from the outside bottom edge of the footing. All trench excavations should minimally conform to CAL-OSHA and local safety codes. Soils generated from utility trench excavations may be reused provided it is moisture conditioned and compacted to 95 percent minimum relative compaction.

10.0 GEOTECHNICAL REVIEW OF PLANS

All grading and foundation plans should be reviewed and accepted by GEOQUAKE, INC. prior to construction. The geotechnical consultant should be given enough time to review the plans and perform additional engineering analysis if necessary. If significant time elapses since preparation of this report, the geotechnical consultant should verify the current site conditions, and provide any additional recommendations (if necessary) prior to construction.

11.0 GEOTECHNICAL OBSERVATION AND TESTING

The geotechnical consultant should perform additional services including observation and/or testing at the following construction stages:

- Review and acceptance of project plans and specification;
- During clearing of the site;
- Pre-construction site meeting;
- Upon exposing over excavations bottom;
- Prior to placing any engineered fill;
- During shoring process;
- During rough and precise grading operations;
- After foundation excavation and prior to placing steel and concrete;
- After placement of slab underlayment and prior to placement concrete;
- During backfill of utility trenches;
- When any unusual geotechnical conditions are encountered; and
- Prior to final approval.

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12.0 LIMITATIONS

This preliminary geotechnical investigation was performed in accordance with generally accepted geotechnical engineering principles and practices as it exists in the site area at the time of our study. No other warranty, expressed or implied, is made as to the conclusions and professional advice included in this report. The recommendation presented in this report are based on the assumption that GEOQUAKE, INC. will be conducting plans and specifications review, and observation and testing during construction in order to evaluate compliance with our recommendations.

Recommendations presented in this report are based on our field observations and subsurface explorations, limited laboratory tests, and our current knowledge of the proposed construction. It is possible that soil conditions vary between or beyond the points explored. If and when soil conditions encountered during construction differ from those described herein, GEOQUAKE, INC. should be notified immediately in order to review the condition and expedite supplemental recommendations. Any changes in the design or location of the proposed project, other than what is described and recommended for in this report, our recommendations should also be reviewed.
This report does not relate any conclusions or recommendations about the potential for hazardous and/or contaminated materials existing at, below or around the site.

This office does not practice or consult in the field of safety engineering. We do not direct the contractor's operations, and we cannot be responsible for other than our own personnel on the site. Therefore, the safety of others is the responsibility of the contractor. The contractor should notify the owner if he considers any of the recommended actions presented herein to be unsafe.

This report is intended for use by our Client and his design consultants for the purposes stated within a reasonable time from its issuance, but in no event later than one year from the date of this report. If significant time elapses since preparation of this report, GEOQUAKE, INC. should verify the current site conditions, and provide any additional recommendations (if necessary) prior to construction.

The conclusions and recommendations of this report are for the proposed project at the subject site. It is the client's responsibility to convey this report and all addendums, if any, to the attention of all parties, including the designer, contractor, subcontractor, and others involved in this project. Non-compliance with any of these requirements by the client or anyone else will release GEOQUAKE, INC. from any liability resulting from the use of this report by any unauthorized party and client agrees to defend, indemnify, and hold harmless GEOQUAKE, INC. from any claim or liability associated with such unauthorized use or non-compliance.

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APPENDIX A

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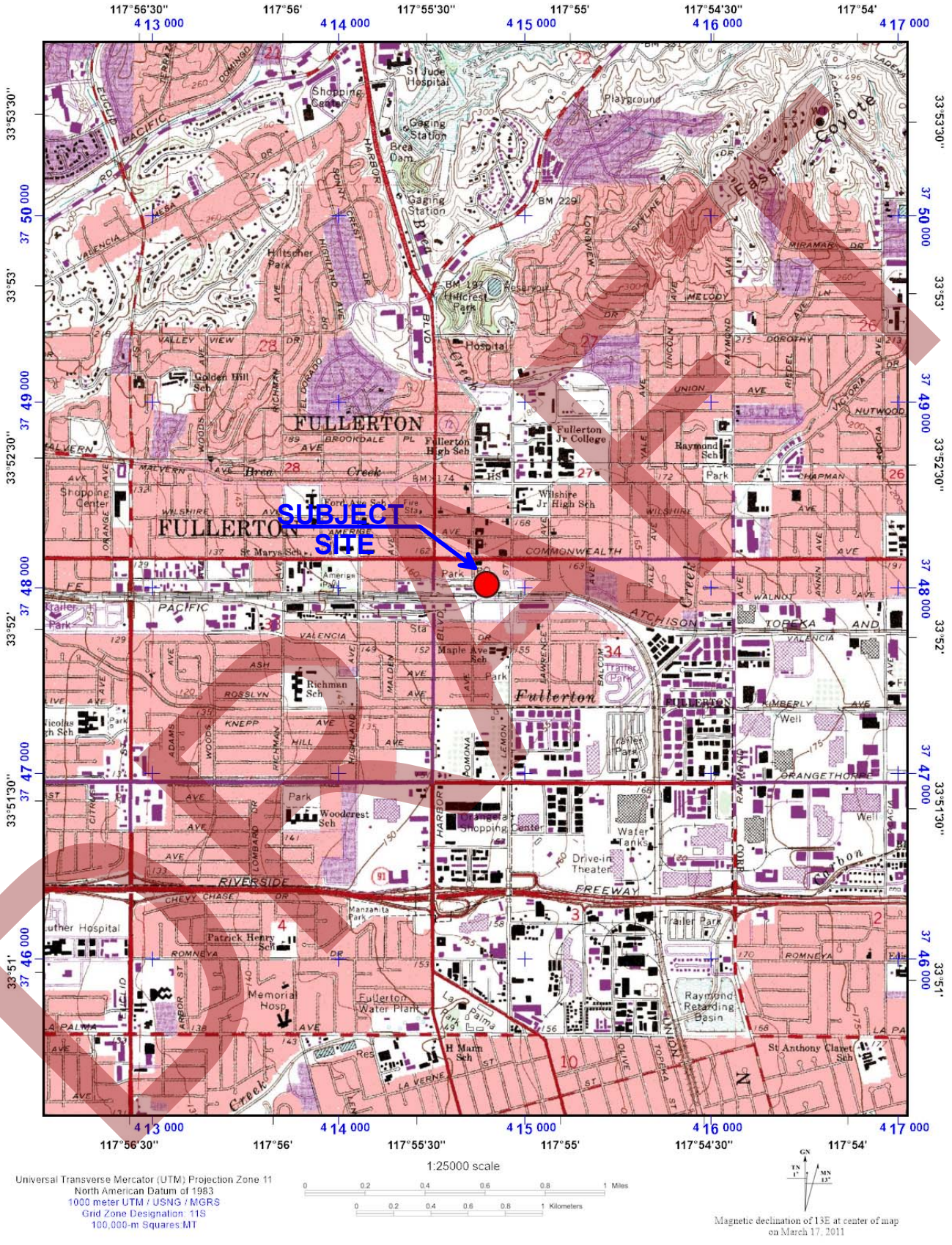
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Project No.: 19-0351
Project Name: Fullerton Transportation Hotel



1:25000 scale

Universal Transverse Mercator (UTM) Projection Zone 11
North American Datum of 1983
1000 meter UTM / USNG / MGRS
Grid Zone Designation: 11S
100,000-m Squares MT

0 0.2 0.4 0.6 0.8 1 Miles
0 0.2 0.4 0.6 0.8 1 Kilometers

GN TN 1° MN 13°

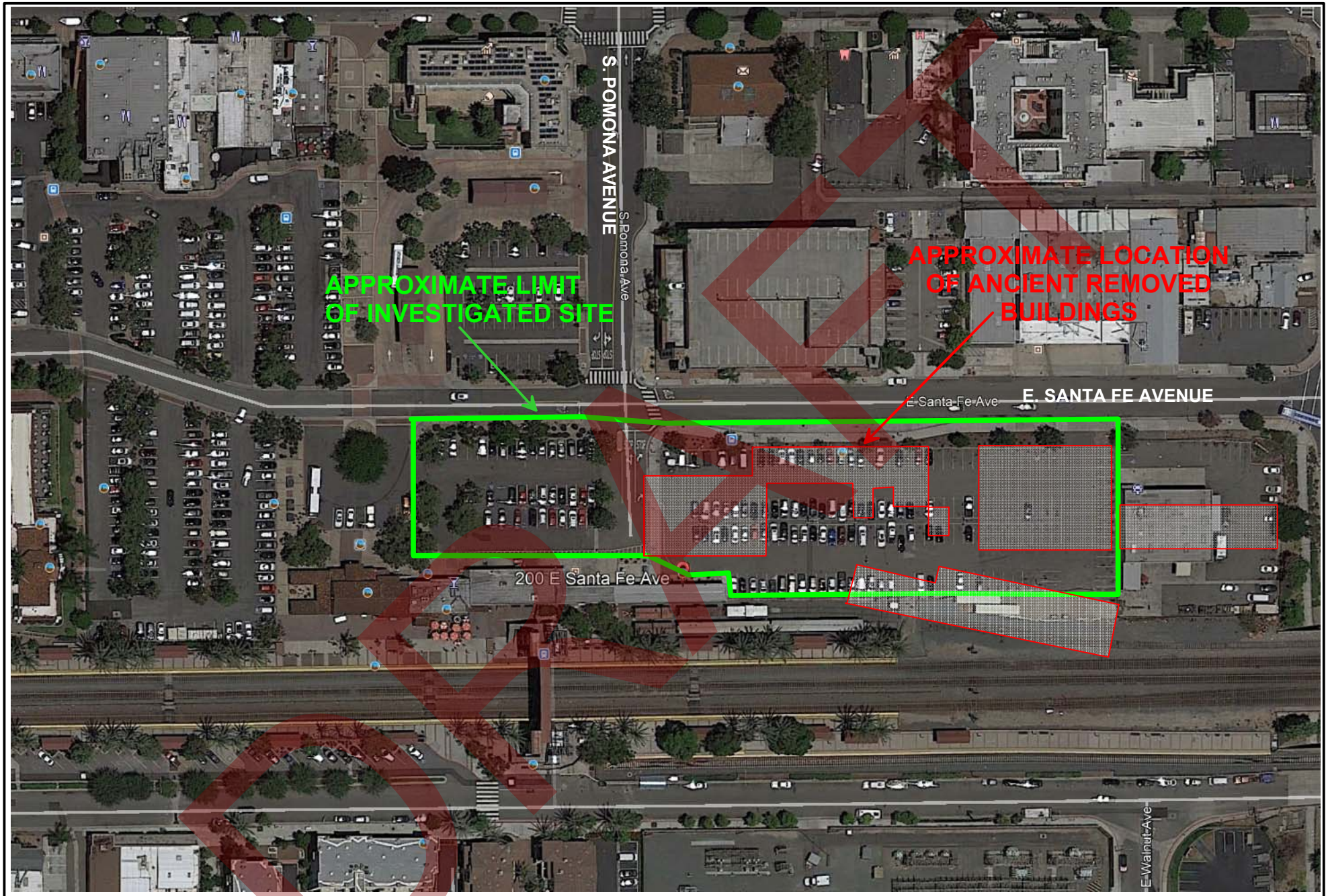
Magnetic declination of 13E at center of map on March 17, 2011

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FIGURE 1

SITE LOCATION MAP

GEOQUAKE



Not to Scale

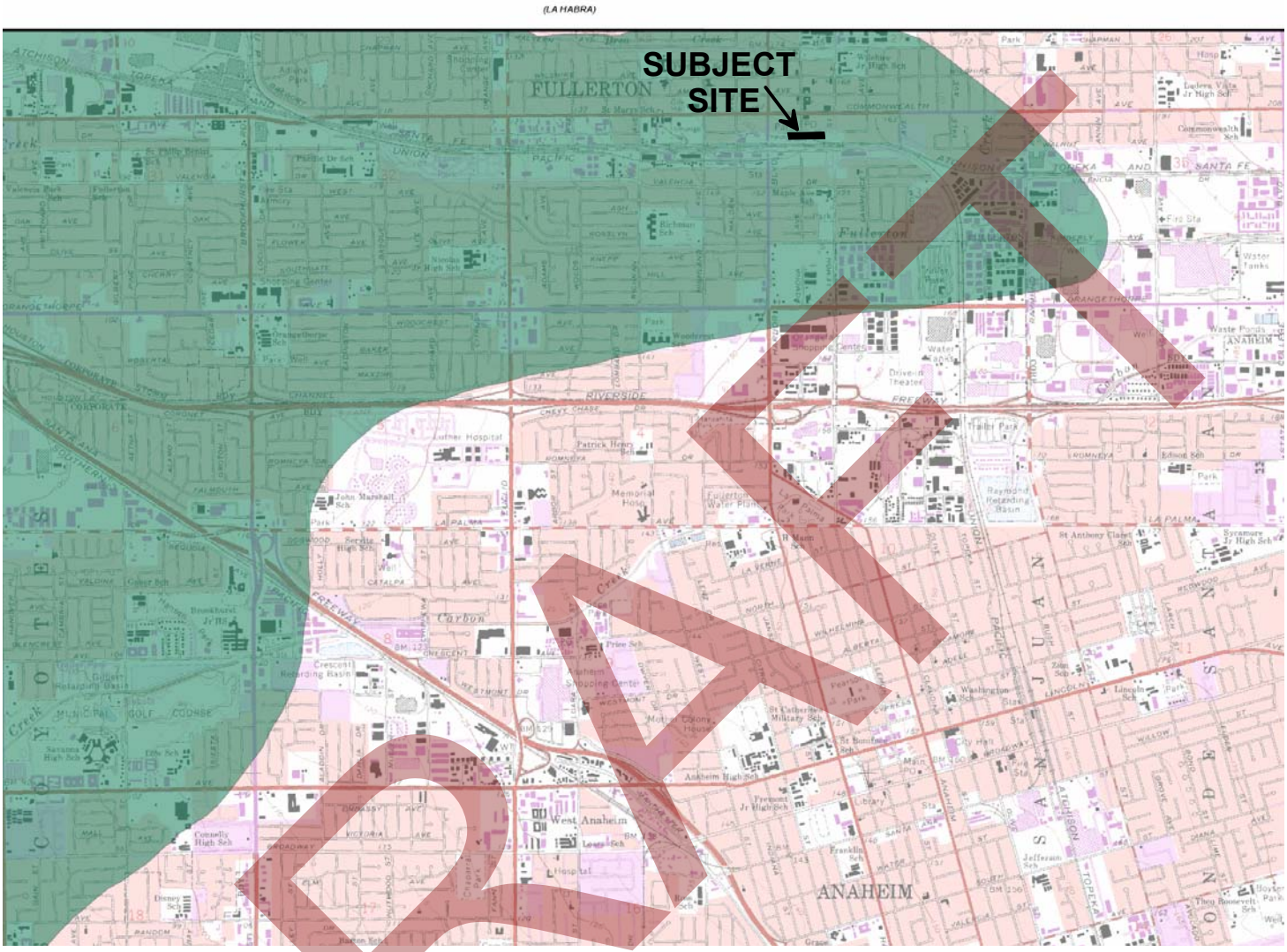
ANCIENT BUILDINGS EXISTED PRIOR TO 1995, UNKNOWN DATE OF DEMOLITION

AERIAL VIEW MAP
200 East Santa Fe Avenue, Fullerton, California

FIGURE 2

GEOQUAKE

Project No.: 19-0351
Project Name: Fullerton Transportation Hotel



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ANAHEIM QUADRANGLE

SEISMIC HAZARD ZONES

Delineated in compliance with
Chapter 7.8 Division 2 of the California Public Resources Code
(Seismic Hazards Mapping Act)

OFFICIAL MAP

Released: April 15, 1998

STATE GEOLOGIST

12°
TRUE NORTH
MAGNETIC NORTH
Approximate Declination, 2016

N

LEGEND:

SEISMIC HAZARD ZONES

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

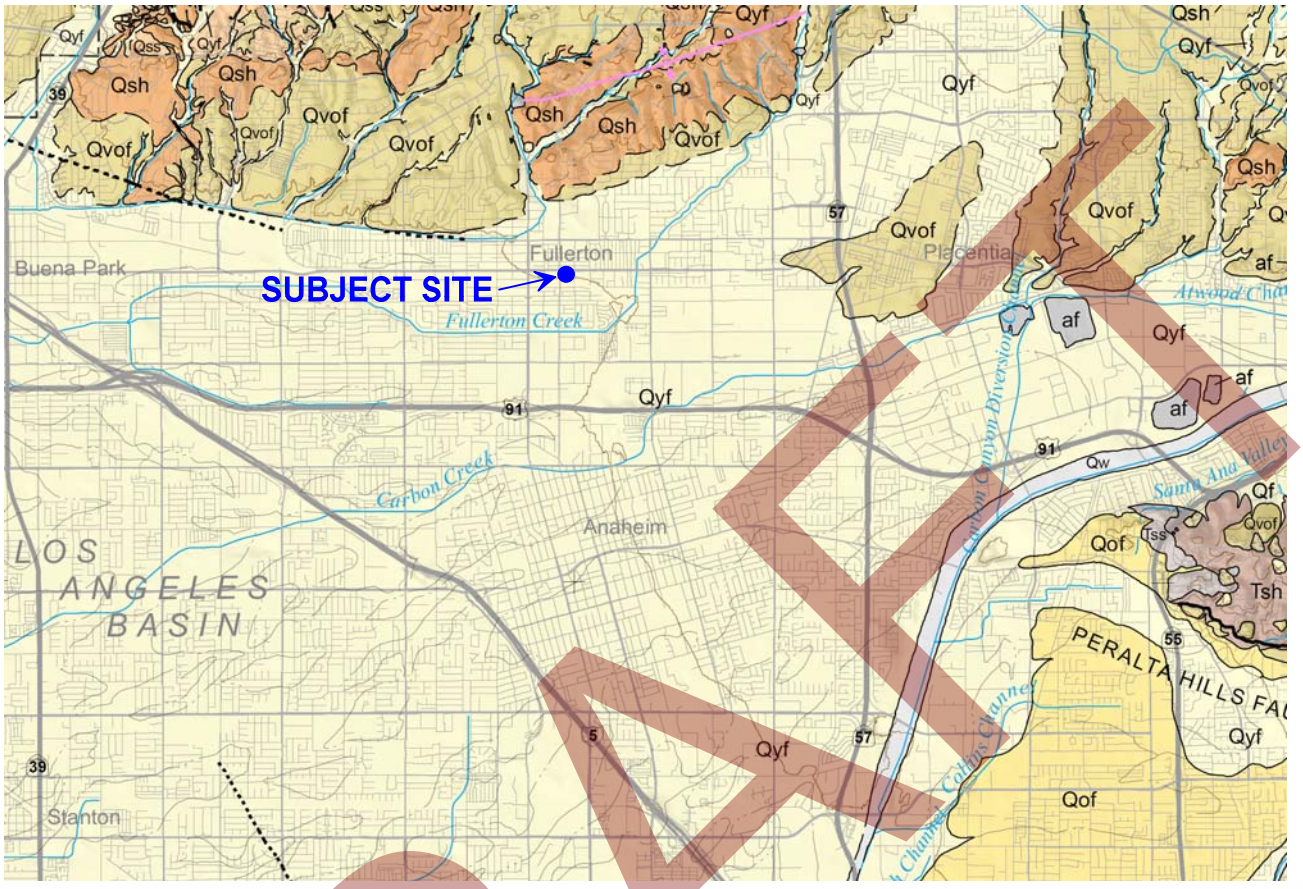
FIGURE 3

SEISMIC HAZARD ZONES MAP

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Project No.: 19-0351

Project Name: Fullerton Transportation Center



SCALE 1:100 000

5 2.5 0 5 MILES

5000 0 5000 10000 15000 20000 25000 30000 35000 40000 45000 50000 FEET

5 2.5 0 5 10 KILOMETERS

5000 0 5000 10000 METERS

GEOLOGIC COMPILATION OF QUATERNARY SURFICIAL DEPOSITS IN SOUTHERN CALIFORNIA
SANTA ANA 30' X 60' QUADRANGLE

A Project for the Department of Water Resources by the California Geological Survey

Compiled from existing sources by

Trinda L. Bedrossian, CEG and Peter D. Roffers

December 2012

LEGEND

- Qyf — **Young Alluvial Fan Deposits** - unconsolidated to slightly consolidated, undissected to slightly dissected boulder, cobble, gravel, sand, and silt deposits issued from a confined valley or canyon
- Qsh — **Fine-grained formations of Pleistocene age and younger** - includes fine-grained sandstone, siltstone, mudstone, shale, siliceous and calcareous sediments
- Qvof — **Very Old Alluvial Fan Deposits** - moderately to well-consolidated, highly dissected boulder, cobble, gravel, sand, and silt deposits issued from a confined valley or canyon
- Tsh — **Fine-grained Tertiary age formations** - includes fine-grained sandstone, siltstone, mudstone, shale, siliceous and calcareous sediments
- Qof — **Old Alluvial Fan Deposits** - slightly to moderately consolidated, moderately dissected boulder, cobble, gravel, sand, and silt deposits issued from a confined valley or canyon
- af — **Artificial Fill** - deposits of fill resulting from human construction, mining, or quarrying activities; includes engineered fill for buildings, roads, dams, airport runways, harbor facilities, and waste landfills

N

FIGURE 4

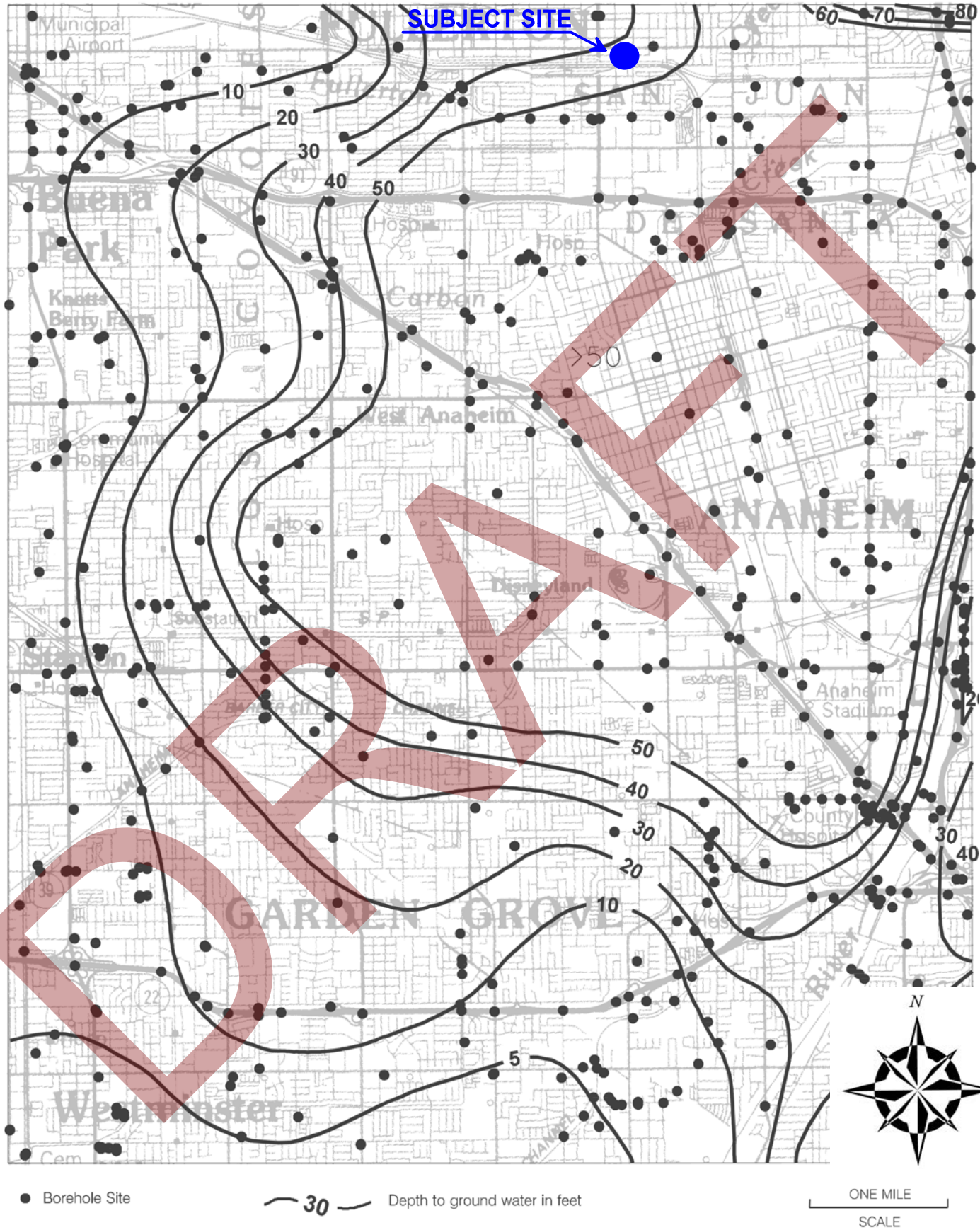
REGIONAL GEOLOGIC MAP

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Project No.: 19-0351

Project Name: Fullerton Transportation Center



Seismic Hazard Zone Report for the Anaheim and Newport Beach 7.5-Minute Quadrangle Orange County, California - 1997 (Open File Report 03, Updated 2001)

FIGURE 5

HISTORIC HIGH GROUNDWATER MAP

GEOQUAKE

1- This plan was originally prepared by others, GEOQUAKE only added geologic/geotechnical data, and we do not provide any assurance as of its topographical accurancy nor exact presentation.

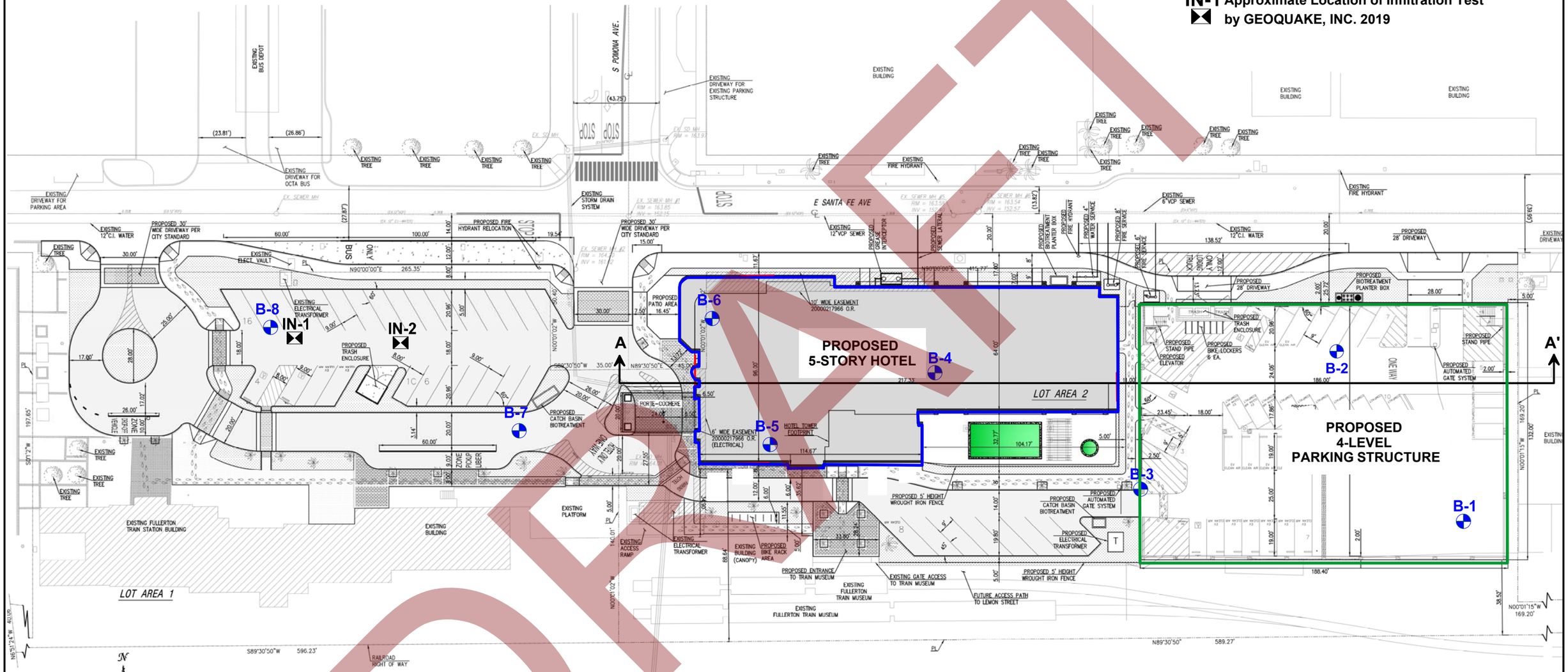
2- This plan is part of GEOQUAKE's report 19-0351, and should be interpreted with the complete report for evaluation. This plan should not be handed to contractors without the complete geologic/geotechnical report.

SITE PLAN

LEGEND:

B-1 **Approximate Location of Hollow Stem Borings by GEOQUAKE, INC. 2019**

IN-1 **Approximate Location of Infiltration Test by GEOQUAKE, INC. 2019**



Approximately 1 in = 50 ft

Project No.: 19-0351

Project Name: Fullerton Transportation Center

GEOTECHNICAL MAP

200 East Santa Fe Avenue, Fullerton, California

PLATE A

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PROPOSED GRADE

EXISTING GRADE

9.18' 15.77' 218.33' 11.00' 188.00' 5.41' PL

PROPOSED HOTEL BUILDING FF = 164.25

PROPOSED PARKING STRUCTURE

B-6 B-5 B-4 B-3 B-2 B-1

PROPOSED SIDEWALK

PROPOSED WALKWAY

FILL ML SP-SM CL SP CL-ML

STATIC GROUNDWATER

ELEVATION IN FEET (MSL)

175 165 155 145 135 125 115 105 95 85

0 30 60 90 120 150 180 210 240 270 300 330 360 390 420 450 480

DISTANCE IN FEET

Horizontal 0 30 60

Vertical 0 10 20

SCALE IN FEET

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Project No.: 19-0351

Project Name: Fullerton Transportation Center

GEOTECHNICAL CROSS-SECTION A-A'

200 E. Santa Fe Avenue, Fullerton, California

PLATE B

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APPENDIX B

LOG OF BORINGS

THE FOLLOWING DESCRIBES THE TERMS AND SYMBOLS USED ON THE LOG OF BORINGS TO SUMMARIZE THE RESULTS OBTAINED IN THE FIELD INVESTIGATION AND SUBSEQUENT LABORATORY TESTING.

DENSITY AND CONSISTENCY

The consistency of fine grained soils and the density of coarse grained soils are described on the basis of the Standard Penetration Test as follows:

COARSE GRAINED SOILS		Estimated Unconfined Compressive Strength (Tsf)	FINE GRAINED SOILS	
Very Loose	< 4	< 0.25	Very soft	< 2
Loose	4 – 10	0.35 – 0.50	Soft	2 – 4
Medium	10 – 30	0.50 – 1.0	Firm (medium)	4 – 8
Dense	30 – 50	1.0 – 2.0	Stiff	8 – 15
Very dense	> 50	2.0 – 4.0	Very stiff	15 – 30
		> 4.0	Hard	> 30

PARTICULE SIZE DEFINITION (As per ASTM D2487 And D422)

Boulder	⇒ Larger than 12 inches	Coarse Sands	⇒ No. 10 to No. 4 sieve
Cobbles	⇒ 3 to 12 inches	Medium Sands	⇒ No. 40 to No. 10 sieve
Coarse Gravel	⇒ 3/4 to 3 inches	Fine Sands	⇒ No. 200 to 40 sieve
Fine Gravel	⇒ No. 4 to 3/4 inches	Silt	⇒ 5µm to No. 200 sieve
		Clay	⇒ Smaller than 5µm

SOIL CLASSIFICATION

Soils and bedrock are classified and described based on their engineering properties and characteristics and using ASTM D2487 and D2488.

Percentage description of minor components

Trace	1-10 %	Some	20-35 %
Little	10-20 %	And or y	35-50 %

Stratified soils description

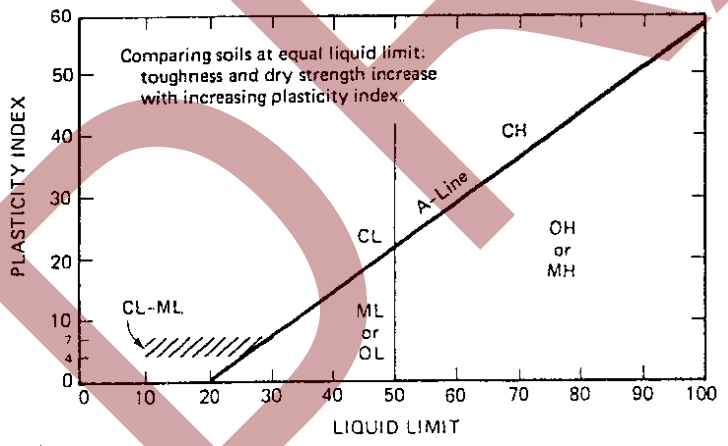
Parting	0 to 1/16 inch thick	Layer	½ to 12 inches thick
Seam	1/16 to ½ inch thick	Stratum	> 12 inches thick

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SOIL CLASSIFICATION CHART

MAJOR DIVISIONS			SYMBOLS GRAPH	SYMBOLS LETTER	TYPICAL DESCRIPTIONS	CLASSIFICATION CRITERIA
COARSE GRAINED SOILS — MORE THAN 50% OF MATERIAL IS LARGER THAN NO. 200 SIEVE SIZE	GRAVEL AND GRAVELLY SOILS — MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE	CLEAN GRAVELS (LITTLE OR NO FINES)		GW	WELL-GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES	$C_u = \frac{D_{60}}{D_{10}} > 4$ $C_c = \frac{(D_{30})^2}{D_{10} \times D_{60}} = 1$ to 3
				GP	POORLY-GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES	Not meeting all above requirements
		GRAVELS WITH FINES (APPRECIABLE AMOUNT OF FINES)		GM	SILTY GRAVELS, GRAVEL - SAND - SILT MIXTURES	Atterberg limits below "A" line or $I_p < 4$
				GC	CLAYEY GRAVELS, GRAVEL - SAND - CLAY MIXTURES	Atterberg limits above "A" line or $I_p > 7$
	SAND AND SANDY SOILS — MORE THAN 50% OF COARSE FRACTION PASSING ON NO. 4 SIEVE	CLEAN SANDS (LITTLE OR NO FINES)		SW	WELL-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES	$C_u = \frac{D_{60}}{D_{10}} > 6$ $C_c = \frac{(D_{30})^2}{D_{10} \times D_{60}} = 1$ to 3
				SP	POORLY-GRADED SANDS, GRAVELLY SAND, LITTLE OR NO FINES	Not meeting all above requirements
		SANDS WITH FINES (APPRECIABLE AMOUNT OF FINES)		SM	SILTY SANDS, SAND - SILT MIXTURES	Atterberg limits below "A" line or $I_p < 4$
				SC	CLAYEY SANDS, SAND - CLAY MIXTURES	Atterberg limits above "A" line or $I_p > 7$
FINE GRAINED SOILS — MORE THAN 50% OF MATERIAL IS SMALLER THAN NO. 200 SIEVE SIZE	SILTS AND CLAYS — LIQUID LIMIT LESS THAN 50			ML	INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS OR CLAYEY SILTS WITH SLIGHT PLASTICITY	$W_L < 50$
				CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS	$W_L < 30$
				OL	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY	$W_L < 50$
	SILTS AND CLAYS — LIQUID LIMIT GREATER THAN 50			MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SAND OR SILTY SOILS	$W_L > 50$
				CH	INORGANIC CLAYS OF HIGH PLASTICITY	$W_L > 50$
				OH	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS	$W_L > 50$
HIGHLY ORGANIC SOILS				PT	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS	Strong color or odor and often fibrous texture



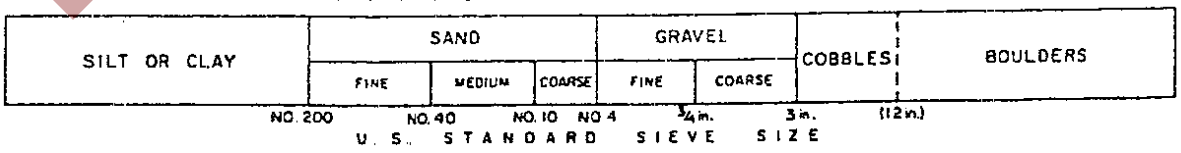
LABORATORY TEST DESIGNATIONS

BR	Bearing Ration	PP	Pocket Penetrometer
C	Consolidation	R	R-Value
COR	Corrosion Test	S	Direct Shear
Chl	Water Soluble Chlorides	SA	Sieve Analysis
EI	Expansive Index	SE	Sand Equivalent
ER	Electrical Resistivity	Sg	Specific Gravity
K	Permeability	SO_4	Water Soluble Sulfates
MC	Moisture Content	SV	Shear Vane
OC	Organic Content	TC	Triaxial Compression
PH	PH Test	UC	Unconfined Compression

ADDITIONAL SOIL CLASSIFICATION

Fill	Ss Sandstone	Ms Siltstone	Bdr Bedrock

PARTICLE SIZE LIMITS



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LOG OF BORING EXPLANATION

GEOQUAKE

Project Name: Fullerton Transportation Center
Project Number: 19-0351
Project Location: 200 E. Santa Fe Avenue, Fullerton, CA
Date Drilled: June 6, 2019

Log of Exploratory Boring

B-1

Drilling Contractor:	One Way Drilling	Ground Elevation:	Approx. 158' MSL	Logged By:	Z.Y.
Drilling Method:	Hollow Stem	Boring Depth:	51.5 FT	Checked By:	Z.Y.
Drill Rig Type:	CME-85	Boring Diameter:	8 inch	Groundwater Depth:	N/A
Hammer Weight/Drop:	140 lbs/30 in	Boring Backfill / Cap:	Soil Cuttings/AC Patch		

Bulk Sample | Rock Core Bit Sample | Auger Cuttings
Modified California Ring Sampler | No Recovery Sample | Packer
Standard Penetration Test Sample | Shelby Tube Sample | Dilatometer
Groundwater Encountered | Groundwater Stabilized

Elevation - ft -	Depth - ft -	Field Results: Sample Type	Field Results: Field N Blows/ft	Field Results: Equivalent SPT N-Blows/ft	USCS	Graphic Log	Subsurface Material Description and Geologic Condition	Laboratory Results: Moisture Content - % -	Laboratory Results: Dry Unit Weight - pcf -	Remarks & Other Tests
158					AC		PAVEMENT: 2" Asphalt over 22" Aggregate Base			
					Fill		SAND (Fill): dark brown, fine to medium grained, silty with some fine size gravel and asphalt pieces, loose, moist.			
153	5		8					8.4		
					SM		SAND (Native): light brown, fine grained, silty, loose, moist.			
148	10		14	9			… as above.	18.2	99.3	
143	15		6		CL		CLAY: olive brown, low plastic, some fine grained sand to sandy, medium firm, moist.	27.3		
138	20		15	10			… becomes brown, trace of fine grained sand, stiff, moist.	26.8	94.8	
133	25		27		SM		SAND: brown, fine grained, silty with trace of clay, moist.			
					SP		… grayish brown, fine to medium grained, poorly graded with trace to little silt, medium dense, moist.	11.2		
128	30									

DRAFT

This boring log describes soil conditions at the specific location and date indicated only. It does not represent other locations or dates.

GEOQUAKE

PLATE B-1

Project Name: Fullerton Transportation Center
Project Number: 19-0351
Project Location: 200 E. Santa Fe Avenue, Fullerton, CA
Date Drilled: June 6, 2019

Log of Exploratory Boring

B-1

Drilling Contractor:	One Way Drilling	Ground Elevation:	Approx. 158' MSL	Logged By:	Z.Y.
Drilling Method:	Hollow Stem	Boring Depth:	51.5 FT	Checked By:	Z.Y.
Drill Rig Type:	CME-85	Boring Diameter:	8 inch	Groundwater Depth:	N/A
Hammer Weight/Drop:	140 lbs/30 in	Boring Backfill / Cap:	Soil Cuttings/AC Patch		

Bulk Sample | Rock Core Bit Sample | Auger Cuttings
Modified California Ring Sampler | No Recovery Sample | Packer
Standard Penetration Test Sample | Shelby Tube Sample | Dilatometer
Groundwater Encountered | Groundwater Stabilized

Elevation - ft -	Depth - ft -	Sample Type	Field N Blows/ft	Equivalent SPT N-Blows/ft	USCS	Graphic Log	Subsurface Material Description and Geologic Condition	Laboratory Results: Moisture Content - % -	Laboratory Results: Dry Unit Weight - pcf -	Remarks & Other Tests
-30			9		CL		CLAY: olive brown, low plastic, little fine grained sand, stiff, moist.	29.9		
153	35		22	15	SM		SAND: light brown, fine grained, silty, micaceous, medium dense, moist.	12.0	107.2	
148	40		20		CL		CLAY: olive brown, low plastic, silty, very stiff, moist.	11.2		
					SM		SAND: light brown, fine grained, silty, medium dense, moist.			
143	45		22				… becomes grayish brown, fine grained, silty, medium dense, moist.	12.7		
138	50		24	16			… as above.	11.3	106.8	
					ML		SILT: olive brown, low plastic, some fine grained sand, very stiff, moist.			
133	55						Boring terminated at approximately 51.5 feet below existing grade. No Groundwater encountered. Boring backfilled with soils cuttings and patched with asphalt.			
128	60									

DRAFT

This boring log describes soil conditions at the specific location and date indicated only. It does not represent other locations or dates.

GEOQUAKE

PLATE B-1

Project Name: Fullerton Transportation Center
Project Number: 19-0351
Project Location: 200 E. Santa Fe Avenue, Fullerton, CA
Date Drilled: June 7, 2019

Log of Exploratory Boring

B-2

Drilling Contractor:	One Way Drilling	Ground Elevation:	Approx. 158' MSL	Logged By:	Z.Y.
Drilling Method:	Hollow Stem	Boring Depth:	41.5 FT	Checked By:	Z.Y.
Drill Rig Type:	CME-85	Boring Diameter:	8 inch	Groundwater Depth:	N/A
Hammer Weight/Drop:	140 lbs/30 in	Boring Backfill / Cap:	Soil Cuttings/AC Patch		

Bulk Sample | Rock Core Bit Sample | Auger Cuttings
Modified California Ring Sampler | No Recovery Sample | Packer
Standard Penetration Test Sample | Shelby Tube Sample | Dilatometer
Groundwater Encountered | Groundwater Stabilized

Elevation - ft -	Depth - ft -	Field Results: Sample Type	Field N Blows/ft	Equivalent SPT N-Blows/ft	USCS	Graphic Log	Subsurface Material Description and Geologic Condition	Laboratory Results: Moisture Content - % -	Laboratory Results: Dry Unit Weight - pcf -	Remarks & Other Tests
158					AC		PAVEMENT: 2" Asphalt over 22" Aggregate Base			
			7	5	Fill		SILT (Fill): light brown, low plastic, some fine grained sand and little clay, medium firm, moist.	19.6	96.5	EI
153	5		7	5	SM		SAND (Native): light brown, fine grained, silty, loose, moist.	16.3	96.6	C
			9				… as above	14.7		200W 25.4%
148	10		6				… silty to clayey.	19.8		
			30	20	ML		SILT: brown, low plastic, sandy fine grained, little clay, very stiff, moist	16.3	102.0	
143	15		8		CL		CLAY: brown, low plastic, silty, firm to stiff.	22.1		
			14				… becomes stiff.	18.4		
138	20		8				… becomes olive brown, sandy fine grained, firm to stiff.	17.8		
			33	22			… becomes sandy fine grained to silty, very stiff.	22.3	99.8	
133	25		29	19			… becomes sandy fine to medium grained.	19.5	110.7	S
			28		SP		SAND: grayish brown, fine to medium grained, little silt, medium dense, moist.	6.0		200W 6.2%
128	30									

DRAFT

This boring log describes soil conditions at the specific location and date indicated only. It does not represent other locations or dates.

GEOQUAKE

PLATE B-2

Project Name: Fullerton Transportation Center
Project Number: 19-0351
Project Location: 200 E. Santa Fe Avenue, Fullerton, CA
Date Drilled: June 6, 2019

Log of Exploratory Boring

B-2

Drilling Contractor:	One Way Drilling	Ground Elevation:	Approx. 158' MSL	Logged By:	Z.Y.
Drilling Method:	Hollow Stem	Boring Depth:	51.5 FT	Checked By:	Z.Y.
Drill Rig Type:	CME-85	Boring Diameter:	8 inch	Groundwater Depth:	N/A
Hammer Weight/Drop:	140 lbs/30 in	Boring Backfill / Cap:	Soil Cuttings/AC Patch		

Bulk Sample; Modified California Ring Sampler; Standard Penetration Test Sample; Groundwater Encountered; Rock Core Bit Sample; No Recovery Sample; Shelby Tube Sample; Groundwater Stabilized; Auger Cuttings; Packer; Dilatometer

Elevation - ft -	Depth - ft -	Sample Type	Field N Blows/ft	Equivalent SPT N-Blows/ft	USCS	Subsurface Material Description and Geologic Condition	Laboratory Results: Moisture Content - % -	Laboratory Results: Dry Unit Weight - pcf -	Remarks & Other Tests
123			55	37	SP	SAND: grayish brown, fine to medium grained sand, poorly graded, trace to little silt, dense, moist.	2.7	108.3	SA, S
			12		ML	SILT: light olive brown, low plastic, sandy fine grained sand, very stiff, moist.	11.1		200W 58.1%
118	35		26	17	SP	SAND: grayish brown, fine grained, poorly graded, trace to little silt and mica, medium dense, moist.	4.0	105.5	200W 5.1%
			14		CL	CLAY: brown, low plastic, silty, stiff, moist.	21.6		
148	40		19	13		… as above, little fine grained sand.	21.2	106.7	C
			13			… as above	21.0		Att.L
143	45		49	33	SM	SAND: brown, fine grained, silty, dense, little to trace of mica, moist.	10.0	104.4	SA
			40				7.2		
138	50		50/5"	34/5"		… becomes with little to some silt, little mica, very dense	15.3	99.1	
98	55		26		SP	… becomes grayish brown, trace of silt, fine to medium grained, medium dense.	5.1		200W 5.2%
93	60								

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This boring log describes soil conditions at the specific location and date indicated only. It does not represent other locations or dates.

GEOQUAKE

PLATE B-2

Project Name: Fullerton Transportation Center
Project Number: 19-0351
Project Location: 200 E. Santa Fe Avenue, Fullerton, CA
Date Drilled: June 6, 2019

Log of Exploratory Boring

B-2

Drilling Contractor:	One Way Drilling	Ground Elevation:	Approx. 158' MSL	Logged By:	Z.Y.
Drilling Method:	Hollow Stem	Boring Depth:	51.5 FT	Checked By:	Z.Y.
Drill Rig Type:	CME-85	Boring Diameter:	8 inch	Groundwater Depth:	N/A
Hammer Weight/Drop:	140 lbs/30 in	Boring Backfill / Cap:	Soil Cuttings/AC Patch		

Bulk Sample | Rock Core Bit Sample | Auger Cuttings
Modified California Ring Sampler | No Recovery Sample | Packer
Standard Penetration Test Sample | Shelby Tube Sample | Dilatometer
Groundwater Encountered | Groundwater Stabilized

Elevation - ft -	Depth - ft -	Field Results: Sample Type	Field N Blows/ft	Equivalent SPT N-Blows/ft	USCS	Graphic Log	Subsurface Material Description and Geologic Condition	Laboratory Results: Moisture Content - % -	Laboratory Results: Dry Unit Weight - pcf -	Remarks & Other Tests
93			55/6"	37/6"	ML		SILT: olive brown, low plastic, little to some fine grained sand, hard, moist.	24.6	99.8	Att.L
88	65		39		SP		SAND: grayish brown, fine to medium grained, trace to little silt, dense, very moist.	8.0		SA
83	70		33		CL		CLAY: dark gray, low plastic, trace of fine grained sand, hard, very Moist. Free water on sampler	20.4		
							Boring terminated at approximately 72 feet below existing grade. Groundwater encountered at 71.5 feet below existing grade. Boring backfilled with soils cuttings and patched with asphalt.			
78	75									
73	80									
68	85									
63	90									

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This boring log describes soil conditions at the specific location and date indicated only. It does not represent other locations or dates.

GEOQUAKE

PLATE B-2

Project Name: Fullerton Transportation Center
Project Number: 19-0351
Project Location: 200 E. Santa Fe Avenue, Fullerton, CA
Date Drilled: June 6, 2019

Log of Exploratory Boring

B-3

Drilling Contractor:	One Way Drilling	Ground Elevation:	Approx. 158' MSL	Logged By:	Z.Y.
Drilling Method:	Hollow Stem	Boring Depth:	41.5 FT	Checked By:	Z.Y.
Drill Rig Type:	CME-85	Boring Diameter:	8 inch	Groundwater Depth:	N/A
Hammer Weight/Drop:	140 lbs/30 in	Boring Backfill / Cap:	Soil Cuttings/AC Patch		

Bulk Sample | Rock Core Bit Sample | Auger Cuttings
Modified California Ring Sampler | No Recovery Sample | Packer
Standard Penetration Test Sample | Shelby Tube Sample | Dilatometer
Groundwater Encountered | Groundwater Stabilized

Elevation - ft -	Depth - ft -	Field Results: Sample Type	Field Results: Field N Blows/ft	Field Results: Equivalent SPT N-Blows/ft	USCS	Graphic Log	Subsurface Material Description and Geologic Condition	Laboratory Results: Moisture Content - % -	Laboratory Results: Dry Unit Weight - pcf -	Remarks & Other Tests
158					AC		PAVEMENT: 2" Asphalt over 22" Aggregate Base			
					Fill		SAND (Fill): dark brown, fine to medium grained, silty with some fine size gravel and asphalt pieces, loose, moist.			
153	5		12	8				10.0	105.5	
					SP		SAND (Native): light brown, fine grained, little to some silt, loose, moist.			
148	10		4				… as above.	4.8		
143	15		18	12	CL		CLAY: brown to dark brown, low to medium plastic, little fine grained sand, stiff, moist.	24.3	97.2	
138	20		9				… becomes sandy fine grained.	17.8		
133	25		17	11			... becomes silty with trace of fine grained sand, stiff, moist.	16.9	105.4	
128	30									

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This boring log describes soil conditions at the specific location and date indicated only. It does not represent other locations or dates.

GEOQUAKE

PLATE B-3

Project Name: Fullerton Transportation Center
Project Number: 19-0351
Project Location: 200 E. Santa Fe Avenue, Fullerton, CA
Date Drilled: June 6, 2019

Log of Exploratory Boring

B-3

Drilling Contractor:	One Way Drilling	Ground Elevation:	Approx. 158' MSL	Logged By:	Z.Y.
Drilling Method:	Hollow Stem	Boring Depth:	51.5 FT	Checked By:	Z.Y.
Drill Rig Type:	CME-85	Boring Diameter:	8 inch	Groundwater Depth:	N/A
Hammer Weight/Drop:	140 lbs/30 in	Boring Backfill / Cap:	Soil Cuttings/AC Patch		

Bulk Sample | Rock Core Bit Sample | Auger Cuttings
Modified California Ring Sampler | No Recovery Sample | Packer
Standard Penetration Test Sample | Shelby Tube Sample | Dilatometer
Groundwater Encountered | Groundwater Stabilized

Elevation - ft -	Depth - ft -	Field Results: Sample Type	Field Results: Field N Blows/ft	Field Results: Equivalent SPT N-Blows/ft	USCS	Graphic Log	Subsurface Material Description and Geologic Condition	Laboratory Results: Moisture Content - % -	Laboratory Results: Dry Unit Weight - pcf -	Remarks & Other Tests
-30			29		SP		SAND: grayish brown, poorly graded fine grained, trace to little silt, medium dense, moist. … becomes clayey	2.9		
153	35		9		ML		SILT: light brown, low plastic, sandy fine grained, stiff, moist.	15.2		
148	40		30	20	CL		CLAY: olive brown, low plastic, silty with trace of fine grained sand, little mica, very stiff, moist.	19.4	107.8	
143	45						Boring terminated at approximately 41.5 feet below existing grade. No Groundwater encountered. Boring backfilled with soils cuttings and patched with asphalt.			
138	50									
133	55									
128	60									

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This boring log describes soil conditions at the specific location and date indicated only. It does not represent other locations or dates.

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PLATE B-3

Project Name: Fullerton Transportation Center
Project Number: 19-0351
Project Location: 200 E. Santa Fe Avenue, Fullerton, CA
Date Drilled: June 7, 2019

Log of Exploratory Boring

B-4

Drilling Contractor:	One Way Drilling	Ground Elevation:	Approx. 158' MSL	Logged By:	Z.Y.
Drilling Method:	Hollow Stem	Boring Depth:	41.5 FT	Checked By:	Z.Y.
Drill Rig Type:	CME-85	Boring Diameter:	8 inch	Groundwater Depth:	N/A
Hammer Weight/Drop:	140 lbs/30 in	Boring Backfill / Cap:	Soil Cuttings/AC Patch		

Bulk Sample | Rock Core Bit Sample | Auger Cuttings
Modified California Ring Sampler | No Recovery Sample | Packer
Standard Penetration Test Sample | Shelby Tube Sample | Dilatometer
Groundwater Encountered | Groundwater Stabilized

Elevation - ft -	Depth - ft -	Field Results: Sample Type	Field Results: Field N Blows/ft	Field Results: Equivalent SPT N-Blows/ft	USCS	Graphic Log	Subsurface Material Description and Geologic Condition	Laboratory Results: Moisture Content - % -	Laboratory Results: Dry Unit Weight - pcf -	Remarks & Other Tests
158					AC		PAVEMENT: 2" Asphalt over 22" Aggregate Base			
			6	4	Fill		SAND (Fill): brown, fine to medium grained, some fine semi-angular gravel (up to ½"), loose, moist.	7.1	119.7	
153	5		31	21			… becomes dark grayish brown, small glass pieces, fine brick pieces, some clay, medium dense, moist.	8.4		
			15				… becomes dark brown, fine grained, silty, trace of gravel, medium dense, moist.	8.3	119.1	
148	10		59	40			… as above.			
			15				... becomes clayey, pieces of asphalt.	11.3		
143	15		12	8	SM		SAND: light brown, fine to medium grained, silty, loose, moist.	11.0	117.3	SA
			11		CL		CLAY: light brown, low plastic, sandy fine grained, stiff, moist.	21.2		
138	20		32	21			… becomes very stiff.	19.5	110.5	
			10				… becomes stiff.	22.0		
133	25		24	16			… becomes silty to sandy fine grained, very stiff.	17.6	104.3	
			24		SP		SAND: grayish brown, fine to medium grained, trace to little silt, medium dense, moist.	9.0		
128	30									

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This boring log describes soil conditions at the specific location and date indicated only. It does not represent other locations or dates.

GEOQUAKE

PLATE B-4

Project Name: Fullerton Transportation Center
Project Number: 19-0351
Project Location: 200 E. Santa Fe Avenue, Fullerton, CA
Date Drilled: June 7, 2019

Log of Exploratory Boring

B-4

Drilling Contractor:	One Way Drilling	Ground Elevation:	Approx. 158' MSL	Logged By:	Z.Y.
Drilling Method:	Hollow Stem	Boring Depth:	51.5 FT	Checked By:	Z.Y.
Drill Rig Type:	CME-85	Boring Diameter:	8 inch	Groundwater Depth:	N/A
Hammer Weight/Drop:	140 lbs/30 in	Boring Backfill / Cap:	Soil Cuttings/AC Patch		

Bulk Sample | Rock Core Bit Sample | Auger Cuttings
Modified California Ring Sampler | No Recovery Sample | Packer
Standard Penetration Test Sample | Shelby Tube Sample | Dilatometer
Groundwater Encountered | Groundwater Stabilized

Elevation - ft -	Depth - ft -	Field Results: Sample Type	Field N Blows/ft	Equivalent SPT N-Blows/ft	USCS	Graphic Log	Subsurface Material Description and Geologic Condition	Laboratory Results: Moisture Content - % -	Laboratory Results: Dry Unit Weight - pcf -	Remarks & Other Tests
123			61	41	SP		SAND: grayish brown, fine to coarse grained, poorly graded, trace of silt, dense, moist.	1.1	112.5	SA
			8		ML		SILT: light olive brown, low plastic, some fine grained sand, very stiff, moist.	16.1		
118	35		29	19			... sandy fine to medium grained.	21.2	106.6	SA
			14		CL		CLAY: olive brown, low plastic, trace to little fine grained sand, stiff, moist.	26.9		
148	40		23	15			... little fine grained sand, silty, stiff, moist.	22.4	102.7	C, Att.L
			31		SM		SAND: brown, fine grained, silty with little clay, dense, moist.	11.3		
143	45		50	34			... becomes silty.	6.0	116.1	SA
			32		SP		... becomes grayish brown, fine to coarse grained, trace of silt, medium, dense, moist.	2.4		200W 5.5%
138	50		50/5"	34/5"			... becomes very dense, silty.	10.2	118.4	S
98	55		39				... as above, dense, trace of silt.	2.2		
93	60									

DRAFT

This boring log describes soil conditions at the specific location and date indicated only. It does not represent other locations or dates.

GEOQUAKE

PLATE B-4

Project Name: Fullerton Transportation Center
Project Number: 19-0351
Project Location: 200 E. Santa Fe Avenue, Fullerton, CA
Date Drilled: June 6, 2019

Log of Exploratory Boring

B-4

Drilling Contractor:	One Way Drilling	Ground Elevation:	Approx. 158' MSL	Logged By:	Z.Y.
Drilling Method:	Hollow Stem	Boring Depth:	51.5 FT	Checked By:	Z.Y.
Drill Rig Type:	CME-85	Boring Diameter:	8 inch	Groundwater Depth:	N/A
Hammer Weight/Drop:	140 lbs/30 in	Boring Backfill / Cap:	Soil Cuttings/AC Patch		

Bulk Sample | Rock Core Bit Sample | Auger Cuttings
Modified California Ring Sampler | No Recovery Sample | Packer
Standard Penetration Test Sample | Shelby Tube Sample | Dilatometer
Groundwater Encountered | Groundwater Stabilized

Elevation - ft -	Depth - ft -	Field Results: Sample Type	Field Results: Field N Blows/ft	Field Results: Equivalent SPT N-Blows/ft	USCS	Graphic Log	Subsurface Material Description and Geologic Condition	Laboratory Results: Moisture Content - % -	Laboratory Results: Dry Unit Weight - pcf -	Remarks & Other Tests
93			39		SP		… as above, poorly graded fine grained, trace to little silt.	1.3		
88	65		38		SM		SAND: olive brown, fine to medium grained, silty, micaceous, dense, moist to very moist.	15.3		SA
83	70		25		ML		SILT: dark olive gray, low plastic, little fine grained sand, very stiff, moist to very moist. Free water on sampler.	25.1		200W 77%
78	75		28				… as above.	24.9		
73	80						Boring terminated at approximately 75 feet below existing grade. Groundwater encountered at 71.5 feet below existing grade. Boring backfilled with soils cuttings and patched with asphalt.			
68	85									
63	90									

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This boring log describes soil conditions at the specific location and date indicated only. It does not represent other locations or dates.

GEOQUAKE

PLATE B-4

Project Name: Fullerton Transportation Center
Project Number: 19-0351
Project Location: 200 E. Santa Fe Avenue, Fullerton, CA
Date Drilled: June 6, 2019

Log of Exploratory Boring

B-5

Drilling Contractor:	One Way Drilling	Ground Elevation:	Approx. 158' MSL	Logged By:	Z.Y.
Drilling Method:	Hollow Stem	Boring Depth:	41.5 FT	Checked By:	Z.Y.
Drill Rig Type:	CME-85	Boring Diameter:	8 inch	Groundwater Depth:	N/A
Hammer Weight/Drop:	140 lbs/30 in	Boring Backfill / Cap:	Soil Cuttings/AC Patch		

Bulk Sample | Rock Core Bit Sample | Auger Cuttings
Modified California Ring Sampler | No Recovery Sample | Packer
Standard Penetration Test Sample | Shelby Tube Sample | Dilatometer
Groundwater Encountered | Groundwater Stabilized

Elevation - ft -	Depth - ft -	Field Results: Sample Type	Field Results: Field N Blows/ft	Field Results: Equivalent SPT N-Blows/ft	USCS	Graphic Log	Subsurface Material Description and Geologic Condition	Laboratory Results: Moisture Content - % -	Laboratory Results: Dry Unit Weight - pcf -	Remarks & Other Tests
158					AC		PAVEMENT: 3" Asphalt over 9" Aggregate Base			
					Fill		SAND (Fill): dark brown, fine to coarse grained, clayey, loose, moist.			
			12	8				12.3	117.8	
153	5									
			7	5	ML		SILT (Native): light brown, low plastic, sandy fine to medium grained, medium firm, moist.	19.3	97.0	
148	10									
			8	5	SP		SAND: light yellowish brown, little fine grained, loose, moist.	3.1	93.4	
143	15									
			5		CL		CLAY: brown, low plastic, little fine grained sand, medium firm, very moist.	33.3		
138	20									
			23	15			... as above, very moist.	23.0	108.1	
133	25									
			16		SM		SAND: light brown, fine grained, silty, medium dense, moist.	10.1		
128	30									

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This boring log describes soil conditions at the specific location and date indicated only. It does not represent other locations or dates.

GEOQUAKE

PLATE B-5

Project Name: Fullerton Transportation Center
Project Number: 19-0351
Project Location: 200 E. Santa Fe Avenue, Fullerton, CA
Date Drilled: June 6, 2019

Log of Exploratory Boring

B-5

Drilling Contractor:	One Way Drilling	Ground Elevation:	Approx. 158' MSL	Logged By:	Z.Y.
Drilling Method:	Hollow Stem	Boring Depth:	51.5 FT	Checked By:	Z.Y.
Drill Rig Type:	CME-85	Boring Diameter:	8 inch	Groundwater Depth:	N/A
Hammer Weight/Drop:	140 lbs/30 in	Boring Backfill / Cap:	Soil Cuttings/AC Patch		

Bulk Sample | Rock Core Bit Sample | Auger Cuttings
Modified California Ring Sampler | No Recovery Sample | Packer
Standard Penetration Test Sample | Shelby Tube Sample | Dilatometer
Groundwater Encountered | Groundwater Stabilized

Elevation - ft -	Depth - ft -	Field Results: Sample Type	Field Results: Field N Blows/ft	Field Results: Equivalent SPT N-Blows/ft	USCS	Graphic Log	Subsurface Material Description and Geologic Condition	Laboratory Results: Moisture Content - % -	Laboratory Results: Dry Unit Weight - pcf -	Remarks & Other Tests
-30			29	19	SP		SAND: light grayish brown, fine to medium grained, trace to little silt, medium dense, moist.	1.8	111.6	
							… becomes clayey			
153	35		18		CL		CLAY: brown, low plastic, sandy fine grained, very stiff, moist.	23.3		Att.L
148	40		14				… becomes dark olive brown, trace of fine grained sand, stiff.	22.6		
							Boring terminated at approximately 41.5 feet below existing grade. No Groundwater encountered. Boring backfilled with soils cuttings and patched with asphalt.			
143	45									
138	50									
133	55									
128	60									

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This boring log describes soil conditions at the specific location and date indicated only. It does not represent other locations or dates.

GEOQUAKE

PLATE B-5

Project Name: Fullerton Transportation Center
Project Number: 19-0351
Project Location: 200 E. Santa Fe Avenue, Fullerton, CA
Date Drilled: June 6, 2019

Log of Exploratory Boring

B-6

Drilling Contractor:	One Way Drilling	Ground Elevation:	Approx. 158' MSL	Logged By:	Z.Y.
Drilling Method:	Hollow Stem	Boring Depth:	41.5 FT	Checked By:	Z.Y.
Drill Rig Type:	CME-85	Boring Diameter:	8 inch	Groundwater Depth:	N/A
Hammer Weight/Drop:	140 lbs/30 in	Boring Backfill / Cap:	Soil Cuttings/AC Patch		

Bulk Sample | Rock Core Bit Sample | Auger Cuttings
Modified California Ring Sampler | No Recovery Sample | Packer
Standard Penetration Test Sample | Shelby Tube Sample | Dilatometer
Groundwater Encountered | Groundwater Stabilized

Elevation - ft -	Depth - ft -	Field Results: Sample Type	Field Results: Field N Blows/ft	Field Results: Equivalent SPT N-Blows/ft	USCS	Graphic Log	Subsurface Material Description and Geologic Condition	Laboratory Results: Moisture Content - % -	Laboratory Results: Dry Unit Weight - pcf -	Remarks & Other Tests
158					AC		PAVEMENT: 3" Asphalt over 9" Aggregate Base			
					Fill		SAND (Fill): dark brown, fine grained, clayey, loose, moist.			
153	5		10	7				11.9	103.3	
					ML		SILT: brown, low plastic, clayey, trace of fine grained sand, medium firm, moist.			
148	10		13	9	SM		SAND: becomes yellowish brown, fine to medium grained, silty, loose moist.	5.5	95.7	200W 30%
143	15		14	9	ML		SILT: brown, low plastic, clayey with little fine grained sand, stiff, moist.	18.8	100.5	200W 73.2%
138	20		13		CL		CLAY: brown, low plastic, trace to little fine grained sand, stiff, moist.	21.4		
					SM		SAND: light yellowish brown, fine grained, silty, moist.	6.7		
133	25		7		CL		CLAY: brown, low plastic, silty, medium firm, moist.	21.2		
128	30									

DRAFT

This boring log describes soil conditions at the specific location and date indicated only. It does not represent other locations or dates.

GEOQUAKE

PLATE B-6

Project Name: Fullerton Transportation Center
Project Number: 19-0351
Project Location: 200 E. Santa Fe Avenue, Fullerton, CA
Date Drilled: June 6, 2019

Log of Exploratory Boring

B-6

Drilling Contractor:	One Way Drilling	Ground Elevation:	Approx. 158' MSL	Logged By:	Z.Y.
Drilling Method:	Hollow Stem	Boring Depth:	51.5 FT	Checked By:	Z.Y.
Drill Rig Type:	CME-85	Boring Diameter:	8 inch	Groundwater Depth:	N/A
Hammer Weight/Drop:	140 lbs/30 in	Boring Backfill / Cap:	Soil Cuttings/AC Patch		

Bulk Sample | Rock Core Bit Sample | Auger Cuttings
Modified California Ring Sampler | No Recovery Sample | Packer
Standard Penetration Test Sample | Shelby Tube Sample | Dilatometer
Groundwater Encountered | Groundwater Stabilized

Elevation - ft -	Depth - ft -	Field Results: Sample Type	Field N Blows/ft	Equivalent SPT N-Blows/ft	USCS	Graphic Log	Subsurface Material Description and Geologic Condition	Laboratory Results: Moisture Content - % -	Laboratory Results: Dry Unit Weight - pcf -	Remarks & Other Tests
-30			52	35	SP		SAND: light grayish brown, fine to medium grained, trace to little silt, dense, moist. … becomes clayey	2.1	111.1	200W 7.1%
153	35		21		CL		CLAY: light olive brown, low plastic, some fine grained sand, very stiff, moist.	23.6		
148	40		11				… some fine grained sand to sandy, stiff.	19.6		
143	45		22		ML		SILT: dark brown, low plastic, sandy fine grained, medium dense, moist.	13.9		200W 59.8%
138	50		100		SP		SAND: grayish brown, fine to medium grained, trace to little silt, very dense, moist.	10.6		
133	55						Boring terminated at approximately 51.5 feet below existing grade. No Groundwater encountered. Boring backfilled with soils cuttings and patched with asphalt.			
128	60									

DRAFT

This boring log describes soil conditions at the specific location and date indicated only. It does not represent other locations or dates.

GEOQUAKE

PLATE B-6

Project Name:	Fullerton Transportation Center				
Project Number:	19-0351				
Project Location:	200 E. Santa Fe Avenue, Fullerton, CA				
Date Drilled:	June 7, 2019				

Log of Exploratory Boring

B-7

Drilling Contractor:	One Way Drilling	Ground Elevation:	Approx. 158' MSL	Logged By:	Z.Y.
Drilling Method:	Hollow Stem	Boring Depth:	5 FT	Checked By:	Z.Y.
Drill Rig Type:	CME-85	Boring Diameter:	8 inch	Groundwater Depth:	N/A
Hammer Weight/Drop:	140 lbs/30 in	Boring Backfill / Cap:	Soil Cuttings/AC Patch		

Bulk Sample | Rock Core Bit Sample | Auger Cuttings
Modified California Ring Sampler | No Recovery Sample | Packer
Standard Penetration Test Sample | Shelby Tube Sample | Dilatometer
Groundwater Encountered | Groundwater Stabilized

Elevation - ft -	Depth - ft -	Field Results: Sample Type	Field Results: Field N Blows/ft	Field Results: Equivalent SPT N-Blows/ft	USCS	Graphic Log	Subsurface Material Description and Geologic Condition	Laboratory Results: Moisture Content - % -	Laboratory Results: Dry Unit Weight - pcf -	Remarks & Other Tests
158					AC		PAVEMENT: 3" Asphalt over 9" Aggregate Base			
					Fill		CLAY (Fill): light brown, low plastic, silty with trace of fine grained grained sand.	12.8	94.5	
153	5						… as above.			
							Boring terminated at approximately 5 feet existing grade. No Groundwater encountered. Boring backfilled with soils cuttings and patched by cold asphalt.			
148	10									
143	15									
138	20									
133	25									
128	30									

DRAFT

This boring log describes soil conditions at the specific location and date indicated only. It does not represent other locations or dates.

GEOQUAKE

PLATE B-7

Sheet 1 of 1

Project Name:	Fullerton Transportation Center	Log of Exploratory Boring	
Project Number:	19-0351	**B-8**	
Project Location:	200 E. Santa Fe Avenue, Fullerton, CA		
Date Drilled:	June 7, 2019		

Drilling Contractor:	One Way Drilling	Ground Elevation:	Approx. 158' MSL	Logged By:	Z.Y.
Drilling Method:	Hollow Stem	Boring Depth:	5 FT	Checked By:	Z.Y.
Drill Rig Type:	CME-85	Boring Diameter:	8 inch	Groundwater Depth:	N/A
Hammer Weight/Drop:	140 lbs/30 in	Boring Backfill / Cap:	Soil Cuttings/AC Patch		

Bulk Sample; Modified California Ring Sampler; Standard Penetration Test Sample; Groundwater Encountered; Rock Core Bit Sample; No Recovery Sample; Shelby Tube Sample; Groundwater Stabilized; Auger Cuttings; Packer; Dilatometer

Elevation - ft -	Depth - ft -	Field Results: Sample Type	Field Results: Field N Blows/ft	Field Results: Equivalent SPT N-Blows/ft	USCS	Graphic Log	Subsurface Material Description and Geologic Condition	Laboratory Results: Moisture Content - % -	Laboratory Results: Dry Unit Weight - pcf -	Remarks & Other Tests
158					AC		PAVEMENT: 3" Asphalt over 9" Aggregate Base			
					Fill		CLAY (Fill): light brown, low plastic, silty with trace of fine grained grained sand.	15.6	95.9	
153	5						… as above.			
							Boring terminated at approximately 5 feet existing grade. No Groundwater encountered. Boring backfilled with soils cuttings and patched by cold asphalt.			
148	10									
143	15									
138	20									
133	25									
128	30									

DRAFT

This boring log describes soil conditions at the specific location and date indicated only. It does not represent other locations or dates.

GEOQUAKE

PLATE B-8

Sheet 1 of 1

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APPENDIX C

LABORATORY TESTING RESULTS

Laboratory Testing Procedures and Test Results

Soil Classification

Soils encountered within the property were classified and described using the visual-manual procedures of the Unified Soil Classification System, and in general accordance with the Test Method ASTM D2488-09. The assigned group symbols are presented in boring logs in Appendix B.

Consolidation Tests

Consolidation tests were performed on selected, relatively undisturbed ring samples. Samples were placed in a consolidometer and loads were applied in geometric progression. The percent consolidation for each load cycle was recorded as the ratio of the amount of vertical compression to the original 1-inch height. The consolidation pressure curves are presented in the test data.

Moisture and Density Determination Tests

Moisture content and dry density determinations were performed on relatively undisturbed samples obtained at selected depths in general accordance with ASTM Test Method D2216 and D2937, respectively. The results of these tests are presented in the boring logs. Where applicable, only moisture content was determined from "undisturbed" or disturbed samples.

Grain Size Tests

Typical materials were subjected to mechanical grain-size analysis by sieving from U.S. Standard brass screens (ASTM Test Method D422). Hydrometer analyses were performed where appreciable quantities of fines were encountered. The data was evaluated in determining the classification of the materials. The grain-size distribution curves are presented in the test data and the Unified Soil Classification (USCS) is presented in both the test data and the boring and/or trench logs.

Direct Shear Tests

Direct shear tests were performed on selected remolded and/or undisturbed samples, which were soaked for a minimum of 24 hours under a surcharge equal to the applied normal force during testing. After transfer of the sample to the shear box, and reloading the sample, pore pressures set up in the sample due to the transfer were allowed to dissipate for a period of approximately 1-hour prior to application of shearing force. The samples were tested under various normal loads, a motor-driven, strain-controlled, direct-shear testing apparatus at a strain rate of less than 0.001 to 0.5 inches per minute (depending upon soil type). The test results are presented in the test data.

Sample Location	Sample Description	Friction Angle (degrees)	Apparent Cohesion (psf)
B-2 @ 25 feet	CLAY: Low plastic with little fine grained sand.	24.5	558
B-2 @ 30 feet	SAND: Poorly Graded with trace of silt	32.6	12
B-2 @ 60 feet	CLAY: Low plastic silty silt with trace fine grained sand.	30.5	387
B-4 @ 25 feet	CLAY: Low plastic sandy fine grained.	28.5	288
B-4 @ 50 feet	SAND: fine to coarse grained.	33.4	10

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Percent Fines (< No. 200):

Selected soil samples were wash sieved through a No. 200 U.S. Standard brass sieve in accordance with ASTM Test Method D1140 to determine the percent of fine particles and to aid in the soil classification utilizing the Unified Soil Classification method. Test results are summarized on the boring logs in Appendix B.

Expansion Index Tests

The expansion potential of selected materials was evaluated by the Expansion Index Test, ASTM D4829. Specimens are molded under a given compactive energy to approximately the optimum moisture content and approximately 50 percent saturation or approximately 90 percent relative compaction. The prepared 1-inch thick by 4-inch diameter specimens are loaded to an equivalent 144 psf surcharge and are inundated with tap water until volumetric equilibrium is reached. The results of these tests are presented in the table below:

Sample Location	Sample Description	Expansion Index	Expansion Potential
B-2 @ 0-5 feet	SILT, brown, low plastic, clayey with little fine grained sand.	25	Low
B-2 @ 0-5 feet	SAND, brown, fine to coarse grained, clayey.	16	Very Low

Corrosivity Test

Electrical conductivity, pH, and soluble chloride tests were conducted on representative samples and the results are provided below and attached:

Sample Location	Sample Description	Soluble Chloride (CAL.422) ppm	Electrical Resistivity (CAL.643) (ohm-cm)	PH (CAL.747)	Potential Degree of Attack on Steel
B-1 @ 0-5 feet	SAND, fine grained, silty	46	2,140	7.1	Moderate
B-6 @ 0-5 feet	SAND, fine grained, clayey	66	1,000	7.2	Very Severe

Soluble Sulfates

The soluble sulfate contents of selected samples were determined in accordance with California Test Method 417. The test results are presented in the table below:

Sample Location	Sample Description	Water Soluble Sulfate in Soil (% by Weight)	Sulfate Content (ppm)	Potential Degree of Sulfate Attack
B-1 @ 0-5 feet	SAND, fine grained, silty	0.0150	150	Negligible
B-6 @ 0-5 feet	SAND, fine grained, clayey	0.0230	230	Negligible

Sulfate Exposure Categories and Classes (Adopted from ACI 318R.14, Table 19.3.1.1

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Class	Water-Soluble Sulfate in Soil % by mass	Dissolved Sulfate in Water ppm	Potential Degree of Attack on Concrete*
S0	$SO_4 < 0.10$	$SO_4 < 150$	Negligible
S1	$0.10 < SO_4 < 0.20$	$150 < SO_4 < 1,500$	Moderate
S2	$0.20 < SO_4 < 2.0$	$1,500 < SO_4 < 10,000$	Severe
S3	$2.0 < SO_4$	$10,000 < SO_4$	Very Severe

* Based on the current version of ACI 318 Building Code, Table No. 19.3.1.1, Requirement for Concrete Exposed to Sulfate-Containing Solutions.

Soil Sensitivity

Soil sensitivity is a ratio of peak undrained shear strength to remolded undrained shear strength, without change in water content (Lambe and Whitman, 1969). The sensitivity of tested clay samples is estimated utilizing the pocket penetrometer and torvane test. The undrained shear strength is estimated utilizing the pocket penetrometer and double checked with the torvane on an undisturbed sample, then the same procedure is performed on same materials remolded to same consistency and volume (Peck and Mesri, 1996).

Sample Location	Sample Description	Sensitivity
B-2 @ 42 feet	CLAY, brown, low plastic, little fine grained sand	
B-2 @ 70 feet	CLAY, dark gray, low plastic, trace of fine grained sand	
B-4 @ 40 feet	CLAY, olive brown, low plastic, silty with little fine grained sand	
B-5 @ 35 feet	CLAY, brown, low plastic, sandy fine grained	

Soil sensitivity may also be determined utilizing relationships between Liquidity Index and Effective Vertical Stress at the depth the sample is taken, such relationships are explained in Mitchell and Soga (2005).

Sensitivity Indication Table (Modified from Spangler and Handy, 1982)

Sensitivity	Descriptive Term
< 1	Insensitive
1 - 2	Slightly Sensitive
3 - 4	Medium Sensitive
5 - 8	Sensitive
9 - 16	Very Sensitive
17 - 32	Slightly Quick
33 - 64	Medium Quick
> 64	Quick

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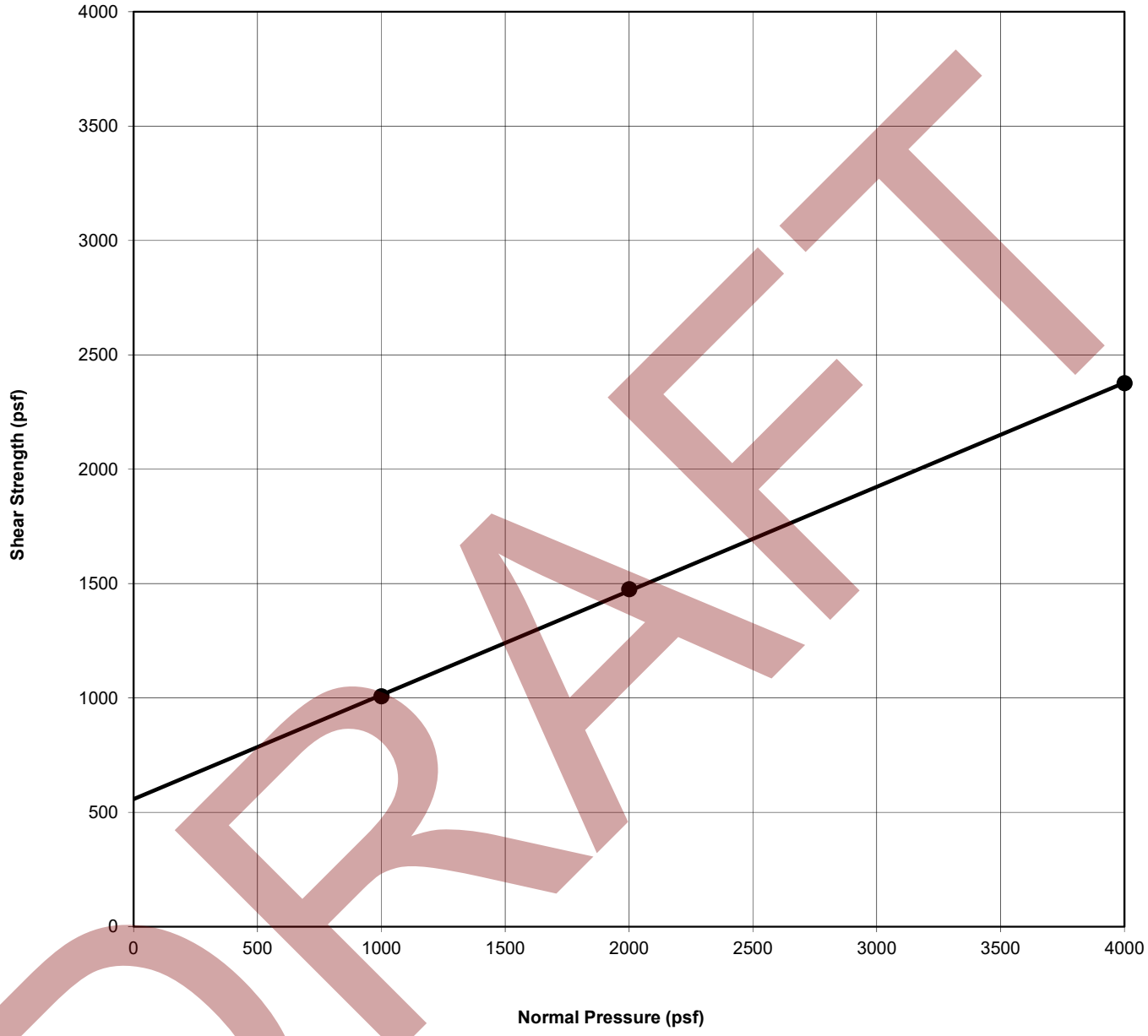
Atterberg Limits

Selected soil samples were tested in accordance with ASTM D4318 to evaluate the Atterberg Limits including soil liquid limits, plastic limits, and the plasticity index, and to aid in the soil classification. The test results are tabulated below and presented below:

Sample Location	Liquid Limit (%)	Plastic Limit (%)	Plasticity Index (%)	USCS Soil Classification
B-2 @ 42 feet	45	14	31	CL
B-2 @ 60 feet	38	28	10	ML
B-2 @ 70 feet	48	18	30	CL
B-4 @ 40 feet	43	14	29	CL
B-5 @ 35 feet	45	15	30	CL

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Project No.: 19-0351
Project Name: Fullerton Transporation Center



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Material Source: B-2 @ 25'
Material Type: Low Plastic Clay with Little Fine Grained Sand
Test Method: ASTM D3080

TEST RESULTS

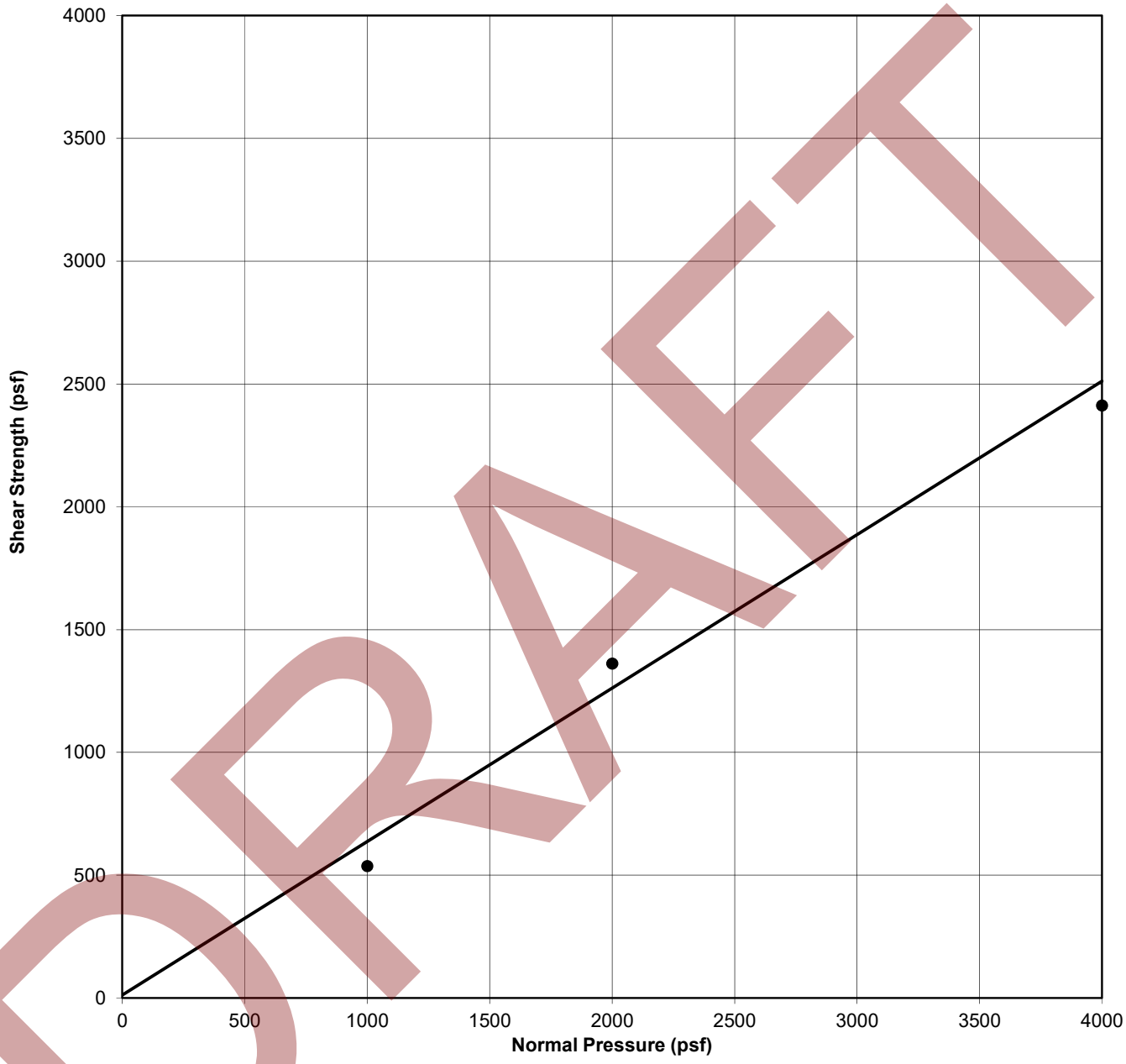
Dry Density: 110.7 pcf
Moisture Content Before: 19.5 %
Moisture Content After: 24.1 %
Internal Friction: 24.5^0
Apparent Cohesion: 558 psf

FIGURE C-1

DIRECT SHEAR TEST RESULTS

GEOQUAKE

Project No.: 19-0351
Project Name: Fullerton Transporation Center



DRAFT

Material Source: B-2 @ 30'
Material Type: Poorly Graded fine grained Sand with Trace of Silt
Test Method: ASTM D3080

TEST RESULTS

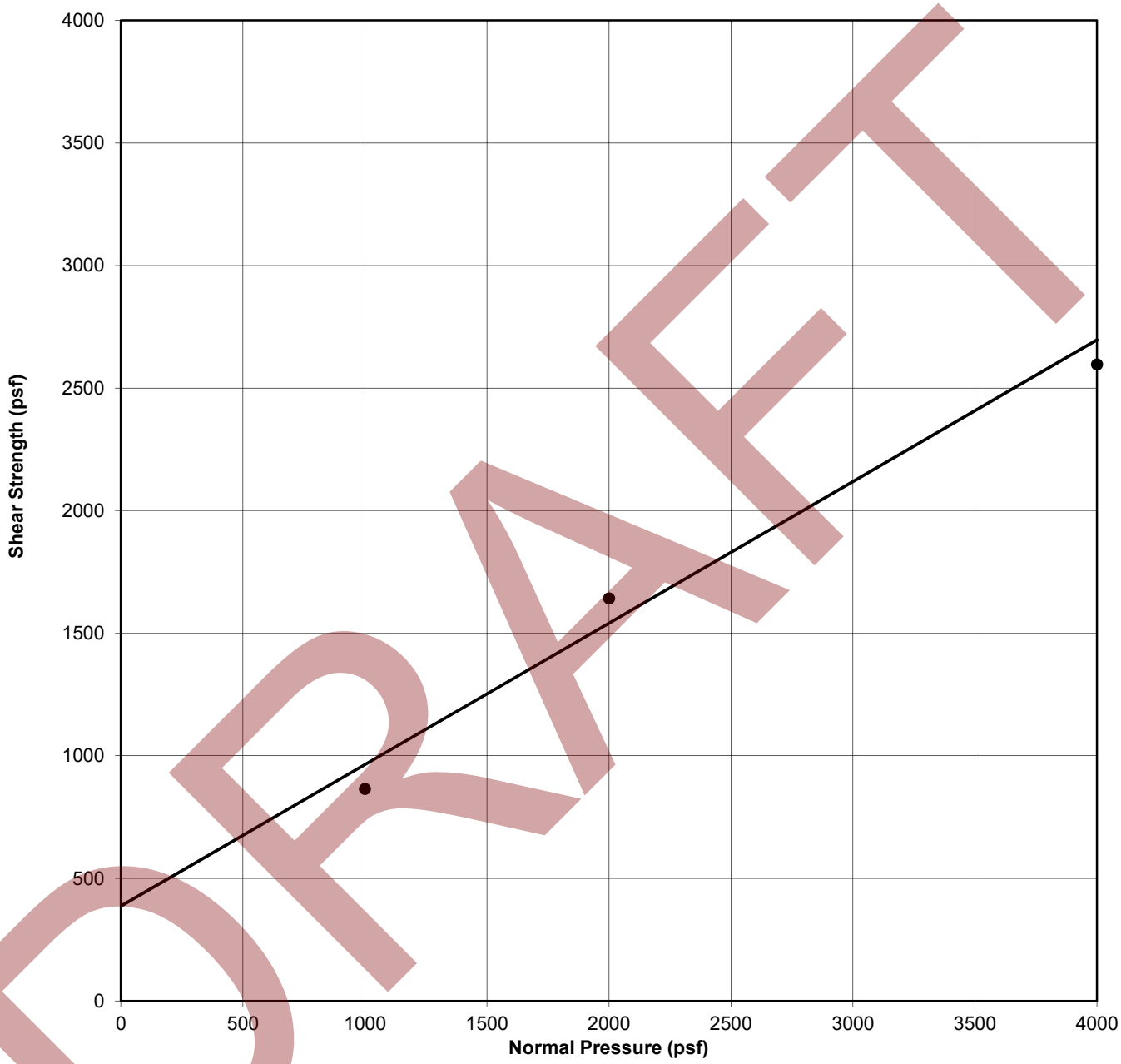
Dry Density: 108.3 pcf
Moisture Content Before: 2.7 %
Moisture Content After: 20 %
Internal Friction: 32.6^0
Apparent Cohesion: 12 psf

FIGURE C-2

DIRECT SHEAR TEST RESULTS

GEOQUAKE

Project No.: 19-0351
Project Name: Fullerton Transporation Center



DRAFT

Material Source: B-2 @ 60'
Material Type: Low Plastic Silty Clay with Trace of Fine Grained Sand
Test Method: ASTM D3080

TEST RESULTS

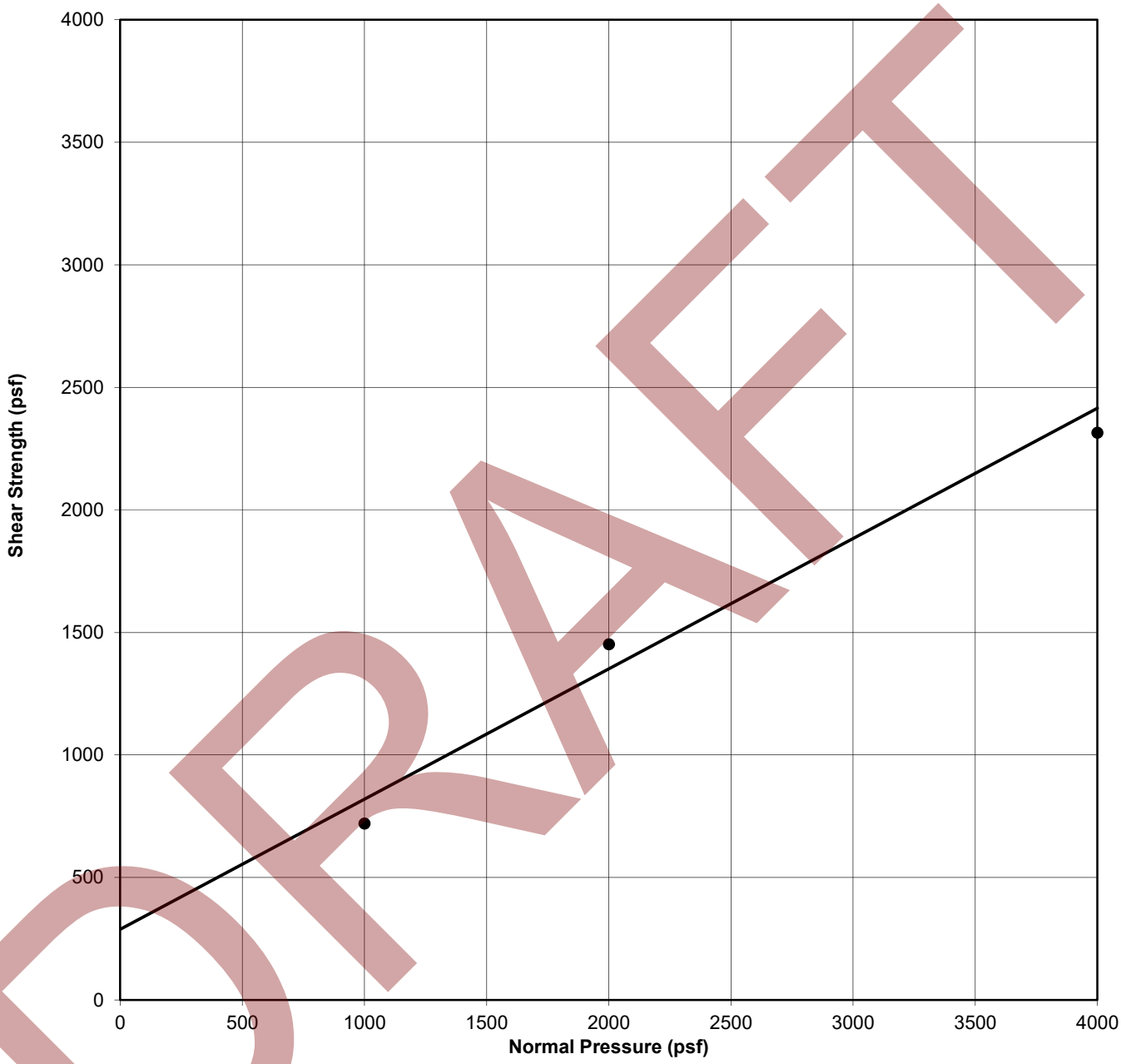
Dry Density: 99.8 pcf
Moisture Content Before: 24.9 %
Moisture Content After: 27.8 %
Internal Friction: 30.5^0
Apparent Cohesion: 387 psf

FIGURE C-3

DIRECT SHEAR TEST RESULTS

GEOQUAKE

Project No.: 19-0351
Project Name: Fullerton Transporation Center



DRAFT

Material Source: B-4 @ 25'
Material Type: Low Plastic Clay Sandy Fine Grained
Test Method: ASTM D3080

TEST RESULTS

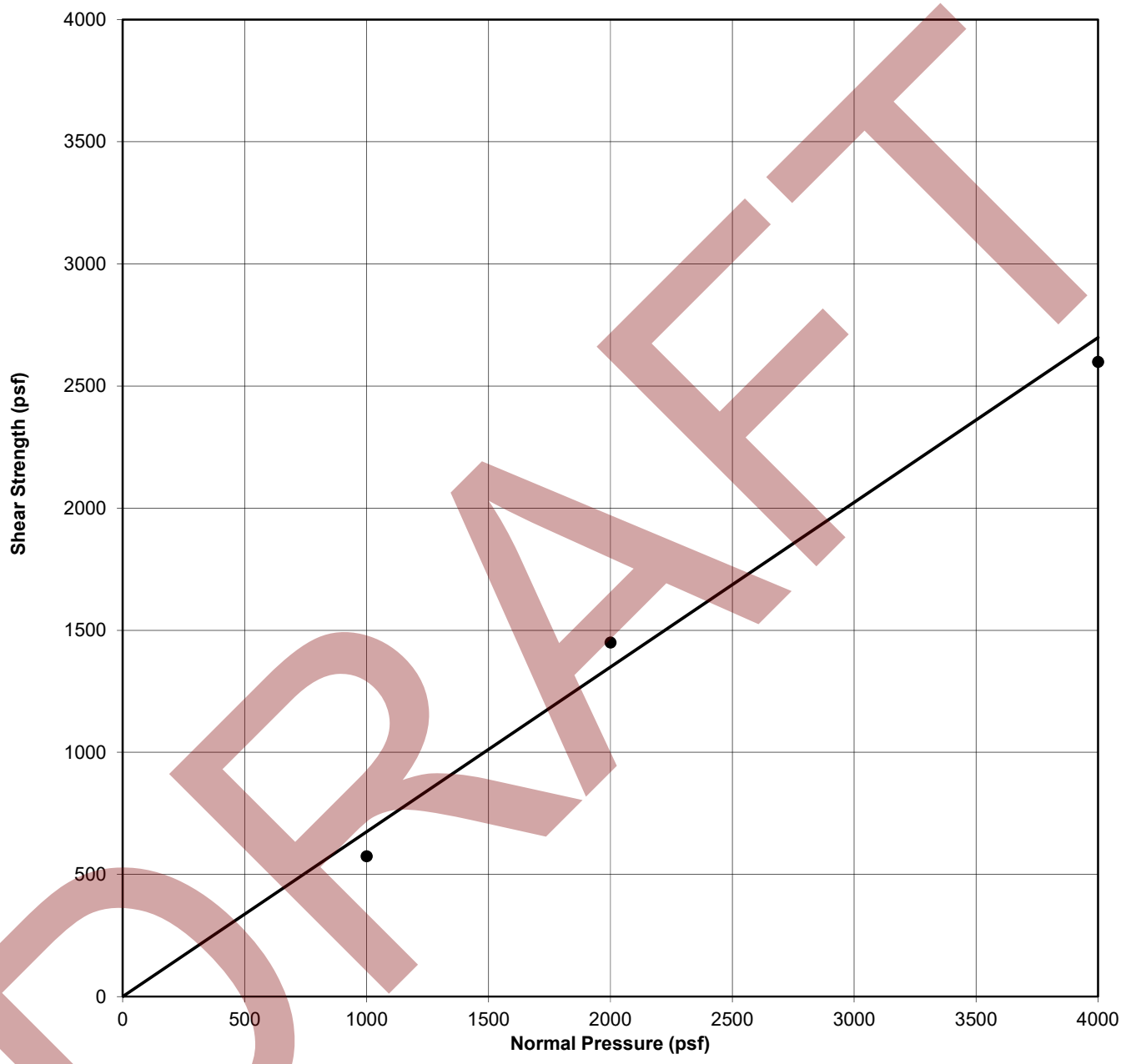
Dry Density: 104.3 pcf
Moisture Content Before: 17.6 %
Moisture Content After: 22.1 %
Internal Friction: 28.5^0
Apparent Cohesion: 288 psf

FIGURE C-4

DIRECT SHEAR TEST RESULTS

GEOQUAKE

Project No.: 19-0351
Project Name: Fullerton Transporation Center



DRAFT

Material Source: B-4 @ 50'
Material Type: Grayish Brown Fine to Coarse Grained Sand
Test Method: ASTM D3080

TEST RESULTS

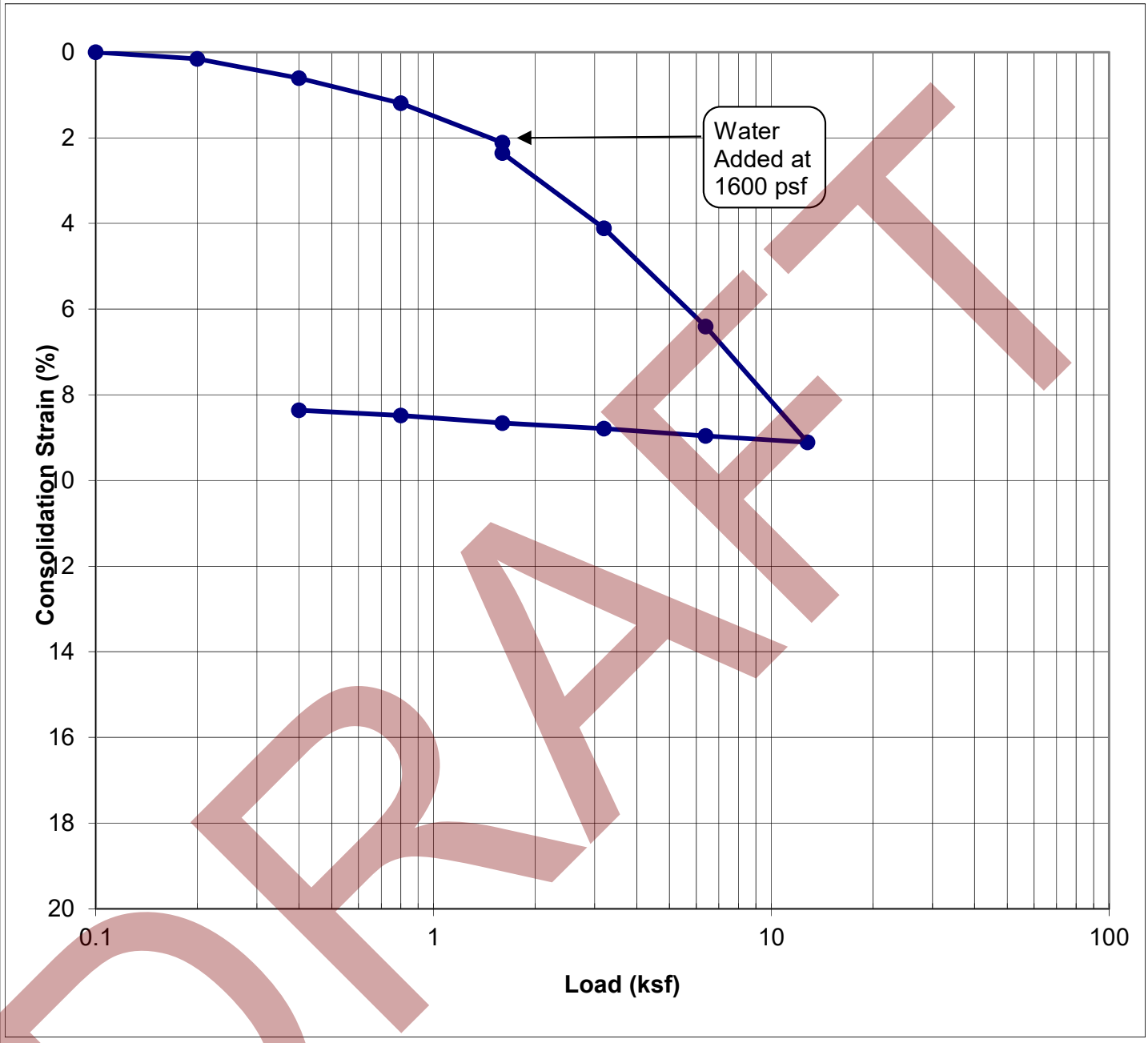
Dry Density: 118.4 pcf
Moisture Content Before: 10.2 %
Moisture Content After: 15.0 %
Internal Friction: 33.4^0
Apparent Cohesion: 10 psf

FIGURE C-5

DIRECT SHEAR TEST RESULTS

GEOQUAKE

Project No.: 19-0351
Project Name: Fullerton Transportation Center



Material Source: B-2 @ 5'
Material Type: SAND: light borwn, fine grained, silty, loose
Test Method: ASTM D2435

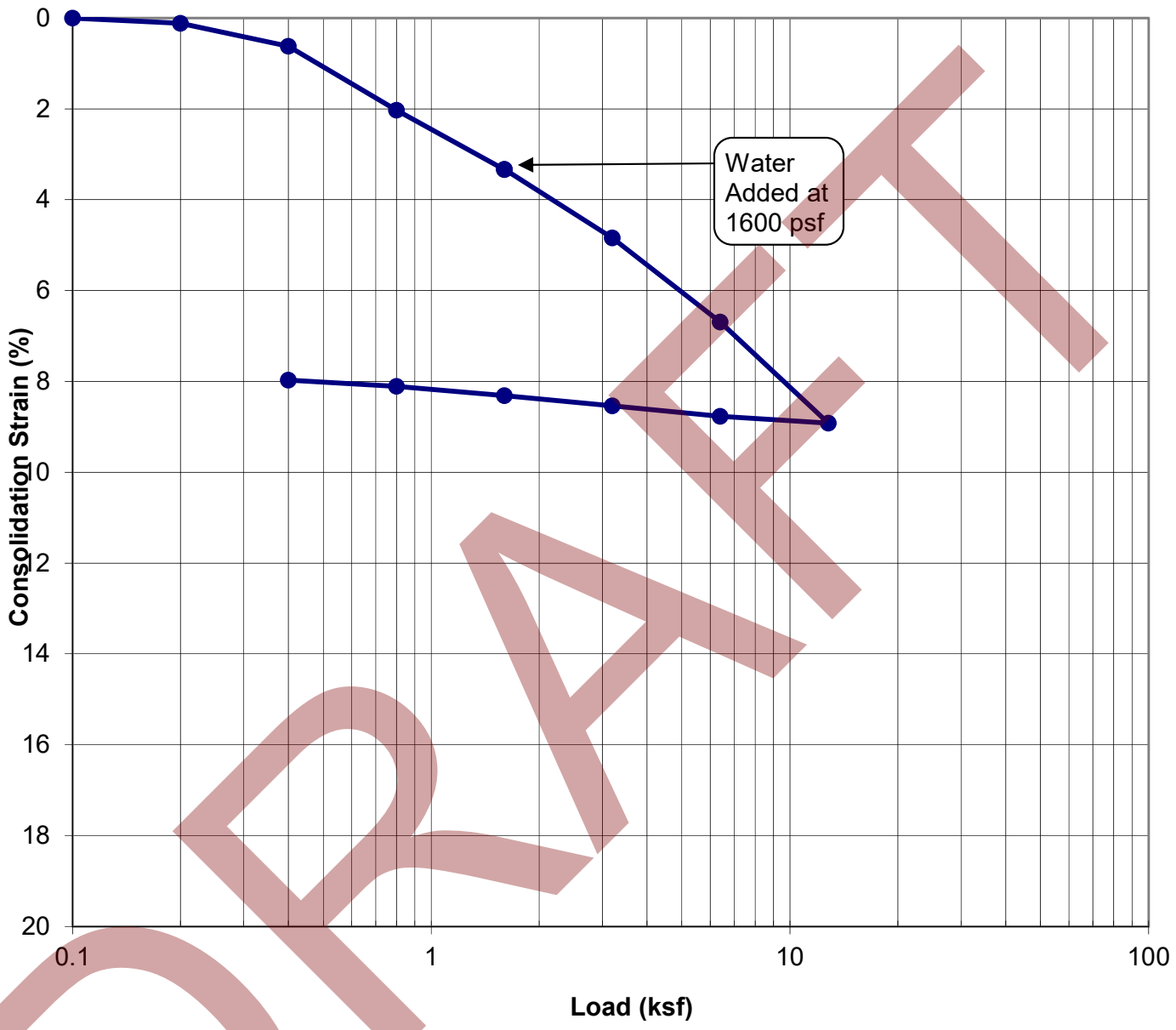
DRAFT

FIGURE C-6

CONSOLIDATION / COLLAPSE TEST RESULTS

GEOQUAKE

Project No.: 19-0351
Project Name: Fullerton Transportation Center



Material Source: B-2 @ 40'
Material Type: CLAY: borwn, low plastic, silty, stiff
Test Method: ASTM D2435

DRAFT

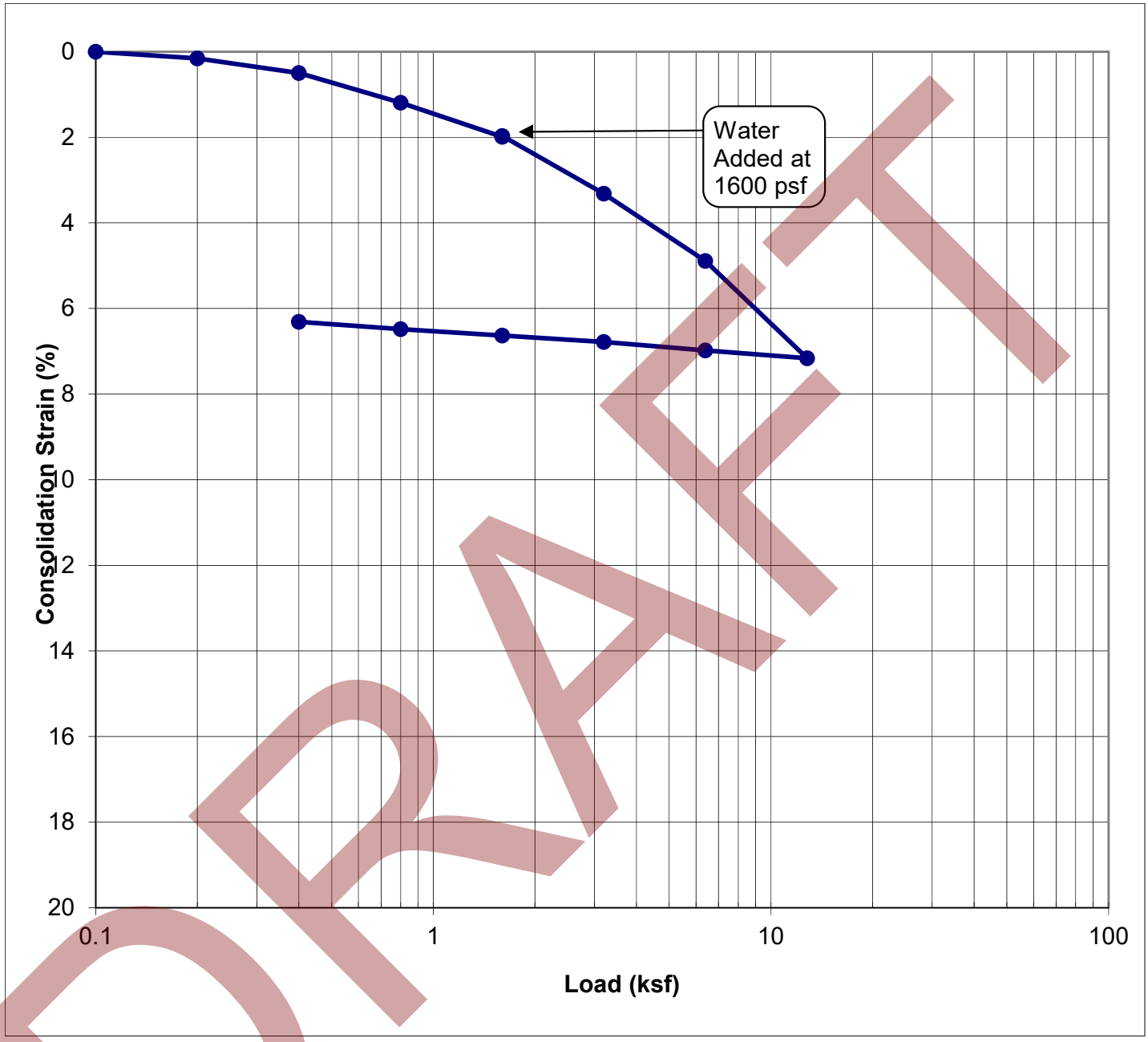
FIGURE C-7

CONSOLIDATION / COLLAPSE TEST RESULTS

GEOQUAKE

Project No.: 19-0351

Project Name: Fullerton Transportation Center



Material Source: B-4 @ 10'

Material Type: SAND (Fill): Dark olive borwn, fine grained, silty

Test Method: ASTM D2435

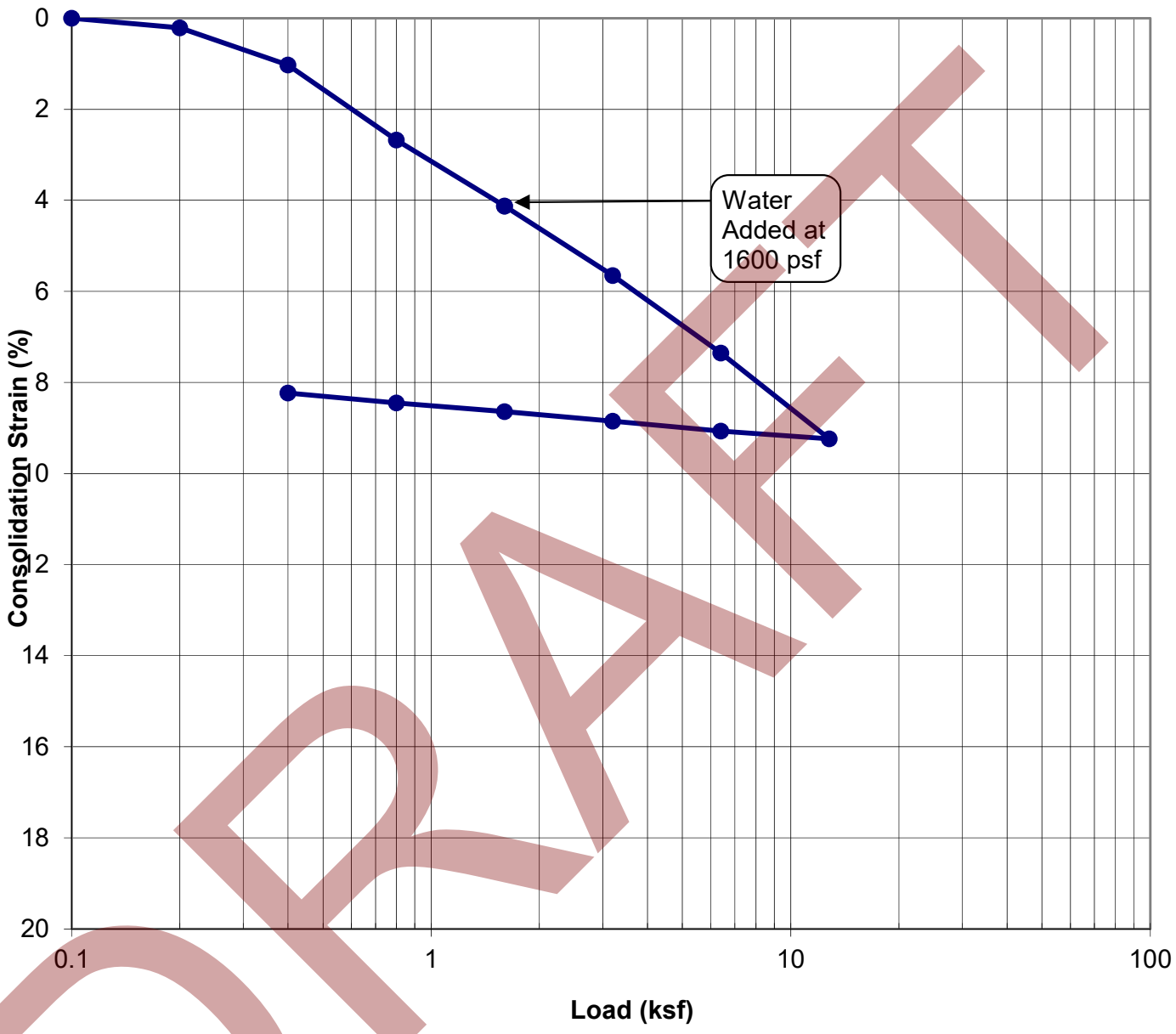
DRAFT

FIGURE C-8

CONSOLIDATION / COLLAPSE TEST RESULTS

GEOQUAKE

Project No.: 19-0351
Project Name: Fullerton Transportation Center



DRAFT

Material Source: B-4 @ 40'
Material Type: CLAY: Olive borwn, low plastic, little fine grained sand, silty, stiff.
Test Method: ASTM D2435

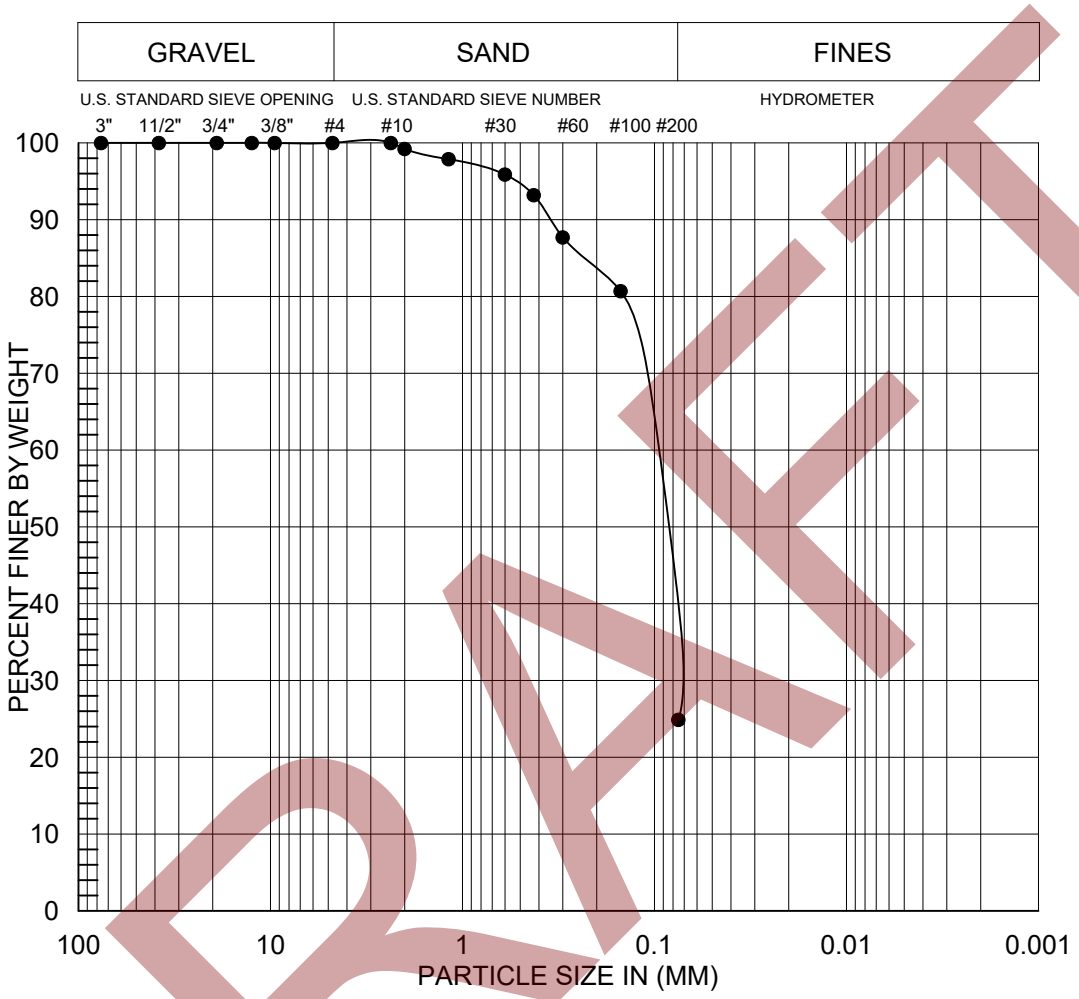
FIGURE C-9

CONSOLIDATION / COLLAPSE TEST RESULTS

GEOQUAKE

Project No.: 19-0351

Project Name: Fullerton Transportation Center



Material Source: B-2 @ 45'
Material Type: Brown, fine to medium grained, some silt
Test Method: ASTM D422-63

DRAFT

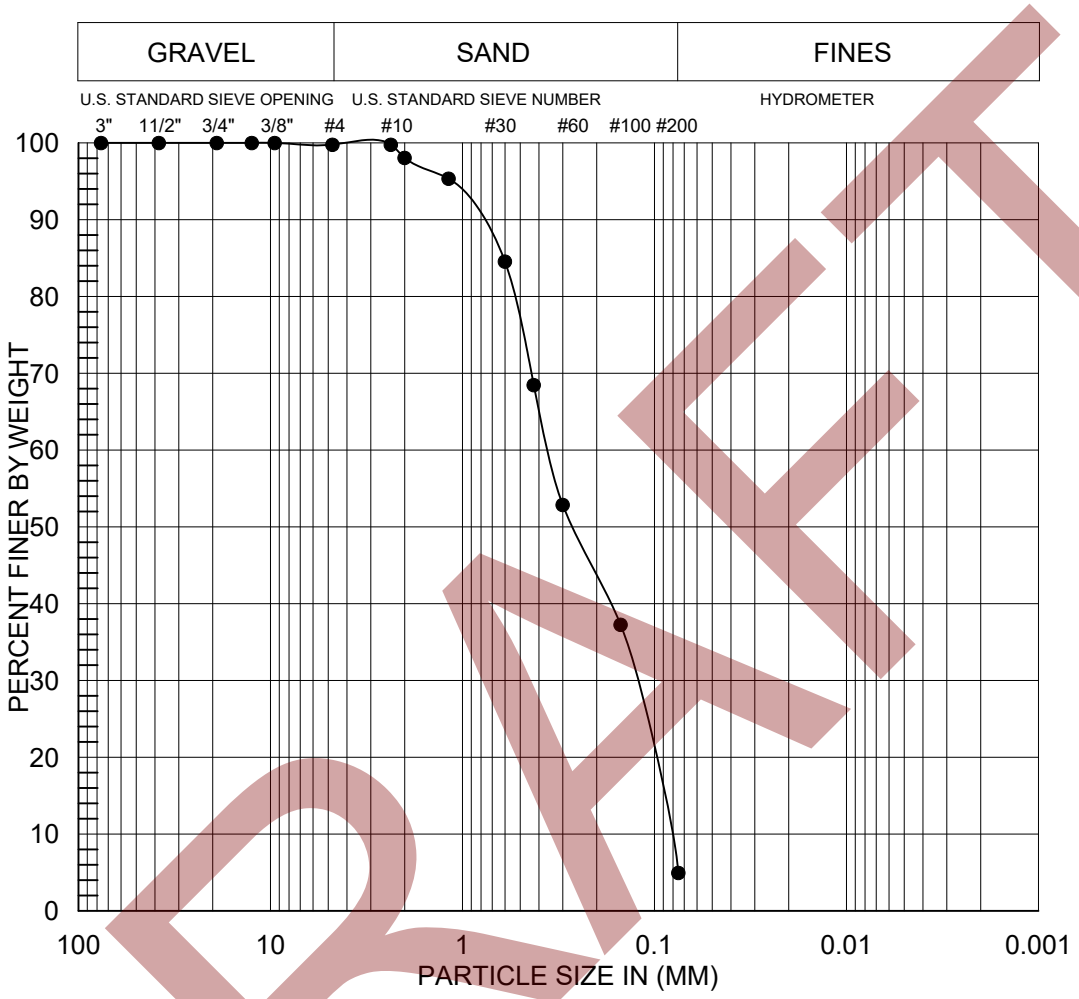
FIGURE C-10

GRAIN SIZE ANALYSIS

GEOQUAKE

Project No.: 19-0351

Project Name: Fullerton Transportation Center



Material Source: B-2 @ 65'
Material Type: Brown, fine to medium grained sand with trace of silt
Test Method: ASTM D422-63

DRAFT

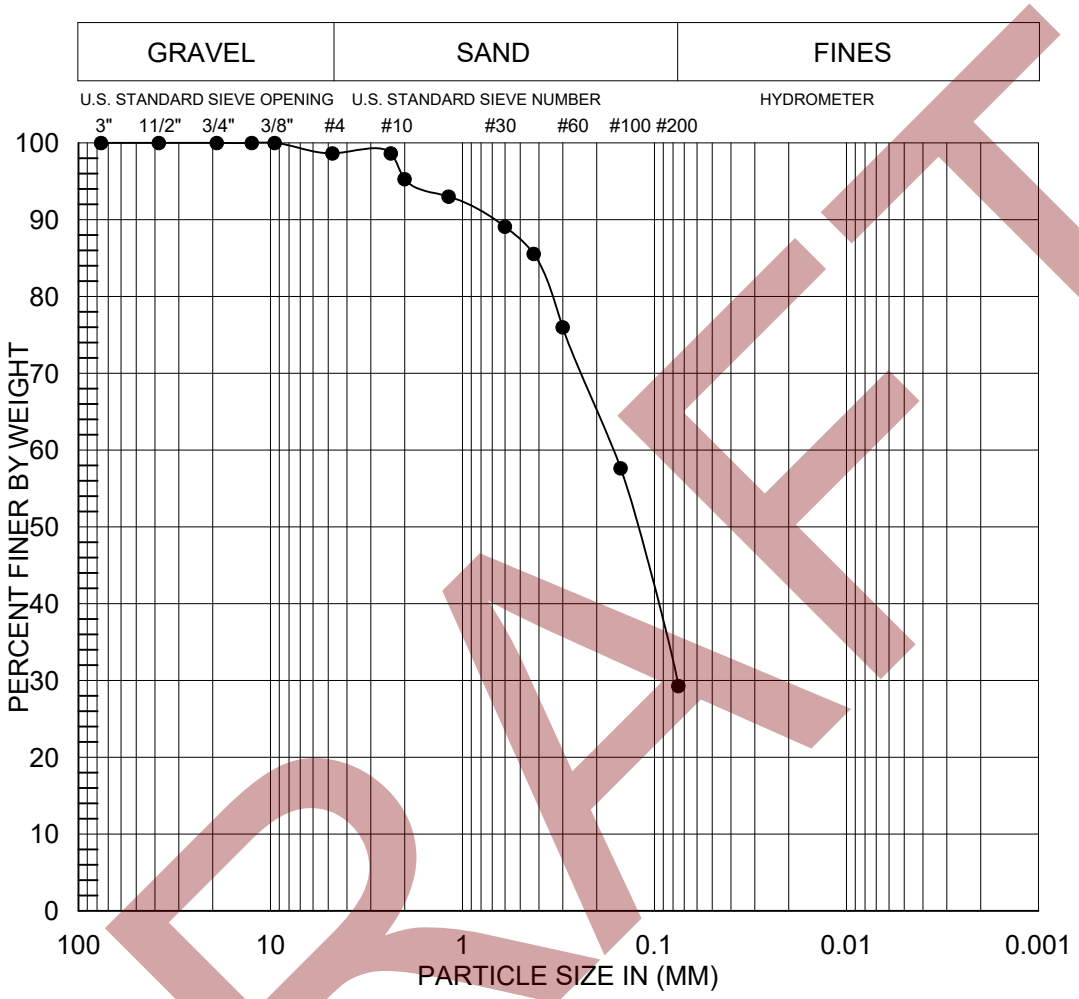
FIGURE C-11

GRAIN SIZE ANALYSIS

GEOQUAKE

Project No.: 19-0351

Project Name: Fullerton Transportation Center



Material Source: B-4 @ 15'
Material Type: Brown, fine to medium grained sand, silty
Test Method: ASTM D422-63

DRAFT

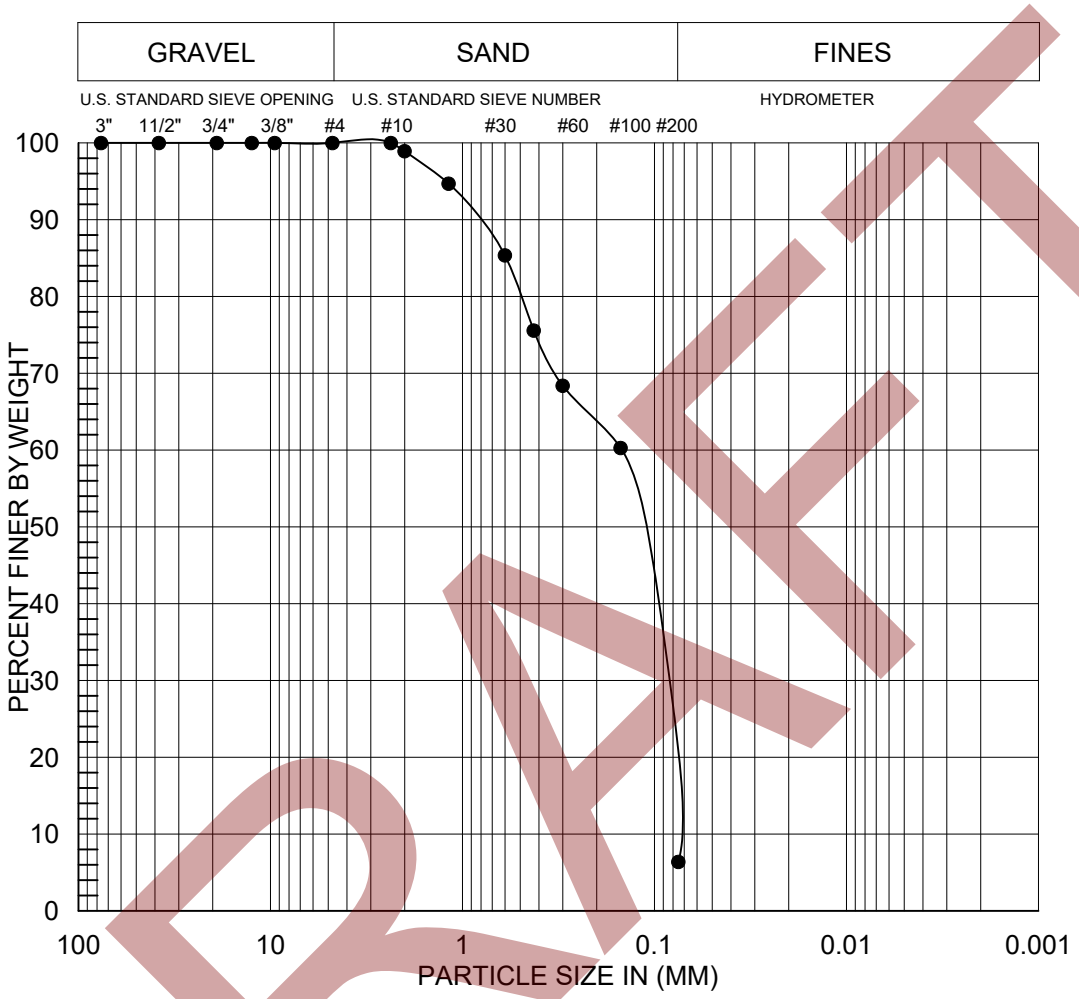
FIGURE C-12

GRAIN SIZE ANALYSIS

GEOQUAKE

Project No.: 19-0351

Project Name: Fullerton Transportation Center



Material Source: B-4 @ 30'
Material Type: Grayish brown, fine to coarse grained, trace of silt
Test Method: ASTM D422-63

DRAFT

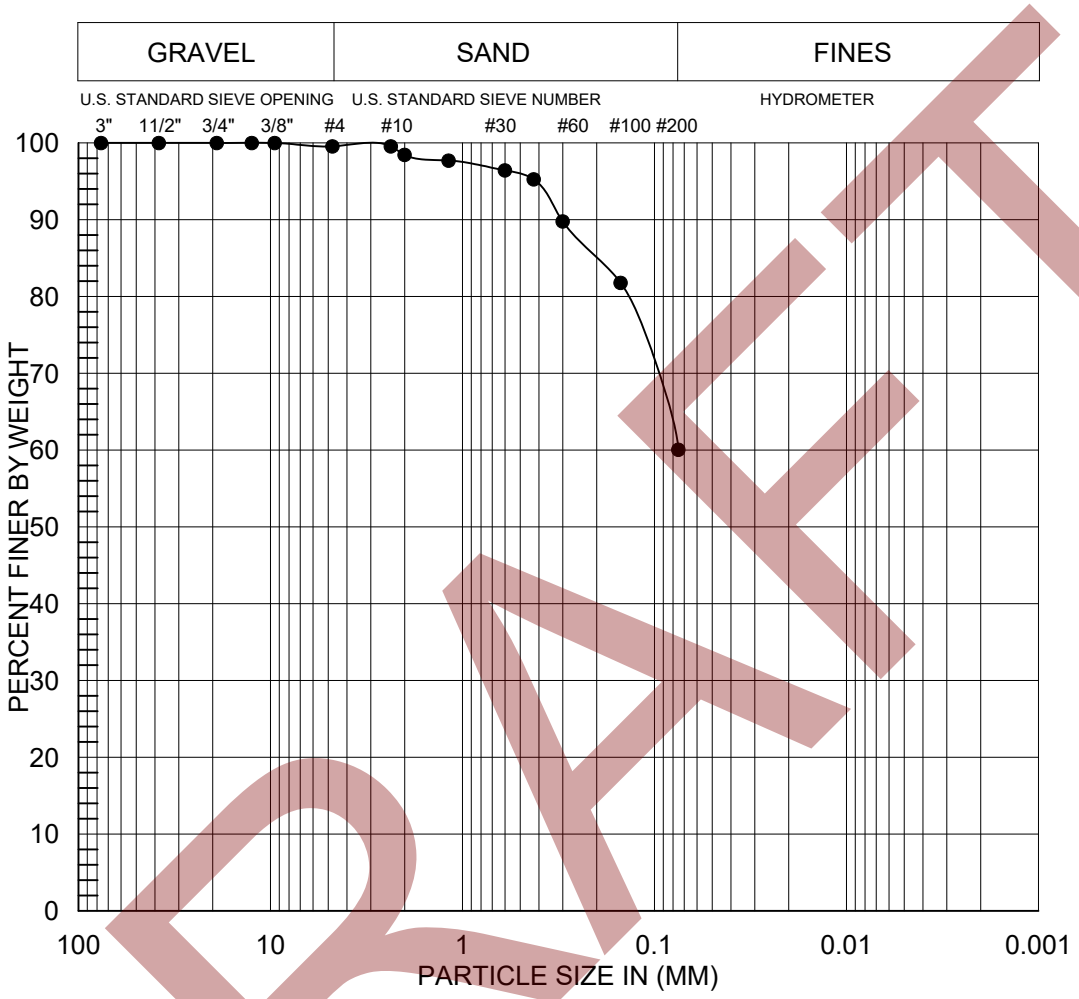
FIGURE C-13

GRAIN SIZE ANALYSIS

GEOQUAKE

Project No.: 19-0351

Project Name: Fullerton Transportation Center



Material Source: B-4 @ 35'
Material Type: Brown, low plastic, sandy fine to medium grained
Test Method: ASTM D422-63

DRAFT

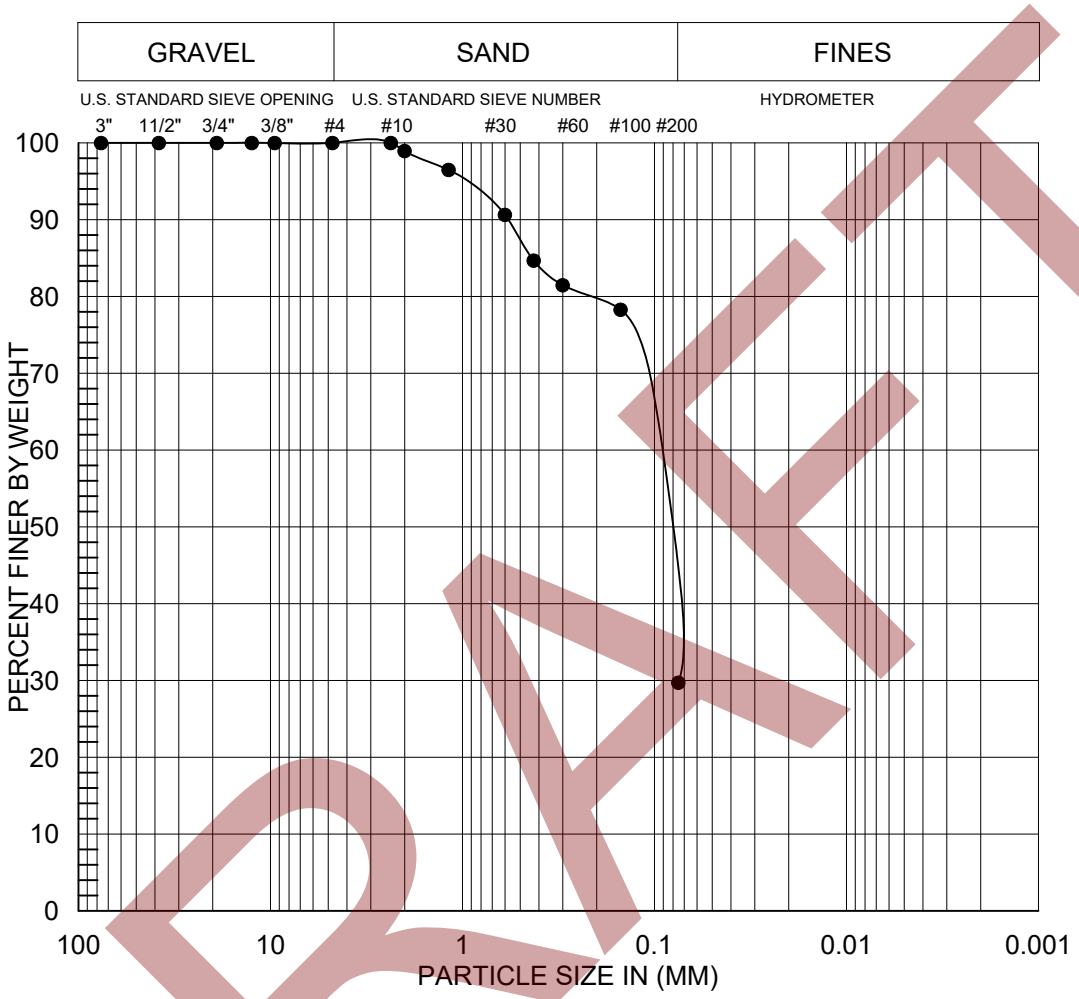
FIGURE C-14

GRAIN SIZE ANALYSIS

GEOQUAKE

Project No.: 19-0351

Project Name: Fullerton Transportation Center



Material Source: B-4 @ 45'
Material Type: Brown, fine to medium grained, silty
Test Method: ASTM D422-63

DRAFT

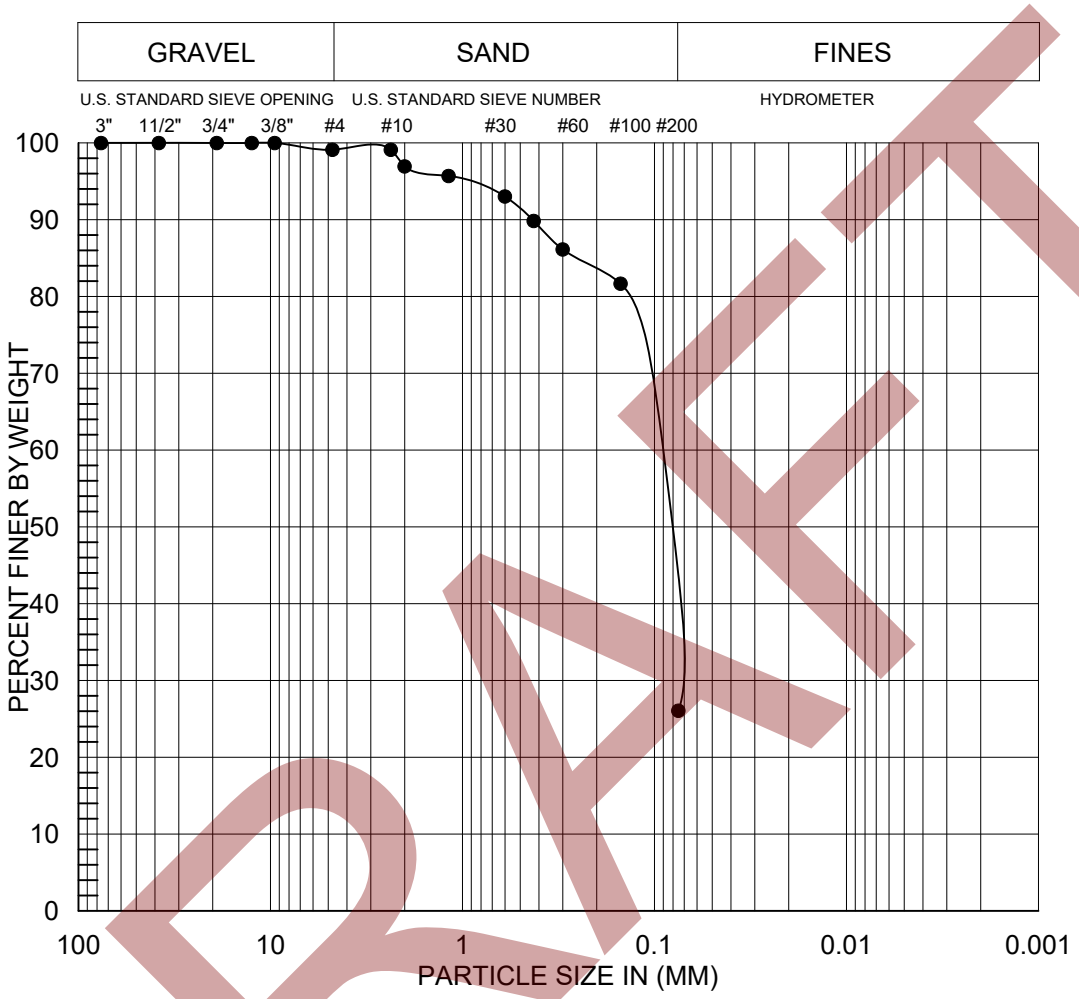
FIGURE C-15

GRAIN SIZE ANALYSIS

GEOQUAKE

Project No.: 19-0351

Project Name: Fullerton Transportation Center



Material Source: B-4 @ 65'
Material Type: Olive brown, fine to medium grained, silty
Test Method: ASTM D422-63

DRAFT

FIGURE C-16

GRAIN SIZE ANALYSIS

GEOQUAKE

ANAHEIM TEST LAB, INC

196 Technology Drive, Unit D
Irvine, CA 92618
Phone (949)336-6544

TO:

GEOQUAKE
950 N. Tustin Ave.
Anaheim, CA 92807

DATE: 07/02/2019

P.O. NO: VERBAL

LAB NO: C-3027

SPECIFICATION: CA417/422/643

MATERIAL: SOIL

Project No.: 19-0351
Project: FTC
Fullerton

ANALYTICAL REPORT

CORROSION SERIES
SUMMARY OF DATA

	pH	SOLUBLE SULFATES per CA. 417 ppm	SOLUBLE CHLORIDES per CA. 422 ppm	MIN. RESISTIVITY per CA. 643 ohm-cm
B6 @ 0-5' Bulk-3	7.2	230	66	1,000

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RESPECTFULLY SUBMITTED

WES BRIDGER LAB MANAGER

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APPENDIX D

USGS FAULT SOURCE AND SEISMIC DESIGN PARAMETERS

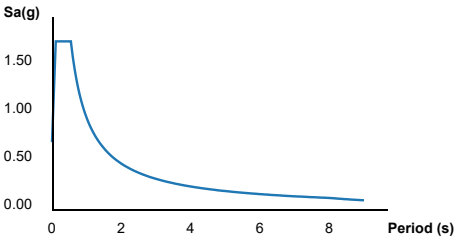
ATC Hazards by Location

Search Information

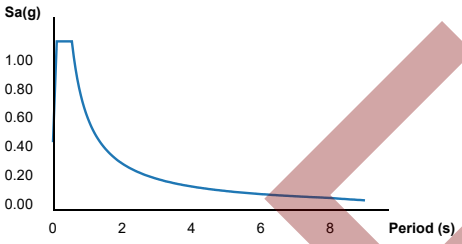
Coordinates:	33.869025, -117.921213
Elevation:	ft
Timestamp:	2019-08-20T05:59:49.332Z
Hazard Type:	Seismic
Reference Document:	ASCE7-10
Risk Category:	III
Site Class:	D



MCER Horizontal Response Spectrum



Design Horizontal Response Spectrum



Basic Parameters

Name	Value	Description
S_S	1.74	MCE_R ground motion (period=0.2s)
S_1	0.632	MCE_R ground motion (period=1.0s)
S_{MS}	1.74	Site-modified spectral acceleration value
S_{M1}	0.948	Site-modified spectral acceleration value
S_{DS}	1.16	Numeric seismic design value at 0.2s SA
S_{D1}	0.632	Numeric seismic design value at 1.0s SA

Additional Information

Name	Value	Description
SDC	D	Seismic design category
F_a	1	Site amplification factor at 0.2s
F_v	1.5	Site amplification factor at 1.0s
CR_S	0.99	Coefficient of risk (0.2s)
CR_1	1.019	Coefficient of risk (1.0s)
PGA	0.646	MCE_G peak ground acceleration
F_{PGA}	1	Site amplification factor at PGA
PGA_M	0.646	Site modified peak ground acceleration
T_L	8	Long-period transition period (s)
SsRT	1.74	Probabilistic risk-targeted ground motion (0.2s)
SsUH	1.758	Factored uniform-hazard spectral acceleration (2% probability of exceedance in 50 years)
SsD	1.784	Factored deterministic acceleration value (0.2s)
S1RT	0.632	Probabilistic risk-targeted ground motion (1.0s)
S1UH	0.62	Factored uniform-hazard spectral acceleration (2% probability of exceedance in 50 years)
S1D	0.634	Factored deterministic acceleration value (1.0s)
PGAd	0.68	Factored deterministic acceleration value (PGA)

The results indicated here DO NOT reflect any state or local amendments to the values or any delineation lines made during the building code adoption process. Users should confirm any output obtained from this tool with the local Authority Having Jurisdiction before proceeding with design.

Disclaimer

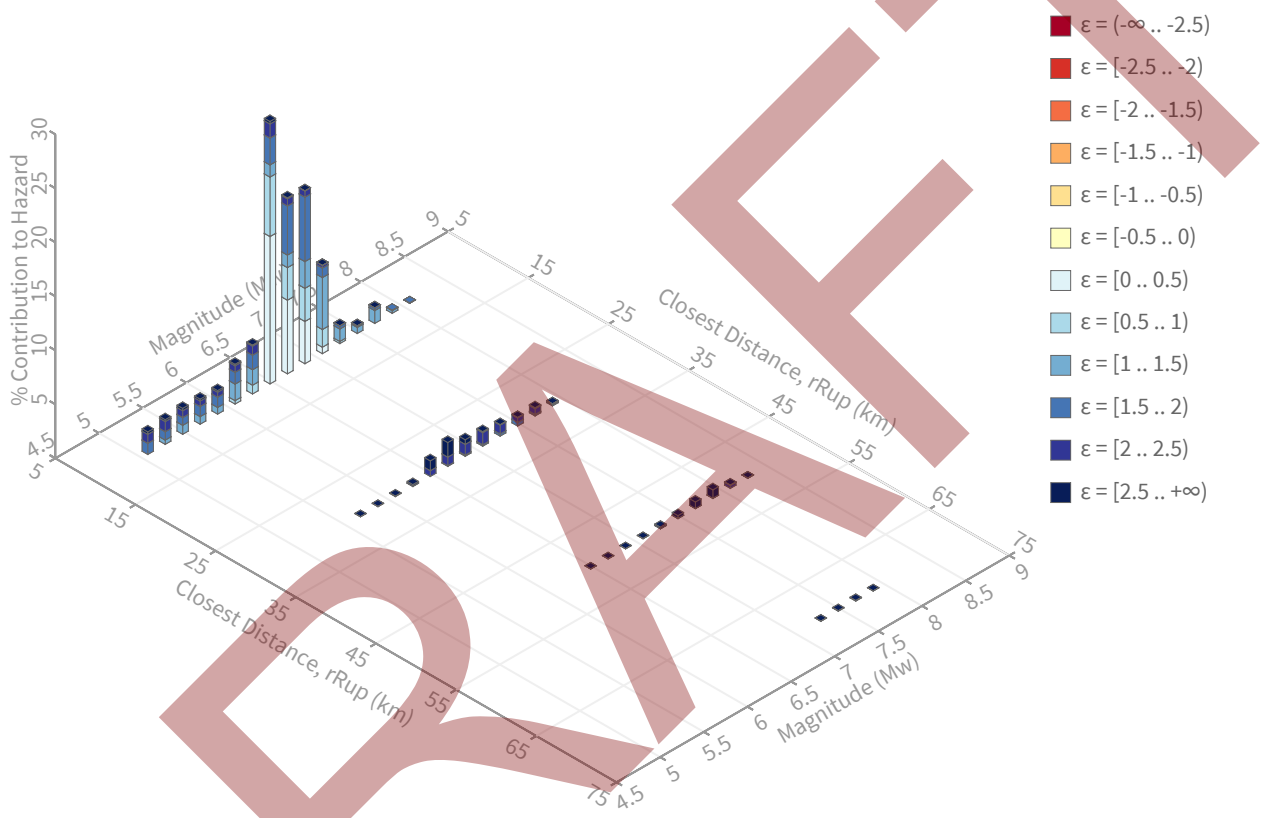
Hazard loads are provided by the U.S. Geological Survey Seismic Design Web Services.

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Deaggregation

Component

Total



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Summary statistics for, Deaggregation: Total

Deaggregation targets

Return period: 2475 yrs
Exceedance rate: 0.0004040404 yr^{-1}
PGA ground motion: 0.66633511 g

Recovered targets

Return period: 2947.4787 yrs
Exceedance rate: 0.00033927302 yr^{-1}

Totals

Binned: 100 %
Residual: 0 %
Trace: 0.05 %

Mean (for all sources)

r: 9.97 km
m: 6.63
ε_0: 1.29 σ

Mode (largest r-m bin)

r: 4.88 km
m: 6.53
ε_0: 0.75 σ
Contribution: 24.29 %

Mode (largest ε_0 bin)

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Deaggregation Contributors

Source Set ↳ Source	Type	r	m	ε_0	lon	lat	az	%
bFault.ch	Fault							32.96
Puente Hills (Coyote Hills)		2.81	6.69	0.44	117.921°W	33.871°N	10.87	19.97
Puente Hills		8.27	7.05	1.08	117.867°W	33.927°N	37.73	4.34
Puente Hills (Santa Fe Springs)		11.62	6.52	1.81	118.018°W	33.931°N	307.75	2.38
bFault.gr	Fault							23.18
Puente Hills (Coyote Hills)		2.81	6.60	0.45	117.921°W	33.871°N	10.87	14.66
Puente Hills		9.09	6.80	1.27	117.867°W	33.927°N	37.73	3.56
Puente Hills (Santa Fe Springs)		11.62	6.53	1.80	118.018°W	33.931°N	307.75	1.24
aFault_MoBal	Fault							11.25
Elsinore : W		8.50	6.93	1.58	117.852°W	33.930°N	43.42	7.90
aFault_aPriori_D2.1	Fault							7.88
Elsinore : W		8.50	6.95	1.58	117.852°W	33.930°N	43.42	5.37
CAmap.21.ch.in (opt)	Grid							7.68
PointSourceFinite: -117.921, 33.901		6.19	5.76	1.41	117.921°W	33.901°N	0.00	3.11
PointSourceFinite: -117.921, 33.936		8.46	5.90	1.66	117.921°W	33.936°N	0.00	1.19
CAmap.24.ch.in (opt)	Grid							7.59
PointSourceFinite: -117.921, 33.901		6.23	5.73	1.43	117.921°W	33.901°N	0.00	3.05
PointSourceFinite: -117.921, 33.936		8.46	5.90	1.66	117.921°W	33.936°N	0.00	1.19
CAmap.21.gr.in (opt)	Grid							3.76
PointSourceFinite: -117.921, 33.901		6.19	5.76	1.41	117.921°W	33.901°N	0.00	1.56
CAmap.24.gr.in (opt)	Grid							3.59
PointSourceFinite: -117.921, 33.901		6.33	5.69	1.46	117.921°W	33.901°N	0.00	1.46
aFault_unseg	Fault							2.09
Elsinore		9.99	7.49	1.44	117.852°W	33.930°N	43.42	2.05

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2008 National Seismic Hazard Maps - Source Parameters

New Search

Distance in Miles	Name	State	Pref Slip Rate (mm/yr)	Dip (degrees)	Dip Dir	Slip Sense	Rupture Top (km)	Rupture Bottom (km)	Length (km)
0.17	Puente Hills (Coyote Hills)	CA	0.7	26	N	thrust	2.8	15	17
5.26	Elsinore;W+GI+T+J+CM	CA	n/a	84	NE	strike slip	0	16	241
5.26	Elsinore;W+GI+T	CA	n/a	84	NE	strike slip	0	14	124
5.26	Elsinore;W+GI	CA	n/a	81	NE	strike slip	0	14	83
5.26	Elsinore;W+GI+T+J	CA	n/a	84	NE	strike slip	0	16	199
5.26	Elsinore;W	CA	2.5	75	NE	strike slip	0	14	46
7.05	Puente Hills (Santa Fe Springs)	CA	0.7	29	N	thrust	2.8	15	11
11.98	San Jose	CA	0.5	74	NW	strike slip	0	15	20
12.01	San Joaquin Hills	CA	0.5	23	SW	thrust	2	13	27
12.80	Newport Inglewood Connected alt 2	CA	1.3	90	V	strike slip	0	11	208
12.83	Newport Inglewood Connected alt 1	CA	1.3	89		strike slip	0	11	208
12.83	Newport-Inglewood, alt 1	CA	1	88		strike slip	0	15	65
13.68	Puente Hills (LA)	CA	0.7	27	N	thrust	2.1	15	22
13.90	Chino, alt 1	CA	1	50	SW	strike slip	0	9	24
14.02	Chino, alt 2	CA	1	65	SW	strike slip	0	14	29
17.18	Elysian Park (Upper)	CA	1.3	50	NE	reverse	3	15	20
19.08	Sierra Madre	CA	2	53	N	reverse	0	14	57
19.08	Sierra Madre Connected	CA	2	51		reverse	0	14	76
19.15	Newport-Inglewood (Offshore)	CA	1.5	90	V	strike slip	0	10	66

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19.19	Elsinore;GI+T	CA	5	90	V	strike slip	0	14	78
19.19	Elsinore;GI+T+J	CA	n/a	86	NE	strike slip	0	17	153
19.19	Elsinore;GI+T+J+CM	CA	n/a	86	NE	strike slip	0	16	195
19.19	Elsinore;GI	CA	5	90	V	strike slip	0	13	37
20.15	Raymond	CA	1.5	79	N	strike slip	0	16	22
20.81	Cucamonga	CA	5	45	N	thrust	0	8	28
20.95	Palos Verdes Connected	CA	3	90	V	strike slip	0	10	285
20.95	Palos Verdes	CA	3	90	V	strike slip	0	14	99
21.75	Clamshell-Sawpit	CA	0.5	50	NW	reverse	0	14	16
22.49	Verdugo	CA	0.5	55	NE	reverse	0	15	29
24.78	Hollywood	CA	1	70	N	strike slip	0	17	17
26.65	Santa Monica Connected alt 2	CA	2.4	44		strike slip	0.8	11	93
31.41	Santa Monica Connected alt 1	CA	2.6	51		strike slip	0	16	79
31.41	Santa Monica, alt 1	CA	1	75	N	strike slip	0	18	14
33.58	Elsinore;T+J	CA	n/a	86	NE	strike slip	0	17	127
33.58	Elsinore;T	CA	5	90	V	strike slip	0	14	52
33.58	Elsinore;T+J+CM	CA	n/a	85	NE	strike slip	0	16	169
35.47	Sierra Madre (San Fernando)	CA	2	45	N	thrust	0	13	18
35.55	San Jacinto;SBV+SJV+A	CA	n/a	90	V	strike slip	0	16	134
35.55	San Jacinto;SBV+SJV	CA	n/a	90	V	strike slip	0	16	88
35.55	San Jacinto;SBV	CA	6	90	V	strike slip	0	16	45
35.55	San Jacinto;SBV+SJV+A+CC+B+SM	CA	n/a	90	V	strike slip	0.1	15	241
35.55	San Jacinto;SBV+SJV+A+C	CA	n/a	90	V		0	17	181

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						strike slip			
35.55	San Jacinto;SBV+SJV+A+CC	CA	n/a	90	V	strike slip	0	16	181
35.55	San Jacinto;SBV+SJV+A+CC+B	CA	n/a	90	V	strike slip	0.1	15	215
36.44	Malibu Coast, alt 1	CA	0.3	75	N	strike slip	0	8	38
36.44	Malibu Coast, alt 2	CA	0.3	74	N	strike slip	0	16	38
37.14	S. San Andreas;CC+BB+NM+SM+NSB+SSB+BG	CA	n/a	85		strike slip	0	14	380
37.14	S. San Andreas;CC+BB+NM+SM	CA	n/a	90	V	strike slip	0	14	243
37.14	S. San Andreas;BB+NM+SM+NSB+SSB+BG+CO	CA	n/a	85		strike slip	0.1	13	390
37.14	S. San Andreas;BB+NM+SM+NSB+SSB+BG	CA	n/a	84		strike slip	0	14	321
37.14	S. San Andreas;BB+NM+SM+NSB+SSB	CA	n/a	90	V	strike slip	0	14	263
37.14	S. San Andreas;SM+NSB+SSB+BG+CO	CA	n/a	83		strike slip	0.1	13	303
37.14	S. San Andreas;SM+NSB+SSB+BG	CA	n/a	81		strike slip	0	13	234
37.14	S. San Andreas;SM+NSB+SSB	CA	n/a	90	V	strike slip	0	13	176
37.14	S. San Andreas;SM+NSB	CA	n/a	90	V	strike slip	0	13	133
37.14	S. San Andreas;BB+NM+SM+NSB	CA	n/a	90	V	strike slip	0	14	220
37.14	S. San Andreas;PK+CH+CC+BB+NM+SM+NSB+SSB+BG+CO	CA	n/a	86		strike slip	0.1	13	548
37.14	S. San Andreas;PK+CH+CC+BB+NM+SM+NSB+SSB+BG	CA	n/a	86		strike slip	0.1	13	479
37.14	S. San Andreas;PK+CH+CC+BB+NM+SM+NSB+SSB	CA	n/a	90	V	strike slip	0.1	13	421
37.14	S. San Andreas;PK+CH+CC+BB+NM+SM+NSB	CA	n/a	90	V	strike slip	0.1	13	377
37.14	S. San Andreas;PK+CH+CC+BB+NM+SM	CA	n/a	90	V	strike slip	0.1	13	342
37.14	S. San Andreas;BB+NM+SM	CA	n/a	90	V	strike slip	0	14	184

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37.14	S. San Andreas;CH+CC+BB+NM+SM	CA	n/a	90	V	strike slip	0	14	306
37.14	S. San Andreas;CH+CC+BB+NM+SM+NSB+SSB+BG+CO	CA	n/a	86		strike slip	0.1	13	512
37.14	S. San Andreas;SM	CA	29	90	V	strike slip	0	13	98
37.14	S. San Andreas;NM+SM+NSB+SSB+BG+CO	CA	n/a	84		strike slip	0.1	13	340
37.14	S. San Andreas;NM+SM+NSB+SSB+BG	CA	n/a	83		strike slip	0	14	271
37.14	S. San Andreas;NM+SM+NSB+SSB	CA	n/a	90	V	strike slip	0	13	213
37.14	S. San Andreas;NM+SM+NSB	CA	n/a	90	V	strike slip	0	13	170
37.14	S. San Andreas;NM+SM	CA	n/a	90	V	strike slip	0	14	134
37.14	S. San Andreas;CH+CC+BB+NM+SM+NSB+SSB+BG	CA	n/a	86		strike slip	0	14	442
37.14	S. San Andreas;CH+CC+BB+NM+SM+NSB+SSB	CA	n/a	90	V	strike slip	0	14	384
37.14	S. San Andreas;CH+CC+BB+NM+SM+NSB	CA	n/a	90	V	strike slip	0	14	341
37.14	S. San Andreas;CC+BB+NM+SM+NSB+SSB+BG+CO	CA	n/a	86		strike slip	0.1	13	449
37.14	S. San Andreas;CC+BB+NM+SM+NSB+SSB	CA	n/a	90	V	strike slip	0	14	322
37.14	S. San Andreas;CC+BB+NM+SM+NSB	CA	n/a	90	V	strike slip	0	14	279
37.18	San Gabriel	CA	1	61	N	strike slip	0	15	71
37.47	S. San Andreas;NSB+SSB+BG+CO	CA	n/a	79		strike slip	0.2	12	206
37.47	S. San Andreas;NSB	CA	22	90	V	strike slip	0	13	35
37.47	S. San Andreas;NSB+SSB	CA	n/a	90	V	strike slip	0	13	79
37.47	S. San Andreas;NSB+SSB+BG	CA	n/a	75		strike slip	0	14	136
37.76	Anacapa-Dume, alt 2	CA	3	41	N	thrust	1.2	12	65
40.14	Northridge	CA	1.5	35	S	thrust	7.4	17	33
40.16	Cleghorn	CA	3	90	V	strike slip	0	16	25

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40.56	San Jacinto;SJV	CA	18	90	V	strike slip	0	16	43
40.56	San Jacinto;SJV+A	CA	n/a	90	V	strike slip	0	17	89
40.56	San Jacinto;SJV+A+C	CA	n/a	90	V	strike slip	0	17	136
40.56	San Jacinto;SJV+A+CC	CA	n/a	90	V	strike slip	0	16	136
40.56	San Jacinto;SJV+A+CC+B	CA	n/a	90	V	strike slip	0.1	15	170
40.56	San Jacinto;SJV+A+CC+B+SM	CA	n/a	90	V	strike slip	0.1	15	196
40.60	Coronado Bank	CA	3	90	V	strike slip	0	9	186
44.52	S. San Andreas;SSB+BG+CO	CA	n/a	77		strike slip	0.2	12	170
44.52	S. San Andreas;SSB	CA	16	90	V	strike slip	0	13	43
44.52	S. San Andreas;SSB+BG	CA	n/a	71		strike slip	0	13	101
45.20	Anacapa-Dume, alt 1	CA	3	45	N	thrust	0	16	51
45.52	Santa Susana, alt 1	CA	5	55	N	reverse	0	16	27
46.71	San Jacinto;A+CC+B	CA	n/a	90	V	strike slip	0.1	15	152
46.71	San Jacinto;A	CA	9	90	V	strike slip	0	17	71
46.71	San Jacinto;A+C	CA	n/a	90	V	strike slip	0	17	118
46.71	San Jacinto;A+CC	CA	n/a	90	V	strike slip	0	16	118
46.71	San Jacinto;A+CC+B+SM	CA	n/a	90	V	strike slip	0.1	15	178
48.46	North Frontal (West)	CA	1	49	S	reverse	0	16	50
52.18	Holser, alt 1	CA	0.4	58	S	reverse	0	19	20
53.64	Simi-Santa Rosa	CA	1	60		strike slip	1	12	39
58.68	Oak Ridge Connected	CA	3.6	53		reverse	0.6	15	94
58.68	Oak Ridge (Onshore)	CA	4	65	S	reverse	1	19	49
58.90	Rose Canyon	CA	1.5	90	V	strike slip	0	8	70

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62.08	San Cayetano	CA	6	42	N	thrust	0	16	42
63.97	Elsinore;J	CA	3	84	NE	strike slip	0	19	75
63.97	Elsinore;J+CM	CA	3	84	NE	strike slip	0	17	118
64.56	S. San Andreas;BG+CO	CA	n/a	72		strike slip	0.3	12	125
64.56	S. San Andreas;BG	CA	n/a	58		strike slip	0	13	56
66.35	S. San Andreas;PK+CH+CC+BB+NM	CA	n/a	90	V	strike slip	0.1	12	245
66.35	S. San Andreas;CC+BB+NM	CA	n/a	90	V	strike slip	0	15	146
66.35	S. San Andreas;CH+CC+BB+NM	CA	n/a	90	V	strike slip	0	14	208
66.35	S. San Andreas;NM	CA	27	90	V	strike slip	0	15	37
66.35	S. San Andreas;BB+NM	CA	n/a	90	V	strike slip	0	15	87
67.38	Helendale-So Lockhart	CA	0.6	90	V	strike slip	0	13	114
70.09	Pinto Mtn	CA	2.5	90	V	strike slip	0	16	74
71.89	North Frontal (East)	CA	0.5	41	S	thrust	0	16	27
74.83	Santa Ynez Connected	CA	2	70		strike slip	0	11	132
74.83	Santa Ynez (East)	CA	2	70	S	strike slip	0	13	68
77.25	Pitas Point Connected	CA	1	55		reverse	1.2	13	78
77.25	Ventura-Pitas Point	CA	1	64	N	reverse	1	15	44
77.37	Santa Cruz Island	CA	1	90	V	strike slip	0	13	69
77.88	Channel Islands Thrust	CA	1.5	20	N	thrust	5	12	59
80.38	Lenwood-Lockhart-Old Woman Springs	CA	0.9	90	V	strike slip	0	13	145
81.95	Oak Ridge (Offshore)	CA	3	32	S	thrust	0	8	38
82.51	Mission Ridge-Arroyo Parida-Santa Ana	CA	0.4	70	S	reverse	0	8	69
83.88	Garlock;GE+GC+GW	CA	n/a	90	V	strike slip	0.3	12	256
83.88	Garlock;GW	CA	6	90	V		0.7	14	98

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						strike slip			
83.88	Garlock;GC+GW	CA	n/a	90	V	strike slip	0.4	12	210
84.02	San Jacinto;CC+B+SM	CA	n/a	90	V	strike slip	0.2	14	103
84.02	San Jacinto;CC	CA	4	90	V	strike slip	0	16	43
84.02	San Jacinto;CC+B	CA	n/a	90	V	strike slip	0.2	14	77
84.22	Johnson Valley (No)	CA	0.6	90	V	strike slip	0	16	35
85.18	San Jacinto;C	CA	14	90	V	strike slip	0	17	47
85.21	S. San Andreas;BB	CA	34	90	V	strike slip	0	15	50
85.21	S. San Andreas;PK+CH+CC+BB	CA	n/a	90	V	strike slip	0.1	12	208
85.21	S. San Andreas;CC+BB	CA	n/a	90	V	strike slip	0	15	109
85.21	S. San Andreas;CH+CC+BB	CA	n/a	90	V	strike slip	0	14	171
85.69	Red Mountain	CA	2	56	N	reverse	0	14	101
87.56	Landers	CA	0.6	90	V	strike slip	0	15	95
87.58	Burnt Mtn	CA	0.6	67	W	strike slip	0	16	21
89.14	Gravel Hills-Harper Lk	CA	0.7	90	V	strike slip	0	11	65
89.32	Eureka Peak	CA	0.6	90	V	strike slip	0	15	19
90.47	Earthquake Valley	CA	2	90	V	strike slip	0	19	20
91.23	So Emerson-Copper Mtn	CA	0.6	90	V	strike slip	0	14	54
91.65	Pleito	CA	2	46	S	reverse	0	14	44
91.69	North Channel	CA	1	26	N	thrust	1.1	5	51
91.77	Pitas Point (Lower)-Montalvo	CA	2.5	16	N	thrust	0.4	13	30
93.68	Blackwater	CA	0.5	90	V	strike slip	0	12	60
95.97	Calico-Hidalgo	CA	1.8	90	V		0	14	117

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						strike slip			
96.45	S. San Andreas;CO	CA	20	90	V	strike slip	0.6	11	69
97.68	Garlock;GE+GC	CA	n/a	90	V	strike slip	0	12	156
97.68	Garlock;GC	CA	7	90	V	strike slip	0	12	111
98.42	So Sierra Nevada	CA	0.1	50	E	normal	0	14	112

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APPENDIX E

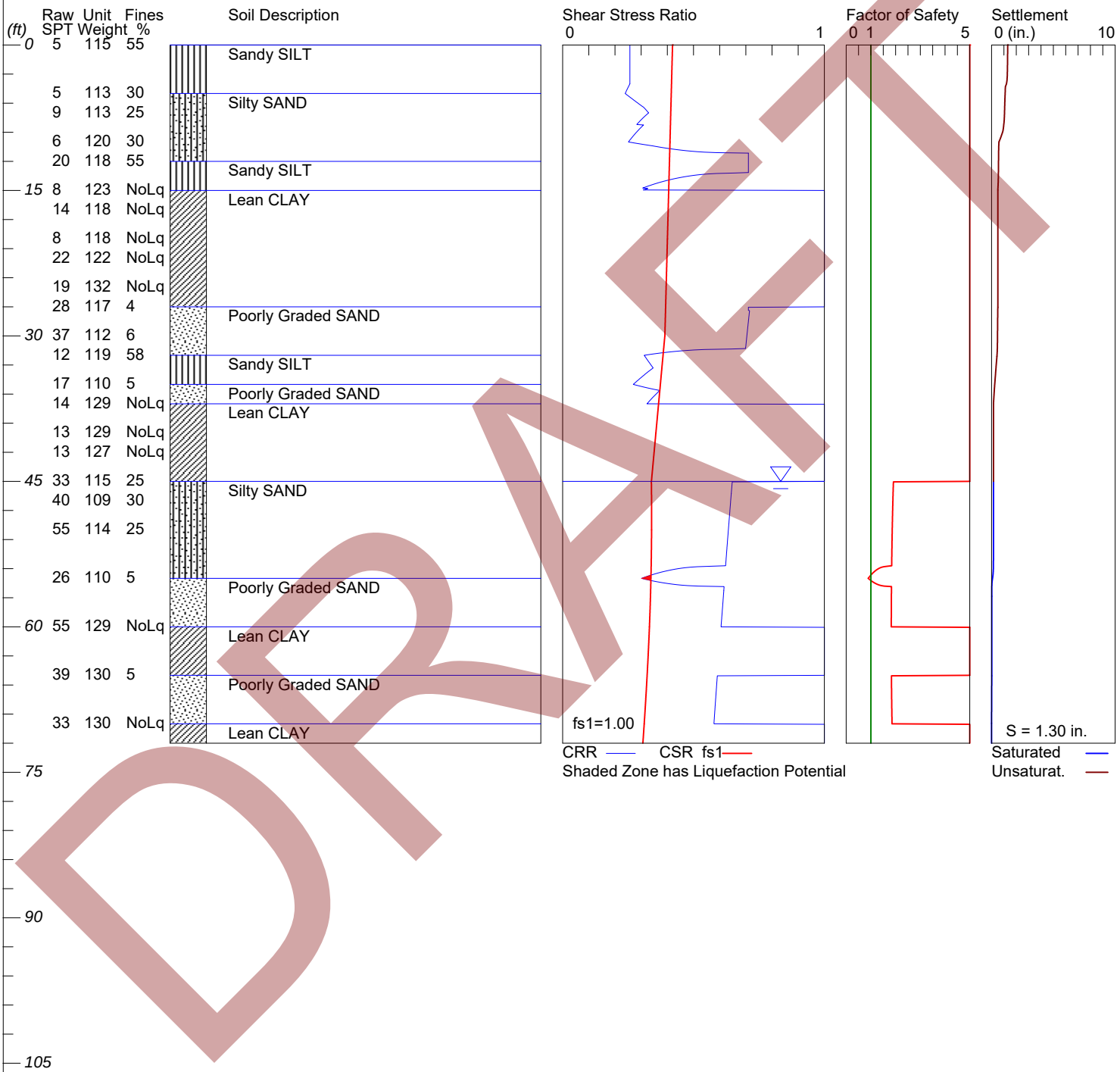
LIQUEFACTION AND SEISMIC SETTLEMENTS

LIQUEFACTION ANALYSIS

19-0351 FTC - Liquefaction Analysis

Hole No.=B-2 Water Depth=45 ft Surface Elev.=165

Magnitude=6.54
Acceleration=0.646g



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LiquefyPro CivilTech Software USA www.civiltech.com

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LIQUEFACTION ANALYSIS SUMMARY

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Input File Name: D:\GEOQUAKE, INC 2019-1-20\Projects\2019\19-0351 Fullerton Transportation Hotel - PEI\Liquefaction\B-2-Liquefaction.liq

Title: 19-0351 FTC - Liquefaction Analysis

Subtitle: B-2

Surface Elev.=165

Hole No.=B-2

Depth of Hole= 72.00 ft

Water Table during Earthquake= 45.00 ft

Water Table during In-Situ Testing= 71.50 ft

Max. Acceleration= 0.65 g

Earthquake Magnitude= 6.54

Input Data:

Surface Elev.=165

Hole No.=B-2

Depth of Hole=72.00 ft

Water Table during Earthquake= 45.00 ft

Water Table during In-Situ Testing= 71.50 ft

Max. Acceleration=0.65 g

Earthquake Magnitude=6.54

No-Liquefiable Soils: CL, OL are Non-Liq. Soil

1. SPT or BPT Calculation.
2. Settlement Analysis Method: Ishihara / Yoshimine
3. Fines Correction for Liquefaction: Stark/Olson et al.*
4. Fine Correction for Settlement: Post Liquefaction
5. Settlement Calculation in: All zones*
6. Hammer Energy Ratio, Ce = 1.25
7. Borehole Diameter, Cb= 1
8. Sampling Method, Cs= 1.2
9. User request factor of safety (apply to CSR) , User= 1
   Plot one CSR curve (fs1=User)
10. Use Curve Smoothing: Yes*

* Recommended Options

In-Situ Test Data:

Depth	SPT	gamma	Fines
ft		pcf	%
0.00	5.00	115.00	55.00
5.00	5.00	113.00	30.00
7.00	9.00	113.00	25.00
10.00	6.00	120.00	30.00
12.00	20.00	118.00	55.00

DRAFT

15.00	8.00	123.00	NoLiq
17.00	14.00	118.00	NoLiq
20.00	8.00	118.00	NoLiq
22.00	22.00	122.00	NoLiq
25.00	19.00	132.00	NoLiq
27.00	28.00	117.00	4.00
30.00	37.00	112.00	6.00
32.00	12.00	119.00	58.00
35.00	17.00	110.00	5.00
37.00	14.00	129.00	NoLiq
40.00	13.00	129.00	NoLiq
42.00	13.00	127.00	NoLiq
45.00	33.00	115.00	25.00
47.00	40.00	109.00	30.00
50.00	55.00	114.00	25.00
55.00	26.00	110.00	5.00
60.00	55.00	129.00	NoLiq
65.00	39.00	130.00	5.00
70.00	33.00	130.00	NoLiq
72.00	33.00	130.00	55.00

Output Results:

Settlement of Saturated Sands=0.15 in.
Settlement of Unsaturated Sands=1.15 in.
Total Settlement of Saturated and Unsaturated Sands=1.30 in.
Differential Settlement=0.651 to 0.860 in.

Depth ft	CRRm	CSRfs	F.S.	S_sat. in.	S_dry in.	S_all in.
0.00	0.26	0.42	5.00	0.15	1.15	1.30
1.00	0.26	0.42	5.00	0.15	1.15	1.30
2.00	0.26	0.42	5.00	0.15	1.14	1.29
3.00	0.26	0.42	5.00	0.15	1.12	1.28
4.00	0.26	0.42	5.00	0.15	1.05	1.20
5.00	0.24	0.42	5.00	0.15	0.95	1.10
6.00	0.29	0.41	5.00	0.15	0.92	1.07
7.00	0.33	0.41	5.00	0.15	0.90	1.05
8.00	0.29	0.41	5.00	0.15	0.85	1.01
9.00	0.28	0.41	5.00	0.15	0.74	0.89
10.00	0.25	0.41	5.00	0.15	0.45	0.60
11.00	0.51	0.41	5.00	0.15	0.42	0.57
12.00	0.71	0.41	5.00	0.15	0.41	0.56
13.00	0.71	0.41	5.00	0.15	0.40	0.56
14.00	0.39	0.41	5.00	0.15	0.39	0.54
15.00	2.00	0.41	5.00	0.15	0.35	0.51
16.00	2.00	0.40	5.00	0.15	0.35	0.51
17.00	2.00	0.40	5.00	0.15	0.35	0.51
18.00	2.00	0.40	5.00	0.15	0.35	0.51
19.00	2.00	0.40	5.00	0.15	0.35	0.51
20.00	2.00	0.40	5.00	0.15	0.35	0.51
21.00	2.00	0.40	5.00	0.15	0.35	0.51
22.00	2.00	0.40	5.00	0.15	0.35	0.51

DRAFT

23.00	2.00	0.40	5.00	0.15	0.35	0.51
24.00	2.00	0.40	5.00	0.15	0.35	0.51
25.00	2.00	0.40	5.00	0.15	0.35	0.51
26.00	2.00	0.39	5.00	0.15	0.35	0.51
27.00	2.00	0.39	5.00	0.15	0.35	0.51
28.00	0.71	0.39	5.00	0.15	0.34	0.50
29.00	0.71	0.39	5.00	0.15	0.34	0.49
30.00	0.70	0.39	5.00	0.15	0.33	0.48
31.00	0.70	0.39	5.00	0.15	0.32	0.47
32.00	0.31	0.38	5.00	0.15	0.29	0.44
33.00	0.34	0.38	5.00	0.15	0.22	0.38
34.00	0.31	0.38	5.00	0.15	0.16	0.32
35.00	0.27	0.37	5.00	0.15	0.10	0.26
36.00	0.36	0.37	5.00	0.15	0.05	0.20
37.00	0.32	0.37	5.00	0.15	0.00	0.15
38.00	2.00	0.36	5.00	0.15	0.00	0.15
39.00	2.00	0.36	5.00	0.15	0.00	0.15
40.00	2.00	0.36	5.00	0.15	0.00	0.15
41.00	2.00	0.35	5.00	0.15	0.00	0.15
42.00	2.00	0.35	5.00	0.15	0.00	0.15
43.00	2.00	0.35	5.00	0.15	0.00	0.15
44.00	2.00	0.34	5.00	0.15	0.00	0.15
45.00	2.00	0.34	5.00	0.15	0.00	0.15
46.00	0.65	0.34	1.90	0.15	0.00	0.15
47.00	0.64	0.34	1.89	0.15	0.00	0.15
48.00	0.64	0.34	1.88	0.15	0.00	0.15
49.00	0.64	0.34	1.87	0.15	0.00	0.15
50.00	0.63	0.34	1.86	0.15	0.00	0.15
51.00	0.63	0.34	1.86	0.15	0.00	0.15
52.00	0.63	0.34	1.85	0.15	0.00	0.15
53.00	0.62	0.34	1.84	0.15	0.00	0.15
54.00	0.44	0.34	1.31	0.14	0.00	0.14
55.00	0.30	0.34	0.89*	0.08	0.00	0.08
56.00	0.62	0.34	1.83	0.02	0.00	0.02
57.00	0.61	0.34	1.83	0.02	0.00	0.02
58.00	0.61	0.33	1.83	0.02	0.00	0.02
59.00	0.61	0.33	1.83	0.02	0.00	0.02
60.00	0.61	0.33	1.83	0.02	0.00	0.02
61.00	2.00	0.33	5.00	0.02	0.00	0.02
62.00	2.00	0.33	5.00	0.02	0.00	0.02
63.00	2.00	0.33	5.00	0.02	0.00	0.02
64.00	2.00	0.32	5.00	0.02	0.00	0.02
65.00	2.00	0.32	5.00	0.02	0.00	0.02
66.00	0.59	0.32	1.83	0.01	0.00	0.01
67.00	0.59	0.32	1.84	0.01	0.00	0.01
68.00	0.58	0.32	1.84	0.01	0.00	0.01
69.00	0.58	0.31	1.85	0.00	0.00	0.00
70.00	0.58	0.31	1.85	0.00	0.00	0.00
71.00	2.00	0.31	5.00	0.00	0.00	0.00
72.00	2.00	0.31	5.00	0.00	0.00	0.00

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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)

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Units: Unit: qc, fs, Stress or Pressure = atm (1.0581tsf); Unit Weight = pcf; Depth = ft; 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

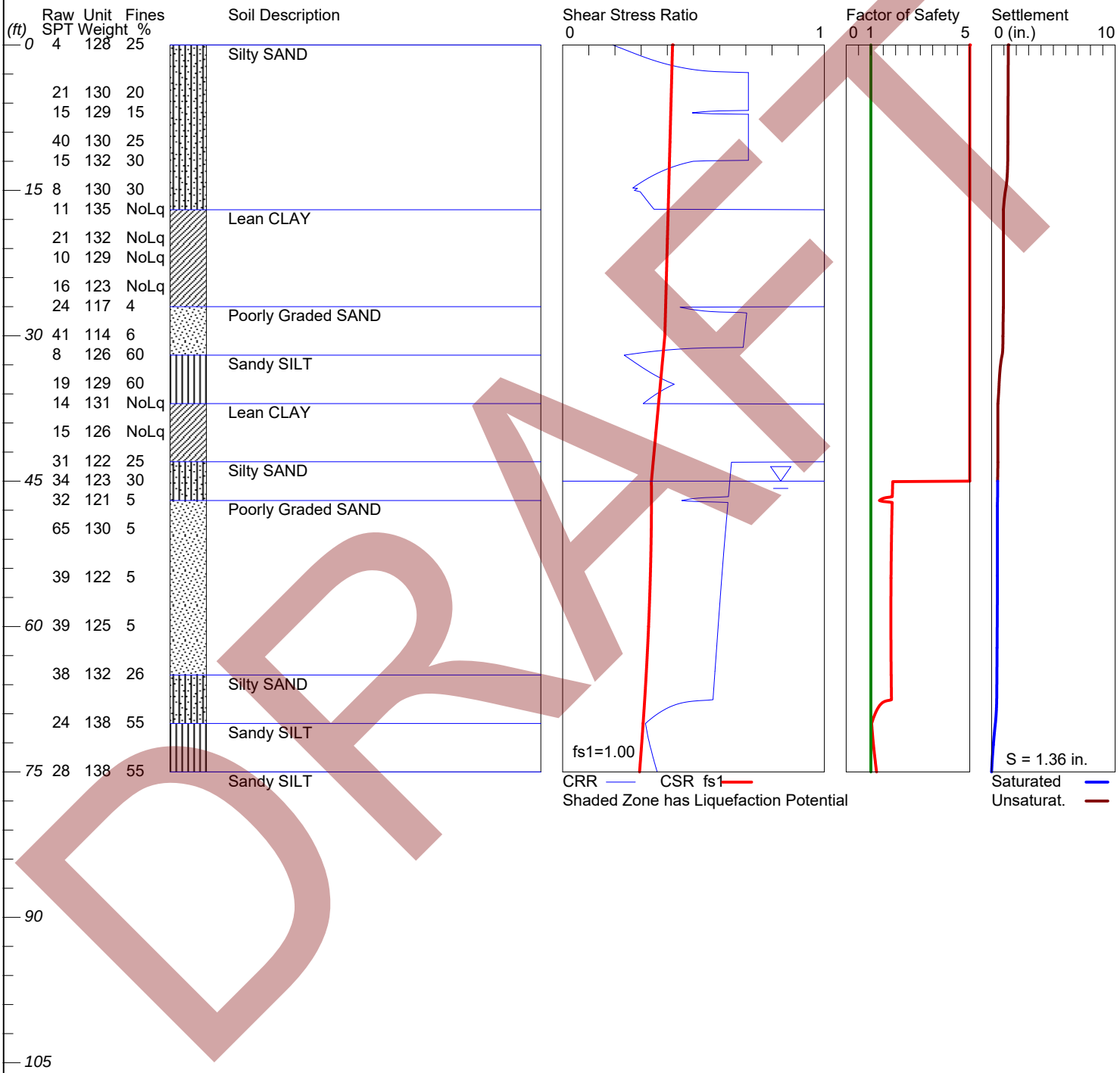
DRAFT

LIQUEFACTION ANALYSIS

19-0351-FTC Liquefactin Analysis

Hole No.=B-4 Water Depth=45 ft Surface Elev.=164

Magnitude=6.54
Acceleration=0.646g



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Input File Name: D:\GEOQUAKE, INC 2019-1-20\Projects\2019\19-0351 Fullerton Transportation Hotel - PEI\Liquefaction\B-4-Liquefaction.liq

Title: 19-0351-FTC Liquefactin Analysis

Subtitle: B-4

Surface Elev.=164

Hole No.=B-4

Depth of Hole= 75.00 ft

Water Table during Earthquake= 45.00 ft

Water Table during In-Situ Testing= 71.50 ft

Max. Acceleration= 0.65 g

Earthquake Magnitude= 6.54

Input Data:

Surface Elev.=164

Hole No.=B-4

Depth of Hole=75.00 ft

Water Table during Earthquake= 45.00 ft

Water Table during In-Situ Testing= 71.50 ft

Max. Acceleration=0.65 g

Earthquake Magnitude=6.54

No-Liquefiable Soils: CL, OL are Non-Liq. Soil

1. SPT or BPT Calculation.
2. Settlement Analysis Method: Ishihara / Yoshimine
3. Fines Correction for Liquefaction: Stark/Olson et al.*
4. Fine Correction for Settlement: Post Liquefaction
5. Settlement Calculation in: All zones*
6. Hammer Energy Ratio, Ce = 1.25
7. Borehole Diameter, Cb= 1
8. Sampling Method, Cs= 1.2
9. User request factor of safety (apply to CSR) , User= 1
   Plot one CSR curve (fs1=User)
10. Use Curve Smoothing: Yes*

* Recommended Options

In-Situ Test Data:

Depth	SPT	gamma	Fines
ft		pcf	%
0.00	4.00	128.00	25.00
5.00	21.00	130.00	20.00
7.00	15.00	129.00	15.00
10.00	40.00	130.00	25.00
12.00	15.00	132.00	30.00

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15.00	8.00	130.00	30.00
17.00	11.00	135.00	NoLiq
20.00	21.00	132.00	NoLiq
22.00	10.00	129.00	NoLiq
25.00	16.00	123.00	NoLiq
27.00	24.00	117.00	4.00
30.00	41.00	114.00	6.00
32.00	8.00	126.00	60.00
35.00	19.00	129.00	60.00
37.00	14.00	131.00	NoLiq
40.00	15.00	126.00	NoLiq
43.00	31.00	122.00	25.00
45.00	34.00	123.00	30.00
47.00	32.00	121.00	5.00
50.00	65.00	130.00	5.00
55.00	39.00	122.00	5.00
60.00	39.00	125.00	5.00
65.00	38.00	132.00	26.00
70.00	24.00	138.00	55.00
75.00	28.00	138.00	55.00

Output Results:

Settlement of Saturated Sands=0.49 in.
Settlement of Unsaturated Sands=0.87 in.
Total Settlement of Saturated and Unsaturated Sands=1.36 in.
Differential Settlement=0.679 to 0.896 in.

Depth ft	CRRm	CSRfs	F.S.	S_sat. in.	S_dry in.	S_all in.
0.00	0.19	0.42	5.00	0.49	0.87	1.36
1.00	0.29	0.42	5.00	0.49	0.86	1.35
2.00	0.40	0.42	5.00	0.49	0.86	1.35
3.00	0.71	0.42	5.00	0.49	0.85	1.34
4.00	0.71	0.42	5.00	0.49	0.85	1.34
5.00	0.71	0.42	5.00	0.49	0.85	1.34
6.00	0.71	0.41	5.00	0.49	0.85	1.34
7.00	0.50	0.41	5.00	0.49	0.84	1.33
8.00	0.71	0.41	5.00	0.49	0.83	1.32
9.00	0.71	0.41	5.00	0.49	0.83	1.32
10.00	0.71	0.41	5.00	0.49	0.83	1.32
11.00	0.71	0.41	5.00	0.49	0.83	1.32
12.00	0.50	0.41	5.00	0.49	0.82	1.31
13.00	0.38	0.41	5.00	0.49	0.79	1.28
14.00	0.31	0.41	5.00	0.49	0.75	1.24
15.00	0.27	0.41	5.00	0.49	0.64	1.13
16.00	0.32	0.40	5.00	0.49	0.54	1.03
17.00	2.00	0.40	5.00	0.49	0.47	0.96
18.00	2.00	0.40	5.00	0.49	0.47	0.96
19.00	2.00	0.40	5.00	0.49	0.47	0.96
20.00	2.00	0.40	5.00	0.49	0.47	0.96
21.00	2.00	0.40	5.00	0.49	0.47	0.96
22.00	2.00	0.40	5.00	0.49	0.47	0.96

DRAFT

23.00	2.00	0.40	5.00	0.49	0.47	0.96
24.00	2.00	0.40	5.00	0.49	0.47	0.96
25.00	2.00	0.40	5.00	0.49	0.47	0.96
26.00	2.00	0.39	5.00	0.49	0.47	0.96
27.00	2.00	0.39	5.00	0.49	0.47	0.96
28.00	0.70	0.39	5.00	0.49	0.45	0.94
29.00	0.70	0.39	5.00	0.49	0.44	0.93
30.00	0.69	0.39	5.00	0.49	0.44	0.93
31.00	0.69	0.39	5.00	0.49	0.42	0.91
32.00	0.24	0.38	5.00	0.49	0.37	0.86
33.00	0.29	0.38	5.00	0.49	0.24	0.73
34.00	0.35	0.38	5.00	0.49	0.16	0.65
35.00	0.43	0.37	5.00	0.49	0.12	0.61
36.00	0.36	0.37	5.00	0.49	0.08	0.57
37.00	0.31	0.37	5.00	0.49	0.02	0.51
38.00	2.00	0.36	5.00	0.49	0.02	0.51
39.00	2.00	0.36	5.00	0.49	0.02	0.51
40.00	2.00	0.36	5.00	0.49	0.02	0.51
41.00	2.00	0.35	5.00	0.49	0.02	0.51
42.00	2.00	0.35	5.00	0.49	0.02	0.51
43.00	2.00	0.35	5.00	0.49	0.02	0.51
44.00	0.64	0.34	5.00	0.49	0.01	0.50
45.00	0.64	0.34	5.00	0.49	0.00	0.49
46.00	0.64	0.34	1.87	0.49	0.00	0.49
47.00	0.46	0.34	1.34	0.48	0.00	0.48
48.00	0.63	0.34	1.85	0.47	0.00	0.47
49.00	0.63	0.34	1.85	0.47	0.00	0.47
50.00	0.62	0.34	1.84	0.47	0.00	0.47
51.00	0.62	0.34	1.83	0.47	0.00	0.47
52.00	0.62	0.34	1.83	0.47	0.00	0.47
53.00	0.61	0.34	1.82	0.47	0.00	0.47
54.00	0.61	0.34	1.82	0.47	0.00	0.47
55.00	0.61	0.33	1.82	0.47	0.00	0.47
56.00	0.61	0.33	1.81	0.47	0.00	0.47
57.00	0.60	0.33	1.81	0.47	0.00	0.47
58.00	0.60	0.33	1.81	0.46	0.00	0.46
59.00	0.60	0.33	1.81	0.46	0.00	0.46
60.00	0.59	0.33	1.81	0.46	0.00	0.46
61.00	0.59	0.33	1.81	0.45	0.00	0.45
62.00	0.59	0.32	1.81	0.45	0.00	0.45
63.00	0.59	0.32	1.81	0.44	0.00	0.44
64.00	0.58	0.32	1.82	0.44	0.00	0.44
65.00	0.58	0.32	1.82	0.43	0.00	0.43
66.00	0.58	0.32	1.82	0.43	0.00	0.43
67.00	0.58	0.31	1.83	0.42	0.00	0.42
68.00	0.44	0.31	1.40	0.41	0.00	0.41
69.00	0.36	0.31	1.17	0.37	0.00	0.37
70.00	0.32	0.31	1.03	0.31	0.00	0.31
71.00	0.32	0.30	1.06	0.23	0.00	0.23
72.00	0.33	0.30	1.10	0.16	0.00	0.16
73.00	0.34	0.30	1.14	0.10	0.00	0.10
74.00	0.35	0.30	1.18	0.04	0.00	0.04
75.00	0.36	0.29	1.23	0.00	0.00	0.00

DRAFT

* F.S.<1, Liquefaction Potential Zone
(F.S. is limited to 5, CRR is limited to 2, CSR is limited to 2)

Units: Unit: qc, fs, Stress or Pressure = atm (1.0581tsf); Unit Weight = pcf; Depth = ft; 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

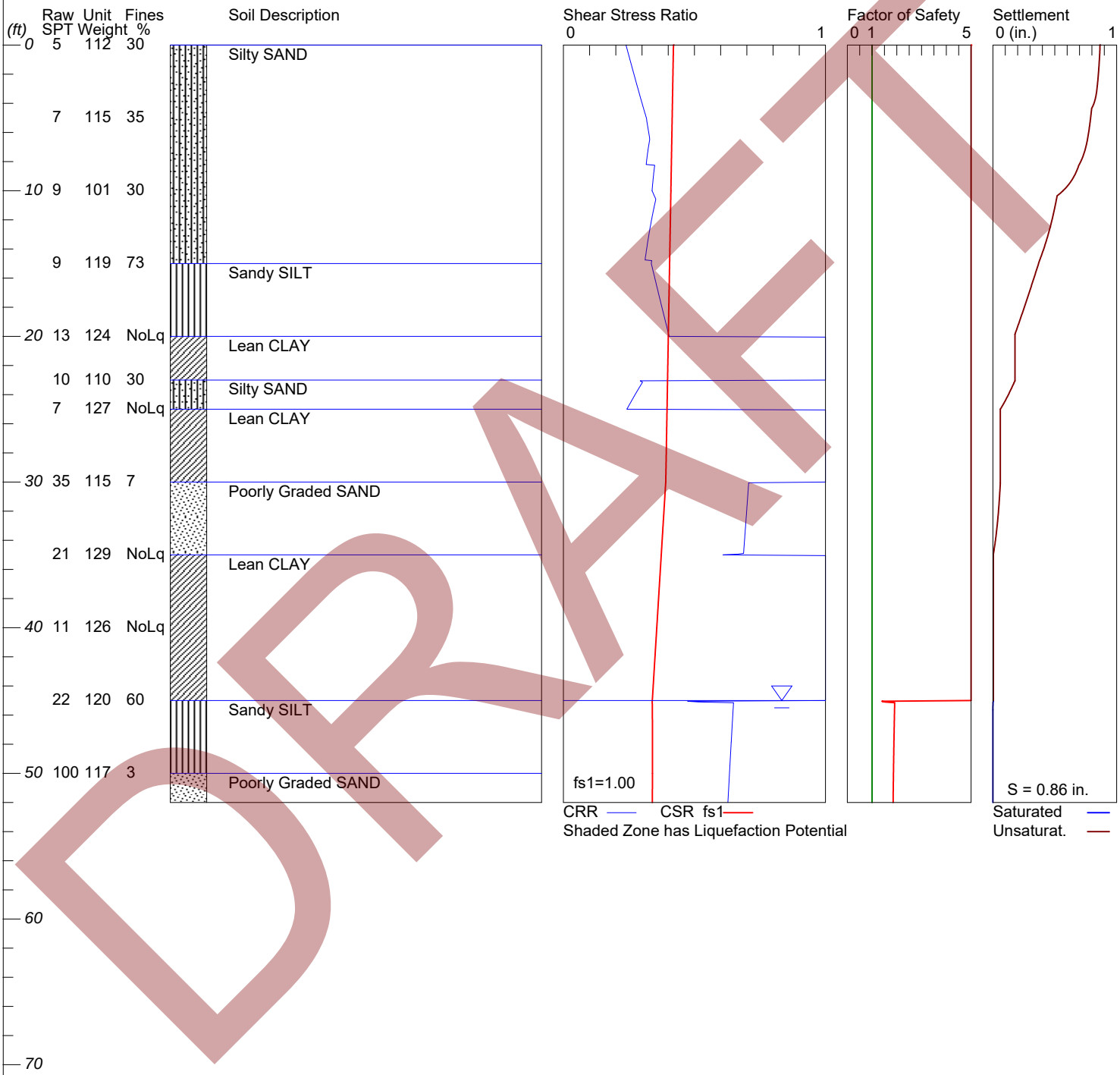
DRAFT

LIQUEFACTION ANALYSIS

19-0351-FTC Liquefaction Analysis

Hole No.=B-6 Water Depth=45 ft

Magnitude=6.54
Acceleration=0.646g



DRAFT

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LIQUEFACTION ANALYSIS SUMMARY

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Input File Name: D:\GEOQUAKE, INC 2019-1-20\Projects\2019\19-0351 Fullerton Transportation Hotel - PEI\Liquefaction\B-6-Liquefaction.liq

Title: 19-0351-FTC Liquefaction Analysis

Subtitle: B-6

Surface Elev.=

Hole No.=B-6

Depth of Hole= 52.00 ft

Water Table during Earthquake= 45.00 ft

Water Table during In-Situ Testing= 71.50 ft

Max. Acceleration= 0.65 g

Earthquake Magnitude= 6.54

Input Data:

Surface Elev.=

Hole No.=B-6

Depth of Hole=52.00 ft

Water Table during Earthquake= 45.00 ft

Water Table during In-Situ Testing= 71.50 ft

Max. Acceleration=0.65 g

Earthquake Magnitude=6.54

No-Liquefiable Soils: CL, OL are Non-Liq. Soil

1. SPT or BPT Calculation.
2. Settlement Analysis Method: Ishihara / Yoshimine
3. Fines Correction for Liquefaction: Stark/Olson et al.*
4. Fine Correction for Settlement: Post Liquefaction
5. Settlement Calculation in: All zones*
6. Hammer Energy Ratio, Ce = 1.25
7. Borehole Diameter, Cb= 1
8. Sampling Method, Cs= 1.2
9. User request factor of safety (apply to CSR) , User= 1
   Plot one CSR curve (fs1=User)
10. Use Curve Smoothing: Yes*

* Recommended Options

In-Situ Test Data:

Depth		SPT	gamma	Fines
ft			pcf	%
0.00	5.00		112.00	30.00
5.00	7.00		115.00	35.00
10.00	9.00		101.00	30.00
15.00	9.00		119.00	73.00
20.00	13.00		124.00	NoLiq

DRAFT

23.00	10.00	110.00	30.00
25.00	7.00	127.00	NoLiq
30.00	35.00	115.00	7.00
35.00	21.00	129.00	NoLiq
40.00	11.00	126.00	NoLiq
45.00	22.00	120.00	60.00
50.00	100.00	117.00	3.00
51.50	100.00	117.00	3.00

Output Results:

Settlement of Saturated Sands=0.00 in.
Settlement of Unsaturated Sands=0.86 in.
Total Settlement of Saturated and Unsaturated Sands=0.86 in.
Differential Settlement=0.432 to 0.571 in.

Depth ft	CRRm	CSRfs	F.S.	S_sat. in.	S_dry in.	S_all
0.00	0.24	0.42	5.00	0.00	0.86	0.86
1.00	0.25	0.42	5.00	0.00	0.86	0.86
2.00	0.27	0.42	5.00	0.00	0.85	0.85
3.00	0.28	0.42	5.00	0.00	0.84	0.84
4.00	0.30	0.42	5.00	0.00	0.81	0.82
5.00	0.32	0.42	5.00	0.00	0.79	0.79
6.00	0.33	0.41	5.00	0.00	0.77	0.77
7.00	0.32	0.41	5.00	0.00	0.75	0.75
8.00	0.32	0.41	5.00	0.00	0.71	0.71
9.00	0.34	0.41	5.00	0.00	0.65	0.66
10.00	0.34	0.41	5.00	0.00	0.56	0.57
11.00	0.35	0.41	5.00	0.00	0.50	0.50
12.00	0.34	0.41	5.00	0.00	0.47	0.48
13.00	0.33	0.41	5.00	0.00	0.44	0.45
14.00	0.32	0.41	5.00	0.00	0.41	0.41
15.00	0.34	0.41	5.00	0.00	0.37	0.37
16.00	0.35	0.40	5.00	0.00	0.33	0.33
17.00	0.36	0.40	5.00	0.00	0.29	0.29
18.00	0.38	0.40	5.00	0.00	0.25	0.25
19.00	0.39	0.40	5.00	0.00	0.21	0.21
20.00	0.40	0.40	5.00	0.00	0.17	0.18
21.00	2.00	0.40	5.00	0.00	0.17	0.18
22.00	2.00	0.40	5.00	0.00	0.17	0.18
23.00	2.00	0.40	5.00	0.00	0.17	0.18
24.00	0.27	0.40	5.00	0.00	0.12	0.13
25.00	0.24	0.40	5.00	0.00	0.06	0.06
26.00	2.00	0.39	5.00	0.00	0.06	0.06
27.00	2.00	0.39	5.00	0.00	0.06	0.06
28.00	2.00	0.39	5.00	0.00	0.06	0.06
29.00	2.00	0.39	5.00	0.00	0.06	0.06
30.00	2.00	0.39	5.00	0.00	0.06	0.06
31.00	0.70	0.39	5.00	0.00	0.05	0.05
32.00	0.70	0.38	5.00	0.00	0.04	0.05
33.00	0.70	0.38	5.00	0.00	0.03	0.03
34.00	0.69	0.38	5.00	0.00	0.02	0.02

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35.00	0.61	0.37	5.00	0.00	0.00	0.00
36.00	2.00	0.37	5.00	0.00	0.00	0.00
37.00	2.00	0.37	5.00	0.00	0.00	0.00
38.00	2.00	0.36	5.00	0.00	0.00	0.00
39.00	2.00	0.36	5.00	0.00	0.00	0.00
40.00	2.00	0.36	5.00	0.00	0.00	0.00
41.00	2.00	0.35	5.00	0.00	0.00	0.00
42.00	2.00	0.35	5.00	0.00	0.00	0.00
43.00	2.00	0.35	5.00	0.00	0.00	0.00
44.00	2.00	0.34	5.00	0.00	0.00	0.00
45.00	2.00	0.34	5.00	0.00	0.00	0.00
46.00	0.65	0.34	1.90	0.00	0.00	0.00
47.00	0.64	0.34	1.89	0.00	0.00	0.00
48.00	0.64	0.34	1.88	0.00	0.00	0.00
49.00	0.64	0.34	1.87	0.00	0.00	0.00
50.00	0.63	0.34	1.86	0.00	0.00	0.00
51.00	0.63	0.34	1.86	0.00	0.00	0.00
52.00	0.63	0.34	1.85	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: Unit: qc, fs, Stress or Pressure = atm (1.0581tsf); Unit Weight = pcf; Depth = ft; 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

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APPENDIX E

INFILTRATION TESTING

GEOQUAKE

INFILTRATION TEST DATA

Converted Boring Percolation Using Porchet Method (aka Inverse Borehole Method)

Boring IN-1

Project No.: 19-0351
Project Name: Fullerton Transportation Center
Date of Test: 6/6/2019
Performed by: Z.Y.

Trial No.	Time Start	Time Stop	Time Interval (minutes)	Initial Depth to Water (in)	Final Depth to Water (in)	Change in Water Level inch	Greater than or Equal to 6" in 25 minutes?
1	8:00	8:25	25	12.0	13.9	1.9	No
2	8:30	8:55	25	12.0	13.6	1.6	No

USCS Symbol: CL
Presoak (Y/N): Y
Boring Diameter Φ: 8 inch
Depth of Hole HT: 60 inch

$$I_t = \frac{\Delta H(60r)}{\Delta t(r + 2H_{avg})}$$

Trial Reading Number	Time Start/End (hh:mm) 24hr format	Elapsed Time Δt (min)	Depth to Water D0 (inch)	Water Drop, D0 (inch)	Percolation Rate (in/hr)	Initial Height of Water H0 (inch)	Final Height of Water Hf (inch)	Change in Height of Water, ΔH (inch)	Average Head of Water Havg (inch)	Infiltration Rate It (in/hr)	Notes
1	9:00	30	12.0	1.5	**3.0**	48.00	46.50	1.50	47.25	**0.12**	
	9:30		13.5								
2	9:32	30	12.0	1.3	**2.6**	48.00	46.70	1.30	47.35	**0.11**	
	10:02		13.3								
3	10:04	30	12.0	1.1	**2.2**	48.00	46.90	1.10	47.45	**0.09**	
	10:34		13.1								
4	10:36	30	12.0	1.1	**2.2**	48.00	46.90	1.10	47.45	**0.09**	
	11:06		13.1								
5	11:08	30	12.0	0.9	**1.8**	48.00	47.10	0.90	47.55	**0.07**	
	11:38		12.9								
6	11:40	30	12.0	0.7	**1.4**	48.00	47.30	0.70	47.65	**0.06**	
	12:10		12.7								
7	12:11	30	12.0	0.5	**1.0**	48.00	47.50	0.50	47.75	**0.04**	
	12:41		12.5								
8	12:42	30	12.0	0.5	**1.0**	48.00	47.50	0.50	47.75	**0.04**	
	13:12		12.5								
9	13:15	30	12.0	0.4	**0.8**	48.00	47.60	0.40	47.80	**0.03**	
	13:45		12.4								
10	13:46	30	12.0	0.4	**0.8**	48.00	47.60	0.40	47.80	**0.03**	
	14:16		12.4								
11	14:18	30	12.0	0.4	**0.8**	48.00	47.60	0.40	47.80	**0.03**	
	14:48		12.4								
12	14:50	30	12.0	0.4	**0.7**	48.00	47.63	0.38	47.81	**0.03**	Tested Infiltration Rate
	15:20		12.4								
									F.S.	**2**	
									Factored It	**0.02**	Factored Infiltration Rate

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GEOQUAKE

INFILTRATION TEST DATA

Converted Boring Percolation Using Porchet Method (aka Inverse Borehole Method)

Boring IN-2

Project No.: 19-0351
Project Name: Fullerton Transportation Center
Date of Test: 6/7/2019
Performed by: Z.Y.

Trial No.	Time Start	Time Stop	Time Interval (minutes)	Initial Depth to Water (in)	Final Depth to Water (in)	Change in Water Level inch	Greater than or Equal to 6" in 25 minutes?
1	10:00	10:25	25	12.0	13.5	1.5	No
2	10:25	10:50	25	12.0	13.1	1.1	No

USCS Symbol: CL
Presoak (Y/N): Y
Boring Diameter Φ: 8 inch
Depth of Hole HT: 60 inch

$$I_t = \frac{\Delta H(60r)}{\Delta t(r + 2H_{avg})}$$

Trial Reading Number	Time Start/End (hh:mm) 24hr format	Elapsed Time Δt (min)	Depth to Water D0 (inch)	Water Drop, D0 (inch)	Percolation Rate (in/hr)	Initial Height of Water H0 (inch)	Final Height of Water Hf (inch)	Change in Height of Water, ΔH (inch)	Average Head of Water Havg (inch)	Infiltration Rate It (in/hr)	Notes
1	9:00	30	12.0	1.0	**2.0**	48.00	47.00	1.00	47.50	**0.08**	
	9:30		13.0								
2	9:32	30	12.0	1.0	**2.0**	48.00	47.00	1.00	47.50	**0.08**	
	10:02		13.0								
3	10:04	30	12.0	0.8	**1.6**	48.00	47.20	0.80	47.60	**0.06**	
	10:34		12.8								
4	10:36	30	12.0	0.7	**1.4**	48.00	47.30	0.70	47.65	**0.06**	
	11:06		12.7								
5	11:08	30	12.0	0.7	**1.4**	48.00	47.30	0.70	47.65	**0.06**	
	11:38		12.7								
6	11:40	30	12.0	0.6	**1.2**	48.00	47.40	0.60	47.70	**0.05**	
	12:10		12.6								
7	12:11	30	12.0	0.5	**1.0**	48.00	47.50	0.50	47.75	**0.04**	
	12:41		12.5								
8	12:42	30	12.0	0.4	**0.8**	48.00	47.60	0.40	47.80	**0.03**	
	13:12		12.4								
9	13:15	30	12.0	0.3	**0.6**	48.00	47.70	0.30	47.85	**0.02**	
	13:45		12.3								
10	13:46	30	12.0	0.2	**0.4**	48.00	47.80	0.20	47.90	**0.02**	
	14:16		12.2								
11	14:18	30	12.0	0.2	**0.4**	48.00	47.80	0.20	47.90	**0.02**	
	14:48		12.2								
12	14:50	30	12.0	0.2	**0.4**	48.00	47.80	0.20	47.90	**0.02**	Tested Infiltration Rate
	15:20		12.2								
									F.S.	**2**	
									Factored It	**0.01**	Factored Infiltration Rate

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APPENDIX G

IMPORTANT INFORMATION ABOUT THE GEOTECHNICAL REPORT

Important Information about Your

Geotechnical-Engineering Report

Subsurface problems are a principal cause of construction delays, cost overruns, claims, and disputes.

While you cannot eliminate all such risks, you can manage them. The following information is provided to help.

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Geotechnical Services Are Performed for Specific Purposes, Persons, and Projects

Geotechnical engineers structure their services to meet the specific needs of their clients. A geotechnical-engineering study conducted for a civil engineer may not fulfill the needs of a construction contractor or even another civil engineer. Because each geotechnical-engineering study is unique, each geotechnical-engineering report is unique, prepared *solely* for the client. No one except you should rely on your geotechnical engineering report without first conferring with the geotechnical engineer who prepared it. *And no one — not even you —* should apply the report for any purpose or project except the one originally contemplated.

Read the Full Report

Serious problems have occurred because those relying on a geotechnical-engineering report did not read it all. Do not rely on an executive summary. Do not read selected elements only.

A Geotechnical-Engineering Report Is Based on a Unique Set of Project-Specific Factors

Geotechnical engineers consider many unique, project-specific factors when establishing the scope of a study. Typical factors include: the client's goals, objectives, and risk-management preferences; the general nature of the structure involved, its size, and configuration; the location of the structure on the site; and other planned or existing site improvements, such as access roads, parking lots, and underground utilities. Unless the geotechnical engineer who conducted the study specifically indicates otherwise, do not rely on a geotechnical engineering report that was:

- not prepared for you,
- not prepared for your project,
- not prepared for the specific site explored, or
- completed before important project changes were made.

Typical changes that can erode the reliability of an existing geotechnical-engineering report include those that affect:

- the function of the proposed structure, as when it's changed from a parking garage to an office building, or from a light-industrial plant to a refrigerated warehouse,
- elevation, configuration, location, orientation, or weight of the proposed structure,
- composition of the design team, or
- project ownership.

As a general rule, *always* inform your geotechnical engineer of project changes—even minor ones—and request an assessment of their impact. *Geotechnical engineers cannot accept responsibility or liability for problems that occur because their reports do not consider developments of which they were not informed.*

Subsurface Conditions Can Change

A geotechnical-engineering report is based on conditions that existed at the time the study was performed. *Do not rely on a geotechnical-engineering report* whose adequacy may have been affected by: the passage of time; by man-made events, such as construction on or adjacent to the site; or by natural events, such as floods, droughts, earthquakes, or groundwater fluctuations. *Always* contact the geotechnical engineer before applying the report to determine if it is still reliable. A minor amount of additional testing or analysis could prevent major problems.

Most Geotechnical Findings Are Professional Opinions

Site exploration identifies subsurface conditions only at those points where subsurface tests are conducted or samples are taken. Geotechnical engineers review field and laboratory data and then apply their professional judgment to render an opinion about subsurface conditions throughout the site. Actual subsurface conditions may differ—sometimes significantly—from those indicated in your report. Retaining the geotechnical engineer who developed your report to provide construction observation is the most effective method of managing the risks associated with unanticipated conditions.

A Report's Recommendations Are *Not* Final

Do not overrely on the construction recommendations included in your report. *Those recommendations are not final,* because geotechnical engineers develop them principally from judgment and opinion. Geotechnical engineers can finalize their recommendations *only* by observing actual

subsurface conditions revealed during construction. *The geotechnical engineer who developed your report cannot assume responsibility or liability for the report's recommendations if that engineer does not perform construction observation.*

A Geotechnical Engineering Report Is Subject to Misinterpretation

Other design team members' misinterpretation of geotechnical-engineering reports has resulted in costly problems. Lower that risk by having your geotechnical engineer confer with appropriate members of the design team after submitting the report. Also retain your geotechnical engineer to review pertinent elements of the design team's plans and specifications. Contractors can also misinterpret a geotechnical-engineering report. Reduce that risk by having your geotechnical engineer participate in prebid and preconstruction conferences, and by providing construction observation.

Do Not Redraw the Engineer's Logs

Geotechnical engineers prepare final boring and testing logs based upon their interpretation of field logs and laboratory data. To prevent errors or omissions, the logs included in a geotechnical engineering report should *never* be redrawn for inclusion in architectural or other design drawings. Only photographic or electronic reproduction is acceptable, *but recognize that separating logs from the report can elevate risk.*

Give Contractors a Complete Report and Guidance

Some owners and design professionals mistakenly believe they can make contractors liable for unanticipated subsurface conditions by limiting what they provide for bid preparation. To help prevent costly problems, give contractors the complete geotechnical-engineering report, *but* preface it with a clearly written letter of transmittal. In that letter, advise contractors that the report was not prepared for purposes of bid development and that the report's accuracy is limited; encourage them to confer with the geotechnical engineer who prepared the report (a modest fee may be required) and/or to conduct additional study to obtain the specific types of information they need or prefer. A prebid conference can also be valuable. *Be sure contractors have sufficient time* to perform additional study. Only then might you be in a position to give contractors the best information available to you, while requiring them to at least share some of the financial responsibilities stemming from unanticipated conditions.

Read Responsibility Provisions Closely

Some clients, design professionals, and contractors do not recognize that geotechnical engineering is far less exact than other engineering disciplines. This lack of understanding has created unrealistic expectations that have led to disappointments, claims, and disputes. To help reduce the risk of such outcomes, geotechnical engineers commonly include a variety of explanatory provisions in their reports. Sometimes labeled "limitations," many of these provisions indicate where geotechnical engineers' responsibilities begin and end, to help others recognize their own responsibilities and risks. *Read these provisions closely.* Ask questions. Your geotechnical engineer should respond fully and frankly.

Geoenvironmental Concerns Are Not Covered

The equipment, techniques, and personnel used to perform a *geoenvironmental* study differ significantly from those used to perform a *geotechnical* study. For that reason, a geotechnical-engineering report does not usually relate any geoenvironmental findings, conclusions, or recommendations; e.g., about the likelihood of encountering underground storage tanks or regulated contaminants. *Unanticipated environmental problems have led to numerous project failures.* If you have not yet obtained your own geoenvironmental information, ask your geotechnical consultant for risk management guidance. *Do not rely on an environmental report prepared for someone else.*

Obtain Professional Assistance To Deal with Mold

Diverse strategies can be applied during building design, construction, operation, and maintenance to prevent significant amounts of mold from growing on indoor surfaces. To be effective, all such strategies should be devised for the *express purpose* of mold prevention, integrated into a comprehensive plan, and executed with diligent oversight by a professional mold-prevention consultant. Because just a small amount of water or moisture can lead to the development of severe mold infestations, many mold-prevention strategies focus on keeping building surfaces dry. While groundwater, water infiltration, and similar issues may have been addressed as part of the geotechnical-engineering study whose findings are conveyed in this report, the geotechnical engineer in charge of this project is not a mold-prevention consultant; ***none of the services performed in connection with the geotechnical engineer's study were designed or conducted for the purpose of mold prevention. Proper implementation of the recommendations conveyed in this report will not of itself be sufficient to prevent mold from growing in or on the structure involved.***

Rely, on Your GBA-Member Geotechncial Engineer for Additional Assistance

Membership in the GEOPROFESSIONAL BUSINESS ASSOCIATION exposes geotechnical engineers to a wide array of risk confrontaton techniques that can be of genuine benefit for everyone involved with a construction project. Confer with your GBA-member geotechnical engineer for more information.

DRAFT

GEOPROFESSIONAL BUSINESS ASSOCIATION
8811 Colesville Road/Suite G106, Silver Spring, MD 20910
Telephone: 301/565-2733 Facsimile: 301/589-2017
e-mail: info@geoprofessional.org www.geoprofessional.org

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Natural History Museum
of Los Angeles County
900 Exposition Boulevard
Los Angeles, CA 90007
tel 213.763.DINO
www.nhm.org

Research & Collections

e-mail: paleorecords@nhm.org

May 19, 2021

PSOMAS
Attn: Charles Cisneros

re: Paleontological resources for Project 3FUL020101

Dear Charles:

I have conducted a thorough search of our paleontology collection records for the locality and specimen data for proposed development at the 3FUL020101 project area as outlined on the portion of the Anaheim USGS topographic quadrangle map that you sent to me via e-mail on May 14, 2021. We do not have any fossil localities that lie directly within the proposed project area, but we do have fossil localities nearby from the same sedimentary deposits that occur in the proposed project area, either at the surface or at depth.

The following table shows the closest known localities in the collection of the Natural History Museum of Los Angeles County.

Locality Number	Location	Formation	Taxa	Depth
LACM VP 3524	North of Malvern Avenue & approximately 1/2 mile west of Gilbert Street; Fullerton	Terrace deposits (silty sandstone)	Unidentified ungulate	unknown
LACM VP 4185-4201	Coyote Creek, adjacent to Ralph B Clark Regional Park in West Coyote Hills	La Habra Formation (Pleistocene; sandy silt shot through with caliche)	Bison (*Bison*), camel (*Camelops*), horse (*Equus*), mammoth (*Mammuthus*), mastodon (*Mamut*), elephant family (Proboscidea), sea duck (*Chendytes*), dire wolf (*Canis dirus*), Coyote (*C. latrans*), deer (*Odocoileus*), dwarf pronghorn (*Capromeryx*); unidentified artiodactyl	Surface, in creek bed
LACM VP 3347	11204 Bluefield; Whittier	La Habra Formation (lacustrine silt with caliche and plant detritus)	Horse (*Equus*)	2 feet bgs
LACM VP 1652	Rio Vista Avenue south of Lincoln	Alluvium (Pleistocene)	Sheep (*Ovis*)	Unknown (excavations

	Avenue			for housing project)
LACM VP 7657-7659	Ellis Avenue & Patterson Lane, Anaheim	Unknown Formation (Pleistocene; gray siltstone)	School shark (*Galeorhinus*), eagle ray *(Myliobatus*), skate (*Raja*), flatfish (*Citharichthys*), goby (*Lepidogobius, Leptocottus*), midshipmen (*Porichthys*), croaker (*Seriphus*), flatfish (*Citharichthys*), cusk-eel (*Otophidium*), skate (*Raja*), angelshark (*Squatina*), sculpin (*Cottida*e)	150 - 350 ft bgs
LACM VP 7867	former El Toro Marine Base	Unknown formation (Pleistocene)	Rodent (Rodentia)	25 ft bgs

VP, Vertebrate Paleontology; IP, Invertebrate Paleontology; bgs, below ground surface

This records search covers only the records of the Natural History Museum of Los Angeles County ("NHMLA"). It is not intended as a paleontological assessment of the project area for the purposes of CEQA or NEPA. Potentially fossil-bearing units are present in the project area, either at the surface or in the subsurface. As such, NHMLA recommends that a full paleontological assessment of the project area be conducted by a paleontologist meeting Bureau of Land Management or Society of Vertebrate Paleontology standards.

Sincerely,



Alyssa Bell, Ph.D.
Natural History Museum of Los Angeles County

enclosure: invoice

Appendix E

Phase I Environmental Site Assessment

PHASE I ENVIRONMENTAL SITE ASSESSMENT REPORT

Fullerton Transportation Center
120-240 E Santa Fe Ave
Fullerton, Orange County, CA 92832

Prepared For:

PLUMP ENGINEERING, INC.
914 E. Katella Avenue
Anaheim, CA 92805
Phone: 714-385-1835 Ext.209
Cell: 714-852-9991
Fax: 714-385-1834
Email: rfrei@peica.com
www.peica.com

Prepared By:

TERRADYNE, ENGINEERING, INC.
2691 Dow Ave, Suite F
Tustin, CA 92780

Terradyne Project No. L194003 **Revised October 17, 2019**

TERRADYNE
Engineers, Geologists & Environmental Scientists

Terradyne Engineering, Inc.
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Revised October 17, 2019

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Email: rfrei@peica.com
www.peica.com

Attn: **Mr. Richard Frei**
Director of Surveying / Business Development

Subject: **PHASE I ENVIRONMENTAL SITE ASSESSMENT REPORT**
Fullerton Transportation Center - New ground up hotel and parking garage at:
120-240 E Santa Fe Avenue (APN 033-030-14/17/18)
Fullerton, Orange County, CA 92832
Terradyne Project No.: L194003

Dear Mr. Frei,

Terradyne Engineering, Inc. (Terradyne) is pleased to submit the attached report that summarizes the activities and the results of a Phase I Environmental Site Assessment (Phase I ESA) that was conducted at the referenced site (Property).

A summary of the assessment is presented in the Executive Summary of the report. ***Recognized Environmental Conditions were identified during this assessment under the current use.***

We appreciate the opportunity to be of service. Should you have any questions or comments regarding this report, please contact the undersigned at 657-212-5800.

Respectfully Submitted,
TERRADYNE ENGINEERING, INC.

Kurt C. A. Brown, PE (FL)
Branch Manager

Distribution: Addressee PDF

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Executive Summary

On July 3, 2019, Terradyne Engineering, Inc. conducted a Phase I Environmental Site Assessment of 1 parcel of land (033-030-14/17/18) located at 120-240 E. Santa Fe Ave. The parcel is mainly used as a parking area for commuters and travelers taking either the Metrolink or AMTRAK train from Fullerton Station. The property is located on E. Santa Fe Ave. east of Harbor Blvd. and west of Lemon St. This assessment was specifically designed to determine potential environmental liabilities that might be present within the subject property limits of one mile. Upon completing this Phase I Environmental Site Assessment, which was performed in accordance with the American Society for Testing and Materials (ASTM) Standard Practice for Environmental Site Assessments (ASTM designation E 1527-13) and information required by the contracting company, it has been determined that there is the possibility of environmental issues at the site.

The parcel is currently owned by the City of Fullerton and is planned to be developed with a hotel and parking garage on site. The site is part of the Fullerton Transportation Center and is currently used as a parking area for the Fullerton Train Station. The property is bordered to the west by The Old Spaghetti Factory Restaurant located ay 110 E. Santa Fe Ave. The property is bordered to the east by an automotive repair shop, Terry's Automotive, located at 250 E. Santa Fe Ave. The south side of the property contains the train station building and an annex with a café and a couple of retail shops. The north side of the property borders Santa Fe Ave.

Information obtained from Geotracker discloses that there was a leaking underground storage tank on the property at 210 E. Santa Fe Ave. Remediation was performed and the case was closed in 1997. (Appendix A) It was determined that groundwater was not impacted. During a site visit on July 1, 2019; Terradyne personnel noticed that there had been very recent drilling activities on the property, possibly for geotechnical or civil engineering studies. At least 4 soil borings were drilled in the area around the former UST location. It is not clear if there were additional borings on site due to the large amount of cars parked in the area. At this time Terradyne has not seen the test results from the drilling and sampling. Additional testing may be required depending on the results from the laboratory. It is not known who performed the drilling activities.

In addition, due to the former industrial uses of the parcel, and the presence of historical recognized environmental conditions (HRECs) it is recommended that soil borings be drilled at the southern side of the parcel, one near the railroad museum entrance, and one near the train station to verify that the site is not impacted, and if it is, to assist in determining the quantity of soil to be excavated and hauled away during the initial phase of construction.

1.0 Introduction

1.1 Purpose and Scope of Services

The purpose of the Phase I ESA was to identify, to the extent feasible and pursuant to the processes prescribed in ASTM International (ASTM) E1527-13, recognized environmental conditions (RECs), historical RECs (HRECs), or controlled RECs (CRECs) in connection with the subject site.

RECs are defined, according to ASTM E1527-13 as "the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to any release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment.

HRECs are defined, according to ASTM E1527-13 as "*a past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by a regulatory authority, without subjecting the property to any required controls*."

CRECs are defined, according to ASTM E1527-13 as "*a REC resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority, with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls*." *(ASTM E1527-13, 2013).*

The scope of work included the following tasks:

- A reconnaissance-level visit of the subject property for evidence of the release(s) of hazardous materials and petroleum products and to assess the potential for onsite releases of hazardous materials and petroleum products;
- Records review (including review of previous environmental reports, selected governmental databases, and historical review);
- Interviews; and
- Preparation of a report presenting our findings.
- Conclusion;
- Recommendation;

1.2 Non-Scope Considerations

There are a number of non-scope issues, which are sometimes assessed concurrently with a Phase I ESA. Unless specifically agreed in the contract proposal documents, these non-scope considerations are not included as part of the Phase I assessment. Examples of non-scope issues include:

- Asbestos-containing building material
- Lead-based Paint
- Wetlands
- Cultural & Historic Resources
- Industrial Hygiene
- Health & Safety
- Mold
- Radon
- Lead in Drinking Water
- Regulatory Compliance
- Ecological Resources
- Endangered Species
- Indoor Air Quality
- Biological Agents
- Title Search

1.3 Significant Assumptions

No assumptions were made for this assessment that needs to be noted as significant.

1.4 Limitations and Exceptions

There were no deletions, deviations, or limitations from the ASTM standard practice during this assessment.

1.5 Reliance

This report is for the sole benefit and exclusive use of Plump Engineering. Its preparation has been in accordance with generally accepted environmental practices. No other warranty, either expressed or implied, is made. This report should not be regarded as a guarantee that no further contamination beyond that which could be detected within the scope of this assessment is present at the Property.

The conclusions and recommendations presented in this report are based on the agreed upon scope of work. Terradyne makes no warranties or guarantees as to the accuracy or completeness of information provided or compiled by others. It is possible that information exists beyond the scope of this assessment. It is not possible to absolutely confirm that no hazardous materials and/or substances exist at the Property. If none are identified as part of a limited scope of work, such a conclusion should not be construed as a guaranteed absence of such materials, but merely the results of the evaluation. Also, events may occur after the Property visit, which may result in contamination of the Property. Additional information, which was not found or available to Terradyne at the time of report preparation, may result in a modification of the conclusions and recommendations presented. Any reliance on this report by Third Parties shall be at the Third Party's sole risk.

2.0 Property Description

2.1 Current Use(s) of the Property

The property is currently used as a parking area for people travelling or commuting from the Metrolink/AMTRAK station at the southwestern side of the parcel. It has been used as such since approximately 2002.

2.2 Location and Legal Description

The site is located at 120-240 E. Santa Fe Ave in Fullerton, CA. It is bordered on the north by Santa Fe Ave. The east side of the property is bordered by an automotive repair shop (Terry's Automotive). The property is bordered to the south by BNSF railroad right of way and tracking the Fullerton Railroad Museum, and the Fullerton Train Station and annex. To the west of the property there is a restaurant (Old Spaghetti Factory) and a parking area for the restaurant. The area of the parcel slated for development is almost three acres.

The parcel number of the site is (033-030-14/17/18) and the GPS coordinated are 33.8693 N and 117.9208 W. The site is located at an elevation of 163 feet above sea level. Depth to groundwater is approximately 65 feet bgs.

Based on records provided by Environmental Data Resources (EDR) the entire site has been used as a parking area since about 2002. Previously the eastern half of the parcel was used as a light industrial area, and the western half was a parking area for the train station and part of a storage area for lumber, judging from aerial photographs. The adjacent parcels on the north side of the railroad tracks have been used mostly for industrial purposes while the properties on the south side of the railroad tracks are primarily residential.

2.3 Property Characteristics

The subject property is primarily flat with paved asphalt for vehicle parking. There is a cul de sac from Pomona Ave. that roughly splits the parcel and provides entry into the parking areas and exit onto Santa Fe Ave. There is also a drop off are for people riding the train. The westernmost portion of the property contains a bus stop with a roundabout for the busses to return to Santa Fe Ave.

There are buried electrical lines adjacent to the north side of the property. In addition there are some transformers located at the northeast boundary of the site. These appear to be new, suggesting that the utilities in the area were recently upgraded.

2.4 Description of Property Structure(s)

There are several structures on the south side of the parcel. The largest is the Fullerton train station which was built in 1929. The station is located at 120 E. Santa Fe Ave. The Santa Fe Express Café (136 E. Santa Fe Ave.) is in an adjacent building to the east of the station. There is a comic book store located at 140 E. Santa Fe Ave. east of the café. The easternmost structure is part of the Fullerton Train Museum at 200 E. Santa Fe Ave.

The three structures to the east of the train station were all at one time used for freight operations for the Santa Fe Railroad.

3.0 USER PROVIDED INFORMATION

A questionnaire was sent to the City of Fullerton, the property owner. A copy of the questionnaire can be found in Appendix E. There was a site assessment performed in 2007 for this site (Kennedy/Jenks 2007) and the surrounding properties which is referred to by the City of Fullerton respondent and answers the questions in the survey.

3.1 Environmental Liens or Activity and Use Limitations

Actual knowledge of any environmental liens or AULs encumbering the site or in connection with the site was requested from the client. No knowledge of any liens or AULs .

3.2 Specialized Knowledge

Specialized knowledge or experience material to RECs in connection with the site was requested from the client. Client referred to 2007 Kennedy Jenks Phase I ESA.

3.3 Commonly Known or Reasonably Ascertainable Information

Commonly known or reasonably ascertainable information within the local community about the site that is material to RECs in connection with the site was requested from the client.

3.4 Valuation Reduction for Environmental Issues

Actual knowledge of a significantly lower purchase price due to the presence of hazardous substances or petroleum products in connection with the site was requested from the client.

3.5 Obvious Indicators of Contamination at the Site

Information about any obvious indicators that point to the presence or likely presence of contamination at the site was requested from the client. Referred to 2007 site assessment.

3.6 Owner, Property Manager and Occupant Information

The southern portion of the property has been used as a railroad depot since 1923. There is a café on the premises, a comic book store, and the Fullerton Train Museum. The vast majority of the property is a parking area. The property is currently owned by the city of Fullerton.

3.7 Reason for Performing Phase I ESA

Mr. Frei indicated that the Phase I ESA was being conducted for purposes of a real estate transaction. It is required by the Fullerton Transportation Center specific plan, the city's regulatory framework for the property.

4.0 Records Review

4.1 Physical Setting

4.1.1 Geology

Geologic data obtained from previous environmental investigations conducted at the adjacent property by Wayne Perry, Inc. (WPI) indicate that the FTC Development Area is generally underlain with layers of sandy silt, clayey silt, silty clay, fine- to medium-grained silty sand, and sand (WPI, 2004). A discontinuous (Geraghty & Miller, 1992) or continuous (Chester, 1993) clay of variable thickness is encountered between 66 and 75 feet below ground surface (bgs) in this area. Geraghty & Miller reported that perched groundwater beneath the adjacent property is separated from the regional aquifer by a 60-foot thick, relatively impervious, unsaturated zone between 69 and 129 feet bgs (Geraghty & Miller, 1992). It has also been reported that the shallow groundwater beneath the adjacent site is separated from the regional aquifer by a laterally continuous aquiclude (Geraghty & Miller, 1994). However, further studies by Chester Environmental (Chester) conclude that this aquiclude contains several layers of sandy soil (Chester, 1993).

4.1.2 Groundwater

Groundwater was encountered during drilling operations conducted in the northeastern area of the property. The depth to groundwater is approximately 63-65 feet below ground surface. Based on related information, the encountered groundwater appears to have been a perched water table with the main water table substantially deeper (i.e. >100')

4.1.3 Flooding

The subject site is in Zone X (Area of minimal flood hazard). A Letter of Map Revision (LOMR) is FEMA's modification to an effective Flood Insurance Rate Map (FIRM), or Flood Boundary and Floodway Map (FBFM), or both. Because a LOMR officially revises the effective NFIP map, it is a public record that the community must maintain.

The flood map for the selected area is number **06059C0131J**, effective on **12/03/2009.**

Federal Emergency Management (FEMA) Flood Hazard Map is attached in Appendix E.

4.1.4 Potable Water Supplier

Potable water is provided by the City of Fullerton Department of Public Works.

4.2 Historical Review

4.2.1 Aerial Photograph and Map Review

Available historical aerial photographs as described in Table 1 were reviewed. Copies of the Historical Aerial Maps are provided in Appendix C.

Table 1 – Aerial Photograph and Map Review

1927	Aerial Photograph	Lumber operation and mixed light industrial. Rail operations.
1938	Aerial Photograph	Rail operations, lumber operations and mixed industrial. Possibly some residential
1965	Aerial Photograph	Most of property vacant except for on eastern side of property, auto repair and body shops mostly.
1976	Aerial Photograph	Western side of parcel completely vacant except train station. 2 buildings on eastern side used for auto repair businesses
1990	Aerial Photograph	Looks similar to 1976, poor quality photo, can't really make anything out.
2002	Aerial Photograph	The photo from 2002 shows the property almost in its current configuration.

4.2.3 Historical Tenant Report (City Directories)

The purpose of this Historical Research is to establish prior land use by identifying the present and historical occupants (be it the owner or lessee) of the subject site, 120-240 E. Santa Fe Ave. and the neighboring addresses.

Sources for the historical tenant report (City Directories) research includes various city directories, street address directories and criss-cross directories published from 2014 back to 1920. The actual site addresses as well as neighboring addresses on the same block are also investigated for informational purposes, and to cover a potential address change of the subject site.

The three general types of directories researched for the Historical Tenant Report are the 1) city directory, 2) street address directory, and 3) criss-cross directory.

The complete Historical Tenant Report (City Directories) provided by BBL is attached in Appendix C of this report

The directory search shows the site as having multiple tenants and businesses dating back to 1920. There was activity on this parcel going back to the 1880s, when the railroad came through.

4.2.4 Sanborn Map Review

In the late nineteenth century, the Sanborn Company began preparing maps of central business districts for use by fire insurance companies. These maps were updated and expanded geographically periodically through the twentieth century. The Sanborn maps often indicate construction materials of specific building structures and the location of petroleum storage tanks. Sanborn maps of the site and the surrounding areas are included in Appendix C.

4.2.5 Historical Data Gaps

Based on our review of the historical data, the following data gaps were encountered during our research:

- Inconsistant city directories prior to 2005 is a significant data gap
- Poor quality of the aerial photo

4.2.6 Summary of Historical Property Use

The eastern portion of the parcel has been used more extensively than the western portion of the parcel. There was a lumber company and planning mill (Ward Harrington Lumber Co.) from 1920 until about 1960. In addition a railroad spur ran through the parcel, presumably to load finished lumber for shipment. It was visible on maps until the 1960s.

After 1960 the eastern area of the parcel became mostly used for automobile related activities (repair, auto body, paint shops, etc.) There were 2 underground storage tanks installed at 210 E. Santa Fe, possibly for a service station or the lumber company. The site was a LUST site due to the gasoline tank. The LUST case was closed in 1997. A site closure report is presented in Appendix A.

The western portion of the property has historically been used for rail operations since the 1920s. There were passenger and freight terminals as well as parking areas.

The property came into its current configuration around 2002, after demolition of the buildings on the northeast portion of the property.

The former UST site at 210 E. Santa Fe Ave. is the area of most concern. There was a leaking underground storage tank that was removed in 1997. Samples taken after the tank removal showed TPH concentration of 21,000 ppm. 825 tons of soil was removed to a depth of 27 feet bgs.

The closure report states that corrective action should be reviewed if land use changes. However, most of the contamination was removed and the groundwater was not impacted. Natural attenuation should have by now mitigated most of the remaining hydrocarbons.

4.2.7 Summary of Past Uses of Adjoining Properties

The property to the east of the site is an automotive repair shop, Terry's Automotive. The site has been classified as a small waste generator, primarily storing used motor oil and antifreeze in drums. At one time there was a 550 gal. waste oil UST on the site, but it was believed to have been removed in the 1990s.

The property to the south has been railroad tracks since the 1880s.

The property to the west is The Old Spaghetti Factory restaurant and a parking area.

The property to the north is E. Santa Fe Ave.

4.2.8 Summary of Past Uses of the Surrounding Area

The surrounding area has been developed for well over 100 years. It has historically been mixed residential, commercial and industrial uses.

4.3 Results of Environmental Records Sources Review

A EDR report of Standard Environmental Record Sources (Records) database report was prepared specifically for the Property. The search included queries to the following databases for cases within specified ASTM search distances. A copy of the EDR database reports are provided in Appendix D of this report.

4.3.1 Property Listings

The Property was identified as part of the Fullerton Transportation Center or sometimes Fullerton Depot in some of the databases of the EDR report and radius map.

4.3.2 Other Off-site Locations of Concern

Other off-site locations of concern identified by EDR within a maximum one-mile radius from the Property included RCRA COR ACT, State/Tribal CERCLIS, State/Tribal SWL, State/Tribal LTANKS, State/Tribal VCP and Other sites.

There are many sites within a one mile radius of the subject property due to the fact that this area was one of the first cities in Orange County. A complete listing of locations of concern is presented in the radius map (Appendix B)

4.3.3 Orphan Listings

There are 28 sites that due to incomplete listings are not included in the EDR radius map.

5.0 Property Reconnaissance

5.1 Methodology

A representative of Terradyne visited the Property to determine present use and to identify environmental conditions at the Property. Our methodology involved walking the perimeters and centerlines of the Property while noting observed evidence of present and potential environmental concerns.

Pertinent Property photographs taken during our site visit are provided in Appendix A of this report.

5.2 Limiting Conditions

Teradyne's findings are based on the Property conditions.

5.3 Observations of Property

During our Property visit, Terradyne made the following observations of the Property:

Table 2 – Observations of Property

Item or Condition	Observed Evidence	No Evidence Observed	Comments
Hazardous Substances & Petroleum Products:		X	
Storage Tanks & Related Equipment:	X		Former UST area visible on east side of parking area approx 100 ft west of property line.
Odors:		X	
Standing Surface Water or Other Pools of Liquid:		X	
Drums & Other Containers of Hazardous Substances, Petroleum Products, or Other Unidentified Contents:		X	
Transformers or Equipment containing Polychlorinated Biphenyls (PCBs):		X	New equipment no PCBs.
Pits, Ponds, or Lagoons:		X	
Stained Soil or Pavement:		X	
Stressed Vegetation (other		X	

Table 2 – Observations of Property

Item or Condition	Observed Evidence	No Evidence Observed	Comments
than from insufficient water):			
Evidence of Mounds, Depressions or Filled or Graded Areas Suggesting Trash or Other Solid Waste Disposal:		X	
Waste Water or any discharge (including storm water) into a Drain, Ditch, or Stream on or Adjacent to the Property:		X	
Wells (active, inactive, or abandoned):	X		Fresh soil borings detected in eastern portion of parking area near former UST area
Septic Systems or Cesspools:		X	
Prior Structures:		X	
Roads, Tracks, Railroad Tracks or Spurs:		X	.

5.4 Current Uses of Adjoining Properties

Based on our research and observations during our Property visit, the property to the west of the site is The Old Spaghetti Factory restaurant. The property to the south is a railroad right of way with 4 sets of tracks. The east side of the property is bordered by Terry's Automotive. The north side of the property is bordered by Sante Fe Ave.

6.0 Interviews

Terradyne requested the owner or owner's representative if they had any available documents that would be helpful.

6.1 Property Owner/Occupant

The City of Fullerton is the current owner of the subject property. A questionnaire was sent out to the city in regards to the property. Please see Appendix E.

However, the main concern is with the property next door to the west which was formerly a LUST site now closed.

Terradyne was unable to interview anyone at the City of Fullerton. The lack of an interview with the owner of the property represents a limitation to this ESA but does not alter the findings of this report. If additional information is forthcoming, it will be submitted as an addendum to this report.

6.2 Tenant/Occupant

Terradyne did not interview the tenant of the property due to the fact that most of the site is a parking area and the tenants wouldn't have knowledge of issues on the other side of the parcel.

Surrounding Properties

Terradyne did not interview anyone from any of the surrounding properties as there is nothing from those properties that would impact the parcel.

7.0 Findings

A cursory summary of findings is provided below. However, details were not included or fully developed in this section, and the report must be read in its entirety for a comprehensive understanding of the items contained herein.

The parcel has been used for many different light industrial uses in the last 100 years; it is possible that limited pockets of contamination may be discovered during site development activities. However, most of the land has been used as a parking area for many years and hydrocarbons and solvents naturally degrade over time.

The main concern is the former LUST site at the 210 E Santa Fe Av. portion of the property. Although the site was closed in 1997, hydrocarbon levels were high enough (21,000 ppm or 2.1%) that migration could have occurred. The tanks were about 100 feet from the east edge of the property line. Since soil borings were drilled in the last couple of months, it will be interesting to see the lab results from the soil samples. The lab results will determine whether more exploratory borings will be needed in order to delineate the LUST site.

8.0 Conclusions and Recommendations

Terradyne has performed a Phase I Environmental Site Assessment in general conformance with the scope and limitations of ASTM Practice E1527-13. Any exceptions to or deletions from this practice are described in the Limitations and Exceptions of Assessment section of this report.

Terradyne recommends that a limited Phase II Study be undertaken to verify that there is no contamination on the south side of the property near the railroad right of way.

A soil boring should be drilled in front of the Fullerton Railroad Museum at the southern portion of the property to a depth of 40 feet taking samples from 5-40 feet every 5 feet. A PID shall be used to screen the samples. If hydrocarbons are detected at 40 feet, drilling shall continue to 60 feet. Samples will be analyzed using EPA Method 8015/8020 and Method 8260 (BTEX) In addition another boring should be drilled near the southwest portion of the property, near the former freight area of the train depot. Samples will be taken from 5 feet to 30 feet, sampling every 5 feet, also using 8015/8020 and 8260. If the PID readings are non detect at 30 feet, drilling shall stop there.

The laboratory results from the drilling activities at the former LUST location (210 E Santa Fe) should be reviewed as well. If the results come back non detect, the LUST site does not need to be reopened.

9.0 Deviations and Limitations

There were no deviations, deletions or limitations from the ASTM standard practice during this assessment.

10.0 Additional Non-Scope Services

There are environmental issues outside the scope of the ASTM E1527-13 that can be assessed in connection with a commercial real estate transaction. These are dealt with as non-scope considerations since they do not typically present a Superfund Liability. The specific level of inquiry (if any) is defined in the Proposal which contains a Scope of Work. These non-scope services are very client specific and not covered by the ASTM standard. They are frequently related to the business environmental risk which is defined in the standard as "risk which can have a material environmental or environmentally-driven impact on the business associated with the current or planned use of a parcel of commercial real estate"

11.0 Signature of Environmental Professional

I declare that, to the best of our professional knowledge and belief, I meet the definition of *Environmental Professional* as defined in §312.10 of 40 CFR 312.

I have the specific qualifications based on education, training and experience to assess a *property* of the nature, history, and setting of the *subject property*. I have developed and performed the all appropriate inquiries in conformance with the standard and practices set forth in 40 CFR Part 312.

John L. Dentzer
Environmental Professional
Senior Engineer

12.0 Selected References

Environmental Data Resources., Inc. (EDR), Inquiry Number: 5652379.2s May 14, 2019
Target Property Address: 120 E Santa Fe Avenue Fullerton, CA 92832

Phase I Environmental Site Assessment (ESA) by Kennedy /Jenks Consultants
dated July 24, 2009, K/J Project No. 0783022

Department of Toxicology
Johnson, Julie@DTSC Julie.Johnson@dtsc.ca.gov

City of Fullerton - Egli, Ryan@CalRecycle Ryan.Egli@calrecycle.ca.gov
Ramona Castaneda ramonac@ci.fullerton.ca.us

County of Orange
noreply@salesforce.com on behalf of myOC eServices Email noreply-myoceservices@ocgov.com
Wed 5/15/2019 3:51 PM

County of Orange, Service Request Tracking Information, Service Request Case Number: OC19-019978
The service request case number can be used to track the status on myOC eServices
(https://myoceservices.ocgov.com)

Environmental Protection Agency (EPA) Final Disposition, Request EPA-HQ-2019-005879
foia_hq@epa.gov

Cal Recycle
Egli, Ryan@CalRecycle Ryan.Egli@calrecycle.ca.gov

California Department of Fish and Wildlife South Coast – Region 5
Wildlife Ask R5 AskR5@wildlife.ca.gov Wed 5/15/2019 3:37 PM

Regional EPA office for assistance http://www2.epa.gov/aboutepa/forms/contact-epa pacific-southwest,

California Environmental Protection Agency (CalEPA)
https://calepa.ca.gov/

State Water Resources Control Board, Storm Water Section Division of Water Quality
WB-RB8-FileReview8 FileReview8@waterboards.ca.gov

stormwater@waterboards.ca.gov 1-866-563-3107

State of California Water Board GEOTRACKER
http://geotracker.waterboards.ca.gov/map

California Geological Survey (CGS)
https://maps.conservation.ca.gov/cgs/EQZApp/app

Google Earth Pro®, 2019, Version 7.3.1.4507.

210 E. Santa Fe Closure Report

Appendix A

Terradyne Project No. L194003

Radius Map Findings
120-210 E. Santa Fe Ave.

Appendix B

Terradyne Project No. L194003

Historic Aerial Maps
Sanborn Maps

Appendix C

Terradyne Project No. L194003

Environmental Records Search

Appendix D

Terradyne Project No. L194003

- **FEMA Flood Map**
- **User Questionnaire**

Appendix E

STATE OF CALIFORNIA—CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY PETE WILSON, Governor

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SANTA ANA REGION
3737 MAIN STREET, SUITE 500
RIVERSIDE, CA 92501-3339
PHONE: (909) 782-4130
FAX: (909) 781-6288

F

September 9, 1997

Mr. Mehrdad Miralaie
City of Fullerton Engineering Department
303 W. Commonwealth Avenue
Fullerton, California 92632-1775

Fullerton, City of
" Autobody

SUBJECT: NO FURTHER ACTION PERTAINING TO THE FORMER UNDERGROUND STORAGE TANKS FULLERTON TRANSPORTATION CENTER 150-210 E. SANTA FE AVENUE FULLERTON, CALIFORNIA REGIONAL BOARD CASE NO. 083003030T

Dear Mr. Miralaie :

The site was previously occupied with numerous automobile repair, body, and paint shops. Two underground storage tanks (USTs) were previously located at the site and were removed in June, 1997. It is our understanding that the all the buildings have been removed from the site, and the site is proposed to be a parking lot for the Metrolink.

This no further action letter pertains only to the USTs formerly located at the site. This letter does not address the remainder of the site. If contamination is encountered during construction activities associated with this property, we must be notified immediately to determine if further investigation will be required at that time.

This letter confirms the completion of site investigation and remedial action for the underground storage tanks formerly located at the above described location. Enclosed is the Case Closure Summary for the referenced site for your records.

Based upon the available information, including current land use, and with the provisions that the information provided to this agency was accurate and representative of site conditions, no further action related to the underground storage tank gasoline release is required. This notice is issued pursuant to a regulation contained in Title 23, California Code of Regulations, Division 3, Chapter 16, Section 2721(e).

The monitoring well located at the site is required to be properly abandoned in accordance with the California Well Standards. In addition, all necessary permits from the appropriate agencies (i.e., Orange County Health Care Agency) are required to be obtained prior to decommissioning the well. After the well has been properly abandoned, please submit all documentation to this agency. Once we have received this information, we will update our records to identify this site as inactive.

Please contact Leslie J. Alford of our office at (909) 782-4903 if you have any questions regarding this matter.

Sincerely,

Gerard J. Thibeault
Executive Officer

Enclosure: Case Closure Summary

cc: Steve Long - Fullerton Fire Department
John Gery - Edge Environmental
Nancy Camacho - State Water Resources Control Board, Cleanup Fund
Mr. Chris Johansen - City of Fullerton

lja\d:\.. \full2 cls

CASE CLOSURE SUMMARY

I. AGENCY INFORMATION

Date: August 27, 1997

Agency Name: California Regional Water Quality Control Board, Santa Ana Region	Address: 3737 Main Street, Suite 500
city/state/zip: Riverside, CA 92501-3339	Phone: (909) 782-4903 or (909)-782-4130
Staff: Leslie J. Alford	Title: Associate Engineering Geologist

II. CASE INFORMATION

Site Name:	Fullerton Transportation Center
Location:	150-210 Santa Fe Avenue, Fullerton, Orange County, California
RB Case #	083003030T
Local Agency Case #	N/A

Responsible Parties	Address	Phone Number
City of Fullerton Fire Department - Mr. Chris Johansen	303 W. Commonwealth Ave. Fullerton, California 92632	(714) - 738-6870

Tank No.	Size in Gallons	Contents	Closed in-place Removed?	Date
1	500	waste oil (gasoline?)	removed	6/18/97
2	5,000	gasoline	removed	6/18/97

III. RELEASE AND SITE CHARACTERIZATION INFORMATION

Cause & type of release: underground tanks	
Site characterization complete:YES [x] NO	Closure report dated: August 22, 1997
Monitoring Wells installed: YES [x] NO [ ]	Proper screened interval: YES [x] NO [ ] NA [ ]
Highest depth: 62 feet	Lowest depth: 62 feet
Flow Direction: assumed to be southerly	
Most sensitive current groundwater use: Municipal	
Groundwater Sub-Basin: Santa Ana Forebay	Reports(s) filed: California Regional Water Quality Control Board 3737 Main Street, Suite 500 Riverside, CA 92501-3339
Report(s) on file? yes	Fullerton Fire Department 312 East Commonwealth Fullerton, CA 92632

TREATMENT AND DISPOSAL OF AFFECTED MATERIAL

MATERIAL	AMOUNT	ACTION TREATMENT OR DISPOSAL W/DESTINATION	DATE
tanks (steel)		Adams Steel - Anaheim	6/18/97
SOIL	825.4 tons	Landmark Material - Irwindale	6/20/97 & 6/23/97

III. RELEASE AND SITE CHARACTERIZATION INFORMATION(CONT.)

MAXIMUM DOCUMENTED CONTAMINANT CONCENTRATIONS - BEFORE & AFTER CLEANUP

CONTAMINANT	SOIL (mg/kg) Before	After	WATER (µg/l) Before	After
Total Petroleum Hydrocarbons - gasoline	21,581	12.0	ND	ND
Benzene	87.7	1.235	ND	ND
Toluene	1,046	0.669	ND	ND
Ethylbenzene	297	0.034	ND	ND
Total Xylenes	586.6	0.510	ND	ND
Methyl Tertiary Butyl Ether	0.01	0.01	ND	ND

* One soil sample and the groundwater sample was analyzed by EPA Method 8260. With the exception of benzene and toluene, all the other constituents were non-detected.

IV. CLOSURE

Does completed corrective action protect beneficial uses per the regional board basin plan?
YES [x] NO [ ]

Does the corrective action protect public health for current land use? YES [x] NO [ ]

SITE MANAGEMENT REQUIREMENTS
Should corrective action be reviewed if land use changes?
YES [x] NO [ ]

Monitoring or vapor wells decommissioned: YES [ ] NO [x] N/A [ ]
Number decommissioned: none
The monitoring well located at the site is required to be properly abandoned in accordance with the California Well Standards. In addition, all necessary permits from the appropriate agencies are required to be obtained prior to decommissioning the monitoring wells. After the monitoring well has been properly abandoned, please submit all documentation to this agency. Once we have received this information, we will update our records to identify this site as inactive.

List of enforcement actions taken: none
List enforcement action rescinded: none

VII. ADDITIONAL COMMENTS, DATA, ETC.

Two underground storage tanks (UST) were removed from the site (5,000 and 500 gallons). Soil contamination was encountered and was subsequently excavated to depths of approximately 28 feet below ground surface. A remedial action plan was not submitted to this agency for our approval prior to conducting the excavation. Contamination was detected at 27 feet. The full extent of contamination was not fully defined. Therefore, we requested that further investigation be conducted to define the vertically extent of contamination. A boring was drilled and groundwater was encountered at approximately 62 feet below ground surface. Soil and groundwater samples were obtained. Analytical results of the soil samples collected from 30 to 65 feet were low levels of TPH and benzene (15 mg/kg of TPH and 1.1 mg/kg of benzene). The groundwater samples collected were non-detected. No further action is recommended for the following reasons:

- The soil contamination remaining beneath the former USTs appears to be localized.
- The amount of soil contamination remaining at the site appears to be of low volume.
- There is a minimum of 20 feet of non-detected soil below the last detectable concentration of contamination.
- The soil contamination beneath the former USTs appear to pose a minimal threat to water quality.

VIII. RWQCB AGENCY RESPONSE

Name: Kenneth R. Williams - Senior Engineering Geologist	Response: Concurs w/ Closure
Signature: Kenneth R Williams	Date: 9-9-97

Terry's Auto Fire
Inspection 8-15-01
Radius Map Findings
250 E. Santa Fe Ave.

Appendix B

Terradyne Project No. L194003

CITY OF FULLERTON FIRE DEPARTMENT

312 East Commonwealth Ave., Fullerton, Calif. 92632 — Phone (714) 738-6500

EMERGENCY DIAL 911

NUMBER	FRAC.	DIR	STREET	UNIT NO.
250		E	Santa Fe Ave	

BUSINESS NAME: Terry's Automotive — FILE — BUSINESS TELEPHONE: 526-4627

MAILING ADDRESS - NAME | NUMBER, STREET | STATE, ZIP

CONTACT 1: Matt Seltzer — PHONE: [redacted]

CONTACT 2 — PHONE

OCC CODE	KNOX-BOX	EXT. SYSTEM	DETECTORS	PERMITS	EXPIRATION DATE	GRID	INSP GROUP	INSP FREQ	FIRST-IN COMPANY
						1124			

ACTIVITY DATE	ACTIVITY CODE	INSP COMPANY	EMPLOYEE NO.	INSPECTION TIME	TOTAL TIME
6/4/01	DOS	FP2	322		

COMMENTS

1cd - Complete Hazardous Material Disclosure Packet - Waste oil, motor oil & waste coolant, O_2, CO^2, — Due/Aug 16 (Aug)

4cd 8/10/01 = Complete Statement of Intended Use
- UFC Permits - welding # 5166
- Repair Garage — 5140
- AST - 5135

8/15/01 Issued
- Permit #5166
#5140
#5134

8/15/01 All items corrected - Calle

AN INSPECTION OF YOUR FACILITY REVEALED THE FOLLOWING VIOLATIONS: _____

ORDER TO COMPLY: As such conditions are contrary to law, you are required to correct them immediately upon receipt of this Notice. An inspection to determine whether or not you have complied with this Notice will be conducted on June 18, 01. Failure to comply with the foregoing Notice before the reinspection date will render you liable to the penalties provided by law for such violations.

Corri Calle — Inspector

X — Occupant

- [x] First Inspection
- [ ] Final Inspection
- [ ] Issue Citation

FIRE DEPT. COPY

Fullerton Fire Department
FIRE CODE PERMIT

312 E. Commonwealth Ave, Fullerton, CA 92832-2900
(714) 738-6500

Terry's Automotive
250 E Sante Fe
Fullerton, CA
526-4627

As required by Article 1 Section 105 of the 1998 California Fire Code, and Fullerton Municipal Code Chapter 13.20, the following materials, processes or operations are permitted:

Fire Code Permit – BR

	Permit No.	*Permit Description*	*Issued*	*Expires*
1.	5034 Fee: $72.00	Store/ Handle Class II or III Combustible liquid greater than 25 gal	08/01	8/2002

This permit is issued pursuant to the requirements and conditions as set forth in the California Fire Code and other City, State and Federal Statutes and nationally recognized standards. Final approval and continuing effort of this permits are subject to compliance with Fullerton Fire Department Rules and Regulation and field inspection.

This permit is subject to revocation for proper cause or when necessary for public safety.

Non-compliance with any provision stipulated herein constitutes a violation of the above code.

This permit does not take the place of any license required by law and is not transferable.

This permit is only valid upon receipt of payment and when signed by Fullerton Fire Department Fire Marshal or authorized designee.

Fire Marshal Corrie Allen _____
(or authorized designee) *Inspector Corrie Allen* *Date*
Permit Received by Mary Sch _____ *Date:* 8-15-01

Permit Fee(s) $_____ To be billed: ✓ Payment Received: _____
(check #, cash) Initials

POST IN A CONSPICOUS PLACE

Fullerton Fire Department
FIRE CODE PERMIT

312 E. Commonwealth Ave, Fullerton, CA 92832-2900
(714) 738-6500

Terry's Automotive
250 E Sante Fee
Fullerton, CA
526-4627

As required by Article 1 Section 105 of the 1998 California Fire Code, and Fullerton Municipal Code Chapter 13.20, the following materials, processes or operations are permitted:

Fire Code Permit – BR

	Permit No.	*Permit Description*	*Issued*	*Expires*
1.	5140 Fee: $128	Repair Garage	8/01	08/2002

This permit is issued pursuant to the requirements and conditions as set forth in the California Fire Code and other City, State and Federal Statutes and nationally recognized standards. Final approval and continuing effort of this permits are subject to compliance with Fullerton Fire Department Rules and Regulation and field inspection.

This permit is subject to revocation for proper cause or when necessary for public safety.

Non-compliance with any provision stipulated herein constitutes a violation of the above code.

This permit does not take the place of any license required by law and is not transferable.

This permit is only valid upon receipt of payment and when signed by Fullerton Fire Department Fire Marshal or authorized designee.

Fire Marshal Corrie Allen Aug 15, 01
(or authorized designee) Inspector Corrie Allen *Date*
Permit Received by Mara *Date:* 8-15-01

Permit Fee(s) $_____ To be billed: ✓ Payment Received: _____
(check #, cash) Initials

POST IN A CONSPICOUS PLACE

Fullerton Fire Department

FIRE CODE PERMIT

312 E. Commonwealth Ave, Fullerton, CA 92832-2900
(714) 738-6500

Terry's Automotive
250 E Sante Fe
Fullerton, CA
526-4627

As required by Article 1 Section 105 of the 1998 California Fire Code, and Fullerton Municipal Code Chapter 13.20, the following materials, processes or operations are permitted:

Fire Code Permit – BR

	Permit No.	*Permit Description*	*Issued*	*Expires*
1.	5166 Fee: $55.00	Welding-Hot work	08/01	8/2002

This permit is issued pursuant to the requirements and conditions as set forth in the California Fire Code and other City, State and Federal Statutes and nationally recognized standards. Final approval and continuing effort of this permits are subject to compliance with Fullerton Fire Department Rules and Regulation and field inspection.

This permit is subject to revocation for proper cause or when necessary for public safety.

Non-compliance with any provision stipulated herein constitutes a violation of the above code.

This permit does not take the place of any license required by law and is not transferable.

This permit is only valid upon receipt of payment and when signed by Fullerton Fire Department Fire Marshal or authorized designee.

Fire Marshal Corrie Allen — Aug 15, 01
(or authorized designee) Inspector Corrie Allen — *Date*
Permit Received by Matt Sale — *Date:* 8-15-01

Permit Fee(s) $_____ To be billed: ✓ Payment Received: _____
(check #, cash) Initials

POST IN A CONSPICOUS PLACE

UNIFIED PROGRAM CONSOLIDATED FORM — FACILITY INFORMATION

FULLERTON FIRE DEPARTMENT

312 E. Commonwealth Ave, Fullerton, CA 92832 714/738-6500

BUSINESS ACTIVITIES

I. FACILITY IDENTIFICATION

FACILITY ID #	1	EPA ID # (Hazardous Waste Only)	2

BUSINESS NAME (Same as Facility Name of DBA-Doing Business As)	BUSINESS ADDRESS	3
Tommys Automotive	**** 250 E Santa Fe	

II. ACTIVITIES DECLARATION

NOTE: If you check YES to any part of this list, please submit the Business Owner/Operator Identification page (OES Form 2730).

Does your facility...		If Yes, please complete these pages of the UPCF....
A. HAZARDOUS MATERIALS		
Have on site (for any purpose) hazardous materials at or above 55 gallons for liquids, 500 pounds for solids, or 200 cubic feet for compressed gases (include liquids in ASTs and USTs); or the applicable Federal threshold quantity for an extremely hazardous substance specified in 40 CFR Part 355, Appendix A or B; or handle radiological materials in quantities for which an emergency plan is required pursuant to 10 CFR Parts 30, 40 or 70?	☑ YES ☐ NO 4	HAZARDOUS MATERIALS INVENTORY - CHEMICAL DESCRIPTION (OES 2731)
B. UNDERGROUND STORAGE TANKS (USTs)		
1. Own or operate underground storage tanks?	☐ YES ☑ NO 5	UST FACILITY (Formerly SWRCB Form A) UST TANK (one page per tank) (Formerly Form B)
2. Intend to upgrade existing or install new USTs?	☐ YES ☑ NO 6	UST FACILITY UST TANK (one per tank) UST INSTALLATION - CERTIFICATE OF COMPLIANCE (one page per tank) (Formerly Form C)
3. Need to report closing a UST?	☐ YES ☑ NO 7	UST TANK (closure portion -one page per tank)
C. ABOVE GROUND PETROLEUM STORAGE TANKS (ASTs)		
Own or operate ASTs above these thresholds: ---any tank capacity is greater than 660 gallons, or ---the total capacity for the facility is greater than 1,320 gallons?	☐ YES ☑ NO 8	NO FORM REQUIRED TO CUPAs
D. HAZARDOUS WASTE		
1. Generate hazardous waste?	☑ YES ☐ NO 9	EPA ID NUMBER - provide at the top of this page
2. Recycle more than 100 kg/month of excluded or exempted recyclable materials (per HSC 25143.2)?	☐ YES ☑ NO 10	RECYCLABLE MATERIALS REPORT (one per recycler)
3. Treat hazardous waste on site?	☐ YES ☑ NO 11	ONSITE HAZARDOUS WASTE TREATMENT - FACILITY (Formerly DTSC Forms 1772) ONSITE HAZARDOUS WASTE TREATMENT - UNIT (one page per unit) (Formerly DTSC Forms 1772 A,B,C,D and L)
4. Treatment subject to financial assurance requirements (for Permit by Rule and Conditional Authorization)?	☐ YES ☑ NO 12	CERTIFICATION OF FINANCIAL ASSURANCE (Formerly DTSC Form 1232)
5. Consolidate hazardous waste generated at a remote site?	☐ YES ☑ NO 13	REMOTE WASTE / CONSOLIDATION SITE ANNUAL NOTIFICATION (Formerly DTSC Form 1196)
6. Need to report the closure/removal of a tank that was classified as hazardous waste and cleaned onsite?	☐ YES ☑ NO 14	HAZARDOUS WASTE TANK CLOSURE CERTIFICATION (Formerly DTSC Form 1249)

E. LOCAL REQUIREMENTS 15

Does your facility have a City of Fullerton Business License? ☐No ☑Yes Number _____

Does your facility have any Fullerton Fire Department permits? ☐No ☐Yes BR#_____

List name of Fire Code permits_____

Please describe the main operation of your business: Auto Repair Hours of operation 7-5 Number of Employees 6

CITY OF FULLERTON FIRE DEPARTMENT

312 E. Commonwealth Ave, Fullerton, CA 92832
714/738-6500 FAX 714/738-3392

Business Emergency Plan

PART III - BUSINESS EMERGENCY PLAN (BEP)

Please read instructions (on green page 6) prior to completing the Business Emergency Plan.

This form shall be typed or printed legibly in ink. (Pencil is not accepted)

Keep a copy for your records and return the completed original forms, with **Parts I** and **II** to:

Fullerton Fire Department
Community Safety and Services Division
312 E. Commonwealth Ave
Fullerton, CA 92832-2099

Mark the correct box:

- ☑ This is the first time I have filed a BEP
- ☐ A BEP is required to be reviewed every three years. I am submitting my BEP to meet this requirement.
- ☐ There have been changes in my business operation and/or personnel and I am submitting a new BEP with the correct information.

Business Name: Terry's Automotive		
Address: 250 E Santa Fe		
Business Owner: Terry Thompson		
I certify under penalty of law that I have personally examined and familiar with the information submitted and believe the submitted information is true, and complete.		
Print name of Owner/Operator: Terry Thompson	Signature: [signature]	Date: 9-10-04
Business Plan Prepared By: Matt Sultzen	Signature: [signature]	Date: 9-10-04

OFFICIAL USE ONLY:	BR Number:
Date Received	*Reviewed by:*
Correction Required:	

b. Mitigation (reduce the hazard) -- Describe what is done to lesson the harm or the damage to person(s), property, or the environment, and prevent what has occurred from getting worse or spreading. What is your immediate response to a spill, fire explosion, or airborne release at your business?

We have kitty litter on site to absorb oil

c. Abatement (remove the hazard)- Describe what you would do to stop and remove the hazard. How do you handle the complete process of stopping a release, cleaning up, and disposing of released materials at your facility? What aspects of the response are beyond your ability, and need to be handled by others?

To stop the Hazard we absorb it the oil absorbent and dispose of it accordingly.

d. Describe how you will immediately notify and evacuate your facility. What communications or alarms are used? How will you operate during power failure? Also specify emergency exits, alternatives, and staging area.

We are small enough to tell everyone to get out. We have a generator for Power Failure

UNIFIED PROGRAM CONSOLIDATED FORM

CITY OF FULLERTON FIRE DEPARTMENT

312 E. Commonwealth Ave, Fullerton, CA 92832

714/738-6500 FAX 738-3392

FACILITY INFORMATION

BUSINESS OWNER/OPERATOR IDENTIFICATION

I. FACILITY IDENTIFICATION

FACILITY ID	BEGINNING DATE 100	ENDING DATE 101

BUSINESS NAME (Same as FACILITY NAME or DBA – Doing Business As) 3: Terry Automotive

BUSINESS PHONE 102: 714 526 4627

BUSINESS SITE ADDRESS 103: 250 E Santa Fe

CITY 104: Fullerton | CA | ZIP CODE 105: 92832

DUN & BRADSTREET 106

SIC CODE (4 digit #) 107

COUNTY 108: Orange

BUSINESS OPERATOR NAME 109: Terry Thompson

BUSINESS OPERATOR PHONE 110: 714 812-6730

II. BUSINESS OWNER

OWNER NAME 111: Terry Thompson

OWNER PHONE 112: 714 812 6730

OWNER MAILING ADDRESS 113: 250 E Santa Fe

CITY 114: Fullerton | STATE 115: CA | ZIP CODE 116: 92831

III. ENVIRONMENTAL CONTACT

CONTACT NAME 117: Same as above

CONTACT PHONE 118

CONTACT MAILING ADDRESS 119

CITY 120 | STATE 121 | ZIP CODE 122

IV. EMERGENCY CONTACTS

PRIMARY		SECONDARY	
NAME	Terry Thompson 123	NAME	Matt Seltzer 128
TITLE	Owner 124	TITLE	Manager 129
BUSINESS PHONE	526-4627 125	BUSINESS PHONE	526-4627 130
24-HOUR PHONE	[redacted] 126	24-HOUR PHONE	[redacted] 131
PAGER #	SAME 127	PAGER #	SAME 132

ADDITIONAL LOCALLY COLLECTED INFORMATION 133

Indicate the **Billing** Address by checking one:

☐ Facility Address ☐ Business Owner Address ☐ Environmental Contact Address ☐ Other:

Billing Address: _____

Certification: Based on my inquiry of those individuals responsible for obtaining the information, I certify under penalty of law that I have personally examined and am familiar with the information submitted and believe the information is true, accurate, and complete.

SIGNATURE OF OWNER/OPERATOR OR DESIGNATED REPRESENTATIVE	DATE 134: 8-15	NAME OF DOCUMENT PREPARER 135
NAME OF SIGNER (print) 136: Matthew Seltzer	TITLE OF SIGNER 137	

UNIFIED PROGRAM CONSOLIDATED FORM

CITY OF FULLERTON FIRE DEPARTMENT

312 E. Commonwealth Ave., Fullerton, CA 92832

714/738-6500 FAX 714/738-3392

CHEMICAL DESCRIPTION - One Page Per Material Per Building or Area

HAZARDOUS MATERIALS INVENTORY

☐ ADD ☐ DELETE ☐ REVISE 200 Date: 6-10-01 Page __ of __

I. FACILITY INFORMATION

BUSINESS NAME (Same as FACILITY NAME or DBA - Doing Business As) 3
Terry's Automotive

CHEMICAL LOCATION 201
[redacted]

CHEMICAL LOCATION CONFIDENTIAL - EPCRA ☐ Yes ☐ No 202

ACCESS KEY | MAP # 203 | GRID # 204

II. CHEMICAL INFORMATION

CHEMICAL NAME 205
Citco

TRADE SECRET ☐ Yes ☒ No 206
If Subject to EPCRA, refer to instructions

COMMON NAME Motor oil 207

EHS* ☐ Yes ☐ No 208

CAS # 64742-65-0 209

*If EHS = Yes, all amounts below must be in lbs.

FIRE CODE HAZARD CLASSES (Complete if required by CUPA) 210

HAZARDOUS MATERIAL TYPE (Check one item only) ☒ a. PURE ☐ b. MIXTURE ☐ c. WASTE 211

RADIOACTIVE ☐ Yes ☒ No 212

CURIES 213

PHYSICAL STATE (Check one item only) ☐ a. SOLID ☒ b. LIQUID ☐ c. GAS 214

LARGEST CONTAINER 55 Gal 215

FED HAZARD CATEGORIES (Check all that apply) ☐ a. FIRE ☐ b. REACTIVE ☐ c. PRESSURE RELEASE ☐ d. ACUTE HEALTH ☐ e. CHRONIC HEALTH 216

AVERAGE DAILY AMOUNT	MAXIMUM DAILY AMOUNT	ANNUAL WASTE AMOUNT	STATE WASTE CODE
200 217	10 218	219	220

UNITS* (Check one item only) ☒ a. GALLONS ☐ b. CUBIC FEET ☐ c. POUNDS ☐ d. TONS 221
* If EHS, amount must be in pounds.

DAYS ON SITE 222

STORAGE CONTAINER (Check all that apply)
☒ a. ABOVEGROUND TANK ☐ b. UNDERGROUND TANK ☐ c. TANK INSIDE BUILDING ☒ d. STEEL DRUM ☐ e. PLASTIC/NONMETALLIC DRUM ☐ f. CAN ☐ g. CARBOY ☐ h. SILO ☐ i. FIBER DRUM ☐ j. BAG ☐ k. BOX ☐ l. CYLINDER ☐ m. GLASS BOTTLE ☐ n. PLASTIC BOTTLE ☐ o. TOTE BIN ☐ p. TANK WAGON ☐ q. RAIL CAR ☐ r. OTHER 223

STORAGE PRESSURE ☐ a. AMBIENT ☐ b. ABOVE AMBIENT ☐ c. BELOW AMBIENT 224

STORAGE TEMPERATURE ☐ a. AMBIENT ☐ b. ABOVE AMBIENT ☐ c. BELOW AMBIENT ☐ d. CRYOGENIC 225

III. HAZARDOUS COMPONENTS

UNIT	HAZARDOUS COMPONENT	EHS	CAS #
1 226	227	☐ Yes ☐ No 228	229
2 230	231	☐ Yes ☐ No 232	233
3 234	235	☐ Yes ☐ No 236	237
4 238	239	☐ Yes ☐ No 240	241
5 242	243	☐ Yes ☐ No 244	245

If more hazardous components are present at greater than 1% by weight if non-carcinogenic, or 0.1% by weight if carcinogenic, attach additional sheets of paper capturing the required information.

If EPCRA, Please Sign Here 246

UNIFIED PROGRAM CONSOLIDATED FORM

CITY OF FULLERTON FIRE DEPARTMENT

312 E. Commonwealth Ave., Fullerton, CA 92832

714/738-6500 FAX 714/738-3392

CHEMICAL DESCRIPTION - One Page Per Material Per Building or Area

HAZARDOUS MATERIALS INVENTORY

☐ ADD ☐ DELETE ☐ REVISE 200 Date: Page ___ of ___

I. FACILITY INFORMATION

BUSINESS NAME (Same as FACILITY NAME or DBA - Doing Business As) 3

Terry Automotive

CHEMICAL LOCATION 201 CHEMICAL LOCATION CONFIDENTIAL - EPCRA ☐ Yes ☐ No 202

FACILITY ID # 1 MAP # 203 GRID # 204

II. CHEMICAL INFORMATION

CHEMICAL NAME Waste oil 205 TRADE SECRET ☐ Yes ☐ No 206

If Subject to EPCRA, refer to instructions

COMMON NAME 207 EHS* ☐ Yes ☐ No 208

CAS # 8002-05-9 209 *If EHS is Yes, all amounts below must be in lbs.

FIRE CODE HAZARD CLASS (Complete if required by CUPA) 210

HAZARDOUS MATERIAL TYPE (Check one item only) ☐ a. PURE ☐ b. MIXTURE ☑ c. WASTE 211 RADIOACTIVE ☐ Yes ☐ No 212 CURIES 213

PHYSICAL STATE (Check one item only) ☐ a. SOLID ☑ b. LIQUID ☐ c. GAS 214 LARGEST CONTAINER 215

FED HAZARD CATEGORIES (Check all that apply) ☐ a. FIRE ☐ b. REACTIVE ☐ c. PRESSURE RELEASE ☐ d. ACUTE HEALTH ☐ e. CHRONIC HEALTH 216

AVERAGE DAILY AMOUNT 50 217 MAXIMUM DAILY AMOUNT 15 218 ANNUAL WASTE AMOUNT 100 219 EXTREMELY HAZARDOUS WASTE CODE 220

UNITS* (Check one item only) ☑ a. GALLONS ☐ b. CUBIC FEET ☐ c. POUNDS ☐ d. TONS 221 PHYSICAL STATE CODE 222

* If EHS, amount must be in pounds.

STORAGE CONTAINER (Check all that apply)

☐ a. ABOVEGROUND TANK ☐ e. PLASTIC/NONMETALLIC DRUM ☐ i. FIBER DRUM ☐ m. GLASS BOTTLE ☐ q. RAIL CAR 223

☐ b. UNDERGROUND TANK ☐ f. CAN ☐ j. BAG ☐ n. PLASTIC BOTTLE ☐ r. OTHER

☐ c. TANK INSIDE BUILDING ☐ g. CARBOY ☐ k. BOX ☐ o. TOTE BIN

☑ d. STEEL DRUM ☐ h. SILO ☐ l. CYLINDER ☐ p. TANK WAGON

STORAGE PRESSURE ☐ a. AMBIENT ☐ b. ABOVE AMBIENT ☐ c. BELOW AMBIENT 224

STORAGE TEMPERATURE ☐ a. AMBIENT ☐ b. ABOVE AMBIENT ☐ c. BELOW AMBIENT ☐ d. CRYOGENIC 225

%WT		HAZARDOUS COMPONENT (mixtures / solutions)		EHS		CAS #
1	226		227	☐ Yes ☐ No 228		229
2	230		231	☐ Yes ☐ No 232		233
3	234		235	☐ Yes ☐ No 236		237
4	238		239	☐ Yes ☐ No 240		241
5	242		243	☐ Yes ☐ No 244		245

If more hazardous components are present at greater than 1% by weight if non-carcinogenic, or 0.1% by weight if carcinogenic, attach additional sheets of paper capturing the required information.

If EPCRA, Please Sign Here 246

UNIFIED PROGRAM CONSOLIDATED FORM

CITY OF FULLERTON FIRE DEPARTMENT

312 E. Commonwealth Ave., Fullerton, CA 92832

714/738-6500 FAX 714/738-3392

CHEMICAL DESCRIPTION - One Page Per Material Per Building or Area

HAZARDOUS MATERIALS INVENTORY

☐ ADD ☐ DELETE ☐ REVISE 200 Date: Page ___ of ___

I. FACILITY INFORMATION

BUSINESS NAME (Same as FACILITY NAME or DBA - Doing Business As) 3

Terry's Automotive

CHEMICAL LOCATION 201

CHEMICAL LOCATION CONFIDENTIAL - EPCRA ☐ Yes ☐ No 202

FACILITY ID # MAP # 203 GRID # 204

II. CHEMICAL INFORMATION

CHEMICAL NAME 205

Coolant-waste

TRADE SECRET ☐ Yes ☐ No 206

If Subject to EPCRA, refer to instructions

COMMON NAME 207

EHS* ☐ Yes ☐ No 208

CAS # 170-21-1 209

If EHS = Yes, list parts below in pounds.

FIRE CODE HAZARD CLASS (Complete if required by CUPA) 210

HAZARDOUS MATERIAL TYPE (Check one item only)	☐ a. PURE ☐ b. MIXTURE ☑ c. WASTE 211	RADIOACTIVE ☐ Yes ☐ No 212	MIXTURES 213		
PHYSICAL STATE (Check one item only)	☐ a. SOLID ☑ b. LIQUID ☐ c. GAS 214	LARGEST CONTAINER 215			
FED HAZARD CATEGORIES (Check all that apply)	☐ a. FIRE ☐ b. REACTIVE ☐ c. PRESSURE RELEASE ☐ d. ACUTE HEALTH ☐ e. CHRONIC HEALTH 216				
AVERAGE DAILY AMOUNT 55 gal 217	MAXIMUM DAILY AMOUNT 15 218	ANNUAL WASTE AMOUNT 500 219	STATE WASTE CODE 220		
UNITS* (Check one item only)	☑ a. GALLONS ☐ b. CUBIC FEET ☐ c. POUNDS ☐ d. TONS 221 * If EHS, amount must be in pounds.		DAYS ON SITE 222		
STORAGE CONTAINER (Check all that apply)	☐ a. ABOVEGROUND TANK ☐ b. UNDERGROUND TANK ☐ c. TANK INSIDE BUILDING ☐ d. STEEL DRUM ☐ e. PLASTIC/NONMETALLIC DRUM ☐ f. CAN ☐ g. CARBOY ☐ h. SILO ☐ i. FIBER DRUM ☐ j. BAG ☐ k. BOX ☐ l. CYLINDER ☐ m. GLASS BOTTLE ☐ n. PLASTIC BOTTLE ☐ o. TOTE BIN ☐ p. TANK WAGON			☐ q. RAIL CAR 223 ☐ r. OTHER	
STORAGE PRESSURE	☐ a. AMBIENT ☐ b. ABOVE AMBIENT ☐ c. BELOW AMBIENT 224				
STORAGE TEMPERATURE	☐ a. AMBIENT ☐ b. ABOVE AMBIENT ☐ c. BELOW AMBIENT ☐ d. CRYOGENIC 225				

	%WT	HAZARDOUS COMPONENT (mixtures / trade name)	EHS	CAS #
1	226	227	☐ Yes ☐ No 228	229
2	230	231	☐ Yes ☐ No 232	233
3	234	235	☐ Yes ☐ No 236	237
4	238	239	☐ Yes ☐ No 240	241
5	242	243	☐ Yes ☐ No 244	245

If more hazardous components are present at greater than 1% by weight if non-carcinogenic, or 0.1% by weight if carcinogenic, attach additional sheets of paper containing the required information.

If EPCRA, Please Sign Here 246

UNIFIED PROGRAM CONSOLIDATED FORM

CITY OF FULLERTON FIRE DEPARTMENT

312 E. Commonwealth Ave., Fullerton, CA 92832

714/738-6500 FAX 714/738-3392

CHEMICAL DESCRIPTION - One Page Per Material Per Building or Area

HAZARDOUS MATERIALS INVENTORY

☐ ADD ☐ DELETE ☐ REVISE 200 Date: Page ___ of ___

I. FACILITY INFORMATION

BUSINESS NAME (Same as FACILITY NAME or DBA - Doing Business As) 3

Tcarts Automotive

CHEMICAL LOCATION 201 CHEMICAL LOCATION CONFIDENTIAL - EPCRA ☐ Yes ☐ No 202

FACILITY ID # MAP # 203 GRID # 204

II. CHEMICAL INFORMATION

CHEMICAL NAME Oil 205 TRADE SECRET ☐ Yes ☐ No 206

If Subject to EPCRA, refer to Instructions

COMMON NAME 207 EHS* ☐ Yes ☐ No 208

CAS # 7782492 209 *If EHS is Yes, all amounts below must be in lbs.

FIRE CODE HAZARD CLASS (Complete if required by CUPA) 210

HAZARDOUS MATERIAL TYPE (Check one item only) ☐ a. PURE ☐ b. MIXTURE ☐ c. WASTE 211 RADIOACTIVE ☐ Yes ☐ No 212 CURIES 213

PHYSICAL STATE (Check one item only) ☐ a. SOLID ☐ b. LIQUID ☐ c. GAS 214 LARGEST CONTAINER 215

FED HAZARD CATEGORIES (Check all that apply) ☐ a. FIRE ☐ b. REACTIVE ☐ c. PRESSURE RELEASE ☐ d. ACUTE HEALTH ☐ e. CHRONIC HEALTH 216

AVERAGE DAILY AMOUNT	MAXIMUM DAILY AMOUNT	ANNUAL WASTE AMOUNT	STATE WASTE CODE
217	218	219	220

UNITS* (Check one item only) ☐ a. GALLONS ☒ b. CUBIC FEET ☐ c. POUNDS ☐ d. TONS 221 DAYS ON SITE 222

* If EHS, amount must be in pounds.

STORAGE CONTAINER (Check all that apply) 223

☐ a. ABOVEGROUND TANK	☐ e. PLASTIC/NONMETALLIC DRUM	☐ i. FIBER DRUM	☐ m. GLASS BOTTLE
☐ b. UNDERGROUND TANK	☐ f. CAN	☐ j. BAG	☐ n. PLASTIC BOTTLE
☐ c. TANK INSIDE BUILDING	☐ g. CARBOY	☐ k. BOX	☐ o. TOTE BIN
☐ d. STEEL DRUM	☐ h. SILO	☒ l. CYLINDER	☐ p. TANK WAGON

☐ q. RAIL CAR ☐ r. OTHER

STORAGE PRESSURE ☐ a. AMBIENT ☐ b. ABOVE AMBIENT ☐ c. BELOW AMBIENT 224

STORAGE TEMPERATURE ☐ a. AMBIENT ☐ b. ABOVE AMBIENT ☐ c. BELOW AMBIENT ☐ d. CRYOGENIC 225

%WT	HAZARDOUS COMPONENT (Common Name)		EHS	CAS #
1 226		227	☐ Yes ☐ No 228	229
2 230		231	☐ Yes ☐ No 232	233
3 234		235	☐ Yes ☐ No 236	237
4 238		239	☐ Yes ☐ No 240	241
5 242		243	☐ Yes ☐ No 244	245

If more hazardous components are present at greater than 1% by weight if non-carcinogenic, or 0.1% by weight if carcinogenic, attach additional sheets of paper capturing the required information.

If EPCRA, Please Sign Here 246

FULLERTON TRANSPORTATION CTR (Continued) **S102769837**

Discover Date:	6/17/1997
Enforcement Date:	Not reported
Close Date:	9/9/1997
Date Prelim Assessment Workplan Submitted:	6/17/1997
Date Pollution Characterization Began:	8/7/1997
Date Remediation Plan Submitted:	Not reported
Date Remedial Action Underway:	6/17/1997
Date Post Remedial Action Monitoring:	Not reported
Enter Date:	8/29/1997
GW Qualifies:	Not reported
Soil Qualifies:	Not reported
Operator:	Not reported
Facility Contact:	Not reported
Interim:	Not reported
Oversite Program:	LUST
Latitude:	33.8668057
Longitude:	-117.9288357
MTBE Date:	Not reported
Max MTBE GW:	Not reported
MTBE Concentration:	0
Max MTBE Soil:	Not reported
MTBE Fuel:	1
MTBE Tested:	Site NOT Tested for MTBE.Includes Unknown and Not Analyzed.
MTBE Class:	*
Staff:	VJJ
Staff Initials:	SRL
Lead Agency:	Regional Board
Local Agency:	30013
Hydr Basin #:	COASTAL PLAIN OF ORA
Beneficial:	Not reported
Priority:	Not reported
Cleanup Fund Id:	Not reported
Work Suspended:	Not reported

Summary: Not reported

B8 **ANDREWS & BOYD AUTOMOTIVE SERV** **UST** **U003937568**
250 E SANTA FE AVE **N/A**
< 1/8 **FULLERTON, CA 92832**
1 ft.

Site 1 of 4 in cluster B

Relative: UST:
Higher

Facility ID:	3092
Permitting Agency:	FULLERTON, CITY OF
Latitude:	33.870371
Longitude:	-117.918977

Actual:
163 ft.

B9 **ANDREWS & BOYD INC** **RCRA-SQG** **1000356906**
250 E SANTA FE AVE **CERS HAZ WASTE** **CAD981966815**
< 1/8 **FULLERTON, CA 92832** **SWEEPS UST**
1 ft. **HIST UST**
Site 2 of 4 in cluster B **CA FID UST**
FINDS
Relative: **ECHO**
Higher **HAZNET**
Actual: **CERS**
163 ft.

RCRA-SQG:

Date form received by agency:	09/01/1996
Facility name:	ANDREWS & BOYD INC
Facility address:	250 E SANTA FE AVE FULLERTON, CA 92832
EPA ID:	CAD981966815
Contact:	Not reported
Contact address:	Not reported Not reported
Contact country:	US
Contact telephone:	Not reported
Contact email:	Not reported
EPA Region:	09
Land type:	Facility is not located on Indian land. Additional information is not known.
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:	NOT REQUIRED
Owner/operator address:	NOT REQUIRED NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	415-555-1212
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Owner/operator name:	JAMES BOYD RICHARD ANDREWS
Owner/operator address:	NOT REQUIRED NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	415-555-1212
Owner/operator email:	Not reported
Owner/operator fax:	Not reported
Owner/operator extension:	Not reported
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

ANDREWS & BOYD INC (Continued) **1000356906**

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

Historical Generators:
Date form received by agency: 01/30/1987
Site name: ANDREWS & BOYD INC
Classification: Large Quantity Generator

Facility Has Received Notices of Violations:
Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 02/11/1992
Date achieved compliance: 09/21/1994
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Evaluation Action Summary:
Evaluation date: 09/21/1994
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 02/11/1992
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 09/21/1994
Evaluation lead agency: State Contractor/Grantee

CERS HAZ WASTE:
Site ID: 414883
CERS ID: 10517509
CERS Description: Hazardous Waste Generator

Violations:

ANDREWS & BOYD INC (Continued) **1000356906**

Site ID:	414883
Site Name:	TERRYS AUTOMOTIVE
Violation Date:	08-14-2013
Citation:	HSC 6.95 25505(a) - California Health and Safety Code, Chapter 6.95, Section(s) 25505(a)
Violation Description:	Owner/Operator failed to complete and/or submit a Hazardous Materials Business Plan when storing hazardous materials at or above the thresholds quantities of 55 gallons/500 lbs/200 cubic feet.
Violation Notes:	Not reported
Violation Division:	Orange County Environmental Health
Violation Program:	HMRRP
Violation Source:	CERS

Site ID:	414883
Site Name:	TERRYS AUTOMOTIVE
Violation Date:	06-15-2017
Citation:	HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description:	Failure to complete and electronically submit a site map with all required content.
Violation Notes:	Returned to compliance on 08/17/2017. SITE MAP FILE IS CORRUPTED/NON READABLE AND SHALL BE RESUBMITTED.
Violation Division:	Fullerton City Fire Department
Violation Program:	HMRRP
Violation Source:	CERS

Site ID:	414883
Site Name:	TERRYS AUTOMOTIVE
Violation Date:	06-15-2017
Citation:	HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description:	Failure to establish and electronically submit an adequate emergency response plan and procedures for a release or threatened release of a hazardous material.
Violation Notes:	Returned to compliance on 08/17/2017. FACILITY SHALL UTILIZE CERS-PROVIDED EMERGENCY RESPONSE/CONTINGENCY PLAN TEMPLATE.
Violation Division:	Fullerton City Fire Department
Violation Program:	HMRRP
Violation Source:	CERS

Site ID:	414883
Site Name:	TERRYS AUTOMOTIVE
Violation Date:	06-15-2017
Citation:	HSC 6.95 25508.2 - California Health and Safety Code, Chapter 6.95, Section(s) 25508.2
Violation Description:	Failure to annually review and electronically certify that the business plan is complete and accurate on or before the annual due date.
Violation Notes:	Returned to compliance on 08/17/2017.
Violation Division:	Fullerton City Fire Department
Violation Program:	HMRRP
Violation Source:	CERS

Site ID:	414883
Site Name:	TERRYS AUTOMOTIVE
Violation Date:	06-15-2017
Citation:	HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter

ANDREWS & BOYD INC (Continued) **1000356906**

6.95, Section(s) 25508(a)(1)
Violation Description: Failure to complete and electronically submit hazardous material inventory information for all reportable hazardous materials on site at or above reportable quantities.
Violation Notes: Returned to compliance on 08/17/2017. FACILITY SHALL UPDATE QUANTITIES AND INCLUDE CHEMICALS ABOVE THRESHOLD REPORTING REQUIREMENTS ON DISCLOSURE.
Violation Division: Fullerton City Fire Department
Violation Program: HMRRP
Violation Source: CERS

Site ID: 414883
Site Name: TERRYS AUTOMOTIVE
Violation Date: 06-23-2015
Citation: HSC 6.95 25508.2 - California Health and Safety Code, Chapter 6.95, Section(s) 25508.2
Violation Description: Failure to annually review and electronically certify that the business plan is complete, accurate, and up-to-date.
Violation Notes: Not reported
Violation Division: Fullerton City Fire Department
Violation Program: HMRRP
Violation Source: CERS

Evaluation:
Eval General Type: Compliance Evaluation Inspection
Eval Date: 02-26-2014
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Onsite to conduct a routine hazardous waste inspection. Met with Matt. Inspected used oil, drained used oil/fuel filters, Safety Kleen parts cleaner and waste antifreeze. Drums and tanks were provided with a lid, stored in a secure manner and appear to be in good condition. The operator completes a maintenance inspection on the drums and tanks on a weekly basis. A Hazardous Waste label was noted on all drums and tanks with the required identification. Municipal dumpster area does not appear to contain any hazardous waste. Perimeter of facility inspected - did not observe any water runoff or staining at this time. Hazardous Waste Emergency Response plan was available for review. Manifests and bills of lading for all hazardous waste streams were reviewed today. Ensure all hazardous waste manifests/disposal documents are maintained on site for at least three years from the date of transport and are available for review during normal business hours. Please [Truncated]
Eval Division: Orange County Environmental Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 06-15-2017
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Not reported
Eval Division: Fullerton City Fire Department
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection

ANDREWS & BOYD INC (Continued) **1000356906**

Eval Date: 01-30-2017
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Onsite to conduct a routine hazardous waste inspection. Met with Matt Seltzer. Inspected used oil, drained used oil/fuel filters, aqueous parts cleaner and waste antifreeze. Drums were provided with a lid, stored in a secure manner and appear to be in good condition. The operator completes a maintenance inspection on the drums on a weekly basis. A Hazardous Waste label was noted on all drums with the required identification. Municipal dumpster area does not appear to contain any hazardous waste. Perimeter of facility inspected - did not observe any water runoff or staining at this time. Hazardous Waste Emergency Response plan was available for review. Manifests and bills of lading for all hazardous waste streams were reviewed today. Ensure all hazardous waste manifests/disposal documents are maintained on site for at least three years from the date of transport and are available for review during normal business hours. Please continue to ensure all [Truncated]
Eval Division: Orange County Environmental Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 06-03-2015
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: facility has 30 days to re-certify BEP.
Eval Division: Fullerton City Fire Department
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 08-14-2013
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: UPLOAD TO ESUBMIT
Eval Division: Orange County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Enforcement Action:
Site ID: 414883
Site Name: TERRYS AUTOMOTIVE
Site Address: 250 E SANTA FE AVE
Site City: FULLERTON
Site Zip: 92832
Enf Action Date: 08-14-2013
Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: Orange County Environmental Health
Enf Action Program: HMRRP
Enf Action Source: CERS

Coordinates:
Site ID: 414883

ANDREWS & BOYD INC (Continued) **1000356906**

Facility Name: TERRYS AUTOMOTIVE
Env Int Type Code: HMBP
Program ID: 10517509
Coord Name: Not reported
Ref Point Type Desc: Center of a facility or station.
Latitude: 33.869020
Longitude: -117.920330

Affiliation:
Affiliation Type Desc: Environmental Contact
Entity Name: matthew seltzer
Entity Title: Not reported
Affiliation Address: 250 E SANTA FE AVE
Affiliation City: FULLERTON
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 92833
Affiliation Phone: Not reported

Affiliation Type Desc: Operator
Entity Name: TERRYS AUTOMOTIVE INC
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: (714) 526-4627

Affiliation Type Desc: Facility Mailing Address
Entity Name: Mailing Address
Entity Title: Not reported
Affiliation Address: 250 E SANTA FE AVE
Affiliation City: FULLERTON
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 92832
Affiliation Phone: Not reported

Affiliation Type Desc: Identification Signer
Entity Name: terry thompson
Entity Title: president
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: Legal Owner
Entity Name: TERRYS AUTOMOTIVE INC
Entity Title: Not reported
Affiliation Address: 250 E SANTA FE AVE
Affiliation City: FULLERTON
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 92832

ANDREWS & BOYD INC (Continued) **1000356906**

Affiliation Phone: (714) 526-4627

Affiliation Type Desc: Parent Corporation
Entity Name: TERRYS AUTOMOTIVE
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

Affiliation Type Desc: CUPA District
Entity Name: Orange County Env Health
Entity Title: Not reported
Affiliation Address: 1241 East Dyer RoadSuite 120
Affiliation City: Santa Ana
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 92705-5611
Affiliation Phone: (714) 433-6000

Affiliation Type Desc: Document Preparer
Entity Name: Terry Thompson
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: Not reported

SWEEPS UST:
Status: Active
Comp Number: 3092
Number: 9
Board Of Equalization: Not reported
Referral Date: 02-11-92
Action Date: 02-11-92
Created Date: 12-31-88
Owner Tank Id: 63
SWRCB Tank Id: 30-013-003092-000001
Tank Status: A
Capacity: 550
Active Date: Not reported
Tank Use: M.V. FUEL
STG: P
Content: JET FUEL
Number Of Tanks: 1

HIST UST:
File Number: 0002B1FB
URL: http://geotracker.waterboards.ca.gov/ustpdfs/pdf/0002B1FB.pdf
Region: STATE
Facility ID: 00000048670

ANDREWS & BOYD INC (Continued) **1000356906**

Facility Type:	Other
Other Type:	AUTO REPAIR
Contact Name:	R. ANDREWS & J. BOYD
Telephone:	7148799117
Owner Name:	RICHARD ANDREWS OR JAMES BOYD
Owner Address:	250 E. SANTA FE
Owner City,St,Zip:	FULLERTON, CA 92632
Total Tanks:	0001
Tank Num:	001
Container Num:	1
Year Installed:	1982
Tank Capacity:	00000550
Tank Used for:	WASTE
Type of Fuel:	WASTE OIL
Container Construction Thickness:	1
Leak Detection:	None

Click here for Geo Tracker PDF:

CA FID UST:

Facility ID:	30007270
Regulated By:	UTNKA
Regulated ID:	Not reported
Cortese Code:	Not reported
SIC Code:	Not reported
Facility Phone:	7145256736
Mail To:	Not reported
Mailing Address:	250 E SANTA FE AVE
Mailing Address 2:	Not reported
Mailing City,St,Zip:	FULLERTON 92632
Contact:	Not reported
Contact Phone:	Not reported
DUNs Number:	Not reported
NPDES Number:	Not reported
EPA ID:	Not reported
Comments:	Not reported
Status:	Active

FINDS:

Registry ID: 110006474788

Environmental Interest/Information System

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.

Click this hyperlink while viewing on your computer to access additional FINDS: detail in the EDR Site Report.

ANDREWS & BOYD INC (Continued) **1000356906**

ECHO:
Envid: 1000356906
Registry ID: 110006474788
DFR URL: http://echo.epa.gov/detailed-facility-report?fid=110006474788

HAZNET:
Site Name: ANDREWS & BOYD INC
Year: 1998
GEPAID: CAD981966815
Contact: R. MARK BENEDICT
Telephone: 0000000000
Mailing Name: Not reported
Mailing Address: 250 E SANTA FE AVE
Mailing City,St,Zip: FULLERTON, CA 928320000
Gen County: Not reported
TSD EPA ID: CAD099452708
TSD County: Not reported
Waste Category: Oil/water separation sludge
Disposal Method: Transfer Station
Tons: .8006
Cat Decode: Not reported
Method Decode: Not reported
Facility County: Orange

Site Name: ANDREWS & BOYD INC
Year: 1997
GEPAID: CAD981966815
Contact: R. MARK BENEDICT
Telephone: 0000000000
Mailing Name: Not reported
Mailing Address: 250 E SANTA FE AVE
Mailing City,St,Zip: FULLERTON, CA 928320000
Gen County: Not reported
TSD EPA ID: CAT080013352
TSD County: Not reported
Waste Category: Tank bottom waste
Disposal Method: Recycler
Tons: .5212
Cat Decode: Not reported
Method Decode: Not reported
Facility County: Orange

Site Name: ANDREWS & BOYD INC
Year: 1995
GEPAID: CAD981966815
Contact: R. MARK BENEDICT
Telephone: 0000000000
Mailing Name: Not reported
Mailing Address: 250 E SANTA FE AVE
Mailing City,St,Zip: FULLERTON, CA 928320000
Gen County: Not reported
TSD EPA ID: CAD093459485
TSD County: Not reported
Waste Category: Unspecified solvent mixture
Disposal Method: Transfer Station
Tons: .0498

ANDREWS & BOYD INC (Continued) **1000356906**

Cat Decode: Not reported
Method Decode: Not reported
Facility County: Orange

CERS TANKS:
Site ID: 414883
CERS ID: 10517509
Site Name: TERRYS AUTOMOTIVE
CERS Description: Chemical Storage Facilities

Violations:
Site ID: 414883
Site Name: TERRYS AUTOMOTIVE
Violation Date: 08-14-2013
Citation: HSC 6.95 25505(a) - California Health and Safety Code, Chapter 6.95, Section(s) 25505(a)
Violation Description: Owner/Operator failed to complete and/or submit a Hazardous Materials Business Plan when storing hazardous materials at or above the thresholds quantities of 55 gallons/500 lbs/200 cubic feet.
Violation Notes: Not reported
Violation Division: Orange County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 414883
Site Name: TERRYS AUTOMOTIVE
Violation Date: 06-15-2017
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description: Failure to complete and electronically submit a site map with all required content.
Violation Notes: Returned to compliance on 08/17/2017. SITE MAP FILE IS CORRUPTED/NON READABLE AND SHALL BE RESUBMITTED.
Violation Division: Fullerton City Fire Department
Violation Program: HMRRP
Violation Source: CERS

Site ID: 414883
Site Name: TERRYS AUTOMOTIVE
Violation Date: 06-15-2017
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description: Failure to establish and electronically submit an adequate emergency response plan and procedures for a release or threatened release of a hazardous material.
Violation Notes: Returned to compliance on 08/17/2017. FACILITY SHALL UTILIZE CERS-PROVIDED EMERGENCY RESPONSE/CONTINGENCY PLAN TEMPLATE.
Violation Division: Fullerton City Fire Department
Violation Program: HMRRP
Violation Source: CERS

Site ID: 414883
Site Name: TERRYS AUTOMOTIVE
Violation Date: 06-15-2017
Citation: HSC 6.95 25508.2 - California Health and Safety Code, Chapter 6.95, Section(s) 25508.2
Violation Description: Failure to annually review and electronically certify that the

ANDREWS & BOYD INC (Continued) **1000356906**

business plan is complete and accurate on or before the annual due date.
Violation Notes: Returned to compliance on 08/17/2017.
Violation Division: Fullerton City Fire Department
Violation Program: HMRRP
Violation Source: CERS

Site ID: 414883
Site Name: TERRYS AUTOMOTIVE
Violation Date: 06-15-2017
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description: Failure to complete and electronically submit hazardous material inventory information for all reportable hazardous materials on site at or above reportable quantities.
Violation Notes: Returned to compliance on 08/17/2017. FACILITY SHALL UPDATE QUANTITIES AND INCLUDE CHEMICALS ABOVE THRESHOLD REPORTING REQUIREMENTS ON DISCLOSURE.
Violation Division: Fullerton City Fire Department
Violation Program: HMRRP
Violation Source: CERS

Site ID: 414883
Site Name: TERRYS AUTOMOTIVE
Violation Date: 06-23-2015
Citation: HSC 6.95 25508.2 - California Health and Safety Code, Chapter 6.95, Section(s) 25508.2
Violation Description: Failure to annually review and electronically certify that the business plan is complete, accurate, and up-to-date.
Violation Notes: Not reported
Violation Division: Fullerton City Fire Department
Violation Program: HMRRP
Violation Source: CERS

Evaluation:
Eval General Type: Compliance Evaluation Inspection
Eval Date: 02-26-2014
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: Onsite to conduct a routine hazardous waste inspection. Met with Matt. Inspected used oil, drained used oil/fuel filters, Safety Kleen parts cleaner and waste antifreeze. Drums and tanks were provided with a lid, stored in a secure manner and appear to be in good condition. The operator completes a maintenance inspection on the drums and tanks on a weekly basis. A Hazardous Waste label was noted on all drums and tanks with the required identification. Municipal dumpster area does not appear to contain any hazardous waste. Perimeter of facility inspected - did not observe any water runoff or staining at this time. Hazardous Waste Emergency Response plan was available for review. Manifests and bills of lading for all hazardous waste streams were reviewed today. Ensure all hazardous waste manifests/disposal documents are maintained on site for at least three years from the date of transport and are available for review during normal business hours. Please [Truncated]
Eval Division: Orange County Environmental Health
Eval Program: HW
Eval Source: CERS

ANDREWS & BOYD INC (Continued) **1000356906**

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	06-15-2017
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	Fullerton City Fire Department
Eval Program:	HMRRP
Eval Source:	CERS

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	01-30-2017
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Onsite to conduct a routine hazardous waste inspection. Met with Matt Seltzer. Inspected used oil, drained used oil/fuel filters, aqueous parts cleaner and waste antifreeze. Drums were provided with a lid, stored in a secure manner and appear to be in good condition. The operator completes a maintenance inspection on the drums on a weekly basis. A Hazardous Waste label was noted on all drums with the required identification. Municipal dumpster area does not appear to contain any hazardous waste. Perimeter of facility inspected - did not observe any water runoff or staining at this time. Hazardous Waste Emergency Response plan was available for review. Manifests and bills of lading for all hazardous waste streams were reviewed today. Ensure all hazardous waste manifests/disposal documents are maintained on site for at least three years from the date of transport and are available for review during normal business hours. Please continue to ensure all [Truncated]
Eval Division:	Orange County Environmental Health
Eval Program:	HW
Eval Source:	CERS

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	06-03-2015
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	facility has 30 days to re-certify BEP.
Eval Division:	Fullerton City Fire Department
Eval Program:	HMRRP
Eval Source:	CERS

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	08-14-2013
Violations Found:	Yes
Eval Type:	Routine done by local agency
Eval Notes:	UPLOAD TO ESUBMIT
Eval Division:	Orange County Environmental Health
Eval Program:	HMRRP
Eval Source:	CERS

Enforcement Action:

Site ID:	414883
Site Name:	TERRYS AUTOMOTIVE
Site Address:	250 E SANTA FE AVE
Site City:	FULLERTON
Site Zip:	92832
Enf Action Date:	08-14-2013

ANDREWS & BOYD INC (Continued) **1000356906**

Enf Action Type: Notice of Violation (Unified Program)
Enf Action Description: Notice of Violation Issued by the Inspector at the Time of Inspection
Enf Action Notes: Not reported
Enf Action Division: Orange County Environmental Health
Enf Action Program: HMRRP
Enf Action Source: CERS

Coordinates:
Site ID: 414883
Facility Name: TERRYS AUTOMOTIVE
Env Int Type Code: HMBP
Program ID: 10517509
Coord Name: Not reported
Ref Point Type Desc: Center of a facility or station.
Latitude: 33.869020
Longitude: -117.920330

Affiliation:
Affiliation Type Desc: Environmental Contact
Entity Name: matthew seltzer
Entity Title: Not reported
Affiliation Address: 250 E SANTA FE AVE
Affiliation City: FULLERTON
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 92833
Affiliation Phone: Not reported

Affiliation Type Desc: Operator
Entity Name: TERRYS AUTOMOTIVE INC
Entity Title: Not reported
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: (714) 526-4627

Affiliation Type Desc: Facility Mailing Address
Entity Name: Mailing Address
Entity Title: Not reported
Affiliation Address: 250 E SANTA FE AVE
Affiliation City: FULLERTON
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: 92832
Affiliation Phone: Not reported

Affiliation Type Desc: Identification Signer
Entity Name: terry thompson
Entity Title: president
Affiliation Address: Not reported
Affiliation City: Not reported
Affiliation State: Not reported
Affiliation Country: Not reported
Affiliation Zip: Not reported

ANDREWS & BOYD INC (Continued) **1000356906**

Affiliation Phone:	Not reported
Affiliation Type Desc:	Legal Owner
Entity Name:	TERRYS AUTOMOTIVE INC
Entity Title:	Not reported
Affiliation Address:	250 E SANTA FE AVE
Affiliation City:	FULLERTON
Affiliation State:	CA
Affiliation Country:	United States
Affiliation Zip:	92832
Affiliation Phone:	(714) 526-4627
Affiliation Type Desc:	Parent Corporation
Entity Name:	TERRYS AUTOMOTIVE
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported
Affiliation Type Desc:	CUPA District
Entity Name:	Orange County Env Health
Entity Title:	Not reported
Affiliation Address:	1241 East Dyer RoadSuite 120
Affiliation City:	Santa Ana
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	92705-5611
Affiliation Phone:	(714) 433-6000
Affiliation Type Desc:	Document Preparer
Entity Name:	Terry Thompson
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

A10 **KIGER V O** **EDR Hist Auto** **1009092939**
NW **245 S POMONA AVE** **N/A**
< 1/8 **BREA, CA**
0.005 mi.
29 ft. **Site 8 of 11 in cluster A**

Relative: EDR Hist Auto
Higher

Actual: **163 ft.**

Year:	Name:	Type:
1936	KIGER V O	AUTO SERVICE STATIONS
1936	HOME OIL CO	AUTO SERVICE STATIONS

Historic Aerial Maps
Sanborn Maps

Appendix C

Terradyne Project No. L194003

Terrys Automotive Site

120 E Santa Fe Avenue

Fullerton, CA 92832

Inquiry Number: 5652379.8

May 15, 2019

The EDR Aerial Photo Decade Package

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Aerial Photo Decade Package

05/15/19

Site Name:

Terrys Automotive Site
120 E Santa Fe Avenue
Fullerton, CA 92832
EDR Inquiry # 5652379.8

Client Name:

Terradyne
2136 Rutland Dr.
Austin, TX 78758
Contact: Sam Noori

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.

Search Results:

Year	Scale	Details	Source
2016	1"=500'	Flight Year: 2016	USDA/NAIP
2012	1"=500'	Flight Year: 2012	USDA/NAIP
2009	1"=500'	Flight Year: 2009	USDA/NAIP
2005	1"=500'	Flight Year: 2005	USDA/NAIP
2002	1"=750'	Flight Date: June 05, 2002	USGS
1995	1"=500'	Acquisition Date: October 03, 1995	USGS/DOQQ
1990	1"=500'	Flight Date: September 06, 1990	USDA
1987	1"=500'	Flight Date: March 29, 1987	USDA
1977	1"=500'	Flight Date: January 18, 1977	EDR Proprietary Brewster Pacific
1972	1"=500'	Flight Date: October 30, 1972	USGS
1963	1"=500'	Flight Date: February 28, 1963	USGS
1953	1"=500'	Flight Date: May 30, 1953	USDA
1947	1"=500'	Flight Date: June 18, 1947	FAIR
1938	1"=500'	Flight Date: June 21, 1938	USDA

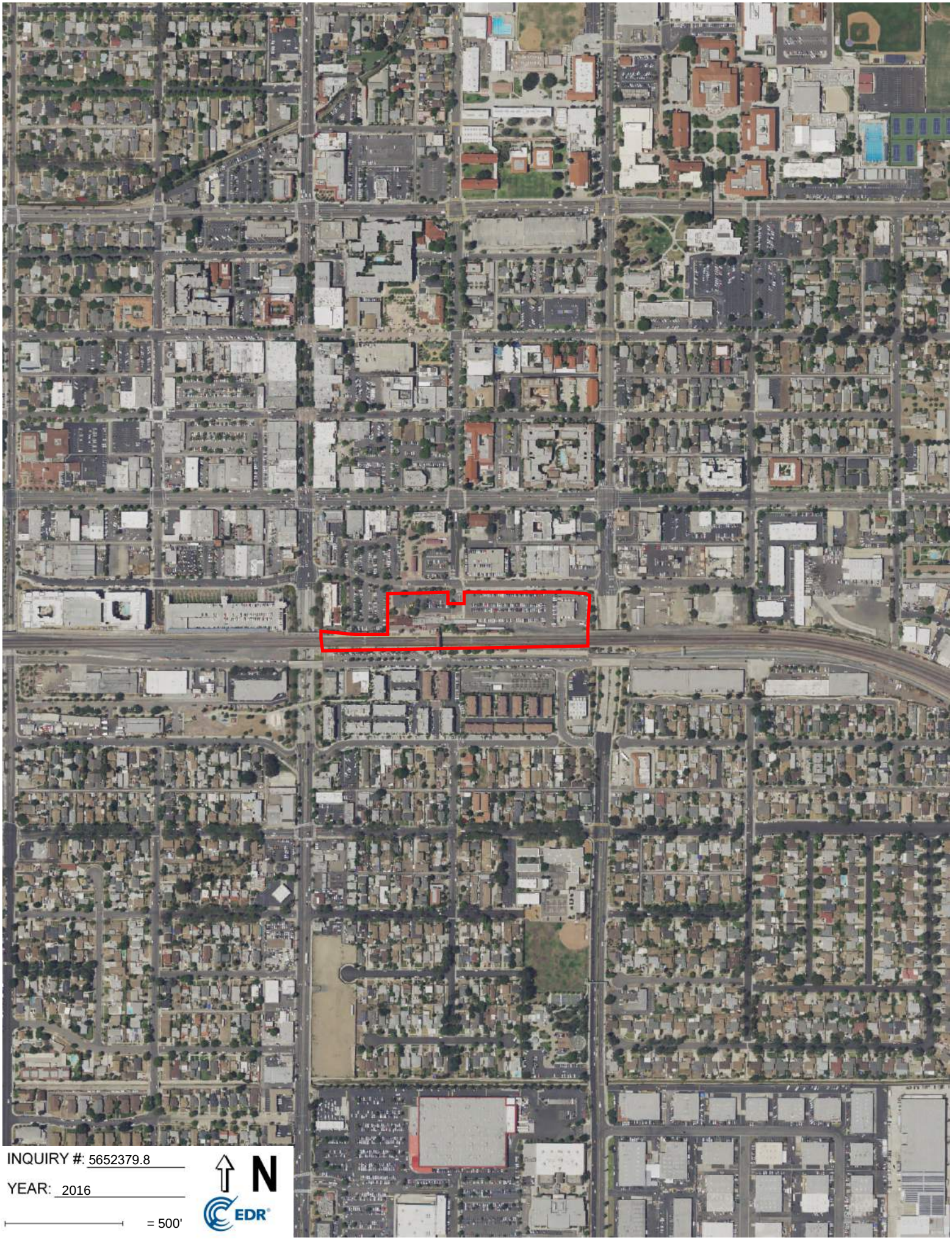
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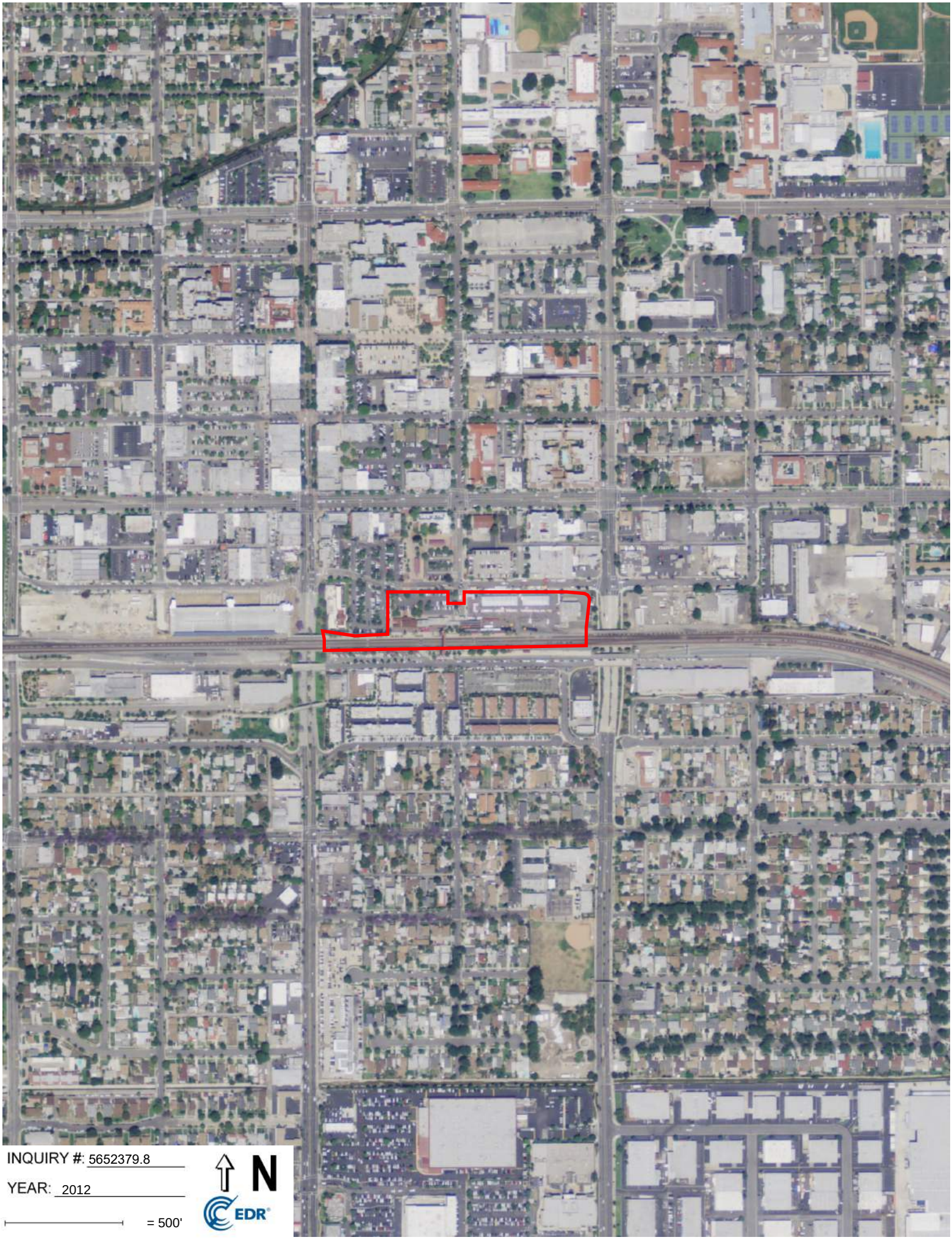
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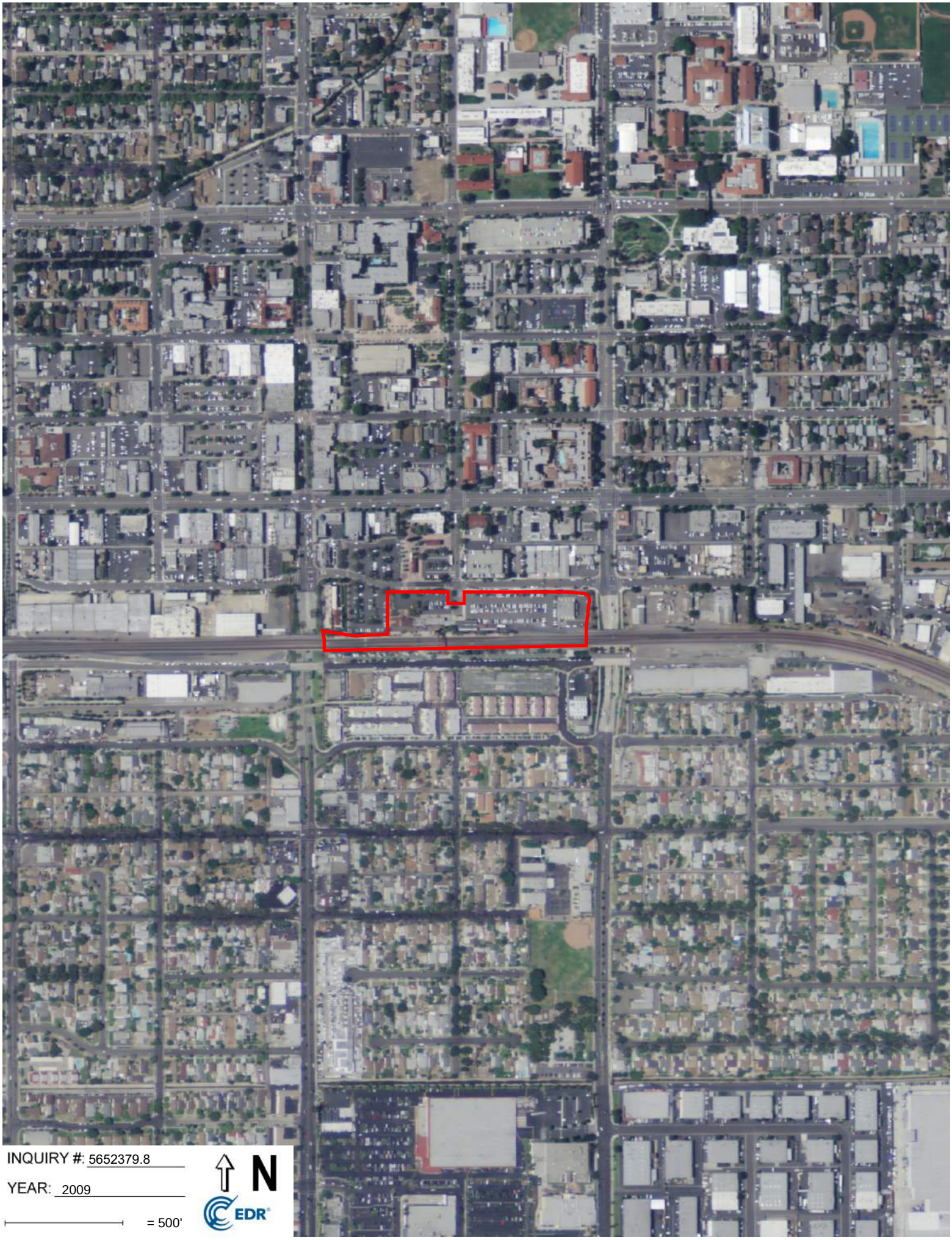
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INQUIRY #: 5652379.8
YEAR: 2016
= 500'
N
EDR


INQUIRY #: 5652379.8
YEAR: 2012
= 500'
N
EDR


INQUIRY #: 5652379.8
YEAR: 2009
= 500'
N
EDR


INQUIRY #: 5652379.8
YEAR: 2005
= 500'
N
EDR



INQUIRY #: 5652379.8

YEAR: 2002

= 750'

N

EDR

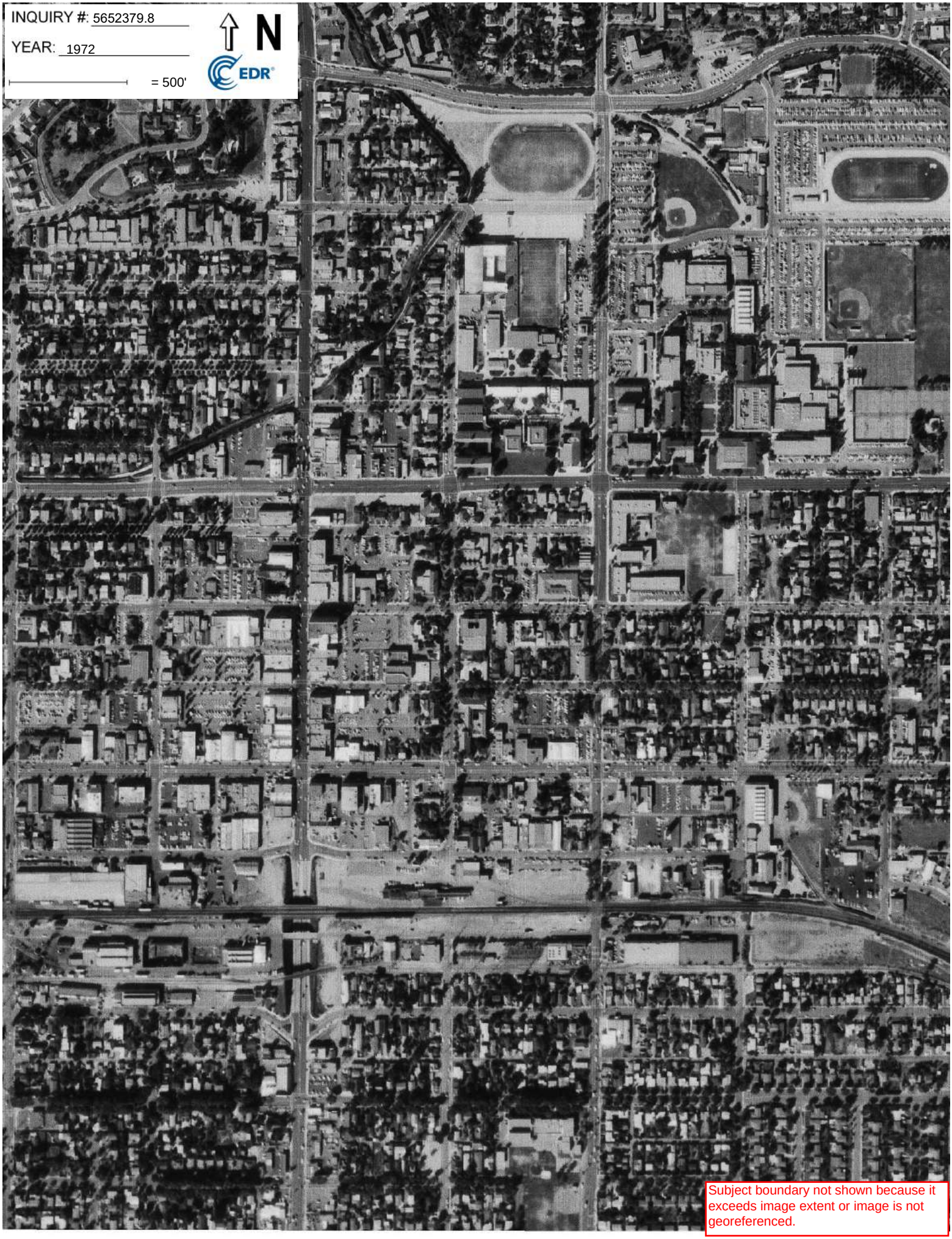
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EDR


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EDR


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YEAR: 1987
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N
EDR

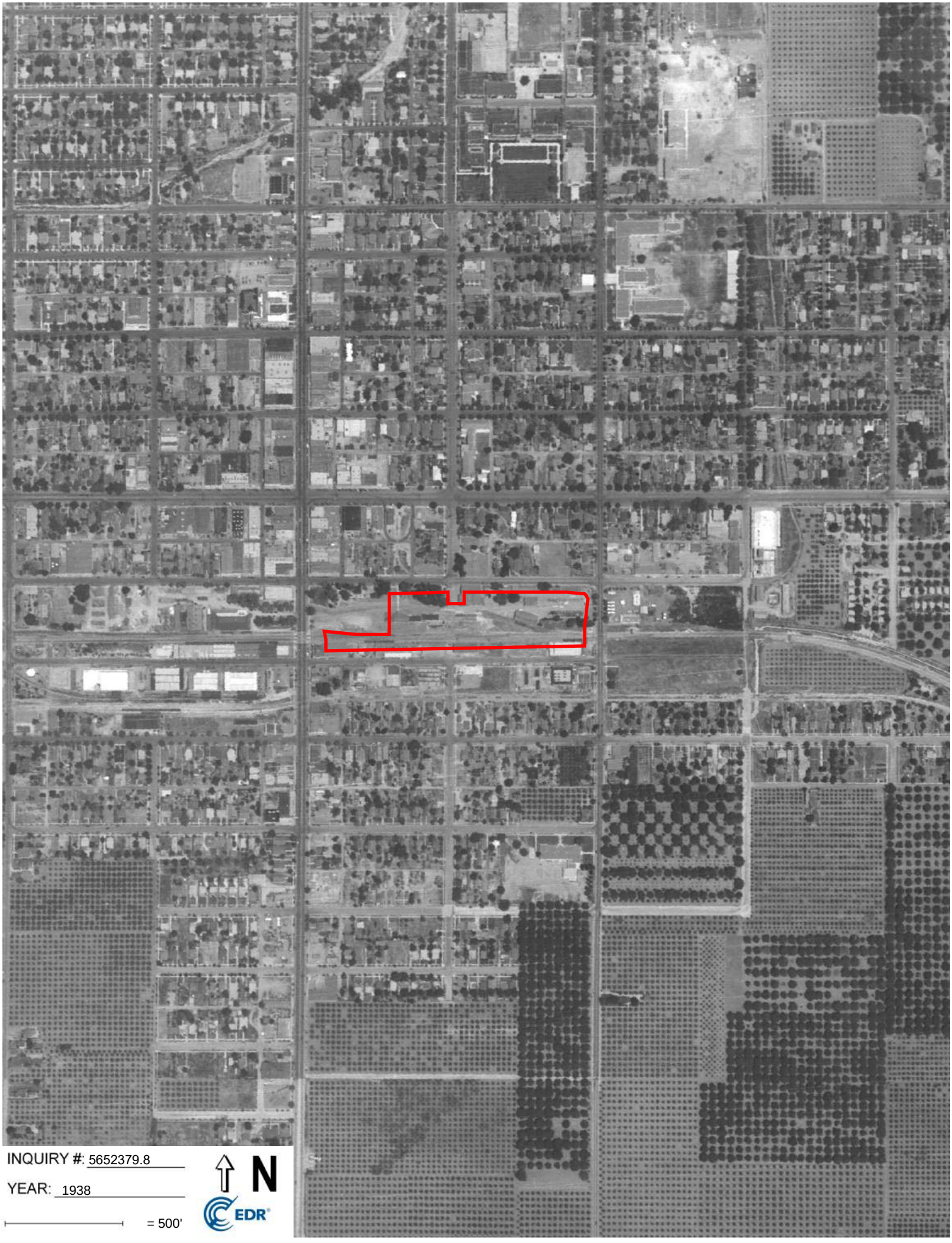

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EDR


INQUIRY #: 5652379.8
YEAR: 1972
= 500'
N
EDR
Subject boundary not shown because it exceeds image extent or image is not georeferenced.


INQUIRY #: 5652379.8
YEAR: 1963
= 500'
N
EDR


INQUIRY #: 5652379.8
YEAR: 1953
= 500'
N
EDR


INQUIRY #: 5652379.8
YEAR: 1947
= 500'
N
EDR


INQUIRY #: 5652379.8
YEAR: 1938
= 500'
N
EDR

Terrys Automotive Site
120 E Santa Fe Avenue
Fullerton, CA 92832

Inquiry Number: 5652379.3
May 14, 2019

Certified Sanborn® Map Report

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

05/14/19

Site Name:

Terrys Automotive Site
120 E Santa Fe Avenue
Fullerton, CA 92832
EDR Inquiry # 5652379.3

Client Name:

Terradyne
2136 Rutland Dr.
Austin, TX 78758
Contact: Sam Noori

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Certified Sanborn Results:

Certification # E522-45F7-BD36

PO # EDR Reports / ESA Phase I

Project 120 E Santa Fe Ave

Maps Provided:

1959
1949
1927
1917
1911
1907
1900
1894

Sanborn® Library search results

Certification #: E522-45F7-BD36

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- ☑ Library of Congress
- ☑ University Publications of America
- ☑ EDR Private Collection

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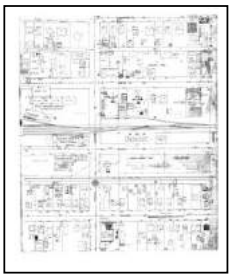
Sanborn Sheet Key

This Certified Sanborn Map Report is based upon the following Sanborn Fire Insurance map sheets.

1959 Source Sheets



Volume 1, Sheet 22
1959



Volume 1, Sheet 23
1959

1949 Source Sheets



Volume 1, Sheet 22
1949

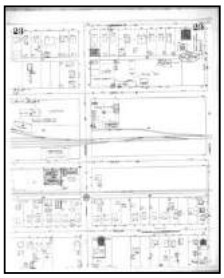


Volume 1, Sheet 23
1949

1927 Source Sheets



Volume 1, Sheet 22
1927

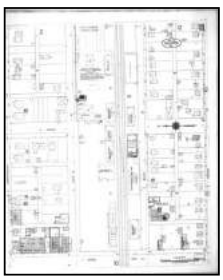


Volume 1, Sheet 23
1927

1917 Source Sheets



Volume 1, Sheet 2
1917



Volume 1, Sheet 11
1917

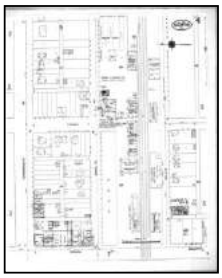
Sanborn Sheet Key

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1911 Source Sheets

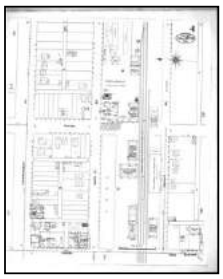


Volume 1, Sheet 5
1911



Volume 1, Sheet 4
1911

1907 Source Sheets

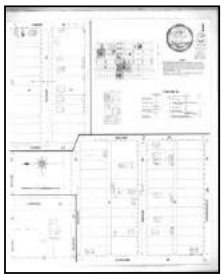


Volume 1, Sheet 4
1907

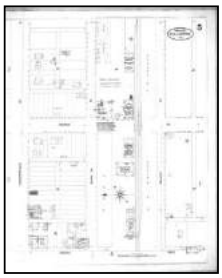


Volume 1, Sheet 5
1907

1900 Source Sheets

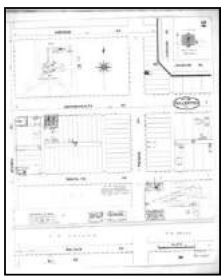


Volume 1, Sheet Keymap/Sheet 1
1900

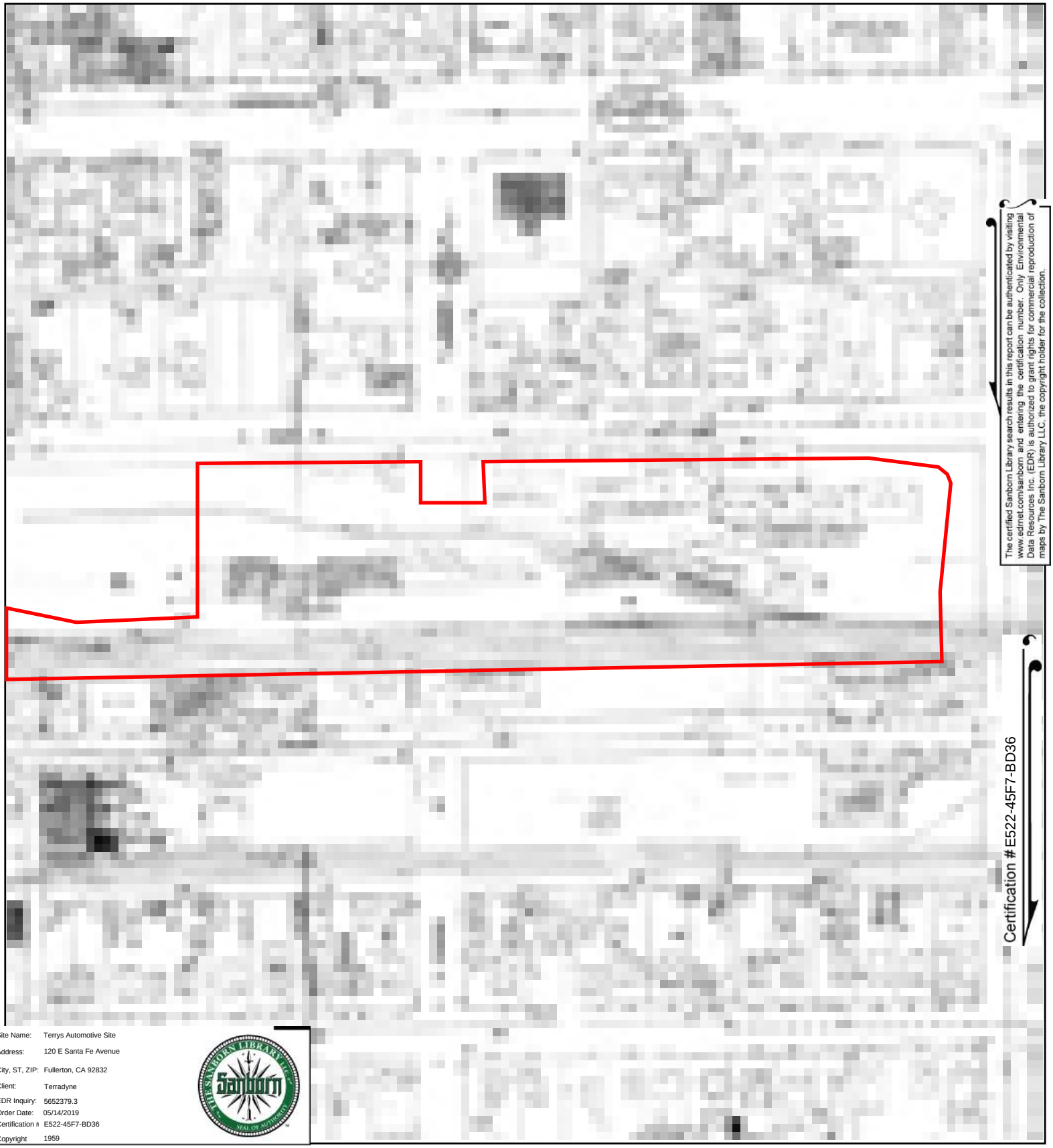


Volume 1, Sheet 5
1900

1894 Source Sheets



Volume 1, Sheet 2
1894



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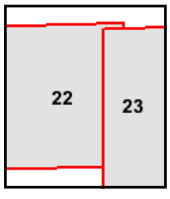
Certification #E522-45F7-BD36

Site Name:	Terrys Automotive Site
Address:	120 E Santa Fe Avenue
City, ST, ZIP:	Fullerton, CA 92832
Client:	Terradyne
EDR Inquiry:	5652379.3
Order Date:	05/14/2019
Certification #	E522-45F7-BD36
Copyright	1959

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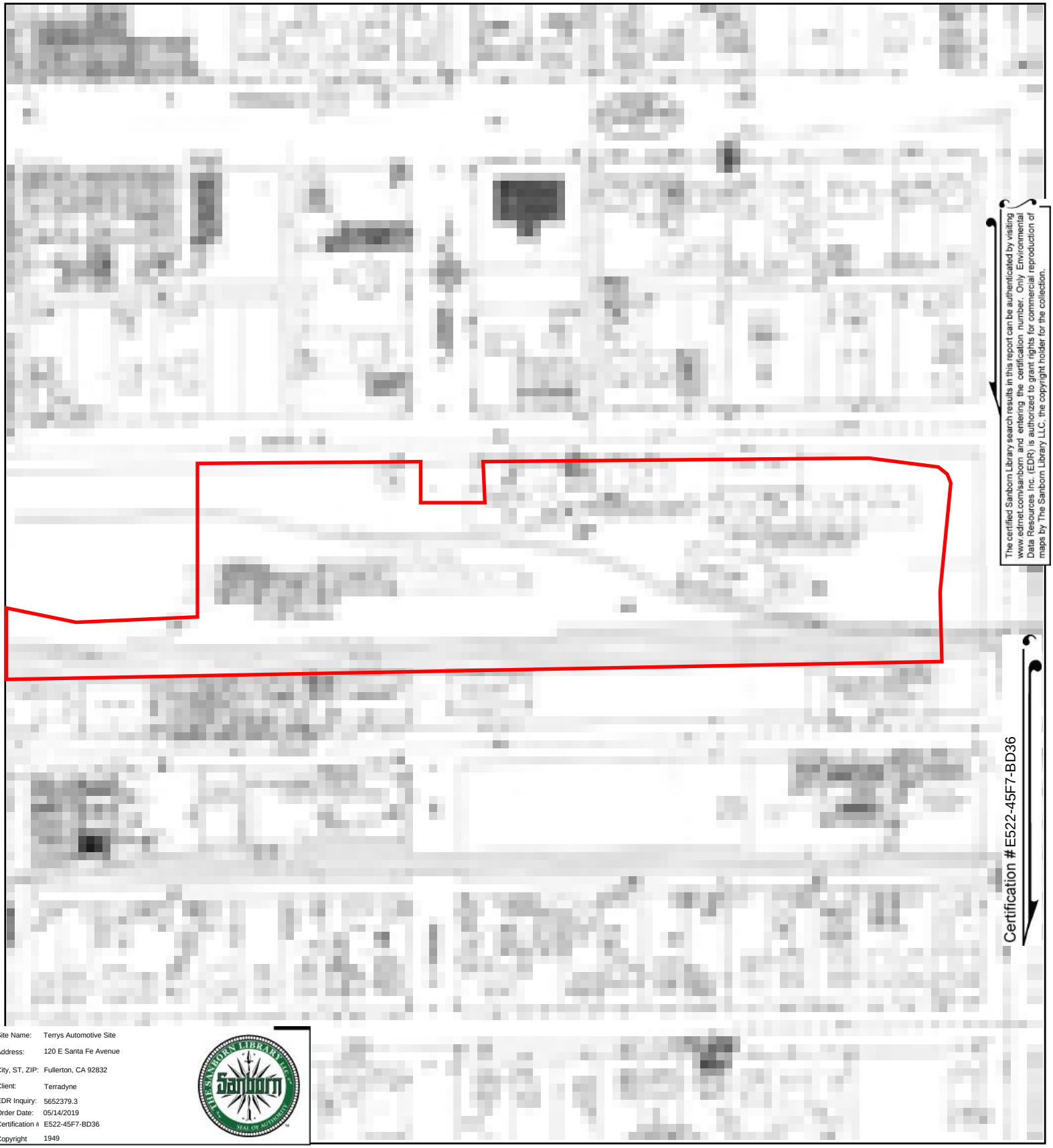
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Volume 1, Sheet 23
Volume 1, Sheet 22

N



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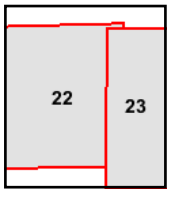
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Site Name: Terrys Automotive Site
Address: 120 E Santa Fe Avenue
City, ST, ZIP: Fullerton, CA 92832
Client: Terradyne
EDR Inquiry: 5652379.3
Order Date: 05/14/2019
Certification #: E522-45F7-BD36
Copyright: 1949

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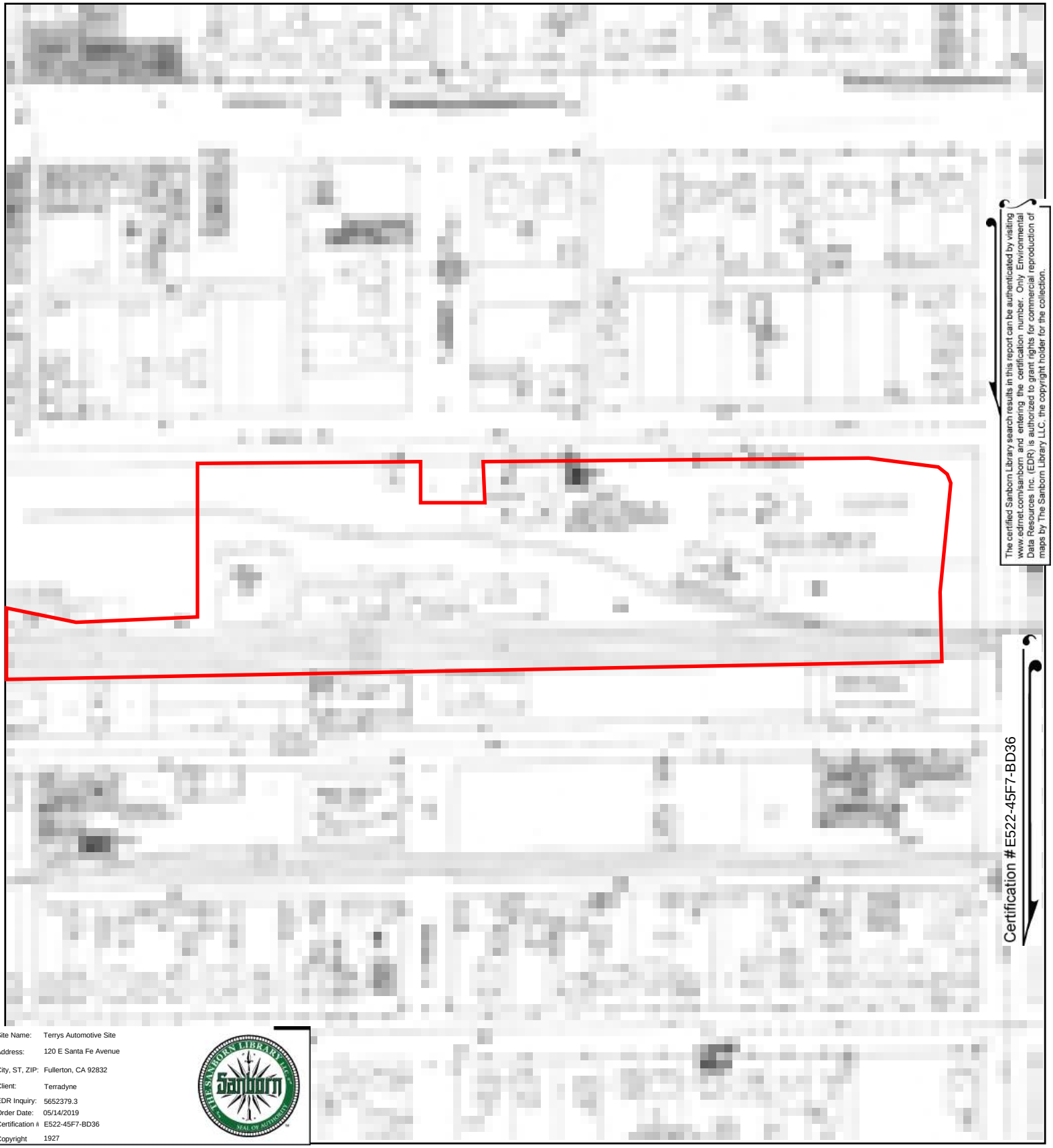
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Volume 1, Sheet 23
Volume 1, Sheet 22

N



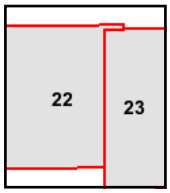
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Certification # E522-45F7-BD36

Site Name:	Terrys Automotive Site
Address:	120 E Santa Fe Avenue
City, ST, ZIP:	Fullerton, CA 92832
Client:	Terradyne
EDR Inquiry:	5652379.3
Order Date:	05/14/2019
Certification #	E522-45F7-BD36
Copyright	1927

This Certified Sanborn Map combines the following sheets.
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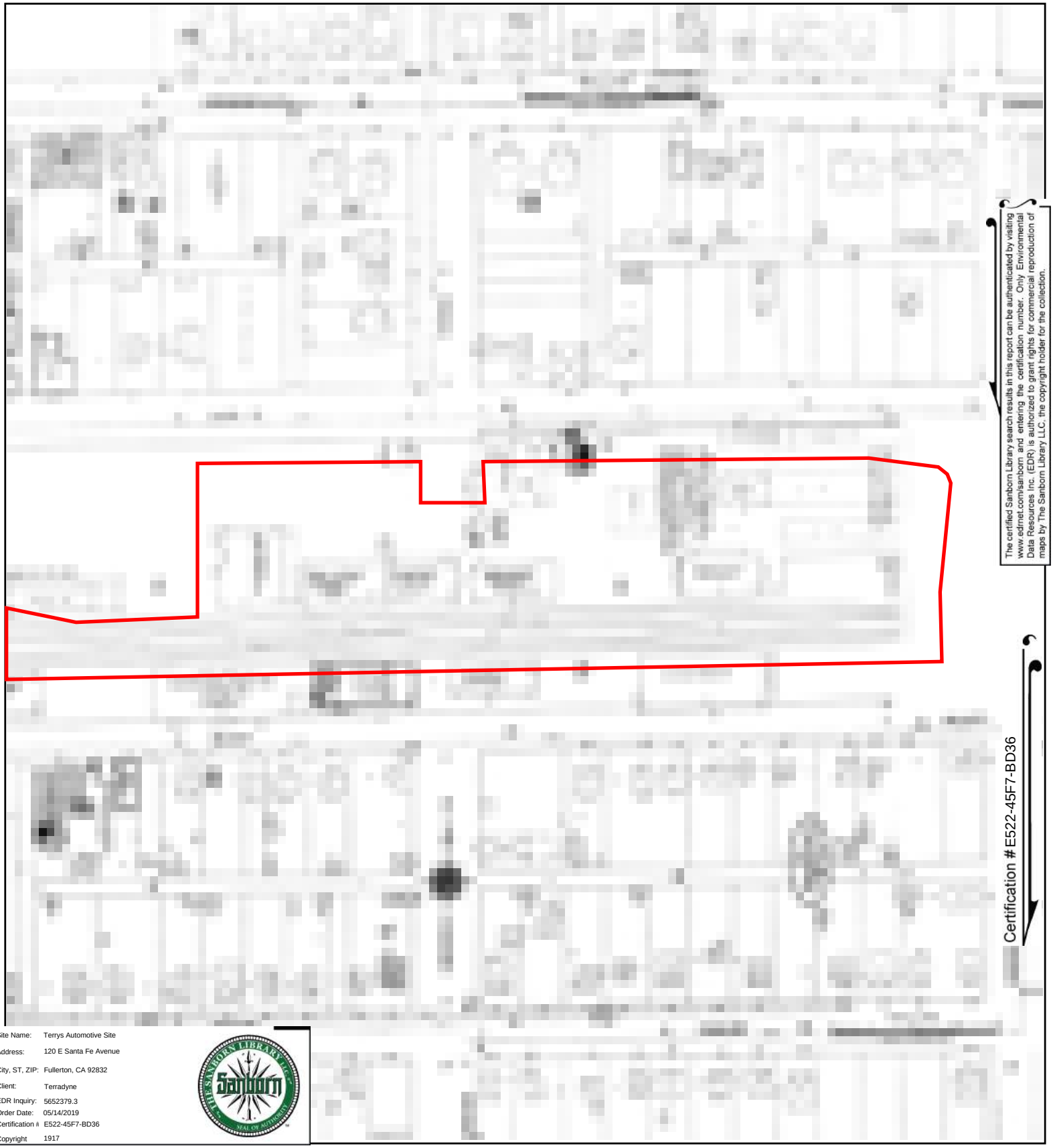




Volume 1, Sheet 23
Volume 1, Sheet 22

0 Feet 150 300 600

N



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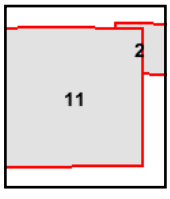
Certification #E522-45F7-BD36

Site Name: Terrys Automotive Site
Address: 120 E Santa Fe Avenue
City, ST, ZIP: Fullerton, CA 92832
Client: Terradyne
EDR Inquiry: 5652379.3
Order Date: 05/14/2019
Certification #: E522-45F7-BD36
Copyright: 1917

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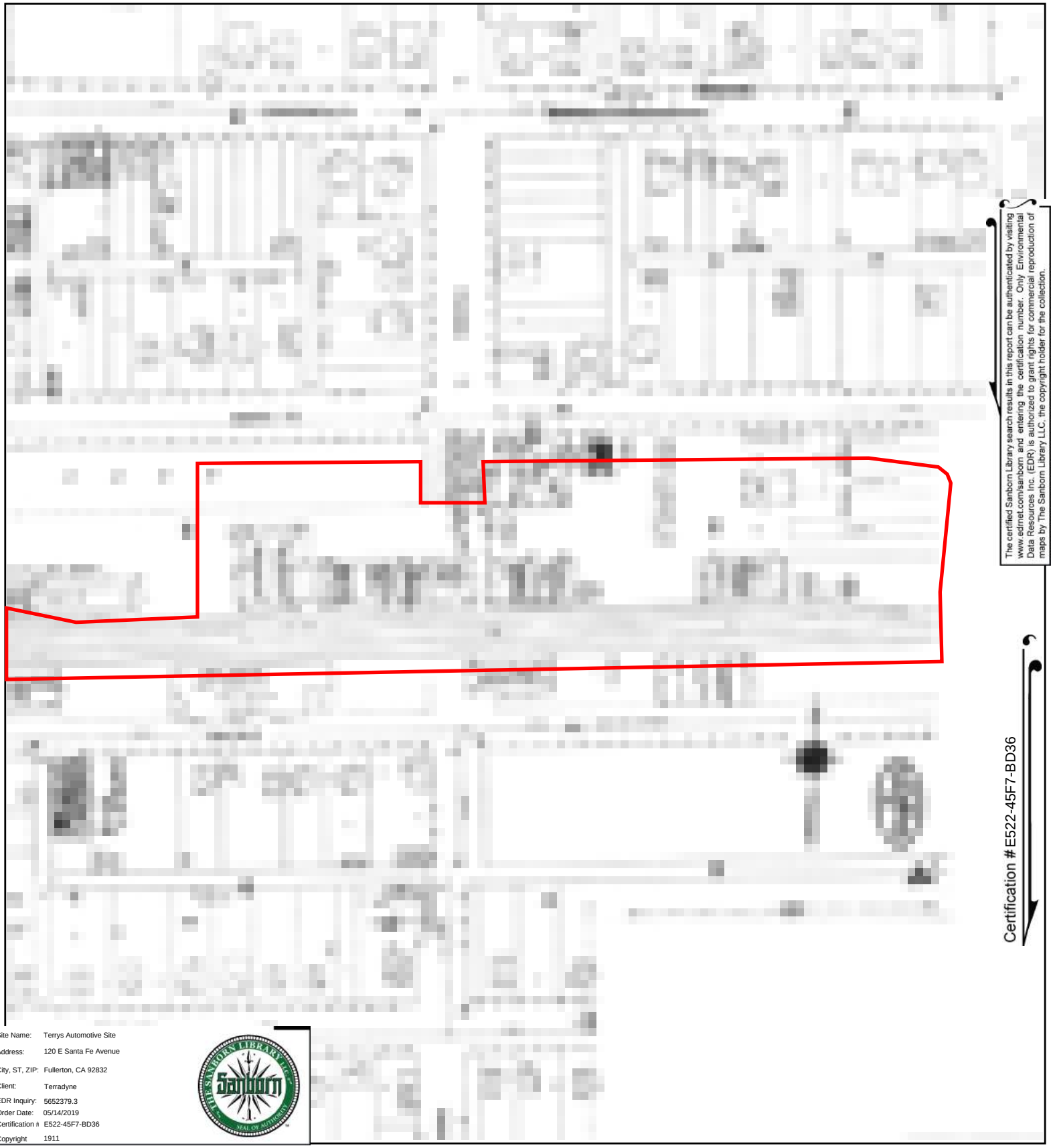
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Volume 1, Sheet 2

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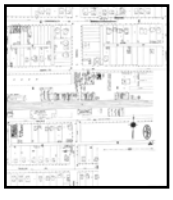
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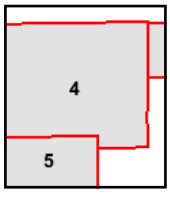
Certification #E522-45F7-BD36

Site Name: Terrys Automotive Site
Address: 120 E Santa Fe Avenue
City, ST, ZIP: Fullerton, CA 92832
Client: Terradyne
EDR Inquiry: 5652379.3
Order Date: 05/14/2019
Certification #: E522-45F7-BD36
Copyright: 1911

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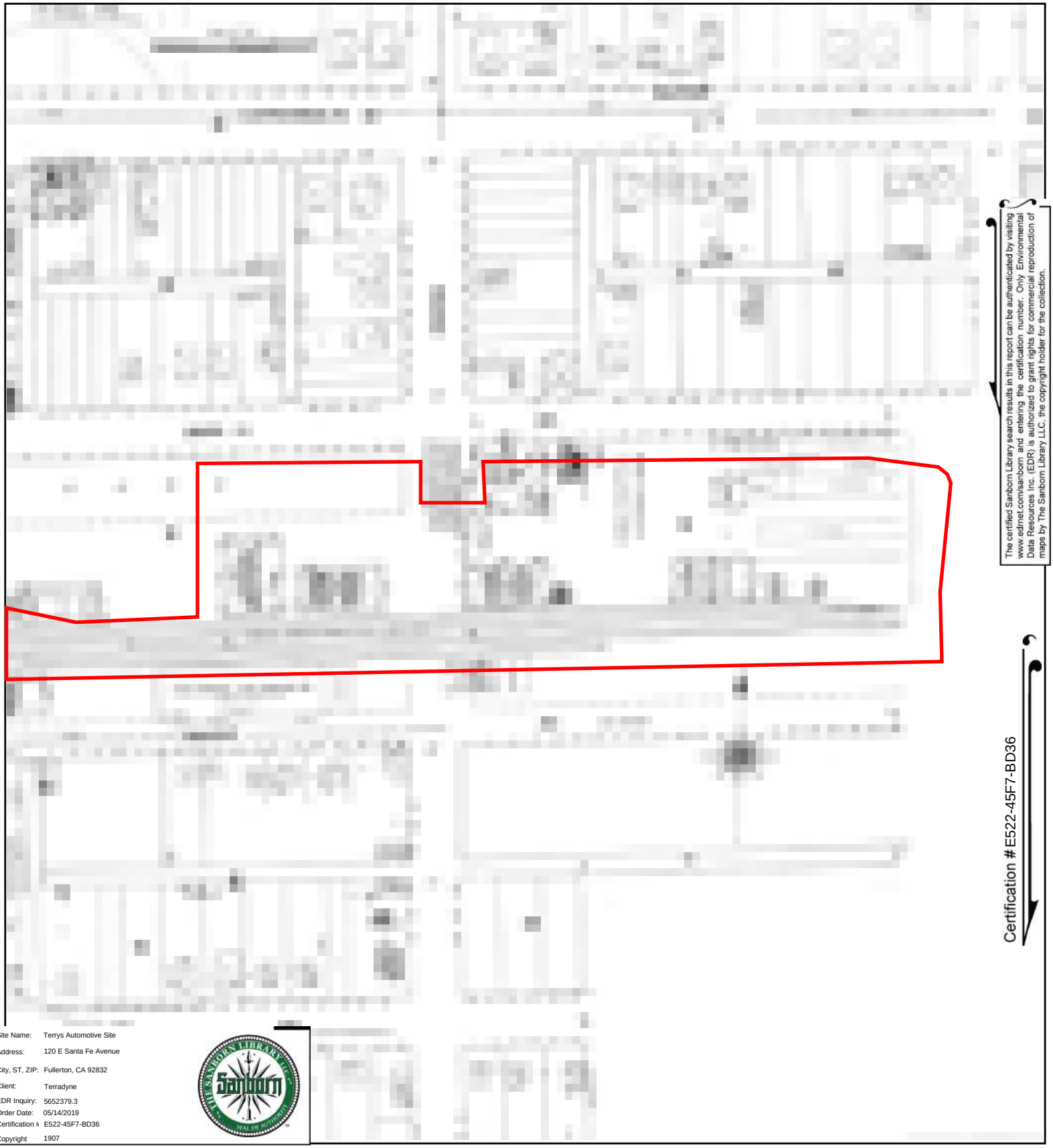
0 Feet 150 300 600





Volume 1, Sheet 4
Volume 1, Sheet 5

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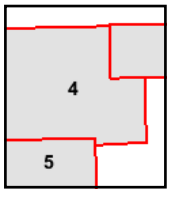
Certification #E522-45F7-BD36

Site Name: Terrys Automotive Site
Address: 120 E Santa Fe Avenue
City, ST, ZIP: Fullerton, CA 92832
Client: Terradyne
EDR Inquiry: 5652379.3
Order Date: 05/14/2019
Certification #: E522-45F7-BD36
Copyright: 1907

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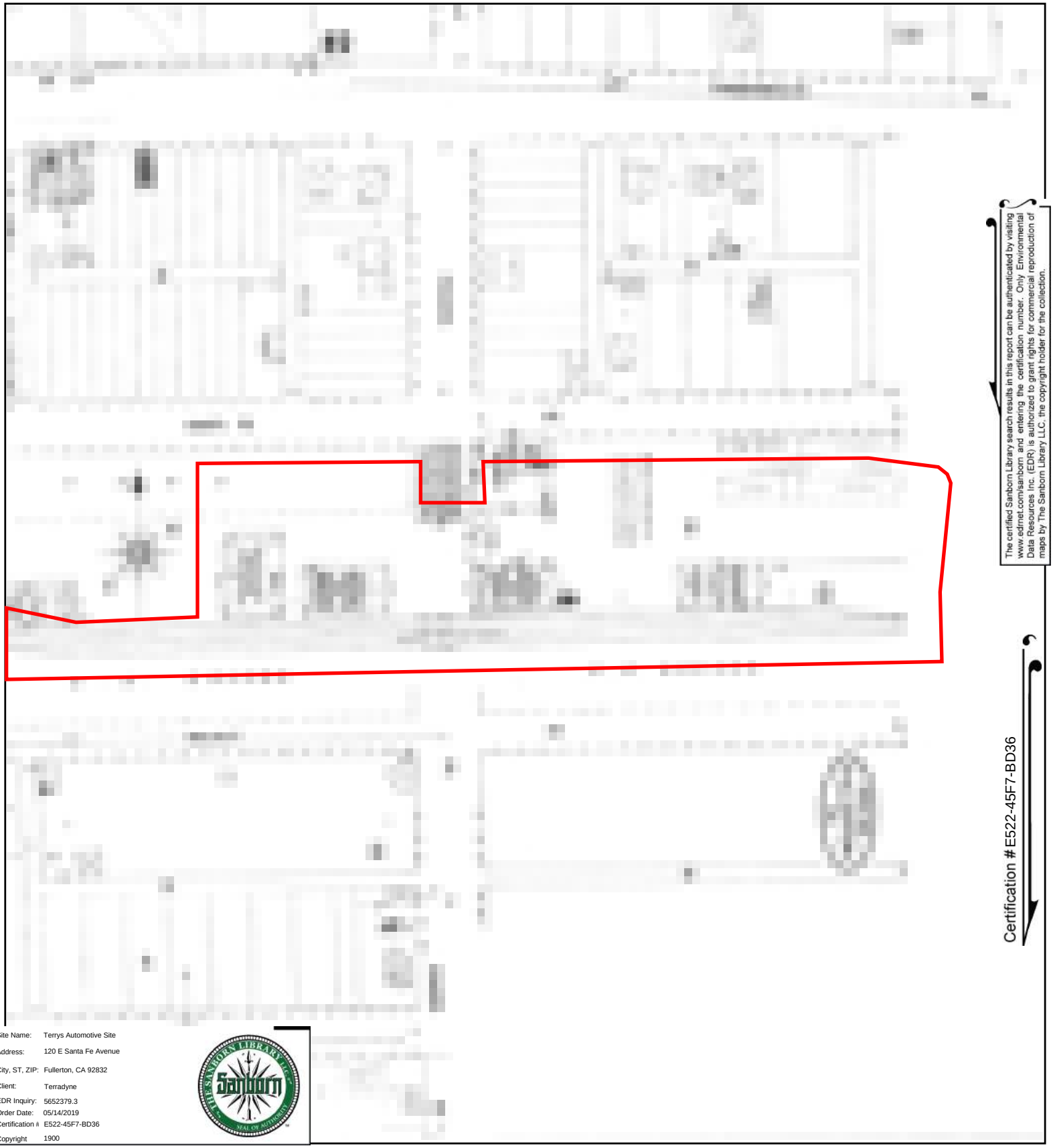
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Volume 1, Sheet 5
Volume 1, Sheet 4

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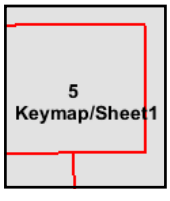
Certification #E522-45F7-BD36

Site Name: Terrys Automotive Site
Address: 120 E Santa Fe Avenue
City, ST, ZIP: Fullerton, CA 92832
Client: Terradyne
EDR Inquiry: 5652379.3
Order Date: 05/14/2019
Certification #: E522-45F7-BD36
Copyright: 1900

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Outlined areas indicate map sheets within the collection.

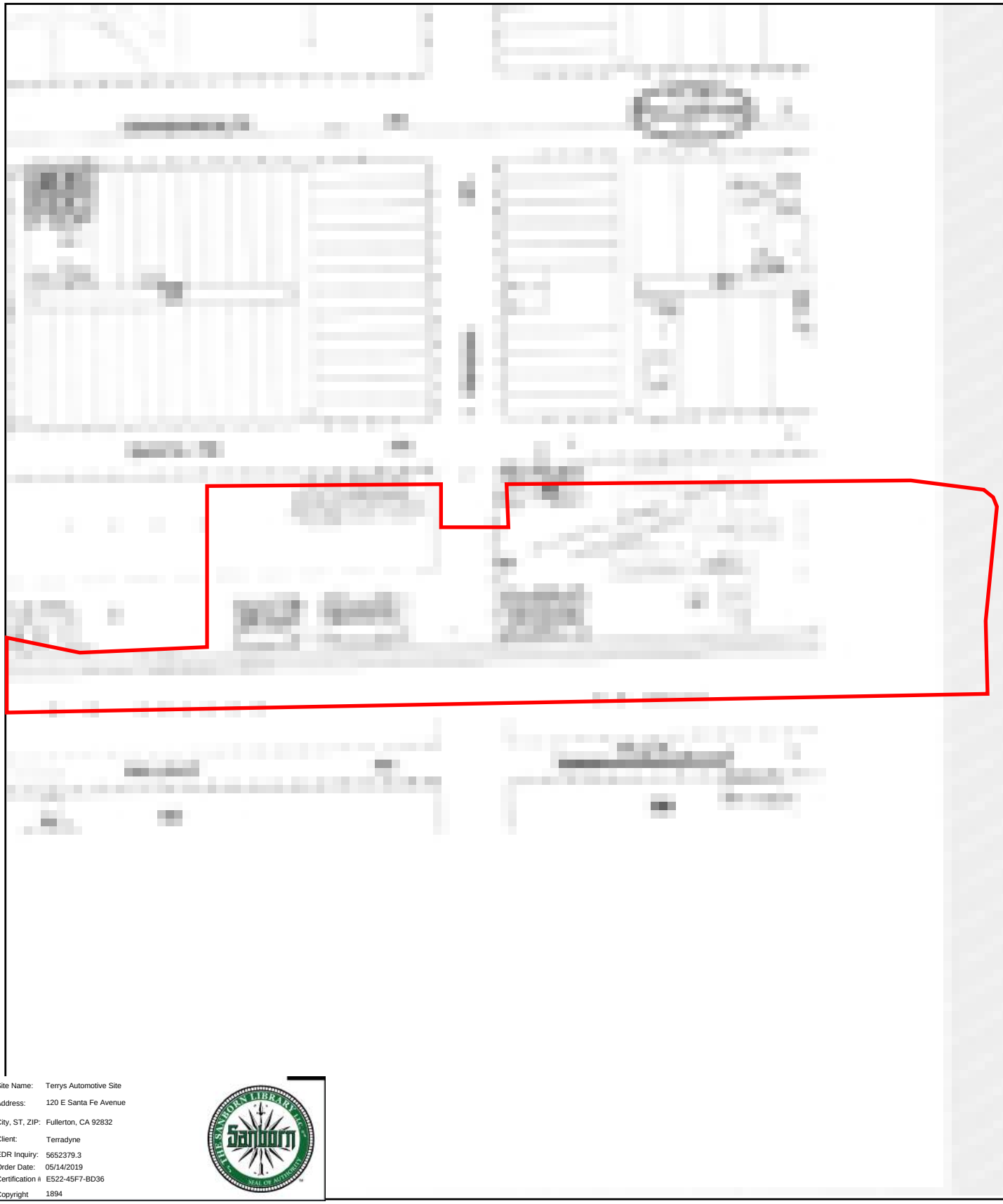
0 Feet 150 300 600





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Volume 1, Sheet Keymap/Sheet1

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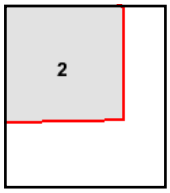
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Certification #E522-45F7-BD36

Site Name: Terrys Automotive Site
Address: 120 E Santa Fe Avenue
City, ST, ZIP: Fullerton, CA 92832
Client: Terradyne
EDR Inquiry: 5652379.3
Order Date: 05/14/2019
Certification #: E522-45F7-BD36
Copyright: 1894

This Certified Sanborn Map combines the following sheets.
Outlined areas indicate map sheets within the collection.





Volume 1, Sheet 2

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Environmental Records Search

Appendix D

Terradyne Project No. L194003

Terrys Automotive Site
120 E Santa Fe Avenue
Fullerton, CA 92832

Inquiry Number: 5652379.5
May 15, 2019

The EDR-City Directory Abstract

Environmental Data Resources Inc

6 Armstrong Road
Shelton, CT 06484
800.352.0050
www.edrnet.com

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SECTION

Executive Summary

Findings

City Directory Images

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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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.

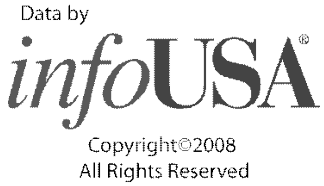
Business directories including city, cross reference and telephone directories were reviewed, if available, at approximately five year intervals for the years spanning 1920 through 2014. This report compiles information gathered in this review by geocoding the latitude and longitude of properties identified 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.

RECORD SOURCES

EDR's Digital Archive combines historical directory listings from sources such as Cole Information and Dun & Bradstreet. These standard sources of property information complement and enhance each other to provide a more comprehensive report.

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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
2014	EDR Digital Archive	-	X	X	-
2010	EDR Digital Archive	-	X	X	-
2005	EDR Digital Archive	-	X	X	-
2002	Haines Company	-	-	-	-
2001	Pacific Telephone	-	-	-	-
1997	Pacific Telephone	-	-	-	-
1995	Pacific Bell	-	X	X	-
	Pacific Bell	X	X	X	-
1992	Pacific Bell	-	-	-	-
1991	Pacific Bell	-	X	X	-
1986	Pacific Bell	-	X	X	-
1980	Pacific Telephone	-	X	X	-

EXECUTIVE SUMMARY

Year	Source	TP	Adjoining	Text Abstract	Source Image
1980	Pacific Telephone	X	X	X	-
1975	Luskey Brothers & Co., Inc.	-	X	X	-
	Luskey Brothers & Co., Inc.	X	X	X	-
1971	Luskey Brothers Co., Inc.	-	-	-	-
1970	General Telephone Co., of California	-	X	X	-
	General Telephone Co., of California	X	X	X	-
1966	Pacific Telephone	-	X	X	-
	Pacific Telephone	X	X	X	-
1965	Ross Publications, Inc.,	-	X	X	-
1961	Luskey Brothers & Co.,	-	-	-	-
1960	Luskey Brothers & Co.,	-	X	X	-
	Luskey Brothers & Co.,	X	X	X	-
1956	Luskey Brothers & Co., Inc.	-	X	X	-
	Luskey Brothers & Co., Inc.	X	X	X	-
1955	The Pacific Telephone and Telegraph Co.	-	X	X	-
	The Pacific Telephone and Telegraph Co.	X	X	X	-
1952	Luskeys Directory Service Co.	-	-	-	-
1950	The Pacific Telephone and Telegraph Co.	-	X	X	-
	The Pacific Telephone and Telegraph Co.	X	X	X	-
1946	Southern California Telephone Co.	-	X	X	-
1945	McCutcheon & Bragonier	-	X	X	-
	McCutcheon & Bragonier	X	X	X	-
1941	Southern California Telephone Co.	-	X	X	-
	Southern California Telephone Co.	X	X	X	-
1936	Western Directory Co.	-	-	-	-
1930	Western Directory Co.	-	-	-	-
1926	Pacific Telephone	-	-	-	-
1925	Western Directory Co.	-	X	X	-
1922	Kaasen Directory Co.	-	X	X	-
1921	Western Directory Co.	-	-	-	-
1920	Santa Ana Directory Co.	-	-	-	-

FINDINGS

TARGET PROPERTY INFORMATION

ADDRESS

120 E Santa Fe Avenue
Fullerton, CA 92832

FINDINGS DETAIL

Target Property research detail.

E SANTA FE AVE

120 E SANTA FE AVE

Year	Uses	Source
1995	Sarta Fe Railway	Pacific Bell
1980	Amtrak	Pacific Telephone
1975	City Transfer	Luskey Brothers & Co., Inc.
	Weinman Trucking Service	Luskey Brothers & Co., Inc.
1970	City Transfer	General Telephone Co., of California
1966	City Transfer	Pacific Telephone
1955	Coast Carloading Co	The Pacific Telephone and Telegraph Co.
1950	Fullerton Depot	The Pacific Telephone and Telegraph Co.
1941	Santa Fe Depot	Southern California Telephone Co.
	Westn Union Telegraph Co	Southern California Telephone Co.

SANTA FE AVE E

120 SANTA FE AVE E

Year	Uses	Source
1960	S F RY	Luskey Brothers & Co.,
1956	Santa Fe Ry pass	Luskey Brothers & Co., Inc.
1950	Santa Fe Ry pass & frt sta	The Pacific Telephone and Telegraph Co.
	Western Union	The Pacific Telephone and Telegraph Co.
1945	4 Wistn Union	McCutcheon & Bragonier
	ASanta Fe Ry	McCutcheon & Bragonier

FINDINGS

ADJOINING PROPERTY DETAIL

The following Adjoining Property addresses were researched for this report. Detailed findings are provided for each address.

COMMONWEALTH AVE

117 COMMONWEALTH AVE

Year	Uses	Source
1991	Fullerton	Pacific Bell
1925	Wickersheim Building	Western Directory Co.

242 COMMONWEALTH AVE

Year	Uses	Source
1980	FRANKS ITALIAN FOODS	Pacific Telephone

COMMONWEALTH AVE E

102 COMMONWEALTH AVE E

Year	Uses	Source
1965	n WILLARD BEAUTY SUPPLY	Ross Publications, Inc.,
1960	PAC FINANCE LOANS	Luskey Brothers & Co.,
1956	Loans Lam	Luskey Brothers & Co., Inc.
	Pacific Finance	Luskey Brothers & Co., Inc.

104 COMMONWEALTH AVE E

Year	Uses	Source
1965	PACIFIC FINANCE LOANS	Ross Publications, Inc.,
1960	SMITH VERNE MEAT MKT	Luskey Brothers & Co.,
1956	Smith Verne	Luskey Brothers & Co., Inc.
1950	Smiths R L meat mkt	The Pacific Telephone and Telegraph Co.
	Stein Strauss Co Inc mkt	The Pacific Telephone and Telegraph Co.
1945	Raymond Johnson maats	McCutcheon & Bragonier
	W E Laufman fruits	McCutcheon & Bragonier

105 COMMONWEALTH AVE E

Year	Uses	Source
1956	Hatherly Eliz Mrs Lam	Luskey Brothers & Co., Inc.
1950	Hatherly J W	The Pacific Telephone and Telegraph Co.
1945	J W Hatherly	McCutcheon & Bragonier
1922	Hagenstein Guss atty	Kaasen Directory Co.

FINDINGS

Year	Uses	Source
1922	Edens & Wagner trucking	Kaasen Directory Co.
	Mitchell H B dentist	Kaasen Directory Co.
	U S Long Distance	Kaasen Directory Co.
	Shoupe G J Mrs hairdresser	Kaasen Directory Co.
	Henderson Vanneta chiro	Kaasen Directory Co.
	Amerige Block	Kaasen Directory Co.
	Amerige G H	Kaasen Directory Co.

106 COMMONWEALTH AVE E

Year	Uses	Source
1965	n GRIMMS WATCH SHOP	Ross Publications, Inc.,
1960	GRIMMS WATCH SHOP	Luskey Brothers & Co.,
1956	Grimms Watch Shop Lam	Luskey Brothers & Co., Inc.
1950	Grimms Watch Shop 1601 W	The Pacific Telephone and Telegraph Co.
1945	AH H Schwoob ins	McCutcheon & Bragonier
	AStein Strauss Co genl mdse	McCutcheon & Bragonier

107 COMMONWEALTH AVE E

Year	Uses	Source
1950	Dress Box The 1504 J	The Pacific Telephone and Telegraph Co.
1945	The Dress Box	McCutcheon & Bragonier

108 COMMONWEALTH AVE E

Year	Uses	Source
1965	CURLYS BARBER SHOP	Ross Publications, Inc.,
1960	MACKS BARBER SHOP	Luskey Brothers & Co.,
1956	Macks Barber Shop	Luskey Brothers & Co., Inc.
1950	Louis Shoe Stand	The Pacific Telephone and Telegraph Co.
	Macks Barber Shop	The Pacific Telephone and Telegraph Co.
1945	S 0 Mc Gaughy barber	McCutcheon & Bragonier

109 COMMONWEALTH AVE E

Year	Uses	Source
1965	GENERAL UPHOLSTERING SH	Ross Publications, Inc.,
1960	GENL UPHOL	Luskey Brothers & Co.,
1956	Vacant	Luskey Brothers & Co., Inc.
1950	Vacant	The Pacific Telephone and Telegraph Co.
1945	a A & A Radio & Appi Co	McCutcheon & Bragonier
1922	Fullerton Realty Co	Kaasen Directory Co.

FINDINGS

111 COMMONWEALTH AVE E

Year	Uses	Source
1965	REYNOLDS PHOTO STUDIO	Ross Publications, Inc.,
1960	REYNOLDS PORTR AIT STUDIO	Luskey Brothers & Co.,
1956	Reynolds Studio photog Lam	Luskey Brothers & Co., Inc.
1950	Reynolds Studio photog 1536 J	The Pacific Telephone and Telegraph Co.
1945	a 14 Reynolds Studio photog	McCutcheon & Bragonier
1922	Mc Farlands Cafe	Kaasen Directory Co.

112 COMMONWEALTH AVE E

Year	Uses	Source
1965	WILLIAMS COTHE	Ross Publications, Inc.,
1960	WILLIAMS CO THE	Luskey Brothers & Co.,
1956	Ful War Surplus Lam	Luskey Brothers & Co., Inc.
1950	Williams Co salvage	The Pacific Telephone and Telegraph Co.
1945	a Ful Linoleum & Awning Co	McCutcheon & Bragonier
	4 State Dept of Emp	McCutcheon & Bragonier
	a Salvatlon Army Store l 13qr U S Emp Serv	McCutcheon & Bragonier
1922	Crain Priscilla Mrs	Kaasen Directory Co.
	Gold Aaron	Kaasen Directory Co.
	Daffern J W	Kaasen Directory Co.

113 COMMONWEALTH AVE E

Year	Uses	Source
1965	JUDY LYNN BAKERY	Ross Publications, Inc.,
1960	TEIGENS PNT & WALLPAPER	Luskey Brothers & Co.,
	JUDY LYNN BAKERY	Luskey Brothers & Co.,
1956	Judy Lynn Bakery Lam	Luskey Brothers & Co., Inc.
	1/2 Teigen Paint Store Lam	Luskey Brothers & Co., Inc.
1950	Vacant	The Pacific Telephone and Telegraph Co.
	V 2 Starr J L Paint Store 597 R	The Pacific Telephone and Telegraph Co.
1922	Printery The	Kaasen Directory Co.

114 COMMONWEALTH AVE E

Year	Uses	Source
1965	MOOSE LODGE NO	Ross Publications, Inc.,
1960	LOYAL ORDER OF MOOSE FUL LODGE	Luskey Brothers & Co.,
1956	Sav Mor Home Supply	Luskey Brothers & Co., Inc.
1950	Va Ful Moose Lodge	The Pacific Telephone and Telegraph Co.
	Sales Ful Lockers froz fd	The Pacific Telephone and Telegraph Co.

Year	Uses	Source
1950	Ted & Zellas Club Center	The Pacific Telephone and Telegraph Co.
1945	ABC Food Bank	McCutcheon & Bragonier
1922	Pearce N E Mrs	Kaasen Directory Co.
	w Wright J W	Kaasen Directory Co.
	Oglesby W F ins agt	Kaasen Directory Co.
	Boege E 0 sporting goods	Kaasen Directory Co.

115 COMMONWEALTH AVE E

Year	Uses	Source
1965	CALIFORNIA HEALTH FOODS	Ross Publications, Inc.,
	OFULLERTON HEARING AID C	Ross Publications, Inc.,
1960	CALIF HEALTH FOODS	Luskey Brothers & Co.,
1956	Brosnan D J ins Lam	Luskey Brothers & Co., Inc.
	Calif Health Food	Luskey Brothers & Co., Inc.
	Store Lam	Luskey Brothers & Co., Inc.
1950	Brosnan Inc Agcy 1327 J	The Pacific Telephone and Telegraph Co.
	Cal Health Food Store 1327 J	The Pacific Telephone and Telegraph Co.
1945	Mrs M M Willwater health foods	McCutcheon & Bragonier
	D J Brosnan ins	McCutcheon & Bragonier
1922	Unique Cleaners	Kaasen Directory Co.

116 COMMONWEALTH AVE E

Year	Uses	Source
1922	Davis L A plumber	Kaasen Directory Co.

117 COMMONWEALTH AVE E

Year	Uses	Source
1965	VACANT	Ross Publications, Inc.,
1960	WORLD TRAVEL BUR	Luskey Brothers & Co.,
	SOU CHINA CAFE	Luskey Brothers & Co.,
1956	South China Cafe Lam	Luskey Brothers & Co., Inc.
	1/2 Geni Uphol Shop Lam	Luskey Brothers & Co., Inc.
	Lee Jee Lam	Luskey Brothers & Co., Inc.
1950	V 2 Vacant	The Pacific Telephone and Telegraph Co.
	Coles Lunch 657 R	The Pacific Telephone and Telegraph Co.
1945	Orange Administrative Committee	McCutcheon & Bragonier
	4 E R Ruedrich acct	McCutcheon & Bragonier
	C F Peters real est	McCutcheon & Bragonier
	Culp & Williams Ins	McCutcheon & Bragonier

FINDINGS

Year	Uses	Source
1945	H B Bemis real est	McCutcheon & Bragonier
	Pac Citrus Prod Co whse	McCutcheon & Bragonier
1922	Orange Co Ignition Wks	Kaasen Directory Co.

118 COMMONWEALTH AVE E

Year	Uses	Source
1965	AUTHORIZED APPLICANCE C	Ross Publications, Inc.,
1960	SCHULZ WALTER J APPL	Luskey Brothers & Co.,
	SCHULZ WALTER J APPL	Luskey Brothers & Co.,
1956	Schulz W J elec appl Lam	Luskey Brothers & Co., Inc.
1950	Schuliz W J hshld appis 295 W	The Pacific Telephone and Telegraph Co.
1945	Moose Hall	McCutcheon & Bragonier
	W J Schulz elec appi	McCutcheon & Bragonier
1922	120 Sprague G A H clnr	Kaasen Directory Co.
	Hogle S F harnessmakr	Kaasen Directory Co.
	Maxwell J B barber	Kaasen Directory Co.

119 COMMONWEALTH AVE E

Year	Uses	Source
1965	CHUCKS HOBBY HOUSE	Ross Publications, Inc.,
1960	BAKERS CHUCK HOB BY HSE	Luskey Brothers & Co.,
1956	Bakers Chuck	Luskey Brothers & Co., Inc.
	Hobby House Lam	Luskey Brothers & Co., Inc.
1950	No return	The Pacific Telephone and Telegraph Co.
1945	U S O	McCutcheon & Bragonier

120 COMMONWEALTH AVE E

Year	Uses	Source
1965	H IRWIN	Ross Publications, Inc.,
1960	INCOME TAX & RL EST	Luskey Brothers & Co.,
	H IRWIN	Luskey Brothers & Co.,
1956	Irwin Howard appraiser Lam	Luskey Brothers & Co., Inc.
	Pegler H C rl est Lam	Luskey Brothers & Co., Inc.
	V 2 Crooke F A ins Lam	Luskey Brothers & Co., Inc.
1950	Irwin Howard	The Pacific Telephone and Telegraph Co.
	Pegler H C real est	The Pacific Telephone and Telegraph Co.
	Crook F A ins	The Pacific Telephone and Telegraph Co.
1945	AW L Waters atty	McCutcheon & Bragonier
	a Howard Irwin real est	McCutcheon & Bragonier

FINDINGS

121 COMMONWEALTH AVE E

Year	Uses	Source
1960	CHRISTIAN SCIENCE READING RM	Luskey Brothers & Co.,
1956	Reading Room Lam	Luskey Brothers & Co., Inc.
	Christian Science	Luskey Brothers & Co., Inc.
1950	Vacant	The Pacific Telephone and Telegraph Co.
1945	Vacant	McCutcheon & Bragonier
1922	Crown Stage Lines	Kaasen Directory Co.
	Pitts & Wilkinson oil sta	Kaasen Directory Co.

122 COMMONWEALTH AVE E

Year	Uses	Source
1965	JOES BARBER SHOP	Ross Publications, Inc.,
1960	JOES BARBER SHOP	Luskey Brothers & Co.,
	SCHULZ WALTER J	Luskey Brothers & Co.,
1956	Fashion Barber Shop Lam	Luskey Brothers & Co., Inc.
	Cooke A GLam	Luskey Brothers & Co., Inc.
	1/2 World Travel Bureau Lam	Luskey Brothers & Co., Inc.
	Greyhound Bus Depot Lam	Luskey Brothers & Co., Inc.
1950	Fashion Barber Shop 1175 Cooke A G	The Pacific Telephone and Telegraph Co.
1945	A G Cooke barber	McCutcheon & Bragonier
	AMrs Angie Bouslog drsmkr	McCutcheon & Bragonier
1922	Guthaus C J	Kaasen Directory Co.
	Engman Edwd baker	Kaasen Directory Co.

123 COMMONWEALTH AVE E

Year	Uses	Source
1965	CHRISTIAN SCIENCE READI	Ross Publications, Inc.,
1956	George & Raes Cafe	Luskey Brothers & Co., Inc.
1950	George & Raes Cafe	The Pacific Telephone and Telegraph Co.
1945	W G Grimm watch repr	McCutcheon & Bragonier

124 COMMONWEALTH AVE E

Year	Uses	Source
1965	CAL FURNITURE FREIGHT	Ross Publications, Inc.,
1960	PROSPERITY CLNRS	Luskey Brothers & Co.,
1956	Prosperity Clnrs Lam	Luskey Brothers & Co., Inc.
1950	Prosperity Clnrs	The Pacific Telephone and Telegraph Co.
	Ellis F E	The Pacific Telephone and Telegraph Co.
1945	AProsperity Cleaners	McCutcheon & Bragonier

FINDINGS

Year	Uses	Source
1922	Riley Harry D autoa	Kaasen Directory Co.

125 COMMONWEALTH AVE E

Year	Uses	Source
1956	Hertz Rent A Car Lam 5 4866 Hertz Truck	Luskey Brothers & Co., Inc.
	Rental Serv n Lam	Luskey Brothers & Co., Inc.
	Valley U Drive Co Lam	Luskey Brothers & Co., Inc.
	Ful Yellow Cab Co LLam	Luskey Brothers & Co., Inc.
1950	Ful Yellow Cab Co	The Pacific Telephone and Telegraph Co.
	Zip Cab Co 44 and 76 Am Bus Lines	The Pacific Telephone and Telegraph Co.
1945	Mel Meyer used cars	McCutcheon & Bragonier
1922	Shoupe Glen sewing machs	Kaasen Directory Co.
	Stull Mayme Mrs hemstitch	Kaasen Directory Co.

127 COMMONWEALTH AVE E

Year	Uses	Source
1922	Ireland & Son carp	Kaasen Directory Co.

129 COMMONWEALTH AVE E

Year	Uses	Source
1965	GN MULLEN	Ross Publications, Inc.,
1960	GM MULLEN	Luskey Brothers & Co.,
1956	Baker W BLam	Luskey Brothers & Co., Inc.
	Scheibler M 0 Lam	Luskey Brothers & Co., Inc.
1950	Wilson H W Mrs 325 W	The Pacific Telephone and Telegraph Co.
1945	Mrs H W Wilson	McCutcheon & Bragonier
1922	Wilson C B	Kaasen Directory Co.

130 COMMONWEALTH AVE E

Year	Uses	Source
1965	METROPOLITAN TRANSIT AU	Ross Publications, Inc.,
	GREYHOUND BUS DEPOT	Ross Publications, Inc.,
	TRANSPORTATION CNTR VAC	Ross Publications, Inc.,
1960	MET TRANS AUTHORITY	Luskey Brothers & Co.,
	GREYHOUND BUS DEPOT	Luskey Brothers & Co.,
	RAILWAY EXP AGCY	Luskey Brothers & Co.,
1956	Sou Pac Co Lam	Luskey Brothers & Co., Inc.
	Pac Elec Ry Lam	Luskey Brothers & Co., Inc.
1950	Pac Elec RY	The Pacific Telephone and Telegraph Co.
	Sou Pac Co	The Pacific Telephone and Telegraph Co.

Year	Uses	Source
1945	APacific Elec Ry Co	McCutcheon & Bragonier
	ARailway Exp Agency	McCutcheon & Bragonier
	ASouthern Pacific Co a Pac Greyhound Lines	McCutcheon & Bragonier
1922	Pac Elec Ry Depot	Kaasen Directory Co.

133 COMMONWEALTH AVE E

Year	Uses	Source
1965	NGM VANCLEAVE	Ross Publications, Inc.,
1956	Lang C M Mrs Lam	Luskey Brothers & Co., Inc.
1950	Lang J H	The Pacific Telephone and Telegraph Co.
1945	AJ H Lang phys	McCutcheon & Bragonier
1922	Lang JHphys	Kaasen Directory Co.

138 COMMONWEALTH AVE E

Year	Uses	Source
1956	Dots Spot Cafe	Luskey Brothers & Co., Inc.
1950	Dots Spot Cafe	The Pacific Telephone and Telegraph Co.
1945	A 4 Foss Serv Station	McCutcheon & Bragonier
1922	Davis W E	Kaasen Directory Co.

139 COMMONWEALTH AVE E

Year	Uses	Source
1965	RAMSEY REALTY	Ross Publications, Inc.,
1960	RAMSEY OR TROUT RLTRS	Luskey Brothers & Co.,
1956	Holve N K Mrs Lam	Luskey Brothers & Co., Inc.
	Ramnsey & Trout Lam	Luskey Brothers & Co., Inc.
	Turner E C Mrs	Luskey Brothers & Co., Inc.
	Am cor Constn Co Inc Lam	Luskey Brothers & Co., Inc.
1950	Holve N K Mrs m	The Pacific Telephone and Telegraph Co.
1945	AReliance Life Ins Co	McCutcheon & Bragonier
	AA F Holve ins	McCutcheon & Bragonier
1922	Graham C E	Kaasen Directory Co.

140 COMMONWEALTH AVE E

Year	Uses	Source
1965	BAUGHMAN & TURNER MOBIL	Ross Publications, Inc.,
1960	BAUGHMAN ED & CO	Luskey Brothers & Co.,
1956	Baughman Ed & Co	Luskey Brothers & Co., Inc.
1950	Carls Brake Serv	The Pacific Telephone and Telegraph Co.

FINDINGS

Year	Uses	Source
1950	Foss Mobile Serv	The Pacific Telephone and Telegraph Co.

142 COMMONWEALTH AVE E

Year	Uses	Source
1945	C Anson auto repr	McCutcheon & Bragonier

143 COMMONWEALTH AVE E

Year	Uses	Source
1965	COLONIAL BEAUTY SH OP	Ross Publications, Inc.,
1960	COLONIAL BTY SHOP	Luskey Brothers & Co.,
	I HUSSEY	Luskey Brothers & Co.,
1956	Colonial Beauty Shop Lam	Luskey Brothers & Co., Inc.
	Hussey M I Mrs Lam	Luskey Brothers & Co., Inc.
	Bailey Etta Mrs	Luskey Brothers & Co., Inc.
1950	Colonial Beauty Shop	The Pacific Telephone and Telegraph Co.
	Hussey M L Mrs	The Pacific Telephone and Telegraph Co.
1945	Mrs I M Hussey beauty shop	McCutcheon & Bragonier
1922	Rosenman G C	Kaasen Directory Co.

144 COMMONWEALTH AVE E

Year	Uses	Source
1945	Mrs A L Pate restr	McCutcheon & Bragonier
1922	Stroscheimn F G	Kaasen Directory Co.
	Bailey F E	Kaasen Directory Co.

145 COMMONWEALTH AVE E

Year	Uses	Source
1965	6 C DAVIES	Ross Publications, Inc.,
1960	POMONA AV INTS	Luskey Brothers & Co.,
	G C DAVIES	Luskey Brothers & Co.,
1956	Davies G C Mrs Lam	Luskey Brothers & Co., Inc.
1950	Davis G C Mrs 11ll	The Pacific Telephone and Telegraph Co.
1945	Mrs G CDavies	McCutcheon & Bragonier
1922	Davies R T	Kaasen Directory Co.

201 COMMONWEALTH AVE E

Year	Uses	Source
1950	First Methodist Ch	The Pacific Telephone and Telegraph Co.
1945	AFirst Methodist Ch	McCutcheon & Bragonier

FINDINGS

202 COMMONWEALTH AVE E

Year	Uses	Source
1965	U S GOVERNMENT POST OFF	Ross Publications, Inc.,
1960	US POST OFC	Luskey Brothers & Co.,
1956	Ful P 0 Lam	Luskey Brothers & Co., Inc.
1950	Ful P O	The Pacific Telephone and Telegraph Co.
1945	AFullerton Post Office	McCutcheon & Bragonier
1922	Holcormb F R	Kaasen Directory Co.

203 COMMONWEALTH AVE E

Year	Uses	Source
1922	vacant	Kaasen Directory Co.

208 COMMONWEALTH AVE E

Year	Uses	Source
1922	Holcomb C E	Kaasen Directory Co.

209 COMMONWEALTH AVE E

Year	Uses	Source
1965	C CANDLES	Ross Publications, Inc.,
1960	C BROWN	Luskey Brothers & Co.,
	TH PORTER	Luskey Brothers & Co.,
1956	Brown Chris Lam	Luskey Brothers & Co., Inc.
	V Kenady M J Mrs	Luskey Brothers & Co., Inc.
1950	Va Kenady Margt Mrs	The Pacific Telephone and Telegraph Co.
	Brown Chris	The Pacific Telephone and Telegraph Co.
1945	t 4 Mrs Irene Jarvis	McCutcheon & Bragonier
	Chris Brown	McCutcheon & Bragonier
1922	Smith B E Mrs	Kaasen Directory Co.

212 COMMONWEALTH AVE E

Year	Uses	Source
1965	BRAMWELL LAVON MD	Ross Publications, Inc.,
1960	A E ALNE	Luskey Brothers & Co.,
	L BRAMWELL	Luskey Brothers & Co.,
1956	Bramwell Lavon phys Lam	Luskey Brothers & Co., Inc.
1950	Bramwell Lavon phys 803 J	The Pacific Telephone and Telegraph Co.
1945	Lavon Bramwell phys	McCutcheon & Bragonier

FINDINGS

213 COMMONWEALTH AVE E

Year	Uses	Source
1960	VACANT	Luskey Brothers & Co.,
1956	Northcliff R H Lam	Luskey Brothers & Co., Inc.
1950	Mulliken 0 0 Mrs 1990 M	The Pacific Telephone and Telegraph Co.
1945	Mrs 0 0 Mulllken	McCutcheon & Bragonier

215 COMMONWEALTH AVE E

Year	Uses	Source
1965	BUILDING	Ross Publications, Inc.,
	EGGLESTON JANET	Ross Publications, Inc.,
	A EGGLESTON	Ross Publications, Inc.,
	n ATWATER JOHN T & ASSOCl	Ross Publications, Inc.,
	Commonwe ltt Eost Contd	Ross Publications, Inc.,
	OGLE EMPLOYMENT AGENCY	Ross Publications, Inc.,
1960	CARL E DEPUE RLTR	Luskey Brothers & Co.,
	C E DEPUE	Luskey Brothers & Co.,
1956	Depue C E rl est Lam	Luskey Brothers & Co., Inc.
1950	Moore N W Mrs	The Pacific Telephone and Telegraph Co.
1945	W A Moore	McCutcheon & Bragonier
1922	Taylor R J	Kaasen Directory Co.

216 COMMONWEALTH AVE E

Year	Uses	Source
1965	FULLERTON BUSINESS SERV 52 S	Ross Publications, Inc.,
	PRACTICAL MISSIONARY TR	Ross Publications, Inc.,
1956	Struve E E phys Lam	Luskey Brothers & Co., Inc.
1950	Hannon L J phys 752 J	The Pacific Telephone and Telegraph Co.
1945	L J Hannon phys	McCutcheon & Bragonier

218 COMMONWEALTH AVE E

Year	Uses	Source
1965	PERSONAL PROTECTION AGE	Ross Publications, Inc.,
	o LEATHERBY INSURANCE SER	Ross Publications, Inc.,
1960	FUL BUSNS SERV	Luskey Brothers & Co.,
	L HAMMER	Luskey Brothers & Co.,
	NIELSEN CITRUS	Luskey Brothers & Co.,
	PRACTICAL MISSIONARY TRAINING	Luskey Brothers & Co.,
1956	Serv Lam	Luskey Brothers & Co., Inc.
	Fullerton Business	Luskey Brothers & Co., Inc.

FINDINGS

Year	Uses	Source
1956	1/2 Simmig Warner	Luskey Brothers & Co., Inc.
	Bergen A GLam	Luskey Brothers & Co., Inc.
1950	Ful Bike Shop repr 948 Lawson T P	The Pacific Telephone and Telegraph Co.
1945	Jack Mc Clure	McCutcheon & Bragonier
	R W Cason	McCutcheon & Bragonier
1922	Mc Carthy J 3 fish	Kaasen Directory Co.
	Mc Carthy J J	Kaasen Directory Co.

219 COMMONWEALTH AVE E

Year	Uses	Source
1965	FULLERTON CHAMBER OF C	Ross Publications, Inc.,
1960	FUL C OF C	Luskey Brothers & Co.,
1956	Cooper N S Lam	Luskey Brothers & Co., Inc.
1950	Sellers R L 786 J	The Pacific Telephone and Telegraph Co.
1945	Clay Brood	McCutcheon & Bragonier
1922	Jensen Albt	Kaasen Directory Co.

220 COMMONWEALTH AVE E

Year	Uses	Source
1965	J VARGAS	Ross Publications, Inc.,
	o ALFERNANDEZ OFFICE EQUI	Ross Publications, Inc.,
1960	ALFERNANDEZ OFC EQUIP	Luskey Brothers & Co.,
1956	c Kenney C B	Luskey Brothers & Co., Inc.
	b Ludwig R W	Luskey Brothers & Co., Inc.
	a Mc Kinney L J Mrs Lam	Luskey Brothers & Co., Inc.
1950	a Mc Coy T A	The Pacific Telephone and Telegraph Co.
	b Foule Harry	The Pacific Telephone and Telegraph Co.
	c Blurton R L 0293 M	The Pacific Telephone and Telegraph Co.
1945	AMrs S M Johnson	McCutcheon & Bragonier
1922	Patton G J	Kaasen Directory Co.

223 COMMONWEALTH AVE E

Year	Uses	Source
1956	1/2 Wist Elsie Mrs	Luskey Brothers & Co., Inc.
1950	Va Parker D M 1938 J	The Pacific Telephone and Telegraph Co.
1945	Dewey Parker	McCutcheon & Bragonier

224 COMMONWEALTH AVE E

Year	Uses	Source
1965	REFUSED INFO	Ross Publications, Inc.,

FINDINGS

Year	Uses	Source
1960	F B SHEPHERD	Luskey Brothers & Co.,
1956	Shepherd F B Mrs Lam	Luskey Brothers & Co., Inc.
1950	Shepherd F B Mrs 2439 W	The Pacific Telephone and Telegraph Co.
1945	AMrs Frances Shepherd	McCutcheon & Bragonier
1922	Walker H A	Kaasen Directory Co.

225 COMMONWEALTH AVE E

Year	Uses	Source
1965	FIRST FED SAVINGS 6 LOA	Ross Publications, Inc.,
1960	FIRST FEDL SAV & LOAN ASSN OF FUL	Luskey Brothers & Co.,
1956	z Garrison B M Mrs	Luskey Brothers & Co., Inc.
	Stockton R HLam	Luskey Brothers & Co., Inc.
	Osborn C E Mrs	Luskey Brothers & Co., Inc.
1950	V 2 Fullerton J L 2607 W	The Pacific Telephone and Telegraph Co.
	a Parker Dewey	The Pacific Telephone and Telegraph Co.
	Boyd R M 1205 W	The Pacific Telephone and Telegraph Co.
1945	Roy Fullerton	McCutcheon & Bragonier
	R M Boyd	McCutcheon & Bragonier
1922	Reid F F	Kaasen Directory Co.

228 COMMONWEALTH AVE E

Year	Uses	Source
1965	HA MARCLIUS MD	Ross Publications, Inc.,
1960	H A MARCUS	Luskey Brothers & Co.,
1956	Marcus H A chiro Lam	Luskey Brothers & Co., Inc.
1950	Marcus H A chiro 293 W	The Pacific Telephone and Telegraph Co.
	Va Roby Letha	The Pacific Telephone and Telegraph Co.
1945	H A Marcus chiro	McCutcheon & Bragonier
	W S Ballard	McCutcheon & Bragonier
1922	Moore 3 J F	Kaasen Directory Co.

229 COMMONWEALTH AVE E

Year	Uses	Source
1922	Rico B E	Kaasen Directory Co.

232 COMMONWEALTH AVE E

Year	Uses	Source
1965	A ANE 50 N:t	Ross Publications, Inc.,
	VACANT	Ross Publications, Inc.,
	L GCAW 6 YS	Ross Publications, Inc.,

Year	Uses	Source
1965	3 E TAYLOR	Ross Publications, Inc.,
	HOS 5 EICK	Ross Publications, Inc.,
	3 SAe R	Ross Publications, Inc.,
	VACANT	Ross Publications, Inc.,
	R a ECHNEAR	Ross Publications, Inc.,
	COMNWEAPARTMENTS	Ross Publications, Inc.,
	VACANT	Ross Publications, Inc.,

233 COMMONWEALTH AVE E

Year	Uses	Source
1965	STATE OF CALIF DEPT OF	Ross Publications, Inc.,
1960	ST DEPT OF EMP	Luskey Brothers & Co.,
1956	State Dept of Emp Lam	Luskey Brothers & Co., Inc.
1922	Dunham 0 R	Kaasen Directory Co.

234 COMMONWEALTH AVE E

Year	Uses	Source
1965	CHILODRENS FAIRYLAND NUR 525 B	Ross Publications, Inc.,
1960	CHILDRENS FAIRY LAND NRSRY SCH	Luskey Brothers & Co.,
1956	Childrens Fairyland	Luskey Brothers & Co., Inc.
	Nursery Sch Lam	Luskey Brothers & Co., Inc.
1950	Everle Letty B 1724 J	The Pacific Telephone and Telegraph Co.
	Lettys Beauty Salon 1724 J	The Pacific Telephone and Telegraph Co.
1945	Jas Ewing	McCutcheon & Bragonier
1922	Eason E L	Kaasen Directory Co.
	Batchnman 3 J C	Kaasen Directory Co.

236 COMMONWEALTH AVE E

Year	Uses	Source
1950	Connor W T	The Pacific Telephone and Telegraph Co.
1945	Robt Ward	McCutcheon & Bragonier
1922	Chansler R	Kaasen Directory Co.

237 COMMONWEALTH AVE E

Year	Uses	Source
1922	Sheppard H W	Kaasen Directory Co.

241 COMMONWEALTH AVE E

Year	Uses	Source
1956	Libby W RLam	Luskey Brothers & Co., Inc.

Year	Uses	Source
1950	Pickens L E 1394 W	The Pacific Telephone and Telegraph Co.
1945	AL E Pickens	McCutcheon & Bragonier
1922	Maigre F J	Kaasen Directory Co.

242 COMMONWEALTH AVE E

Year	Uses	Source
1965	HADDON BROS SHELL SLRV	Ross Publications, Inc.,
1960	HADDON BROS SHELL SERV	Luskey Brothers & Co.,
	HARVARD AV INTS	Luskey Brothers & Co.,
1956	1/2 Day Augusta Lam	Luskey Brothers & Co., Inc.
	Bohannan W N Lam	Luskey Brothers & Co., Inc.
	Realty Exch Lam	Luskey Brothers & Co., Inc.
1950	0 R V Cafe 1745 R	The Pacific Telephone and Telegraph Co.
	2/2 Severson 0 R 1745 R	The Pacific Telephone and Telegraph Co.
1945	Annetta R Tombes	McCutcheon & Bragonier
1922	Sheldon J I	Kaasen Directory Co.
	244 Lillie G E	Kaasen Directory Co.

244 COMMONWEALTH AVE E

Year	Uses	Source
1956	Weaver Real Est Serv Lam	Luskey Brothers & Co., Inc.
	Weaner C NLam	Luskey Brothers & Co., Inc.
1950	Lee V E 1724 W	The Pacific Telephone and Telegraph Co.
1945	J B Eckels	McCutcheon & Bragonier

246 COMMONWEALTH AVE E

Year	Uses	Source
1965	C 3 COPENHAVES	Ross Publications, Inc.,

COMMONWEALTH AVE W

100 COMMONWEALTH AVE W

Year	Uses	Source
1956	Water & Bldg	Luskey Brothers & Co., Inc.
	Dept Lam	Luskey Brothers & Co., Inc.

101 COMMONWEALTH AVE W

Year	Uses	Source
1950	Security First Nat I Bk Bldg	The Pacific Telephone and Telegraph Co.
	Jones D C rltr	The Pacific Telephone and Telegraph Co.

FINDINGS

Year	Uses	Source
1950	Andrew Bros of	The Pacific Telephone and Telegraph Co.
	Calif fruit pkr	The Pacific Telephone and Telegraph Co.
	N Orng Co Cit Exch	The Pacific Telephone and Telegraph Co.
	Schumacher D J Iwyr	The Pacific Telephone and Telegraph Co.
	Vacant	The Pacific Telephone and Telegraph Co.
	Verry L S Iwyr	The Pacific Telephone and Telegraph Co.
	Street continued	The Pacific Telephone and Telegraph Co.
1945	Sec First Natl Bk Bldg	McCutcheon & Bragonier

103 COMMONWEALTH AVE W

Year	Uses	Source
1956	Security First Natl Bk Escrow Dept	Luskey Brothers & Co., Inc.
1950	Pitts E H shoe shiner	The Pacific Telephone and Telegraph Co.
	Peiffer A Pins 723 W	The Pacific Telephone and Telegraph Co.
1945	Ernast Pittls shoe shiner	McCutcheon & Bragonier

104 COMMONWEALTH AVE W

Year	Uses	Source
1956	Engineers ofc Lam	Luskey Brothers & Co., Inc.

105 COMMONWEALTH AVE W

Year	Uses	Source
1956	Hovey M H barber Lam	Luskey Brothers & Co., Inc.
	Truitt S D barber Lam 5 5585 Mildreds Beauty	Luskey Brothers & Co., Inc.
	Salon Lam	Luskey Brothers & Co., Inc.
	Police Dept Lam	Luskey Brothers & Co., Inc.
1950	Morris Barber Shot	The Pacific Telephone and Telegraph Co.
	Johnsons Beauty Shop	The Pacific Telephone and Telegraph Co.
1945	AM H Hovey beaulty shop	McCutcheon & Bragonier

107 COMMONWEALTH AVE W

Year	Uses	Source
1956	Treasurers ofc Lam	Luskey Brothers & Co., Inc.
	Putnam Geo luggage Lam	Luskey Brothers & Co., Inc.
1950	Lombard Norman real est	The Pacific Telephone and Telegraph Co.
	Ustick H L acct	The Pacific Telephone and Telegraph Co.
1945	AH L Ustick Co accts	McCutcheon & Bragonier

FINDINGS

108 COMMONWEALTH AVE W

Year	Uses	Source
1956	Clerks ofc Lam	Luskey Brothers & Co., Inc.

109 COMMONWEALTH AVE W

Year	Uses	Source
1956	Vacant	Luskey Brothers & Co., Inc.
1950	Finseth iwlrs	The Pacific Telephone and Telegraph Co.
1945	4 Stewarts Dress Shop	McCutcheon & Bragonier

110 COMMONWEALTH AVE W

Year	Uses	Source
1956	Council Room Lam	Luskey Brothers & Co., Inc.

111 COMMONWEALTH AVE W

Year	Uses	Source
1956	Mayors ofc Lam	Luskey Brothers & Co., Inc.
	Mc Pherson Appliances Lam	Luskey Brothers & Co., Inc.
1950	La Bleut Beauty Salon	The Pacific Telephone and Telegraph Co.
1945	La Bleu Beauty Salon	McCutcheon & Bragonier

112 COMMONWEALTH AVE W

Year	Uses	Source
1965	REXS NOVELTY ASAHARA CO	Ross Publications, Inc.,
1960	ROBINSON JWLRS	Luskey Brothers & Co.,
1956	Robinson Dale Jwlr Lam	Luskey Brothers & Co., Inc.
	City Admn Lam	Luskey Brothers & Co., Inc.
	a Sphinx Chair Glide	Luskey Brothers & Co., Inc.
	Co Lam	Luskey Brothers & Co., Inc.
1950	Nadines cdo	The Pacific Telephone and Telegraph Co.
	a Sphinx Chair Glide Co	The Pacific Telephone and Telegraph Co.
1945	AF A Crooks real east	McCutcheon & Bragonier
	AH H Crooks real eat	McCutcheon & Bragonier

113 COMMONWEALTH AVE W

Year	Uses	Source
1965	THRPIFTY CUT RATE DRUGS	Ross Publications, Inc.,
1960	THRIFTY CUT RATE DRUGS	Luskey Brothers & Co.,
1956	Thrifty Cut Rate Drugs Lam	Luskey Brothers & Co., Inc.
1950	Breck Hdw	The Pacific Telephone and Telegraph Co.
1945	P & M I Hclwo	McCutcheon & Bragonier

FINDINGS

114 COMMONWEALTH AVE W

Year	Uses	Source
1965	SIGN 5 BY MACK 9 C	Ross Publications, Inc.,
	TRADER JOHNS A L USED F	Ross Publications, Inc.,
1960	EIMERS SHOE STORE	Luskey Brothers & Co.,
1956	Eimers Shoe Store Lam	Luskey Brothers & Co., Inc.
1950	Economy Shoe Store	The Pacific Telephone and Telegraph Co.
1945	AEconomy Shoe Store	McCutcheon & Bragonier

115 COMMONWEALTH AVE W

Year	Uses	Source
1965	VACANT	Ross Publications, Inc.,
1956	Calvo Paul surv Lam	Luskey Brothers & Co., Inc.
	Caruthers L K atty Lam	Luskey Brothers & Co., Inc.
1950	Ful Hotel	The Pacific Telephone and Telegraph Co.
1945	AFullorton Taxi	McCutcheon & Bragonier
	SAFullerton Hotel	McCutcheon & Bragonier
1922	Frederick Cafe	Kaasen Directory Co.

116 COMMONWEALTH AVE W

Year	Uses	Source
1965	o AUBREY LAKE INSURANCE	Ross Publications, Inc.,
1960	A LAKE	Luskey Brothers & Co.,
1956	Lake Aubrey RI Est Lam	Luskey Brothers & Co., Inc.
	1/2 Lake Aubrey	Luskey Brothers & Co., Inc.
	Ins Agcy Lam	Luskey Brothers & Co., Inc.
1950	Jewett Bros contrs	The Pacific Telephone and Telegraph Co.
1945	AAubrey Lake real sat	McCutcheon & Bragonier
	AC A Bruce real esti	McCutcheon & Bragonier
	AD C Jones real ast	McCutcheon & Bragonier
	AJewett Bros contra	McCutcheon & Bragonier

117 COMMONWEALTH AVE W

Year	Uses	Source
1965	0 ALLSTATE INSURANCE CO	Ross Publications, Inc.,
	9 SEARS ROEBUCK & COMPAMY	Ross Publications, Inc.,
1960	SEARS ROEBUCK	Luskey Brothers & Co.,
1956	Sears Roebuck & Co Lam	Luskey Brothers & Co., Inc.
1945	Vacant	McCutcheon & Bragonier
1922	Wickersheim Imp Co	Kaasen Directory Co.

FINDINGS

118 COMMONWEALTH AVE W

Year	Uses	Source
1965	FULLERTON BOL	Ross Publications, Inc.,
1960	FUL BOWL	Luskey Brothers & Co.,
1956	Ful Bowl bowling Bowling Cafe	Luskey Brothers & Co., Inc.
1950	Lake Aubrey Ancy	The Pacific Telephone and Telegraph Co.
	Nicks Snack Bar	The Pacific Telephone and Telegraph Co.
	Fil Bowlins Centr	The Pacific Telephone and Telegraph Co.
1945	AFul Bowling Center	McCutcheon & Bragonier

125 COMMONWEALTH AVE W

Year	Uses	Source
1950	Mc Coy & MIlls autos	The Pacific Telephone and Telegraph Co.
1945	AMc Coy & Mills autos	McCutcheon & Bragonier

127 COMMONWEALTH AVE W

Year	Uses	Source
1965	BCAMBRELL TOM R MD	Ross Publications, Inc.,
	EVANS LOUISE PHD	Ross Publications, Inc.,
1960	J & K HOME APPL	Luskey Brothers & Co.,
1956	J & K Home Appl Lam	Luskey Brothers & Co., Inc.
1950	1 & K Home Apn I	The Pacific Telephone and Telegraph Co.
1945	AJ & K I Home Appliances	McCutcheon & Bragonier
1922	Eltiste M & Co	Kaasen Directory Co.

129 COMMONWEALTH AVE W

Year	Uses	Source
1965	9 0 ARDESTY GORDON MUSIC	Ross Publications, Inc.,
1956	Campbell Erickson Ins	Luskey Brothers & Co., Inc.
	Agcy Lam	Luskey Brothers & Co., Inc.
1950	Camohell Ericksnn Ins Agcy	The Pacific Telephone and Telegraph Co.

Continental Ct

326 Continental Ct

Year	Uses	Source
2014	DREAM TEAM TICKETS	EDR Digital Archive

329 Continental Ct

Year	Uses	Source
2014	BOHR CONSTRUCTION	EDR Digital Archive

FINDINGS

Depot Ct

325 Depot Ct

Year	Uses	Source
2014	WEST COAST TRADING	EDR Digital Archive
2010	WEST COAST TRADING	EDR Digital Archive

326 Depot Ct

Year	Uses	Source
2010	SMARTSALE	EDR Digital Archive

District Ct

302 District Ct

Year	Uses	Source
2014	BLMA MODELS INC	EDR Digital Archive
	BLMA	EDR Digital Archive
	MY METAL BUSINESS CARD LLC	EDR Digital Archive
2010	BLMA	EDR Digital Archive

310 District Ct

Year	Uses	Source
2010	SWEET MANGO	EDR Digital Archive

336 District Ct

Year	Uses	Source
2010	BEN FRANK HOCKEY	EDR Digital Archive
	212 SPORTS LLC	EDR Digital Archive

350 District Ct

Year	Uses	Source
2010	BEETNIK MEDIA	EDR Digital Archive

E COMMONWEALTH

113 E COMMONWEALTH

Year	Uses	Source
1966	JUDY LYNN BAKERIES No 1	Pacific Telephone

114 E COMMONWEALTH

Year	Uses	Source
1966	Moose Lodge No 339 Fullerton	Pacific Telephone

Year	Uses	Source
1966	PAINTERS LOCAL UNION 1817	Pacific Telephone

241 E COMMONWEALTH

Year	Uses	Source
1980	Smith Clark A	Pacific Telephone

E COMMONWEALTH AVE

100 E COMMONWEALTH AVE

Year	Uses	Source
1980	Goodwin Phil Jr	Pacific Telephone

101 E COMMONWEALTH AVE

Year	Uses	Source
1991	Ragztop	Pacific Bell
1986	Silver Gryphon Books	Pacific Bell
	Fullerton Ins Service	Pacific Bell
	FULLE RTON IN S S E RVICE S IN C	Pacific Bell

102 E COMMONWEALTH AVE

Year	Uses	Source
1991	New View Photography	Pacific Bell
	New View Designs Contemporary Furniture	Pacific Bell
1966	B & W DRAPES	Pacific Telephone
1955	Fullerton Ofc	The Pacific Telephone and Telegraph Co.

104 E COMMONWEALTH AVE

Year	Uses	Source
1986	La Fiesta Clothing & Gifts	Pacific Bell
1980	Transamerica Financial Services Dave Singery Mgr	Pacific Telephone
1975	Fullerton	Luskey Brothers & Co., Inc.
	Fullerton	Luskey Brothers & Co., Inc.
1966	Fullerton	Pacific Telephone
	PACIFIC FINANCE Branch Offices	Pacific Telephone
1955	Smiths Verne Meat Mkt	The Pacific Telephone and Telegraph Co.
1950	Smiths Verne Meat Mkt	The Pacific Telephone and Telegraph Co.
1946	Meat Dept	Southern California Telephone Co.

FINDINGS

105 E COMMONWEALTH AVE

Year	Uses	Source
1980	Bean Robert L atty l	Pacific Telephone
1950	Hatherly J W r	The Pacific Telephone and Telegraph Co.

106 E COMMONWEALTH AVE

Year	Uses	Source
1995	Williams Mortgage Group Inc	Pacific Bell
1986	Grimms Watch Shop	Pacific Bell
1980	Grimms Watch Shop	Pacific Telephone
	Grimms Watch Shop William G Grimm	Pacific Telephone
1975	Grimms Watch Shop	Luskey Brothers & Co., Inc.
1970	Grimms Watch Shop	General Telephone Co., of California
1966	Grimms Watch Shop	Pacific Telephone
1955	Grimms Watch Shop	The Pacific Telephone and Telegraph Co.
1950	Grimms Watch Shop	The Pacific Telephone and Telegraph Co.
1946	Grimms Watch Shop	Southern California Telephone Co.
	Grocery Dept	Southern California Telephone Co.
1941	Welsh J W Co roofng	Southern California Telephone Co.
	Stein Strauss Co Inc genl mdse	Southern California Telephone Co.

107 E COMMONWEALTH AVE

Year	Uses	Source
1950	Dress Box The	The Pacific Telephone and Telegraph Co.
1946	Dress Box The	Southern California Telephone Co.

108 E COMMONWEALTH AVE

Year	Uses	Source
1980	D & H Service Center	Pacific Telephone
	W Ynns Barber Shop	Pacific Telephone
1975	Calif Barber Shop	Luskey Brothers & Co., Inc.
1970	Martin Lawrence H l	General Telephone Co., of California

109 E COMMONWEALTH AVE

Year	Uses	Source
1995	Barbaras Beauty Supply	Pacific Bell
	Barbaras Beauty Salon & Supply	Pacific Bell
1991	Barbaras Beauty Supply	Pacific Bell
1986	Fullerton Beauty Supply	Pacific Bell
1980	Beauty Products Inc	Pacific Telephone

Year	Uses	Source
1980	BEAUTY PRODUCTS INC Faith Schafnitz Manager	Pacific Telephone
1975	Beauty Products Inc	Luskey Brothers & Co., Inc.
1970	Beauty Products Inc	General Telephone Co., of California
	De Marco Furn l	General Telephone Co., of California
1966	GENERAL UPHOLSTERING SHOP	Pacific Telephone
1950	Osgood Don See Don Osgood Television & Appliance Center	The Pacific Telephone and Telegraph Co.
	Don Osgood Television & Appliance Center	The Pacific Telephone and Telegraph Co.
1946	A & A Radio & Appliance Co	Southern California Telephone Co.
1941	Salvation Army The	Southern California Telephone Co.

111 E COMMONWEALTH AVE

Year	Uses	Source
1991	Morrow RE	Pacific Bell
	Morrow Photographics	Pacific Bell
1986	Morrow Photographies	Pacific Bell
1980	DAVIS PHOTOGRAPHY	Pacific Telephone
	DAVIS PHOTOGRAPHY Stancil E Davis	Pacific Telephone
1975	Reynolds Studio	Luskey Brothers & Co., Inc.
1966	Reynolds Studio	Pacific Telephone
1955	REYNOLDS STUDIO	The Pacific Telephone and Telegraph Co.
1950	Reynolds Studio	The Pacific Telephone and Telegraph Co.
1946	Reynolds Studio	Southern California Telephone Co.
1941	Bemis HUNTINGTON BEACH rl est	Southern California Telephone Co.
	Pike E L Radio Serv	Southern California Telephone Co.

112 E COMMONWEALTH AVE

Year	Uses	Source
1995	WILLIAMS CO THE	Pacific Bell
1991	WILLIAMS CO THE	Pacific Bell
1980	Williams Co The SJ Williams President	Pacific Telephone
1975	WILLIAMS CO THE	Luskey Brothers & Co., Inc.
1966	Fullerton	Pacific Telephone
	WILLIAMS CO THE	Pacific Telephone
1955	Williams Co The army & navy goods	The Pacific Telephone and Telegraph Co.
	War Surplus Store army & navy goods	The Pacific Telephone and Telegraph Co.
1950	Fullerton War Surplus	The Pacific Telephone and Telegraph Co.
1946	Fullerton Linoleum Co	Southern California Telephone Co.

FINDINGS

113 E COMMONWEALTH AVE

Year	Uses	Source
1995	JUDY LYNN BAKERY	Pacific Bell
1991	JUDY LYNN BAKERY	Pacific Bell
1986	JUDY LYN N BAKE RY	Pacific Bell
1980	RUIZ JIM PRINTING SERVICE	Pacific Telephone
1966	J S T New & Used Furn	Pacific Telephone
1955	Judy Lynn Bakery	The Pacific Telephone and Telegraph Co.
	Teigen Paint Store	The Pacific Telephone and Telegraph Co.
1950	Volunteers of America	The Pacific Telephone and Telegraph Co.
	Starr Joe L Paint Store	The Pacific Telephone and Telegraph Co.
1946	Fullerton	Southern California Telephone Co.
	Coast Paint Store	Southern California Telephone Co.

114 E COMMONWEALTH AVE

Year	Uses	Source
1955	Tedn Zellas Club Center	The Pacific Telephone and Telegraph Co.
	Sav Mor Home Supply	The Pacific Telephone and Telegraph Co.
1950	Ted N Zellas Club Center	The Pacific Telephone and Telegraph Co.
	Fullerton Freezer Locker Plant	The Pacific Telephone and Telegraph Co.
1946	A B C Food Bank	Southern California Telephone Co.
1941	Kenwards Mkt	Southern California Telephone Co.

115 E COMMONWEALTH AVE

Year	Uses	Source
1995	Health Food Store Calif Health Foods	Pacific Bell
1991	Health Food Store Calif Health Foods	Pacific Bell
	California Health Foods	Pacific Bell
1986	Health Food Store Calif Health Foods	Pacific Bell
	California Health Foods	Pacific Bell
1980	CALIFORNIA HEALTH FOODS JOHN LANNING	Pacific Telephone
	Health Food Store Calif Health Foods	Pacific Telephone
	California Health Foods	Pacific Telephone
	CALIFORNIA HEALTH FOODS John Lanning	Pacific Telephone
1975	California Health Foods	Luskey Brothers & Co., Inc.
	Health Food Store Calif Health Foods	Luskey Brothers & Co., Inc.
1970	CALIF HEALTH FOOBDS	General Telephone Co., of California
1966	CALIF HEALTH FOODS	Pacific Telephone

Year	Uses	Source
1966	HEALTH FOOD STOKE calif Health Foods	Pacific Telephone
1955	Brosnan Ins Agcy	The Pacific Telephone and Telegraph Co.
	Health Food Store	The Pacific Telephone and Telegraph Co.
	Willwater Madalene Mrs Health Food Store	The Pacific Telephone and Telegraph Co.
1950	Willwater Madalene Mrs Health Food Store	The Pacific Telephone and Telegraph Co.
	Brosnan Ins Agcy	The Pacific Telephone and Telegraph Co.
	Health Food Store	The Pacific Telephone and Telegraph Co.
1946	Brosnan Ins Agcy	Southern California Telephone Co.
	Health Food Store	Southern California Telephone Co.
	Willwater Madalene Mrs Health Food Store	Southern California Telephone Co.
1941	Health Food Store	Southern California Telephone Co.

117 E COMMONWEALTH AVE

Year	Uses	Source
1995	WORLD TRAVEL BUREAU INC	Pacific Bell
	Fullerton	Pacific Bell
1980	Fullerton	Pacific Telephone
	World Travel Bureau Inc Thomas A Jackson	Pacific Telephone
1975	Fullerton	Luskey Brothers & Co., Inc.
1966	Fullerton	Pacific Telephone
	World Travel Bureau Inc	Pacific Telephone
1955	South China Cafe	The Pacific Telephone and Telegraph Co.
	General Upholstrng Shop	The Pacific Telephone and Telegraph Co.
1950	Traylors Floor Covering	The Pacific Telephone and Telegraph Co.
	South China Cafe	The Pacific Telephone and Telegraph Co.
1946	Remington Rand Inc Systems Div	Southern California Telephone Co.
	Orange Administrative Committee	Southern California Telephone Co.
	Hoyt & Ingersoll restrnt	Southern California Telephone Co.
	Fernandez Al ofc equip	Southern California Telephone Co.
	Culp & Williams ins	Southern California Telephone Co.
	Blair H R contr	Southern California Telephone Co.
	Bemis H B rl est	Southern California Telephone Co.

118 E COMMONWEALTH AVE

Year	Uses	Source
1995	Greers Antique Mall	Pacific Bell

Year	Uses	Source
1991	Villa Crystal	Pacific Bell
1955	SCHULZ WALTER J washng machs	The Pacific Telephone and Telegraph Co.
1950	Rigid Mfg Company roofers	The Pacific Telephone and Telegraph Co.
	Schulz Walter J washng machs	The Pacific Telephone and Telegraph Co.
1946	Schulz Walter J washng machs	Southern California Telephone Co.
	Santa Ana Tent & Awning Co	Southern California Telephone Co.
	Robbins Home Insulation Co	Southern California Telephone Co.
	Miller W E acct	Southern California Telephone Co.
1941	Campbells Linoleum & Shade Shop	Southern California Telephone Co.

119 E COMMONWEALTH AVE

Year	Uses	Source
1995	Greenery Natural Kitchen The	Pacific Bell
1991	Greenery Natural Kitchen The	Pacific Bell
1986	Greenery Natural Kitchen The	Pacific Bell
1980	Greenery Natural Kitchen The June Hunter	Pacific Telephone
	Greenery The	Pacific Telephone
1975	Shell Shelter Derrys	Luskey Brothers & Co., Inc.
	DERRYS SHELL SHELTER	Luskey Brothers & Co., Inc.
1970	CHUCKS HOBBY HOUSE	General Telephone Co., of California
1966	Chucks Hobby House	Pacific Telephone
	Bakers Chuck Hobby House	Pacific Telephone
1955	BAKERS CHUCK HOBBY HOUSE	The Pacific Telephone and Telegraph Co.
1946	Bruces Clnrs & Tailors	Southern California Telephone Co.

120 E COMMONWEALTH AVE

Year	Uses	Source
1995	STATE FARM INSURANCE COMPANIES	Pacific Bell
	Galea John K ins	Pacific Bell
	Jones Henry ins	Pacific Bell
	Fallerton	Pacific Bell
1991	Evidence Of Insurance	Pacific Bell
	Galea John Kins	Pacific Bell
	Galea Ruth& Mark	Pacific Bell
	Caleana Consepcion A A	Pacific Bell
	Jones Henry ins	Pacific Bell
1986	Jones Henry ins	Pacific Bell
	Manning Bill ins	Pacific Bell

FINDINGS

Year	Uses	Source
1980	Jones Henry ins	Pacific Telephone
	Manning Bill ins	Pacific Telephone
	Hunt Wallace M & Associates	Pacific Telephone
1975	Bonney Donald D bkkpng	Luskey Brothers & Co., Inc.
	Jean Joseph A Jr CPA	Luskey Brothers & Co., Inc.
	Pegler Harold C rl est	Luskey Brothers & Co., Inc.
	VANCE ROOFING CO	Luskey Brothers & Co., Inc.
1970	Goudy C V	General Telephone Co., of California
	Gauger Jan	General Telephone Co., of California
	Irwin Howard ri est	General Telephone Co., of California
1966	Bonney Donald D bkkpng	Pacific Telephone
	Crooke Frank A Bonney Donald D bkkpng	Pacific Telephone
	Irwin Howard rl est	Pacific Telephone
	Pegler Harold C rl est	Pacific Telephone
1955	Crooke Frank A ins	The Pacific Telephone and Telegraph Co.
	Irwin Howard rl est	The Pacific Telephone and Telegraph Co.
	Irwin Howard State Inheritance Tax Appraiser	The Pacific Telephone and Telegraph Co.
	Pegler Harold C rl est	The Pacific Telephone and Telegraph Co.
1950	Crooke Frank A ins	The Pacific Telephone and Telegraph Co.
	Irwin Howard rl est	The Pacific Telephone and Telegraph Co.
	Irwin Howard State Inheritance Tax Appraiser	The Pacific Telephone and Telegraph Co.
1946	Irwin Howard Irwin & Irwin rl est	Southern California Telephone Co.
	Irwin Howard State Inheritance Tax Appraiser	Southern California Telephone Co.
1941	State Inheritance Tax Appraiser	Southern California Telephone Co.
	Waters Wm L atty	Southern California Telephone Co.
	Irwin Howard State Inheritance Tax Appraiser	Southern California Telephone Co.
	Irwin & Irwin rl est	Southern California Telephone Co.

121 E COMMONWEALTH AVE

Year	Uses	Source
1975	Bobev Antiques	Luskey Brothers & Co., Inc.
1955	Reading Room	The Pacific Telephone and Telegraph Co.
1950	Pac Citrus Products Co	The Pacific Telephone and Telegraph Co.
1946	Fullerton Bike Shop	Southern California Telephone Co.

FINDINGS

122 E COMMONWEALTH AVE

Year	Uses	Source
1995	Richard Allen Antiques	Pacific Bell
1986	Newstar T V Repair	Pacific Bell
1980	Cobblers Hut Shoe Repair Jin Il Jeon	Pacific Telephone
	SYSTEMS Erv Davis & Jerry Burner	Pacific Telephone
1970	Valencias Barber Shop	General Telephone Co., of California
	Wolf Lloyd A	General Telephone Co., of California
1966	Joes Appointment Barber Shop	Pacific Telephone
1955	Cooke A G	The Pacific Telephone and Telegraph Co.
	World Travel Bureau	The Pacific Telephone and Telegraph Co.
1950	Cooke A G r	The Pacific Telephone and Telegraph Co.
	Fullerton	The Pacific Telephone and Telegraph Co.
	World Travel Bureau	The Pacific Telephone and Telegraph Co.
1946	Lois Laine Shop drsmkng	Southern California Telephone Co.
1941	Cooke A G r	Southern California Telephone Co.
	Stewart Dress Shoppe	Southern California Telephone Co.

123 E COMMONWEALTH AVE

Year	Uses	Source
1995	HOUSE OF BIBLES	Pacific Bell
1986	HOUS E OF BIBLE S	Pacific Bell
1980	HOUSE OF BIBLES Wayne Palessiro	Pacific Telephone
1975	House Of Bibles	Luskey Brothers & Co., Inc.
1966	Reading Room	Pacific Telephone
	Christian Science Churches & Reading Rooms Anaheim	Pacific Telephone

124 E COMMONWEALTH AVE

Year	Uses	Source
1995	Hub Cafe The	Pacific Bell
	Antique Mine The	Pacific Bell
1986	Merle West Interiors	Pacific Bell
1980	Cal Furniture Freight Outlet John Hanaway	Pacific Telephone
1975	Cal Furniture Freight Outlet	Luskey Brothers & Co., Inc.
1966	Cal Furniture Freight Outlet	Pacific Telephone
1955	PROSPERITY CLNRS	The Pacific Telephone and Telegraph Co.
1950	Prosperity Clnrs	The Pacific Telephone and Telegraph Co.
1946	Prosperity Clnrs	Southern California Telephone Co.
1941	Prosperity Clnrs & Hatters	Southern California Telephone Co.

FINDINGS

125 E COMMONWEALTH AVE

Year	*Uses*	*Source*
1950	Fullerton Yellow Cab Co	The Pacific Telephone and Telegraph Co.
	Zip Cab Co	The Pacific Telephone and Telegraph Co.
1946	Zip Cab & Delivery Co	Southern California Telephone Co.

129 E COMMONWEALTH AVE

Year	*Uses*	*Source*
1980	Gilyard ohn W	Pacific Telephone
	Mullen G	Pacific Telephone
1975	Mullen G	Luskey Brothers & Co., Inc.
1966	Mullen Grace N	Pacific Telephone
1955	Baker Wm B	The Pacific Telephone and Telegraph Co.
1950	Wilson Chas B r	The Pacific Telephone and Telegraph Co.
1941	Wilson Chas B r	Southern California Telephone Co.

130 E COMMONWEALTH AVE

Year	*Uses*	*Source*
1975	Fullerton	Luskey Brothers & Co., Inc.
	C & S Sales	Luskey Brothers & Co., Inc.
1970	C&S Trailers	General Telephone Co., of California
	C&SSales	General Telephone Co., of California
	Fullerton	General Telephone Co., of California
	SOUTHERN	General Telephone Co., of California
	GREYHOUND BUS LINES	General Telephone Co., of California
	Fullerton	General Telephone Co., of California
1966	SO CALIF RAPID TRANSIT DIST	Pacific Telephone
	Fullerton	Pacific Telephone
	Metropolitan Transit Authority Ticket & Passenger Information Anaheim call Fullerton	Pacific Telephone
	Fullerton	Pacific Telephone
	GREYHOUND BUS LINES	Pacific Telephone
	Transportation Center	Pacific Telephone
1955	Zip Cab Co See Yellow Cab Co of Fullerton	The Pacific Telephone and Telegraph Co.
	Yellow Cab Co of Fullerton	The Pacific Telephone and Telegraph Co.
	Fullerton Ticket Ofc	The Pacific Telephone and Telegraph Co.
	Fullerton Depot	The Pacific Telephone and Telegraph Co.
1950	Fullerton Ticket Ofc	The Pacific Telephone and Telegraph Co.
	Fullerton Depot	The Pacific Telephone and Telegraph Co.

Year	Uses	Source
1946	Fullerton Ticket Ofc	Southern California Telephone Co.
	Motor Transit Lines Div	Southern California Telephone Co.
	Depot	Southern California Telephone Co.
	Fullerton	Southern California Telephone Co.
	Fullerton	Southern California Telephone Co.
1941	Motor Transit Lines Div	Southern California Telephone Co.
	Pac Elec Ry Co	Southern California Telephone Co.
	Pac Elec Ry Co	Southern California Telephone Co.
	Greyhound Bus Depot	Southern California Telephone Co.
	Depot	Southern California Telephone Co.

131 E COMMONWEALTH AVE

Year	Uses	Source
1995	Hansons Flowers	Pacific Bell
	Hassons Flowers	Pacific Bell
1991	Hassons Flower Shop Of Fullerton	Pacific Bell
	Hassons Flower Shop Of Fullerton	Pacific Bell

133 E COMMONWEALTH AVE

Year	Uses	Source
1995	Sun Coin & Co	Pacific Bell
1991	Sun Coin & Co	Pacific Bell
1986	Cevallos Gilbert Jr	Pacific Bell
1980	Ayala Rafael	Pacific Telephone
	Qui ano John M Jr	Pacific Telephone
	Ayala Rafael M Guarina	Pacific Telephone
	Quijano John M Jr Carmen	Pacific Telephone
1975	Quijano John M Jr	Luskey Brothers & Co., Inc.
	Ayala Ralph	Luskey Brothers & Co., Inc.
	Ayala Rafael	Luskey Brothers & Co., Inc.
1970	Ayala Rafael	General Telephone Co., of California
1955	Lang J H Mrs	The Pacific Telephone and Telegraph Co.
1950	Lang J H Dr r	The Pacific Telephone and Telegraph Co.
1941	Lang J H Dr ofc	Southern California Telephone Co.

136 E COMMONWEALTH AVE

Year	Uses	Source
1995	El Ghiotto Italian Restaurant	Pacific Bell
1991	Il Ghiotto Italian Restaurant	Pacific Bell

Year	Uses	Source
1986	Restaurante Basseto	Pacific Bell
	CrostaConcutelli International	Pacific Bell

137 E COMMONWEALTH AVE

Year	Uses	Source
1995	Allstate Insurance Companies Sales Offices Anaheim	Pacific Bell
	Fullerton	Pacific Bell

138 E COMMONWEALTH AVE

Year	Uses	Source
1946	Anson Oliver C Garage	Southern California Telephone Co.
	Foss Joe Serv Stanton	Southern California Telephone Co.
1941	Pitts & Wilkinson tirs	Southern California Telephone Co.
	Post Office Garage	Southern California Telephone Co.

139 E COMMONWEALTH AVE

Year	Uses	Source
1980	Rivera Martin	Pacific Telephone
	Rivera Guadalupe Cresencia	Pacific Telephone
	Rodriguez Daniel	Pacific Telephone
1975	Rivera Teru	Luskey Brothers & Co., Inc.
1970	Olvera Manuel R	General Telephone Co., of California
	Olvera Carnela	General Telephone Co., of California
1966	Schmidt Lucy	Pacific Telephone
	Holve N K	Pacific Telephone
1955	Trout Louis M rl est	The Pacific Telephone and Telegraph Co.
	Ramsey & Trout	The Pacific Telephone and Telegraph Co.
	Holve Norma K	The Pacific Telephone and Telegraph Co.
	Amcor Construction Co Inc	The Pacific Telephone and Telegraph Co.
	AMCOR CONSTRUCTION CO INC	The Pacific Telephone and Telegraph Co.
1950	Weaver Ri Est Serv	The Pacific Telephone and Telegraph Co.
	Holve Norma K r	The Pacific Telephone and Telegraph Co.
1946	Holve A F Reliance Life Ins Co of Pittsburgh	Southern California Telephone Co.
	Reliance Life Ins Co of Pittsburgh	Southern California Telephone Co.
1941	Holve A F Reliance Life Ins Co of Pittsburgh	Southern California Telephone Co.
	Reliance Life Ins Co of Pittsburgh	Southern California Telephone Co.

FINDINGS

140 E COMMONWEALTH AVE

Year	*Uses*	*Source*
1995	Pacific Realtors	Pacific Bell
	Sturm Edward W Law Offices Of	Pacific Bell
	Pacific Realtors	Pacific Bell
	Pacific Realtors	Pacific Bell
	Lapping Thomas H atty at law	Pacific Bell
	International Chemical Workers Union Regional Ofc	Pacific Bell
	Grant & Fund Raising Experts	Pacific Bell
	Carroll Stannard atty	Pacific Bell
	Care Provider	Pacific Bell
	Benevest Escrow Management Inc	Pacific Bell
	BEC Trust Deed Services	Pacific Bell
	Benevest Escrow Company	Pacific Bell
	Fullerton	Pacific Bell
	Fullerton	Pacific Bell
	PUBLIC OFFICE LOCATIONS	Pacific Bell
1991	Trider Plaza Fullerton	Pacific Bell
	International Chemical Workers Union Regional Ofc	Pacific Bell
	Neira Williams Baber	Pacific Bell
	Enterprise Plumbing	Pacific Bell
	Enterprise Personnel	Pacific Bell
1986	American West Personnel Services Inc	Pacific Bell
	Dolan Michael A Law Offices Of	Pacific Bell
	Dolan Michael Law Office	Pacific Bell
	International Chemical Workers Union Regional Ofc	Pacific Bell
	Libratronia	Pacific Bell
	MKGK Inc	Pacific Bell
	Peterson Larry D Attorney	Pacific Bell
	Richey Enterprises	Pacific Bell
1980	BAUGHMAN & TURNER AUTO REPAIRING Howard Turner	Pacific Telephone
	BAUGHMAN & TURN E R	Pacific Telephone
1975	BAUGHMAN & TURNER	Luskey Brothers & Co., Inc.
	Owens C H & Sons towng	Luskey Brothers & Co., Inc.
1970	BAUGHMAN & TURNER	General Telephone Co., of California
	Owens C H & Sons	General Telephone Co., of California
1966	BAUGHMAN & TURNER	Pacific Telephone

Year	Uses	Source
1966	Natl Automobile Club Emergency Garage	Pacific Telephone
1955	BAUGHMANS ED GARAGE	The Pacific Telephone and Telegraph Co.
	Emergency Garage	The Pacific Telephone and Telegraph Co.
1950	Foss Joe Serv Stanton	The Pacific Telephone and Telegraph Co.

141 E COMMONWEALTH AVE

Year	Uses	Source
1970	Forsyth Lance	General Telephone Co., of California

143 E COMMONWEALTH AVE

Year	Uses	Source
1975	Hussey Iva	Luskey Brothers & Co., Inc.
	Lubanski Stanley A Jr	Luskey Brothers & Co., Inc.
1970	Colonial Beauty Shop	General Telephone Co., of California
1966	Turner Edna	Pacific Telephone
	Colonial Beauty Shop	Pacific Telephone
1955	Colonial Beauty Shop	The Pacific Telephone and Telegraph Co.
1950	Colonial Beauty Shop	The Pacific Telephone and Telegraph Co.
1946	Colonial Beauty Shop	Southern California Telephone Co.

145 E COMMONWEALTH AVE

Year	Uses	Source
1995	United Capital Of California	Pacific Bell
1966	Davies Gertrude C	Pacific Telephone
1955	Davies R T	The Pacific Telephone and Telegraph Co.
1950	Davies R T r	The Pacific Telephone and Telegraph Co.
1941	Davies R T r	Southern California Telephone Co.

151 E COMMONWEALTH AVE

Year	Uses	Source
1995	Muti Pacific Ins Agcy	Pacific Bell
	Bieber Klara	Pacific Bell
	Remax Of North Orange County	Pacific Bell
1991	From Fullerton Telephones Call	Pacific Bell
	Pella Window Store	Pacific Bell
	Bieber Klara	Pacific Bell

171 E COMMONWEALTH AVE

Year	Uses	Source
1975	Elfrink Howard P	Luskey Brothers & Co., Inc.

FINDINGS

E Commonwealth Ave

181 E Commonwealth Ave

Year	Uses	Source
2014	SOUTHERN CAL REST GROUP LLC	EDR Digital Archive
	ROCKIN RESTAURANTS INC	EDR Digital Archive
	RIPTIDE RESTAURANTS INC	EDR Digital Archive
	CHOMP SUSHI	EDR Digital Archive
	WEST DERBY RESTAURANTS INC	EDR Digital Archive
2010	CHOMP SUSHI	EDR Digital Archive
	WEST DERBY RESTAURANTS INC	EDR Digital Archive
	RIPTIDE RESTAURANTS INC	EDR Digital Archive
	SOUTHERN CAL REST GROUP LLC	EDR Digital Archive
	ROCKIN RESTAURANTS INC	EDR Digital Archive
2005	ROCKIN RESTAURANTS INC	EDR Digital Archive
	CHOMP SUSHI	EDR Digital Archive
	LOTUS COURT INC	EDR Digital Archive

E COMMONWEALTH AVE

181 E COMMONWEALTH AVE

Year	Uses	Source
1995	Lotus Court Chinese Cuisine	Pacific Bell

182 E COMMONWEALTH AVE

Year	Uses	Source
1970	Nichols Alan R	General Telephone Co., of California

201 E COMMONWEALTH AVE

Year	Uses	Source
1941	Methodist Episcopal Church	Southern California Telephone Co.

E Commonwealth Ave

202 E Commonwealth Ave

Year	Uses	Source
2014	UNITED STATES POSTAL SERVICE	EDR Digital Archive
2010	UNITED STATES POSTAL SERVICE	EDR Digital Archive
2005	UNITED STATES POSTAL SERVICE	EDR Digital Archive

FINDINGS

E COMMONWEALTH AVE

202 E COMMONWEALTH AVE

Year	Uses	Source
1980	United States Government Post Office	Pacific Telephone
	Commonwealth Stn	Pacific Telephone
1975	Commonwealth Stn	Luskey Brothers & Co., Inc.
1970	Commonwealth STANTON	General Telephone Co., of California
	UNITED STATE GOVERNMENT Contd NAVY DEPT OF Contd	General Telephone Co., of California
1966	Commonwealth Stn	Pacific Telephone
	U S DEPT OF JUSTICE	Pacific Telephone
1955	Fullerton	The Pacific Telephone and Telegraph Co.
1950	Fullerton	The Pacific Telephone and Telegraph Co.
1946	Fullerton	Southern California Telephone Co.
1941	U S Post Office	Southern California Telephone Co.

206 E COMMONWEALTH AVE

Year	Uses	Source
1946	Keller R F r	Southern California Telephone Co.

209 E COMMONWEALTH AVE

Year	Uses	Source
1955	Brown Chris	The Pacific Telephone and Telegraph Co.
1950	Brown Chris r	The Pacific Telephone and Telegraph Co.
1941	Brown Chris r	Southern California Telephone Co.

E Commonwealth Ave

212 E Commonwealth Ave

Year	Uses	Source
2014	ALLBRIGHT DENTAL	EDR Digital Archive
2010	ALLBRIGHT DENTAL	EDR Digital Archive
2005	ALLBRIGHT DENTAL	EDR Digital Archive

E COMMONWEALTH AVE

212 E COMMONWEALTH AVE

Year	Uses	Source
1995	Peffley Richard DPM Fallerton Ofc	Pacific Bell
	Fausett James A Fullerton Ofc	Pacific Bell

FINDINGS

Year	Uses	Source
1995	COMMONWEALTH PODIATRY GROUP	Pacific Bell
1991	Fuelerton Ofc	Pacific Bell
	Fullerton Ofc	Pacific Bell
	COMMONWEALTH PODIATRY GROUP	Pacific Bell
1986	Peffley Richard W DPM podtrst	Pacific Bell
	Fullerton Ofc	Pacific Bell
	Commonwealth Podiatry Group	Pacific Bell
1980	Peffley Richard W DPM podtrst	Pacific Telephone
	Joyce W VDr	Pacific Telephone
	Fausett James DPM podtrst	Pacific Telephone
	Commonwealth Podiatry Group	Pacific Telephone
	Joyce William V Podiatrist	Pacific Telephone
1975	Joyce Wm V Dr podtrst	Luskey Brothers & Co., Inc.
1966	Bramwell Lavon MD Ofc	Pacific Telephone
1955	Ofc	The Pacific Telephone and Telegraph Co.
1950	Bramwell Lavon MD	The Pacific Telephone and Telegraph Co.
1946	Bramwell Lavon eye ear nose & throat	Southern California Telephone Co.

213 E COMMONWEALTH AVE

Year	Uses	Source
1955	Denno Majeed	The Pacific Telephone and Telegraph Co.
1950	Mulliken C A Mrs r	The Pacific Telephone and Telegraph Co.

E Commonwealth Ave

215 E Commonwealth Ave

Year	Uses	Source
2014	OCONNOR MARK L LAW OFFICES	EDR Digital Archive
2010	OCONNOR MARK L LAW OFFICES	EDR Digital Archive

E COMMONWEALTH AVE

215 E COMMONWEALTH AVE

Year	Uses	Source
1995	Keulen Piano Studio	Pacific Bell
	Kian Ardi	Pacific Bell
	Klani Dariush atty at law	Pacific Bell
	Kucharski Edward Ratty at law	Pacific Bell
	La Cilento Arthur J	Pacific Bell
	Law Offices Of Dariush Kiani	Pacific Bell

FINDINGS

Year	Uses	Source
1995	Law Offices Of Mark L OConnor	Pacific Bell
	Ogles Tax Service	Pacific Bell
1986	California Probate Refuere	Pacific Bell
	Ogles Tax Service	Pacific Bell
	OConnor Richard L atty California Probate Referee	Pacific Bell
1980	All Points Traders Inc	Pacific Telephone
	Ogles Taxn Services Robert L Ogle	Pacific Telephone
	U S Tax Service Richard OConnor President	Pacific Telephone
	Union Pacific Railroad Co	Pacific Telephone
	United States Tile Co Don Gilis	Pacific Telephone
	California Audio Consultants	Pacific Telephone
	Ogles Tax Service	Pacific Telephone
	If No Answer Call	Pacific Telephone
	OGI E S DICKCKE VRON S TAN DARD	Pacific Telephone
	State Inheritance Tax Referee	Pacific Telephone
	From Ventura Telephones Call	Pacific Telephone
	Fulterton Agency	Pacific Telephone
1975	Fontana Paper Mills Inc	Luskey Brothers & Co., Inc.
	Ogles Tax Service	Luskey Brothers & Co., Inc.
	TROPICANA PRODUCTS INC	Luskey Brothers & Co., Inc.
	Fullerton Agency	Luskey Brothers & Co., Inc.
1970	Richard L OConnor	General Telephone Co., of California
	COMPENSATION APPEALS BOARD	General Telephone Co., of California
	Tropicana Products Inc	General Telephone Co., of California
1966	Wagner John S	Pacific Telephone
	Commonwealth Adjusters Inc	Pacific Telephone
	Crown Life Ins Co	Pacific Telephone
	Fullerton Randall Agcy	Pacific Telephone
	MYERS LLOYD J adjstr	Pacific Telephone
	OGLE EMPLOYMENT AGCY	Pacific Telephone
	Randall Mel CLU	Pacific Telephone
	Wagner Betsy	Pacific Telephone
1955	Depue Carl E	The Pacific Telephone and Telegraph Co.
1946	Moore Nancy W Mrs r	Southern California Telephone Co.
1941	Moore WA r	Southern California Telephone Co.

E Commonwealth Ave

216 E Commonwealth Ave

Year	Uses	Source
2014	FULLERTON BUSINESS SERVICE	EDR Digital Archive
	GREENE BARCLAY M CPA INC	EDR Digital Archive
2010	FULLERTON BUSINESS SERVICE	EDR Digital Archive
2005	GREEN CREEK PROPERTIES LLC	EDR Digital Archive
	FULLERTON BUSINESS SERVICE	EDR Digital Archive

E COMMONWEALTH AVE

216 E COMMONWEALTH AVE

Year	Uses	Source
1995	FULLERTON BUSINESS SERVICE bkkpng	Pacific Bell
	Netland Joel A CPA	Pacific Bell
1991	FULLERTON BUSINESS SERVICE bkkpng	Pacific Bell
1986	Reynolds Wm W	Pacific Bell
	FULLE RTON BUS IN E S S S E RVICE bkkpng	Pacific Bell
	Bauer Don Team Rep	Pacific Bell
1980	Shafer Harold	Pacific Telephone
	Fullerton Business Service William W Reynolds	Pacific Telephone
	Practical Missionary Training Inc Ken Royer Dir	Pacific Telephone
	Shaffer Harold Investment Counselor	Pacific Telephone
1975	FULLERTON BUSINESS SERVICE bkkpng	Luskey Brothers & Co., Inc.
	Practical Missionary Training Inc	Luskey Brothers & Co., Inc.
	Roberts Emil S @Fullerton@ Business Service bkkpng	Luskey Brothers & Co., Inc.
	Reynolds Wm W	Luskey Brothers & Co., Inc.
1970	FULLERTON BUSINESS SERV bkkpng	General Telephone Co., of California
	Practical Missionary Training Inc	General Telephone Co., of California
	Reynolds Wm W	General Telephone Co., of California
	Roberts Emil S Fullerton Business Serv bkkpng	General Telephone Co., of California
1966	Practical Missionary Training Inc	Pacific Telephone
	Roberts Emil S Fullerton Business Serv bkkpng	Pacific Telephone

Year	Uses	Source
1966	Scandia Realty	Pacific Telephone
	FULLERTON BUSINESS SERV bkkpng	Pacific Telephone
1955	Struve E E MD	The Pacific Telephone and Telegraph Co.
1950	Struve E E MD	The Pacific Telephone and Telegraph Co.
1946	Hannon L J MD	Southern California Telephone Co.

E Commonwealth Ave

218 E Commonwealth Ave

Year	Uses	Source
2014	WESTERN PACIFIC MED-CORP	EDR Digital Archive
2010	WESTERN PACIFIC MED-CORP	EDR Digital Archive
2005	WESTERN PACIFIC MED-CORP	EDR Digital Archive

E COMMONWEALTH AVE

218 E COMMONWEALTH AVE

Year	Uses	Source
1995	Western Pacific Fullerton Medical Clinic	Pacific Bell
1991	Western Pacific Fullerton Medical Clinic	Pacific Bell
1970	Charter Thrift & Loan	General Telephone Co., of California
1966	PERSONAL PROTECTION AGENCIES INC	Pacific Telephone
	Personal Protection Agencies Inc	Pacific Telephone
	LEATHERBY INS SERV INC	Pacific Telephone
1955	Fullerton Business Serv bkkpng	The Pacific Telephone and Telegraph Co.
	Bergen A G Fullerton Business Serv bkkpng	The Pacific Telephone and Telegraph Co.
1950	Fullerton Bike Shop	The Pacific Telephone and Telegraph Co.

E Commonwealth Ave

219 E Commonwealth Ave

Year	Uses	Source
2014	LUX SALON 2 INC	EDR Digital Archive
	JAMES GRANT COOK	EDR Digital Archive
2010	LUX	EDR Digital Archive
	LUX SALON 2 INC	EDR Digital Archive
	JAMES GRANT COOK	EDR Digital Archive
2005	A-VEDA CORPORATION	EDR Digital Archive

E COMMONWEALTH AVE

219 E COMMONWEALTH AVE

Year	Uses	Source
1995	Fullerton Chamber Of Commerce	Pacific Bell
1991	Fullerton Chamber Of Commerce	Pacific Bell
1986	Fullerton Chamber Of Commerce	Pacific Bell
1980	Fullertor Credit Union	Pacific Telephone
	Frank M Reid Executive Vice President	Pacific Telephone
1975	Fullerton Chamber Of Commerce	Luskey Brothers & Co., Inc.
1970	Fullerton Chamber ot Commerce	General Telephone Co., of California
1966	Fullerton Chamber of Commerce	Pacific Telephone
1955	Cooper Noel S	The Pacific Telephone and Telegraph Co.
1950	Sellers R L r	The Pacific Telephone and Telegraph Co.
1946	Sellers R L r	Southern California Telephone Co.
1941	Johnslon Jack r	Southern California Telephone Co.

220 E COMMONWEALTH AVE

Year	Uses	Source
1995	Michael Shane	Pacific Bell
	Heirloom Shoppe	Pacific Bell
1991	Heirloom Shoppe	Pacific Bell
	Lemus Guadalupe	Pacific Bell
	Marchan Maria Luisa	Pacific Bell
	Sanchez Guadalupe	Pacific Bell
1986	Heirloom Shoppe	Pacific Bell
	Napoles Guadelupe M	Pacific Bell
	Sanchez Guadalupe	Pacific Bell
1980	Judo Academy Jerry Warrens Samurai Academy	Pacific Telephone
	Jerry Warrens Samurai Academy	Pacific Telephone
	Jerry Warrens Samurai Academy	Pacific Telephone
	Karate Academy Jerry Warrens Samurai Acaden`y	Pacific Telephone
	Napoles Guadelupe M	Pacific Telephone
	Warren Jerry Samurai Academy	Pacific Telephone
1975	Academy Samurai Judo & Karate Jerry Warrens Samurai Academy	Luskey Brothers & Co., Inc.
	JERRY WARRENS SAMURAI ACADEMY	Luskey Brothers & Co., Inc.
	Jerry Warrens Samurai Academy	Luskey Brothers & Co., Inc.

Year	Uses	Source
1975	Judo Academy Jerry Warrens Samural Academy	Luskey Brothers & Co., Inc.
	Karate Academy Jerry Warrens Samurai Academy	Luskey Brothers & Co., Inc.
	Samurai Judo School	Luskey Brothers & Co., Inc.
	Warren Jerry Samurai Academy	Luskey Brothers & Co., Inc.
1970	ALFERNANDEZ OFC EQUIPT	General Telephone Co., of California
1966	ALFERNANDEZ OFC EQUIPT	Pacific Telephone
	FERNANDEZ AL ofc eq	Pacific Telephone
	Garcia Julian	Pacific Telephone
	General Fireproofing Co	Pacific Telephone
1950	Blurton Robt L r	The Pacific Telephone and Telegraph Co.
	Mc Coy Barbara E r	The Pacific Telephone and Telegraph Co.
1946	Johnson Sarah M r	Southern California Telephone Co.

223 E COMMONWEALTH AVE

Year	Uses	Source
1950	Parker D M r	The Pacific Telephone and Telegraph Co.

E Commonwealth Ave

224 E Commonwealth Ave

Year	Uses	Source
2014	FULLERTON CITY LIGHTS	EDR Digital Archive
	JOHN PATRICK MURRAY AND ASSOC	EDR Digital Archive
2010	FULLERTON CITY LIGHTS	EDR Digital Archive
	JOHN PATRICK MURRAY AND ASSOC	EDR Digital Archive

E COMMONWEALTH AVE

224 E COMMONWEALTH AVE

Year	Uses	Source
1955	Shepherd H W	The Pacific Telephone and Telegraph Co.
1950	Shepherd H W r	The Pacific Telephone and Telegraph Co.
1941	Shepherd H W r	Southern California Telephone Co.

225 E COMMONWEALTH AVE

Year	Uses	Source
1986	Image Productions	Pacific Bell
	Imperial Health Spa	Pacific Bell
	Corp Offices	Pacific Bell

Year	Uses	Source
1986	Mainman Management Inc	Pacific Bell
1980	I }	Pacific Telephone
	Mainman Management Inc	Pacific Telephone
	Consolidated Leisure Financial Corp M Julian Mgr	Pacific Telephone
	Imperial Spa Corporate Office	Pacific Telephone
	Mainman Management Inc	Pacific Telephone
1970	FIDELITY FEDERAL SAVINGS & LOAN ASSN	General Telephone Co., of California
	First Federal Savings & Loan Assn of Fullerton See Fidelity Federal Savings & Loan Assn	General Telephone Co., of California
1966	FIRST FEDERAL SAVINGS & LOAN ASSN OF FULLERTON	Pacific Telephone
1955	Stockton Roy	The Pacific Telephone and Telegraph Co.
1950	Boyd R M r	The Pacific Telephone and Telegraph Co.
	Duncan Ewell J r	The Pacific Telephone and Telegraph Co.

228 E COMMONWEALTH AVE

Year	Uses	Source
1991	Duran Miguel	Pacific Bell
1986	Marcus H A	Pacific Bell
1980	Marcus H A	Pacific Telephone
	Marcus H A	Pacific Telephone
1975	Marcus H A	Luskey Brothers & Co., Inc.
1970	Marcus H A chir Drctr	General Telephone Co., of California
	Marcus Franklyn	General Telephone Co., of California
1966	Marcus H A chirprctr	Pacific Telephone
1955	Stewart W B	The Pacific Telephone and Telegraph Co.
	Marcus H A chirprctr	The Pacific Telephone and Telegraph Co.
1950	Marcus H A chirprctr	The Pacific Telephone and Telegraph Co.
1946	Marcus H A chirprctr	Southern California Telephone Co.
1941	Marcus HA chirprctr	Southern California Telephone Co.

E Commonwealth Ave

229 E Commonwealth Ave

Year	Uses	Source
2014	CLOUD	EDR Digital Archive
2010	GHARIB KASTURI SINGH	EDR Digital Archive
	KEMP CORPORATION	EDR Digital Archive

Year	Uses	Source
2010	DIBERKATI LLC	EDR Digital Archive
	EDWARD D JONES & CO LTD PARTNR	EDR Digital Archive
	DEAL YOREL	EDR Digital Archive
2005	DELTA ALARMS SECURITY SYS	EDR Digital Archive
	RUSSELL GROUP INC	EDR Digital Archive
	NYPD	EDR Digital Archive
	TROPICAL SMOOTHIE CAFE	EDR Digital Archive
	BRE PROPERTIES PINNACLE AT FUL	EDR Digital Archive
	HILL CONTRACTING GROUP	EDR Digital Archive
	SOJI TELECOMM CORP	EDR Digital Archive
	B LINE GOLF INC	EDR Digital Archive

233 E Commonwealth Ave

Year	Uses	Source
2010	DHILLON & PAGNANI ASSOCIATES	EDR Digital Archive
2005	OCONNELL COLLEGE OF LAW	EDR Digital Archive

E COMMONWEALTH AVE

233 E COMMONWEALTH AVE

Year	Uses	Source
1991	Success Plus Professional Group	Pacific Bell
	Success Realty	Pacific Bell
1980	California State Of Employment Development Dept	Pacific Telephone
	Fullerton	Pacific Telephone
1975	Fullerton	Luskey Brothers & Co., Inc.
	Fullerton	Luskey Brothers & Co., Inc.
1970	Fullerton	General Telephone Co., of California
	CALIFORNIA From Long Beach telephones	General Telephone Co., of California
1966	Casual Labor Office Santa Ana	Pacific Telephone
	Fullerton	Pacific Telephone
	Employment Serv Calif State of Dept of Employment	Pacific Telephone
	Employment Service Unemployment Insurance Office Fullerton	Pacific Telephone
1955	Fullerton Claims & Employment Serv Ofcs	The Pacific Telephone and Telegraph Co.
	Fullerton	The Pacific Telephone and Telegraph Co.
	Fullerton	The Pacific Telephone and Telegraph Co.

E Commonwealth Ave

234 E Commonwealth Ave

Year	Uses	Source
2014	BULLARD BROWN AND BEAL LLC	EDR Digital Archive
2010	BULLARD BROWN AND BEAL LLC	EDR Digital Archive
	NOSHI LLC	EDR Digital Archive
	AMERICAN IMAGE QUEST LLC	EDR Digital Archive
	FREDDY GORDO FILMS LLC	EDR Digital Archive
	HINDENBURG MOVIE LLC	EDR Digital Archive
2005	GB STEPHENS INC	EDR Digital Archive
	REPRESENT INC	EDR Digital Archive
	BULLARD & OLIN	EDR Digital Archive
	ANDREW R NMAN CPA AN ACCNTANCY	EDR Digital Archive

E COMMONWEALTH AVE

234 E COMMONWEALTH AVE

Year	Uses	Source
1995	Friendly Hills Medical Group Fullerton Fullerton Office	Pacific Bell
1991	Fullerton Oflfce	Pacific Bell
1986	Perez Rodolfo	Pacific Bell
1980	Perez Rodolfo	Pacific Telephone
	Perez Rudolfo Esperanza	Pacific Telephone
1975	Perez Rodolfo	Luskey Brothers & Co., Inc.
1970	Fu!lerton	General Telephone Co., of California
	CHILDRENS FAIRYLAND NURSERY SCHOOL Main Ofc	General Telephone Co., of California
	FAIRYLAND CHILDRENS NURSERY SCHOOL Main Ofc	General Telephone Co., of California
	Fullerton	General Telephone Co., of California
1966	CHILDRENS FAIRYLAND NURSERY SCHOOL	Pacific Telephone
	Fullerton	Pacific Telephone
	FAIRYLAND CHILDRENS NURSERY SCHOOL Main Ofc	Pacific Telephone
	Fullerton	Pacific Telephone
1955	Childrens Fairyland	The Pacific Telephone and Telegraph Co.
1950	Lettys Beauty Salon	The Pacific Telephone and Telegraph Co.
1941	Rivers Richard r	Southern California Telephone Co.

FINDINGS

235 E COMMONWEALTH AVE

Year	Uses	Source
1986	Leyra Pedro P	Pacific Bell

241 E COMMONWEALTH AVE

Year	Uses	Source
1955	Libby Wesley R	The Pacific Telephone and Telegraph Co.
1950	Pickens L E r	The Pacific Telephone and Telegraph Co.
1946	Pickens L E r	Southern California Telephone Co.

E Commonwealth Ave

242 E Commonwealth Ave

Year	Uses	Source
2014	FULLERTON SHELL	EDR Digital Archive
	LSR TRADE INC	EDR Digital Archive
2010	FULLERTON SHELL	EDR Digital Archive
2005	FULLERTON SHELL	EDR Digital Archive

E COMMONWEALTH AVE

242 E COMMONWEALTH AVE

Year	Uses	Source
1995	Avery Petroleum	Pacific Bell
	Fullerton Shall	Pacific Bell
	WESTERN	Pacific Bell
1991	Shell Self Serve	Pacific Bell
1986	Shell Self Serve	Pacific Bell
1980	Keiths Shell	Pacific Telephone
	Shell U Serve & Save	Pacific Telephone
1975	Shell Self Serve	Luskey Brothers & Co., Inc.
1970	Marvs Shell Service	General Telephone Co., of California
	Manhour George Shell Service	General Telephone Co., of California
1966	Haddon Bros Shell Serv	Pacific Telephone
1955	Bohannan W N Realty Exchange	The Pacific Telephone and Telegraph Co.
	REALTY EXCH	The Pacific Telephone and Telegraph Co.
	Coggburn F R Realty Exch	The Pacific Telephone and Telegraph Co.
1950	Orvs Chicken & Steak House	The Pacific Telephone and Telegraph Co.

FINDINGS

244 E COMMONWEALTH AVE

Year	Uses	Source
1955	Weaver Real Estate Serv	The Pacific Telephone and Telegraph Co.
	Weaver Carson N	The Pacific Telephone and Telegraph Co.
	Flynn T A Ins Agcy	The Pacific Telephone and Telegraph Co.
1941	Lillie Geo E r	Southern California Telephone Co.

E COMONN WEALTH AVE

220 E COMONN WEALTH AVE

Year	Uses	Source
1980	Acteademy Samurai Judfo & Karate Jerry Warrens Samurai Academy	Pacific Telephone

E SANTA FE

109 E SANTA FE

Year	Uses	Source
1966	Agnes Ann M	Pacific Telephone
	Ritz Hotel	Pacific Telephone

110 E SANTA FE

Year	Uses	Source
1966	SANTA Passenger Information Trainmaster Irvine Freight & Passenger Agent Irvine	Pacific Telephone
	Placentia Freight & Passenger Agent	Pacific Telephone

127 E SANTA FE

Year	Uses	Source
1966	Western Gift Distrs	Pacific Telephone

210 E SANTA FE

Year	Uses	Source
1966	WARD & HARRINGTON LUMBR CO	Pacific Telephone
	Fullerton	Pacific Telephone

215 E SANTA FE

Year	Uses	Source
1966	Fullerton	Pacific Telephone
	PAINT SUPPLY INC	Pacific Telephone

FINDINGS

219 E SANTA FE

Year	Uses	Source
1966	CARTER EVANS trophies	Pacific Telephone

221 E SANTA FE

Year	Uses	Source
1966	Tru Temp Heating Co	Pacific Telephone

223 E SANTA FE

Year	Uses	Source
1966	WILLIAMS LAUNDRY	Pacific Telephone

227 E SANTA FE

Year	Uses	Source
1966	J A M PLASTICS	Pacific Telephone

235 E SANTA FE

Year	Uses	Source
1966	Nu Art Neon Sign Co	Pacific Telephone
	New Art Neon Sign Co	Pacific Telephone
	NU ART NEON SIGN CO	Pacific Telephone

E SANTA FE AVE

105 E SANTA FE AVE

Year	Uses	Source
1922	Santa Fe Hotel	Kaasen Directory Co.

109 E SANTA FE AVE

Year	Uses	Source
1941	Park Hotel	Southern California Telephone Co.

E Santa Fe Ave

110 E Santa Fe Ave

Year	Uses	Source
2014	OLD SPAGHETTI FACTORY	EDR Digital Archive
2010	OLD SPAGHETTI FACTORY	EDR Digital Archive
	FULLERTON SPAGHETTI RSTRNT INC	EDR Digital Archive
2005	7 DAY LOCKSMITH	EDR Digital Archive
	OLD SPAGHETTI FACTORY	EDR Digital Archive

FINDINGS

E SANTA FE AVE

110 E SANTA FE AVE

Year	Uses	Source
1995	SPAGHETTI FACTORY THE OLD	Pacific Bell
1986	Spaghetti Factory The	Pacific Bell

112 E SANTA FE AVE

Year	Uses	Source
1980	Bogart Robt E	Pacific Telephone
1970	Bogart Robt E	General Telephone Co., of California

113 E SANTA FE AVE

Year	Uses	Source
1955	Clever & Gulick Mach Shop	The Pacific Telephone and Telegraph Co.
1950	Clever & Gulick Mach Shop	The Pacific Telephone and Telegraph Co.
1941	Clever & Gulick Mach Shop	Southern California Telephone Co.

115 E SANTA FE AVE

Year	Uses	Source
1922	Mc Connell J F plumber	Kaasen Directory Co.

116 E SANTA FE AVE

Year	Uses	Source
1980	Vogelesanq Jacob H	Pacific Telephone

117 E SANTA FE AVE

Year	Uses	Source
1946	Williams R E & Sons machine wks	Southern California Telephone Co.

121 E SANTA FE AVE

Year	Uses	Source
1955	Harper Gean	The Pacific Telephone and Telegraph Co.
1950	Doane Larry P r	The Pacific Telephone and Telegraph Co.
1922	Arklancl F	Kaasen Directory Co.

123 E SANTA FE AVE

Year	Uses	Source
1970	Crawley Emery E l	General Telephone Co., of California

FINDINGS

E Santa Fe Ave

124 E Santa Fe Ave

Year	Uses	Source
2014	R CASEY HULL ATTORNEY AT LAW	EDR Digital Archive
2005	MEDCOM INFORMATION SYSTEMS INC	EDR Digital Archive
	KT CAPITAL & ASSOCIATES INC	EDR Digital Archive

E SANTA FE AVE

127 E SANTA FE AVE

Year	Uses	Source
1975	Western Gillette Inc	Luskey Brothers & Co., Inc.
	Western Gift Distributors	Luskey Brothers & Co., Inc.
	Chronex Co watch repr	Luskey Brothers & Co., Inc.
1970	Western Gift Distributors	General Telephone Co., of California
1941	Poore Don Mrs r	Southern California Telephone Co.
1922	Poore F L Mrs fur rms	Kaasen Directory Co.
	Cal Vegetable Union	Kaasen Directory Co.

E Santa Fe Ave

136 E Santa Fe Ave

Year	Uses	Source
2014	SANTA FE EXPRESS CAFE	EDR Digital Archive
2010	SANTA FE EXPRESS CAFE	EDR Digital Archive
2005	SANTA FE EXPRESS CAFE	EDR Digital Archive

E SANTA FE AVE

136 E SANTA FE AVE

Year	Uses	Source
1995	Santa Fe Express Cafe	Pacific Bell

150 E SANTA FE AVE

Year	Uses	Source
1995	Top Cars Paint & Body	Pacific Bell
1991	Top Cars Paint & Body	Pacific Bell

FINDINGS

205 E SANTA FE AVE

Year	Uses	Source
1955	ALLEN BROS TOOL CO	The Pacific Telephone and Telegraph Co.

208 E SANTA FE AVE

Year	Uses	Source
1995	Joaquins Body Shop	Pacific Bell
	Robert Bashara Automotive	Pacific Bell
	Romero Miguel	Pacific Bell
1991	Carmonas Complete Auto Body & Paint Works	Pacific Bell
	Rabbit Reconditioning	Pacific Bell
	Robert Bashara Automotive	Pacific Bell
	Romero Miguel	Pacific Bell
1986	Genos Auto Body	Pacific Bell
	Car Center The	Pacific Bell
	Le Rettes Smog Experts	Pacific Bell
	Mobil Aid Transmission	Pacific Bell
	Nippon Engineering	Pacific Bell
	Rabbit Reconditioning	Pacific Bell
	S PE N TA MAINZU PE RFORMAN CE	Pacific Bell
1975	Fleetcraft Body Shop	Luskey Brothers & Co., Inc.

209 E SANTA FE AVE

Year	Uses	Source
1980	MACS BATTERY SERVICE OF CALIFORNIA Paul E Mc Kinney	Pacific Telephone
1975	McKinney Paul E Macs Battery Service Of Calif	Luskey Brothers & Co., Inc.
	Macs Battery Service Of Calif	Luskey Brothers & Co., Inc.
1970	Mc Kinney Paul E Macs Battery Service Of Calif	General Telephone Co., of California
	Macs Battery Service Of Calif	General Telephone Co., of California
1955	SERVISOFT OF NORTHERN ORANGE COUNTY	The Pacific Telephone and Telegraph Co.
	Mills Herbert M Servisoft of Northern Orange County	The Pacific Telephone and Telegraph Co.

210 E SANTA FE AVE

Year	Uses	Source
1995	Reyes Body Shop	Pacific Bell
	J T Mobile Auto Glass	Pacific Bell

Year	Uses	Source
1995	JBAuto Sales	Pacific Bell
	Rubens Magic Marble	Pacific Bell
1991	Recovery Marine	Pacific Bell
	ND C Auto Sales	Pacific Bell
	Colmar Goldmark Studios	Pacific Bell
1980	Smith Jas B	Pacific Telephone
	J B S Co James B Smith	Pacific Telephone
	Mathews Products Inc	Pacific Telephone
	Mathews Lyhe M	Pacific Telephone
	Mathews Products	Pacific Telephone
1970	CAL WEST CONTRACTORS	General Telephone Co., of California
1955	Fullerton	The Pacific Telephone and Telegraph Co.
1950	Fullerton	The Pacific Telephone and Telegraph Co.

215 E SANTA FE AVE

Year	Uses	Source
1980	Paint Supply fullerton	Pacific Telephone
	Paint Supply Fullerton	Pacific Telephone
1975	Paint Supply Of @Fullerton@	Luskey Brothers & Co., Inc.
1970	PAINT SUPPLY INC	General Telephone Co., of California
	Fullrton	General Telephone Co., of California
1955	Valencia John T	The Pacific Telephone and Telegraph Co.
1922	Peek Will	Kaasen Directory Co.
	Mensch F L	Kaasen Directory Co.
	Clark J H	Kaasen Directory Co.

217 E SANTA FE AVE

Year	Uses	Source
1955	Sanchez Alfonso Rev	The Pacific Telephone and Telegraph Co.
1950	Munoz S F r	The Pacific Telephone and Telegraph Co.
1946	Dominguez Alphonso Rev r	Southern California Telephone Co.

219 E SANTA FE AVE

Year	Uses	Source
1970	EVANS R CO trphies	General Telephone Co., of California

221 E SANTA FE AVE

Year	Uses	Source
1991	Paint Supply fullerton	Pacific Bell
1986	Paint Supply fullerton	Pacific Bell

Year	Uses	Source
1980	Tru Temp Heating Eugene E Cook	Pacific Telephone
1970	TRU TEMP HEATING CO	General Telephone Co., of California
1922	Moore Bros Co cemnt cntrs	Kaasen Directory Co.

223 E SANTA FE AVE

Year	Uses	Source
1986	Redie Laundry & Cleaners	Pacific Bell
1980	Redie Laundry & Cleaners Inc Tony Amerese	Pacific Telephone
	Or	Pacific Telephone
1975	Moselle Marius A	Luskey Brothers & Co., Inc.
	REDIE LAUNDRY & CLEANERS	Luskey Brothers & Co., Inc.
1970	REDIE INDUSTRIAL UNIFORM RENTAL	General Telephone Co., of California
	REDIE LAUNDRY & CLEANERS	General Telephone Co., of California
	REDIE LINEN SUPPLY	General Telephone Co., of California

E Santa Fe Ave

225 E Santa Fe Ave

Year	Uses	Source
2014	WILL-MANN INC	EDR Digital Archive
2010	WILL-MANN INC	EDR Digital Archive
2005	WILL-MANN INC	EDR Digital Archive

E SANTA FE AVE

225 E SANTA FE AVE

Year	Uses	Source
1995	Hughes Aircraft Company Containerization	Pacific Bell
	Will Mann Inc	Pacific Bell
1991	Hughes Aircraft Long Beach Containerization	Pacific Bell
	Will Mann Inc	Pacific Bell
1980	Will Mann Inc M Frischmuth	Pacific Telephone
1975	Will Mann Inc	Luskey Brothers & Co., Inc.
1970	Will Mann o	General Telephone Co., of California

227 E SANTA FE AVE

Year	Uses	Source
1970	RHOADS BROS CO	General Telephone Co., of California

FINDINGS

Year	Uses	Source
1955	Holquin E L	The Pacific Telephone and Telegraph Co.
1950	Holquin E L r	The Pacific Telephone and Telegraph Co.

229 E SANTA FE AVE

Year	Uses	Source
1970	Chronex Co watch re Dr	General Telephone Co., of California

231 E SANTA FE AVE

Year	Uses	Source
1975	Lincoln Company	Luskey Brothers & Co., Inc.
1970	Lincoln Company	General Telephone Co., of California

235 E SANTA FE AVE

Year	Uses	Source
1980	Exer Genie Inc	Pacific Telephone
1975	Exer Genie Inc	Luskey Brothers & Co., Inc.
1955	Yeats Appliance Dolly Mfg Co	The Pacific Telephone and Telegraph Co.
1950	Yeats Appliance Dolly Mfg Co	The Pacific Telephone and Telegraph Co.
1946	Yeats Appliance Dolly Mfg Co	Southern California Telephone Co.

237 E SANTA FE AVE

Year	Uses	Source
1922	Yasuzaki R	Kaasen Directory Co.

E Santa Fe Ave

250 E Santa Fe Ave

Year	Uses	Source
2014	TERRYS AUTOMOTIVE INC	EDR Digital Archive
2010	TERRYS AUTOMOTIVE INC	EDR Digital Archive
2005	TERRYS AUTOMOTIVE INC	EDR Digital Archive

E SANTA FE AVE

251 E SANTA FE AVE

Year	Uses	Source
1980	Delaet Robt	Pacific Telephone

FINDINGS

E WALNUT AVE

109 E WALNUT AVE

Year	Uses	Source
1946	Warehse	Southern California Telephone Co.

E Walnut Ave

110 E Walnut Ave

Year	Uses	Source
2014	BUSHALA BROTHERS INC	EDR Digital Archive
	MAVERICK THEATER	EDR Digital Archive
2010	MAVERICK THEATER	EDR Digital Archive
	BUSHALA BROTHERS INC	EDR Digital Archive
2005	BUSHALA BROTHERS INC	EDR Digital Archive
	MAVERICK THEATER	EDR Digital Archive
	WESTERN SINGLE PLY	EDR Digital Archive

E WALNUT AVE

110 E WALNUT AVE

Year	Uses	Source
1995	Urban Spectrum Associates	Pacific Bell
	Bushala Brothers Inc	Pacific Bell
1991	Bushala Bros Construction	Pacific Bell
1966	Taylor Made Meats	Pacific Telephone

E Walnut Ave

112 E Walnut Ave

Year	Uses	Source
2014	CALVARY CHAPEL FULLERTON	EDR Digital Archive
	LA CASA DEL ALFARERO	EDR Digital Archive
2010	LA CASA DEL ALFARERO	EDR Digital Archive
2005	CALVARY CHAPEL OF FULLERT	EDR Digital Archive

E WALNUT AVE

112 E WALNUT AVE

Year	Uses	Source
1995	Ice House	Pacific Bell

FINDINGS

Year	Uses	Source
1995	Culture Shock	Pacific Bell
1986	Dry Ice Sales	Pacific Bell
	Assoc Crystal Ice Mfg Co	Pacific Bell
	Consolidated Ice & Cold Storage Co See Crystal Ice Mfg Co	Pacific Bell
	Crystal Ice Co Crystal Ice Mtg Co	Pacific Bell
	CRYS TAL ICE MFG CO	Pacific Bell
1980	Consolidated Ice & Cold Storage Co See Crystal Ice Mfg Co	Pacific Telephone
	DRY ICE S ALE S t	Pacific Telephone
1975	Consolidated Ice & Cold Storage Co See Crystal Ice Mfg Co	Luskey Brothers & Co., Inc.
	CONSOLIDATED LEASING CORPORATION	Luskey Brothers & Co., Inc.
	Crystal Ice Co Crystal Ice Mfg Co	Luskey Brothers & Co., Inc.
	CRYSTAL ICE MFG CO	Luskey Brothers & Co., Inc.
	DRY ICE SALES	Luskey Brothers & Co., Inc.
1966	Crystal Ice Co Crystal Ice Mfg Co	Pacific Telephone
	Dry Ice Sales	Pacific Telephone
1950	Consolidated Ice & Cold Storage See Crystal Ice Mfg Co	The Pacific Telephone and Telegraph Co.
	Crystal Ice Food Lockers	The Pacific Telephone and Telegraph Co.
	Fullerton	The Pacific Telephone and Telegraph Co.
1946	Consolidated Ice & Cold Storage Co See Crystal Ice Mfg Co	Southern California Telephone Co.
	Crystal Ice Food Lockers	Southern California Telephone Co.
	Fullerton	Southern California Telephone Co.
1941	Crystal Ice Refrigeration Co	Southern California Telephone Co.

116 E WALNUT AVE

Year	Uses	Source
1975	ANDERSEN WELDING SERVICE	Luskey Brothers & Co., Inc.

126 E WALNUT AVE

Year	Uses	Source
1922	c 127 Ful Mut 0 Assn	Kaasen Directory Co.
	Moudy J E	Kaasen Directory Co.

128 E WALNUT AVE

Year	Uses	Source
1922	Alvarado Pablo	Kaasen Directory Co.

FINDINGS

132 E WALNUT AVE

Year	Uses	Source
1922	Garrigan Delia Mrs	Kaasen Directory Co.

133 E WALNUT AVE

Year	Uses	Source
1966	Westrn Marketing	Pacific Telephone
	Westrn Marketing	Pacific Telephone
1950	Belmont Frank Granada Packing House	The Pacific Telephone and Telegraph Co.
	Granada Packing House	The Pacific Telephone and Telegraph Co.

134 E WALNUT AVE

Year	Uses	Source
1922	Rowland M E Mrs	Kaasen Directory Co.

140 E WALNUT AVE

Year	Uses	Source
1922	Espinoza Joe	Kaasen Directory Co.

144 E WALNUT AVE

Year	Uses	Source
1966	Calla Chemical Co Inc	Pacific Telephone

146 E WALNUT AVE

Year	Uses	Source
1922	Globe G & M Co	Kaasen Directory Co.
	Savala Carpio	Kaasen Directory Co.
	Pomona Av intersests	Kaasen Directory Co.

203 E WALNUT AVE

Year	Uses	Source
1922	Cobb M M Co	Kaasen Directory Co.

207 E WALNUT AVE

Year	Uses	Source
1966	Barr Claude Co	Pacific Telephone
1950	Pioneer Bldrs Supplies Inc	The Pacific Telephone and Telegraph Co.
1946	Calif Fruit Distrs	Southern California Telephone Co.

212 E WALNUT AVE

Year	Uses	Source
1922	Toppins M M Mrs	Kaasen Directory Co.

FINDINGS

214 E WALNUT AVE

Year	Uses	Source
1922	Sandoval Cresentia Mrs	Kaasen Directory Co.

216 E WALNUT AVE

Year	Uses	Source
1922	Chavez Antonio	Kaasen Directory Co.

218 E WALNUT AVE

Year	Uses	Source
1922	Sanches Tomnas	Kaasen Directory Co.

224 E WALNUT AVE

Year	Uses	Source
1922	Romo Jenaro	Kaasen Directory Co.
	Martinez Joe	Kaasen Directory Co.

226 E WALNUT AVE

Year	Uses	Source
1922	Narvais Jose	Kaasen Directory Co.
	Marmolejo Julio	Kaasen Directory Co.

228 E WALNUT AVE

Year	Uses	Source
1922	Hernandez Joe	Kaasen Directory Co.

236 E WALNUT AVE

Year	Uses	Source
1922	Guadan Incarnation	Kaasen Directory Co.

237 E WALNUT AVE

Year	Uses	Source
1950	Evans Bros Packing Co	The Pacific Telephone and Telegraph Co.
1946	Evans Bros Packing Co	Southern California Telephone Co.
1941	Evans Bros Packing Co	Southern California Telephone Co.

240 E WALNUT AVE

Year	Uses	Source
1922	Romo Jesus	Kaasen Directory Co.
	Castro Ygnacio	Kaasen Directory Co.

FINDINGS

E WALNUT WAY

112 E WALNUT WAY

Year	Uses	Source
1966	Consolidated Ice & Cold Storage Co See Crystal Ice Mfg Co	Pacific Telephone

E Walnut Way

275 E Walnut Way

Year	Uses	Source
2014	BENEDICT MARK	EDR Digital Archive
2010	BENEDICT MARK	EDR Digital Archive
2005	BENEDICT MARK	EDR Digital Archive
	BOYD & ANDREWS COMPLETE AUTO	EDR Digital Archive

Gateway Ct

329 Gateway Ct

Year	Uses	Source
2014	DEVELOPMENT XFACTOR INC	EDR Digital Archive
2010	DEVELOPMENT XFACTOR INC	EDR Digital Archive

330 Gateway Ct

Year	Uses	Source
2014	JUSTIN J BRECHTEL ARCHITECT	EDR Digital Archive
	SMALL SHOP DESIGN LLC	EDR Digital Archive
2010	JUSTIN J BRECHTEL ARCHITECT	EDR Digital Archive

Market Ct

303 Market Ct

Year	Uses	Source
2014	MYLEN G SYNDER EA	EDR Digital Archive
	SNYDER TAX SERVICE INC	EDR Digital Archive
2010	SNYDER TAX SERVICE INC	EDR Digital Archive
	MYLEN G SYNDER EA	EDR Digital Archive

309 Market Ct

Year	Uses	Source
2010	AMELEX & COMPANY LLC	EDR Digital Archive

FINDINGS

321 Market Ct

Year	Uses	Source
2014	YOUR HOME TEAM REAL ESTATE	EDR Digital Archive
2010	RGV PROPERTY MANAGEMENT LLC	EDR Digital Archive

351 Market Ct

Year	Uses	Source
2010	DOOKIM LLC	EDR Digital Archive

N HARBOR

117 N HARBOR

Year	Uses	Source
1966	Rasco 5 Cent Stores	Pacific Telephone

N HARBOR BLVD

100 N HARBOR BLVD

Year	Uses	Source
1995	Adams Electronics	Pacific Bell
	Fullerton Car Wash The	Pacific Bell
	Video Warehouse See Adams Electronics	Pacific Bell
1991	Video Warehouse	Pacific Bell
1980	W I kinson Drug Store	Pacific Telephone
	Wilkinson Drug Store Verne Wilkinson	Pacific Telephone
1975	Wilkinson Drug Store	Luskey Brothers & Co., Inc.
1966	WILKINSON DRUG STORE	Pacific Telephone
	Chills Grill	Pacific Telephone

101 N HARBOR BLVD

Year	Uses	Source
1991	Fullerton Office	Pacific Bell
1986	Fullerton	Pacific Bell
1980	Balances & Credit Ratings	Pacific Telephone
	Fullerton	Pacific Telephone
	Security Pacific National Bank	Pacific Telephone
	Statements	Pacific Telephone
	New Accounts	Pacific Telephone
	Customer Service	Pacific Telephone
	Balances & Credit Ratings	Pacific Telephone
	Master Charge & Ready Reserve	Pacific Telephone

Year	Uses	Source
1980	Auto & Other Installments	Pacific Telephone
	S Mi N M TIo ARf N d AL BANK Crntd Fullerton Contd Loans Contd New loan Applications Contd	Pacific Telephone
	Commercial Loans	Pacific Telephone
	Real Estate	Pacific Telephone
	Instalment	Pacific Telephone
	Exchange & Collections	Pacific Telephone
	Other Departments	Pacific Telephone
1975	Fullerton	Luskey Brothers & Co., Inc.
1970	Jack in The Box	General Telephone Co., of California

102 N HARBOR BLVD

Year	Uses	Source
1995	Pete & Tonys Sports Bar& Grill	Pacific Bell
1991	Pete & Tonys Sports Bar	Pacific Bell
	Downtown Bar & Grill Sports Bar	Pacific Bell
	Sports Bar	Pacific Bell
1980	Randys Coffee Shop & Family Restaurant M F Yassine	Pacific Telephone
1975	Randys Coffee Shop & Family Restaurant	Luskey Brothers & Co., Inc.
1970	Eastons Brown Mug Cafe	General Telephone Co., of California
1966	GIFFORDS STATIONERY	Pacific Telephone

104 N HARBOR BLVD

Year	Uses	Source
1986	Fullerton	Pacific Bell
1980	Household Finance Corp & Subsidiary Companies	Pacific Telephone
1975	Fullerton	Luskey Brothers & Co., Inc.
1970	Household Finance Corp of Fullerton	General Telephone Co., of California
1966	Household Finance Corp of Fullerton	Pacific Telephone

105 N HARBOR BLVD

Year	Uses	Source
1955	Hover Ira	The Pacific Telephone and Telegraph Co.

106 N HARBOR BLVD

Year	Uses	Source
1995	Comics N Things	Pacific Bell
1991	BASEBALL CARD SHOPPE THE	Pacific Bell

FINDINGS

Year	Uses	Source
1991	ADVENTURELAND COMICS	Pacific Bell
1986	ADVE N TURE LAN D COMICS	Pacific Bell
1980	American Comic Book C	Pacific Telephone
1975	Talk Of The Town	Luskey Brothers & Co., Inc.
	BUSTER BROWN BOOTERY	Luskey Brothers & Co., Inc.
1970	Talk of The Town	General Telephone Co., of California
	Marys Talk of The Town	General Telephone Co., of California
1966	Mc Clures Jewelers	Pacific Telephone
	Hardys Foundations	Pacific Telephone

107 N HARBOR BLVD

Year	Uses	Source
1955	Appleby Pauline	The Pacific Telephone and Telegraph Co.

108 N HARBOR BLVD

Year	Uses	Source
1995	B ornstad Harvey	Pacific Bell
	Black Hole Records	Pacific Bell
1991	Tildes Bridal & Tux	Pacific Bell
1980	Ted Gumms Shoe Gallery	Pacific Telephone
1975	MERMANS FINE SHOES	Luskey Brothers & Co., Inc.
1970	MERMANS FINE SHOES	General Telephone Co., of California
1966	Mermans Fine Shoes	Pacific Telephone
1955	Finseth Edwin B	The Pacific Telephone and Telegraph Co.

109 N HARBOR BLVD

Year	Uses	Source
1995	Atomic Guitars	Pacific Bell
	Alexanders Jewelers	Pacific Bell
1991	Alexanders Jewelers	Pacific Bell
	CD Experience	Pacific Bell
1986	Alexanders Jewelers	Pacific Bell
	Harbor Lock & Safe	Pacific Bell
1980	S TE IAN W Mi E EE RS	Pacific Telephone
	HARBOR LOCK & SAFE Bernard Grotsky	Pacific Telephone
	Stedman Jewelers Frances M Stedman	Pacific Telephone
1975	Bit O British	Luskey Brothers & Co., Inc.
	STEDMAN WM G JEWELERS	Luskey Brothers & Co., Inc.
1970	JULIAN ROBT S OR optmtrst	General Telephone Co., of California

Year	Uses	Source
1970	STEDMAN WM G JEWELERS	General Telephone Co., of California
1966	JULIAN ROBT S DR optmtrst	Pacific Telephone
	STEDMAN WM G JEWELERS	Pacific Telephone

110 N HARBOR BLVD

Year	Uses	Source
1995	Antique Gallery	Pacific Bell
1991	Gifford Stationery	Pacific Bell
	GIFFORD STATIONERY	Pacific Bell
1980	GIFFOW O S TATION E RY	Pacific Telephone
1975	GIFFORD STATIONERY	Luskey Brothers & Co., Inc.

111 N HARBOR BLVD

Year	Uses	Source
1966	Cove Restaurant The	Pacific Telephone

112 N HARBOR BLVD

Year	Uses	Source
1995	Morris & Joseph trair stylists	Pacific Bell
1986	Morns & Joseph Hair Styling	Pacific Bell
	Morris & Joseph hair stylists	Pacific Bell
1980	Morris & Joseph Hair Styling Joe Vallin &	Pacific Telephone
	Morris & Joseph hairstylists	Pacific Telephone
1975	Morris & Joseph Hair Styling	Luskey Brothers & Co., Inc.
	Morris & Joseph Hair Styling	Luskey Brothers & Co., Inc.
1970	Morris & Joseph Hair Styling	General Telephone Co., of California
	Morris & Joseph Hair Styling	General Telephone Co., of California
1966	Hughes Photo Serv	Pacific Telephone

113 N HARBOR BLVD

Year	Uses	Source
1980	MY S HRINK	Pacific Telephone
	Halmar Interiors Henry Lopez	Pacific Telephone
	MY SHRINK TAVERN Tom Roberts	Pacific Telephone
1975	Red Garter	Luskey Brothers & Co., Inc.
	Used To Bes	Luskey Brothers & Co., Inc.
1970	Red Garter	General Telephone Co., of California
1966	Red Garter	Pacific Telephone
	Putnams Geo Luggage Shop	Pacific Telephone

FINDINGS

114 N HARBOR BLVD

Year	Uses	Source
1995	Clor A Winkelman Realty Co REO Div	Pacific Bell
1991	Lopez Judy Realtor REO Div	Pacific Bell
	Clor Realty & Investments	Pacific Bell
	Clor Realty Lopez Judy Realtor REO Div	Pacific Bell
	Clor A Winkelmann Realty Company Fullerton	Pacific Bell
	Calif Pacific Label Co	Pacific Bell
	California Pacesetters In Relocation	Pacific Bell
1986	Clor Realty ft Investments	Pacific Bell
1980	Bownes Apparel Shop	Pacific Telephone
1975	BOWNES APPAREL SHOP	Luskey Brothers & Co., Inc.
1970	BOWNES APPAREL SHOP	General Telephone Co., of California
1966	BOWNES APPAREL SHOP	Pacific Telephone
1955	Adams Ardis E	The Pacific Telephone and Telegraph Co.

115 N HARBOR BLVD

Year	Uses	Source
1955	Yarbrough Arthur L Jr CPA	The Pacific Telephone and Telegraph Co.

116 N HARBOR BLVD

Year	Uses	Source
1970	ROGERS T V & STEREO	General Telephone Co., of California
1966	La Belle Beauty Shop	Pacific Telephone
	BEAUTY PRODUCTS INC	Pacific Telephone
1955	Devany Mkt	The Pacific Telephone and Telegraph Co.

117 N HARBOR BLVD

Year	Uses	Source
1991	KANES HALLMARK I	Pacific Bell
	Kaneshige H @Newport Beach @	Pacific Bell
	Kaneshige K	Pacific Bell

120 N HARBOR BLVD

Year	Uses	Source
1955	Gilliam Verlin	The Pacific Telephone and Telegraph Co.

121 N HARBOR BLVD

Year	Uses	Source
1995	Aqua Phonics Internati	Pacific Bell

Year	Uses	Source
1995	Mos Music Centers See Fullerton Music Center	Pacific Bell
	Fullerton Music Centers	Pacific Bell
	Music Unlimited	Pacific Bell
1991	Fullerton Music Centers	Pacific Bell
1986	Cal Bed & Furniture	Pacific Bell
1980	Cal Furniture	Pacific Telephone
	Cal Furniture	Pacific Telephone
	CAL FURNITURE DISCOUNT SHOWROOM John Hanaway	Pacific Telephone
1975	Castle Furniture Co	Luskey Brothers & Co., Inc.
1970	CASTLE FURN CO	General Telephone Co., of California
1966	CASTLE FURN CO	Pacific Telephone

122 N HARBOR BLVD

Year	Uses	Source
1995	Wolfe JHCo	Pacific Bell
	WEWConsulting Co	Pacific Bell
	Snob Hill	Pacific Bell
	Second Ave Clothing	Pacific Bell
	Marthas Bridal Shop	Pacific Bell
	Exclusive Touch Enterprise	Pacific Bell
	Crabtree Antique & Collectables	Pacific Bell
	Calif Financial Realty	Pacific Bell
	Antique Companion The	Pacific Bell
	Amerage Avenue Antiques	Pacific Bell
	Alain Jamar Design	Pacific Bell
1991	Snowden Design Group	Pacific Bell
	Snob Hill	Pacific Bell
	Granger Development Inc	Pacific Bell
	Burlington Gift Products	Pacific Bell
1986	FULLE RTON MUS IC CE N TE RS	Pacific Bell
1980	FULLE RITON MUS IC CO	Pacific Telephone
	FULLERTON MUSIC CO	Pacific Telephone
1975	FULLERTON MUSIC CO	Luskey Brothers & Co., Inc.
1970	FULLERTON MUSIC CO	General Telephone Co., of California
1966	FULLERTON MUSIC CO	Pacific Telephone
	Fullerton Music Co	Pacific Telephone
1955	Fullerton Cleaners	The Pacific Telephone and Telegraph Co.

123 N HARBOR BLVD

Year	Uses	Source
1955	Yarbrough Agcy The rl est	The Pacific Telephone and Telegraph Co.
	Yarbrough Douglas H Yarbrough Agcy The rl est	The Pacific Telephone and Telegraph Co.

144 N HARBOR BLVD

Year	Uses	Source
1995	Goldman F Elliottatty	Pacific Bell

149 N HARBOR BLVD

Year	Uses	Source
1970	Cooke LHH	General Telephone Co., of California

N POMONA AVE

100 N POMONA AVE

Year	Uses	Source
1946	Crabill Winifred A r	Southern California Telephone Co.
1922	Kennedy S J mach B R Tool Co r	Kaasen Directory Co.
	Gerken O Chas comp Brea Progress r	Kaasen Directory Co.
	Fredlihp Jos L tailor r	Kaasen Directory Co.
	Burmaster Arthur E mach B R Tool Co r	Kaasen Directory Co.
	Ledbetter A C oil wkr r	Kaasen Directory Co.
	OMara Wm B mach B R Tool Co r	Kaasen Directory Co.
	Rogers A S clk U O Co r	Kaasen Directory Co.
	Sanitary Barber Shop G E Gesme prop	Kaasen Directory Co.
	Stone C H mach B R Tool Co r	Kaasen Directory Co.
	Toteten G C mach r	Kaasen Directory Co.
	Wall Nathaniel A Catherine fur rms h	Kaasen Directory Co.

101 N POMONA AVE

Year	Uses	Source
1955	RENTZ FURN CO	The Pacific Telephone and Telegraph Co.
1922	Chaffee H G Co G H Smith mgr gro dept F A Ball mgr meat dept	Kaasen Directory Co.
	Krueger Fredk L meat ctr Chaffees r	Kaasen Directory Co.

102 N POMONA AVE

Year	Uses	Source
1946	White A F Jr r	Southern California Telephone Co.
1922	h	Kaasen Directory Co.

Year	Uses	Source
1922	Schwartz Ike Sarah tailor	Kaasen Directory Co.
	Schwartz Ike Sarah tailor	Kaasen Directory Co.

104 N POMONA AVE

Year	Uses	Source
1955	JACKSON BROS AUTO SUPPLY	The Pacific Telephone and Telegraph Co.
1950	Branyan R H DC	The Pacific Telephone and Telegraph Co.
1946	Massey W B rl est	Southern California Telephone Co.
1922	Mills M H Co F C Burgman mgr groc	Kaasen Directory Co.
	Burgman Fred C Loa C mgr M H Mills Co h	Kaasen Directory Co.

105 N POMONA AVE

Year	Uses	Source
1955	A & J Mach Shop	The Pacific Telephone and Telegraph Co.
1922	Skinner Otis clk Oliver Wood h	Kaasen Directory Co.
	Hoover Saml H barber	Kaasen Directory Co.
	Wood Oliver Daisy pool	Kaasen Directory Co.

106 N POMONA AVE

Year	Uses	Source
1950	Brea Garment Co Inc	The Pacific Telephone and Telegraph Co.
	Brea Hotel	The Pacific Telephone and Telegraph Co.
	Orlando Cab Co	The Pacific Telephone and Telegraph Co.
1946	Brea Hotel	Southern California Telephone Co.
1922	Miller Geo hlpr Olsons r	Kaasen Directory Co.
	Morein Max clk Brea Army Goods Store r	Kaasen Directory Co.
	Morein Sol prop Brea Army Goods Store r	Kaasen Directory Co.
	Perkins Marshall A meat ctr M H Mills Co r	Kaasen Directory Co.
	Pierce Frank cook Brea Grill r	Kaasen Directory Co.
	Thayer Mary E Mrs prop Brea Hotel h	Kaasen Directory Co.
	Thornton Oliver N r	Kaasen Directory Co.
	Lusk Jas A hlpr Brea Grill r	Kaasen Directory Co.
	Jones Saml welder U O Co r	Kaasen Directory Co.
	Jones Ben waiter Brea Grill r	Kaasen Directory Co.
	Brea Army Goods Store Sol Morein prop	Kaasen Directory Co.
	Brea Hotel Mrs M E Thayer prop	Kaasen Directory Co.

FINDINGS

107 N POMONA AVE

Year	Uses	Source
1946	Butchko Pottery Mfg Co	Southern California Telephone Co.
1922	BREA PROGRESS W D Adkins Editor and Mgr	Kaasen Directory Co.
	ADKINS WM D Velma Editor and Mgr Brea Progress h	Kaasen Directory Co.

108 N POMONA AVE

Year	Uses	Source
1955	Brea Hotel	The Pacific Telephone and Telegraph Co.
	United Rubber Cork Linoleum & Plastic Workers of America CIO	The Pacific Telephone and Telegraph Co.
1922	Brea Grill Mrs Dennie Passomaneck prop	Kaasen Directory Co.

110 N POMONA AVE

Year	Uses	Source
1950	King J W MD	The Pacific Telephone and Telegraph Co.
1946	King J W MD	Southern California Telephone Co.
1922	Brea Plumbing Co A R Burns mgr	Kaasen Directory Co.
	Carey J T Daisy C vulcanizer	Kaasen Directory Co.

113 N POMONA AVE

Year	Uses	Source
1955	Brea Mfg Co freezers	The Pacific Telephone and Telegraph Co.
1950	Brea Mfg Co freezers	The Pacific Telephone and Telegraph Co.
1946	Brea Mfg Co freezers	Southern California Telephone Co.

114 N POMONA AVE

Year	Uses	Source
1995	First United Methodist Church Of Fullerton	Pacific Bell
	Fullerton First United Methodist Church	Pacific Bell
	Fullerton Interfaith Emergency Service Ofc	Pacific Bell
	Methodist Church First United Of Fullerton	Pacific Bell
	UNITED METHODIST CHURCHES Anaheim United Methodist Church	Pacific Bell
	First United Methodist	Pacific Bell
1991	FIRST UNITED METHODIST CHURCH OF ORANGE	Pacific Bell
	Nursery School	Pacific Bell
	Fullerton Interfaith Emergency Service Ofc	Pacific Bell
	FULLERTON INTERNAL	Pacific Bell

FINDINGS

Year	Uses	Source
1991	United Methodist Churces Fullerton First United Methodist	Pacific Bell
	UNITED METHODIST CHURCHES Anaheim	Pacific Bell
	First United Methodist	Pacific Bell
1986	CHURCH	Pacific Bell
1980	First United Methodist Church Nursery School	Pacific Telephone
	First United Methodist Church Of Fullerton	Pacific Telephone
	Ofc	Pacific Telephone
	District Olfice	Pacific Telephone
	First United Methodist	Pacific Telephone
	Church	Pacific Telephone
	Preschool	Pacific Telephone
1975	Ofc	Luskey Brothers & Co., Inc.
	First Methodist Church Of @Fullerton@	Luskey Brothers & Co., Inc.
	First United Methodist Church Nursery School	Luskey Brothers & Co., Inc.
	FIRST UNITED METHODIST CHURCH OF FULLERTON	Luskey Brothers & Co., Inc.
	FULLERTON FIRST UNITED METHODIST CHURCH	Luskey Brothers & Co., Inc.
	United Methodist Church Santa Ana Dist	Luskey Brothers & Co., Inc.
1970	First Methodist Church of Fullerton	General Telephone Co., of California
	First United Methodist Nursery School	General Telephone Co., of California
	FULLERTON FIRST UNITED METHODIST CHURCH	General Telephone Co., of California
1966	FIRST METHODIST CHURCH OF FULLERTON	Pacific Telephone
1955	First Methodist Church of Fullerton	The Pacific Telephone and Telegraph Co.
	Lormor Hugh N First Methodist Church of Fullerton	The Pacific Telephone and Telegraph Co.
1950	Methodist Church First	The Pacific Telephone and Telegraph Co.
1946	First Methodist Church	Southern California Telephone Co.
	Ragsdale Ray W Rev First Methodist Church	Southern California Telephone Co.
1922	Sellers Jacob L shoe repr	Kaasen Directory Co.
	r	Kaasen Directory Co.
	Sellers Jacob L shoe repr	Kaasen Directory Co.

115 N POMONA AVE

Year	Uses	Source
1946	Race J J r	Southern California Telephone Co.

Year	Uses	Source
1922	Ford Geo W hlpr Union Tool Co r	Kaasen Directory Co.

116 N POMONA AVE

Year	Uses	Source
1955	Barnhart Marvin Winchell Mfg Co	The Pacific Telephone and Telegraph Co.
	WINCHEL MFG CO	The Pacific Telephone and Telegraph Co.
1950	Winchel Mfg Co	The Pacific Telephone and Telegraph Co.
1946	Winchel Mfg Co	Southern California Telephone Co.
1922	Philadelphia Battery Service Station	Kaasen Directory Co.
	Brea Hotel Mrs M E Thayer prop	Kaasen Directory Co.
	PHILADELPHIA DIAMOND GRID BATTERY SERVICE STATION Brea Ignition Works	Kaasen Directory Co.

117 N POMONA AVE

Year	Uses	Source
1995	SANTI	Pacific Bell
	Dial A New Thought	Pacific Bell
	Church Of Today	Pacific Bell
	Church Of Religious Science Of Fullerton	Pacific Bell
1991	Dial A New Thought	Pacific Bell
	Church Of Religious Science Of Fullerton	Pacific Bell
1986	Fullerton Church Of Religious Science Bookstore	Pacific Bell
	Fullerton Church Of Religious Science	Pacific Bell
	Dial A Thought	Pacific Bell
	Church Of Religious Science Of Fullerton	Pacific Bell
1980	Outreach	Pacific Telephone
	Religious Science Churcli Of Fullerton	Pacific Telephone
1975	Religious Science Church Of @Fullerton@	Luskey Brothers & Co., Inc.
	Outreach	Luskey Brothers & Co., Inc.
	Church Of Religious Science Of @Fullerton@	Luskey Brothers & Co., Inc.
1970	RELIGIOUS CIENCE CHURCH OF ULLERTON	General Telephone Co., of California
	FIRST CHURCH OF RELIGIOUS SCIENCE	General Telephone Co., of California

119 N POMONA AVE

Year	Uses	Source
1922	Borough Wilbert C Ina foremn G P Corp h	Kaasen Directory Co.

FINDINGS

120 N POMONA AVE

Year	Uses	Source
1955	Brown Howard R irrigtn eq	The Pacific Telephone and Telegraph Co.
1950	Assembly of God Church	The Pacific Telephone and Telegraph Co.
1946	Winters Fred C Rev Assembly of God Church	Southern California Telephone Co.
1922	TREMAINE GARAGE W D Tremaine Prop Automobile Repairs Supplies and Accessories	Kaasen Directory Co.

122 N POMONA AVE

Year	Uses	Source
1955	Campbell & Cox Mfg Co	The Pacific Telephone and Telegraph Co.
1922	Brea Transfer & Storage Co P C Huddleston L D Pierce	Kaasen Directory Co.

128 N POMONA AVE

Year	Uses	Source
1955	Henry Machinery Co	The Pacific Telephone and Telegraph Co.
1950	Henry H J Henry Machry Co	The Pacific Telephone and Telegraph Co.
	Henry Machry Co	The Pacific Telephone and Telegraph Co.

130 N POMONA AVE

Year	Uses	Source
1955	Esco Rubber Products	The Pacific Telephone and Telegraph Co.
1950	Esco Gasket & Washer Co	The Pacific Telephone and Telegraph Co.
1922	Harris Arthur S clk Oil Well Supply Co r	Kaasen Directory Co.
	Oil Well Supply Co E E Mac Pherson mgr	Kaasen Directory Co.

135 N POMONA AVE

Year	Uses	Source
1955	Brea Ready Mixed Concrete Co	The Pacific Telephone and Telegraph Co.
1950	Brea Ready Mixed Concrete Co	The Pacific Telephone and Telegraph Co.

140 N POMONA AVE

Year	Uses	Source
1950	Mc Clelland Geo L Dr r	The Pacific Telephone and Telegraph Co.

POMONA AVE N

100 POMONA AVE N

Year	Uses	Source
1950	IO 02/a Chenowetli C H J	The Pacific Telephone and Telegraph Co.

Year	Uses	Source
1950	Watson J W	The Pacific Telephone and Telegraph Co.

102 POMONA AVE N

Year	Uses	Source
1950	Harper Gene	The Pacific Telephone and Telegraph Co.

104 POMONA AVE N

Year	Uses	Source
1950	Branyon R H chiro IJ	The Pacific Telephone and Telegraph Co.

105 POMONA AVE N

Year	Uses	Source
1950	Vacant	The Pacific Telephone and Telegraph Co.

106 POMONA AVE N

Year	Uses	Source
1950	Drumm H A J	The Pacific Telephone and Telegraph Co.
	Brea Hotel J	The Pacific Telephone and Telegraph Co.

107 POMONA AVE N

Year	Uses	Source
1950	Brea Pool Hall J	The Pacific Telephone and Telegraph Co.

108 POMONA AVE N

Year	Uses	Source
1950	Vacant	The Pacific Telephone and Telegraph Co.

110 POMONA AVE N

Year	Uses	Source
1950	ing J W phys J	The Pacific Telephone and Telegraph Co.

112 POMONA AVE N

Year	Uses	Source
1950	Vacant	The Pacific Telephone and Telegraph Co.

113 POMONA AVE N

Year	Uses	Source
1950	Brea Mfg Co	The Pacific Telephone and Telegraph Co.

114 POMONA AVE N

Year	Uses	Source
1965	FIRST METHODIST CHJRCH	Ross Publications, Inc.,

Year	Uses	Source
1960	E AMERIGE AV INTS	Luskey Brothers & Co.,
	FIRST METH CH OF FUL	Luskey Brothers & Co.,
1956	First Meth Ch Lam	Luskey Brothers & Co., Inc.
1950	Winchel Mfg Co whse	The Pacific Telephone and Telegraph Co.

115 POMONA AVE N

Year	Uses	Source
1950	No return	The Pacific Telephone and Telegraph Co.

116 POMONA AVE N

Year	Uses	Source
1950	Winchel Mfg Co	The Pacific Telephone and Telegraph Co.

120 POMONA AVE N

Year	Uses	Source
1950	Assembly of God Ch J	The Pacific Telephone and Telegraph Co.
	Henderson B T Rev J	The Pacific Telephone and Telegraph Co.

125 POMONA AVE N

Year	Uses	Source
1950	Shaffer Tool Wks personnel dept	The Pacific Telephone and Telegraph Co.

128 POMONA AVE N

Year	Uses	Source
1950	Henry H J lJ	The Pacific Telephone and Telegraph Co.
	Henrys Mach Shop J	The Pacific Telephone and Telegraph Co.

130 POMONA AVE N

Year	Uses	Source
1950	Davis P H mach shop J	The Pacific Telephone and Telegraph Co.

135 POMONA AVE N

Year	Uses	Source
1950	Concrete J	The Pacific Telephone and Telegraph Co.
	Brea Ready Mixed	The Pacific Telephone and Telegraph Co.

POMONA AVE S

111 POMONA AVE S

Year	Uses	Source
1965	n GALBRAITH HAROLD F MD	Ross Publications, Inc.,

Year	Uses	Source
1960	H F GALBRAITH	Luskey Brothers & Co.,
1956	Galbraith H F phys Lam	Luskey Brothers & Co., Inc.
1950	Galbraith H F phys	The Pacific Telephone and Telegraph Co.

113 POMONA AVE S

Year	Uses	Source
1945	14 Mrs Ora Barkley	McCutcheon & Bragonier

114 POMONA AVE S

Year	Uses	Source
1965	LJ AVALOS	Ross Publications, Inc.,
1960	L PROVENCIO	Luskey Brothers & Co.,
1956	Rios F T	Luskey Brothers & Co., Inc.
1950	Hampton J R	The Pacific Telephone and Telegraph Co.
1945	J W Fritts	McCutcheon & Bragonier

116 POMONA AVE S

Year	Uses	Source
1965	FT RIDS	Ross Publications, Inc.,
1960	F T RIOS	Luskey Brothers & Co.,
1956	Vacant	Luskey Brothers & Co., Inc.
1950	Krieger H A phys	The Pacific Telephone and Telegraph Co.
1945	64 H A Krieger phys	McCutcheon & Bragonier

117 POMONA AVE S

Year	Uses	Source
1965	AD MOORE	Ross Publications, Inc.,
1960	A D MOORE	Luskey Brothers & Co.,
1956	Moore A D Lam	Luskey Brothers & Co., Inc.
1950	Moore A D 5 W	The Pacific Telephone and Telegraph Co.
1945	AD Moore	McCutcheon & Bragonier

122 POMONA AVE S

Year	Uses	Source
1965	BINARY ELECTRONICS CO	Ross Publications, Inc.,
	0u R E ELECTRONICS INC	Ross Publications, Inc.,
1956	United Radio	Luskey Brothers & Co., Inc.
	Electronic Co Lam	Luskey Brothers & Co., Inc.
1950	No return	The Pacific Telephone and Telegraph Co.

FINDINGS

123 POMONA AVE S

Year	Uses	Source
1965	OANDREWS & BOYD AUTOMOTI	Ross Publications, Inc.,
1960	ANDREWS & BOYD AUTOMOTIVE SERV	Luskey Brothers & Co.,
	E SANTA FE AV INTS	Luskey Brothers & Co.,
1956	Dawson Jim Garage Lam	Luskey Brothers & Co., Inc.
1950	Dawson Jim Garage auto reprs	The Pacific Telephone and Telegraph Co.

200 POMONA AVE S

Year	Uses	Source
1956	E Commonwealth av south	Luskey Brothers & Co., Inc.
1950	E Commonwealth av south	The Pacific Telephone and Telegraph Co.

201 POMONA AVE S

Year	Uses	Source
1965	ODIPPEL CHET ADVERT 151 NG	Ross Publications, Inc.,
1960	WALNUT AV INTS	Luskey Brothers & Co.,
	MILLET KING & ASSOC	Luskey Brothers & Co.,
1956	Associates Lam	Luskey Brothers & Co., Inc.
	Schneider D N	Luskey Brothers & Co., Inc.
1950	Vacant	The Pacific Telephone and Telegraph Co.
1945	a Ward & Harrington Lbr Co	McCutcheon & Bragonier

303 POMONA AVE S

Year	Uses	Source
1945	AOrange Belt Fruit Distrib	McCutcheon & Bragonier

313 POMONA AVE S

Year	Uses	Source
1965	J RIOS	Ross Publications, Inc.,
	EA RIDS	Ross Publications, Inc.,
1960	EA RIOS	Luskey Brothers & Co.,
	TRUSLOW AV INTS	Luskey Brothers & Co.,
1956	Rios E A Mrs	Luskey Brothers & Co., Inc.
1950	Rios Esther Mrs	The Pacific Telephone and Telegraph Co.
1945	Thos Reyes	McCutcheon & Bragonier

FINDINGS

S HARBOR BLVD

100 S HARBOR BLVD

Year	Uses	Source
1986	Furniture Discounts	Pacific Bell
1966	STEIN STRAUSS CO INC genl mdse	Pacific Telephone

101 S HARBOR BLVD

Year	Uses	Source
1991	Victor Pahl	Pacific Bell
	PAWNSHOP	Pacific Bell
	ORANGE COUNTY PAWNBROKERS	Pacific Bell
	A G Jewelers	Pacific Bell
1986	PAW N S HOP	Pacific Bell
	ORAN GE COUN TY PAW N BROKE RS	Pacific Bell
1980	I Pawnshop	Pacific Telephone
	Orange County Municipal Court	Pacific Telephone
	Vic Pahl	Pacific Telephone
1975	ORANGE COUNTY PAWNBROKERS	Luskey Brothers & Co., Inc.
1970	One 0 One Speed Shop	General Telephone Co., of California
	CUSTOM AUTOMOTIVE CENTER	General Telephone Co., of California
1966	One O One Speed Shop	Pacific Telephone
	CUSTOM AUTOMOTIVE CENTER	Pacific Telephone

103 S HARBOR BLVD

Year	Uses	Source
1966	ORANGE COUNTY PAWNBROKERS	Pacific Telephone

105 S HARBOR BLVD

Year	Uses	Source
1991	Twenty Four Hour Check Cashing	Pacific Bell
	Victor Pahl	Pacific Bell
	STRINGS & THINGS	Pacific Bell
	Pawnshop Of Orange County	Pacific Bell
1986	S TRIN GS & THIN GS	Pacific Bell
	Pawnshop Of Orange County	Pacific Bell
	Pahl Victor	Pacific Bell
1980	STRINGS & THINGS Vic Pahl	Pacific Telephone
	Pawnshop Of Orange County	Pacific Telephone
1975	STRINGS & THINGS	Luskey Brothers & Co., Inc.

Year	Uses	Source
1966	Millers Cafe	Pacific Telephone

106 S HARBOR BLVD

Year	Uses	Source
1980	FULLERTON HARDWARE Herman Weishaupt	Pacific Telephone
1975	FULLERTON HARDWARE	Luskey Brothers & Co., Inc.
1970	FULLERTON HOWE	General Telephone Co., of California
1966	FULLERTON HDWE	Pacific Telephone

107 S HARBOR BLVD

Year	Uses	Source
1995	Have Music Will Travel	Pacific Bell
	White Bear Photography	Pacific Bell
1991	Freemans Picture Frames	Pacific Bell
	Linen Liners	Pacific Bell
1986	Apostolic Church	Pacific Bell
1980	New Life Crusade Inc	Pacific Telephone
1970	POSTAL INSTANT PRESS	General Telephone Co., of California
1966	Personal Finance Co See Beneficial Finance Co of Fullerton	Pacific Telephone
	Beneficial Finance Co of Fullerton	Pacific Telephone

109 S HARBOR BLVD

Year	Uses	Source
1995	Romo Ink	Pacific Bell
1991	J C Enterprises	Pacific Bell
1986	J C Enterprises	Pacific Bell
1980	J C Fabric Co Jerry Oserni	Pacific Telephone
	J C Enterprises	Pacific Telephone
1975	HOME FURNITURE UPHOLSTERY	Luskey Brothers & Co., Inc.
1970	JOHNSONS BEAUTY SHOP	General Telephone Co., of California
	JOHNSON & SONS ELECTRIC CO Ofc	General Telephone Co., of California
	Co	General Telephone Co., of California
	Johnson Electric See Johnson & Sons Electric	General Telephone Co., of California
1966	JOHNSONS ELECTRIC Ofc	Pacific Telephone
	Johnsons Beauty Shop	Pacific Telephone
	Johnson Electric See Johnsons Electric	Pacific Telephone

FINDINGS

110 S HARBOR BLVD

Year	Uses	Source
1986	Melody Inn	Pacific Bell
1980	Melody Inn	Pacific Telephone
	Melody Inn	Pacific Telephone
1975	Melody Inn	Luskey Brothers & Co., Inc.
1970	Melody Inn	General Telephone Co., of California
1966	Melody Inn	Pacific Telephone
1955	Rose Tackle Co	The Pacific Telephone and Telegraph Co.

111 S HARBOR BLVD

Year	Uses	Source
1986	Fullerton	Pacific Bell
1980	Castle & Cooke Foods	Pacific Telephone

113 S HARBOR BLVD

Year	Uses	Source
1975	Lawson Tom Insurance	Luskey Brothers & Co., Inc.
	LAWSON TOM E ins	Luskey Brothers & Co., Inc.
	Fullerton	Luskey Brothers & Co., Inc.

114 S HARBOR BLVD

Year	Uses	Source
1980	Fullerton Business Machines Co Neal Clark	Pacific Telephone
	Goodwin Furniture	Pacific Telephone
1975	Goodwin Furniture	Luskey Brothers & Co., Inc.
	FULLERTON BUSINESS MACHINES CO	Luskey Brothers & Co., Inc.
1970	Goodwin Furniture	General Telephone Co., of California
1950	Fullerton	The Pacific Telephone and Telegraph Co.

115 S HARBOR BLVD

Year	Uses	Source
1995	MMTS	Pacific Bell
	LAWSON TOM INSURANCE AGENCY INC	Pacific Bell
	Gonzales Larry Chiropractor	Pacific Bell
	Bill Farris & Associates	Pacific Bell
1991	Mc Cullough Floyd E rlty	Pacific Bell
	Lawson Tom Insurance Agency Inc	Pacific Bell
	Hair Show Petes	Pacific Bell

Year	Uses	Source
1991	GONZALES LARRY CHIROPRACTOR	Pacific Bell
1986	Petes Hair Show	Pacific Bell
	Mc Cullough Floyd E rity	Pacific Bell
	Lawson Tom Insurance Agency Inc	Pacific Bell
	Hair Show Petes	Pacific Bell
	GONZALE S LORE NZO DC chirprctr	Pacific Bell
1980	Lawson Tom Insurance	Pacific Telephone
	Hair Palace The	Pacific Telephone
	Emery Board Domestic Service Betty Emery	Pacific Telephone
	CASPERS CONSTRUCTION CO INC Ed Caspers	Pacific Telephone
	C Bee Services Inc Carmelita Jones President	Pacific Telephone

116 S HARBOR BLVD

Year	Uses	Source
1966	FULLERTON GARDEN & FEED SUPPLY	Pacific Telephone

117 S HARBOR BLVD

Year	Uses	Source
1975	U S Hair Force	Luskey Brothers & Co., Inc.

119 S HARBOR BLVD

Year	Uses	Source
1966	Smoker The	Pacific Telephone

123 S HARBOR BLVD

Year	Uses	Source
1980	LAW S ON TOM E ins	Pacific Telephone
1955	Kymla Godfrey	The Pacific Telephone and Telegraph Co.

135 S HARBOR BLVD

Year	Uses	Source
1986	Caspers Construction Co Inc	Pacific Bell

150 S HARBOR BLVD

Year	Uses	Source
1995	Knowlwood Restaurant	Pacific Bell

FINDINGS

201 S HARBOR BLVD

Year	Uses	Source
1966	Jamco Trainina Center	Pacific Telephone
	Alignment Supply Co	Pacific Telephone

203 S HARBOR BLVD

Year	Uses	Source
1966	L A TIRE WHOLESALE CO ORG COUNTY DIV	Pacific Telephone

220 S HARBOR BLVD

Year	Uses	Source
1966	LEEGAR CORP	Pacific Telephone
	AUTOMATIC HEATING	Pacific Telephone
	AUTOMATIC HEATING	Pacific Telephone

300 S HARBOR BLVD

Year	Uses	Source
1966	BILL THE BRAKEMAN	Pacific Telephone
	Sorrells Wm D	Pacific Telephone

301 S HARBOR BLVD

Year	Uses	Source
1970	Digby W J Inc	General Telephone Co., of California
1966	Tropicana Products Inc	Pacific Telephone
	Stouffer Foods Corp	Pacific Telephone
	Ofc	Pacific Telephone
	Anaheim Cold Storage Inc	Pacific Telephone
	AMERICAN STANDARD AIR CONDITIONING DIV	Pacific Telephone
	Packers Cold Storage Inc	Pacific Telephone

304 S HARBOR BLVD

Year	Uses	Source
1966	Andersen Welding Service	Pacific Telephone

305 S HARBOR BLVD

Year	Uses	Source
1986	COOK TRUCKIN G S E RVICE IN C	Pacific Bell
1980	Cook Trucking Service Inc Duke De Connick President	Pacific Telephone
1975	COOK TRUCKING SERVICE INC	Luskey Brothers & Co., Inc.

Year	Uses	Source
1970	COOK TRUCKING SERVICE INC	General Telephone Co., of California
1966	COOK TRUCKING SERVICES INC	Pacific Telephone

310 S HARBOR BLVD

Year	Uses	Source
1955	Blue Cross Dog & Cat Hospital	The Pacific Telephone and Telegraph Co.
	Cittadin J F Dr Dog & Cat Hospital	The Pacific Telephone and Telegraph Co.

315 S HARBOR BLVD

Year	Uses	Source
1955	Black Ralph	The Pacific Telephone and Telegraph Co.

316 S HARBOR BLVD

Year	Uses	Source
1955	Kennans Mkt	The Pacific Telephone and Telegraph Co.

320 S HARBOR BLVD

Year	Uses	Source
1966	ERWINS AUTO REPAIR	Pacific Telephone
	Lous Garage	Pacific Telephone

S POMONA AVE

100 S POMONA AVE

Year	Uses	Source
1955	Brea Hdwe Co	The Pacific Telephone and Telegraph Co.
1950	Brea Hdwe Co	The Pacific Telephone and Telegraph Co.
1946	Brea Hdwe Co	Southern California Telephone Co.
1922	Pacific Co Operative League J A Thompson Mgr grocery	Kaasen Directory Co.
	Woodruff Henigan Co C H Woodruff G F Henigan dry goods	Kaasen Directory Co.

101 S POMONA AVE

Year	Uses	Source
1955	Brea	The Pacific Telephone and Telegraph Co.
1946	Elva May Coffee Shop	Southern California Telephone Co.
1922	FIRST NATIONAL BANK OF BREA F N High Pres J D Sievers V Pres W C Davis Cashr	Kaasen Directory Co.

FINDINGS

103 S POMONA AVE

Year	Uses	Source
1955	Dist Production Ofc	The Pacific Telephone and Telegraph Co.
	Purchasing & Stores	The Pacific Telephone and Telegraph Co.
1950	Jensons furn	The Pacific Telephone and Telegraph Co.
1946	Jensons furniture	Southern California Telephone Co.
1922	Long Bert H Martha I pool	Kaasen Directory Co.
	Diamond Barber Shop Robt Shanks prop	Kaasen Directory Co.

104 S POMONA AVE

Year	Uses	Source
1950	Kirkpatrick Fred M Ceramics By Kirk	The Pacific Telephone and Telegraph Co.
	Kirks Ceramics Ceramics by Kirk	The Pacific Telephone and Telegraph Co.
	Ceramics By Kirk	The Pacific Telephone and Telegraph Co.
1922	BREA LIBRARY Co branch Mrs A M Mc Veigh custodian	Kaasen Directory Co.

105 S POMONA AVE

Year	Uses	Source
1955	Reds House of Hobbies	The Pacific Telephone and Telegraph Co.
	Brea Bicycle Shop	The Pacific Telephone and Telegraph Co.
1950	Arts Pharmacy	The Pacific Telephone and Telegraph Co.
1946	Arts Pharmacy	Southern California Telephone Co.
1922	REXALL DRUG STORE Brea Pharmacy	Kaasen Directory Co.
	BREA PHARMACY Rexall Store R H Harold Prop Drugs Toilet Articles Magazines Kodaks and Supplies Prescription Work a Specialty	Kaasen Directory Co.

106 S POMONA AVE

Year	Uses	Source
1946	Johnson N S plmbng	Southern California Telephone Co.
	Grimes J W rl est	Southern California Telephone Co.
1922	Brea Garage Frambes & Martin props	Kaasen Directory Co.
	Frambes & Martin E C Frambes D C Martin props Brea Garage	Kaasen Directory Co.

107 S POMONA AVE

Year	Uses	Source
1955	Ofc	The Pacific Telephone and Telegraph Co.
	Budway Louis atty	The Pacific Telephone and Telegraph Co.
	Van Derhoof D R rl est	The Pacific Telephone and Telegraph Co.

Year	Uses	Source
1950	Budway Louis atty	The Pacific Telephone and Telegraph Co.
	Kinney Wm M optmtrst	The Pacific Telephone and Telegraph Co.
	Van Derhoof D R rl est	The Pacific Telephone and Telegraph Co.
1946	Western Auto Supply Co auth dlr	Southern California Telephone Co.
	Van Derhoof D R rl est	Southern California Telephone Co.
	Jones Geo P atty	Southern California Telephone Co.
1922	PETTIT & SON A W and G K Pettit Jewelry Watch Repairing and Musical Instruments	Kaasen Directory Co.
	Pettit Aaron W Belle Pettit & Son h	Kaasen Directory Co.

108 S POMONA AVE

Year	Uses	Source
1955	Rays Pet & Garden	The Pacific Telephone and Telegraph Co.
	Brea Feed Pet & Garden Store	The Pacific Telephone and Telegraph Co.
1950	Brea Feed & Seed Store	The Pacific Telephone and Telegraph Co.
1946	Russells Barber Shop	Southern California Telephone Co.
	Brea Feed & Seed Store	Southern California Telephone Co.
1922	Ray Harry mens furns	Kaasen Directory Co.

110 S POMONA AVE

Year	Uses	Source
1955	Home Clnrs & Pressers	The Pacific Telephone and Telegraph Co.
1950	Home Clnrs & Pressers	The Pacific Telephone and Telegraph Co.
1946	Russell V W r	Southern California Telephone Co.
	Francisco Plastic Specialties	Southern California Telephone Co.
1922	Schuppert Geo A Helen prop Brea Bakery h	Kaasen Directory Co.
	Olsons Cafe O A Olson prop	Kaasen Directory Co.

111 S POMONA AVE

Year	Uses	Source
1975	Galbraith Harold F MD	Luskey Brothers & Co., Inc.
1970	Gaibraith Harold F MD	General Telephone Co., of California
1966	Galbraith Harold F MD	Pacific Telephone
1955	Galbraith Harold F MD	The Pacific Telephone and Telegraph Co.
1950	Galbraith Harold F MD	The Pacific Telephone and Telegraph Co.
	Campbell Frank R Mrs r	The Pacific Telephone and Telegraph Co.
1946	Campbell F R r	Southern California Telephone Co.
	Galbraith Harold F MD	Southern California Telephone Co.
1941	Brown WT r	Southern California Telephone Co.

Year	Uses	Source
1922	CITY HALL Sewell Bldg	Kaasen Directory Co.
	Olson Oscar A prop Olsons Cafe r	Kaasen Directory Co.
	Sewell Building and Hall	Kaasen Directory Co.

112 S POMONA AVE

Year	Uses	Source
1955	White Way Beauty Shoppe	The Pacific Telephone and Telegraph Co.
1950	White Way Beauty Shoppe	The Pacific Telephone and Telegraph Co.
1946	White Way Beauty Shoppe	Southern California Telephone Co.
1922	Brea Bakery G A Schuppert prop	Kaasen Directory Co.
	White Way Barber Shop D G Reed H B Badgley	Kaasen Directory Co.

113 S POMONA AVE

Year	Uses	Source
1922	RACINE AUTO TIRES AND TUBES Mac Clatchie Hardware Co Dealers	Kaasen Directory Co.
	MAC CLATCHIE HARDWARE CO H A and J W Mac Clatchie Hardware Furniture Sporting Goods and Auto Supplies	Kaasen Directory Co.
	FISK AUTO TIRES AND TUBES Mac Clatchie Hardware Co Dealers	Kaasen Directory Co.
	Brea Gun Club J W Mac Clatchie sec treas	Kaasen Directory Co.

114 S POMONA AVE

Year	Uses	Source
1966	Lopez Augustina	Pacific Telephone
1955	Burt Radio & Television Servicing	The Pacific Telephone and Telegraph Co.
1950	Burts Radio & Television Servicing	The Pacific Telephone and Telegraph Co.
1946	Home Clnrs & Pressers	Southern California Telephone Co.
1922	PARRETT OWEN S Cora E Physician and Surgeon Pres Board of Health	Kaasen Directory Co.
	Marshall B Ami Mary W carp r	Kaasen Directory Co.
	MAC CLATCHIE J WARREN Hazel Mac Clatchie Hardware Co h	Kaasen Directory Co.
	Leech Wm D Irma tchr r	Kaasen Directory Co.
	Walker P R	Kaasen Directory Co.

115 S POMONA AVE

Year	Uses	Source
1922	Brea Sweet Shop Paul Ortega prop	Kaasen Directory Co.

Year	Uses	Source
1922	Ortega Paul Bertha prop Brea Sweet Shop h	Kaasen Directory Co.

116 S POMONA AVE

Year	Uses	Source
1980	Perez Miguel Ybarra	Pacific Telephone
	Mier Arturo	Pacific Telephone
	Ibarra Juan M	Pacific Telephone
1955	Vogtman Mable A	The Pacific Telephone and Telegraph Co.
	Silvey Jas E	The Pacific Telephone and Telegraph Co.
1950	Krieger H A Dr r	The Pacific Telephone and Telegraph Co.
	Brea Mkt	The Pacific Telephone and Telegraph Co.
1946	Vogtmans Mkt	Southern California Telephone Co.
	Krieger H A MD	Southern California Telephone Co.
1922	Gnagy John H Ethelyn T prop Gnagys h	Kaasen Directory Co.
	Gnagys Department Store J H Gnagy prop	Kaasen Directory Co.

117 S POMONA AVE

Year	Uses	Source
1975	Lyon David C	Luskey Brothers & Co., Inc.
1955	Moore Alex	The Pacific Telephone and Telegraph Co.
1950	Moore Alex r	The Pacific Telephone and Telegraph Co.
1946	Good Jane r	Southern California Telephone Co.
1922	Crawford Talmage J lunch	Kaasen Directory Co.
	Crawford Talmage J lunch	Kaasen Directory Co.
	Crawford John S cook T J Crawford r	Kaasen Directory Co.
	r	Kaasen Directory Co.
	Moore A D	Kaasen Directory Co.

118 S POMONA AVE

Year	Uses	Source
1955	Russell Melvin A jwlr	The Pacific Telephone and Telegraph Co.
1950	Russell Melvin A jwlr	The Pacific Telephone and Telegraph Co.
1946	Russell Melvin A r	Southern California Telephone Co.
1922	BREA ELECTRICAL CO J A Leuzinger Electrical Contractors Fixture Mnfrs Appliances and Repairs	Kaasen Directory Co.

120 S POMONA AVE

Year	Uses	Source
1955	Miladys Clnr & Dyer	The Pacific Telephone and Telegraph Co.

FINDINGS

Year	Uses	Source
1950	Miladys Clnr & Dyer	The Pacific Telephone and Telegraph Co.
1922	Federal Grocery Co F W Bain mgr	Kaasen Directory Co.

121 S POMONA AVE

Year	Uses	Source
1955	Tonys Place restaurant	The Pacific Telephone and Telegraph Co.
1950	Haro Tony restrnt	The Pacific Telephone and Telegraph Co.
1922	Swift Thos W elec Ful O Co r	Kaasen Directory Co.
	Rogers Henry H lab U O Co r	Kaasen Directory Co.
	Rich Minnie Mrs prop Crown Confy h	Kaasen Directory Co.
	Pickering Oscar J cir mgr Brea Progress r	Kaasen Directory Co.
	Lane David lab U O Co r	Kaasen Directory Co.
	Doolittle Thos T Imogen E driver h	Kaasen Directory Co.
	Blakemore Edgar W Thelma driver r	Kaasen Directory Co.
	Crown Confectionery Mrs Minnie Rich prop	Kaasen Directory Co.
	Crown Stage Line Mrs Minnie Rich agt	Kaasen Directory Co.

122 S POMONA AVE

Year	Uses	Source
1980	Kachler James S	Pacific Telephone
	Kachler Jas S	Pacific Telephone
1975	Kachler Jas S	Luskey Brothers & Co., Inc.
1955	Brea	The Pacific Telephone and Telegraph Co.
	United Radio & Electronics Co	The Pacific Telephone and Telegraph Co.
1950	Fleishers Drug Store	The Pacific Telephone and Telegraph Co.
	Fender Electrcl Musical Instrument Co	The Pacific Telephone and Telegraph Co.
1946	Fleishers Drug Store	Southern California Telephone Co.

123 S POMONA AVE

Year	Uses	Source
1980	BOYD & AN DRE W S COMPLE TE AUTOMOTIVE S E RVICE	Pacific Telephone
	Andrews & Boyd Automotive Service	Pacific Telephone
1975	Andrews & Boyd Automatic Transmission Service	Luskey Brothers & Co., Inc.
	ANDREWS & BOYD COMPLETE AUTOMOTIVE SERVICE	Luskey Brothers & Co., Inc.
	BOYD & ANDREWS COMPLETE AUTOMOTIVE SERVICE	Luskey Brothers & Co., Inc.
1970	Andrews & Boyd Automatic Transmission Service	General Telephone Co., of California

Year	Uses	Source
1970	AUTOMOTIVE SERV CE	General Telephone Co., of California
1966	ANDREWS & BOYD COMPLETE AUTOMOTIVE SERV	Pacific Telephone
	BOYD & ANDREWS COMPLETE AUTOMOTIVE SERV	Pacific Telephone
1955	Dawsons Jim Garage	The Pacific Telephone and Telegraph Co.
	Johnson E L r	The Pacific Telephone and Telegraph Co.
1950	Johnson E L r	The Pacific Telephone and Telegraph Co.
	Dawsons Jim Garage	The Pacific Telephone and Telegraph Co.

124 S POMONA AVE

Year	Uses	Source
1975	Custom Made Products	Luskey Brothers & Co., Inc.
1955	Nelsons Five & Ten	The Pacific Telephone and Telegraph Co.
1950	Oxandaboure Ben r	The Pacific Telephone and Telegraph Co.
	Duncan Kenneth C r	The Pacific Telephone and Telegraph Co.
	Belchers Five & Ten	The Pacific Telephone and Telegraph Co.
1946	Craig Apts	Southern California Telephone Co.
	Horspool W L r	Southern California Telephone Co.
1922	Mc KELVEY & VOLZ L W Mc Kelvey L P Volz Druggists	Kaasen Directory Co.
	Craig Bldg and Hall	Kaasen Directory Co.

125 S POMONA AVE

Year	Uses	Source
1941	Walters Ray r	Southern California Telephone Co.

126 S POMONA AVE

Year	Uses	Source
1950	Brea	The Pacific Telephone and Telegraph Co.
1946	Brea	Southern California Telephone Co.
1922	POST OFFICE W M Smith Postmaster	Kaasen Directory Co.

127 S POMONA AVE

Year	Uses	Source
1955	Brea Barber Shop	The Pacific Telephone and Telegraph Co.
1922	CROWE LOUIS A Mgr Auto Electric Service r	Kaasen Directory Co.
	Gilbert M V hlpr Union Tool Co r	Kaasen Directory Co.
	Mc Grew Ted E clk Brea Pool Hall r	Kaasen Directory Co.
	Wadman Beulah Mrs fur rms	Kaasen Directory Co.

Year	Uses	Source
1922	Wadman Clarence G Beulah h	Kaasen Directory Co.
	Young Clyde P bkpr B R Tool Co r	Kaasen Directory Co.

128 S POMONA AVE

Year	Uses	Source
1922	Williams Arthur J Charlotte printer Valley Publishing Co h rear	Kaasen Directory Co.
	VALLEY PUBLISHING CO A V Douglas Prop pubs Brea Star La Habra Star and Yorba Linda Star	Kaasen Directory Co.
	BREA STAR Valley Publishing Co Pubs	Kaasen Directory Co.

129 S POMONA AVE

Year	Uses	Source
1955	Brea Paint & Wall Paper	The Pacific Telephone and Telegraph Co.
1950	Graham Shoe Store	The Pacific Telephone and Telegraph Co.
1922	Blakemore Wm E Mae S driver Sullivan Bros h rear	Kaasen Directory Co.
	I V Shop Mrs E A Vallandigham prop notions	Kaasen Directory Co.
	Russell P D driver Sullivan Bros r rear	Kaasen Directory Co.
	Vallandigham Emma A Mrs prop I V Shop h	Kaasen Directory Co.

130 S POMONA AVE

Year	Uses	Source
1955	Brea Chamber of Commerce	The Pacific Telephone and Telegraph Co.
	Harding Camera & Knit Shop	The Pacific Telephone and Telegraph Co.
1950	Haddads Haberdashery	The Pacific Telephone and Telegraph Co.

131 S POMONA AVE

Year	Uses	Source
1950	Manuel Joyce Arlene r	The Pacific Telephone and Telegraph Co.
1922	Tremaine Ellery G Orlie H rig bldr h	Kaasen Directory Co.
	Kellogg Ella S wid H S h	Kaasen Directory Co.

132 S POMONA AVE

Year	Uses	Source
1955	Denes Cafe	The Pacific Telephone and Telegraph Co.
1922	Red Lantern L A Schlessinger mgr theatre	Kaasen Directory Co.

FINDINGS

133 S POMONA AVE

Year	Uses	Source
1955	Marilyns Dept Store	The Pacific Telephone and Telegraph Co.
1950	Marilyn s	The Pacific Telephone and Telegraph Co.
1946	Marilyns	Southern California Telephone Co.

134 S POMONA AVE

Year	Uses	Source
1955	Brea Theatre	The Pacific Telephone and Telegraph Co.
	Worsham Herbert ins	The Pacific Telephone and Telegraph Co.
1950	Brea Theatre Inc	The Pacific Telephone and Telegraph Co.
1946	Brea Theatre	Southern California Telephone Co.

135 S POMONA AVE

Year	Uses	Source
1955	Brea Bakery	The Pacific Telephone and Telegraph Co.
1950	Brea Bakery	The Pacific Telephone and Telegraph Co.
1946	Wards Bakery	Southern California Telephone Co.
1941	Wards Bakery	Southern California Telephone Co.

136 S POMONA AVE

Year	Uses	Source
1955	Brea Pharmacy	The Pacific Telephone and Telegraph Co.
1950	Brea Camera Shop	The Pacific Telephone and Telegraph Co.
1946	Brea Camera Shop	Southern California Telephone Co.

137 S POMONA AVE

Year	Uses	Source
1955	Brea	The Pacific Telephone and Telegraph Co.
1950	Brea Variety Store	The Pacific Telephone and Telegraph Co.
	Brea	The Pacific Telephone and Telegraph Co.
1946	Mc Illvain D D Brea Variety Store	Southern California Telephone Co.
	Brea Variety Store	Southern California Telephone Co.

138 S POMONA AVE

Year	Uses	Source
1955	Haddads Haberdashery	The Pacific Telephone and Telegraph Co.
1922	KINSLER CHAS C Lena I Sec and Agt Oil Workers Union office	Kaasen Directory Co.

FINDINGS

139 S POMONA AVE

Year	Uses	Source
1946	Brea Liquor Store	Southern California Telephone Co.

141 S POMONA AVE

Year	Uses	Source
1955	Brea Variety Store	The Pacific Telephone and Telegraph Co.
1922	CULP W A & JAY C SEXTON Real Estate Loans and Insurance Subdividers of Land	Kaasen Directory Co.
	TRAVELERS INSURANCE CO Jay C Sexton Agt	Kaasen Directory Co.
	ORIENT INSURANCE CO Jay C Sexton Agt	Kaasen Directory Co.
	LONDON & LANCASHIRE FIRE INS CO Jay C Sexton Agt	Kaasen Directory Co.
	INSURANCE CO OF NORTH AMERICA W A Culp agt	Kaasen Directory Co.
	GENERAL ACCIDENT FIRE & LIFE ASSURANCE CORP Ltd W A Culp Agt	Kaasen Directory Co.

143 S POMONA AVE

Year	Uses	Source
1955	Brea Liquor Store & Delicatessen	The Pacific Telephone and Telegraph Co.
1950	Brea Liquor Store	The Pacific Telephone and Telegraph Co.

145 S POMONA AVE

Year	Uses	Source
1955	F & W Mkt	The Pacific Telephone and Telegraph Co.
1950	Alexanders Food Mkt	The Pacific Telephone and Telegraph Co.
1946	Central Mkt	Southern California Telephone Co.
1922	Motor Transit Co A H Pearson agt	Kaasen Directory Co.
	Pearson Alfred H Natalie restaurant	Kaasen Directory Co.

146 S POMONA AVE

Year	Uses	Source
1955	HOPPER EDDIE CHEVROLET	The Pacific Telephone and Telegraph Co.
1950	Daugherty Chevrolet	The Pacific Telephone and Telegraph Co.
1946	Daugherty Chevrolet	Southern California Telephone Co.
1922	Central Garage H A Baldwin E V Hill	Kaasen Directory Co.

150 S POMONA AVE

Year	Uses	Source
1991	Walgill RR&LS	Pacific Bell

FINDINGS

151 S POMONA AVE

Year	Uses	Source
1986	Kutnyak Thos A	Pacific Bell

161 S POMONA AVE

Year	Uses	Source
1991	Harris Mark	Pacific Bell
	Harris Marie	Pacific Bell

196 S POMONA AVE

Year	Uses	Source
1970	Dooling Patricia	General Telephone Co., of California

198 S POMONA AVE

Year	Uses	Source
1980	Owens Craig & Terri	Pacific Telephone

200 S POMONA AVE

Year	Uses	Source
1955	Abshier Roy F	The Pacific Telephone and Telegraph Co.
1950	Abshier Roy F r	The Pacific Telephone and Telegraph Co.
1922	Mc Veigh Deborah A clk Gnagys r	Kaasen Directory Co.
	Mc Veigh Anna M wid Thos custodian Brea Library r	Kaasen Directory Co.
	h	Kaasen Directory Co.
	Davis Walter W Florence E phys	Kaasen Directory Co.
	Davis Walter W Florence E phys	Kaasen Directory Co.

201 S POMONA AVE

Year	Uses	Source
1955	Brea Ofc	The Pacific Telephone and Telegraph Co.
1950	Oilfields Natl Bank	The Pacific Telephone and Telegraph Co.
1946	Fullerton	Southern California Telephone Co.
	Oilfields Natl Bank	Southern California Telephone Co.
1941	Brown & Dauser Co	Southern California Telephone Co.
1922	Congregational Church Rev B W Marsh pastor	Kaasen Directory Co.
	Brown and Dauser Co	Kaasen Directory Co.

203 S POMONA AVE

Year	Uses	Source
1970	Delany Edmond P	General Telephone Co., of California

Year	Uses	Source
1955	Waggener Kenneth E	The Pacific Telephone and Telegraph Co.

204 S POMONA AVE

Year	Uses	Source
1922	Remp Martha E wid Chas A bkpr U O Co h	Kaasen Directory Co.

205 S POMONA AVE

Year	Uses	Source
1955	Barnes Ralph E ins	The Pacific Telephone and Telegraph Co.
1950	Brea Progress	The Pacific Telephone and Telegraph Co.
1946	Brea Progress	Southern California Telephone Co.

206 S POMONA AVE

Year	Uses	Source
1955	Brea Bowl	The Pacific Telephone and Telegraph Co.
1950	Brea Bowl	The Pacific Telephone and Telegraph Co.
1941	Mc Coy & Mills autos	Southern California Telephone Co.

207 S POMONA AVE

Year	Uses	Source
1922	Peterkin Edwd H Lillian B ice and transfer	Kaasen Directory Co.
	h	Kaasen Directory Co.
	Peterkin Edwd H Lillian B ice and transfer	Kaasen Directory Co.

208 S POMONA AVE

Year	Uses	Source
1946	Brea Radio & Appliance Co	Southern California Telephone Co.

209 S POMONA AVE

Year	Uses	Source
1955	Shaffer Tool Wks	The Pacific Telephone and Telegraph Co.
1950	Shaffer Tool Wks	The Pacific Telephone and Telegraph Co.
1946	Shaffer Tool Wks	Southern California Telephone Co.

210 S POMONA AVE

Year	Uses	Source
1955	Brea Furn	The Pacific Telephone and Telegraph Co.
1950	Brea Furn	The Pacific Telephone and Telegraph Co.

FINDINGS

211 S POMONA AVE

Year	Uses	Source
1995	Morris Bill	Pacific Bell
1950	Ryan Chas E r	The Pacific Telephone and Telegraph Co.
1946	Ryan Chas E r	Southern California Telephone Co.
1922	Whitmer Geo Jessie supt Union Tool Co h	Kaasen Directory Co.
	Mon Santa Hubert Achsah hlpr Union Tool Co h	Kaasen Directory Co.
	Tarvin Wm C Margaret H emp U O Co h	Kaasen Directory Co.

212 S POMONA AVE

Year	Uses	Source
1955	Sharp Douglas R plmbng contr	The Pacific Telephone and Telegraph Co.
1950	Ofc	The Pacific Telephone and Telegraph Co.
1946	Ofc	Southern California Telephone Co.
1922	Seymour Harry E Seymour & Krepps r	Kaasen Directory Co.
	Seymour Melbert C Seymour & Krepps r	Kaasen Directory Co.
	SEYMOUR & KREPPS H E and M C Seymour F S Krepps Plumbers and Gas Fitters	Kaasen Directory Co.
	Krepps Frank S Seymour & Krepps r	Kaasen Directory Co.

214 S POMONA AVE

Year	Uses	Source
1955	BREA GARAGE & BODY SHOP	The Pacific Telephone and Telegraph Co.

215 S POMONA AVE

Year	Uses	Source
1922	Henn Hilda M Mrs r	Kaasen Directory Co.
	Rees Albt E emp Ful O Co r	Kaasen Directory Co.
	Rees Thos E r	Kaasen Directory Co.
	Rees Selina A wid David h	Kaasen Directory Co.
	Rees Brinley M r	Kaasen Directory Co.

216 S POMONA AVE

Year	Uses	Source
1955	Brea	The Pacific Telephone and Telegraph Co.

217 S POMONA AVE

Year	Uses	Source
1955	Hopper Eddie Chevrolet Used Car Lot	The Pacific Telephone and Telegraph Co.
1950	Phillips & Neverka sprtng gds	The Pacific Telephone and Telegraph Co.

Year	Uses	Source
1946	Brea Lemon Growers Inc	Southern California Telephone Co.
	Orange County Transfr Co	Southern California Telephone Co.
1922	Choat Wm J Ellen blksmth	Kaasen Directory Co.
	h rear	Kaasen Directory Co.
	Choat Wm J Ellen blksmth	Kaasen Directory Co.

218 S POMONA AVE

Year	Uses	Source
1955	Wests Barber Shop	The Pacific Telephone and Telegraph Co.
	Brea Progress	The Pacific Telephone and Telegraph Co.
1922	WILLARD STORAGE BATTERIES Auto Electric Service Dealers	Kaasen Directory Co.
	Billingsley Wm P Clara B transfer	Kaasen Directory Co.
	AUTO ELECTRIC SERVICE L A Crowe Mgr Willard Storage Batteries Automobile Electricians Supplies and Accessories	Kaasen Directory Co.

219 S POMONA AVE

Year	Uses	Source
1922	Wesner Jas r	Kaasen Directory Co.

220 S POMONA AVE

Year	Uses	Source
1922	Guard Frank B Ida pumper M P O Co h	Kaasen Directory Co.

221 S POMONA AVE

Year	Uses	Source
1955	IMPERIAL liqr	The Pacific Telephone and Telegraph Co.
1946	Brea Furn Store	Southern California Telephone Co.

222 S POMONA AVE

Year	Uses	Source
1955	Reed Judd A	The Pacific Telephone and Telegraph Co.
	Trojan Cafe The	The Pacific Telephone and Telegraph Co.
1950	Trojan Cafe The	The Pacific Telephone and Telegraph Co.
	Sullivan Transptn Co	The Pacific Telephone and Telegraph Co.
1922	Cathrin John W Gladys mach h	Kaasen Directory Co.

223 S POMONA AVE

Year	Uses	Source
1950	Imperial Cafe	The Pacific Telephone and Telegraph Co.
1946	Imperial Cafe	Southern California Telephone Co.

FINDINGS

224 S POMONA AVE

Year	Uses	Source
1995	Coulter David	Pacific Bell
1955	Smalley Donald C	The Pacific Telephone and Telegraph Co.
1950	Logsdon Archie F r	The Pacific Telephone and Telegraph Co.
1946	Logsdon Archie F r	Southern California Telephone Co.
1922	Logsdon Archie M Charlotte hlpr U O Co h	Kaasen Directory Co.
	Pitts & Wilkinson Morris Pitts C C Wilkinson oil sta	Kaasen Directory Co.

226 S POMONA AVE

Year	Uses	Source
1966	Zamora Harold J Lt	Pacific Telephone

227 S POMONA AVE

Year	Uses	Source
1950	Westys Sportswear	The Pacific Telephone and Telegraph Co.
1946	Brea Electro Ltd	Southern California Telephone Co.

228 S POMONA AVE

Year	Uses	Source
1955	Shanks Mattie	The Pacific Telephone and Telegraph Co.
	Shanks Robt	The Pacific Telephone and Telegraph Co.
1946	Myatt Dump r	Southern California Telephone Co.

229 S POMONA AVE

Year	Uses	Source
1955	Brea Ofc	The Pacific Telephone and Telegraph Co.
1950	Brea Ofc	The Pacific Telephone and Telegraph Co.
1946	Brea Ofc	Southern California Telephone Co.

231 S POMONA AVE

Year	Uses	Source
1955	Phillips Garage	The Pacific Telephone and Telegraph Co.
1950	Phillips Garage	The Pacific Telephone and Telegraph Co.

232 S POMONA AVE

Year	Uses	Source
1922	Ellenberger J Wesley Mollie carp h	Kaasen Directory Co.
	Ellenberger Raymond lab Randolph Mkt Co r	Kaasen Directory Co.

FINDINGS

233 S POMONA AVE

Year	Uses	Source
1922	Criss Frank A Laura G rig bldr U O Co h	Kaasen Directory Co.

234 S POMONA AVE

Year	Uses	Source
1955	Fields Chas R r	The Pacific Telephone and Telegraph Co.
1950	Fields Chas R r	The Pacific Telephone and Telegraph Co.
1922	Walz John A Bessie pumper U O Co h	Kaasen Directory Co.
	MAC CLATCHIE J WARREN Hazel Mac Clatchie Hardware Co h	Kaasen Directory Co.
	Martin Dexter C Lois Frambes & Martin h	Kaasen Directory Co.

235 S POMONA AVE

Year	Uses	Source
1955	Brea Florist	The Pacific Telephone and Telegraph Co.
1950	Brea Florist	The Pacific Telephone and Telegraph Co.
1941	Warfield Lloyd r	Southern California Telephone Co.
1922	Munyon Robt W Emma M foremn G P Corp h	Kaasen Directory Co.

236 S POMONA AVE

Year	Uses	Source
1946	Ward Dwight E r	Southern California Telephone Co.
1922	Ross Chas barber Sanitary Barber Shop r	Kaasen Directory Co.
	Gesme Geo S Vina prop Sanitary Barber Shop h	Kaasen Directory Co.

239 S POMONA AVE

Year	Uses	Source
1955	Williamsons Plumbing & Heating Co	The Pacific Telephone and Telegraph Co.
1950	Williamsons Plumbing Co	The Pacific Telephone and Telegraph Co.
1946	Bond Robt r	Southern California Telephone Co.
1922	Sadler Virgil M Mildred painter h	Kaasen Directory Co.

240 S POMONA AVE

Year	Uses	Source
1950	West A D r	The Pacific Telephone and Telegraph Co.
1922	Walls John A Bessie U O Co h	Kaasen Directory Co.
	Kellor Peter oil wkr r	Kaasen Directory Co.
	Passamaneck Dennie wid Saml prop Brea Grill h	Kaasen Directory Co.

FINDINGS

241 S POMONA AVE

Year	Uses	Source
1922	Jamison Wilbur F emp Ful O Co r	Kaasen Directory Co.
	Jamison Nelson H emp G P Corp r	Kaasen Directory Co.
	Jamison Harry H Bessie janitor Brea Sch h	Kaasen Directory Co.
	Jamison David mech Tremaine Garage r	Kaasen Directory Co.

244 S POMONA AVE

Year	Uses	Source
1955	Dedolph Fred T Union Oil Serv @Stanton@	The Pacific Telephone and Telegraph Co.
1950	Westensee Union Oil Serv Stanton	The Pacific Telephone and Telegraph Co.
1946	Dickensons Serv	Southern California Telephone Co.
1922	Dashner Wm A Mae E asst eng L H G Co h	Kaasen Directory Co.

245 S POMONA AVE

Year	Uses	Source
1955	Mc Connells Chevron Serv	The Pacific Telephone and Telegraph Co.
1950	Mc Connells Chevron Serv	The Pacific Telephone and Telegraph Co.

251 S POMONA AVE

Year	Uses	Source
1946	Davison & Mc Cart auto reprng	Southern California Telephone Co.

300 S POMONA AVE

Year	Uses	Source
1955	Westensee Vic Shell Serv	The Pacific Telephone and Telegraph Co.
1950	M & O Tire Serv	The Pacific Telephone and Telegraph Co.
	Brunot R J Shell Serv	The Pacific Telephone and Telegraph Co.
1946	Yocums Shell Serv Stanton	Southern California Telephone Co.
	Russell Shell Serv	Southern California Telephone Co.

303 S POMONA AVE

Year	Uses	Source
1950	Clydes Associated Serv	The Pacific Telephone and Telegraph Co.
1946	Snyder W A & Sons Co	Southern California Telephone Co.
	Fullerton	Southern California Telephone Co.
1922	Pettigrew Robt G Sallie S ydmn U O Co h	Kaasen Directory Co.
	Pettigrew Otey H toolie U O Co r	Kaasen Directory Co.

FINDINGS

307 S POMONA AVE

Year	Uses	Source
1955	Brunot Edw L	The Pacific Telephone and Telegraph Co.
1922	Crayne John B r	Kaasen Directory Co.
	Bobst Delbert Ethel driller Ful O Co h	Kaasen Directory Co.

311 S POMONA AVE

Year	Uses	Source
1955	Dunlap Tom W	The Pacific Telephone and Telegraph Co.
1922	Ciaramella Vincent Frances shoe repr	Kaasen Directory Co.
	h	Kaasen Directory Co.
	Ciaramella Vincent Frances shoe repr	Kaasen Directory Co.

312 S POMONA AVE

Year	Uses	Source
1955	Tastee Freez of Brea	The Pacific Telephone and Telegraph Co.

313 S POMONA AVE

Year	Uses	Source
1995	Rios Johnny	Pacific Bell
1991	Rios Johnny	Pacific Bell
1986	Rios Johnny	Pacific Bell
1980	ts hniy	Pacific Telephone
1975	Rios Johnny	Luskey Brothers & Co., Inc.
1970	Rios Johnny	General Telephone Co., of California
1922	Grant Ervin F Irene D foremn S O Co h	Kaasen Directory Co.
	Sims S	Kaasen Directory Co.

314 S POMONA AVE

Year	Uses	Source
1922	Peterson P mtrcycle repr	Kaasen Directory Co.

319 S POMONA AVE

Year	Uses	Source
1922	Teitsworth Howard R Ethel J driller A O Co h	Kaasen Directory Co.

323 S POMONA AVE

Year	Uses	Source
1955	Modern Beauty Shoppe	The Pacific Telephone and Telegraph Co.
1950	Modern Beauty Shoppe	The Pacific Telephone and Telegraph Co.
1946	Marks A E r	Southern California Telephone Co.

Year	Uses	Source
1922	Moss Willard R driller r	Kaasen Directory Co.
	Bowie Alfred B Grace B pumper U O Co h	Kaasen Directory Co.
	Bowie Herman E toolie U O Co r	Kaasen Directory Co.

325 S POMONA AVE

Year	Uses	Source
1955	Anderson Marshall T Anderson & Morris ins	The Pacific Telephone and Telegraph Co.
	French Thurman	The Pacific Telephone and Telegraph Co.
	Morris Robt R Anderson & Morris ins	The Pacific Telephone and Telegraph Co.
	Anderson & Morris ins	The Pacific Telephone and Telegraph Co.
1950	Brea	The Pacific Telephone and Telegraph Co.
1946	Brea	Southern California Telephone Co.

329 S POMONA AVE

Year	Uses	Source
1922	Conner Thos G pumper Comwlth O Co h	Kaasen Directory Co.
	Conner Mary J Mrs r	Kaasen Directory Co.

330 S POMONA AVE

Year	Uses	Source
1955	Luther Ross D MD	The Pacific Telephone and Telegraph Co.
	Fritcher Ernest L Dr DDS	The Pacific Telephone and Telegraph Co.

333 S POMONA AVE

Year	Uses	Source
1922	Egge Herman Caroline J oiler Wallace Refinery h	Kaasen Directory Co.

336 S POMONA AVE

Year	Uses	Source
1955	Womans Club	The Pacific Telephone and Telegraph Co.
1950	Womans Club	The Pacific Telephone and Telegraph Co.
1946	Womans Club	Southern California Telephone Co.

337 S POMONA AVE

Year	Uses	Source
1955	Scanlon John P r	The Pacific Telephone and Telegraph Co.
1950	Scanlon John P r	The Pacific Telephone and Telegraph Co.
1946	Modern Beauty Shoppe	Southern California Telephone Co.
1922	Des Granges Paul R Julia T driller G P Corp h	Kaasen Directory Co.

FINDINGS

341 S POMONA AVE

Year	Uses	Source
1955	Pomona Ave Mkt	The Pacific Telephone and Telegraph Co.
1950	Pomona Av Mkt	The Pacific Telephone and Telegraph Co.
1946	Pomona Ave Mkt	Southern California Telephone Co.

342 S POMONA AVE

Year	Uses	Source
1955	H & L Cabinet Shop	The Pacific Telephone and Telegraph Co.
	Williams Bros Hub Cafe	The Pacific Telephone and Telegraph Co.

344 S POMONA AVE

Year	Uses	Source
1946	Extract Products Co	Southern California Telephone Co.

346 S POMONA AVE

Year	Uses	Source
1946	Century Serv Stanton	Southern California Telephone Co.

SANTA FE AVE E

109 SANTA FE AVE E

Year	Uses	Source
1960	J F NEWKIRK	Luskey Brothers & Co.,
	RITZ HOTEL	Luskey Brothers & Co.,
1956	Podvin David Lam	Luskey Brothers & Co., Inc.
	Ritz Hotel Lam	Luskey Brothers & Co., Inc.
1950	Park Hotel	The Pacific Telephone and Telegraph Co.
1945	Park Hotel	McCutcheon & Bragonier

113 SANTA FE AVE E

Year	Uses	Source
1956	Clever & Gulick mach	Luskey Brothers & Co., Inc.
1950	Clever & Gtlick mach shop 408 W	The Pacific Telephone and Telegraph Co.

115 SANTA FE AVE E

Year	Uses	Source
1956	Lang Plmbg & Hdwd Co whse	Luskey Brothers & Co., Inc.
1950	Lang PImnbg & Hdwd Co whse	The Pacific Telephone and Telegraph Co.
1945	Vacant	McCutcheon & Bragonier

FINDINGS

117 SANTA FE AVE E

Year	Uses	Source
1956	Schulz Appliance whse	Luskey Brothers & Co., Inc.
1950	Schulz W J whse	The Pacific Telephone and Telegraph Co.
1945	Vacant	McCutcheon & Bragonier

121 SANTA FE AVE E

Year	Uses	Source
1960	VACANT	Luskey Brothers & Co.,
1956	Harper Gean	Luskey Brothers & Co., Inc.
1950	Skeen D A chiro	The Pacific Telephone and Telegraph Co.
1945	T D Skeen	McCutcheon & Bragonier

127 SANTA FE AVE E

Year	Uses	Source
1960	G GONZALES	Luskey Brothers & Co.,
	E RIOS	Luskey Brothers & Co.,
	V VASQUEZ	Luskey Brothers & Co.,
	SANTA FE AV E	Luskey Brothers & Co.,
	S POMONA AV INTS	Luskey Brothers & Co.,
1956	a Logue Albert	Luskey Brothers & Co., Inc.
	b Coffman D T	Luskey Brothers & Co., Inc.
	c Ledbetter A P	Luskey Brothers & Co., Inc.
1950	a Vacant	The Pacific Telephone and Telegraph Co.
	b Chadwick R M	The Pacific Telephone and Telegraph Co.
	c Bennett E P Mrs	The Pacific Telephone and Telegraph Co.
1945	Lloyd Brooks	McCutcheon & Bragonier
	J F Slane	McCutcheon & Bragonier

200 SANTA FE AVE E

Year	Uses	Source
1956	S Spadra rd east	Luskey Brothers & Co., Inc.
1950	S Spadra rd east	The Pacific Telephone and Telegraph Co.

205 SANTA FE AVE E

Year	Uses	Source
1956	Allen Bros Tool Co Lam	Luskey Brothers & Co., Inc.

209 SANTA FE AVE E

Year	Uses	Source
1960	ACME TOOLING CO	Luskey Brothers & Co.,

FINDINGS

Year	Uses	Source
1956	County Lam	Luskey Brothers & Co., Inc.
	Servisoft of Northern Orange	Luskey Brothers & Co., Inc.

210 SANTA FE AVE E

Year	Uses	Source
1960	WARD HARRINGTON LMBR CO	Luskey Brothers & Co.,
1956	Co Lam	Luskey Brothers & Co., Inc.
	Ward & Harrington Lmbr	Luskey Brothers & Co., Inc.
1950	Ward & Harrington Lmbr Co	The Pacific Telephone and Telegraph Co.

215 SANTA FE AVE E

Year	Uses	Source
1960	UNDER CONSTR	Luskey Brothers & Co.,
1956	3/4 Beshears J E	Luskey Brothers & Co., Inc.
	z Vacant	Luskey Brothers & Co., Inc.
	Clark J H	Luskey Brothers & Co., Inc.
1950	3/4 Cluggage Ethel Mrs	The Pacific Telephone and Telegraph Co.
	Va Scott W L	The Pacific Telephone and Telegraph Co.
	Clark J H	The Pacific Telephone and Telegraph Co.
1945	W N Bohannon	McCutcheon & Bragonier
	J H Clark	McCutcheon & Bragonier

217 SANTA FE AVE E

Year	Uses	Source
1956	Sanchez Alfonso Rev Lam	Luskey Brothers & Co., Inc.
1950	Veengas Doroteo Rev 0210 J	The Pacific Telephone and Telegraph Co.
1945	Rev Alfonso Domlrnguez	McCutcheon & Bragonier

219 SANTA FE AVE E

Year	Uses	Source
1956	Latin Am Meth Ch	Luskey Brothers & Co., Inc.
1950	Latin Am Meth Ch	The Pacific Telephone and Telegraph Co.
1945	Mexican Meth Mission	McCutcheon & Bragonier

223 SANTA FE AVE E

Year	Uses	Source
1960	WILLIAMS LNDRY	Luskey Brothers & Co.,

FINDINGS

227 SANTA FE AVE E

Year	Uses	Source
1956	a Giron J ALam 5 074 E	Luskey Brothers & Co., Inc.
	Holguin E LLam	Luskey Brothers & Co., Inc.
1950	Holguin E L	The Pacific Telephone and Telegraph Co.
	a 2 Giron J A 2391 J	The Pacific Telephone and Telegraph Co.
1945	Encarnaclon Holguln	McCutcheon & Bragonier

232 SANTA FE AVE E

Year	Uses	Source
1960	B A RING	Luskey Brothers & Co.,

235 SANTA FE AVE E

Year	Uses	Source
1960	S HARVARD AV INTS	Luskey Brothers & Co.,
	N U ART NEON SIGN	Luskey Brothers & Co.,
1956	22300 Standard Oil of Cal: Lam	Luskey Brothers & Co., Inc.
	Co industrial trucks Lam	Luskey Brothers & Co., Inc.
	Yeats Appliance Dolly Mfg	Luskey Brothers & Co., Inc.
1950	Co industrial trucks	The Pacific Telephone and Telegraph Co.
	Yeats Appliance Dolly Mfg	The Pacific Telephone and Telegraph Co.
1945	AT W Yeats dolly mfr	McCutcheon & Bragonier

SANTA FE AVE W

113 SANTA FE AVE W

Year	Uses	Source
1965	n RONEL MANUFACTURING CO	Ross Publications, Inc.,
	VACANT	Ross Publications, Inc.,
1960	RONEL MFG CO	Luskey Brothers & Co.,
1956	Vacant	Luskey Brothers & Co., Inc.
1945	L E Carlson furn	McCutcheon & Bragonier
	13j AA W Backman auto repr	McCutcheon & Bragonier

115 SANTA FE AVE W

Year	Uses	Source
1965	VACANT	Ross Publications, Inc.,
1960	ALEXS POOL HALL	Luskey Brothers & Co.,
1956	Lusar Alex billiards Lam	Luskey Brothers & Co., Inc.
1945	Alex Lusar Pool Room	McCutcheon & Bragonier

FINDINGS

116 SANTA FE AVE W

Year	Uses	Source
1945	Sunlite Fruit Juices whse	McCutcheon & Bragonier

117 SANTA FE AVE W

Year	Uses	Source
1965	DANIELS GARAGE	Ross Publications, Inc.,
1960	GAITHER & BOGAR DUS DIE SHOP	Luskey Brothers & Co.,
1956	Service Rfg Co whse	Luskey Brothers & Co., Inc.
1945	Vacant	McCutcheon & Bragonier

119 SANTA FE AVE W

Year	Uses	Source
1965	ELLINGSON MACHINE TOOL	Ross Publications, Inc.,
1960	ELLINGSON MACH TOOL & DIE	Luskey Brothers & Co.,
1956	Ellingson T C mach Lam	Luskey Brothers & Co., Inc.
1945	E W Davis Inc paint dept	McCutcheon & Bragonier

124 SANTA FE AVE W

Year	Uses	Source
1945	a Gibbs Lumber Co	McCutcheon & Bragonier

125 SANTA FE AVE W

Year	Uses	Source
1965	SERVICE ROOFING COHPANY	Ross Publications, Inc.,
1960	SERV ROOFING CO	Luskey Brothers & Co.,
	SERV ROOFING CO	Luskey Brothers & Co.,
1956	Service Roofing Co Lam	Luskey Brothers & Co., Inc.
1945	4 Service Roofing Co	McCutcheon & Bragonier

129 SANTA FE AVE W

Year	Uses	Source
1945	Ful Co Op Orange Assn whse	McCutcheon & Bragonier

130 SANTA FE AVE W

Year	Uses	Source
1965	PARAMOUNT CITRUS	Ross Publications, Inc.,
	OHOLLY PAK INC	Ross Publications, Inc.,
1956	Golden Citrus Juice Inc Lam	Luskey Brothers & Co., Inc.
1945	AFullerton Walnut Pkg Co	McCutcheon & Bragonier

FINDINGS

131 SANTA FE AVE W

Year	Uses	Source
1965	DP ELDRIDGE	Ross Publications, Inc.,
1960	D P ELDRIDGE	Luskey Brothers & Co.,
1956	Eldridge D P	Luskey Brothers & Co., Inc.
1945	D P Eldridge	McCutcheon & Bragonier

135 SANTA FE AVE W

Year	Uses	Source
1960	R L MARTIN	Luskey Brothers & Co.,
	S MALDEN AV INTS	Luskey Brothers & Co.,
	D L LUPPRELL	Luskey Brothers & Co.,
1956	Clever S E	Luskey Brothers & Co., Inc.
1945	A 0 Burgess	McCutcheon & Bragonier

137 SANTA FE AVE W

Year	Uses	Source
1945	Walter Cullen	McCutcheon & Bragonier

139 SANTA FE AVE W

Year	Uses	Source
1945	Mrs Marguerite Glennie	McCutcheon & Bragonier

SE COMMONWEALTH AVE

110 SE COMMONWEALTH AVE

Year	Uses	Source
1980	Wilsons Real Estate	Pacific Telephone

Soco Dr

236 Soco Dr

Year	Uses	Source
2010	JOHNSON EARL A III	EDR Digital Archive

250 Soco Dr

Year	Uses	Source
2014	SYAGE INC	EDR Digital Archive
2010	SYAGE INC	EDR Digital Archive

252 Soco Dr

Year	Uses	Source
2010	SAND SEAHORSE	EDR Digital Archive

276 Soco Dr

Year	Uses	Source
2010	CWNH INC	EDR Digital Archive
	CNU ENGINEERING SERVICES INC	EDR Digital Archive
	SEOHAN USA INC	EDR Digital Archive
	LIU ANNIE Y	EDR Digital Archive
	CREED CONSULTING INC	EDR Digital Archive

280 Soco Dr

Year	Uses	Source
2010	MERLEE VENTURES LLC	EDR Digital Archive

286 Soco Dr

Year	Uses	Source
2014	SOCO MUSIC	EDR Digital Archive
2010	SOCO MUSIC	EDR Digital Archive

Village Ct

177 Village Ct

Year	Uses	Source
2014	REBAR MANAGEMENT	EDR Digital Archive
2010	REBAR MANAGEMENT	EDR Digital Archive

180 Village Ct

Year	Uses	Source
2010	TIFFANY CLONTZ INDEPENDANT CON	EDR Digital Archive

W COMMONWEALTH AVE

101 W COMMONWEALTH AVE

Year	Uses	Source
1980	Fullerton	Pacific Telephone
1955	Andrews Bros of Calif	The Pacific Telephone and Telegraph Co.
1950	Andrews Bros of Calif fruit packrs	The Pacific Telephone and Telegraph Co.

FINDINGS

103 W COMMONWEALTH AVE

Year	Uses	Source
1950	Pieffei A P rl est	The Pacific Telephone and Telegraph Co.
	Fullerton	The Pacific Telephone and Telegraph Co.
	Peiffer A P rl est	The Pacific Telephone and Telegraph Co.

105 W COMMONWEALTH AVE

Year	Uses	Source
1980	I	Pacific Telephone
1950	Morris Barber Shop	The Pacific Telephone and Telegraph Co.
	Johnsons Elec Ofc	The Pacific Telephone and Telegraph Co.
	Johnsons Beauty Shop	The Pacific Telephone and Telegraph Co.
1946	Morris Barber & Beauty Shop	Southern California Telephone Co.
1941	Keiths Barber & Beauty Shop	Southern California Telephone Co.

106 W COMMONWEALTH AVE

Year	Uses	Source
1941	Crooke Frank A ins	Southern California Telephone Co.

107 W COMMONWEALTH AVE

Year	Uses	Source
1955	Putnams Geo Luggage Shop	The Pacific Telephone and Telegraph Co.
1950	Lombard Norman rl est	The Pacific Telephone and Telegraph Co.
	Ustick H L acct	The Pacific Telephone and Telegraph Co.
1941	Ustick H L rl est	Southern California Telephone Co.

109 W COMMONWEALTH AVE

Year	Uses	Source
1950	Finseth Jewlrs	The Pacific Telephone and Telegraph Co.
1946	Stewart Dress Shop	Southern California Telephone Co.

111 W COMMONWEALTH AVE

Year	Uses	Source
1950	La Bleu Beauty Salon	The Pacific Telephone and Telegraph Co.
1946	La Bleu Beauty Salon	Southern California Telephone Co.

112 W COMMONWEALTH AVE

Year	Uses	Source
1995	Marble Products Of Fullerton	Pacific Bell
1991	Marble Products Of Fullerton	Pacific Bell
	Neiman Jewelry Mfg Co	Pacific Bell

Year	Uses	Source
1991	Master Jewelers Neoman Jewelry Hg Co	Pacific Bell
1986	Neiman acwelry Mfg Co	Pacific Bell
	Master Jewelers Neiman Jewelry Mfg Co	Pacific Bell
	Marble Products Of Fullerton	Pacific Bell
1980	Neiman Marcus Co Newport Beach	Pacific Telephone
	Neiman Jewelry Mfg Co	Pacific Telephone
	European Furniture	Pacific Telephone
1966	REX NOVELTY	Pacific Telephone
	Signs by Mack	Pacific Telephone
1955	Pac Sales Inc	The Pacific Telephone and Telegraph Co.
	ROBINSON DALE JEWELERS	The Pacific Telephone and Telegraph Co.
1946	Crooke Frank A ins	Southern California Telephone Co.
	Stuckey D C Rev r	Southern California Telephone Co.
1941	Sphinx Chair Glide Co	Southern California Telephone Co.

113 W COMMONWEALTH AVE

Year	Uses	Source
1955	Thrifty Drug Stores Co Inc	The Pacific Telephone and Telegraph Co.
1946	P & M Hdwe	Southern California Telephone Co.

114 W COMMONWEALTH AVE

Year	Uses	Source
1995	Commonwealth Jewelry & Loan	Pacific Bell
1991	Commonwealth Jewelry & Loan	Pacific Bell
1986	Commonwealth Jewelry & Loan	Pacific Bell
1980	Commonwealth Jewelry & Loan	Pacific Telephone
1975	TRADER JOHN	Luskey Brothers & Co., Inc.
	A 1 USED FURNITURE & APPLIANCES & ANTIQUES	Luskey Brothers & Co., Inc.
1970	Trader John	General Telephone Co., of California
	A 1 NEW & USED FURNITURE & APPL	General Telephone Co., of California
1955	Eimers Shoe Store	The Pacific Telephone and Telegraph Co.
1950	Economy Shoe Store	The Pacific Telephone and Telegraph Co.
1941	Economy Shoe Store	Southern California Telephone Co.

115 W COMMONWEALTH AVE

Year	Uses	Source
1955	Collins Sam L & Sam E attys	The Pacific Telephone and Telegraph Co.
	Caruthers L King atty	The Pacific Telephone and Telegraph Co.
	CALVO PAUL survyr	The Pacific Telephone and Telegraph Co.

Year	Uses	Source
1946	Hotel Fullerton	Southern California Telephone Co.
	Fullerton Yellow Cab	Southern California Telephone Co.
	Fullerton Hotel	Southern California Telephone Co.
1941	Hotel Fullerton	Southern California Telephone Co.

116 W COMMONWEALTH AVE

Year	Uses	Source
1980	Independent Insurance Agents Assoc Of Orange Co	Pacific Telephone
	SPARKS & SHAW INSURANCE ASSOCIATES Glenn Shaw	Pacific Telephone
	i	Pacific Telephone
1975	Fullerton Agency	Luskey Brothers & Co., Inc.
	SPARKS & SHAW INS ASSOCIATES	Luskey Brothers & Co., Inc.
1966	Sader M H pub acct	Pacific Telephone
	Sparks & Shaw Ins Associates	Pacific Telephone
	Westates Business Serv	Pacific Telephone
1955	Lake Aubrey Lorton Norris J ins	The Pacific Telephone and Telegraph Co.
	LAKE AUBREY rl est	The Pacific Telephone and Telegraph Co.
	Lake Aubrey rl est	The Pacific Telephone and Telegraph Co.
	LORTON NORRIS J ins	The Pacific Telephone and Telegraph Co.
	Schumacher Kenneth Lake Aubrey rl est	The Pacific Telephone and Telegraph Co.
	Bruce Clyde A Lake Aubrey rl est	The Pacific Telephone and Telegraph Co.
	Lake Aubrey Lorton Norris J ins	The Pacific Telephone and Telegraph Co.
1950	Jewett Bros bldg contrs	The Pacific Telephone and Telegraph Co.
	Jewett Development Co Inc bldg contr	The Pacific Telephone and Telegraph Co.
	Lake Aubrey rl est	The Pacific Telephone and Telegraph Co.
	Lorton Norris J ins	The Pacific Telephone and Telegraph Co.
1946	Jewett Bros bldg contrs	Southern California Telephone Co.
1941	Lake Aubrey ri est	Southern California Telephone Co.

117 W COMMONWEALTH AVE

Year	Uses	Source
1995	Fullerton	Pacific Bell
	Club Med Accomodatlon	Pacific Bell
	Fullerton Hardware	Pacific Bell
1991	Fullerton	Pacific Bell
	FULLERTON HARDWARE	Pacific Bell
1986	Fulerton	Pacific Bell
	FULLE RTON HARDW ARE	Pacific Bell

Year	Uses	Source
1980	Choc Thrift Shop	Pacific Telephone
1970	Fullerton	General Telephone Co., of California
	SEARS	General Telephone Co., of California
1966	ALLSTATE INSURANCE COMPANIES	Pacific Telephone
	Fullerton	Pacific Telephone
	SEARS ROEBUCK RETAIL STORES Complete Department Stores	Pacific Telephone
	Fullerton	Pacific Telephone
1955	Fullerton	The Pacific Telephone and Telegraph Co.
	Fullerton	The Pacific Telephone and Telegraph Co.
	Telephone Catalogue Orders	The Pacific Telephone and Telegraph Co.

118 W COMMONWEALTH AVE

Year	Uses	Source
1995	BOEGES SPORTING GOODS	Pacific Bell
1991	BOEGES SPORTING GOODS	Pacific Bell
1980	BOE GES S PORTIN IG GOODS	Pacific Telephone
	Boeges Sporting Goods	Pacific Telephone
1975	BOEGES SPORTING GOODS	Luskey Brothers & Co., Inc.
1970	Dorotheas Beauty Salon	General Telephone Co., of California
1955	Fullerton Bowl	The Pacific Telephone and Telegraph Co.
1950	Fullerton Bowl	The Pacific Telephone and Telegraph Co.
1946	Fullerton Bowling Center	Southern California Telephone Co.
1941	Fullerton Bowling Center	Southern California Telephone Co.

129 W COMMONWEALTH AVE

Year	Uses	Source
1991	Browns Jewelry Palace	Pacific Bell

W SANTA FE

113 W SANTA FE

Year	Uses	Source
1966	Fli Cor Mfg	Pacific Telephone
1941	Backman Auto Repair Shop	Southern California Telephone Co.

115 W SANTA FE

Year	Uses	Source
1966	Progresso Barra	Pacific Telephone

118 W SANTA FE

Year	Uses	Source
1966	BONVIEW METALS & SALVAGE	Pacific Telephone

119 W SANTA FE

Year	Uses	Source
1966	Ellingson Machine Tool and Die	Pacific Telephone

125 W SANTA FE

Year	Uses	Source
1966	SERVICE ROOFING CO	Pacific Telephone
	SERVICE ROOFING CO	Pacific Telephone
	Warden Roofing Co	Pacific Telephone

130 W SANTA FE

Year	Uses	Source
1966	Holly Pak Inc	Pacific Telephone

131 W SANTA FE

Year	Uses	Source
1966	Eldridge David P	Pacific Telephone

W SANTA FE AVE

113 W SANTA FE AVE

Year	Uses	Source
1995	COMMONWEALTH UPHOLSTERY	Pacific Bell
1991	COMMONWEALTH UPHOLSTERY	Pacific Bell
	Mag Tim	Pacific Bell
1986	COMMON W E ALTH UPHOLS TE RY	Pacific Bell
1946	Backman A W garage	Southern California Telephone Co.
	Carlson Leonard	Southern California Telephone Co.

115 W SANTA FE AVE

Year	Uses	Source
1986	El Tanampa Bar	Pacific Bell
1980	El Tenampa Bar Juan Ybara	Pacific Telephone
1975	El Tenampa bar	Luskey Brothers & Co., Inc.
	Tenampo bar	Luskey Brothers & Co., Inc.
1955	Lusai Billiards	The Pacific Telephone and Telegraph Co.
1950	Lusar Billiards	The Pacific Telephone and Telegraph Co.

Year	Uses	Source
1922	Mc Cready M Mrs fur rms	Kaasen Directory Co.

116 W SANTA FE AVE

Year	Uses	Source
1941	Calif Citrus Food Products Ltd	Southern California Telephone Co.

117 W SANTA FE AVE

Year	Uses	Source
1975	JAHN R C CO electrcl contr	Luskey Brothers & Co., Inc.
1970	JAHN RC CO electrclcontr	General Telephone Co., of California
1955	PARSONS MFG CO	The Pacific Telephone and Telegraph Co.
1950	Fullerton Mattress & Upholstery	The Pacific Telephone and Telegraph Co.
1946	Johnnys Mattress Factory	Southern California Telephone Co.
1922	Buckeye Garage	Kaasen Directory Co.
	G and M Auto Repr shop	Kaasen Directory Co.

118 W SANTA FE AVE

Year	Uses	Source
1950	Fullerton	The Pacific Telephone and Telegraph Co.
	Fullerton	The Pacific Telephone and Telegraph Co.
1946	Soft Water Serv	Southern California Telephone Co.

119 W SANTA FE AVE

Year	Uses	Source
1995	Ellingson Inc	Pacific Bell
1991	Ellingson Inc	Pacific Bell
1986	Ellingson Inc	Pacific Bell
1980	E UN GS ON IN C	Pacific Telephone
	Ellingson Inc Thomas Ellingson President	Pacific Telephone
1975	Othmer Peter W	Luskey Brothers & Co., Inc.
	Miracle Grip Inc	Luskey Brothers & Co., Inc.
	Ellingson Kellered Molds Inc	Luskey Brothers & Co., Inc.
1955	Ellingson Mach Shop	The Pacific Telephone and Telegraph Co.
1950	Paint & Body Shop	The Pacific Telephone and Telegraph Co.
	Ellingson Mach Shop	The Pacific Telephone and Telegraph Co.
1922	Buick Repair Shop	Kaasen Directory Co.

124 W SANTA FE AVE

Year	Uses	Source
1941	Gibbs Lumbr Co	Southern California Telephone Co.

Year	Uses	Source
1922	Gibbs Lumber Co	Kaasen Directory Co.

125 W SANTA FE AVE

Year	Uses	Source
1986	Sports Horizon	Pacific Bell
1980	Sports Horizon	Pacific Telephone
1975	Warden Roofing Co	Luskey Brothers & Co., Inc.
	Ofc	Luskey Brothers & Co., Inc.
	Service Sales Co PO Box 2277 @Orange@	Luskey Brothers & Co., Inc.
1970	Warden Roofing Co	General Telephone Co., of California
	Ofc	General Telephone Co., of California
	Warden Hugh W Service Roofing Co	General Telephone Co., of California
	SERVICE ROOFING CO	General Telephone Co., of California
	SERVICE ROOFING CO	General Telephone Co., of California
1966	Warden Hugh W Service Roofing Co	Pacific Telephone
	Ofc	Pacific Telephone
1955	Ofc	The Pacific Telephone and Telegraph Co.
	SERVICE ROOFING CO	The Pacific Telephone and Telegraph Co.
	SERVICE ROOFING CO	The Pacific Telephone and Telegraph Co.
1950	Service Roofing Co	The Pacific Telephone and Telegraph Co.
	Service Roofing Co	The Pacific Telephone and Telegraph Co.
1941	Service Roofing Co	Southern California Telephone Co.
	Service Roofing Co	Southern California Telephone Co.

W SANTA FE AVPL

126 W SANTA FE AVPL

Year	Uses	Source
1980	Torres Jeronimo L	Pacific Telephone

W WALNUT AVE

100 W WALNUT AVE

Year	Uses	Source
1995	Linen Liners	Pacific Bell

110 W WALNUT AVE

Year	Uses	Source
1925	Kisner & Coleman mach	Western Directory Co.

112 W WALNUT AVE

Year	Uses	Source
1995	Benchmark Custom Woodworks	Pacific Bell
1925	Consolidated Ice & Cold Storage Co	Western Directory Co.

114 W WALNUT AVE

Year	Uses	Source
1986	Linen Liners	Pacific Bell
	GLC General	Pacific Bell
	FRE E MANS CUS TOM FRAMIN G	Pacific Bell
1975	Slivkoff Distributing Co	Luskey Brothers & Co., Inc.
1950	Placentia Pioneer Valencia Growers Assn	The Pacific Telephone and Telegraph Co.
1946	Placentia Pioneer Valencia Growers Assn	Southern California Telephone Co.

116 W WALNUT AVE

Year	Uses	Source
1966	Murray Ohio Mfg Co	Pacific Telephone
	SUN GLASS PRODUCTS OF CALIF	Pacific Telephone
	Musick Carl P mfrs rep	Pacific Telephone
1950	Idso Otto Fullerton Cooperative Orange Assn	The Pacific Telephone and Telegraph Co.
	Fullerton Cooperative Orange Assn	The Pacific Telephone and Telegraph Co.
1941	MO D Pure Gold Orange Assn	Southern California Telephone Co.

118 W WALNUT AVE

Year	Uses	Source
1925	Osborne Fruit & Veg Co	Western Directory Co.

120 W WALNUT AVE

Year	Uses	Source
1995	Plastafab Company	Pacific Bell

125 W WALNUT AVE

Year	Uses	Source
1925	Fullerton Mutual Orange Association	Western Directory Co.

WALNUT WAY W

123 WALNUT WAY W

Year	Uses	Source
1965	EL SPIRES	Ross Publications, Inc.,

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204 WALNUT WAY W

Year	*Uses*	*Source*
1965	TEECE PATTERN & MFP CO	Ross Publications, Inc.,

210 WALNUT WAY W

Year	*Uses*	*Source*
1965	p IC MANUFACTURING CO	Ross Publications, Inc.,

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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
100 COMMONWEALTH AVE W	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
100 E COMMONWEALTH AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
100 N HARBOR BLVD	2014, 2010, 2005, 2002, 2001, 1997, 1992, 1986, 1971, 1970, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
100 N POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1945, 1941, 1936, 1930, 1926, 1925, 1921, 1920
100 POMONA AVE N	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
100 S HARBOR BLVD	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1980, 1975, 1971, 1970, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
100 S POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1952, 1945, 1941, 1936, 1930, 1926, 1925, 1921, 1920
100 W WALNUT AVE	2014, 2010, 2005, 2002, 2001, 1997, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
101 COMMONWEALTH AVE W	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1946, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
101 E COMMONWEALTH AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
101 N HARBOR BLVD	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1971, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
101 N POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1921, 1920
101 S HARBOR BLVD	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1971, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
101 S POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1952, 1950, 1945, 1941, 1936, 1930, 1926, 1925, 1921, 1920
101 W COMMONWEALTH AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1952, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920

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Address Researched	Address Not Identified in Research Source
102 COMMONWEALTH AVE E	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1961, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
102 E COMMONWEALTH AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1986, 1980, 1975, 1971, 1970, 1965, 1961, 1960, 1956, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
102 N HARBOR BLVD	2014, 2010, 2005, 2002, 2001, 1997, 1992, 1986, 1971, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
102 N POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1945, 1941, 1936, 1930, 1926, 1925, 1921, 1920
102 POMONA AVE N	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
103 COMMONWEALTH AVE W	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1955, 1952, 1946, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
103 S HARBOR BLVD	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
103 S POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1952, 1945, 1941, 1936, 1930, 1926, 1925, 1921, 1920
103 W COMMONWEALTH AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
104 COMMONWEALTH AVE E	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1961, 1955, 1952, 1946, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
104 COMMONWEALTH AVE W	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
104 E COMMONWEALTH AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1971, 1970, 1965, 1961, 1960, 1956, 1952, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
104 N HARBOR BLVD	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1971, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
104 N POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1952, 1945, 1941, 1936, 1930, 1926, 1925, 1921, 1920
104 POMONA AVE N	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
104 S POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1921, 1920
105 COMMONWEALTH AVE E	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1955, 1952, 1946, 1941, 1936, 1930, 1926, 1925, 1921, 1920
105 COMMONWEALTH AVE W	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1955, 1952, 1946, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920

FINDINGS

Address Researched	Address Not Identified in Research Source
105 E COMMONWEALTH AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
105 E SANTA FE AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1921, 1920
105 N HARBOR BLVD	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
105 N POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1921, 1920
105 POMONA AVE N	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
105 S HARBOR BLVD	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1971, 1970, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
105 S POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1952, 1945, 1941, 1936, 1930, 1926, 1925, 1921, 1920
105 W COMMONWEALTH AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1945, 1936, 1930, 1926, 1925, 1922, 1921, 1920
106 COMMONWEALTH AVE E	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1961, 1955, 1952, 1946, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
106 E COMMONWEALTH AVE	2014, 2010, 2005, 2002, 2001, 1997, 1992, 1991, 1971, 1965, 1961, 1960, 1956, 1952, 1945, 1936, 1930, 1926, 1925, 1922, 1921, 1920
106 N HARBOR BLVD	2014, 2010, 2005, 2002, 2001, 1997, 1992, 1971, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
106 N POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1945, 1941, 1936, 1930, 1926, 1925, 1921, 1920
106 POMONA AVE N	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
106 S HARBOR BLVD	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1971, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
106 S POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1945, 1941, 1936, 1930, 1926, 1925, 1921, 1920
106 W COMMONWEALTH AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1936, 1930, 1926, 1925, 1922, 1921, 1920
107 COMMONWEALTH AVE E	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1946, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
107 COMMONWEALTH AVE W	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1955, 1952, 1946, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920

FINDINGS

Address Researched	Address Not Identified in Research Source
107 E COMMONWEALTH AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
107 N HARBOR BLVD	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
107 N POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1945, 1941, 1936, 1930, 1926, 1925, 1921, 1920
107 POMONA AVE N	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
107 S HARBOR BLVD	2014, 2010, 2005, 2002, 2001, 1997, 1992, 1975, 1971, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
107 S POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1952, 1945, 1941, 1936, 1930, 1926, 1925, 1921, 1920
107 W COMMONWEALTH AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1952, 1946, 1945, 1936, 1930, 1926, 1925, 1922, 1921, 1920
108 COMMONWEALTH AVE E	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1961, 1955, 1952, 1946, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
108 COMMONWEALTH AVE W	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
108 E COMMONWEALTH AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1971, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
108 N HARBOR BLVD	2014, 2010, 2005, 2002, 2001, 1997, 1992, 1986, 1971, 1965, 1961, 1960, 1956, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
108 N POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1921, 1920
108 POMONA AVE N	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
108 S POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1952, 1945, 1941, 1936, 1930, 1926, 1925, 1921, 1920
109 COMMONWEALTH AVE E	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1961, 1955, 1952, 1946, 1941, 1936, 1930, 1926, 1925, 1921, 1920
109 COMMONWEALTH AVE W	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1955, 1952, 1946, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
109 E COMMONWEALTH AVE	2014, 2010, 2005, 2002, 2001, 1997, 1992, 1971, 1965, 1961, 1960, 1956, 1955, 1952, 1945, 1936, 1930, 1926, 1925, 1922, 1921, 1920
109 E SANTA FE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920

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Address Researched	Address Not Identified in Research Source
109 E SANTA FE AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1936, 1930, 1926, 1925, 1922, 1921, 1920
109 E WALNUT AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
109 N HARBOR BLVD	2014, 2010, 2005, 2002, 2001, 1997, 1992, 1971, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
109 S HARBOR BLVD	2014, 2010, 2005, 2002, 2001, 1997, 1992, 1971, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
109 SANTA FE AVE E	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1955, 1952, 1946, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
109 W COMMONWEALTH AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
110 COMMONWEALTH AVE W	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
110 E SANTA FE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
110 E SANTA FE AVE	2014, 2010, 2005, 2002, 2001, 1997, 1992, 1991, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
110 E Santa Fe Ave	2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
110 E Walnut Ave	2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
110 E WALNUT AVE	2014, 2010, 2005, 2002, 2001, 1997, 1992, 1986, 1980, 1975, 1971, 1970, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
110 N HARBOR BLVD	2014, 2010, 2005, 2002, 2001, 1997, 1992, 1986, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
110 N POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1945, 1941, 1936, 1930, 1926, 1925, 1921, 1920
110 POMONA AVE N	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
110 S HARBOR BLVD	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1971, 1965, 1961, 1960, 1956, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
110 S POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1952, 1945, 1941, 1936, 1930, 1926, 1925, 1921, 1920
110 SE COMMONWEALTH AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920

FINDINGS

Address Researched	Address Not Identified in Research Source
110 W WALNUT AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1922, 1921, 1920
111 COMMONWEALTH AVE E	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1961, 1955, 1952, 1946, 1941, 1936, 1930, 1926, 1925, 1921, 1920
111 COMMONWEALTH AVE W	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1955, 1952, 1946, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
111 E COMMONWEALTH AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1971, 1970, 1965, 1961, 1960, 1956, 1952, 1945, 1936, 1930, 1926, 1925, 1922, 1921, 1920
111 N HARBOR BLVD	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
111 POMONA AVE S	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1961, 1955, 1952, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
111 S HARBOR BLVD	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
111 S POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1971, 1965, 1961, 1960, 1956, 1952, 1945, 1936, 1930, 1926, 1925, 1921, 1920
111 W COMMONWEALTH AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
112 COMMONWEALTH AVE E	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1961, 1955, 1952, 1946, 1941, 1936, 1930, 1926, 1925, 1921, 1920
112 COMMONWEALTH AVE W	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1961, 1955, 1952, 1946, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
112 E COMMONWEALTH AVE	2014, 2010, 2005, 2002, 2001, 1997, 1992, 1986, 1971, 1970, 1965, 1961, 1960, 1956, 1952, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
112 E SANTA FE AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1975, 1971, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
112 E WALNUT AVE	2014, 2010, 2005, 2002, 2001, 1997, 1992, 1991, 1971, 1970, 1965, 1961, 1960, 1956, 1955, 1952, 1945, 1936, 1930, 1926, 1925, 1922, 1921, 1920
112 E Walnut Ave	2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
112 E WALNUT WAY	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
112 N HARBOR BLVD	2014, 2010, 2005, 2002, 2001, 1997, 1992, 1991, 1971, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
112 POMONA AVE N	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
112 S POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1952, 1945, 1941, 1936, 1930, 1926, 1925, 1921, 1920

FINDINGS

Address Researched	Address Not Identified in Research Source
112 W COMMONWEALTH AVE	2014, 2010, 2005, 2002, 2001, 1997, 1992, 1975, 1971, 1970, 1965, 1961, 1960, 1956, 1952, 1950, 1945, 1936, 1930, 1926, 1925, 1922, 1921, 1920
112 W WALNUT AVE	2014, 2010, 2005, 2002, 2001, 1997, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1922, 1921, 1920
113 COMMONWEALTH AVE E	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1961, 1955, 1952, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1921, 1920
113 COMMONWEALTH AVE W	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1961, 1955, 1952, 1946, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
113 E COMMONWEALTH	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
113 E COMMONWEALTH AVE	2014, 2010, 2005, 2002, 2001, 1997, 1992, 1975, 1971, 1970, 1965, 1961, 1960, 1956, 1952, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
113 E SANTA FE AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1952, 1946, 1945, 1936, 1930, 1926, 1925, 1922, 1921, 1920
113 N HARBOR BLVD	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1971, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
113 N POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1952, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
113 POMONA AVE N	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
113 POMONA AVE S	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
113 S HARBOR BLVD	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
113 S POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1921, 1920
113 SANTA FE AVE E	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1955, 1952, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
113 SANTA FE AVE W	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1961, 1955, 1952, 1950, 1946, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
113 W COMMONWEALTH AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1952, 1950, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
113 W SANTA FE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1936, 1930, 1926, 1925, 1922, 1921, 1920
113 W SANTA FE AVE	2014, 2010, 2005, 2002, 2001, 1997, 1992, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920

FINDINGS

Address Researched	Address Not Identified in Research Source
114 COMMONWEALTH AVE E	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1961, 1955, 1952, 1946, 1941, 1936, 1930, 1926, 1925, 1921, 1920
114 COMMONWEALTH AVE W	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1961, 1955, 1952, 1946, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
114 E COMMONWEALTH	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
114 E COMMONWEALTH AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1952, 1945, 1936, 1930, 1926, 1925, 1922, 1921, 1920
114 N HARBOR BLVD	2014, 2010, 2005, 2002, 2001, 1997, 1992, 1971, 1965, 1961, 1960, 1956, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
114 N POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1992, 1971, 1965, 1961, 1960, 1956, 1952, 1945, 1941, 1936, 1930, 1926, 1925, 1921, 1920
114 POMONA AVE N	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1961, 1955, 1952, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
114 POMONA AVE S	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1961, 1955, 1952, 1946, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
114 S HARBOR BLVD	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1971, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
114 S POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1965, 1961, 1960, 1956, 1952, 1945, 1941, 1936, 1930, 1926, 1925, 1921, 1920
114 W COMMONWEALTH AVE	2014, 2010, 2005, 2002, 2001, 1997, 1992, 1971, 1966, 1965, 1961, 1960, 1956, 1952, 1946, 1945, 1936, 1930, 1926, 1925, 1922, 1921, 1920
114 W WALNUT AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1980, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
115 COMMONWEALTH AVE E	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1961, 1955, 1952, 1946, 1941, 1936, 1930, 1926, 1925, 1921, 1920
115 COMMONWEALTH AVE W	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1961, 1960, 1955, 1952, 1946, 1941, 1936, 1930, 1926, 1925, 1921, 1920
115 E COMMONWEALTH AVE	2014, 2010, 2005, 2002, 2001, 1997, 1992, 1971, 1965, 1961, 1960, 1956, 1952, 1945, 1936, 1930, 1926, 1925, 1922, 1921, 1920
115 E SANTA FE AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1921, 1920
115 N HARBOR BLVD	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
115 N POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1945, 1941, 1936, 1930, 1926, 1925, 1921, 1920
115 POMONA AVE N	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920

FINDINGS

Address Researched	Address Not Identified in Research Source
115 S HARBOR BLVD	2014, 2010, 2005, 2002, 2001, 1997, 1992, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
115 S POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1921, 1920
115 SANTA FE AVE E	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1955, 1952, 1946, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
115 SANTA FE AVE W	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1961, 1955, 1952, 1950, 1946, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
115 W COMMONWEALTH AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1952, 1950, 1945, 1936, 1930, 1926, 1925, 1922, 1921, 1920
115 W SANTA FE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
115 W SANTA FE AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1952, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1921, 1920
116 COMMONWEALTH AVE E	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1921, 1920
116 COMMONWEALTH AVE W	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1961, 1955, 1952, 1946, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
116 E SANTA FE AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
116 E WALNUT AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
116 N HARBOR BLVD	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1965, 1961, 1960, 1956, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
116 N POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1952, 1945, 1941, 1936, 1930, 1926, 1925, 1921, 1920
116 POMONA AVE N	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
116 POMONA AVE S	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1961, 1955, 1952, 1946, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
116 S HARBOR BLVD	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
116 S POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1952, 1945, 1941, 1936, 1930, 1926, 1925, 1921, 1920

FINDINGS

Address Researched	Address Not Identified in Research Source
116 SANTA FE AVE W	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
116 W COMMONWEALTH AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1971, 1970, 1965, 1961, 1960, 1956, 1952, 1945, 1936, 1930, 1926, 1925, 1922, 1921, 1920
116 W SANTA FE AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1936, 1930, 1926, 1925, 1922, 1921, 1920
116 W WALNUT AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1965, 1961, 1960, 1956, 1955, 1952, 1946, 1945, 1936, 1930, 1926, 1925, 1922, 1921, 1920
117 COMMONWEALTH AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1922, 1921, 1920
117 COMMONWEALTH AVE E	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1961, 1955, 1952, 1946, 1941, 1936, 1930, 1926, 1925, 1921, 1920
117 COMMONWEALTH AVE W	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1961, 1955, 1952, 1950, 1946, 1941, 1936, 1930, 1926, 1925, 1921, 1920
117 E COMMONWEALTH AVE	2014, 2010, 2005, 2002, 2001, 1997, 1992, 1991, 1986, 1971, 1970, 1965, 1961, 1960, 1956, 1952, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
117 E SANTA FE AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
117 N HARBOR	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
117 N HARBOR BLVD	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
117 N POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1992, 1971, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
117 POMONA AVE S	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1961, 1955, 1952, 1946, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
117 S HARBOR BLVD	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
117 S POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1952, 1945, 1941, 1936, 1930, 1926, 1925, 1921, 1920
117 SANTA FE AVE E	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1955, 1952, 1946, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
117 SANTA FE AVE W	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1961, 1955, 1952, 1950, 1946, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
117 W COMMONWEALTH AVE	2014, 2010, 2005, 2002, 2001, 1997, 1992, 1975, 1971, 1965, 1961, 1960, 1956, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
117 W SANTA FE AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1971, 1966, 1965, 1961, 1960, 1956, 1952, 1945, 1941, 1936, 1930, 1926, 1925, 1921, 1920

FINDINGS

Address Researched	Address Not Identified in Research Source
118 COMMONWEALTH AVE E	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1961, 1955, 1952, 1946, 1941, 1936, 1930, 1926, 1925, 1921, 1920
118 COMMONWEALTH AVE W	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1961, 1955, 1952, 1946, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
118 E COMMONWEALTH AVE	2014, 2010, 2005, 2002, 2001, 1997, 1992, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1952, 1945, 1936, 1930, 1926, 1925, 1922, 1921, 1920
118 S POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1952, 1945, 1941, 1936, 1930, 1926, 1925, 1921, 1920
118 W COMMONWEALTH AVE	2014, 2010, 2005, 2002, 2001, 1997, 1992, 1986, 1971, 1966, 1965, 1961, 1960, 1956, 1952, 1945, 1936, 1930, 1926, 1925, 1922, 1921, 1920
118 W SANTA FE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
118 W SANTA FE AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
118 W WALNUT AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1922, 1921, 1920
119 COMMONWEALTH AVE E	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1961, 1955, 1952, 1946, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
119 E COMMONWEALTH AVE	2014, 2010, 2005, 2002, 2001, 1997, 1992, 1971, 1965, 1961, 1960, 1956, 1952, 1950, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
119 N POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1921, 1920
119 S HARBOR BLVD	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
119 SANTA FE AVE W	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1961, 1955, 1952, 1950, 1946, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
119 W SANTA FE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
119 W SANTA FE AVE	2014, 2010, 2005, 2002, 2001, 1997, 1992, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1952, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1921, 1920
120 COMMONWEALTH AVE E	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1961, 1955, 1952, 1946, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
120 E COMMONWEALTH AVE	2014, 2010, 2005, 2002, 2001, 1997, 1992, 1971, 1965, 1961, 1960, 1956, 1952, 1945, 1936, 1930, 1926, 1925, 1922, 1921, 1920
120 N HARBOR BLVD	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
120 N POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1952, 1945, 1941, 1936, 1930, 1926, 1925, 1921, 1920

FINDINGS

Address Researched	Address Not Identified in Research Source
120 POMONA AVE N	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
120 S POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1952, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1921, 1920
120 W WALNUT AVE	2014, 2010, 2005, 2002, 2001, 1997, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
121 COMMONWEALTH AVE E	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1955, 1952, 1946, 1941, 1936, 1930, 1926, 1925, 1921, 1920
121 E COMMONWEALTH AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1952, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
121 E SANTA FE AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1952, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1921, 1920
121 N HARBOR BLVD	2014, 2010, 2005, 2002, 2001, 1997, 1992, 1971, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
121 S POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1952, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1921, 1920
121 SANTA FE AVE E	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1955, 1952, 1946, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
122 COMMONWEALTH AVE E	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1961, 1955, 1952, 1946, 1941, 1936, 1930, 1926, 1925, 1921, 1920
122 E COMMONWEALTH AVE	2014, 2010, 2005, 2002, 2001, 1997, 1992, 1991, 1975, 1971, 1965, 1961, 1960, 1956, 1952, 1945, 1936, 1930, 1926, 1925, 1922, 1921, 1920
122 N HARBOR BLVD	2014, 2010, 2005, 2002, 2001, 1997, 1992, 1971, 1965, 1961, 1960, 1956, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
122 N POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1921, 1920
122 POMONA AVE S	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1961, 1960, 1955, 1952, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
122 S POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1952, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
123 COMMONWEALTH AVE E	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1961, 1960, 1955, 1952, 1946, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
123 E COMMONWEALTH AVE	2014, 2010, 2005, 2002, 2001, 1997, 1992, 1991, 1971, 1970, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
123 E SANTA FE AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920

FINDINGS

Address Researched	Address Not Identified in Research Source
123 N HARBOR BLVD	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
123 POMONA AVE S	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1961, 1955, 1952, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
123 S HARBOR BLVD	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
123 S POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1971, 1965, 1961, 1960, 1956, 1952, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
123 WALNUT WAY W	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
124 COMMONWEALTH AVE E	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1961, 1955, 1952, 1946, 1941, 1936, 1930, 1926, 1925, 1921, 1920
124 E COMMONWEALTH AVE	2014, 2010, 2005, 2002, 2001, 1997, 1992, 1991, 1971, 1970, 1965, 1961, 1960, 1956, 1952, 1945, 1936, 1930, 1926, 1925, 1922, 1921, 1920
124 E Santa Fe Ave	2010, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
124 S POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1952, 1945, 1941, 1936, 1930, 1926, 1925, 1921, 1920
124 SANTA FE AVE W	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
124 W SANTA FE AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1936, 1930, 1926, 1925, 1921, 1920
125 COMMONWEALTH AVE E	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1955, 1952, 1946, 1941, 1936, 1930, 1926, 1925, 1921, 1920
125 COMMONWEALTH AVE W	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1946, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
125 E COMMONWEALTH AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
125 POMONA AVE N	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
125 S POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1936, 1930, 1926, 1925, 1922, 1921, 1920
125 SANTA FE AVE W	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1961, 1955, 1952, 1950, 1946, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
125 W SANTA FE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920

FINDINGS

Address Researched	Address Not Identified in Research Source
125 W SANTA FE AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1971, 1965, 1961, 1960, 1956, 1952, 1946, 1945, 1936, 1930, 1926, 1925, 1922, 1921, 1920
125 W WALNUT AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1922, 1921, 1920
126 E WALNUT AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1921, 1920
126 S POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1945, 1941, 1936, 1930, 1926, 1925, 1921, 1920
126 W SANTA FE AVPL	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
127 COMMONWEALTH AVE E	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1921, 1920
127 COMMONWEALTH AVE W	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1961, 1955, 1952, 1946, 1941, 1936, 1930, 1926, 1925, 1921, 1920
127 E SANTA FE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
127 E SANTA FE AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1971, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1936, 1930, 1926, 1925, 1921, 1920
127 S POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1921, 1920
127 SANTA FE AVE E	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1955, 1952, 1946, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
128 E WALNUT AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1921, 1920
128 N POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1952, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
128 POMONA AVE N	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
128 S POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1921, 1920
129 COMMONWEALTH AVE E	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1961, 1955, 1952, 1946, 1941, 1936, 1930, 1926, 1925, 1921, 1920
129 COMMONWEALTH AVE W	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1961, 1960, 1955, 1952, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
129 E COMMONWEALTH AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1971, 1970, 1965, 1961, 1960, 1956, 1952, 1946, 1945, 1936, 1930, 1926, 1925, 1922, 1921, 1920

FINDINGS

Address Researched	Address Not Identified in Research Source
129 S POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1952, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1921, 1920
129 SANTA FE AVE W	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
129 W COMMONWEALTH AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
130 COMMONWEALTH AVE E	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1961, 1955, 1952, 1946, 1941, 1936, 1930, 1926, 1925, 1921, 1920
130 E COMMONWEALTH AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1971, 1965, 1961, 1960, 1956, 1952, 1945, 1936, 1930, 1926, 1925, 1922, 1921, 1920
130 N POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1952, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1921, 1920
130 POMONA AVE N	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
130 S POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1952, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
130 SANTA FE AVE W	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1961, 1960, 1955, 1952, 1950, 1946, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
130 W SANTA FE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
131 E COMMONWEALTH AVE	2014, 2010, 2005, 2002, 2001, 1997, 1992, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
131 S POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1921, 1920
131 SANTA FE AVE W	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1961, 1955, 1952, 1950, 1946, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
131 W SANTA FE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
132 E WALNUT AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1921, 1920
132 S POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1921, 1920
133 COMMONWEALTH AVE E	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1961, 1960, 1955, 1952, 1946, 1941, 1936, 1930, 1926, 1925, 1921, 1920
133 E COMMONWEALTH AVE	2014, 2010, 2005, 2002, 2001, 1997, 1992, 1971, 1966, 1965, 1961, 1960, 1956, 1952, 1946, 1945, 1936, 1930, 1926, 1925, 1922, 1921, 1920

FINDINGS

Address Researched	Address Not Identified in Research Source
133 E WALNUT AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1965, 1961, 1960, 1956, 1955, 1952, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
133 S POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1952, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
134 E WALNUT AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1921, 1920
134 S POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1952, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
135 N POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1952, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
135 POMONA AVE N	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
135 S HARBOR BLVD	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
135 S POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1952, 1945, 1936, 1930, 1926, 1925, 1922, 1921, 1920
135 SANTA FE AVE W	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1955, 1952, 1950, 1946, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
136 E COMMONWEALTH AVE	2014, 2010, 2005, 2002, 2001, 1997, 1992, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
136 E SANTA FE AVE	2014, 2010, 2005, 2002, 2001, 1997, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
136 E Santa Fe Ave	2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
136 S POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1952, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
137 E COMMONWEALTH AVE	2014, 2010, 2005, 2002, 2001, 1997, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
137 S POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1952, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
137 SANTA FE AVE W	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
138 COMMONWEALTH AVE E	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1955, 1952, 1946, 1941, 1936, 1930, 1926, 1925, 1921, 1920

FINDINGS

Address Researched	Address Not Identified in Research Source
138 E COMMONWEALTH AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1945, 1936, 1930, 1926, 1925, 1922, 1921, 1920
138 S POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1921, 1920
139 COMMONWEALTH AVE E	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1961, 1955, 1952, 1946, 1941, 1936, 1930, 1926, 1925, 1921, 1920
139 E COMMONWEALTH AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1971, 1965, 1961, 1960, 1956, 1952, 1945, 1936, 1930, 1926, 1925, 1922, 1921, 1920
139 S POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
139 SANTA FE AVE W	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
140 COMMONWEALTH AVE E	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1961, 1955, 1952, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
140 E COMMONWEALTH AVE	2014, 2010, 2005, 2002, 2001, 1997, 1992, 1971, 1965, 1961, 1960, 1956, 1952, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
140 E WALNUT AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1921, 1920
140 N POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
141 E COMMONWEALTH AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
141 S POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1921, 1920
142 COMMONWEALTH AVE E	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
143 COMMONWEALTH AVE E	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1961, 1955, 1952, 1946, 1941, 1936, 1930, 1926, 1925, 1921, 1920
143 E COMMONWEALTH AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1971, 1965, 1961, 1960, 1956, 1952, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
143 S POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1952, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
144 COMMONWEALTH AVE E	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1941, 1936, 1930, 1926, 1925, 1921, 1920
144 E WALNUT AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920

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Address Researched	Address Not Identified in Research Source
144 N HARBOR BLVD	2014, 2010, 2005, 2002, 2001, 1997, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
145 COMMONWEALTH AVE E	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1961, 1955, 1952, 1946, 1941, 1936, 1930, 1926, 1925, 1921, 1920
145 E COMMONWEALTH AVE	2014, 2010, 2005, 2002, 2001, 1997, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1965, 1961, 1960, 1956, 1952, 1946, 1945, 1936, 1930, 1926, 1925, 1922, 1921, 1920
145 S POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1952, 1945, 1941, 1936, 1930, 1926, 1925, 1921, 1920
146 E WALNUT AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1921, 1920
146 S POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1952, 1945, 1941, 1936, 1930, 1926, 1925, 1921, 1920
149 N HARBOR BLVD	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
150 E SANTA FE AVE	2014, 2010, 2005, 2002, 2001, 1997, 1992, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
150 S HARBOR BLVD	2014, 2010, 2005, 2002, 2001, 1997, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
150 S POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
151 E COMMONWEALTH AVE	2014, 2010, 2005, 2002, 2001, 1997, 1992, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
151 S POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
161 S POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
171 E COMMONWEALTH AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
177 Village Ct	2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
180 Village Ct	2014, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
181 E Commonwealth Ave	2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920

FINDINGS

Address Researched	Address Not Identified in Research Source
181 E COMMONWEALTH AVE	2014, 2010, 2005, 2002, 2001, 1997, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
182 E COMMONWEALTH AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
196 S POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
198 S POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
200 POMONA AVE S	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1955, 1952, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
200 S POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1952, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1921, 1920
200 SANTA FE AVE E	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1955, 1952, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
201 COMMONWEALTH AVE E	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1946, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
201 E COMMONWEALTH AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1936, 1930, 1926, 1925, 1922, 1921, 1920
201 POMONA AVE S	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1961, 1955, 1952, 1946, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
201 S HARBOR BLVD	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
201 S POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1952, 1945, 1936, 1930, 1926, 1925, 1921, 1920
202 COMMONWEALTH AVE E	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1961, 1955, 1952, 1946, 1941, 1936, 1930, 1926, 1925, 1921, 1920
202 E COMMONWEALTH AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1971, 1965, 1961, 1960, 1956, 1952, 1945, 1936, 1930, 1926, 1925, 1922, 1921, 1920
202 E Commonwealth Ave	2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
203 COMMONWEALTH AVE E	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1921, 1920
203 E WALNUT AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1921, 1920
203 S HARBOR BLVD	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920

FINDINGS

Address Researched	Address Not Identified in Research Source
203 S POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1966, 1965, 1961, 1960, 1956, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
204 S POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1921, 1920
204 WALNUT WAY W	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
205 E SANTA FE AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
205 S POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1952, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
205 SANTA FE AVE E	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
206 E COMMONWEALTH AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
206 S POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1952, 1946, 1945, 1936, 1930, 1926, 1925, 1922, 1921, 1920
207 E WALNUT AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1965, 1961, 1960, 1956, 1955, 1952, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
207 S POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1921, 1920
208 COMMONWEALTH AVE E	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1921, 1920
208 E SANTA FE AVE	2014, 2010, 2005, 2002, 2001, 1997, 1992, 1980, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
208 S POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
209 COMMONWEALTH AVE E	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1961, 1955, 1952, 1946, 1941, 1936, 1930, 1926, 1925, 1921, 1920
209 E COMMONWEALTH AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1952, 1946, 1945, 1936, 1930, 1926, 1925, 1922, 1921, 1920
209 E SANTA FE AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1971, 1966, 1965, 1961, 1960, 1956, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
209 S POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1952, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920

FINDINGS

Address Researched	Address Not Identified in Research Source
209 SANTA FE AVE E	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
210 E SANTA FE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
210 E SANTA FE AVE	2014, 2010, 2005, 2002, 2001, 1997, 1992, 1986, 1975, 1971, 1966, 1965, 1961, 1960, 1956, 1952, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
210 S POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1952, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
210 SANTA FE AVE E	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1955, 1952, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
210 WALNUT WAY W	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
211 S POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1945, 1941, 1936, 1930, 1926, 1925, 1921, 1920
212 COMMONWEALTH AVE E	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1961, 1955, 1952, 1946, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
212 E COMMONWEALTH AVE	2014, 2010, 2005, 2002, 2001, 1997, 1992, 1971, 1970, 1965, 1961, 1960, 1956, 1952, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
212 E Commonwealth Ave	2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
212 E WALNUT AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1921, 1920
212 S POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1952, 1945, 1941, 1936, 1930, 1926, 1925, 1921, 1920
213 COMMONWEALTH AVE E	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1955, 1952, 1946, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
213 E COMMONWEALTH AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1952, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
214 E WALNUT AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1921, 1920
214 S POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
215 COMMONWEALTH AVE E	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1961, 1955, 1952, 1946, 1941, 1936, 1930, 1926, 1925, 1921, 1920
215 E COMMONWEALTH AVE	2014, 2010, 2005, 2002, 2001, 1997, 1992, 1991, 1971, 1965, 1961, 1960, 1956, 1952, 1950, 1945, 1936, 1930, 1926, 1925, 1922, 1921, 1920

FINDINGS

Address Researched	Address Not Identified in Research Source
215 E Commonwealth Ave	2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
215 E SANTA FE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
215 E SANTA FE AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1971, 1966, 1965, 1961, 1960, 1956, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1921, 1920
215 S POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1921, 1920
215 SANTA FE AVE E	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1955, 1952, 1946, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
216 COMMONWEALTH AVE E	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1961, 1960, 1955, 1952, 1946, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
216 E COMMONWEALTH AVE	2014, 2010, 2005, 2002, 2001, 1997, 1992, 1971, 1965, 1961, 1960, 1956, 1952, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
216 E Commonwealth Ave	2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
216 E WALNUT AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1921, 1920
216 S POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
217 E SANTA FE AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1952, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
217 S POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1952, 1945, 1941, 1936, 1930, 1926, 1925, 1921, 1920
217 SANTA FE AVE E	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1955, 1952, 1946, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
218 COMMONWEALTH AVE E	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1961, 1955, 1952, 1946, 1941, 1936, 1930, 1926, 1925, 1921, 1920
218 E COMMONWEALTH AVE	2014, 2010, 2005, 2002, 2001, 1997, 1992, 1986, 1980, 1975, 1971, 1965, 1961, 1960, 1956, 1952, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
218 E Commonwealth Ave	2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
218 E WALNUT AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1921, 1920
218 S POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1921, 1920

FINDINGS

Address Researched	Address Not Identified in Research Source
219 COMMONWEALTH AVE E	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1961, 1955, 1952, 1946, 1941, 1936, 1930, 1926, 1925, 1921, 1920
219 E COMMONWEALTH AVE	2014, 2010, 2005, 2002, 2001, 1997, 1992, 1971, 1965, 1961, 1960, 1956, 1952, 1945, 1936, 1930, 1926, 1925, 1922, 1921, 1920
219 E Commonwealth Ave	2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
219 E SANTA FE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
219 E SANTA FE AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
219 S POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1921, 1920
219 SANTA FE AVE E	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1955, 1952, 1946, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
220 COMMONWEALTH AVE E	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1961, 1955, 1952, 1946, 1941, 1936, 1930, 1926, 1925, 1921, 1920
220 E COMMONWEALTH AVE	2014, 2010, 2005, 2002, 2001, 1997, 1992, 1971, 1965, 1961, 1960, 1956, 1955, 1952, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
220 E COMONN WEALTH AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
220 S HARBOR BLVD	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
220 S POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1921, 1920
221 E SANTA FE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
221 E SANTA FE AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1975, 1971, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1921, 1920
221 S POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1952, 1950, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
222 S POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1952, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1921, 1920
223 COMMONWEALTH AVE E	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1955, 1952, 1946, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
223 E COMMONWEALTH AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920

FINDINGS

Address Researched	Address Not Identified in Research Source
223 E SANTA FE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
223 E SANTA FE AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1971, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
223 S POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
223 SANTA FE AVE E	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
224 COMMONWEALTH AVE E	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1961, 1955, 1952, 1946, 1941, 1936, 1930, 1926, 1925, 1921, 1920
224 E COMMONWEALTH AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1952, 1946, 1945, 1936, 1930, 1926, 1925, 1922, 1921, 1920
224 E Commonwealth Ave	2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
224 E WALNUT AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1921, 1920
224 S POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1952, 1945, 1941, 1936, 1930, 1926, 1925, 1921, 1920
225 COMMONWEALTH AVE E	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1961, 1955, 1952, 1946, 1941, 1936, 1930, 1926, 1925, 1921, 1920
225 E COMMONWEALTH AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1975, 1971, 1965, 1961, 1960, 1956, 1952, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
225 E SANTA FE AVE	2014, 2010, 2005, 2002, 2001, 1997, 1992, 1986, 1971, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
225 E Santa Fe Ave	2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
226 E WALNUT AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1921, 1920
226 S POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
227 E SANTA FE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
227 E SANTA FE AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1966, 1965, 1961, 1960, 1956, 1952, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
227 S POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920

FINDINGS

Address Researched	Address Not Identified in Research Source
227 SANTA FE AVE E	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1955, 1952, 1946, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
228 COMMONWEALTH AVE E	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1961, 1955, 1952, 1946, 1941, 1936, 1930, 1926, 1925, 1921, 1920
228 E COMMONWEALTH AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1971, 1965, 1961, 1960, 1956, 1952, 1945, 1936, 1930, 1926, 1925, 1922, 1921, 1920
228 E WALNUT AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1921, 1920
228 S POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1952, 1950, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
229 COMMONWEALTH AVE E	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1921, 1920
229 E Commonwealth Ave	2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
229 E SANTA FE AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
229 S POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1952, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
231 E SANTA FE AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1971, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
231 S POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1952, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
232 COMMONWEALTH AVE E	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
232 S POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1921, 1920
232 SANTA FE AVE E	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
233 COMMONWEALTH AVE E	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1961, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1921, 1920
233 E COMMONWEALTH AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1986, 1971, 1965, 1961, 1960, 1956, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
233 E Commonwealth Ave	2014, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
233 S POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1921, 1920

FINDINGS

Address Researched	Address Not Identified in Research Source
234 COMMONWEALTH AVE E	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1961, 1955, 1952, 1946, 1941, 1936, 1930, 1926, 1925, 1921, 1920
234 E COMMONWEALTH AVE	2014, 2010, 2005, 2002, 2001, 1997, 1992, 1971, 1965, 1961, 1960, 1956, 1952, 1946, 1945, 1936, 1930, 1926, 1925, 1922, 1921, 1920
234 E Commonwealth Ave	2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
234 S POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1952, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1921, 1920
235 E COMMONWEALTH AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
235 E SANTA FE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
235 E SANTA FE AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1952, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
235 S POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1952, 1946, 1945, 1936, 1930, 1926, 1925, 1921, 1920
235 SANTA FE AVE E	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1955, 1952, 1946, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
236 COMMONWEALTH AVE E	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1946, 1941, 1936, 1930, 1926, 1925, 1921, 1920
236 E WALNUT AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1921, 1920
236 S POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1945, 1941, 1936, 1930, 1926, 1925, 1921, 1920
236 Soco Dr	2014, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
237 COMMONWEALTH AVE E	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1921, 1920
237 E SANTA FE AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1921, 1920
237 E WALNUT AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1945, 1936, 1930, 1926, 1925, 1922, 1921, 1920
239 S POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1952, 1945, 1941, 1936, 1930, 1926, 1925, 1921, 1920
240 E WALNUT AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1921, 1920

FINDINGS

Address Researched	Address Not Identified in Research Source
240 S POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1921, 1920
241 COMMONWEALTH AVE E	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1955, 1952, 1946, 1941, 1936, 1930, 1926, 1925, 1921, 1920
241 E COMMONWEALTH	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
241 E COMMONWEALTH AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1952, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
241 S POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1921, 1920
242 COMMONWEALTH AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
242 COMMONWEALTH AVE E	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1961, 1955, 1952, 1946, 1941, 1936, 1930, 1926, 1925, 1921, 1920
242 E Commonwealth Ave	2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
242 E COMMONWEALTH AVE	2014, 2010, 2005, 2002, 2001, 1997, 1992, 1971, 1965, 1961, 1960, 1956, 1952, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
244 COMMONWEALTH AVE E	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1955, 1952, 1946, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
244 E COMMONWEALTH AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1952, 1950, 1946, 1945, 1936, 1930, 1926, 1925, 1922, 1921, 1920
244 S POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1952, 1945, 1941, 1936, 1930, 1926, 1925, 1921, 1920
245 S POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1952, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
246 COMMONWEALTH AVE E	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
250 E Santa Fe Ave	2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
250 Soco Dr	2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
251 E SANTA FE AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
251 S POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920

FINDINGS

Address Researched	Address Not Identified in Research Source
252 Soco Dr	2014, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
275 E Walnut Way	2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
276 Soco Dr	2014, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
280 Soco Dr	2014, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
286 Soco Dr	2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
300 S HARBOR BLVD	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
300 S POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1952, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
301 S HARBOR BLVD	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
302 District Ct	2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
303 Market Ct	2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
303 POMONA AVE S	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
303 S POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1945, 1941, 1936, 1930, 1926, 1925, 1921, 1920
304 S HARBOR BLVD	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
305 S HARBOR BLVD	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1971, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
307 S POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1921, 1920
309 Market Ct	2014, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
310 District Ct	2014, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920

FINDINGS

Address Researched	Address Not Identified in Research Source
310 S HARBOR BLVD	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
311 S POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1921, 1920
312 S POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
313 POMONA AVE S	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1961, 1955, 1952, 1946, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
313 S POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1992, 1971, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1921, 1920
314 S POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1921, 1920
315 S HARBOR BLVD	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
316 S HARBOR BLVD	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
319 S POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1921, 1920
320 S HARBOR BLVD	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
321 Market Ct	2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
323 S POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1952, 1945, 1941, 1936, 1930, 1926, 1925, 1921, 1920
325 Depot Ct	2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
325 S POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1952, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
326 Continental Ct	2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
326 Depot Ct	2014, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
329 Continental Ct	2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920

FINDINGS

Address Researched	Address Not Identified in Research Source
329 Gateway Ct	2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
329 S POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1921, 1920
330 Gateway Ct	2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
330 S POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
333 S POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1921, 1920
336 District Ct	2014, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
336 S POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1952, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
337 S POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1952, 1945, 1941, 1936, 1930, 1926, 1925, 1921, 1920
341 S POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1952, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
342 S POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
344 S POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
346 S POMONA AVE	2014, 2010, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
350 District Ct	2014, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920
351 Market Ct	2014, 2005, 2002, 2001, 1997, 1995, 1992, 1991, 1986, 1980, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1946, 1945, 1941, 1936, 1930, 1926, 1925, 1922, 1921, 1920

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
120 E Santa Fe Avenue	2014, 2010, 2005, 2002, 2001, 1997, 1992, 1991, 1986, 1971, 1965, 1961, 1952, 1946, 1936, 1930, 1926, 1925, 1922, 1921, 1920

- **FEMA Flood Map**
- **User Questionnaire**

Appendix E

NOTES TO USERS

ap is for use in administering the National Flood Insurance Program. It t necessarily identify all areas subject to flooding, particularly from local e sources of small size. The **community map repository** should be d for possible updated or additional flood hazard information.

in more detailed information in areas where **Base Flood Elevations** and/or **floodways** have been determined, users are encouraged to consult d Profiles and Floodway Data and/or Summary of Stillwater Elevations ontained within the Flood Insurance Study (FIS) report that accompanies M. Users should be aware that BFEs shown on the FIRM represent l whole-foot elevations. These BFEs are intended for flood insurance urposes only and should not be used as the sole source of flood n information. Accordingly, flood elevation data presented in the FIS should be utilized in conjunction with the FIRM for purposes of tion and/or floodplain management.

Base Flood Elevations shown on this map apply only landward of n American Vertical Datum of 1988 (NAVD 88). Users of this FIRM should e that coastal flood elevations are also provided in the Summary of Elevations tables in the Flood Insurance Study report for this jurisdiction. s shown in the Summary of Stillwater Elevations tables should be used for ion and/or floodplain management purposes when they are higher than tions shown on this FIRM.

es of the **floodways** were computed at cross sections and interpolated cross sections. The floodways were based on hydraulic considerations rd to requirements of the National Flood Insurance Program. Floodway nd other pertinent floodway data are provided in the Flood Insurance port for this jurisdiction.

areas not in Special Flood Hazard Areas may be protected by **flood structures**. Refer to Section 2.4 "Flood Protection Measures" of the surance Study report for information on flood control structures for this n.

jection used in the preparation of this map was Universal Transverse (UTM) Zone 11. The **horizontal datum** was NAD 83, GRS80 spheroid. es in datum, spheroid, projection or UTM zones used in the production of r adjacent jurisdictions may result in slight positional differences in map across jurisdiction boundaries. These differences do not affect the of this FIRM.

vations on this map are referenced to the North American Vertical Datum These flood elevations must be compared to structure and ground s referenced to the same **vertical datum**. For information regarding on between the National Geodetic Vertical Datum of 1929 and the merican Vertical Datum of 1988, visit the National Geodetic Survey at http://www.ngs.noaa.gov or contact the National Geodetic Survey at ving address:

rmation Services
/NGS12
Geodetic Survey
#9202
st-West Highway
ring, Maryland 20910-3282
3-3242

n current elevation, description, and/or location information for **bench shown on this map, please contact the Information Services Branch National Geodetic Survey at (301) 713-3242**, or visit its website at w.ngs.noaa.gov.

ap information shown on this FIRM was derived from the National re Imagery Program, dated 2005.

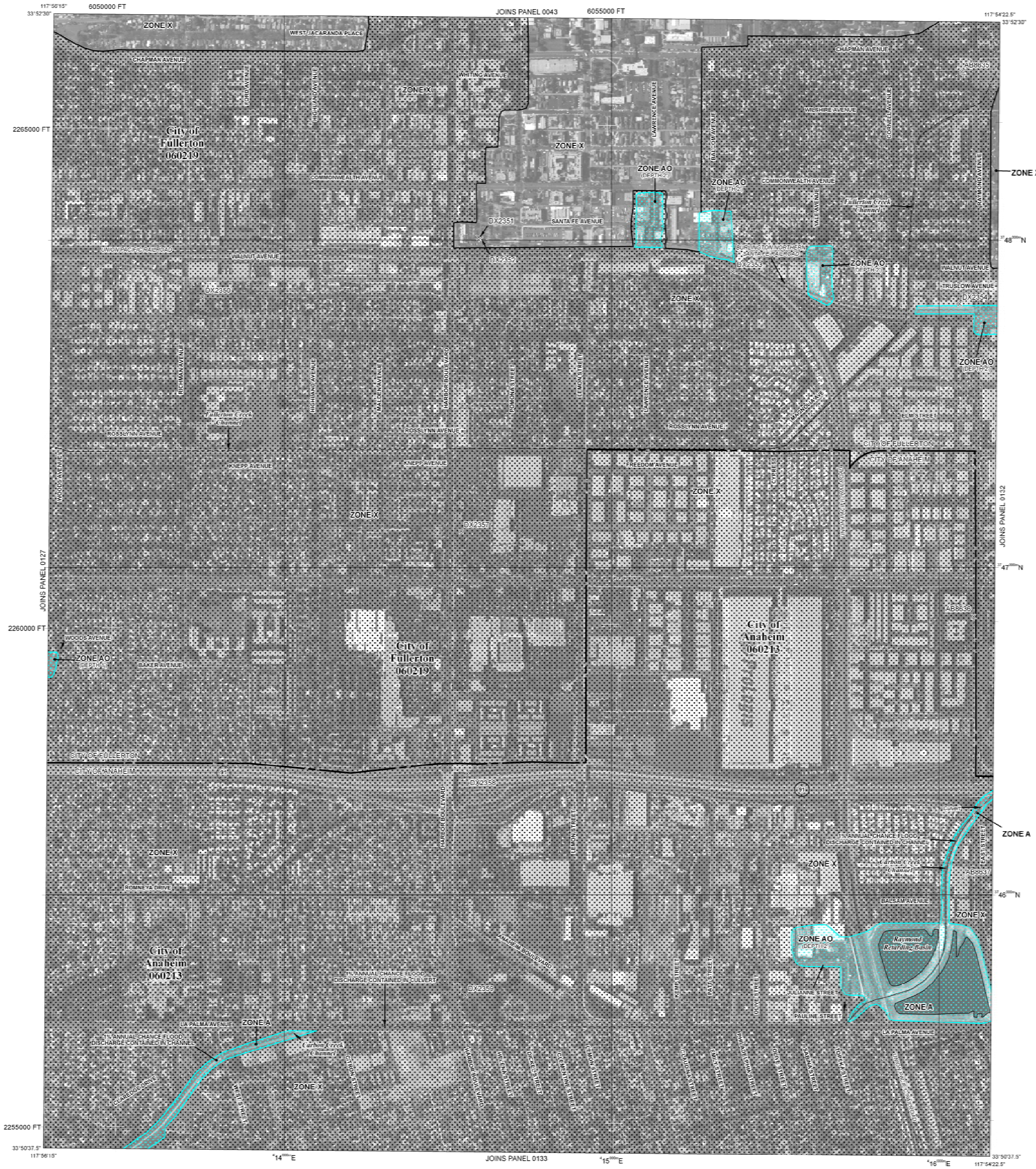
o reflects more detailed and up-to-date **stream channel configurations** se shown on the previous FIRM for this jurisdiction. The floodplains and s that were transferred from the previous FIRM may have been adjusted m to these new stream channel configurations. As a result, the Flood and Floodway Data tables in the Flood Insurance Study Report (which authoritative hydraulic data) may reflect stream channel distances that n what is shown on this map.

te limits shown on this map are based on the best data available at the ublication. Because changes due to annexations or de-annexations may urred after this map was published, map users should contact appropriate ty officials to verify current corporate limit locations.

efer to the separately printed **Map Index** for an overview map of the howing the layout of map panels; community map repository addresses; sting of Communities table containing National Flood Insurance Program r each community as well as a listing of the panels on which each ty is located.

the **FEMA Map Service Center** at 1-800-358-9616 for information on products associated with this FIRM. Available products may include y issued Letters of Map Change, a Flood Insurance Study report, and/or rsions of this map. The FEMA Map Service Center may also be reached : 1-800-358-9620 and its website at http://msc.fema.gov.

ve **questions about this map** or questions concerning the National Flood e Program in general, please call **1-877-FEMA MAP** (1-877-336-2627) or FEMA website at http://www.fema.gov.



LEGEND

SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUND BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual flood (100-year flood), also known as the base flood, is the flood that h chance of being equaled or exceeded in any given year. The Special Flood Hazard Are area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water elevation of the 1% annual chance flood.

ZONE A	No Base Flood Elevations determined.
ZONE AE	Base Flood Elevations determined.
ZONE AH	Flood depths of 1 to 3 feet (usually areas of ponding); Bas Elevations determined.
ZONE AO	Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); depths determined. For areas of alluvial fan flooding, velocit determined.
ZONE AR	Special Flood Hazard Area formerly protected from the 1% annua flood by a flood control system that was subsequently decertified. indicates that the former flood control system is being restored to protection from the 1% annual chance or greater flood.
ZONE A99	Area to be protected from 1% annual chance flood by a Fede protection system under construction; no Base Flood El determined.
ZONE V	Coastal flood zone with velocity hazard (wave action); no Bas Elevations determined.
ZONE VE	Coastal flood zone with velocity hazard (wave action); Bas Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be k of encroachment so that the 1% annual chance flood can be carried without substantial in in flood heights.

OTHER FLOOD AREAS

ZONE X	Areas of 0.2% annual chance flood; areas of 1% annual chance fl average depths of less than 1 foot or with drainage areas le 1 square mile; and areas protected by levees from 1% annual chanc

OTHER AREAS

ZONE X	Areas determined to be outside the 0.2% annual chance floodplain.
ZONE D	Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Area

1% annual chance floodplain boundary

0.2% annual chance floodplain boundary

Floodway boundary

Zone D boundary

CBRS and OPA boundary

Boundary dividing Special Flood Hazard Area Zon boundary dividing Special Flood Hazard Areas of differ Flood Elevations, flood depths or flood velocities.

~~~ 513 ~~~ Base Flood Elevation line and value; elevation in feet*

(EL 987) Base Flood Elevation value where uniform within zone; e in feet*

* Referenced to the North American Vertical Datum of 1988

(A)——(A) Cross section line

(23)- - - -(23) Transect line

87°07'45", 32°22'30" Geographic coordinates referenced to the North Am Datum of 1983 (NAD 83), Western Hemisphere

$^{24}76^{000m}$N 1000-meter Universal Transverse Mercator grid values, zo NAD 1983 UTM Zone 11N

600000 FT 5000-foot grid ticks: California State Plane coordinate system, zone VI (FIPSZONE 0406), Lambert Conformal C projection

DX5510 x Bench mark (see explanation in Notes to Users section o FIRM panel)

•M1.5 River Mile

MAP REPOSITORY
Refer to listing of Map Repositories on Map Index

EFFECTIVE DATE OF COUNTYWIDE
FLOOD INSURANCE RATE MAP
September 15, 1989

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL
February 5, 1992 - November 3, 1993 - January 3, 1997 - February 18, 2004 - December 3, for description of revisions, see Notice to Users page in the Flood Insurance Study report.

For community map revision history prior to countywide mapping, refer to the Com Map History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your I agent or call the National Flood Insurance Program at 1-800-638-6620.

N

MAP SCALE 1" = 500'

250 0 500 1000 FEET

150 0 150 300 METERS

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0131J

FIRM

FLOOD INSURANCE RATE

ORANGE COUNTY, CALIFORNIA
AND INCORPORATED AREAS

PANEL 131 OF 539

(SEE MAP INDEX FOR FIRM PANEL LA

CONTAINS:

COMMUNITY	NUMBER	PANEL
ANAHEIM, CITY OF	060213	0131
FULLERTON, CITY OF	060219	0131

Notice to User: The **Map Number** shown below used when placing map orders; the **Communi** shown above should be used on insurance applica subject community.

MAP NU
06059

MAP RE
DECEMBER

Federal Emergency Management
~~~

Phase I Environmental Site Assessment – USER Questionnaire

The following questionnaire is provided by Terradyne Engineering, Inc. (Terradyne) in order to complete a Phase I Environmental Site Assessment (Phase I ESA) of the referenced "Subject Property" identified below. This questionnaire has been provided to the USER (client and assigns) for completion of the Phase I ESA report in general accordance with the ASTM International Standard E1527-13. In the event that this questionnaire is not completed by the USER, it will be documented in the Phase I ESA report.

Subject Property Description:

Site Name: Fullerton Transportation Center- New ground up hotel and parking garage

Site Address: 120 E Santa Fe Avenue (Southwest areas of E. Santa Fe Ave & Lemon St)

City: Fullerton, Orange County **State:** CA **Zip Code:** 92832

(Addressed as 120-210 E Santa Fe in prior Phase I; Project address 212 E. Santa Fe)

APN would be 033-030-17/033-030-18

User/User Representative Information:

USER Company Name:	City of Fullerton
Name of the Person Completing this Questionnaire on behalf of the USER:	Heather Allen
Affiliation of Person Completing this Questionnaire with the USER:	Community Development Dept.
Address of Person Completing this Questionnaire:	303 W Commonwealth Ave.
	714-738-6884
Phone Number and/or Email of Person Completing this Questionnaire:	heathera@cityoffullerton.com
Signature of Person Completing this Questionnaire:	Heather Allen
Date of Completion of this Questionnaire:	7/18/19

Directions: Please answer all of the following questions to the best of your knowledge and in good faith. Mark the column corresponding to the appropriate response. Additional details necessary to explain any yes or unknown responses should be provided in the "Comments" column or attached to this document as necessary. Note that *"UK"* indicates *"Unknown"*.

	QUESTION	RESPONSE			COMMENTS
		Y	N	UK	
1	Is the USER aware of any pending, threatened or past litigation relative to hazardous substances or other environmental concerns in, on or related to the Subject Property?		✓		
2	Is the USER aware of any pending, threatened or past administrative proceedings relative to hazardous substances or other environmental concerns in, on or related to the Subject Property?			✓	
3	Is the USER aware of any notices from government agencies regarding violations or citations pertinent to environmental laws or possible relation to hazardous substances or petroleum products regarding the Subject Property?			✓	
4	Is the USER aware of any environmental related leans against the Subject Property?		✓		Nothing on title report
5	Is the USER aware of any activity or use limitations, such as engineering controls, land use restrictions, or institutional controls that are in place at the Subject Property and/or that have been filed under a regulatory registry?		✓		↓
6	Does the USER of this ESA have any specialized knowledge or experience related to the Subject Property or nearby sites pertaining to the environmental quality of the Subject Property or nearby sites?				Please see Phase I Site Assessment for Fullerton Transp Cntr.
7	To the best knowledge of the USER, does the purchase price reasonably reflect the fair market value (FMV) of the Subject Property?			✓	
7A	If the FMV is lower than the purchase price, is the USER aware of any environmental issues such as contamination, litigation, or land use restrictions that have impacted the FMV of the Subject Property?			✓	
8	Is the USER aware of any past uses of the Subject Property that may have adversely impacted the environmental conditions?				Please see Phase I Site Assessment
9	Is the USER aware of any specific current or past bulk chemical or hazardous material storage on the Subject Property that may have adversely impacted the environmental conditions?				dated 24 July 2009 for the Fullerton Transportation Center
10	Is the USER aware of any spills or releases of chemicals or hazardous materials on the Subject Property?				regarding site's history
11	Is the USER aware of environmental cleanup/remediation or investigations on the Subject Property?				↓
12	Is the USER aware of any issues that indicate a potential for environmental concerns at the Subject Property?				↓

The following documentation should be attached to this completed questionnaire as available:

Previously provided by Parkwest/Plump for City of Fullerton

Environmental site assessment reports (i.e., Phase I, Phase II, tank testing results, radon, lead paint, or asbestos testing, etc.)
Environmental compliance audit reports; risk assessments; and recorded Activity and Use Limitations (AULs)
Environmental permits (i.e., solid waste disposal, hazardous waste disposal, wastewater, NPDES, underground injection, etc.)
Registrations for underground storage tanks (USTs) and aboveground storage tanks (ASTs)
Registrations for underground injection systems
Material safety data sheets
Community right-to-know plan
Safety plans; preparedness and prevention plans; spill prevention, countermeasure, and control plans, etc
Reports regarding hydrogeological or geotechnical conditions on the property and surrounding area
Notices/correspondence from any agency relating to past/current violations of environmental laws, or liens encumbering the property
Hazardous waste generator notices or reports
Other:

Permits available for inspection at City of Fullerton where applicable.

Thank you for your time in completing this questionnaire. Feel free to contact us with any questions or comments.

Appendix F

Phase II Environmental Site Assessment

TERRADYNE
Engineers, Geologists & Environmental Scientists

PHASE II ENVIRONMENTAL SITE CHARACTERIZATION REPORT

Fullerton Transportation Center
120-240 E Santa Fe Ave
Fullerton, Orange County, CA 92832

Prepared For:

PLUMP ENGINEERING, INC.
914 E. Katella Avenue
Anaheim, CA 92805
Phone: 714-385-1835 Ext.209
Cell: 714-852-9991
Fax: 714-385-1834
Email: rfrei@peica.com
www.peica.com

Prepared By:

TERRADYNE, ENGINEERING, INC.
2691 Dow Ave, Suite F
Tustin, CA 92780

Terradyne Project No. L194004

December 4, 2019

TERRADYNE
Engineers, Geologists & Environmental Scientists

Terradyne Engineering, Inc.
2691 Dow Avenue, Suite F
Tustin, CA 92780
Office: 657-212-5800
www.terradyne.com

December 4, 2019

PLUMP ENGINEERING, INC.
914 E. Katella Avenue
Anaheim, CA 92805
Phone: 714-385-1835 Ext.209
Cell: 714-852-9991
Fax: 714-385-1834
Email: rfrei@peica.com
www.peica.com

Attn: **Mr. Richard Frei**
Director of Surveying / Business Development

Subject: **PHASE II ENVIRONMENTAL SITE CHARACTERIZATION REPORT**
Fullerton Transportation Center - New ground up hotel and parking garage at:
120-240 E Santa Fe Avenue (APN 033-030-14/17/18)
Fullerton, Orange County, CA 92832
Terradyne Project No.: L194003

Dear Mr. Frei,

Terradyne Engineering, Inc. (Terradyne) is pleased to submit the attached report that summarizes the activities and the results of a Phase II Environmental Site Characterization Study (Phase II ESA) that was conducted at the referenced site (Property). The subsurface investigation was performed on site Tuesday November 19.

We do not believe that any further action is required.

We appreciate the opportunity to be of service. Should you have any questions or comments regarding this report, please contact the undersigned at 657-212-5800.

Respectfully Submitted,
TERRADYNE ENGINEERING, INC.

Kurt C. A. Brown, PE (FL)
Branch Manager

Distribution: Addressee PDF

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- City of Fullerton Drilling Access Permit

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- Soil Boring Location Map

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- Laboratory Chain of Custody Form

APPENDIX E

- Laboratory Results

1.0 Introduction

Terradyne Engineering Inc. was retained by Plump Engineering Inc. to perform a limited Phase II Environmental Study in accordance with an upcoming development project on the site.

The property is currently used as a parking area for people travelling or commuting from the Metrolink/AMTRAK station at the southwestern side of the parcel. It has been used as such since approximately 2002.

The site is located at 120-240 E. Santa Fe Ave in Fullerton, CA. It is bordered on the north by Santa Fe Ave. The east side of the property is bordered by an automotive repair shop (Terry's Automotive). The property is bordered to the south by BNSF railroad right of way and tracking the Fullerton Railroad Museum, and the Fullerton Train Station and annex. To the west of the property there is a restaurant (Old Spaghetti Factory) and a parking area for the restaurant. The area of the parcel slated for development is almost three acres.

The parcel number of the site is (033-030-14/17/18) and the GPS coordinated are 33.8693 N and 117.9208 W. The site is located at an elevation of 163 feet above sea level. Depth to groundwater is approximately 65 feet bgs.

The subject property is primarily flat with paved asphalt for vehicle parking. There is a cul de sac from Pomona Ave. that roughly splits the parcel and provides entry into the parking areas and exit onto Santa Fe Ave. There is also a drop off are for people riding the train. The westernmost portion of the property contains a bus stop with a roundabout for the busses to return to Santa Fe Ave.

This report is for the sole benefit and exclusive use of Plump Engineering. Its preparation has been in accordance with generally accepted environmental practices. No other warranty, either expressed or implied, is made. This report should not be regarded as a guarantee that no further contamination beyond that which could be detected within the scope of this study is present at the Property.

The conclusions and recommendations presented in this report are based on the agreed upon scope of work. Terradyne makes no warranties or guarantees as to the accuracy or completeness of information provided or compiled by others. It is possible that information exists beyond the scope of this study It is not possible to absolutely confirm that no hazardous materials and/or substances exist at the Property. If none are identified as part of a limited scope of work, such a conclusion should not be construed as a guaranteed absence of such materials, but merely the results of the evaluation. Also, events may occur after the environmental study, which may result in contamination of the Property. Additional information, which was not found or available to Terradyne at the time of report preparation,

may result in a modification of the conclusions and recommendations presented. Any reliance on this report by Third Parties shall be at the Third Party's sole risk.

2.0 Background

Terradyne Engineering Inc. performed a Phase I Environmental Site Assessment on the property in August 2019. The purpose was to identify and recognized environmental conditions (RECs), and past used of the property.

During the Phase I Environmental Assessment, it was discovered that site formerly contained a waste oil tank and an underground storage tank that was used to store gasoline. The gasoline tank had leaked and remediation was performed by removing the contaminated soil. The site was considered closed (no further action needed) in 1997.

Due to the fact that the site as been in use for industrial activities for almost 100 years, it was proposed to perform a limited Phase II Environmental Study near the Railroad Museum and the former loading dock area of the railroad station to determine if the subsurface area had been impacted.

3.0 Site Geology

Geologic data obtained from previous environmental investigations conducted at the adjacent property by Wayne Perry, Inc. (WPI) indicate that the FTC Development Area is generally underlain with layers of sandy silt, clayey silt, silty clay, fine- to medium-grained silty sand, and sand (WPI, 2004). A discontinuous (Geraghty & Miller, 1992) or continuous (Chester, 1993) clay of variable thickness is encountered between 66 and 75 feet below ground surface (bgs) in this area. Geraghty & Miller reported that perched groundwater beneath the adjacent property is separated from the regional aquifer by a 60-foot thick, relatively impervious, unsaturated zone between 69 and 129 feet bgs (Geraghty & Miller, 1992). It has also been reported that the shallow groundwater beneath the adjacent site is separated from the regional aquifer by a laterally continuous aquiclude (Geraghty & Miller, 1994). However, further studies by Chester Environmental (Chester) conclude that this aquiclude contains several layers of sandy soil (Chester, 1993).

Groundwater was encountered during drilling operations conducted in the northeastern area of the property. The depth to groundwater is approximately 63-65 feet below ground surface. Based on related information, the encountered groundwater appears to have been a perched water table with the main water table substantially deeper (i.e. >100')

The subject site is in Zone X (Area of minimal flood hazard). A Letter of Map Revision (LOMR) is FEMA's modification to an effective Flood Insurance Rate Map (FIRM), or Flood Boundary and Floodway Map (FBFM), or both. Because a LOMR officially revises the effective NFIP map, it is a public record that the community must maintain.

The flood map for the selected area is number **06059C0131J**, effective on **12/03/2009.**

4.0 Pre-Field Activities

The following pre-field activities were conducted prior to the soil boring field work.

Terradyne Engineering Inc. contacted Dig Alert ten days before drilling operations were to commence in order to obtain utility clearance in the proposed soil boring locations. The Dig Alert Ticket number is B1930880539. The participating utility companies marked the locations of any buried infrastructure. It was determined that the boring locations were clear of underground obstacles.

In addition, permits were obtained from the City of Fullerton for right of way access and soil boring. The permit number is ENG-2019-0480. The representative for the city is Mr. Danny Perez from Public Works. A copy of the permit is enclosed in Appendix A.

5.0 Sampling Activities

On November 19, 2019, Kehoe Testing and Engineering, under the supervision of a qualified representative of Terradyne, performed two soil borings on the property using a hydraulic direct push rig (Geoprobe 7800). A map of the soil boring locations is included in Appendix B. The first boring was located near the Fullerton Railroad Museum and was drilled to a depth of 40 feet. Samples were taken every 5 feet. The second soil boring was located near the former loading dock for the train station and was drilled to a depth of 30 feet. Samples were taken every 5 feet as well.

Each soil boring was characterized for lithology and the data was entered on to soil boring logs (Appendix C). In addition soil samples were screened on site using a PID (Photo Ionization Detector) to monitor the soil vapor for the presence of hydrocarbons. Hydrocarbons vapors were not discovered in any significant amount during the PID screening process.

A total of 14 soil samples were collected during the drilling operations. The samples were transported to Chemtek Environmental Laboratories in Santa Fe Springs, CA using standard chain of custody procedures. The chain of custody form is located in Appendix

D Using the PID screening as a guide, 8 samples were analyzed for full VOCs using Method 8260B. In addition, 2 sampled were analyzed for total petroleum hydrocarbons (TPH) using Method 8015M. There are 6 additional samples that were placed on hold with the laboratory that can also be analyzed if conditions warrant this. Based on the laboratory results shown below, we do not believe that additional analysis will be required.

6.0 Laboratory Results

One sample from each boring was analyzed for Total Petroleum Hydrocarbons using Method 8015B. The samples were both taken from 10 ft. bgs. Both samples resulted in a non-detect reading with a detection limit of 0.2 ppm.

The remaining 8 samples were analyzed for total VOCs using method 8260B. All of the samples showed up non detect except for one sample (B1 @10 feet). Tetrachloroethene (PCE) was detected at 3 ppb (parts per billion). We believe this to be an anomaly as there were no other samples that were detected any of the 70 other VOCs tested for during the laboratory analysis.

The complete laboratory analysis is shown in Appendix ?

7.0 Conclusions and Recommendations

Terradyne has performed a Phase II Environmental Site Characterization Study in general conformance with the scope and limitations of ASTM Practice E1527-13. Any exceptions to or deletions from this practice are described in the Limitations and Exceptions of Assessment section of this report.

Terradyne recommends that no further action is required. The results from the soil testing show that there are no environmental issues that were caused by railroad operations at the site, which was the purpose of this study.

8.0 Deviations and Limitations

There were no deviations, deletions or limitations from the ASTM standard practice during this Phase II study.

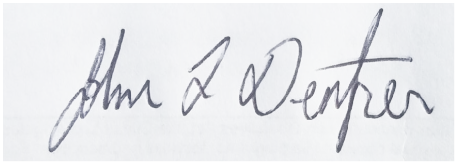
9.0 Additional Non-Scope Services

There are environmental issues outside the scope of the ASTM E1527-13 that can be assessed in connection with a commercial real estate transaction. These are dealt with as non-scope considerations since they do not typically present a Superfund Liability. The specific level of inquiry (if any) is defined in the Proposal which contains a Scope of Work. These non-scope services are very client specific and not covered by the ASTM standard. They are frequently related to the business environmental risk which is defined in the standard as "risk which can have a material environmental or environmentally-driven impact on the business associated with the current or planned use of a parcel of commercial real estate"

10.0 Signature of Environmental Professional

I declare that, to the best of our professional knowledge and belief, I meet the definition of *Environmental Professional* as defined in §312.10 of 40 CFR 312.

I have the specific qualifications based on education, training and experience to assess a *property* of the nature, history, and setting of the *subject property*. I have developed and performed the all appropriate inquiries in conformance with the standard and practices set forth in 40 CFR Part 312.



John L. Dentzer
Environmental Professional
Senior Engineer

11.0 Selected References

Environmental Data Resources., Inc. (EDR), Inquiry Number: 5652379.2s May 14, 2019
Target Property Address: 120 E Santa Fe Avenue Fullerton, CA 92832

Phase I Environmental Site Assessment (ESA) by Kennedy /Jenks Consultants
dated July 24, 2009, K/J Project No. 0783022

Department of Toxicology
Johnson, Julie@DTSC Julie.Johnson@dtsc.ca.gov

City of Fullerton - Egli, Ryan@CalRecycle Ryan.Egli@calrecycle.ca.gov
Ramona Castaneda ramonac@ci.fullerton.ca.us

County of Orange
noreply@salesforce.com on behalf of myOC eServices Email noreply-myoceservices@ocgov.com
Wed 5/15/2019 3:51 PM

County of Orange, Service Request Tracking Information, Service Request Case Number: OC19-019978
The service request case number can be used to track the status on myOC eServices
(https://myoceservices.ocgov.com)

Environmental Protection Agency (EPA) Final Disposition, Request EPA-HQ-2019-005879
foia_hq@epa.gov

Cal Recycle
Egli, Ryan@CalRecycle Ryan.Egli@calrecycle.ca.gov

California Department of Fish and Wildlife South Coast – Region 5
Wildlife Ask R5 AskR5@wildlife.ca.gov Wed 5/15/2019 3:37 PM

Regional EPA office for assistance http://www2.epa.gov/aboutepa/forms/contact-epa pacific-southwest,

California Environmental Protection Agency (CalEPA)
https://calepa.ca.gov/

State Water Resources Control Board, Storm Water Section Division of Water Quality
WB-RB8-FileReview8 FileReview8@waterboards.ca.gov

stormwater@waterboards.ca.gov 1-866-563-3107

State of California Water Board GEOTRACKER
http://geotracker.waterboards.ca.gov/map

California Geological Survey (CGS)
https://maps.conservation.ca.gov/cgs/EQZApp/app

Google Earth Pro®, 2019, Version 7.3.1.4507.

Appendix A

CITY OF FULLERTON
ENGINEERING DEPARTMENT
GENERAL ENGINEERING SERVICES DIVISION
PUBLIC R/W EXCAVATION, CONSTRUCTION, & ENCROACHMENT
APPLICATION AND PERMIT

Permit No. ENG-2019-0480

CITY OF FULLERTON
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION
NOV 18 2019
PAID

Applicant Kurt Brown, Terradyne — Phone (714) 604-8387
Address 2691 Dow AVE, Ste F — City Tustin — State CA — ZIP 92780
Contractor — Phone
Address — City — State — ZIP
Address/Location of Work 120 E SANTA FE AVE
Description of Work Occupy City Right-of-Way to bore (2) locations for environmental soil investigation to maximum 40 foot depth. Must notify train station's conductors office a minimum of 7 day in advance. Post for temporary no parking a minimum of 48 hours in advance. Traffic control per W.A.T.C.H Manual. Wk Hrs: 8:30 am - 3:30pm. Coordinate inspection with Pete Acosta 714-738-6871.

THIS APPLICATION BECOMES A PERMIT WHEN APPROVED AND VALIDATED.

Plan/File No. _____ Starting Date 11/14/2019 Project File No. _____

FEES		ACCOUNT NO.'s	T/C
Permit Issuance~2020	$52.00	GL-10322-4280	(2020)
PW Permit Inspection, fixed ~2404	$252.00	GL-10324-4260	(2404)
PW Permit Plan Check~2010	$70.00	GL-10322-4260	(2010)
Total	$374.00		

APPLICATION APPROVED
By _____
Date 11/14/2019

PERMIT VOID UNLESS WORK COMPLETED BY 11/09/2020

For identification number, call UNDERGROUND SERVICE ALERT (Note 1 below)
Inquiry Identification number: _____
Note: Permit is not valid until this number is obtained.

THE UNDERSIGNED PERMITTEE/APPLICANT HEREBY CERTIFIES AND AGREES:

1. UNDERGROUND SERVICE ALERT AT 1-800-227-2600 shall be notified at least 2 working days in advance of any excavation and an Underground Service Alert Inquiry Identification Number shall be obtained from Underground Service Alert. CONTACTING U.S.A DOES NOT RELIEVE CONTRACTOR OF RESPONSIBILITY FOR LOCATING OR PROTECTING EXISTING UTILITIES.
2. A new permit shall be required in the event work is not completed prior to the expiration date. The City Engineer may extend the time limit of the permit due to excusable conditions.
3. The applicant shall make all arrangements and be responsible for the moving and protection of poles, hydrants, meters, trees, and othersurface and subsurface facilities that interfere with the work under this permit.
4. The applicant hereby guarantees all materials utilized and all work performed under this permit for a period of one year from the date of acceptance. Failures will be corrected within two weeks after notifications, to the satisfaction of the City Engineer.
5. Failure to comply with the terms and conditions hereon shall be grounds for cancellation of permit and rejection of all work.
6. I have read this application and all statements hereon are correct and complete. I agree to perform all work in accordance with the Standard Specifications for Public Works Construction on fie in the office of the City Engineer and with all applicable city ordinances and codes.

I HAVE READ AND UNDERSTAND ALL OF THE ABOVE: _____ (Applicant's Signature) 11/18/19 (Date)

PHONE INFORMATION	
Location of Utilities:	811 (Dig Alert)
City of Fullerton (Days)	738-6845
City of Fullerton (Nights)	738-8697
City of Fullerton (Police)	738-6700
City of Fullerton (Fire)	736-6122

APPLICANT SHALL CONTACT THE CITY INSPECTOR:

AT LEAST 24 HOURS PRIOR TO ANY WORK

THIS PERMIT WITH APPROVED PLANS MUST BE ON THE JOB AT ALL TIMES.

DATE — INSPECTION RECORD REMARKS

CERTIFICATE OF INSPECTION: I hereby certify that all the work allowed by this permit has been constructed according to the plans and specifications.

By _____ (Inspector's Signature) _____ (Date)

APPLICANT

FOR ARTERIAL STREETS

Contractor shall be limited to closing a maximum of one lane at a time between 8:30 a.m. and 3:30 p.m. on arterial streets with the exception being on Harbor Boulevard from Berkeley Avenue south to 91 Freeway which shall be between 8:30 a.m. and 11:30 a.m. and from 1:30 p.m. and 3:30 p.m. All lanes shall be open at all other times. A lighted solar panel arrow board is required before any lane may be closed. Lane closures shall be in accordance with the W.A.T.C.H. Manual and as shown on a City approved traffic control plan.

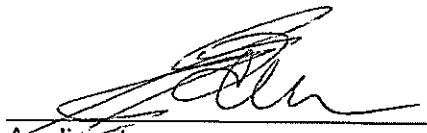
A $2,000 cash bond shall be posted to guarantee compliance with the hours set forth above and/or to pay for any clean-up or repair that the City finds necessary to have done due to the contractor's inattention or failure to correct the problem in a timely manner. Deduction for repair and/or clean-up shall be in the cost of the work plus the City's overhead.

Failure of the contractor to adhere to the lane closure limitations above will result in the City deducting from the contractor's deposit an assessment of $250.00 for every 15 minutes or a portion thereof for said non-compliance.

Open cut trench crossing on an arterial street is prohibited. Installation of all underground utilities shall be bored unless authorized otherwise in writing by the City Engineer. In the event written authorization is granted, contractor shall repave the street per City of Fullerton Standard Plan No. 312 or 313; method to be determined by the City. Failure of the contractor to adhere to these conditions may result in the forfeiture of the contractor's cash bond.

HOLD HARMLESS

The Applicant agrees to defend, indemnify, and hold harmless the CITY OF FULLERTON, its officers, agents, employees, and volunteers from all loss, cost, and expense arising out of any liability of claim of liability for personal injury, bodily injury to persons, contractual liability and damage to property sustained or claimed to have been sustained arising out of activities of the Applicant or those of any of its officers, agents, or employees, whether such act is authorized by this Agreement or not; and the Applicant shall pay for any and all damage to the property of the CITY OF FULLERTON, or loss of theft of such property, done or caused by such persons. The CITY OF FULLERTON assumes no responsibility whatsoever for any property placed on the premises. The Applicant further agrees to waive all rights of subrogation against the CITY OF FULLERTON. The provisions of this Article do not apply to any damage or loss caused solely by the negligence of the CITY OF FULLERTON or any of its agents or employees.



Applicant

11/18/19
Date

REFUNDABLE CASH DEPOSIT

To receive a refund of the cash deposit paid on this permit, you must request a final inspection and return your copy of the signed-off permit to the Engineering Department counter.

Applicant

Date

Appendix B



Legend:

B-1 **Boring No.**

Approximate Boring Location

N

NTS

Phase II Environmental Site Characterization Report Fullerton Transportation Center 120-240 E Santa Fe Fullerton, Orange County, CA 92832	**Terradyne LAX, Inc.**
	Approximate Boring Location Map (Google Earth Pro®)
	Terradyne Project No: L194004

Appendix C

LOG OF EXPLORATORY BORING

TERRADYNE Engineers Geologists & Environmental Scientists

Project No.: 194003
Project: Fullerton Transportation Center
Address: 120-240 E Santa Fe Av
Date: 11-17-19

Boring No: 1
Boring Location: End of Pomona Av 20' east
Groundwater: n/a
Drill Type: Geoprobe 7800

Sample Type: Undisturbed, Bulk

Thin Wall Tube; 2.5" Ring Sample; Bulk Sample; Standard Split Spoon Sample; Static Water Table

Depth in Feet	Soil Type	Undisturbed	Bulk	SOIL DESCRIPTION	Blows/foot	Moisture Content, %	Dry Density, pcf	% Heave	% Collaps	Other Tests
										PID ppm
5		✓		Dark Brown Clayey Sand no odor						0.1
10		✓		Dark Brown Fine Grain Silty Sand no odor						0.1
15		✓		Brown Fine Grain Silty Sand no odor						0
20		✓		Dark Brown Clay no odor						0
25		✓		Dark Brown Clayey Sand no odor						0
30		✓		Dark Brown Clay no odor						0
35		✓		Brown Color Sandy Clay no odor						0.3

Cont. next page

LOG OF EXPLORATORY BORING

TERRADYNE
Engineers, Geologists & Environmental Scientists

Project No. L 174003
Project: Fullerton Transportation Center
Address: 120-240 E Santa Fe Ave
Date: 11-19-19

Boring No: 1
Boring Location: End of Pavement 20' east
Groundwater: n/a
Drill Type: Geoprobe 7800

Depth in Feet	Soil Type	Sample Type: Undisturbed	Sample Type: Bulk	SOIL DESCRIPTION	Blows/foot	Moisture Content, %	Dry Density, pcf	% Heave	% Collaps	Other Tests
				■ Thin Wall Tube; ☒ 2.5" Ring Sample; ☑ Bulk Sample; ◫ Standard Split Spoon Sample; ▽ Static Water Table						PID reading ppm
40		✓		Dark Brown Clay no odor						0.1
				Cont. next page						

TerradyneLAX, Inc.

Plate ____ of ____

LOG OF EXPLORATORY BORING

TERRADYNE
Engineers, Geologists & Environmental Scientists

Project No. L194003
Project: Fullerton Transportation Center
Address: 120-240 E Santa Fe Av
Date: 11-17-19

Boring No: 2
Boring Location: Front of Loading Dock
Groundwater: n/a
Drill Type: Geoprobe 7800

Depth in Feet	Soil Type	Sample Type: Undisturbed	Sample Type: Bulk	SOIL DESCRIPTION	Blows/foot	Moisture Content, %	Dry Density, pcf	% Heave	% Collaps	Other Tests: PID Readings ppm
5		✓		Light Brown Sand no odor						0.3
10		/		Brown Silty Clay no odor						0.2
15		/		Dark Brown Silty Clay no odor						0
20		/		Dark Brown Silty Clay no odor						0.1
25				Brown Silty Clay no odor						0
30				Brown Color Fine Grain Sand no odor						0

Thin Wall Tube ■ | 2.5" Ring Sample ☒ | Bulk Sample ☒ | Standard Split Spoon Sample ▯▯ | Static Water Table ▽

Cont. next page

Appendix D

CHEMTEK Environmental Laboratories Inc.

13554 Larwin Circle, Santa Fe Springs, CA 90670

Tel. (562) 926-9848 FAX (562) 926-8324 Email: ChemtekLabs@hotmail.com

CA Dept of Health Accredited. (ELAP No. 1435) & Mobile Lab (ELAP No. 2629)

CHAIN OF CUSTODY RECORD

Job No.: 91105-5 (08-120 E Santa Fe)

Page: 1 of 1

CUSTOMER INFORMATION

COMPANY NAME: Terracore Engineering Inc

PROJECT CONTACT: Kurt Brown Email: KBrown@Terracore.com

ADDRESS: 2691 Dow Av E F Tustin 92780

PHONE: FAX:

PROJECT INFORMATION

PROJECT NAME: Fullerton Transportation Center P.O. No.

SITE ADDRESS: 120 E Santa Fe Av Fullerton CA

SAMPLED BY: J. Dentzer ☐ EDF

Turn Around Time: NORM ☒ 24 hr ☐ 48 hr ☐ Other ☐

	SAMPLE ID	DATE SAMPLED	TIME SAMPLED	TYPE*	pH/Time	REMARKS	Preserved	NO. OF CONT	8015M TPH G or GRO	8015M TPH D or DRO	CARBON CHAIN	VOCs (8260 B) FULL	OXYGENATES (8260 B) SHORT	COD / TSS / BOD / TDS	pH, Conductivity, Turbidity	Sulfide, Cyanide, O&G	CAM 17 Metals					
1	B1-10	11/9	715	SO					✓			✓										
2	B1-20	"	725	"								✓										
3	B1-30	"	735	"								✓										
4	B1-35	"	740	"								✓										
5	B1-40	"	750	"								✓										
6																						
7	B2-10	"	830	"					✓			✓										
8	B2-20	"	850	"								✓										
9	B2-30	"	910	"								✓										
10																						
11																						
12																						
13																						
14																						
15																						
16																						

ANALYSIS REQUIRED

SIGNATURE	PRINT NAME	COMPANY NAME	DATE	TIME
RELINQUISHED BY:				
RECEIVED BY:	SUSAN LU	CHEMTEK LABS	11/9	10:45
RELINQUISHED BY:	John Dentzer	Terracore Engineering Inc	11-17	1040
RECEIVED FOR LABORATORY BY:				

NOTE: Samples are discarded 30 days after results are reported unless other arrangements are made.

Distribution : WHITE with report / YELLOW to CHEMTEK / PINK to courier

*Type: SO-Soil GW-Ground Water WW-Waste Water AQ-Aqueous A-Air OT-Other

Appendix E

CHEMTEK
environmental laboratories

13554 Larwin Cir., Santa Fe Springs, CA 90670
T 562.926.9848
F 562.926.8324

Certificate of Analysis

QC Analysis Date: 11/20/19
QC Lab ID: 911055-1A
Units: ppb

Job No: 911055

QUALITY CONTROL DATA

EPA METHOD: 8260B(VOC's)

ANALYTE	BLANK RESULT	SPIKE CONC.	MS % REC	MSD % REC	% RPD	% RPD ACCEPT LIMITS	% REC ACCEPT LIMITS
1,1-Dichloroethene	ND	25	102.3	106.0	3.6%	30	70-130
Benzene	ND	25	128.2	129.6	1.1%	30	70-130
Trichloroethylene	ND	25	115.6	122.2	5.6%	30	70-130
Toluene	ND	25	121.8	129.6	6.2%	30	70-130
Chlorobenzene	ND	25	126.4	129.8	2.7%	30	70-130

QC Analysis Date: 11/20/19
QC Lab ID: 911055-1A
Units: ppm

QUALITY CONTROL DATA

EPA METHOD: 8015B(TPH Gas Range Organics)

ANALYTE	BLANK RESULT	SPIKE CONC.	MS % REC	MSD % REC	% RPD	% RPD ACCEPT LIMITS	% REC ACCEPT LIMITS
GRO (TPH)	ND	0.5	93.5	96.6	3.3%	30	70-130

CHEMTEK
environmental laboratories

13554 Larwin Cir., Santa Fe Springs, CA 90670
T 562.926.9848
F 562.926.8324

Certificate of Analysis

Client: Terradyne Engineering
Project Site: Fullerton Trasnporation Center
120 E. Santa Fe Ave
Fullerton, CA

EPA Method: 8015B
units: mg/kg or ppm

Job No: 911055
Report Date: 11/27/19
Date of Sample: 11/19/19
Date Received: 11/19/19
Sample Matrix: Soil

Sample ID	UNITS	Gas Range (C4-C12)	DF	DLR
B1-10	mg/kg	ND	1	0.2
B2-10	mg/kg	ND	1	0.2
Method Blank		ND	1	0.2
Sample Date:		11/19/19		
Analysis Date:		11/20/19		

ND : Not detected at or above DLR
DLR: Detection Limit for Reporting Purposes

CHEMTEK
environmental laboratories

13554 Larwin Cir., Santa Fe Springs, CA 90670
T 562.926.9848
F 562.926.8324

Certificate of Analysis

Client: Terradyne Engineering
Project No.
Job No: 911055
Sample Matrix: Soil
Project Site: Fullerton Trasnporation Center
120 E. Santa Fe Ave
Report Date: 11/27/19
Date of Sample: 11/19/19
EPA Method: 8260B
Units: ppb or µg/Kg
Date Received: 11/19/19

Client Sample ID:	B1-10	B1-20	B1-30	B1-35	B1-40	B2-10	B2-20	B2-30	Detection
Dilution Factor:	1	1	1	1	1	1	1	1	Limit
	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)
Benzene	ND	ND	ND	ND	ND	ND	ND	ND	1
Bromobenzene	ND	ND	ND	ND	ND	ND	ND	ND	1
Bromochloromethane	ND	ND	ND	ND	ND	ND	ND	ND	1
Bromoform	ND	ND	ND	ND	ND	ND	ND	ND	1
Bromomethane	ND	ND	ND	ND	ND	ND	ND	ND	1
n-Butylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	1
sec-Butylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	1
tert-Butylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	1
Carbon Tetrachloride	ND	ND	ND	ND	ND	ND	ND	ND	1
Chlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	1
Chloroethane	ND	ND	ND	ND	ND	ND	ND	ND	1
Chloroform	ND	ND	ND	ND	ND	ND	ND	ND	1
Chloromethane	ND	ND	ND	ND	ND	ND	ND	ND	1
2-Chlorotoluene	ND	ND	ND	ND	ND	ND	ND	ND	1
4-Chlorotoluene	ND	ND	ND	ND	ND	ND	ND	ND	1
2-Chloroethyl vinyl ether	ND	ND	ND	ND	ND	ND	ND	ND	2
Dibromochloromethane	ND	ND	ND	ND	ND	ND	ND	ND	1
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	ND	ND	ND	ND	1
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	ND	ND	ND	ND	1
Dibromomethane	ND	ND	ND	ND	ND	ND	ND	ND	1
1,2-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	1
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	1
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	1
Dichlorodifluoromethane	ND	ND	ND	ND	ND	ND	ND	ND	1
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	1
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	1
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	1
cis-1,2 Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	1
Trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	1
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	1
1,3-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	1
2,2-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	1
1,1-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	ND	1
Cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	ND	1
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	ND	1
Ethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	1
Hexachlorobutadiene	ND	ND	ND	ND	ND	ND	ND	ND	1
Isopropylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	1
4-Isopropyltoluene	ND	ND	ND	ND	ND	ND	ND	ND	1
Methylene Chloride	ND	ND	ND	ND	ND	ND	ND	ND	5
Naphthalene	ND	ND	ND	ND	ND	ND	ND	ND	1
n-propylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	1
Styrene	ND	ND	ND	ND	ND	ND	ND	ND	1
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND	ND	ND	1
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND	ND	ND	1
Tetrachloroethene(PCE)	1	3	1	ND	ND	ND	ND	ND	1
Toluene	ND	ND	ND	ND	ND	ND	ND	ND	1
1,2,3-Trichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	1
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	1
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	1
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	1
Trichloroethene(TCE)	ND	ND	ND	ND	ND	ND	ND	ND	1
Trichlorofluoromethane	ND	ND	ND	ND	ND	ND	ND	ND	1
1,2,3-Trichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	1
1,2,4-Trimethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	1
1,3,5-Trimethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	1
Vinyl Chloride	ND	ND	ND	ND	ND	ND	ND	ND	1
Total Xylenes	ND	ND	ND	ND	ND	ND	ND	ND	2
Ethanol	ND	ND	ND	ND	ND	ND	ND	ND	250
MTBE	ND	ND	ND	ND	ND	ND	ND	ND	1
ETBE	ND	ND	ND	ND	ND	ND	ND	ND	1
DIPE	ND	ND	ND	ND	ND	ND	ND	ND	1
TAME	ND	ND	ND	ND	ND	ND	ND	ND	1
TBA	ND	ND	ND	ND	ND	ND	ND	ND	50
MEK	ND	ND	ND	ND	ND	ND	ND	ND	10
MIBK	ND	ND	ND	ND	ND	ND	ND	ND	10
2-Hexanone	ND	ND	ND	ND	ND	ND	ND	ND	10
Analysis Date:	11/20/19	11/19/19	11/20/19	######	11/20/19	11/20/19	11/20/19	11/20/19	

ND: Not Detected Below (DF x Detection Limit)
DF: Dilution Factor

CHEMTEK
environmental laboratories

ELAP: 1435
LACSD: 10167

13554 Larwin Cir., Santa Fe Springs, CA 90670
T 562.926.9848
F 562.926.8324

Certificate of Analysis

Client: Terradyne Engineering
2691 Dow Ave #F
Tustin, CA

Attention: Kurt Brown

Project No.
Project Site: Fullerton Trasnporation Center
120 E. Santa Fe Ave
Fullerton, CA

Job No: 911055
Report Date: 11/27/19
Date Received: 11/19/19
Number of Samples: 8
Sample Matrix: Soil

This is the Certificate of Analysis for the following samples:

SAMPLE IDENTIFICATION	DATE OF SAMPLE	LABORATORY IDENTIFICATION
B1-10	11/19/19	911055-01A
B1-20	11/19/19	911055-02A
B1-30	11/19/19	911055-03A
B1-35	11/19/19	911055-04A
B1-40	11/19/19	911055-05A
B2-10	11/19/19	911055-06A
B2-20	11/19/19	911055-07A
B2-30	11/19/19	911055-08A

Reviewed and Approved:

For **Michael C.C. Lu**
Laboratory Director

Appendix G

Preliminary Water Quality Management Plan

Permit Number(s)

City of Fullerton/Santa Ana Region Priority Project Preliminary Water Quality Management Plan (WQMP)

Project Name:

Fullerton Transportation Center Hotel

150 EAST SANTA FE AVE, FULLERTON, CA 92832

APN:033-030-18

Prepared for:

Westpark Investments, LLC

3156 EAST LA PALMA AVENUE

ANAHIEM, CA 92806

714-632-8001

Prepared by:

Plump Engineering, Inc.

914 E. Katella Ave

Anaheim CA 92805

(714)385-1835, troy@peica.com



04-25-2019

Project Owner's Certification			
Planning Application No. (If applicable)		Grading Permit No.	
Tract/Parcel Map and Lot(s) No.	Fullerton Townsite PM#166-4, 170-19, Lot 12,17,18	Building Permit No.	
Address of Project Site and APN (If no address, specify Tract/Parcel Map and Lot Numbers)			150 East Santa Fe Ave, Fullerton, CA 92832, APN:033-030-18

This Water Quality Management Plan (WQMP) has been prepared for Westpark Investments, LLC by Plump Engineering, Inc.. The WQMP is intended to comply with the requirements of the County of Orange NPDES Stormwater Program requiring the preparation of the plan.

The undersigned, while it owns the subject property, is responsible for the implementation of the provisions of this plan , including the ongoing operation and maintenance of all best management practices (BMPs), and will ensure that this plan is amended as appropriate to reflect up-to-date conditions on the site consistent with the current Orange County Drainage Area Management Plan (DAMP) and the intent of the non-point source NPDES Permit for Waste Discharge Requirements for the County of Orange, Orange County Flood Control District and the incorporated Cities of Orange County within the Santa Ana Region. Once the undersigned transfers its interest in the property, its successors-in-interest shall bear the aforementioned responsibility to implement and amend the WQMP. An appropriate number of approved and signed copies of this document shall be available on the subject site in perpetuity.

Owner: CRAIG HOSTERT			
Title	CFO		
Company	Westpark Investments, LLC		
Address	3156 E. La Palma Avenue, Anaheim, CA 92806		
Email	CRAIGH@PARKWESTGC.COM		
Telephone #	714-632-8001		
I understand my responsibility to implement the provisions of this WQMP including the ongoing operation and maintenance of the best management practices (BMPs) described herein.			
Owner Signature		Date	

Preparer (Engineer): Tryfon Tryfonopoulos			
Title	Director of Civil Engineering	PE Registration #	C65859
Company	Plump Engineering, Inc.		
Address	914 E Katella Avenue, Anaheim, CA 92805		
Email	troy@pieca.com		
Telephone #	(714) 385-1835		

I hereby certify that this Water Quality Management Plan is in compliance with, and meets the requirements set forth in, Order No. R8-2009-0030/NPDES No. CAS618030, of the Santa Ana Regional Water Quality Control Board.

Preparer Signature		Date	04-25-2019
Place Stamp Here			

Contents

Page No.

Section I **Permit(s) and Water Quality Conditions of Approval or Issuance 1**
Section II **Project Description 3**
Section III **Site Description 8**
Section IV **Best Management Practices (BMPs) 10**
Section V **Inspection/Maintenance Responsibility for BMPs 24**
Section VI **BMP Exhibit (Site Plan) 25**
Section VII **Educational Materials 26**

Attachments

Attachment A . ..... Educational Materials
Attachment B . ..... Educational Materials & BMP Fact Sheets
Attachment C . ..... Maps
Attachment D . ..... Calculation & Worksheet
Attachment E . ..... Soil Report
Attachment F . ..... Manufacturer's specification & Documents

Section I Permit(s) and Water Quality Conditions of Approval or Issuance

Provide discretionary or grading/building permit information and water quality conditions of approval, or permit issuance, applied to the project. If conditions are unknown, please request applicable conditions from staff. *Refer to Section 2.1 in the Technical Guidance Document (TGD) available on the OC Planning website (ocplanning.net).*

Project Infomation			
Permit/Application No. (If applicable)		Grading or Building Permit No. (If applicable)	
Address of Project Site (or Tract Map and Lot Number if no address) and APN	150 East Santa Fe Ave, Fullerton, CA 92832, APN:033-030-18		
Water Quality Conditions of Approval or Issuance			
Water Quality Conditions of Approval or Issuance applied to this project. (Please list verbatim.)	No Conditions of Approval at this time.		
Conceptual WQMP			
Was a Conceptual Water Quality Management Plan previously approved for this project?	NO		

Watershed-Based Plan Conditions	
Provide applicable conditions from watershed - based plans including WIHMPs and TMDLS.	Ammonia, Copper, Diazinon, Indicator Bacteria, Lead, Toxicity, pH

Section II Project Description

II.1 Project Description

Provide a detailed project description including:

- Project areas;
- Land uses;
- Land cover;
- Design elements;
- A general description not broken down by drainage management areas (DMAs).

Include attributes relevant to determining applicable source controls. *Refer to Section 2.2 in the Technical Guidance Document (TGD) for information that must be included in the project description.*

Description of Proposed Project				
Development Category (From Model WQMP, Table 7.11-2; or -3):	Category 8. All significant redevelopment projects, where significant redevelopment is defined as the addition or replacement of 5,000 or more square feet of impervious surface on an already developed site. Redevelopment does not include routine maintenance activities that are conducted to maintain original line and grade, hydraulic capacity, original purpose of the facility, or emergency redevelopment activity required to protect public health and safety. If the redevelopment results in the addition or replacement of less than 50 percent of the impervious area on-site and the existing development was not subject to WQMP requirement, the numeric sizing criteria discussed in **Section 7.II-2.0** only applies to the addition or replacement area. If the addition or replacement accounts for 50 percent or more of the impervious area, the Project WQMP requirements apply to the entire development.			
Project Area (ft^2): 103,157	Number of Dwelling Units: _____		SIC Code: __	
Project Area	Pervious		Impervious	
	Area (acres or sq ft)	Percentage	Area (acres or sq ft)	Percentage
Pre-Project Conditions	8,688.44 SF	9.82 %	79,788.56 SF	90.18 %
Post-Project Conditions	6,803.88 SF	7.69` %	81,673.12 SF	92.31 %

Drainage Patterns/Connections	Existing site currently drains to two locations. Stromwater from the parking lot to the East of the property sheet flows to the curb and gutter on Santa Fe Avenue leading to an existing facility (30-inch RC Pipe-catch basin). Stromwater from the parking lot on the West side of the property sheet flows to an on-site v-gutter that leads to a catch basin on the property. The catch basin connects to a 24" storm drain pipe that discharges to the curb and gutter on E. Walnut Avenue.
Narrative Project Description: (Use as much space as necessary.)	The project proposes a new 18,047 SF building (Fullerton Transportation Center Hotel). 45,541 SF of open parking lot, 24,889 SF parking structure, and 2,562 SF outdoor seating area and pool. Landscaping is located along the North and South side of the property. Landscaping is also provided around the proposed parking lot.

II.2 Potential Stormwater Pollutants

Determine and list expected stormwater pollutants based on land uses and site activities. *Refer to Section 2.2.2 and Table 2.1 in the Technical Guidance Document (TGD) for guidance.*

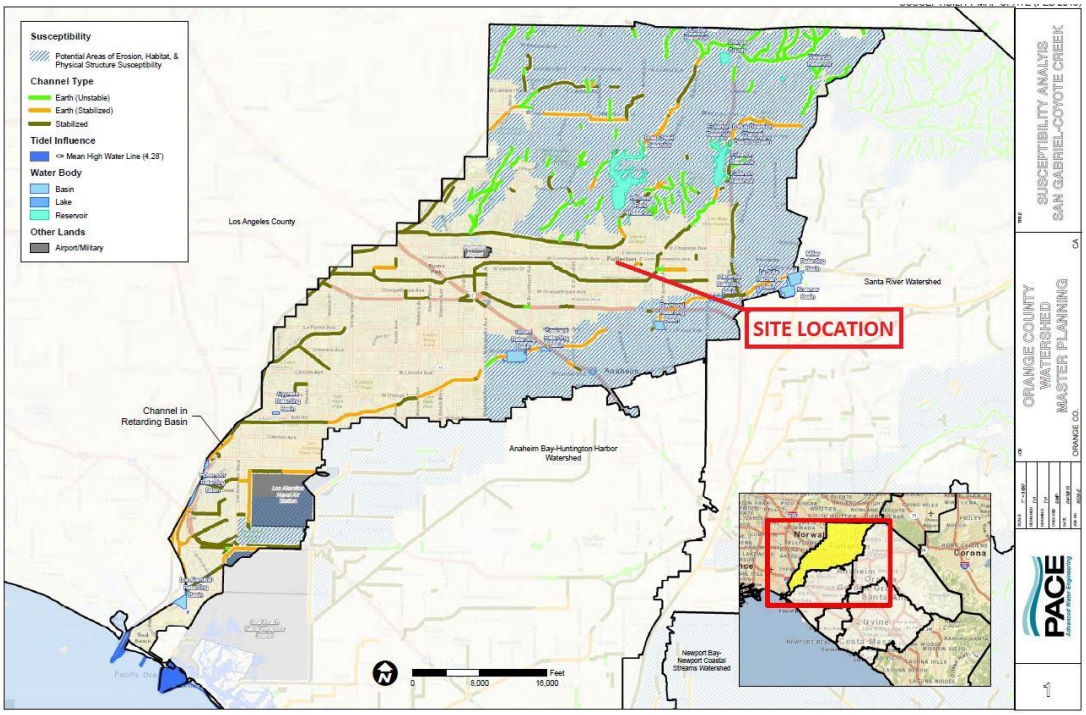
Pollutants of Concern			
Pollutant	Check One for each: E=Expected to be of concern N=Not Expected to be of concern		Additional Information and Comments
Suspended-Solid/ Sediment	E ☒	N ☐	
Nutrients	E ☒	N ☐	
Heavy Metals	E ☒	N ☐	
Pathogens (Bacteria/Virus)	E ☒	N ☐	
Pesticides	E ☒	N ☐	
Oil and Grease	E ☒	N ☐	
Toxic Organic Compounds	E ☒	N ☐	
Trash and Debris	E ☒	N ☐	

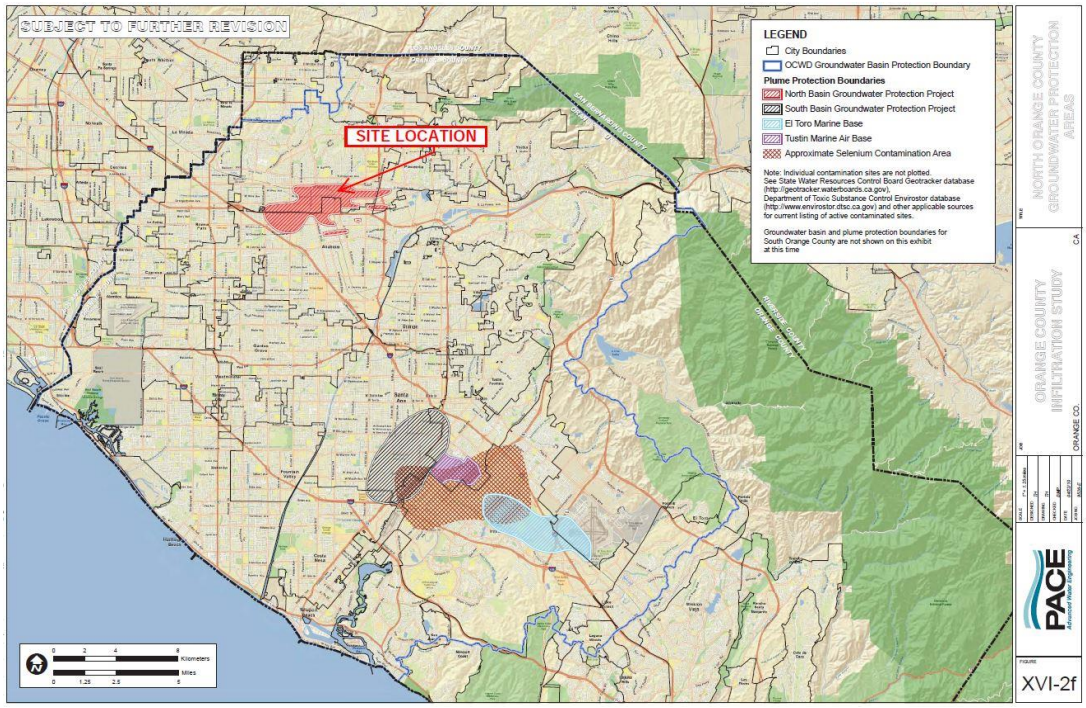
II.3 Hydrologic Conditions of Concern

Determine if streams located downstream from the project area are potentially susceptible to hydromodification impacts. *Refer to Section 2.2.3.1 in the Technical Guidance Document (TGD) for North Orange County or Section 2.2.3.2 for South Orange County.*

☒ No – Show map

☐ Yes – Describe applicable hydrologic conditions of concern below. *Refer to Section 2.2.3 in the Technical Guidance Document (TGD).*





II.4 Post Development Drainage Characteristics

Describe post development drainage characteristics. *Refer to Section 2.2.4 in the Technical Guidance Document (TGD).*

Stormwater to the East of the property will sheet flow from the parking structure to the landscape areas North of the parking structure. Modular wetlands are provided within the landscape area will filter the stormwater and discharge it to the curb and gutter on E. Santa Fe Avenue. Strom water runoff from the hotel rooftop will drain directly to a modular wetland on the North side of the property. Similarly, the modular wetland will discharge to the curb and gutter on E. Santa Fe Avenue.

The stormwater on the West and South side of the proposed hotel will sheet flow from the parking lot to the landscape areas. Modular Wetlands provided within the landscape area will filter the stormwater and discharge it to an existing 24" storm drain pipe. The 24" storm drain pipe will discharge the water under the railroad to the curb and gutter on E Walnut Avenue.

Refer to "BMP Exhibit" for DMA areas and BMP locations.

II.5 Property Ownership/Management

Describe property ownership/management. *Refer to Section 2.2.5 in the Technical Guidance Document (TGD).*

The BMPs identified in the WQMP shall be inspected and maintained as required by the State Permit. The maintenance and inspection responsibilities will be the responsibility of Craig Hostert Refer to Section V for Responsibility/Frequency Matrixes.

Contact persons for this project are:

Craig Hostert
Westpark Invertments, LLC
3156 E. La Palma Avenue, Anaheim, CA 92806
714-632-8001
craigh@parkwestgc.com

The above-name is responsible for the management of the project and implementation and maintenance of the requirements of the State Permit and WQMP. There is no infrastructure to be transferred to public agencies.

Section III Site Description

III.1 Physical Setting

Fill out table with relevant information. *Refer to Section 2.3.1 in the Technical Guidance Document (TGD).*

Name of Planned Community/Planning Area (if applicable)	SPD SPECIFIC PLAN DISTRICT
Location/Address	South of Santa Fe Ave between Lemon St and Harbor Blvd
	150 East Santa Fe Ave, Fullerton, CA 92832
General Plan Land Use Designation	
Zoning	SPD SPECIFIC PLAN DISTRICT
Acreage of Project Site	2.03
Predominant Soil Type	Soil Type B per Orange County TDG Infiltration Feasibility Constraint Maps Figure XVI.2a

III.2 Site Characteristics

Fill out table with relevant information and include information regarding BMP sizing, suitability, and feasibility, as applicable. *Refer to Section 2.3.2 in the Technical Guidance Document (TGD).*

Site Characteristics	
Precipitation Zone	0.90 inch 24hr - 85th Percentile Rainfall per Orange County TGD Rainfall Zones Map Figure.XVI-1
Topography	Level/flat with an average sloping of roughly 3%. Landscaping along the North side of the property facing E Santa Fe Ave. Average elevation of 164.16 ft

Drainage Patterns/Connections	Existing site currently drains to two locations. Stromwater from the parking lot to the East of the property sheet flows to the curb and gutter on Santa Fe Avenue leading to an existing facility (30-inch RC Pipe- catch basin). Stromwater from the parking lot on the West side of the property sheet flows to an on-site v-gutter that leads to a catch basin on the property. The catch basin connects to a 24" storm drain pipe that discharges to the curb and gutter on E. Walnut Avenue.
Soil Type, Geology, and Infiltration Properties	Per soils map of the Orange County Hydrology Manual, the site is located within soil group type B.
Hydrogeologic (Groundwater) Conditions	Project is located within a Plume protection boundary (North Basin Groundwater Protection Project). OC TGD Figure XVI.2f
Geotechnical Conditions (relevant to infiltration)	Not Applicable. Project is located within a plume protected boundary. (North Basin Groundwater Protection Project). OC TGD Figure XVI.2f
Off-Site Drainage	No offsite drainage is contributing to the site.
Utility and Infrastructure Information	Exisiting 24" stromdrain located along S Pomona Avenue. The propsed modular wetlands within that area will tie in directly to the 24" stromdrain.

III.3 Watershed Description

Fill out table with relevant information and include information regarding BMP sizing, suitability, and feasibility, as applicable. *Refer to Section 2.3.3 in the Technical Guidance Document (TGD).*

Receiving Waters	1st Receiving Water – DMA-1,&2 discharge to curb and gutter on Santa Fe Avenue leading to existing facility (30-inch RC Pipe- catch basin). DMA-3,&4 drains to an existing 24" storm drain on-site. The 24" storm drain discharges to East Walnut Avenue. Water Discharged to East Walnut Avenue leads to an 18-inch RC Pipe-catch basin. 2nd Receiving Water – O.C.F.C.D Facility (A03) 3rd Receiving Water – L.A.F.C.D Facility (Coyote Creek) 4th Receiving Water – L.A.F.C.D Facility (San Gabriel River)

	5th Receiving Water – Pacific Ocean.
303(d) Listed Impairments	Water body name: Coyote Creek Listed Impairments: Bacteria Indicators/Pathogens, Nutrients, Pesticides, Toxicity.
Applicable TMDLs	Ammonia, Copper, Diazinon, Indicator Bacteria, Lead, Toxicity, pH
Pollutants of Concern for the Project	Suspended Solid/Sediments, Heavy Metals, Nutrients, Pathogens (Bacteria/Virus) Pesticides, Oil & Grease, Toxic Organic Compounds, Trash & Debris.
Environmentally Sensitive and Special Biological Significant Areas	There is no ESA close to the Project site.

Section IV Best Management Practices (BMPs)

IV. 1 Project Performance Criteria

Describe project performance criteria. Several steps must be followed in order to determine what performance criteria will apply to a project. These steps include:

- If the project has an approved WIHMP or equivalent, then any watershed specific criteria must be used and the project can evaluate participation in the approved regional or sub-regional opportunities. (Please ask your assigned planner or plan checker regarding whether your project is part of an approved WIHMP or equivalent.)
- Determine applicable hydromodification control performance criteria. *Refer to Section 7.II-2.4.2.2 of the Model WQMP.*
- Determine applicable LID performance criteria. *Refer to Section 7.II-2.4.3 of the Model WQMP.*
- Determine applicable treatment control BMP performance criteria. *Refer to Section 7.II-*3.2.2 *of the Model WQMP.*
- Calculate the LID design storm capture volume for the project. *Refer to Section 7.II-2.4.3 of the Model WQMP.*

(NOC Permit Area only) Is there an approved WIHMP or equivalent for the project area that includes more stringent LID feasibility criteria or if there are opportunities identified for implementing LID on regional or sub-regional basis?	YES ☐	NO ☒
If yes, describe WIHMP feasibility criteria or regional/sub-regional LID opportunities.	N/A	

Project Performance Criteria	
If HCOC exists, list applicable hydromodification control performance criteria (Section 7.II-2.4.2.2 in MWQMP)	N/A
List applicable LID performance criteria (Section 7.II-2.4.3 from MWQMP)	Flow based BMPs performace criteria: 80 percent average annual capture efficiency per OC TDG section III.3.3
List applicable treatment control BMP performance criteria (Section 7.II-3.2.2 from MWQMP)	N/A
Calculate LID design storm capture volume for Project.	**DMA-1 (A = 0.571 acres)** **Simple Method Runoff Coefficient for Flow-Based BMP Sizing:** 1) From Equation III.3 : Q = (C × i design × A) 2) imp=1.0 3) C = (0.75×1.0+ 0.15) =0.9 4) A = 0.571ac 5) i design= 0.225 6) Q = 0.9 × 0.225 × 0.571 ac = 0.116 CFS **Simple Method Runoff Coefficient for Volume-Based BMP Sizing:** 1) From Equation III.1 : V = (C × d × A x 43560 sf/ac x 1/12 in/ft) 2) d=0.90 per rainfall map 3) C =0.9

4) A = 0.571ac
5) V = 0.9 × 0.90 × 0.571 ac x 43560 x 1/12 = 1679 CF

DMA-2 (A = 0.414 acres)

Simple Method Runoff Coefficient for Flow-Based BMP Sizing:
1) From Equation III.3 : Q = (C × i design × A)
2) imp=1.0
3) C = (0.75×1.0+ 0.15) =0.9
4) A = 0.414ac
5) i design= 0.225
6) Q = 0.9 × 0.225 × 0.414 ac = 0.084 CFS

Simple Method Runoff Coefficient for Volume-Based BMP Sizing:
1) From Equation III.1 : V = (C × d × A x 43560 sf/ac x 1/12 in/ft)
2) d=0.90 per rainfall map
3) C =0.9
4) A = 0.414ac
5) V = 0.9 × 0.90 × 0.414 ac x 43560 x 1/12 = 1217 CF

DMA-3 (A = 0.353 acres)

Simple Method Runoff Coefficient for Flow-Based BMP Sizing:
1) From OC TGD Equation III.3 : Q = (C × i design × A)
2) imp=0.8055
3) C = (0.75×0.8055+ 0.15) =0.755
4) A = 0.353ac
5) i design= 0.225
6) Q = 0.755 × 0.225 × 0.353 ac = 0.0489 CFS

Simple Method Runoff Coefficient for Volume-Based BMP Sizing:
1) From Equation III.1 : V = (C × d × A x 43560 sf/ac x 1/12 in/ft)
2) d=0.90 per rainfall map
3) C =0.9
4) A = 0.353ac
5) V = 0.9 × 0.90 × 0.353 ac x 43560 x 1/12 = 1038 CF

DMA-4 (A = 0.692 acres)

Simple Method Runoff Coefficient for Flow-Based BMP Sizing:
1) From Equation III.3 : Q = (C × i design × A)
2) imp=0.903
3) C = (0.75×0.903+ 0.15) =0.83

	4) A = 0.692ac 5) i design= 0.225 6) Q = 0.83 × 0.225 × 0.692 ac = 0.13 CFS **<u>Simple Method Runoff Coefficient for Volume-Based BMP Sizing:</u>** 1) From Equation III.1 : V = (C × d × A x 43560 sf/ac x 1/12 in/ft) 2) d=0.90 per rainfall map 3) C =0.9 4) A = 0.692ac 5) V = 0.9 × 0.90 × 0.692 ac x 43560 x 1/12 = 2035 CF **Equation Used Are From The TECHNICAL GUIDANCE DOCUMNET (Appendix III.3)**

IV.2. Site Design and Drainage

Describe site design and drainage including

- A narrative of site design practices utilized or rationale for not using practices;
- A narrative of how site is designed to allow BMPs to be incorporated to the MEP
- A table of DMA characteristics and list of LID BMPs proposed in each DMA.
- Reference to the WQMP "BMP Exhibit."
- Calculation of Design Capture Volume (DCV) for each drainage area.
- A listing of GIS coordinates for LID and Treatment Control BMPs.

Refer to Section 2.4.2 in the Technical Guidance Document (TGD).

Site Design

Flow-based BMP (WQDQ)

Infiltration was considered infeasible for this project per the Orange County TGD "Infiltration BMP Feasibility Worksheet". The site is located within a plume protection boundary as shown on figure XVI-2f of the OC TGD. This prohibits the use of infiltration within that area. As a result, proprietary vegetated biotreatment systems (Modular Wetlands) were utilized for this design to treat the on-site stormwater run-off. Hydrologic methods (Simple Method Runoff Coefficient for Flow-Based BMP Sizing) shall be used to calculate the runoff flowrate associated with LID and Water quality design storms. The BMP locations is based on the topography and flow direction for the job site. The location of the BMPs do not conflict with existing utilities on site.

Stormwater to the East of the property will sheet flow from the parking structure to the landscape areas North of the parking structure. Modular wetlands are provided within the landscape area will filter the stormwater and discharge it to the curb and gutter on E. Santa Fe Avenue. Strom water runoff from the hotel rooftop will drain directly to a modular wetland on the North side of the property. Similarly, the modular wetland will discharge to the curb and gutter on E. Santa Fe Avenue.

The stormwater on the West and South side of the proposed hotel will sheet flow from the parking lot to the landscape areas. Modular Wetlands provided within the landscape area will filter the stormwater and discharge it to an existing 24" storm drain pipe. The 24" storm drain pipe will discharge the water under the railroad to the curb and gutter on E Walnut Avenue.

Please see attached BMP Exhibit (Attachment A).

BMP Locations:

DMA	DMA Area (ac)	BMP TYPE	QTY	FLOW BY SITE	BMP FLOW CAPACITY	DCV	GPS LATTIUDE	GPS LONGITUDE
1	0.571	Modular Wetland	1 Unit	0.116 CFS	0.144 CFS	1679 CF	33.869231	-117.920812

2	0.414	Modular Wetland	1 Unit	0.084 CFS	0.115 CFS	1217 CF	33.869254	-117.921171
3	0.353	Modular Wetland	1 Unit	0.0489 CFS	0.073 CFS	1038 CF	33.868819	-117.921058
4	0.692	Modular Wetland	1 Unit	0.13 CFS	0.144 CFS	2035 CF	33.869073	-117.922151

IV.3 LID BMP Selection and Project Conformance Analysis

Each sub-section below documents that the proposed design features conform to the applicable project performance criteria via check boxes, tables, calculations, narratives, and/or references to worksheets. *Refer to Section 2.4.2.3 in the Technical Guidance Document (TGD) for selecting LID BMPs and Section 2.4.3 in the Technical Guidance Document (TGD) for conducting conformance analysis with project performance criteria.*

IV.3.1 Hydrologic Source Controls (HSCs)

If required HSCs are included, fill out applicable check box forms. If the retention criteria are otherwise met with other LID BMPs, include a statement indicating HSCs not required.

Name	Included?
Localized on-lot infiltration	☐
Impervious area dispersion (e.g. roof top disconnection)	☐
Street trees (canopy interception)	☐
Residential rain barrels (not actively managed)	☐
Green roofs/Brown roofs	☐
Blue roofs	☐
Impervious area reduction (e.g. permeable pavers, site design)	☐

Other:	☐
Other:	☐
Other:	☐
Other:	☐
Other:	☐
Other:	☐
Other:	☐
Other:	☐

IV.3.2 Infiltration BMPs (*Infiltration is not feasible per Infiltration BMP Feasibility Worksheet)

Identify infiltration BMPs to be used in project. If design volume cannot be met, state why.

Name	Included?
Bioretention without underdrains	☐
Rain gardens	☐
Porous landscaping	☐
Infiltration planters	☐
Retention swales	☐
Infiltration trenches	☐
Infiltration basins	☐
Drywells	☐
Subsurface infiltration galleries	☐
French drains	☐
Permeable asphalt	☐
Permeable concrete	☐
Permeable concrete pavers	☐
Other:	☐
Other:	☐

Show calculations below to demonstrate if the LID Design Strom Capture Volume can be met with infiltration BMPs. If not, document how much can be met with infiltration and document why it is not feasible to meet the full volume with infiltration BMPs.

IV.3.3 Evapotranspiration, Rainwater Harvesting BMPs

If the full Design Storm Capture Volume cannot be met with infiltration BMPs, describe any evapotranspiration and/or rainwater harvesting BMPs included.

Name	Included?
All HSCs; *See Section IV.3.1*	☐
Surface-based infiltration BMPs	☐
Biotreatment BMPs	☐
Above-ground cisterns and basins	☐
Underground detention	☐
Other:	☐
Other:	☐
Other:	☐

Show calculations below to demonstrate if the LID Design Storm Capture Volume can be met with evapotranspiration and/or rainwater harvesting BMPs in combination with infiltration BMPs. If not, document below how much can be met with either infiltration BMPs, evapotranspiration, rainwater harvesting BMPs, or a combination, and document why it is not feasible to meet the full volume with these BMP categories.

IV.3.4 Biotreatment BMPs

If the full Design Storm Capture Volume cannot be met with infiltration BMPs, and/or evapotranspiration and rainwater harvesting BMPs, describe biotreatment BMPs included. Include sections for selection, suitability, sizing, and infeasibility, as applicable.

Name	Included?
Bioretention with underdrains	☐
Stormwater planter boxes with underdrains	☐
Rain gardens with underdrains	☐
Constructed wetlands	☐
Vegetated swales	☐
Vegetated filter strips	☐
Proprietary vegetated biotreatment systems	☒
Wet extended detention basin	☐
Dry extended detention basins	☐
Other:	☐
Other:	☐

Show calculations below to demonstrate if the LID Design Storm Capture Volume can be met with infiltration, evapotranspiration, rainwater harvesting and/or biotreatment BMPs. If not, document how much can be met with either infiltration BMPs, evapotranspiration, rainwater harvesting BMPs, or a combination, and document why it is not feasible to meet the full volume with these BMP categories.

DMA-1 (A = 0.571 acres)

Simple Method Runoff Coefficient for Flow-Based BMP Sizing:
1) From Equation III.3 : Q = (C × i design × A)
2) imp=1.0
3) C = (0.75×1.0+ 0.15) =0.9
4) A = 0.571ac
5) i design= 0.225
6) Q = 0.9 × 0.225 × 0.571 ac = 0.116 CFS

Simple Method Runoff Coefficient for Volume-Based BMP Sizing:

1) From Equation III.1 : V = (C × d × A x 43560 sf/ac x 1/12 in/ft)
2) d=0.90 per rainfall map
3) C =0.9
4) A = 0.571ac
5) V = 0.9 × 0.90 × 0.571 ac x 43560 x 1/12 = 1679 CF

DMA-2 (A = 0.414 acres)

Simple Method Runoff Coefficient for Flow-Based BMP Sizing:
1) From Equation III.3 : Q = (C × i design × A)
2) imp=1.0
3) C = (0.75×1.0+ 0.15) =0.9
4) A = 0.414ac
5) i design= 0.225
6) Q = 0.9 × 0.225 × 0.414 ac = 0.084 CFS

Simple Method Runoff Coefficient for Volume-Based BMP Sizing:
1) From Equation III.1 : V = (C × d × A x 43560 sf/ac x 1/12 in/ft)
2) d=0.90 per rainfall map
3) C =0.9
4) A = 0.414ac
5) V = 0.9 × 0.90 × 0.414 ac x 43560 x 1/12 = 1217 CF

DMA-3 (A = 0.353 acres)

Simple Method Runoff Coefficient for Flow-Based BMP Sizing:
1) From Equation III.3 : Q = (C × i design × A)
2) imp=0.8055
3) C = (0.75×0.8055+ 0.15) =0.755
4) A = 0.353ac
5) i design= 0.225
6) Q = 0.755 × 0.225 × 0.353 ac = 0.0489 CFS

Simple Method Runoff Coefficient for Volume-Based BMP Sizing:
1) From Equation III.1 : V = (C × d × A x 43560 sf/ac x 1/12 in/ft)
2) d=0.90 per rainfall map
3) C =0.9
4) A = 0.353ac
5) V = 0.9 × 0.90 × 0.353 ac x 43560 x 1/12 = 1038 CF

DMA-4 (A = 0.692 acres)

Simple Method Runoff Coefficient for Flow-Based BMP Sizing:
1) From Equation III.3 : Q = (C × i design × A)
2) imp=0.903
3) C = (0.75×0.903+ 0.15) =0.83
4) A = 0.692ac
5) i design= 0.225
6) Q = 0.83 × 0.225 × 0.692 ac = 0.13 CFS

Simple Method Runoff Coefficient for Volume-Based BMP Sizing:
1) From Equation III.1 : V = (C × d × A x 43560 sf/ac x 1/12 in/ft)
2) d=0.90 per rainfall map
3) C =0.9
4) A = 0.692ac
5) V = 0.9 × 0.90 × 0.692 ac x 43560 x 1/12 = 2035 CF

Equation Used Are From The TECHNICAL GUIDANCE DOCUMNET (Appendix III.3)

DMA	DMA Area (ac)	BMP TYPE	QTY	FLOW BY SITE	BMP FLOW CAPACITY
1	0.571	Modular Wetland	1 Unit	0.116 CFS	0.144 CFS
2	0.414	Modular Wetland	1 Unit	0.084 CFS	0.115 CFS
3	0.353	Modular Wetland	1 Unit	0.0489 CFS	0.073 CFS
4	0.692	Modular Wetland	1 Unit	0.13 CFS	0.144 CFS

IV.3.5 Hydromodification Control BMPs

Describe hydromodification control BMPs. *See Section 5 of the Technical Guidance Document (TGD).* Include sections for selection, suitability, sizing, and infeasibility, as applicable. Detail compliance with Prior Conditions of Approval (if applicable).

Hydromodification Control BMPs	
BMP Name	**BMP Description**
Not Applicable	

IV.3.6 Regional/Sub-Regional LID BMPs

Describe regional/sub-regional LID BMPs in which the project will participate. *Refer to Section 7.II-2.4.3.2 of the Model WQMP.*

Regional/Sub-Regional LID BMPs
Not Applicable

IV.3.7 Treatment Control BMPs

Treatment control BMPs can only be considered if the project conformance analysis indicates that it is not feasible to retain the full design capture volume with LID BMPs. Describe treatment control BMPs including sections for selection, sizing, and infeasibility, as applicable.

Treatment Control BMPs	
BMP Name	**BMP Description**
Not Applicable	

IV.3.8 Non-structural Source Control BMPs

Fill out non-structural source control check box forms or provide a brief narrative explaining if non-structural source controls were not used.

Non-Structural Source Control BMPs				
Identifier	**Name**	**Check One**		**If not applicable, state brief reason**
		Included	**Not Applicable**	
N1	Education for Property Owners, Tenants and Occupants	☒	☐	
N2	Activity Restrictions	☒	☐	
N3	Common Area Landscape Management	☒	☐	
N4	BMP Maintenance	☒	☐	
N5	Title 22 CCR Compliance (How development will comply)	☐	☒	N/A
N6	Local Industrial Permit Compliance	☐	☒	Hotel/Parking
N7	Spill Contingency Plan	☐	☒	N/A
N8	Underground Storage Tank Compliance	☐	☒	N/A
N9	Hazardous Materials Disclosure Compliance	☐	☒	No hazardous material
N10	Uniform Fire Code Implementation	☒	☐	
N11	Common Area Litter Control	☒	☐	
N12	Employee Training	☒	☐	
N13	Housekeeping of Loading Docks	☐	☒	No Loading Docks
N14	Common Area Catch Basin Inspection	☒	☐	
N15	Street Sweeping Private Streets and Parking Lots	☒	☐	
N16	Retail Gasoline Outlets	☐	☒	No Gasoline Outlets on site

IV.3.9 Structural Source Control BMPs

Fill out structural source control check box forms or provide a brief narrative explaining if structural source controls were not used.

Structural Source Control BMPs				
Identifier	**Name**	**Check One**		**If not applicable, state brief reason**
		Included	**Not Applicable**	
S1	Provide storm drain system stenciling and signage	☒	☐	
S2	Design and construct outdoor material storage areas to reduce pollution introduction	☐	☒	No outdoor storage area
S3	Design and construct trash and waste storage areas to reduce pollution introduction	☒	☐	
S4	Use efficient irrigation systems & landscape design, water conservation, smart controllers, and source control	☒	☐	
S5	Protect slopes and channels and provide energy dissipation	☐	☒	The site is flat.
	Incorporate requirements applicable to individual priority project categories (from SDRWQCB NPDES Permit)	☐	☒	N/A
S6	Dock areas	☐	☒	No Dock area
S7	Maintenance bays	☐	☒	No maintenance bays
S8	Vehicle wash areas	☐	☒	No car wash area
S9	Outdoor processing areas	☐	☒	No outdoor processing area
S10	Equipment wash areas	☐	☒	No equipment wash area
S11	Fueling areas	☐	☒	No fueling areas
S12	Hillside landscaping	☐	☒	Area is relatively flat
S13	Wash water control for food preparation areas	☐	☒	No food preparation areas
S14	Community car wash racks	☐	☒	No community wash area

IV.4 Alternative Compliance Plan (If Applicable)

Describe an alternative compliance plan (if applicable). Include alternative compliance obligations (i.e., gallons, pounds) and describe proposed alternative compliance measures. *Refer to Section 7.II 3.0 in the WQMP.*

IV.4.1 Water Quality Credits

Determine if water quality credits are applicable for the project. *Refer to Section 3.1 of the Model WQMP for description of credits and Appendix VI of the Technical Guidance Document (TGD) for calculation methods for applying water quality credits.*

<table>
<tr><th colspan="5">Description of Proposed Project</th></tr>
<tr><td colspan="5">Project Types that Qualify for Water Quality Credits (Select all that apply):</td></tr>
<tr><td>☐Redevelopment projects that reduce the overall impervious footprint of the project site.</td><td colspan="2">☐Brownfield redevelopment, meaning redevelopment, expansion, or reuse of real property which may be complicated by the presence or potential presence of hazardous substances, pollutants or contaminants, and which have the potential to contribute to adverse ground or surface WQ if not redeveloped.</td><td colspan="2">☐ Higher density development projects which include two distinct categories (credits can only be taken for one category): those with more than seven units per acre of development (lower credit allowance); vertical density developments, for example, those with a Floor to Area Ratio (FAR) of 2 or those having more than 18 units per acre (greater credit allowance).</td></tr>
<tr><td colspan="2">☐ Mixed use development, such as a combination of residential, commercial, industrial, office, institutional, or other land uses which incorporate design principles that can demonstrate environmental benefits that would not be realized through single use projects (e.g. reduced vehicle trip traffic with the potential to reduce sources of water or air pollution).</td><td colspan="2">☐ Transit-oriented developments, such as a mixed use residential or commercial area designed to maximize access to public transportation; similar to above criterion, but where the development center is within one half mile of a mass transit center (e.g. bus, rail, light rail or commuter train station). Such projects would not be able to take credit for both categories, but may have greater credit assigned</td><td>☐ Redevelopment projects in an established historic district, historic preservation area, or similar significant city area including core City Center areas (to be defined through mapping).</td></tr>
<tr><td>☐Developments with dedication of undeveloped portions to parks, preservation areas and other pervious uses.</td><td>☐ Developments in a city center area.</td><td>☐ Developments in historic districts or historic preservation areas.</td><td>☐ Live-work developments, a variety of developments designed to support residential and vocational needs together – similar to criteria to mixed use development; would not be able to take credit for both categories.</td><td>☐In-fill projects, the conversion of empty lots and other underused spaces into more beneficially used spaces, such as residential or commercial areas.</td></tr>
</table>

Calculation of Water Quality Credits (if applicable)	Not Applicable

IV.4.2 Alternative Compliance Plan Information

Describe an alternative compliance plan (if applicable). Include alternative compliance obligations (i.e., gallons, pounds) and describe proposed alternative compliance measures. *Refer to Section 7.II 3.0 in the Model WQMP.*

Not Applicable

Section V Inspection/Maintenance Responsibility for BMPs

Fill out information in table below. Prepare and attach an Operation and Maintenance Plan. Identify the funding mechanism through which BMPs will be maintained. Inspection and maintenance records must be kept for a minimum of five years for inspection by the regulatory agencies. *Refer to Section 7.II 4.0 in the Model WQMP.*

BMP Inspection/Maintenance			
BMP	**Reponsible Party(s)**	**Inspection/ Maintenance Activities Required**	**Minimum Frequency of Activities**
N1 Education property Tenants Occupants	Craig Hostert Westpark Investments, LLC 3156 E. La Palma Ave. Anaheim, CA 92806 714-632-8001 craigh@parkwestgc.com	Regularly brief employee with the company maintenance and monitoring policies for all BMP's on site. All new employees must have orientation as to rules and policies to keep the environment clean.	On going
N2 Activity Restrictions	Craig Hostert Westpark Investments, LLC 3156 E. La Palma Ave. Anaheim, CA 92806 714-632-8001 craigh@parkwestgc.com	Car washing, maintenance and/or repair of vehicles, food processsing and preparation in parking lot is strictly prohibited. If any, handling and transport of hazardous materials must be done only by qualified personnel or contractor qualified to perform the work.	On going
N3 Common Area Landscape Management	Craig Hostert Westpark Investments, LLC 3156 E. La Palma Ave. Anaheim, CA 92806 714-632-8001 craigh@parkwestgc.com	Property owner and its representative/contractor's must inspect and maintain landscape areas on regular basis. Remove	On going

		dead leaves, tree trunks, etc. and replace plants that are showing signs of dying.	
N4 BMP Maintenance	Craig Hostert Westpark Investments, LLC 3156 E. La Palma Ave. Anaheim, CA 92806 714-632-8001 craigh@parkwestgc.com	Responsibility for implementation of each non-structural BMP and scheduled cleaning and/or maintenance of all structural BMP facilities must be identified. Employees and contractors must provide logs of all BMP inspection and maintenance each month or as needed.	Monthly basis
N11 Litter/Debris Control Program	Craig Hostert Westpark Investments, LLC 3156 E. La Palma Ave. Anaheim, CA 92806 714-632-8001 craigh@parkwestgc.com	Implement trash management and litter control procedures in the parking lot aimed at reducing pollution of drainage water. Landscape maintenance contractor shall empty trash receptacles, litter patrol and provide notice that trash disposal violations by tenants/ homeowners or businesses shall be reported to the owner for investigation.	On regular basis.
N12 Employee training	Craig Hostert Westpark Investments, LLC 3156 E. La Palma Ave. Anaheim, CA 92806 714-632-8001 craigh@parkwestgc.com	Education program (see N1) as it would apply to future employees of individual businesses. Developer either prepares manual(s) for initial purchasers of business site or for development that is constructed for an unspecified use makes commitment on behalf of	Ongoing

		POA or future business owner to prepare. An example would be training on the proper storage and use of fertilizers and pesticides, or training on the implementation of hazardous spill contingency plans. Train all employees, management, office, yard, manufacturing, field and clerical in BMPs and pollution prevention and make them aware of the maintenance procedures and requirements of all BMPs. Within 6 months after occupancy and annually thereafter.	
S4 (SD-12) Use Efficient Irrigation Systems and Landscape Design	Craig Hostert Westpark Investments, LLC 3156 E. La Palma Ave. Anaheim, CA 92806 714-632-8001 craigh@parkwestgc.com	In conjunction with routine maintenance activities, verify that landscape design continues to function properly by adjusting properly to eliminate overspray to hardscape areas, and to verify that irrigation timing and cycle lengths are adjusted in accordance with water demands, given time of year, weather, and day or night time temperatures.	Monthly basis
MP-52 Drain Insert (proprietary BMP)	Craig Hostert Westpark Investments, LLC 3156 E. La Palma Ave. Anaheim, CA 92806 714-632-8001 craigh@parkwestgc.com	Unlock and lift the aluminium access lid. Remove the perforated separator plate. Using an industrial vacuum, the collected materials remove the collected materials from the filter	Prior to, during and following the rainy season

		Liner. When the materials have been removed, the filter medium pouches should be removed by unsnapping the tether from the D-ring and set to one side. The filter liner, gaskets, stainless steel frame and mounting brackets, etc. should be inspected for continued serviceability. Minor damage or defects found should be corrected on the spot.	
BIO-7 (proprietary Biotreatment)	Craig Hostert Westpark Investments, LLC 3156 E. La Palma Ave. Anaheim, CA 92806 714-632-8001 craigh@parkwestgc.com	Per Manufacturer recommendation.	Per Manufacturer recommendation.

Funding:

"The Owner is aware of the maintenance responsibilities of the proposed BMPs. A funding mechanism is in place to maintain the BMPs at the frequency stated in the WQMP".

Property Owner: Craig Hostert
Westpark Investments, LLC
3156 E. La Palma Ave.
(714)632-8001
Craigh@parkwestgc.com

Estimated annual budget for maintenance is about $2,500.00.

Required Permits:

No permit is required

Submittal and Recordation of Water Quality Management Plan

Following approval of the Final Project-Specific WQMP, three copies of the approved WQMP (Including BMP Exhibit, Operations and Maintenance (O&M) Plan, and Attachments) shall be submitted.

Each approved WQMP (including BMP Exhibit, Operations and Maintenance (O&M) Plan, and Attachments) shall be recorded in the Orange County Clerk-Recorder's Office, prior to close-out of grading and/or building permit. Educational Materials are not required to be included.

Recordkeeping

All records must be maintained for at least five (5) years and must be made available for review upon request.

Today's Date: 04/16/2019

Name of Person Performing Activity
(Printed): Craig Hostert

Signature:

Section VI BMP Exhibit (Site Plan)

VI.1 BMP Exhibit (Site Plan)

Include a BMP Exhibit (Site Plan), at a size no less than 24" by 36," which includes the following minimum information:

- Insert in the title block (lower right hand corner) of BMP Exhibit: the WQMP Number (assigned by staff) and the grading/building or Planning Application permit numbers
- Project location (address, tract/lot number(s), etc.)
- Site boundary
- Land uses and land covers, as applicable
- Suitability/feasibility constraints
- Structural BMP locations
- Drainage delineations and flow information
- Delineate the area being treated by each structural BMP
- GIS coordinates for LID and Treatment Control BMPs
- Drainage connections
- BMP details
- Preparer name and stamp

Please do not include any areas outside of the project area or any information not related to drainage or water quality. The approved BMP Exhibit (Site Plan) shall be submitted as a plan sheet on all grading and building plan sets submitted for plan check review and approval. The BMP Exhibit shall be at the same size as the rest of the plan sheets in the submittal and shall have an approval stamp and signature prior to plan check submittal.

VI.2 Submittal and Recordation of Water Quality Management Plan

Following approval of the Final Project-Specific WQMP, three copies of the approved WQMP (including BMP Exhibit, Operations and Maintenance (O&M) Plan, and Appendices) shall be submitted. In addition, these documents shall be submitted in a PDF format.

Each approved WQMP (including BMP Exhibit, Operations and Maintenance (O&M) Plan, and Appendices) shall be recorded in the Orange County Clerk-Recorder's Office, prior to close-out of grading and/or building permit. Educational Materials are not required to be included.

Section VII Educational Materials

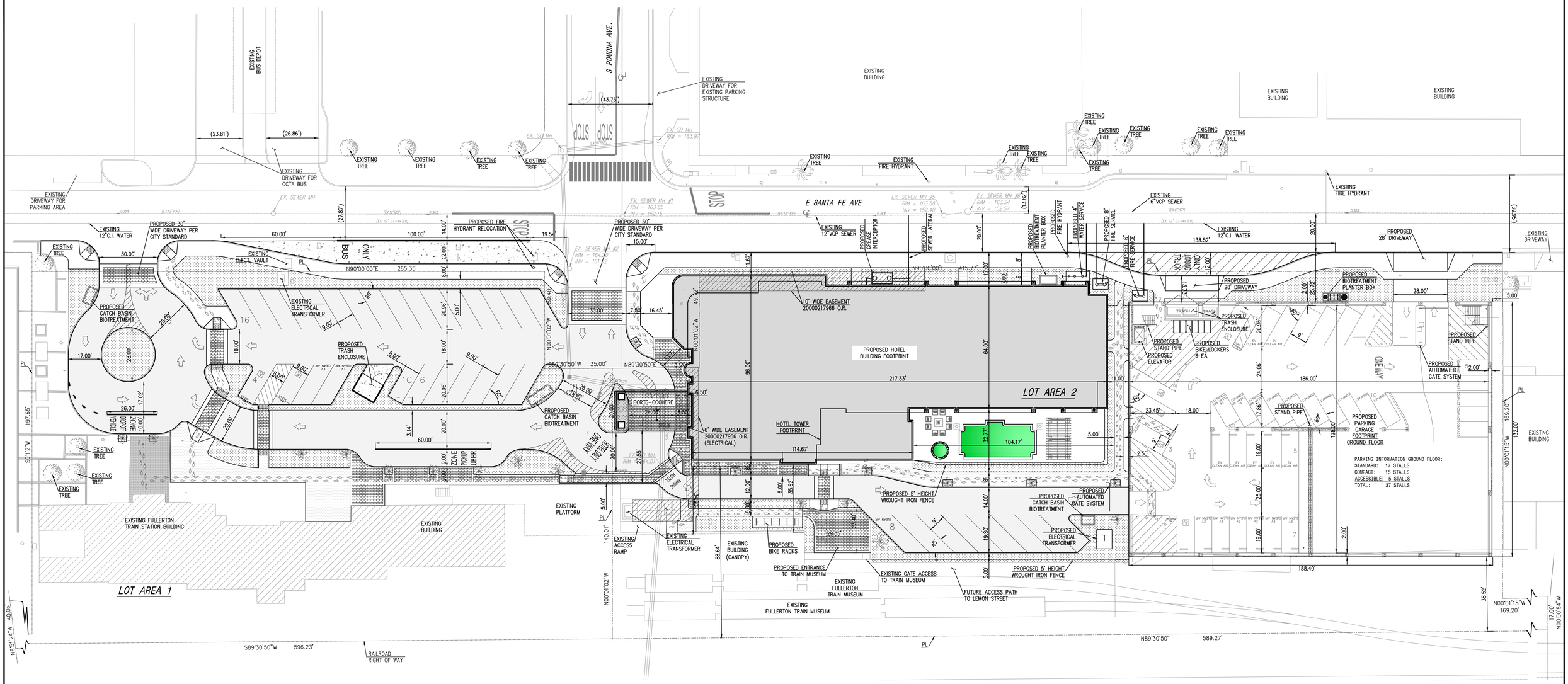
Refer to the Orange County Stormwater Program (ocwatersheds.com) for a library of materials available. Please only attach the educational materials specifically applicable to this project. Other materials specific to the project may be included as well and must be attached.

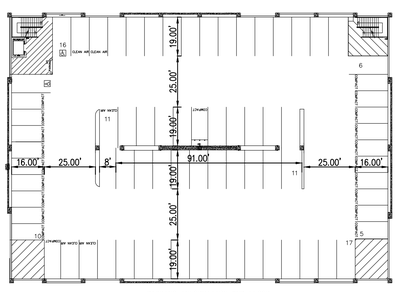
Education Materials			
Residential Material (http://www.ocwatersheds.com)	**Check If Applicable**	**Business Material (http://www.ocwatersheds.com)**	**Check If Applicable**
The Ocean Begins at Your Front Door	☒	Tips for the Automotive Industry	☐
Tips for Car Wash Fund-raisers	☐	Tips for Using Concrete and Mortar	☐
Tips for the Home Mechanic	☐	Tips for the Food Service Industry	☐
Homeowners Guide for Sustainable Water Use	☐	Proper Maintenance Practices for Your Business	☐
Household Tips	☐	**Other Material**	**Check If Attached**
Proper Disposal of Household Hazardous Waste	☒		
Recycle at Your Local Used Oil Collection Center (North County)	☐		☐
Recycle at Your Local Used Oil Collection Center (Central County)	☐		☐
Recycle at Your Local Used Oil Collection Center (South County)	☐		☐
Tips for Maintaining a Septic Tank System	☐		☐
Responsible Pest Control	☐		☐
Sewer Spill	☐		☐
Tips for the Home Improvement Projects	☐		☐
Tips for Horse Care	☐		☐
Tips for Landscaping and Gardening	☒		☐
Tips for Pet Care	☐		☐
Tips for Pool Maintenance	☒		☐
Tips for Residential Pool, Landscape and Hardscape Drains	☐		☐
Tips for Projects Using Paint	☐		☐

Attachment A

BMP Site Plan

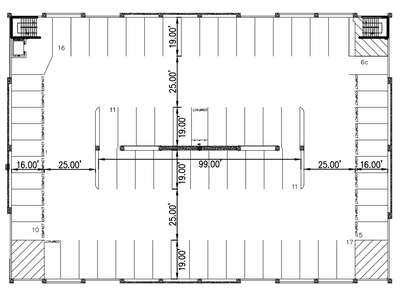
SITE PLAN





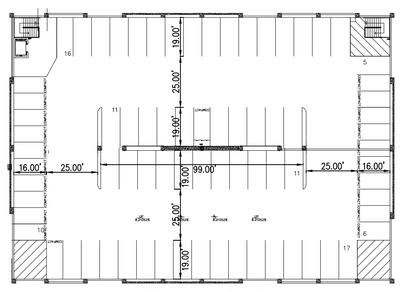
2ND FLOOR
1"=30'

PARKING INFORMATION 2ND FLOOR:
STANDARD: 53 STALLS
COMPACT: 21 STALLS
ACCESSIBLE: 2 STALLS
TOTAL: 76 STALLS



3RD FLOOR
1"=30'

PARKING INFORMATION 3RD FLOOR:
STANDARD: 54 STALLS
COMPACT: 22 STALLS
TOTAL: 76 STALLS



4TH FLOOR
1"=30'

PARKING INFORMATION 4TH FLOOR:
STANDARD: 54 STALLS
COMPACT: 22 STALLS
TOTAL: 76 STALLS

PROJECT PARKING INFORMATION:

	REQUIRED	PROVIDED
128 ROOM HOTEL BUILDING	128	
PUBLIC PARKING	163	
TOTAL PARKING	291	300

PARKING PROVIDED BREAKDOWN:

		STANDARD	COMPACT	ACCESSIBLE
SURFACE PARKING	35	32	1	2
PARKING STRUCTURE	265	178	80	7
TOTAL PARKING STALLS	300	210	81 (27%)	9

CLEAN AIR PARKING PROVIDED: 8% OF TOTAL (300 STALLS) = 24 CLEAN AIR STALLS

SURFACE PARKING BY TRAIN STATION	2
SURFACE PARKING BY HOTEL	1
PARKING STRUCTURE	21 (16 ON GROUND FLOOR & 5 ON 2ND FLOOR)
TOTAL CLEAN AIR STALLS	24

POTENTIAL ELECTRIC VEHICLE: 6% OF TOTAL (300 STALLS) = 18 EV STALLS

SURFACE PARKING BY TRAIN STATION	2 (PART OF CLEAN AIR VEHICLES CA/EV STALLS)
PARKING STRUCTURE	16 (PART OF CLEAN AIR VEHICLES CA/EV STALLS)
TOTAL EV STALLS	18

LOT AREA:

LOT AREA 1 (TRAIN STATION):	58,671.19 SF (1.34 AC)
LOT AREA 2 (HOTEL PARKING STRUCTURE):	86,636.34 SF (1.98 AC)
TOTAL LOT AREA:	145,307.53 SF (3.32 AC)

LANDSCAPE AREA OF IMPROVEMENTS: 10,865.14 SF (0.25 AC)

PROPOSED MECHANICAL EQUIPMENT (AIR CONDITIONER CONDENSERS) ARE PROPOSED TO BE ON THE ROOF OF PROPOSED BUILDING.

LEGEND:

= AC PAVEMENT

= PAVERS/STAMP CONCRETE

= LANDSCAPE

= PEDESTRIAN ACCESS & CIRCULATION PATH

20' 0 20' 40' 60'

SCALE: 1" = 20'

ISSUED FOR:

DATE	NO.	DESCRIPTION
03/07/19		CLIENT REVIEW
03/20/19		CITY OF FULLERTON MEETING

NOT FOR CONSTRUCTION

AN IN-HOUSE QUALITY CONTROL AND INTERFACE HAS NOT BEEN COMPLETED AND BUILDING DEPARTMENT REVISIONS HAVE NOT BEEN ADDED TO THESE CONSTRUCTION DRAWINGS. THE ARCHITECT AND HIS CONSULTANTS ASSUME NO RESPONSIBILITY FOR CONSTRUCTION BIDS OR CONSTRUCTION PERFORMED FROM THESE DRAWINGS.

PARKWEST General Contractors
3156 E LA PALMA AVE - SUITE J
ANAHEIM, CA 92806

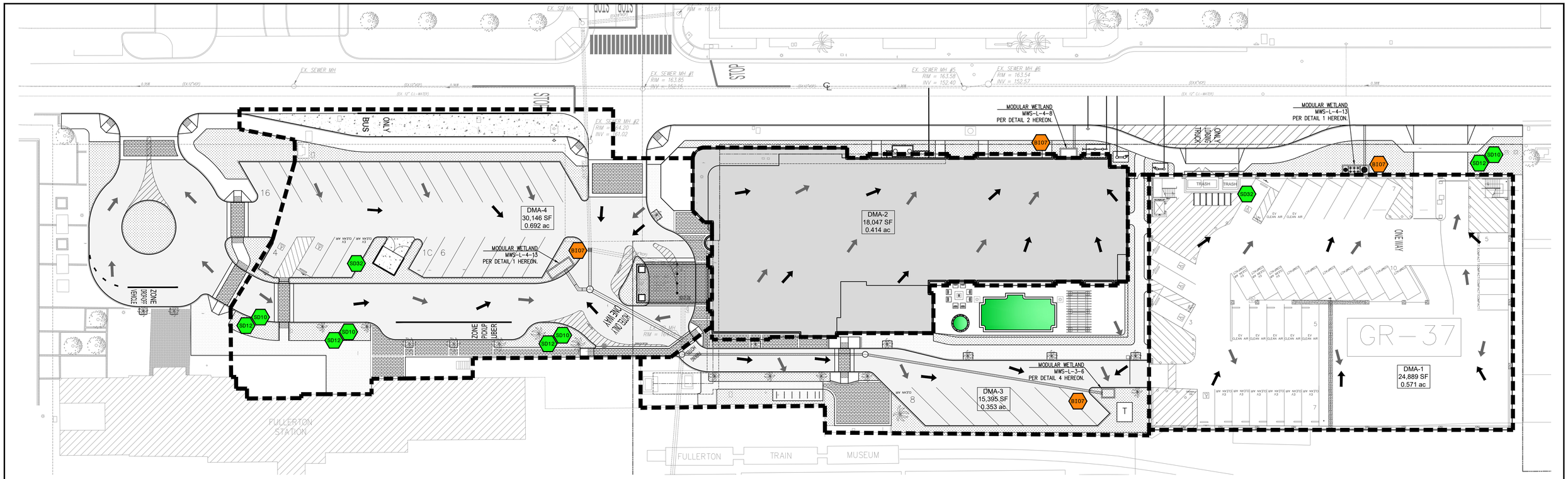
PLUMP ENGINEERING INC.
CONSULTING ENGINEERS IN CIVIL, SURVEYING, ARCHITECTURAL AND STRUCTURAL ENGINEERING
914 E. KATELLA AVENUE
ANAHEIM, CALIFORNIA 92805
(714) 385-1835, FAX (714) 385-1834

NEW CONSTRUCTION

FULLERTON TRANSPORTATION CENTER HOTEL

SHEET TITLE: SITE PLAN

DRAWING NO. C01



DMA-1:

Q design=(C x i design x A)
i design= 0.225 in/hr
A= 0.571 AC
C=(0.75 x imp) + 0.15 = (0.75x1.0) + 0.15 = 0.9
Q=(0.9 x 0.225 x 0.571) = 0.116 CFS

NOTE:
THE MINIMUM TREATMENT CAPACITY FLOW RATE PER OC TECHNICAL GUIDE DOCUMENT IS 0.116 CFS. THE DESIGN PROVIDED MODULAR WETLAND(MWS-L-4-13) THAT HAS TREATMENT CAPACITY FLOW RATE OF 0.144 CFS, THEREFORE THE DESIGN MEETS THE REQUIREMENTS.

DMA-2:

Q design=(C x i design x A)
i design= 0.225 in/hr
A= 0.414 AC
C=(0.75 x imp) + 0.15 = (0.75x1.0) + 0.15 = 0.9
Q=(0.9 x 0.225 x 0.414) = 0.084 CFS

NOTE:
THE MINIMUM TREATMENT CAPACITY FLOW RATE PER OC TECHNICAL GUIDE DOCUMENT IS 0.084 CFS. THE DESIGN PROVIDED MODULAR WETLAND(MWS-L-4-8) THAT HAS TREATMENT CAPACITY FLOW RATE OF 0.115 CFS, THEREFORE THE DESIGN MEETS THE REQUIREMENTS.

DMA-3:

Q design=(C x i design x A)
i design= 0.225 in/hr
A= 0.353 AC
C=(0.75 x imp) + 0.15 = (0.75x0.8055) + 0.15 = 0.755
Q=(0.755 x 0.225 x 0.353) = 0.06 CFS

NOTE:
THE MINIMUM TREATMENT CAPACITY FLOW RATE PER OC TECHNICAL GUIDE DOCUMENT IS 0.06 CFS. THE DESIGN PROVIDED MODULAR WETLAND(MWS-L-4-6) THAT HAS TREATMENT CAPACITY FLOW RATE OF 0.073 CFS, THEREFORE THE DESIGN MEETS THE REQUIREMENTS.

DMA-4:

Q design=(C x i design x A)
i design= 0.225 in/hr
A= 0.692 AC
C=(0.75 x imp) + 0.15 = (0.75x0.903) + 0.15 = 0.83
Q=(0.83 x 0.225 x 0.692) = 0.13 CFS

NOTE:
THE MINIMUM TREATMENT CAPACITY FLOW RATE PER OC TECHNICAL GUIDE DOCUMENT IS 0.13 CFS. THE DESIGN PROVIDED MODULAR WETLAND(MWS-L-4-13) THAT HAS TREATMENT CAPACITY FLOW RATE OF 0.144 CFS, THEREFORE THE DESIGN MEETS THE REQUIREMENTS.

LEGEND:

- AC PAVEMENT
- PAVERS/STAMP CONCRETE
- LANDSCAPE
- EXISTING FLOW DIRECTION
- PROPOSED FLOW DIRECTION
- DMA BOUNDARY
- DMA-X / X,XXX SF / XX.XX ac — DMA INFORMATION

SOURCE CONTROL BMP'S:

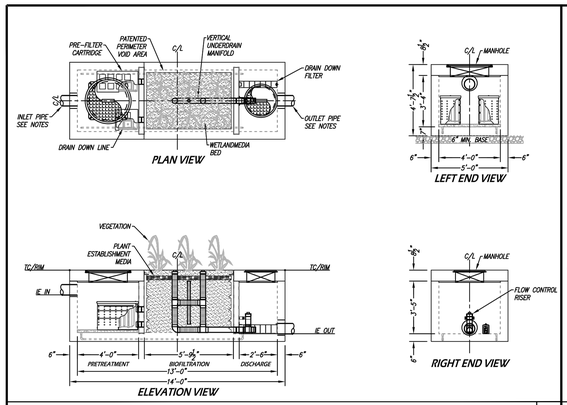
- SD10 — SITE DESIGN & LANDSCAPE PLANNING
- SD12 — EFFICIENT IRRIGATION
- SD21 — ALTERNATIVE BUILDING MATERIALS
- SD32 — TRASH ENCLOSURE

NON STRUCTURAL CONTROL BMP'S:

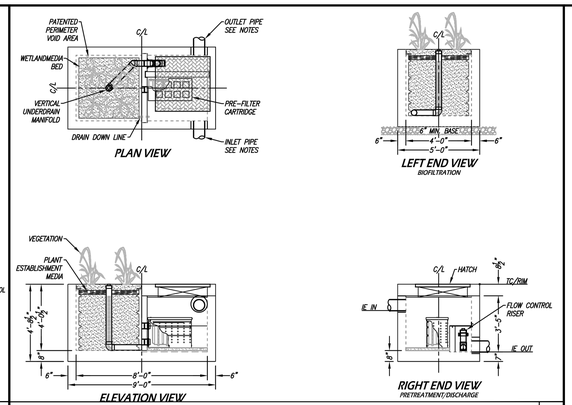
- N4 — EDUCATION FOR PROPERTY OWNERS, TENANTS AND OCCUPANTS (ENTIRE SITE)

TREATMENT CONTROL BMP'S:

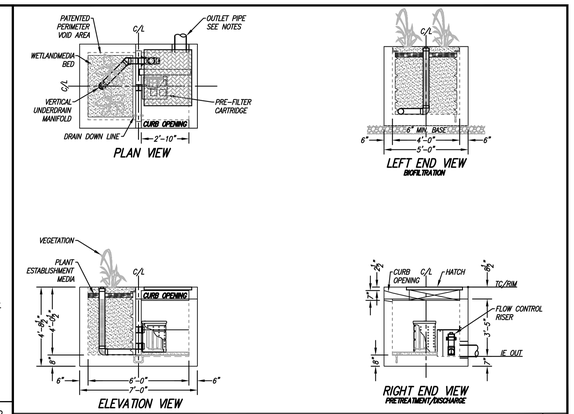
- BIO7 — PROPRIETARY BIOTREATMENT



NTS — MODULAR WET LANDS (MWS-L-4-13) — 1



NTS — MODULAR WET LANDS (MWS-L-4-8) DOWNSPOUT TYPE — 2



NTS — MODULAR WET LANDS (MWS-L-4-6) CURB TYPE — 4

ISSUED FOR:		
DATE	NO.	DESCRIPTION
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03/20/19		CITY OF FULLERTON MEETING

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(714) 385-1835, FAX (714) 385-1834

NEW CONSTRUCTION

FULLERTON TRANSPORTATION CENTER HOTEL

SHEET TITLE:

PRELIMINARY WQMP PLAN

DRAWING NO.

C03

SHEET: 3 OF 3

Attachment B

Educational Materials & BMP Fact Sheets

The Ocean Begins at Your Front Door



For More Information

California Environmental Protection Agency
www.calepa.ca.gov

- **Air Resources Board**
  www.arb.ca.gov
- **Department of Pesticide Regulation**
  www.cdpr.ca.gov
- **Department of Toxic Substances Control**
  www.dtsc.ca.gov
- **Integrated Waste Management Board**
  www.ciwmb.ca.gov
- **Office of Environmental Health Hazard Assessment**
  www.oehha.ca.gov
- **State Water Resources Control Board**
  www.waterboards.ca.gov

Earth 911 - Community-Specific Environmental Information 1-800-cleanup or visit www.1800cleanup.org

Health Care Agency's Ocean and Bay Water Closure and Posting Hotline
(714) 433-6400 or visit www.ocbeachinfo.com

Integrated Waste Management Dept. of Orange County (714) 834-6752 or visit www.oclandfills.com for information on household hazardous waste collection centers, recycling centers and solid waste collection

O.C. Agriculture Commissioner
(714) 447-7100 or visit www.ocagcomm.com

Stormwater Best Management Practice Handbook
Visit www.cabmphandbooks.com

UC Master Gardener Hotline
(714) 708-1646 or visit www.uccemg.com

The Orange County Stormwater Program has created and moderates an electronic mailing list to facilitate communications, take questions and exchange ideas among its users about issues and topics related to stormwater and urban runoff and the implementation of program elements. To join the list, please send an email to ocstormwaterinfo-join@list.ocwatersheds.com

Orange County Stormwater Program

Aliso Viejo	(949)	425-2535
Anaheim Public Works Operations	(714)	765-6860
Brea Engineering	(714)	990-7666
Buena Park Public Works	(714)	562-3655
Costa Mesa Public Services	(714)	754-5323
Cypress Public Works	(714)	229-6740
Dana Point Public Works	(949)	248-3584
Fountain Valley Public Works	(714)	593-4441
Fullerton Engineering Dept.	(714)	738-6853
Garden Grove Public Works	(714)	741-5956
Huntington Beach Public Works	(714)	536-5431
Irvine Public Works	(949)	724-6315
La Habra Public Services	(562)	905-9792
La Palma Public Works	(714)	690-3310
Laguna Beach Water Quality	(949)	497-0378
Laguna Hills Public Services	(949)	707-2650
Laguna Niguel Public Works	(949)	362-4337
Laguna Woods Public Works	(949)	639-0500
Lake Forest Public Works	(949)	461-3480
Los Alamitos Community Dev.	(562)	431-3538
Mission Viejo Public Works	(949)	470-3056
Newport Beach, Code & Water Quality Enforcement	(949)	644-3215
Orange Public Works	(714)	532-6480
Placentia Public Works	(714)	993-8245
Rancho Santa Margarita	(949)	635-1800
San Clemente Environmental Programs	(949)	361-6143
San Juan Capistrano Engineering	(949)	234-4413
Santa Ana Public Works	(714)	647-3380
Seal Beach Engineering	(562)	431-2527 x317
Stanton Public Works	(714)	379-9222 x204
Tustin Public Works/Engineering	(714)	573-3150
Villa Park Engineering	(714)	998-1500
Westminster Public Works/Engineering	(714)	898-3311 x446
Yorba Linda Engineering	(714)	961-7138
Orange County Stormwater Program	(877)	897-7455

Orange County 24-Hour
Water Pollution Problem Reporting Hotline
1-877-89-SPILL (1-877-897-7455)

On-line Water Pollution Problem Reporting Form
w w w . o c w a t e r s h e d s . c o m

Printed on Recycled Paper

Even if you live miles from the Pacific Ocean, you may be unknowingly polluting it.

Did You Know?

- Most people believe that the largest source of water pollution in urban areas comes from specific sources such as factories and sewage treatment plants. In fact, the largest source of water pollution comes from city streets, neighborhoods, construction sites and parking lots. This type of pollution is sometimes called "non-point source" pollution.
- There are two types of non-point source pollution: stormwater and urban runoff pollution.
- Stormwater runoff results from rainfall. When rainstorms cause large volumes of water to rinse the urban landscape, picking up pollutants along the way.
- Urban runoff can happen any time of the year when excessive water use from irrigation, vehicle washing and other sources carries trash, lawn clippings and other urban pollutants into storm drains.

Where Does It Go?

- Anything we use outside homes, vehicles and businesses – like motor oil, paint, pesticides, fertilizers and cleaners – can be blown or washed into storm drains.
- A little water from a garden hose or rain can also send materials into storm drains.
- Storm drains are separate from our sanitary sewer systems; unlike water in sanitary sewers (from sinks or toilets), water in storm drains is not treated before entering our waterways.

Sources of Non-Point Source Pollution

- Automotive leaks and spills.
- Improper disposal of used oil and other engine fluids.
- Metals found in vehicle exhaust, weathered paint, rust, metal plating and tires.
- Pesticides and fertilizers from lawns, gardens and farms.
- Improper disposal of cleaners, paint and paint removers.
- Soil erosion and dust debris from landscape and construction activities.
- Litter, lawn clippings, animal waste, and other organic matter.
- Oil stains on parking lots and paved surfaces.



Dumping one quart of motor oil into a storm drain can contaminate 250,000 gallons of water.

The Effect on the Ocean



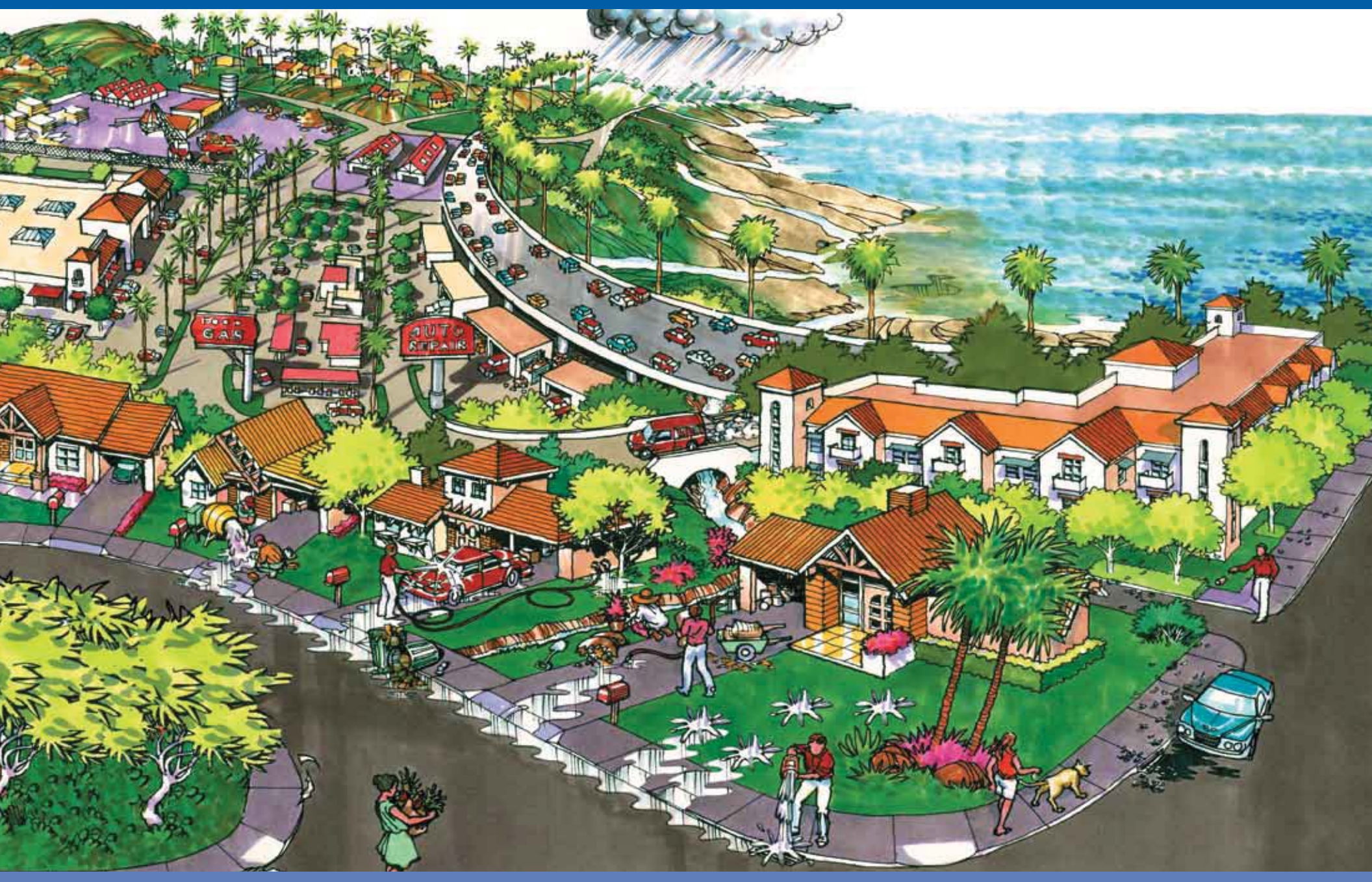
Non-point source pollution can have a serious impact on water quality in Orange County. Pollutants from the storm drain system can harm marine life as well as coastal and wetland habitats. They can also degrade recreation areas such as beaches, harbors and bays.

Stormwater quality management programs have been developed throughout Orange County to educate and encourage the public to protect water quality, monitor runoff in the storm drain system, investigate illegal dumping and maintain storm drains.

Support from Orange County residents and businesses is needed to improve water quality and reduce urban runoff pollution. Proper use and disposal of materials will help stop pollution before it reaches the storm drain and the ocean.



The Ocean Begins at Your Front Door



Never allow pollutants to enter the street, gutter or storm drain!

Follow these simple steps to help reduce water pollution:

Household Activities

- Do not rinse spills with water. Use dry cleanup methods such as applying cat litter or another absorbent material, sweep and dispose of in the trash. Take items such as used or excess batteries, oven cleaners, automotive fluids, painting products and cathode ray tubes, like TVs and computer monitors, to a Household Hazardous Waste Collection Center (HHWCC).
- For a HHWCC near you call (714) 834-6752 or visit www.oclandfills.com.
- Do not hose down your driveway, sidewalk or patio to the street, gutter or storm drain. Sweep up debris and dispose of it in the trash.

Automotive

- Take your vehicle to a commercial car wash whenever possible. If you wash your vehicle at home, choose soaps, cleaners, or detergents labeled non-toxic, phosphate- free or biodegradable. Vegetable and citrus-based products are typically safest for the environment.
- Do not allow washwater from vehicle washing to drain into the street, gutter or storm drain. Excess washwater should be disposed of in the sanitary sewer (through a sink or toilet) or onto an absorbent surface like your lawn.
- Monitor your vehicles for leaks and place a pan under leaks. Keep your vehicles well maintained to stop and prevent leaks.
- Never pour oil or antifreeze in the street, gutter or storm drain. Recycle these substances at a service station, a waste oil collection center or used oil recycling center. For the nearest Used Oil Collection Center call 1-800-CLEANUP or visit www.1800cleanup.org.

Pool Maintenance

- Pool and spa water must be dechlorinated and free of excess acid, alkali or color to be allowed in the street, gutter or storm drain.
- When it is not raining, drain dechlorinated pool and spa water directly into the sanitary sewer.
- Some cities may have ordinances that do not allow pool water to be disposed of in the storm drain. Check with your city.

Landscape and Gardening

- Do not over-water. Water your lawn and garden by hand to control the amount of water you use or set irrigation systems to reflect seasonal water needs. If water flows off your yard onto your driveway or sidewalk, your system is over-watering. Periodically inspect and fix leaks and misdirected sprinklers.
- Do not rake or blow leaves, clippings or pruning waste into the street, gutter or storm drain. Instead, dispose of waste by composting, hauling it to a permitted landfill, or as green waste through your city's recycling program.
- Follow directions on pesticides and fertilizer, (measure, do not estimate amounts) and do not use if rain is predicted within 48 hours.
- Take unwanted pesticides to a HHWCC to be recycled. For locations and hours of HHWCC, call (714) 834-6752 or visit www.oclandfills.com.

Trash

- Place trash and litter that cannot be recycled in securely covered trash cans.
- Whenever possible, buy recycled products.
- Remember: Reduce, Reuse, Recycle.

Pet Care

- Always pick up after your pet. Flush waste down the toilet or dispose of it in the trash. Pet waste, if left outdoors, can wash into the street, gutter or storm drain.
- If possible, bathe your pets indoors. If you must bathe your pet outside, wash it on your lawn or another absorbent/permeable surface to keep the washwater from entering the street, gutter or storm drain.
- Follow directions for use of pet care products and dispose of any unused products at a HHWCC.

Common Pollutants

Home Maintenance
- Detergents, cleaners and solvents
- Oil and latex paint
- Swimming pool chemicals
- Outdoor trash and litter

Lawn and Garden
- Pet and animal waste
- Pesticides
- Clippings, leaves and soil
- Fertilizer

Automobile
- Oil and grease
- Radiator fluids and antifreeze
- Cleaning chemicals
- Brake pad dust



Clean beaches and healthy creeks, rivers, bays and ocean are important to Orange County. However, many common activities such as pest control can lead to water pollution if you're not careful. Pesticide treatments must be planned and applied properly to ensure that pesticides do not enter the street, gutter or storm drain. Unlike water in sanitary sewers (from sinks and toilets), water in storm drains is not treated before entering our waterways.

You would never dump pesticides into the ocean, so don't let it enter the storm drains. Pesticides can cause significant damage to our environment if used improperly. If you are thinking of using a pesticide to control a pest, there are some important things to consider.

For more information,
please call
University of California Cooperative
Extension Master Gardeners at
(714) 708-1646
or visit these Web sites:
www.uccemg.org
www.ipm.ucdavis.edu

For instructions on collecting a specimen sample visit the Orange County Agriculture Commissioner's website at:
http://www.ocagcomm.com/ser_lab.asp

To report a spill, call the
Orange County 24-Hour
Water Pollution Problem
Reporting Hotline
at 1-877-89-SPILL (1-877-897-7455).

For emergencies, dial 911.

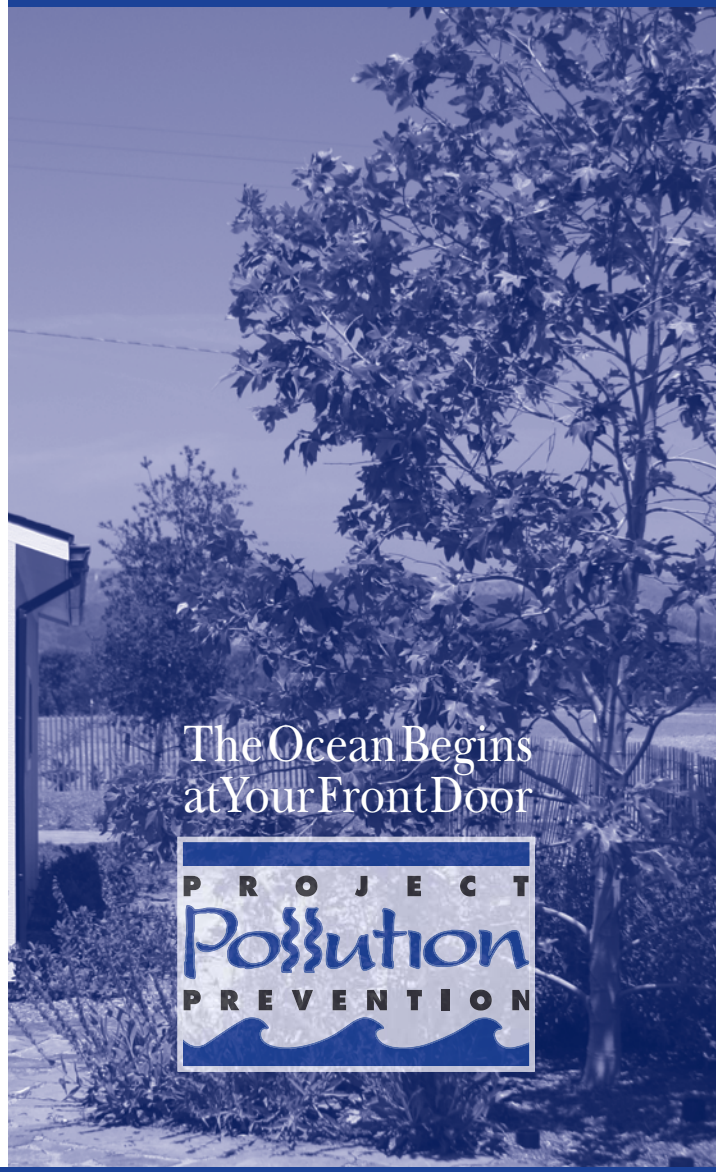
Information From:
Cheryl Wilen, Area IPM Advisor; Darren Haver, Watershed Management Advisor; Mary Louise Flint, IPM Education and Publication Director; Pamela M. Geisel, Environmental Horticulture Advisor; Carolyn L. Unruh, University of California Cooperative Extension staff writer. Photos courtesy of the UC Statewide IPM Program and Darren Haver.

Funding for this brochure has been provided in full or in part through an agreement with the State Water Resources Control Board (SWRCB) pursuant to the Costa-Machado Water Act of 2000 (Prop. 13).

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Help Prevent Ocean Pollution:

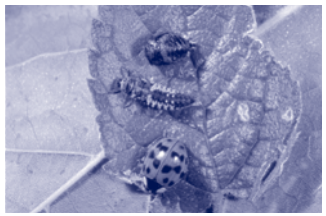
Responsible Pest Control



Tips for Pest Control

Key Steps to Follow:

Step 1: **Correctly identify the pest (insect, weed, rodent, or disease) and verify that it is actually causing the problem.**



Three life stages of the common lady beetle, a beneficial insect.

This is important because beneficial insects are often mistaken for pests and sprayed with pesticides needlessly.

Consult with a Certified Nursery Professional at a local nursery or garden center or send a sample of the pest to the Orange County Agricultural Commissioner's Office.

Determine if the pest is still present – even though you see damage, the pest may have left.

Step 2: **Determine how many pests are present and causing damage.**



Small pest populations may be controlled more safely using non-pesticide techniques. These include removing food sources, washing off leaves with a strong stream of water, blocking entry into the home using caulking and replacing problem plants with ones less susceptible to pests.

Integrated Pest Management (IPM) usually combines several least toxic pest control methods for long-term prevention and management of pest problems without harming you, your family, or the environment.

UC CE University of California Cooperative Extension

Step 3: **If a pesticide must be used, choose the least toxic chemical.**

Obtain information on the least toxic pesticides that are effective at controlling the target pest from the UC Statewide Integrated Pest Management (IPM) Program's Web site at www.ipm.ucdavis.edu.

Seek out the assistance of a Certified Nursery Professional at a local nursery or garden center when selecting a pesticide. Purchase the smallest amount of pesticide available.

Apply the pesticide to the pest during its most vulnerable life stage. This information can be found on the pesticide label.

Step 4: **Wear appropriate protective clothing.**

Follow pesticide labels regarding specific types of protective equipment you should wear. Protective clothing should always be washed separately from other clothing.

Step 5: **Continuously monitor external conditions when applying pesticides such as weather, irrigation, and the presence of children and animals.**

Never apply pesticides when rain is predicted within the next 48 hours. Also, do not water after applying pesticides unless the directions say it is necessary.

Apply pesticides when the air is still; breezy conditions may cause the spray or dust to drift away from your targeted area.

In case of an emergency call 911 and/or the regional poison control number at (714) 634-5988 or (800) 544-4404 (CA only).

For general questions you may also visit www.calpoison.org.

Step 6: **In the event of accidental spills, sweep up or use an absorbent agent to remove any excess pesticides. Avoid the use of water.**

Be prepared. Have a broom, dust pan, or dry absorbent material, such as cat litter, newspapers or paper towels, ready to assist in cleaning up spills.

Contain and clean up the spill right away. Place contaminated materials in a doubled plastic bag. All materials used to clean up the spill should be properly disposed of according to your local Household Hazardous Waste Disposal site.

Step 7: **Properly store and dispose of unused pesticides.**



Purchase Ready-To-Use (RTU) products to avoid storing large concentrated quantities of pesticides.

Store unused chemicals in a locked cabinet.

Unused pesticide chemicals may be disposed of at a Household Hazardous Waste Collection Center.

Empty pesticide containers should be triple rinsed prior to disposing of them in the trash.

Household Hazardous Waste Collection Center
(714) 834-6752
www.oclandfills.com

PROJECT Pollution PREVENTION

Sewage Spill Regulatory Requirements

Allowing sewage to discharge to a gutter or storm drain may subject you to penalties and/or out-of-pocket costs to reimburse cities or public agencies for clean-up efforts.

Here are the pertinent codes, fines, and agency contact information that apply.

Orange County Stormwater Program
24 Hour Water Pollution Reporting Hotline
1-877-89-SPILL (1-877-897-7455)

- County and city water quality ordinances prohibit discharges containing pollutants.

Orange County Health Care Agency Environmental Health
(714) 433-6419

California Health and Safety Code, Sections 5410-5416

- No person shall discharge raw or treated sewage or other waste in a manner that results in contamination, pollution or a nuisance.
- Any person who causes or permits a sewage discharge to any state waters:
  - must immediately notify the local health agency of the discharge.
  - shall reimburse the local health agency for services that protect the public's health and safety (water-contact receiving waters).
  - who fails to provide the required notice to the local health agency is guilty of a misdemeanor and shall be punished by a fine (between $500–$1,000) and/or imprisonment for less than one year.

Regional Water Quality Control Board
Santa Ana Region (951) 782-4130
San Diego Region (858) 467-2952

- Requires the prevention, mitigation, response to and reporting of sewage spills.

California Office of Emergency Services
(800) 852-7550

California Water Code, Article 4, Chapter 4, Sections 13268-13271
California Code of Regulations, Title 23, Division 3, Chapter 9.2, Article 2, Sections 2250-2260

- Any person who causes or permits sewage in excess of 1,000 gallons to be discharged to state waters **shall immediately notify the Office of Emergency Services.**
- Any person who fails to provide the notice required by this section is **guilty of a misdemeanor** and shall be punished by a fine (less than $20,000) and/or imprisonment for not more than one year.

DTP113 Rev 4/06
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Sewage Spill
Reference Guide

Your Responsibilities as a Private Property Owner

Residences
Businesses
Homeowner/Condominium Associations
Federal and State Complexes
Military Facilities



Orange County Sanitation District

Health Care Agency
Environmental Health

PROJECT Pollution PREVENTION
www.ocwatersheds.com

This brochure was designed courtesy of the Orange County Sanitation District (OCSD). For additional information, call (714) 962-2411, or visit their website at www.ocsd.com

What is a Sewage Spill?

Sewage spills occur when the wastewater being transported via underground pipes overflows through a manhole, cleanout or broken pipe. Sewage spills can cause health hazards, damage to homes and businesses, and threaten the environment, local waterways and beaches.

Common Causes of Sewage Spills

Grease builds up inside and eventually blocks sewer pipes. Grease gets into the sewer from food establishments, household drains, as well as from poorly maintained commercial grease traps and interceptors.

Structure problems caused by tree roots in the lines, broken/cracked pipes, missing or broken cleanout caps or undersized sewers can cause blockages.

Infiltration and inflow (I/I) impacts pipe capacity and is caused when groundwater or rainwater enters the sewer system through pipe defects and illegal connections.

You Are Responsible for a Sewage Spill Caused by a Blockage or Break in Your Sewer Lines!

Time is of the essence in dealing with sewage spills. You are required to **immediately**:

Control and minimize the spill. Keep spills contained on private property and out of gutters, storm drains and public waterways by shutting off or not using the water.

Use sandbags, dirt and/or plastic sheeting to prevent sewage from entering the storm drain system.

Clear the sewer blockage. Always wear gloves and wash your hands. It is recommended that a plumbing professional be called for clearing blockages and making necessary repairs.

Always notify your city sewer/public works department or public sewer district of sewage spills. If the spill enters the storm drains also notify the Health Care Agency. In addition, if it exceeds 1,000 gallons notify the Office of Emergency Services. Refer to the numbers listed in this brochure.



Overflowing cleanout pipe located on private property

You Could Be Liable

Allowing sewage from your home, business or property to discharge to a gutter or storm drain may subject you to penalties and/or out-of-pocket costs to reimburse cities or public agencies for clean-up and enforcement efforts. See Regulatory Codes & Fines section for pertinent codes and fines that apply.

What to Look For

Sewage spills can be a very noticeable gushing of water from a manhole or a slow water leak that may take time to be noticed. Don't dismiss unaccounted-for wet areas.

Look for:

- Drain backups inside the building.
- Wet ground and water leaking around manhole lids onto your street.
- Leaking water from cleanouts or outside drains.
- Unusual odorous wet areas: sidewalks, external walls or ground/landscape around a building.

Caution

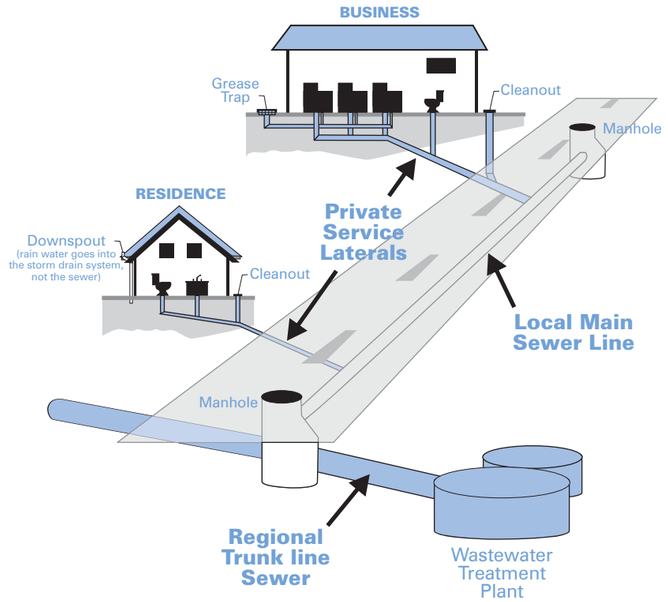
Keep people and pets away from the affected area. Untreated sewage has high levels of disease-causing viruses and bacteria. Call your local health care agency listed on the back for more information.

If You See a Sewage Spill Occurring, Notify Your City Sewer/Public Works Department or Public Sewer District IMMEDIATELY!

How a Sewer System Works

A property owner's sewer pipes are called service laterals and are connected to larger local main and regional trunk lines. Service laterals run from the connection at the home to the connection with the public sewer (including the area under the street). These laterals are the responsibility of the property owner and must be maintained by the property owner. Many city agencies have adopted ordinances requiring maintenance of service laterals. Check with your city sewer/local public works department for more information.

Operation and maintenance of **local and regional sewer lines** are the responsibility of the city sewer/public works departments and public sewer districts.



How You Can Prevent Sewage Spills

1. **Never put grease down garbage disposals, drains or toilets.**
2. **Perform periodic cleaning to eliminate grease, debris and roots in your service laterals.**
3. **Repair any structural problems in your sewer system and eliminate any rainwater infiltration/inflow leaks into your service laterals.**



Preventing Grease Blockages

The drain is not a dump! Recycle or dispose of grease properly and never pour grease down the drain.

Homeowners should mix fats, oils and grease with absorbent waste materials such as paper, coffee grounds, or kitty litter and place it in the trash. Wipe food scraps from plates and pans and dump them in the trash.

Restaurants and commercial food service establishments should always use "Kitchen Best Management Practices." These include:

- Collecting all cooking grease and liquid oil from pots, pans and fryers in covered grease containers for recycling.
- Scraping or dry-wiping excess food and grease from dishes, pots, pans and fryers into the trash.
- Installing drain screens on all kitchen drains.
- Having spill kits readily available for cleaning up spills.
- Properly maintaining grease traps or interceptors by having them serviced regularly. Check your local city codes.

Orange County Agency Responsibilites

- **City Sewer/Public Works Departments—** Responsible for protecting city property and streets, the local storm drain system, sewage collection system and other public areas.
- **Public Sewer/Sanitation District—** Responsible for collecting, treating and disposing of wastewater.
- **County of Orange Health Care Agency—** Responsible for protecting public health by closing ocean/bay waters and may close food-service businesses if a spill poses a threat to public health.
- **Regional Water Quality Control Boards—** Responsible for protecting State waters.
- **Orange County Stormwater Program—** Responsible for preventing harmful pollutants from being discharged or washed by stormwater runoff into the municipal storm drain system, creeks, bays and the ocean.

You Could Be Liable for Not Protecting the Environment

Local and state agencies have legal jurisdiction and enforcement authority to ensure that sewage spills are remedied.

They may respond and assist with containment, relieving pipe blockages, and/or clean-up of the sewage spill, especially if the spill is flowing into storm drains or onto public property.

A property owner may be charged for costs incurred by these agencies responding to spills from private properties.



Report Sewage Spills!

City Sewer/Public Works Departments

Aliso Viejo	(949) 425-2500
Anaheim	(714) 765-6860
Brea	(714) 990-7691
Buena Park	(714) 562-3655
Costa Mesa	(949) 645-8400
Cypress	(714) 229-6760
Dana Point	(949) 248-3562
Fountain Valley	(714) 593-4600
Fullerton	(714) 738-6897
Garden Grove	(714) 741-5375
Huntington Beach	(714) 536-5921
Irvine	(949) 453-5300
Laguna Beach	(949) 497-0765
Laguna Hills	(949) 707-2650
Laguna Niguel	(949) 362-4337
Laguna Woods	(949) 639-0500
La Habra	(562) 905-9792
Lake Forest	(949) 461-3480
La Palma	(714) 690-3310
Los Alamitos	(562) 431-3538
Mission Viejo	(949) 831-2500
Newport Beach	(949) 644-3011
Orange	(714) 532-6480
Orange County	(714) 567-6363
Placentia	(714) 993-8245
Rancho Santa Margarita	(949) 635-1800
San Clemente	(949) 366-1553
San Juan Capistrano	(949) 443-6363
Santa Ana	(714) 647-3380
Seal Beach	(562) 431-2527
Stanton	(714) 379-9222
Tustin	(714) 962-2411
Villa Park	(714) 998-1500
Westminster	(714) 893-3553
Yorba Linda	(714) 961-7170

Public Sewer/Water Districts

Costa Mesa Sanitary District	(714) 393-4433/ (949) 645-8400
El Toro Water District	(949) 837-0660
Emerald Bay Service District	(949) 494-8571
Garden Grove Sanitary District	(714) 741-5375
Irvine Ranch Water District	(949) 453-5300
Los Alamitos/Rossmoor Sewer District	(562) 431-2223
Midway City Sanitary District (Westminster)	(714) 893-3553
Moulton Niguel Water District	(949) 831-2500
Orange County Sanitation District	(714) 962-2411
Santa Margarita Water District	(949) 459-6420
South Coast Water District	(949) 499-4555
South Orange County Wastewater Authority	(949) 234-5400
Sunset Beach Sanitary District	(562) 493-9932
Trabuco Canyon Sanitary District	(949) 858-0277
Yorba Linda Water District	(714) 777-3018

Other Agencies

Orange County Health Care Agency	(714) 433-6419
Office of Emergency Services	(800) 852-7550



Preventing water pollution at your commercial/industrial site

Clean beaches and healthy creeks, rivers, bays and ocean are important to Orange County. However, many landscape and building maintenance activities can lead to water pollution if you're not careful. Paint, chemicals, plant clippings and other materials can be blown or washed into storm drains that flow to the ocean. Unlike water in sanitary sewers (from sinks and toilets), water in storm drains is not treated before entering our waterways.

You would never pour soap or fertilizers into the ocean, so why would you let them enter the storm drains? Follow these easy tips to help prevent water pollution.

Some types of industrial facilities are required to obtain coverage under the State General Industrial Permit. For more information visit: **www.swrcb.ca.gov/stormwater/industrial.html**

For more information, please call the **Orange County Stormwater Program** at **1-877-89-SPILL** (1-877-897-7455) or visit **www.ocwatersheds.com**

To report a spill, call the **Orange County 24-Hour Water Pollution Problem Reporting Hotline** at **1-877-89-SPILL** (1-877-897-7455).

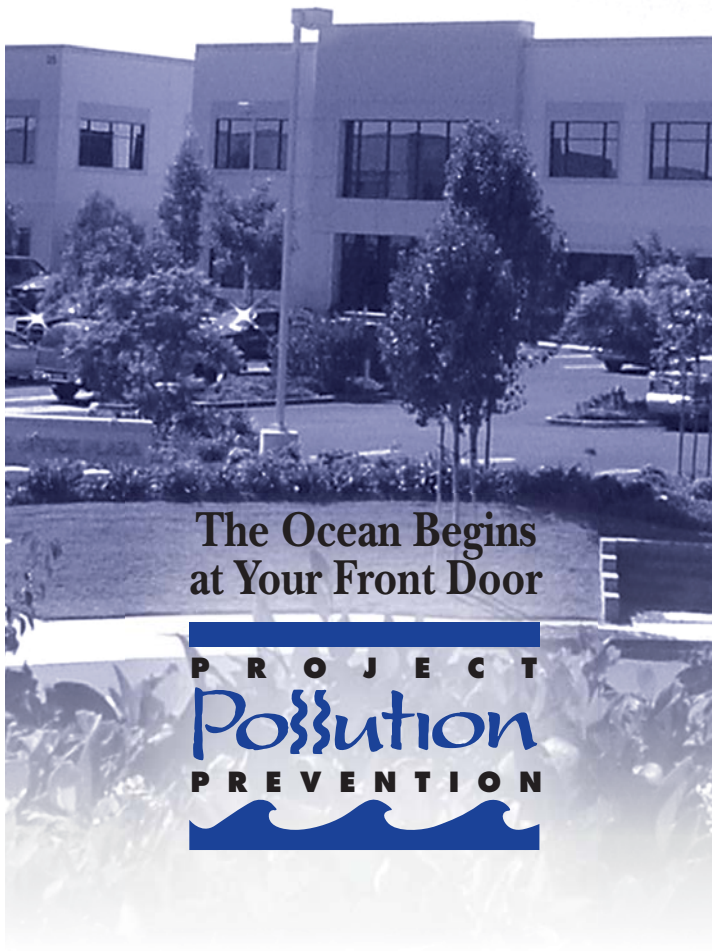
For emergencies, dial 911.

RECYCLE USED OIL

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Help Prevent Ocean Pollution:

Proper Maintenance Practices for Your Business



Proper Maintenance Practices for your Business

Landscape Maintenance

- Compost grass clippings, leaves, sticks and other vegetation, or dispose of it at a permitted landfill or in green waste containers. Do not dispose of these materials in the street, gutter or storm drain.
- Irrigate slowly and inspect the system for leaks, overspraying and runoff. Adjust automatic timers to avoid overwatering.
- Follow label directions for the use and disposal of fertilizers and pesticides.
- Do not apply pesticides or fertilizers if rain is expected within 48 hours or if wind speeds are above 5 mph.
- Do not spray pesticides within 100 feet of waterways.
- Fertilizers should be worked into the soil rather than dumped onto the surface.
- If fertilizer is spilled on the pavement or sidewalk, sweep it up immediately and place it back in the container.

Building Maintenance

- Never allow washwater, sweepings or sediment to enter the storm drain.
- Sweep up dry spills and use cat litter, towels or similar materials to absorb wet spills. Dispose of it in the trash.
- If you wash your building, sidewalk or parking lot, you **must** contain the water. Use a shop vac to collect the water and contact your city or sanitation agency for proper disposal information. Do not let water enter the street, gutter or storm drain.
- Use drop cloths underneath outdoor painting, scraping, and sandblasting work, and properly dispose of materials in the trash.
- Use a ground cloth or oversized tub for mixing paint and cleaning tools.
- Use a damp mop or broom to clean floors.
- Cover dumpsters to keep insects, animals, rainwater and sand from entering. Keep the area around the dumpster clear of trash and debris. Do not overfill the dumpster.
- Call your trash hauler to replace leaking dumpsters.
- Do not dump any toxic substance or liquid waste on the pavement, the ground, or near a storm drain. Even materials that seem harmless such as latex paint or biodegradable cleaners can damage the environment.

Never Dispose of Anything in the Storm Drain.

- Recycle paints, solvents and other materials. For more information about recycling and collection centers, visit **www.oclandfills.com**.
- Store materials indoors or under cover and away from storm drains.
- Use a construction and demolition recycling company to recycle lumber, paper, cardboard, metals, masonry, carpet, plastic, pipes, drywall, rocks, dirt, and green waste. For a listing of construction and demolition recycling locations in your area, visit **www.ciwmb.ca.gov/recycle.**
- Properly label materials. Familiarize employees with Material Safety Data Sheets.

PROJECT Pollution PREVENTION

BIO-7: Proprietary Biotreatment

Proprietary biotreatment devices are devices that are manufactured to mimic natural systems such as bioretention areas by incorporating plants, soil, and microbes engineered to provide treatment at higher flow rates or volumes and with smaller footprints than their natural counterparts. Incoming flows are typically filtered through a planting media (mulch, compost, soil, plants, microbes, etc.) and either infiltrated or collected by an underdrain and delivered to the storm water conveyance system. Tree box filters are an increasingly common type of proprietary biotreatment device that are installed at curb level and filled with a bioretention type soil. For low to moderate flows they operate similarly to bioretention systems and are bypassed during high flows. Tree box filters are highly adaptable solutions that can be used in all types of development and in all types of soils but are especially applicable to dense urban parking lots, street, and roadways.

Also known as:

- *Catch basin planter box*
- *Bioretention vault*
- *Tree box filter*



Proprietary biotreatment
Source: http://www.americastusa.com /index.php/filterra/

Feasibility Screening Considerations

- Proprietary biotreatment devices that are unlined may cause incidental infiltration. Therefore, an evaluation of site conditions should be conducted to evaluate whether the BMP should include an impermeable liner to avoid infiltration into the subsurface.

Opportunity Criteria

- Drainage areas of 0.25 to 1.0 acres.
- Land use may include commercial, residential, mixed use, institutional, and subdivisions. Proprietary biotreatment facilities may also be applied in parking lot islands, traffic circles, road shoulders, and road medians.
- Must not adversely affect the level of flood protection provided by the drainage system.

OC-Specific Design Criteria and Considerations

☐ Frequent maintenance and the use of screens and grates to keep trash out may decrease the likelihood of clogging and prevent obstruction and bypass of incoming flows.

☐ Consult proprietors for specific criteria concerning the design and performance.

☐ Proprietary biotreatment may include specific media to address pollutants of concern. However, for proprietary device to be considered a biotreatment device the media must be capable of supporting rigorous growth of vegetation.

☐ Proprietary systems must be acceptable to the reviewing agency. Reviewing agencies shall have the discretion to request performance information. Reviewing agencies shall have the discretion to deny the use of a proprietary BMP on the grounds of performance, maintenance considerations, or other relevant factors.

☐ In right of way areas, plant selection should not impair traffic lines of site. Local jurisdictions may also limit plant selection in keeping with landscaping themes.

Computing Sizing Criteria for Proprietary Biotreatment Device

- Proprietary biotreatment devices can be volume based or flow-based BMPs.
- Volume-based proprietary devices should be sized using the Simple Design Capture Volume Sizing Method described in **Appendix III.3.1** or the Capture Efficiency Method for Volume-Based, Constant Drawdown BMPs described in **Appendix III.3.2**.
- The required design flowrate for flow-based proprietary devices should be computed using the Capture Efficiency Method for Flow-based BMPs described in **Appendix III.3.3)**.

In South Orange County, the provided ponding plus pore volume must be checked to demonstrate that it is greater than 0.75 of the remaining DCV that this BMP is designed to address. Many propretary biotreatment BMPs will not be able to meet the definition of "biofiltration" that applies in South Orange County. See Section III.7 and Worksheet SOC-1.

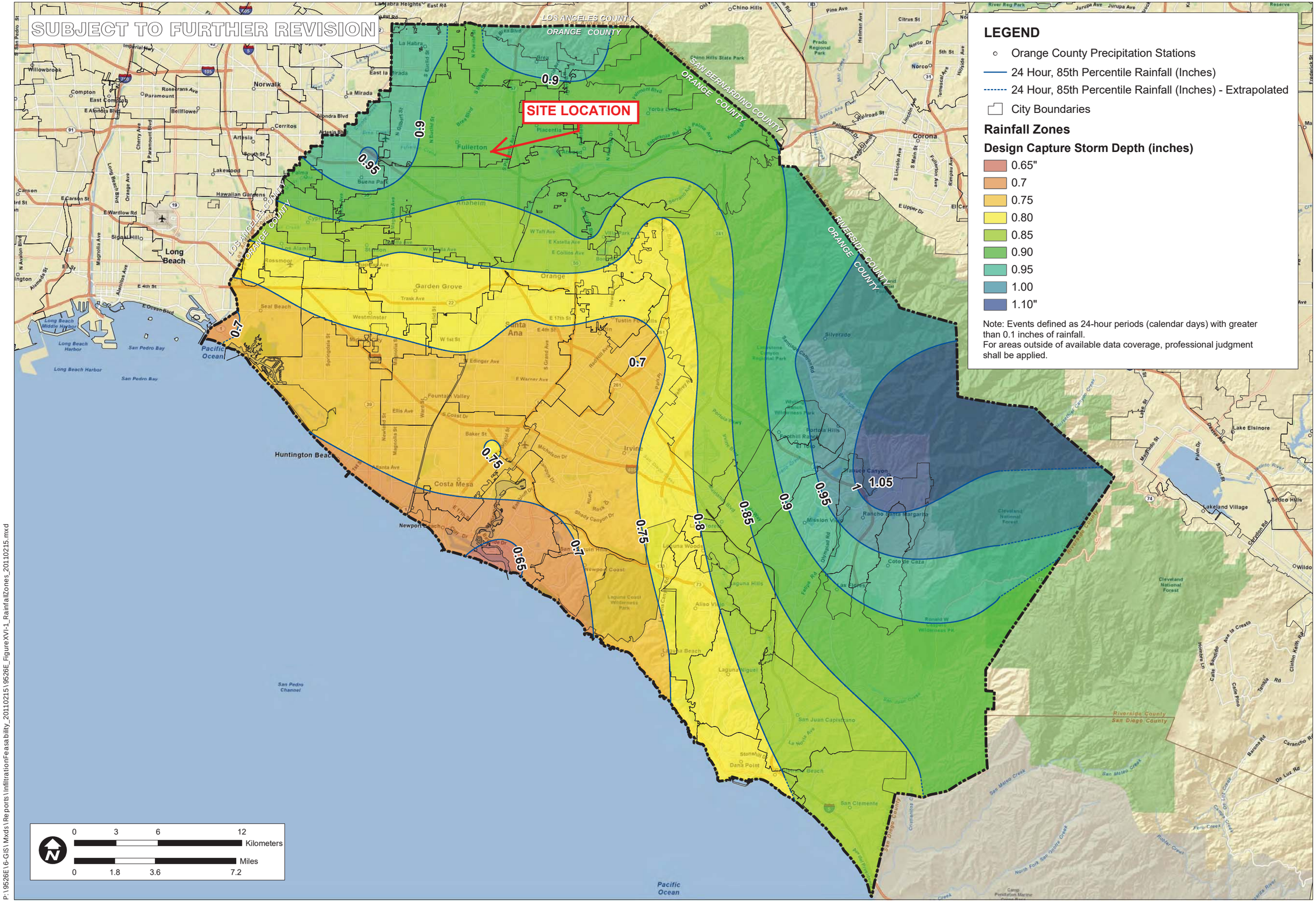
Additional References for Design Guidance

- Los Angeles Unified School District (LAUSD) Stormwater Technical Manual, Chapter 4: **http://www.laschools.org/employee/design/fs-studies-and-reports/download/white_paper_report_material/Storm_Water_Technical_Manual_2009-opt-red.pdf?version_id=76975850**
- Los Angeles County Stormwater BMP Design and Maintenance Manual, Chapter 9: **http://dpw.lacounty.gov/DES/design_manuals/StormwaterBMPDesignandMaintenance.pdf**
- Santa Barbara BMP Guidance Manual, Chapter 6: **http://www.santabarbaraca.gov/NR/rdonlyres/91D1FA75-C185-491E-A882-49EE17789DF8/0/Manual_071008_Final.pdf**

Attachment C

Maps

SUBJECT TO FURTHER REVISION



LEGEND

- Orange County Precipitation Stations
- 24 Hour, 85th Percentile Rainfall (Inches)
- 24 Hour, 85th Percentile Rainfall (Inches) - Extrapolated
- City Boundaries

Rainfall Zones

Design Capture Storm Depth (inches)

- 0.65"
- 0.7
- 0.75
- 0.80
- 0.85
- 0.90
- 0.95
- 1.00
- 1.10"

Note: Events defined as 24-hour periods (calendar days) with greater than 0.1 inches of rainfall.
For areas outside of available data coverage, professional judgment shall be applied.

TITLE: RAINFALL ZONES

JOB: ORANGE COUNTY TECHNICAL GUIDANCE DOCUMENT — ORANGE CO., CA

SCALE	1" = 1.8 miles
DESIGNED	TH
DRAWING	TH
CHECKED	BMP
DATE	04/22/10
JOB NO.	9526-E

PACE Advanced Water Engineering

FIGURE XVI-1

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SUBJECT TO FURTHER REVISION

SITE LOCATION

LOS ANGELES COUNTY
ORANGE COUNTY
SAN BERNARDINO COUNTY
ORANGE COUNTY
RIVERSIDE COUNTY
ORANGE COUNTY
LOS ANGELES COUNTY
ORANGE COUNTY

LEGEND

City Boundaries

Hydrologic Soil Groups

- A Soils
- B Soils
- C Soils
- D Soils

Source:
Soils: Natural Resources Conservation Service (NRCS)
Soil Survey - soil_ca678, Orange County & Western Riverside
Date of publication: 2006-02-08
http://websoilsurvey.nrcs.usda.gov/app/HomePage.htm

0 2.5 5 10 Kilometers
0 1.8 3.6 7.2 Miles

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TITLE
NRCS HYDROLOGIC SOILS GROUPS

ORANGE COUNTY INFILTRATION STUDY

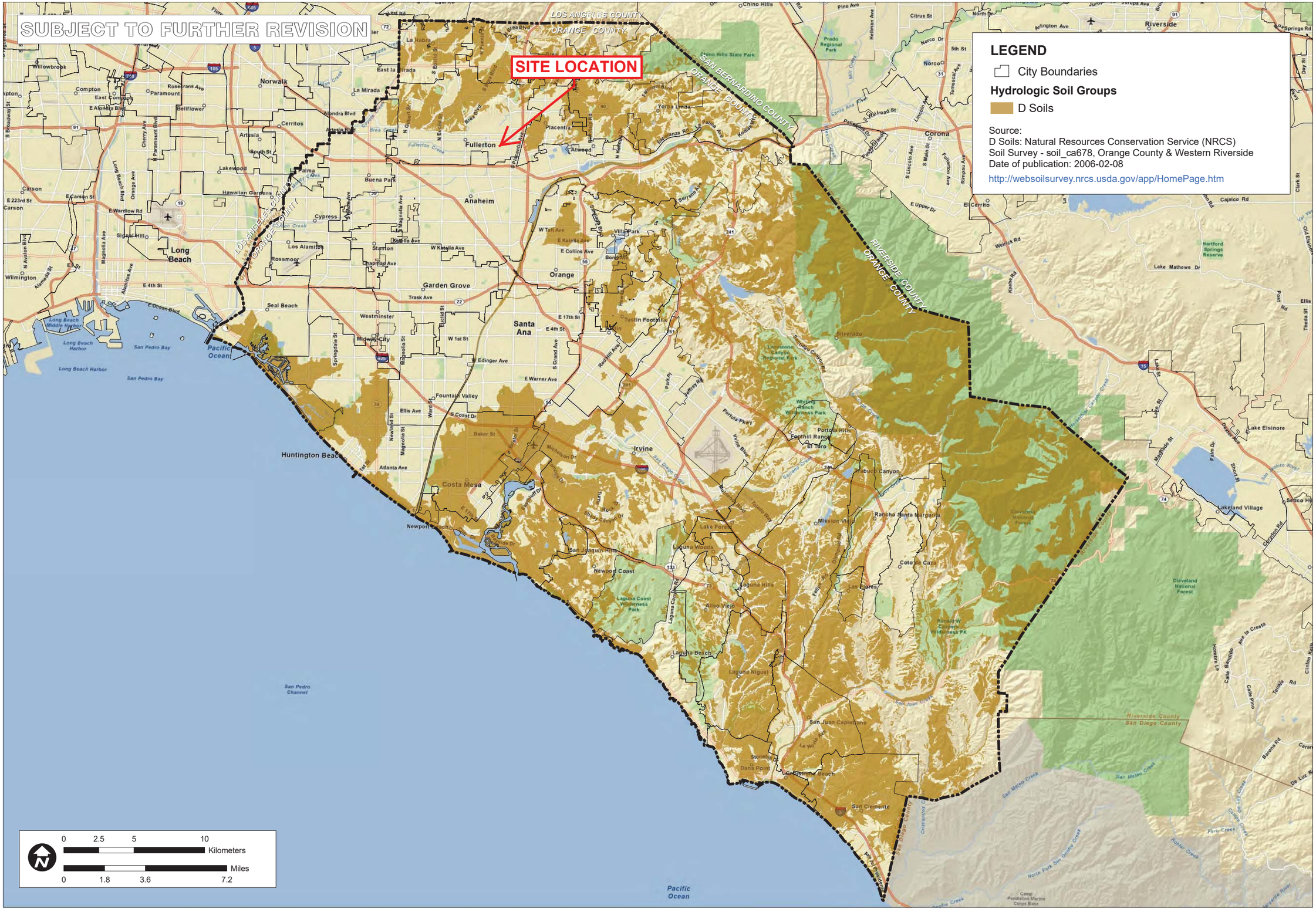
JOB
ORANGE CO. CA

SCALE	1" = 1.8 miles
DESIGNED	TH
DRAWING	TH
CHECKED	BMP
DATE	02/09/11
JOB NO.	9526-E

PACE
Advanced Water Engineering

FIGURE
XVI-2a

SUBJECT TO FURTHER REVISION



LEGEND

City Boundaries

Hydrologic Soil Groups

D Soils

Source:
D Soils: Natural Resources Conservation Service (NRCS)
Soil Survey - soil_ca678, Orange County & Western Riverside
Date of publication: 2006-02-08
http://websoilsurvey.nrcs.usda.gov/app/HomePage.htm

TITLE: HYDROLOGIC SOIL GROUP
TYPE D NRCS SOIL SURVEY

JOB: ORANGE COUNTY
INFILTRATION STUDY
CA

SCALE	1" = 1.8 miles
DESIGNED	TH
DRAWING	TH
CHECKED	BMP
DATE	02/09/11
JOB NO.	9526-E

PACE Advanced Water Engineering

FIGURE
XVI-2b

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SUBJECT TO FURTHER REVISION

SITE LOCATION

LOS ANGELES COUNTY
ORANGE COUNTY

SAN BERNARDINO COUNTY
ORANGE COUNTY

RIVERSIDE COUNTY
ORANGE COUNTY

LOS ANGELES COUNTY
ORANGE COUNTY

LEGEND

City Boundaries

Seismic Hazards

Potential Landslide Area

Source:
Seismic Hazard Zone Maps
Division of Mines and Geology, California Geology Survey,
Publication Date: 2005; Data Downloaded 02-09-2011
http://www.conservation.ca.gov/cgs/shzp/Pages/Index.aspx

0 2.5 5 10 Kilometers

0 1.8 3.6 7.2 Miles

TITLE
HYDROLOGIC SOIL GROUP
TYPE D NRCS SOIL SURVEY

JOB
ORANGE COUNTY
INFILTRATION STUDY
CA
ORANGE CO.

SCALE	1" = 1.25 miles
DESIGNED	TH
DRAWING	TH
CHECKED	BMP
DATE	02/09/11
JOB NO.	9526-E

PACE
Advanced Water Engineering

FIGURE
XVI-2c

P:\9526E\16-GIS\Mxds\Reports\InfiltrationFeasability_20110215\9526E_FigureXVI-2c_Landslides_20110215.mxd

SUBJECT TO FURTHER REVISION

SITE LOCATION

LEGEND

- Depth To First Groundwater Contours
- City Boundaries
- OCWD Groundwater Basin Protection Boundary

Note: Data are not available for South Orange County at this time.

Source:
Sprotte, Fuller and Greenwood, 1980.
California Division of Mines and Geology;
California Geological Survey

LOS ANGELES COUNTY
ORANGE COUNTY
SAN BERNARDINO COUNTY
RIVERSIDE COUNTY

0 2 4 8 Kilometers
0 1.25 2.5 5 Miles

TITLE
NORTH ORANGE COUNTY
MAPPED DEPTH TO FIRST
GROUNDWATER

JOB
ORANGE CO.
ORANGE COUNTY
INFILTRATION STUDY
CA

SCALE	1" = 1.25 miles
DESIGNED	TH
DRAWING	TH
CHECKED	BMP
DATE	02/09/11
JOB NO.	9526-E

PACE
Advanced Water Engineering

FIGURE
XVI-2d

P:\9526E\16-GIS\Mxds\Reports\InfiltrationFeasability_20110215\9526E_FigureXVI-2d_DepthToGroundwaterOverview_20110215.mxd

SUBJECT TO FURTHER REVISION

SITE LOCATION

LOS ANGELES COUNTY
ORANGE COUNTY

SAN BERNARDINO COUNTY
ORANGE COUNTY

RIVERSIDE COUNTY
ORANGE COUNTY

LEGEND

City Boundaries

OCWD Groundwater Basin Protection Boundary

Depth To Groundwater

<= 5'

5-10'

Note: Data are not available for South Orange County at this time.

Source:
Sprotte, Fuller and Greenwood, 1980.
California Division of Mines and Geology;
California Geological Survey

0 2 4 8 Kilometers

0 1.25 2.5 5 Miles

P:\19526E\16-GIS\Mxds\Reports\Infiltration Feasability_20110215\19526E_FigureXVI-2e_DepthToGroundwater1.5ft_20110215.mxd

TITLE

NORTH ORANGE COUNTY
MAPPED SHALLOW GROUNDWATER

ORANGE COUNTY
INFILTRATION STUDY

CA

JOB

ORANGE CO.

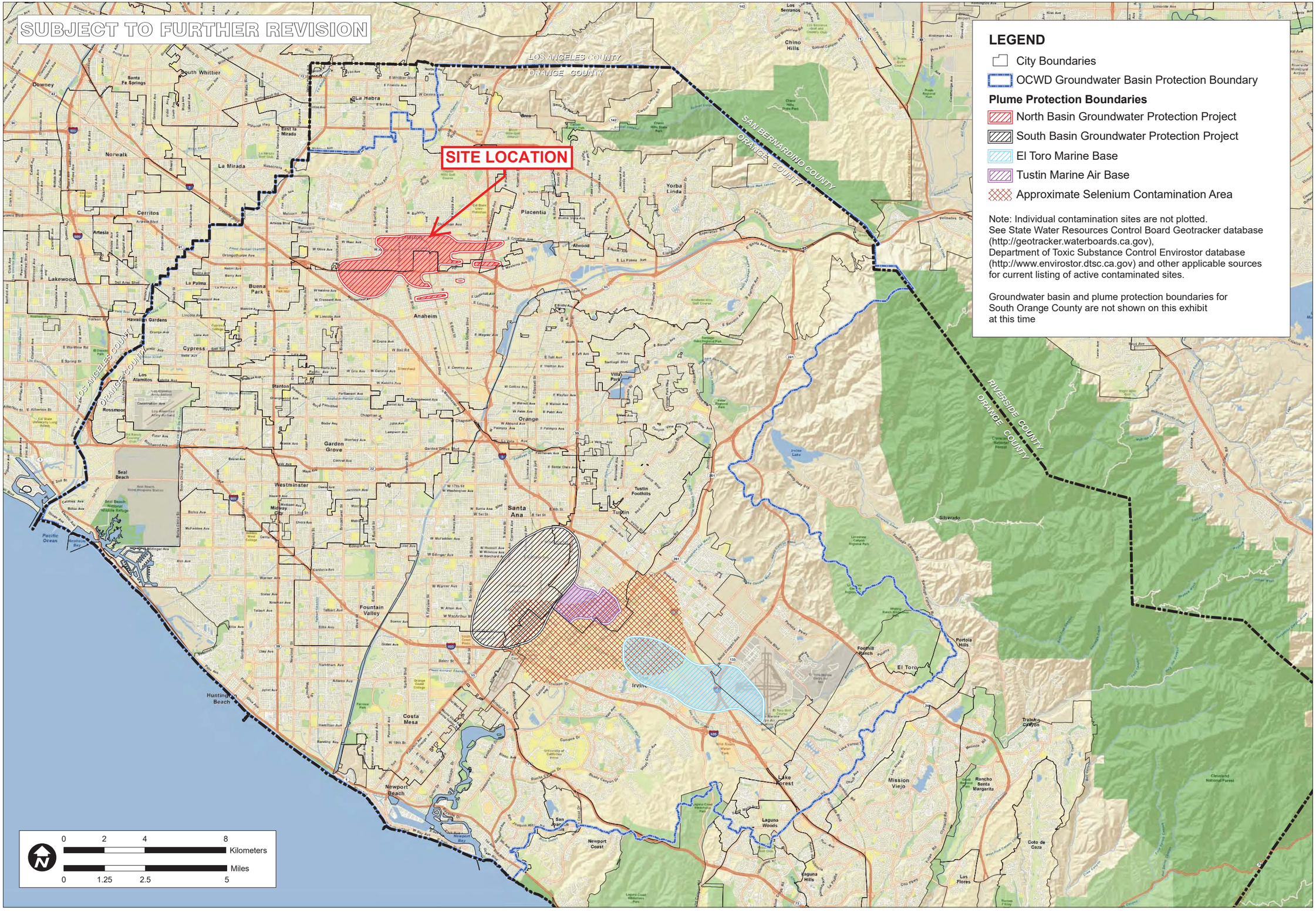
SCALE	1" = 1.25 miles
DESIGNED	TH
DRAWING	TH
CHECKED	BMP
DATE	02/09/11
JOB NO.	9526-E

PACE
Advanced Water Engineering

FIGURE

XVI-2e

SUBJECT TO FURTHER REVISION



LEGEND

- City Boundaries
- OCWD Groundwater Basin Protection Boundary

Plume Protection Boundaries

- North Basin Groundwater Protection Project
- South Basin Groundwater Protection Project
- El Toro Marine Base
- Tustin Marine Air Base
- Approximate Selenium Contamination Area

Note: Individual contamination sites are not plotted.
See State Water Resources Control Board Geotracker database (http://geotracker.waterboards.ca.gov), Department of Toxic Substance Control Envirostor database (http://www.envirostor.dtsc.ca.gov) and other applicable sources for current listing of active contaminated sites.

Groundwater basin and plume protection boundaries for South Orange County are not shown on this exhibit at this time

TITLE
NORTH ORANGE COUNTY GROUNDWATER PROTECTION AREAS

JOB
ORANGE COUNTY INFILTRATION STUDY
CA
ORANGE CO.

SCALE	1" = 1.25 miles
DESIGNED	TH
DRAWING	TH
CHECKED	BMP
DATE	04/22/10
JOB NO.	9526-E

PACE
Advanced Water Engineering

FIGURE
XVI-2f

P:\9526E\16-GIS\Mxds\Reports\InfiltrationFeasability_20110215\9526E_FigureXVI-2f_NorthOCGroundwaterProtectionAreasStreetMap_20110215.mxd

SUBJECT TO FURTHER REVISION

SITE LOCATION

LEGEND

- OCWD Groundwater Basin Protection Boundary
- City Boundaries

Infiltration Constraints

- 1 Constraint
- 2 Overlapping Constraints
- 3 Overlapping Constraints
- 4 Overlapping Constraints

Analysis Layers Included: 1. Hydrologic Soil Group D, 2. Landslide Hazard Zone, 3. Groundwater Protection Areas 4. Approximate Selinium Area, 5. Depth to Groundwater <= 5'

Note: Screening datasets are not exhaustive. The applicant should always conduct a review of available site-specific information relative to infiltration constraints as part of assessing the feasibility of stormwater infiltration.
Source;
Infiltration Constraint Analysis: PACE/Geosyntec

0 2.5 5 10 Kilometers

0 1.8 3.6 7.2 Miles

TITLE: INFILTRATION ANALYSIS OVERLAPPING CONSTRAINT LOCATIONS

JOB: ORANGE COUNTY INFILTRATION STUDY — ORANGE CO. — CA

SCALE	1" = 1.8 miles
DESIGNED	TH
DRAWING	TH
CHECKED	BMP
DATE	04/22/10
JOB NO.	9526-E

PACE Advanced Water Engineering

FIGURE XVI-2g

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Susceptibility

Potential Areas of Erosion, Habitat, & Physical Structure Susceptibility

Channel Type

- Earth (Unstable)
- Earth (Stabilized)
- Stabilized

Tidel Influence

- <= Mean High Water Line (4.28')

Water Body

- Basin
- Lake
- Reservoir

Other Lands

- Airport/Military

Los Angeles County

Santa River Watershed

Anaheim Bay-Huntington Harbor Watershed

Newport Bay-Newport Coastal Streams Watershed

Humble Reservoir

Orange County

Valencia Reservoir

Brea Creek Reservior

Fullerton Reservoir

Loftus Diversion Channel Desilting Basin

Fullerton Reservoir

Fullerton Reservoir

Hillcrest Park Reservoir

Fullerton Airport

Buena Park

Fullerton

Miller Retarding Basin

La Jolla Recharge Basin

Kraemer Basin

Placentia Retarding Basin

Raymond Retarding Basin

Gilbert Retarding Basin

Crescent Retarding Basin

Anaheim

Cypress Retarding Basin

Channel in Retarding Basin

Rossmoor Retarding Basin

Los Alamitos Naval Air Station

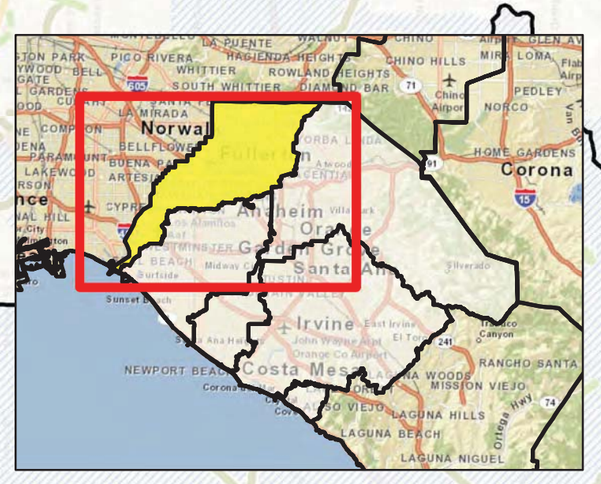
Los Alamitos Retarding Basin

Seal Beach Naval Weapons Station

Seal Beach

Pacific Ocean

SITE LOCATION



0 8,000 16,000 Feet

TITLE: SUSCEPTIBILITY ANALYIS
SAN GABRIEL-COYOTE CREEK
ORANGE COUNTY
WATERSHED
MASTER PLANNING

JOB: ORANGE CO. CA

SCALE	DESIGNED	DRAWING	CHECKED	DATE	JOB NO.
1" = 8000'	TH	TH	BMP	04/30/10	9526-E

PACE Advanced Water Engineering

1

P:\9526E\6-GIS\Mxds\SuceptabilityMaps_20100505\9526E_SanGabrielCoyoteCreekSusceptibility_20100430.mxd

Attachment D

Calculation & Worksheet

Fullerton Transportation Center Hotel

BMP Calculations

By: NA Date: 04/15/19

DMA-1 (A = 0.571 acres)

From TECHNICAL GUIDANCE DOCUMNET (Appendix III.1, III.3)

Simple Method Runoff Coefficient for Flow-based BMP Sizing:

1) From Equation III.3 : Q = (C × i design × A)

2) imp=1.0

3) C = (0.75×1.0 + 0.15) =0.9

4) A = 0.571ac

5) i design= 0.225

6) Q = 0.9 × 0.225 × 0.571 ac = 0.116 CFS

Simple Method Runoff Coefficient for Volume-Based BMP Sizing:

1) From Equation III.1 : V = (C × d × A x 43560 sf/ac x 1/12 in/ft)

2) d=0.90 per rainfall map

3) C = 0.9

4) A = 0.571ac

5) V = 0.9 x 0.90 x 0.571 x 43560 x 1/12 = 1679 CF

NOTE:

THE MINIMUM TREATMENT CAPACITY FLOW RATE PER OC TECHNICAL GUIDE DOCUMENT IS 0.116 CFS. THE DESIGN PROVIDED MODULAR WETLAND(MWS-L-4-13) THAT HAS TREATMENT CAPACITY FLOW RATE OF 0.144 CFS, THEREFORE THE DESIGN MEETS THE REQUIREMENTS.

DMA-2 (A = 0.414 acres)

From TECHNICAL GUIDANCE DOCUMNET (Appendix III.1, III.3)

Simple Method Runoff Coefficient for Flow-based BMP Sizing:

1) From Equation III.3 : Q = (C × i design × A)

2) imp=1.0

3) C = (0.75×1.0 + 0.15) =0.9

4) A = 0.414ac

5) i design= 0.225

6) Q = 0.9 × 0.225 × 0.414 ac = 0.084 CFS

NOTE:

THE MINIMUM TREATMENT CAPACITY FLOW RATE PER OC TECHNICAL GUIDE DOCUMENT IS 0.116 CFS. THE DESIGN PROVIDED MODULAR WETLAND(MWS-L-4-8) THAT HAS TREATMENT CAPACITY FLOW RATE OF 0.115 CFS, THEREFORE THE DESIGN MEETS THE REQUIREMENTS.

Simple Method Runoff Coefficient for Volume-Based BMP Sizing:

1) From Equation III.1 : V = (C × d × A x 43560 sf/ac x 1/12 in/ft)

2) d=0.90 per rainfall map

3) C = 0.9

4) A = 0.414ac

5) V = 0.9 x 0.90 x 0.414 x 43560 x 1/12 = 1217 CF

DMA-3 (A = 0.353 acres)

From TECHNICAL GUIDANCE DOCUMNET (Appendix III.1, III.3)

Simple Method Runoff Coefficient for Flow-based BMP Sizing:

1) From Equation III.3 : Q = (C × i design × A)

2) imp=0.8055

3) C = (0.75×0.8055 + 0.15) =0.755

4) A = 0.353ac

5) i design= 0.225

6) Q = 0.755 × 0.225 × 0.353 ac = 0.0489 CFS

Simple Method Runoff Coefficient for Volume-Based BMP Sizing:

1) From Equation III.1 : V = (C × d × A x 43560 sf/ac x 1/12 in/ft)

2) d=0.90 per rainfall map

3) C = 0.9

4) A = 0.353ac

5) V = 0.9 x 0.90 x 0.353 x 43560 x 1/12 = 1038 CF

NOTE:

THE MINIMUM TREATMENT CAPACITY FLOW RATE PER OC TECHNICAL GUIDE DOCUMENT IS 0.116 CFS. THE DESIGN PROVIDED MODULAR WETLAND(MWS-L-4-6) THAT HAS TREATMENT CAPACITY FLOW RATE OF 0.073 CFS, THEREFORE THE DESIGN MEETS THE REQUIREMENTS.

DMA-4 (A = 0.692 acres)

From TECHNICAL GUIDANCE DOCUMNET (Appendix III.1, III.3)

Simple Method Runoff Coefficient for Flow-based BMP Sizing:

1) From Equation III.3 : Q = (C × i design × A)

2) imp=0.903

3) C = (0.75×0.903 + 0.15) =0.83

4) A = 0.692ac

5) i design= 0.225

6) Q = 0.83 × 0.225 × 0.692 ac = 0.13 CFS

Simple Method Runoff Coefficient for Volume-Based BMP Sizing:

1) From Equation III.1 : V = (C × d × A x 43560 sf/ac x 1/12 in/ft)

2) d=0.90 per rainfall map

3) C = 0.9

4) A = 0.692ac

5) V = 0.9 x 0.90 x 0.692 x 43560 x 1/12 = 2035 CF

NOTE:

THE MINIMUM TREATMENT CAPACITY FLOW RATE PER OC TECHNICAL GUIDE DOCUMENT IS 0.116 CFS. THE DESIGN PROVIDED MODULAR WETLAND(MWS-L-4-13) THAT HAS TREATMENT CAPACITY FLOW RATE OF 0.144 CFS, THEREFORE THE DESIGN MEETS THE REQUIREMENTS.

Table 2.7: Infiltration BMP Feasibility Worksheet

	Infeasibility Criteria	*Yes*	*No*
1	**Would Infiltration BMPs pose significant risk for groundwater related concerns?** Refer to **Appendix VIII** (Worksheet I) for guidance on groundwater-related infiltration feasibility criteria.	Yes	
Provide basis: The site is located within a plume protection boundary (North Basin Groundwater Protection Project). Infiltration is prohibited within a plume protection boundary. Summarize findings of studies provide reference to studies, calculations, maps, data sources, etc. Provide narrative discussion of study/data source applicability.			
2	Would Infiltration BMPs **pose significant risk of increasing risk of geotechnical hazards that cannot be mitigated to an acceptable level**? (Yes if the answer to any of the following questions is yes, as established by a geotechnical expert): • The BMP can only be located less than 50 feet away from slopes steeper than 15 percent • The BMP can only be located less than eight feet from building foundations or an alternative setback. • A study prepared by a geotechnical professional or an available watershed study substantiates that stormwater infiltration would potentially result in significantly increased risks of geotechnical hazards that cannot be mitigated to an acceptable level.		
Provide basis: Summarize findings of studies provide reference to studies, calculations, maps, data sources, etc. Provide narrative discussion of study/data source applicability.			
3	Would infiltration of the DCV from drainage area **violate downstream water rights**?		
Provide basis: Summarize findings of studies provide reference to studies, calculations, maps, data sources, etc. Provide narrative discussion of study/data source applicability.			

Worksheet I: Summary of Groundwater-related Feasibility Criteria

1	Is project large or small? (as defined by **Table VIII.2**) circle one	(Large)		Small
2	What is the tributary area to the BMP?	A		acres
3	What type of BMP is proposed?	BIO-7 Proprietary vegetated biotreatment system (Modular Wetland)		
4	What is the infiltrating surface area of the proposed BMP?	A_{BMP}		sq-ft
5	What land use activities are present in the tributary area (list all)			
6	What land use-based risk category is applicable?	L	M	H
7	If M or H, what pretreatment and source isolation BMPs have been considered and are proposed (describe all):			
8	What minimum separation to mounded seasonally high groundwater applies to the proposed BMP? See Section **VIII.2** (circle one)	5 ft		10 ft
9	Provide rationale for selection of applicable minimum separation to seasonally high mounded groundwater:			
10	What is separation from the infiltrating surface to seasonally high groundwater?	SHGWT		ft
11	What is separation from the infiltrating surface to mounded seasonally high groundwater?	Mounded SHGWT		ft
12	Describe assumptions and methods used for mounding analysis:			
13	Is the site within a plume protection boundary (See **Figure**	(Y)	N	N/A

Worksheet I: Summary of Groundwater-related Feasibility Criteria

	VIII.2)?	
14	Is the site within a selenium source area or other natural plume area (See Figure VIII.2)?	Y N N/A
15	Is the site within 250 feet of a contaminated site?	Y N N/A
16	If site-specific study has been prepared, provide citation and briefly summarize relevant findings:	
17	Is the site within 100 feet of a water supply well, spring, septic system?	Y N N/A
18	Is infiltration feasible on the site relative to groundwater-related criteria?	Y N

Provide rationale for feasibility determination:

The project site is located within the North Basin Groundwater Protection project. Infiltration is not allowed within plumes protection boundaries. Refer to Appendix C, figure XVI-2f for site location and plume boundaries.

Note: if a single criterion or group of criteria would render infiltration infeasible, it is not necessary to evaluate every question in this worksheet.

Attachment E

Soil Report

Attachment F

Manufacturer's specification & Documents

Bio Clean

A Forterra Company

Modular Wetlands® System Linear

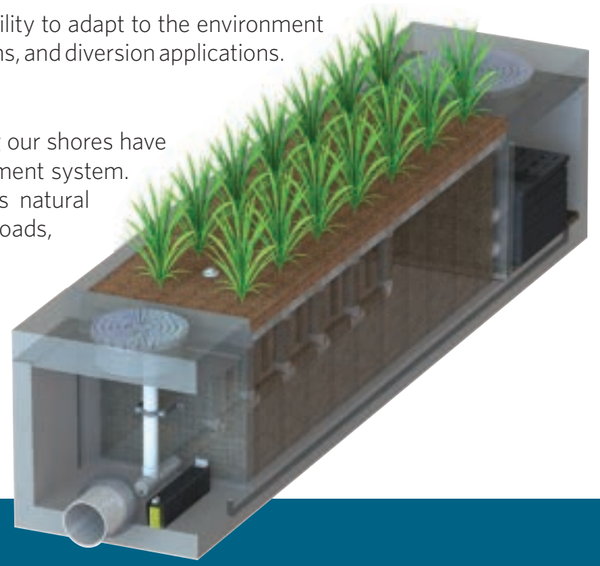
A Stormwater Biofiltration Solution



OVERVIEW

The Bio Clean Modular Wetlands® System Linear represents a pioneering breakthrough in stormwater technology as the only biofiltration system to utilize patented horizontal flow, allowing for a smaller footprint, higher treatment capacity, and a wide range of versatility. While most biofilters use little or no pretreatment, the Modular Wetlands® incorporates an advanced pretreatment chamber that includes separation and pre-filter cartridges. In this chamber, sediment and hydrocarbons are removed from runoff before entering the biofiltration chamber, reducing maintenance costs and improving performance.

Horizontal flow also gives the system the unique ability to adapt to the environment through a variety of configurations, bypass orientations, and diversion applications.



The Urban Impact

For hundreds of years, natural wetlands surrounding our shores have played an integral role as nature's stormwater treatment system. But as cities grow and develop, our environment's natural filtration systems are blanketed with impervious roads, rooftops, and parking lots.

Bio Clean understands this loss and has spent years re-establishing nature's presence in urban areas, and rejuvenating waterways with the Modular Wetlands® System Linear.

PERFORMANCE

The Modular Wetlands® continues to outperform other treatment methods with superior pollutant removal for TSS, heavy metals, nutrients, hydrocarbons, and bacteria. Since 2007 the Modular Wetlands® has been field tested on numerous sites across the country and is proven to effectively remove pollutants through a combination of physical, chemical, and biological filtration processes. In fact, the Modular Wetlands® harnesses some of the same biological processes found in natural wetlands in order to collect, transform, and remove even the most harmful pollutants.

66% REMOVAL OF DISSOLVED ZINC	**69%** REMOVAL OF TOTAL ZINC	**38%** REMOVAL OF DISSOLVED COPPER	**64%** REMOVAL OF TOTAL PHOSPHORUS	
45% REMOVAL OF NITROGEN	**50%** REMOVAL OF TOTAL COPPER	**95%** REMOVAL OF MOTOR OIL	**67%** REMOVAL OF ORTHO PHOSPHORUS	**85%** REMOVAL OF TSS

APPROVALS

The Modular Wetlands® System Linear has successfully met years of challenging technical reviews and testing from some of the most prestigious and demanding agencies in the nation and perhaps the world. Here is a list of some of the most high-profile approvals, certifications, and verifications from around the country.

Washington State Department of Ecology TAPE Approved
The MWS Linear is approved for General Use Level Designation (GULD) for Basic, Enhanced, and Phosphorus treatment at 1 gpm/ft² loading rate. The highest performing BMP on the market for all main pollutant categories.

California Water Resources Control Board, Full Capture Certification
The Modular Wetlands® System is the first biofiltration system to receive certification as a full capture trash treatment control device.

Virginia Department of Environmental Quality, Assignment
The Virginia Department of Environmental Quality assigned the MWS Linear the highest phosphorus removal rating for manufactured treatment devices to meet the new Virginia Stormwater Management Program (VSMP) regulation technical criteria.

Maryland Department of the Environment, Approved ESD
Granted Environmental Site Design (ESD) status for new construction, redevelopment, and retrofitting when designed in accordance with the design manual.

MASTEP Evaluation
The University of Massachusetts at Amherst – Water Resources Research Center issued a technical evaluation report noting removal rates up to 84% TSS, 70% total phosphorus, 68.5% total zinc, and more.

Rhode Island Department of Environmental Management, Approved BMP
Approved as an authorized BMP and noted to achieve the following minimum removal efficiencies: 85% TSS, 60% pathogens, 30% total phosphorus, and 30% total nitrogen.

ADVANTAGES

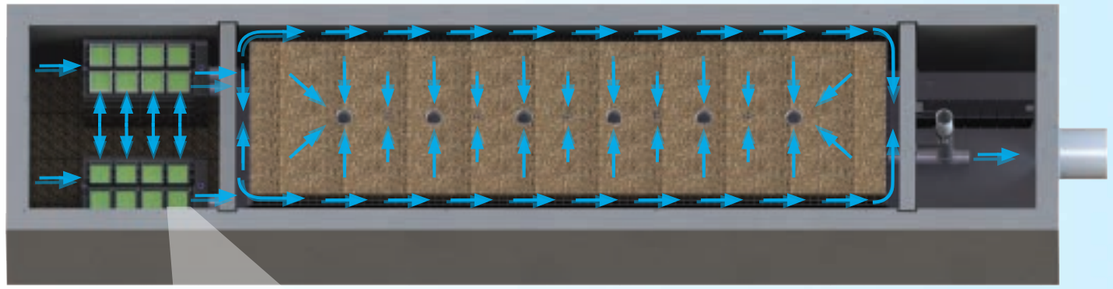
- HORIZONTAL FLOW BIOFILTRATION
- GREATER FILTER SURFACE AREA
- PRETREATMENT CHAMBER
- PATENTED PERIMETER VOID AREA
- FLOW CONTROL
- NO DEPRESSED PLANTER AREA
- AUTO DRAINDOWN MEANS NO MOSQUITO VECTOR

OPERATION

The Modular Wetlands® System Linear is the most efficient and versatile biofiltration system on the market, and it is the only system with horizontal flow which:

- Improves performance
- Reduces footprint
- Minimizes maintenance

Figure 1 & Figure 2 illustrate the invaluable benefits of horizontal flow and the multiple treatment stages.



2x to 3x more surface area than traditional downward flow bioretention systems.

Figure 2, Top View



1 PRETREATMENT

SEPARATION

- Trash, sediment, and debris are separated before entering the pre-filter cartridges
- Designed for easy maintenance access

PRE-FILTER CARTRIDGES

- Over 25 sq. ft. of surface area per cartridge
- Utilizes BioMediaGREEN™ filter material
- Removes over 80% of TSS and 90% of hydrocarbons
- Prevents pollutants that cause clogging from migrating to the biofiltration chamber

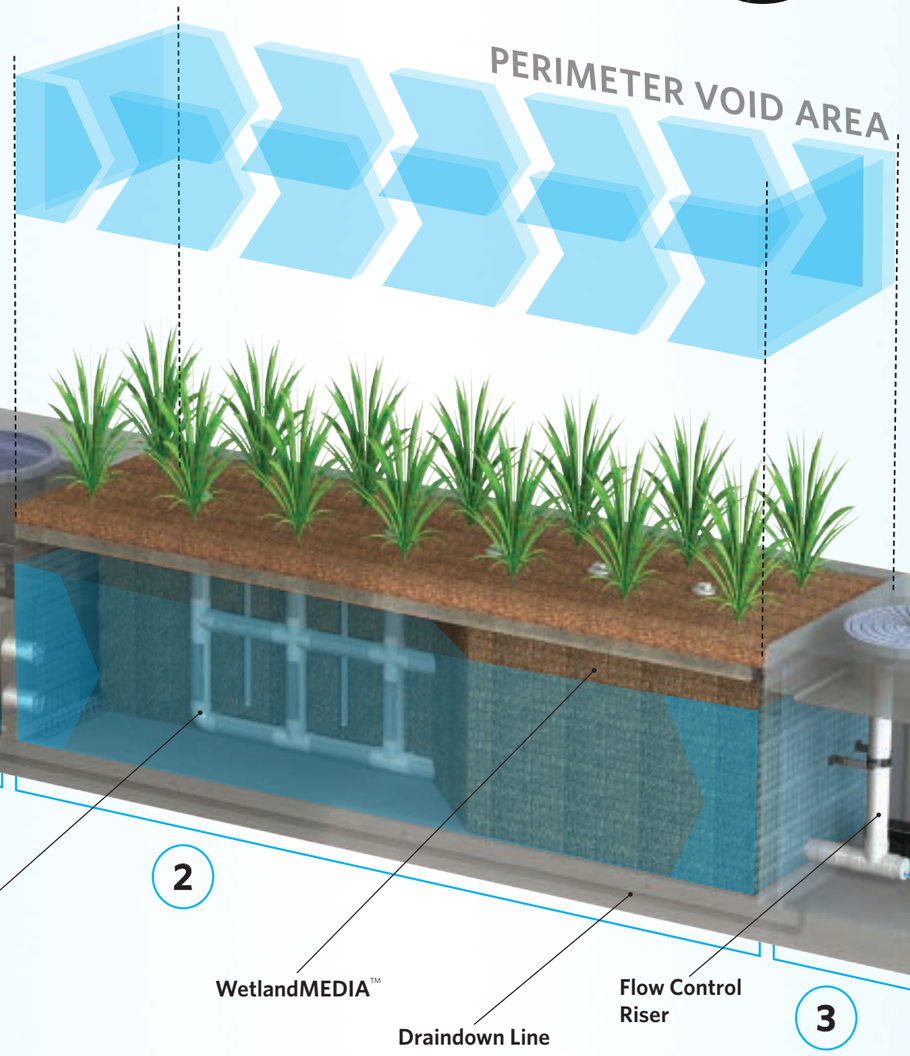


Figure 1

2 BIOFILTRATION

HORIZONTAL FLOW

- Less clogging than downward flow biofilters
- Water flow is subsurface
- Improves biological filtration

PATENTED PERIMETER VOID AREA

- Vertically extends void area between the walls and the WetlandMEDIA™ on all four sides
- Maximizes surface area of the media for higher treatment capacity

WETLANDMEDIA

- Contains no organics and removes phosphorus
- Greater surface area and 48% void space
- Maximum evapotranspiration
- High ion exchange capacity and lightweight

3 DISCHARGE

FLOW CONTROL

- Orifice plate controls flow of water through WetlandMEDIA™ to a level lower than the media's capacity
- Extends the life of the media and improves performance

DRAINDOWN FILTER

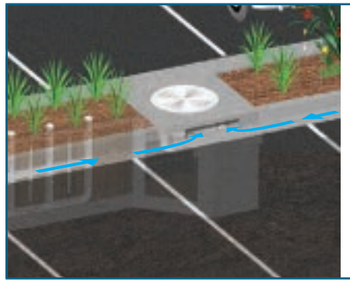
- The draindown is an optional feature that completely drains the pretreatment chamber
- Water that drains from the pretreatment chamber between storm events will be treated





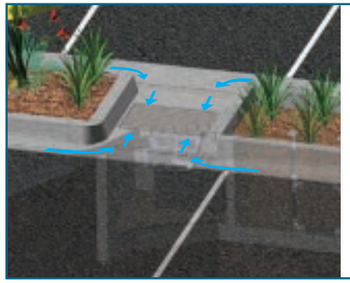
CONFIGURATIONS

The Modular Wetlands® System Linear is the preferred biofiltration system of civil engineers across the country due to its versatile design. This highly versatile system has available "pipe-in" options on most models, along with built-in curb or grated inlets for simple integration into your storm drain design.



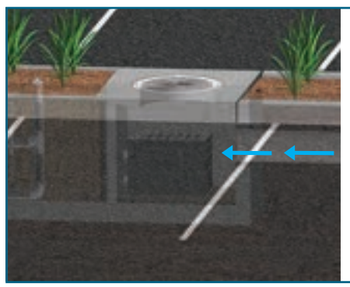
CURB TYPE

The Curb Type configuration accepts sheet flow through a curb opening and is commonly used along roadways and parking lots. It can be used in sump or flow-by conditions. Length of curb opening varies based on model and size.



GRATE TYPE

The Grate Type configuration offers the same features and benefits as the Curb Type but with a grated/drop inlet above the systems pretreatment chamber. It has the added benefit of allowing pedestrian access over the inlet. ADA-compliant grates are available to assure easy and safe access. The Grate Type can also be used in scenarios where runoff needs to be intercepted on both sides of landscape islands.



VAULT TYPE

The system's patented horizontal flow biofilter is able to accept inflow pipes directly into the pretreatment chamber, meaning the Modular Wetlands® can be used in end-of-the-line installations. This greatly improves feasibility over typical decentralized designs that are required with other biofiltration/ bioretention systems. Another benefit of the "pipe-in" design is the ability to install the system downstream of underground detention systems to meet water quality volume requirements.

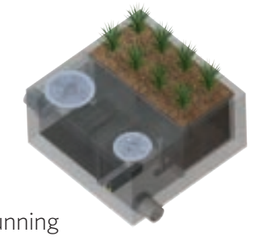


DOWNSPOUT TYPE

The Downspout Type is a variation of the Vault Type and is designed to accept a vertical downspout pipe from rooftop and podium areas. Some models have the option of utilizing an internal bypass, simplifying the overall design. The system can be installed as a raised planter, and the exterior can be stuccoed or covered with other finishes to match the look of adjacent buildings.

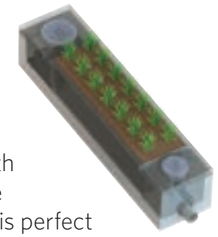
ORIENTATIONS

SIDE-BY-SIDE



The Side-By-Side orientation places the pretreatment and discharge chamber adjacent to one another with the biofiltration chamber running parallel on either side. This minimizes the system length, providing a highly compact footprint. It has been proven useful in situations such as streets with directly adjacent sidewalks, as half of the system can be placed under that sidewalk. This orientation also offers internal bypass options as discussed below.

END-TO-END



The End-To-End orientation places the pretreatment and discharge chambers on opposite ends of the biofiltration chamber, therefore minimizing the width of the system to 5 ft. (outside dimension). This orientation is perfect for linear projects and street retrofits where existing utilities and sidewalks limit the amount of space available for installation. One limitation of this orientation is that bypass must be external.

BYPASS

INTERNAL BYPASS WEIR (SIDE-BY-SIDE ONLY)

The Side-By-Side orientation places the pretreatment and discharge chambers adjacent to one another allowing for integration of internal bypass. The wall between these chambers can act as a bypass weir when flows exceed the system's treatment capacity, thus allowing bypass from the pretreatment chamber directly to the discharge chamber.

EXTERNAL DIVERSION WEIR STRUCTURE

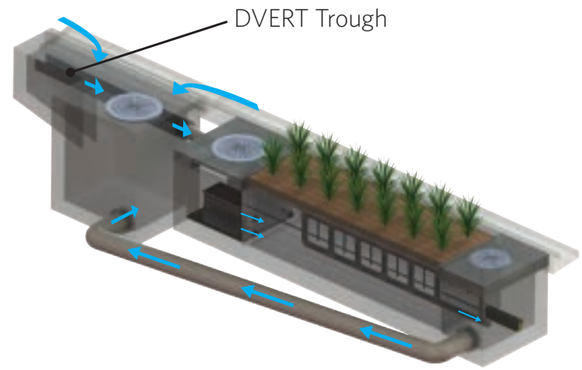
This traditional offline diversion method can be used with the Modular Wetlands® in scenarios where runoff is being piped to the system. These simple and effective structures are generally configured with two outflow pipes. The first is a smaller pipe on the upstream side of the diversion weir - to divert low flows over to the Modular Wetlands® for treatment. The second is the main pipe that receives water once the system has exceeded treatment capacity and water flows over the weir.

FLOW-BY-DESIGN

This method is one in which the system is placed just upstream of a standard curb or grate inlet to intercept the first flush. Higher flows simply pass by the Modular Wetlands® and into the standard inlet downstream.

DVERT LOW FLOW DIVERSION

This simple yet innovative diversion trough can be installed in existing or new curb and grate inlets to divert the first flush to the Modular Wetlands® via pipe. It works similar to a rain gutter and is installed just below the opening into the inlet. It captures the low flows and channels them over



to a connecting pipe exiting out the wall of the inlet and leading to the MWS Linear. The DVERT is perfect for retrofit and green street applications that allow the Modular Wetlands® to be installed anywhere space is available.

SPECIFICATIONS

FLOW-BASED DESIGNS

The Modular Wetlands® System Linear can be used in stand-alone applications to meet treatment flow requirements. Since the Modular Wetlands® is the only biofiltration system that can accept inflow pipes several feet below the surface, it can be used not only in decentralized design applications but also as a large central end-of-the-line application for maximum feasibility.

MODEL #	DIMENSIONS	WETLANDMEDIA SURFACE AREA (sq. ft.)	TREATMENT FLOW RATE (cfs)
MWS-L-4-4	4′ x 4′	23	0.052
MWS-L-4-6	4′ x 6′	32	0.073
MWS-L-4-8	4′ x 8′	50	0.115
MWS-L-4-13	4′ x 13′	63	0.144
MWS-L-4-15	4′ x 15′	76	0.175
MWS-L-4-17	4′ x 17′	90	0.206
MWS-L-4-19	4′ x 19′	103	0.237
MWS-L-4-21	4′ x 21′	117	0.268
MWS-L-6-8	7′ x 9′	64	0.147
MWS-L-8-8	8′ x 8′	100	0.230
MWS-L-8-12	8′ x 12′	151	0.346
MWS-L-8-16	8′ x 16′	201	0.462
MWS-L-8-20	9′ x 21′	252	0.577
MWS-L-8-24	9′ x 25′	302	0.693
MWS-L-10-20	10' x 20'	302	0.693

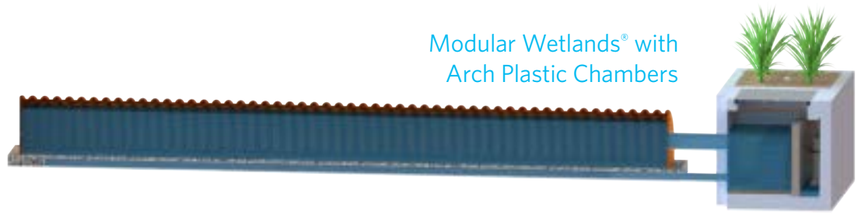
VOLUME-BASED DESIGNS

HORIZONTAL FLOW BIOFILTRATION ADVANTAGE



Modular Wetlands® with
Box Culvert Prestorage

The Modular Wetlands® System Linear offers a unique advantage in the world of biofiltration due to its exclusive horizontal flow design: Volume-Based Design. No other biofilter has the ability to be placed downstream of detention ponds, extended dry detention basins, underground storage systems and permeable paver reservoirs. The systems horizontal flow configuration and built-in orifice control allows it to be installed with just 6" of fall between inlet and outlet pipe for a simple connection to projects with shallow downstream tie-in points. In the example above, the Modular Wetlands® is installed downstream of underground box culvert storage. Designed for the water quality volume, the Modular Wetlands® will treat and discharge the required volume within local draindown time requirements.



Modular Wetlands® with
Arch Plastic Chambers

DESIGN SUPPORT

Bio Clean engineers are trained to provide you with superior support for all volume sizing configurations throughout the country. Our vast knowledge of state and local regulations allow us to quickly and efficiently size a system to maximize feasibility. Volume control and hydromodification regulations are expanding the need to decrease the cost and size of your biofiltration system. Bio Clean will help you realize these cost savings with the Modular Wetlands®, the only biofilter than can be used downstream of storage BMPs.

ADVANTAGES

- LOWER COST THAN FLOW-BASED DESIGN
- MEETS LID REQUIREMENTS
- BUILT-IN ORIFICE CONTROL STRUCTURE
- WORKS WITH DEEP INSTALLATIONS

APPLICATIONS

The Modular Wetlands® System Linear has been successfully used on numerous new construction and retrofit projects. The system's superior versatility makes it beneficial for a wide range of stormwater and waste water applications - treating rooftops, streetscapes, parking lots, and industrial sites.



INDUSTRIAL

Many states enforce strict regulations for discharges from industrial sites. The Modular Wetlands® has helped various sites meet difficult EPA-mandated effluent limits for dissolved metals and other pollutants.



RESIDENTIAL

Low to high density developments can benefit from the versatile design of the Modular Wetlands®. The system can be used in both decentralized LID design and cost-effective end-of-the-line configurations.



STREETS

Street applications can be challenging due to limited space. The Modular Wetlands® is very adaptable, and it offers the smallest footprint to work around the constraints of existing utilities on retrofit projects.



PARKING LOTS

Parking lots are designed to maximize space and the Modular Wetlands'® 4 ft. standard planter width allows for easy integration into parking lot islands and other landscape medians.



COMMERCIAL

Compared to bioretention systems, the Modular Wetlands® can treat far more area in less space, meeting treatment and volume control requirements.



MIXED USE

The Modular Wetlands® can be installed as a raised planter to treat runoff from rooftops or patios, making it perfect for sustainable "live-work" spaces.

More applications include:

• Agriculture • Reuse • Low Impact Development • Waste Water

PLANT SELECTION



Abundant plants, trees, and grasses bring value and an aesthetic benefit to any urban setting, but those in the Modular Wetlands® System Linear do even more - they increase pollutant removal. What's not seen, but very important, is that below grade, the stormwater runoff/flow is being subjected to nature's secret weapon: a dynamic physical, chemical, and biological process working to break down and remove non-point source pollutants. The flow rate is controlled in the Modular Wetlands®, giving the plants more contact time so that pollutants are more successfully decomposed, volatilized, and incorporated into the biomass of the Modular Wetlands'® micro/macro flora and fauna.

A wide range of plants are suitable for use in the Modular Wetlands®, but selections vary by location and climate. View suitable plants by visiting biocleanenvironmental.com/plants.

INSTALLATION



The Modular Wetlands® is simple, easy to install, and has a space-efficient design that offers lower excavation and installation costs compared to traditional tree-box type systems. The structure of the system resembles precast catch basin or utility vaults and is installed in a similar fashion.

The system is delivered fully assembled for quick installation. Generally, the structure can be unloaded and set in place in 15 minutes. Our experienced team of field technicians is available to supervise installations and provide technical support.

MAINTENANCE



Reduce your maintenance costs, man hours, and materials with the Modular Wetlands®. Unlike other biofiltration systems that provide no pretreatment, the Modular Wetlands® is a self-contained treatment train which incorporates simple and effective pretreatment.

Maintenance requirements for the biofilter itself are almost completely eliminated, as the pretreatment chamber removes and isolates trash, sediments, and hydrocarbons. What's left is the simple maintenance of an easily accessible pretreatment chamber that can be cleaned by hand or with a standard vac truck. Only periodic replacement of low-cost media in the pre-filter cartridges is required for long-term operation, and there is absolutely no need to replace expensive biofiltration media.



Bio Clean
A Forterra Company

5796 Armada Drive Suite 250
Carlsbad, CA 92008
855.566.3938
stormwater@forterrabp.com
biocleanenvironmental.com

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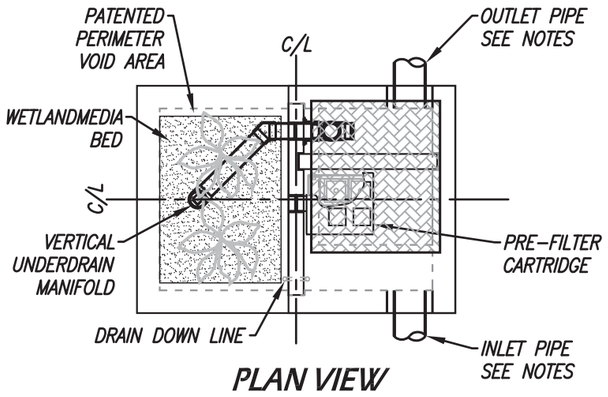
SITE SPECIFIC DATA			
PROJECT NUMBER			
PROJECT NAME			
PROJECT LOCATION			
STRUCTURE ID			
TREATMENT REQUIRED			
VOLUME BASED (CF)		FLOW BASED (CFS)	
TREATMENT HGL AVAILABLE (FT)			
PEAK BYPASS REQUIRED (CFS) – IF APPLICABLE			
PIPE DATA	I.E.	MATERIAL	DIAMETER
INLET PIPE 1			
INLET PIPE 2			
OUTLET PIPE			
	PRETREATMENT	BIOFILTRATION	DISCHARGE
RIM ELEVATION			
SURFACE LOAD	PARKWAY	OPEN PLANTER	PARKWAY
FRAME & COVER	30" x 36"	N/A	N/A
WETLANDMEDIA VOLUME (CY)			1.68
WETLANDMEDIA DELIVERY METHOD			TBD
ORIFICE SIZE (DIA. INCHES)			ø1.22"
MAXIMUM PICK WEIGHT (LBS)			12700
NOTES:			

INSTALLATION NOTES

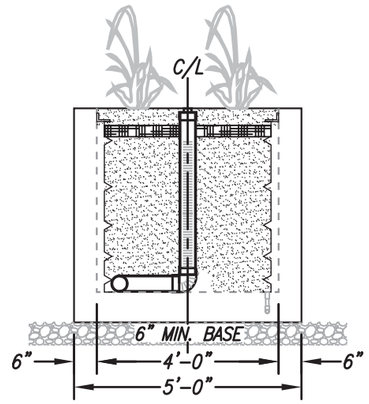
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6. DRIP OR SPRAY IRRIGATION REQUIRED ON ALL UNITS WITH VEGETATION.

GENERAL NOTES

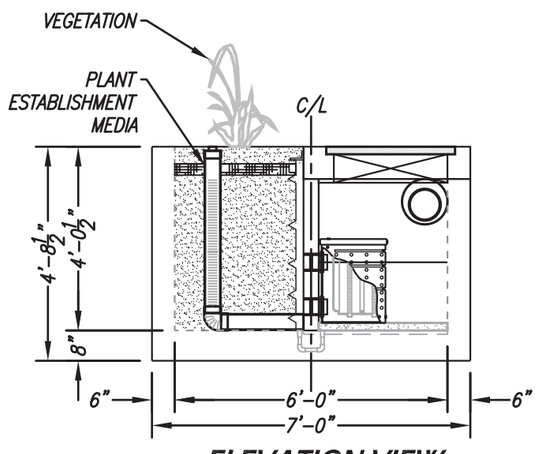
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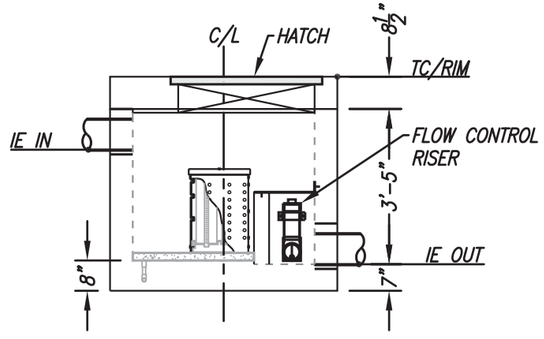
PLAN VIEW



LEFT END VIEW
BIOFILTRATION



ELEVATION VIEW



RIGHT END VIEW
PRETREATMENT/DISCHARGE

TREATMENT FLOW (CFS)	0.073
OPERATING HEAD (FT)	3.4
PRETREATMENT LOADING RATE (GPM/SF)	TBD
WETLAND MEDIA LOADING RATE (GPM/SF)	1.0

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MWS-L-4-6-V
STORMWATER BIOFILTRATION SYSTEM
STANDARD DETAIL

5/1/15/JOHN

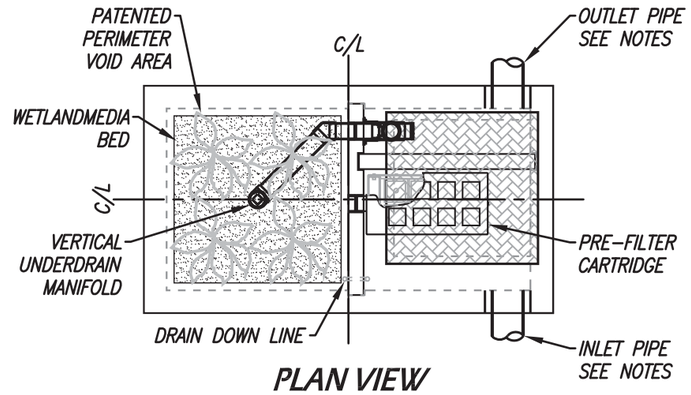
SITE SPECIFIC DATA			
PROJECT NUMBER			
PROJECT NAME			
PROJECT LOCATION			
STRUCTURE ID			
TREATMENT REQUIRED			
VOLUME BASED (CF)		FLOW BASED (CFS)	
TREATMENT HGL AVAILABLE (FT)			
PEAK BYPASS REQUIRED (CFS) – IF APPLICABLE			
PIPE DATA	I.E.	MATERIAL	DIAMETER
INLET PIPE 1			
INLET PIPE 2			
OUTLET PIPE			
	PRETREATMENT	BIOFILTRATION	DISCHARGE
RIM ELEVATION			
SURFACE LOAD	PARKWAY	OPEN PLANTER	PARKWAY
FRAME & COVER	36" x 36"	N/A	N/A
WETLANDMEDIA VOLUME (CY)			2.37
WETLANDMEDIA DELIVERY METHOD			TBD
ORIFICE SIZE (DIA. INCHES)			ø1.22"
MAXIMUM PICK WEIGHT (LBS)			16500
NOTES:			

INSTALLATION NOTES

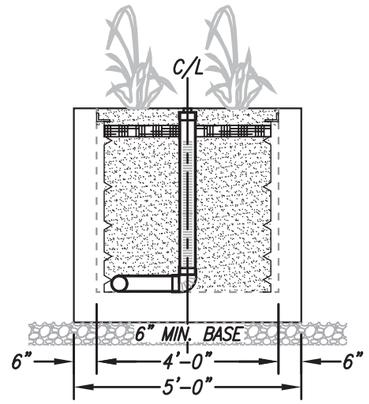
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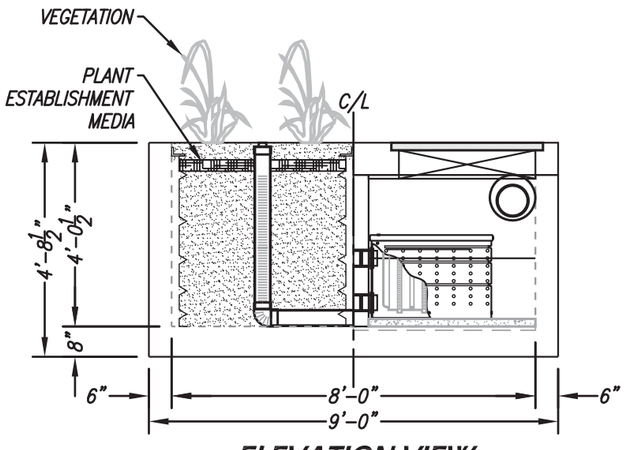
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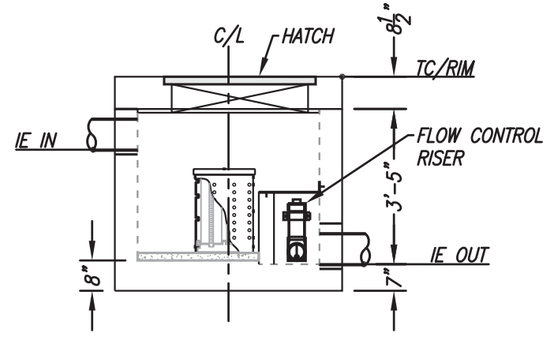
PLAN VIEW



LEFT END VIEW
BIOFILTRATION



ELEVATION VIEW



RIGHT END VIEW
PRETREATMENT/DISCHARGE

TREATMENT FLOW (CFS)	0.115
OPERATING HEAD (FT)	3.4
PRETREATMENT LOADING RATE (GPM/SF)	TBD
WETLAND MEDIA LOADING RATE (GPM/SF)	1.0

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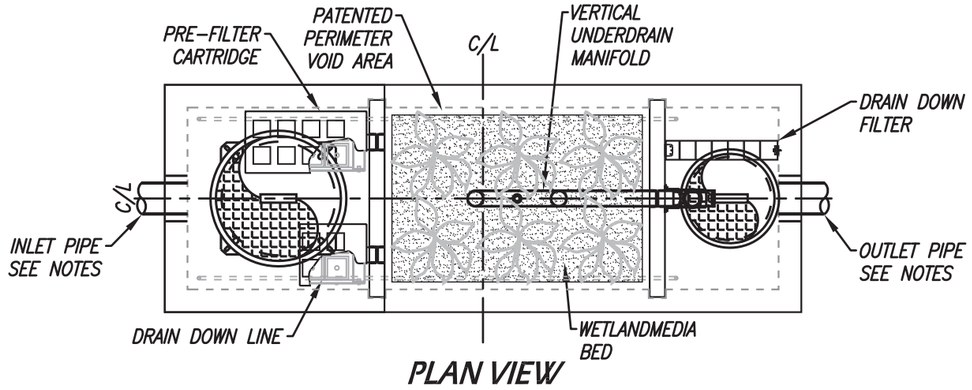
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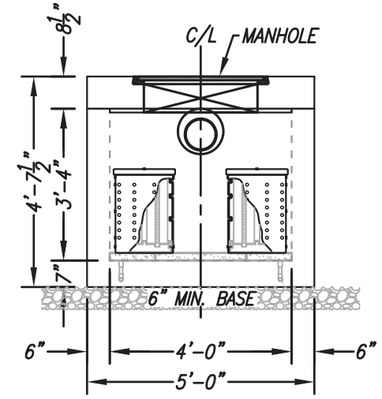
MWS-L-4-8-V
STORMWATER BIOFILTRATION SYSTEM STANDARD DETAIL

5/1/15/JOHN

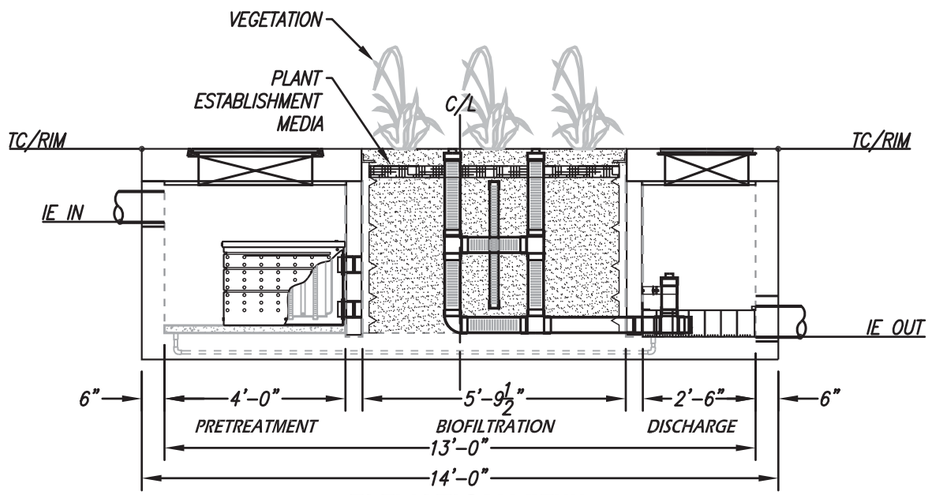
SITE SPECIFIC DATA			
PROJECT NAME			
PROJECT LOCATION			
STRUCTURE ID			
TREATMENT REQUIRED			
VOLUME BASED (CF)		FLOW BASED (CFS)	
TREATMENT HGL AVAILABLE (FT)			
PEAK BYPASS REQUIRED (CFS) – IF APPLICABLE			
PIPE DATA	I.E.	MATERIAL	DIAMETER
INLET PIPE 1			
INLET PIPE 2			
OUTLET PIPE			
	PRETREATMENT	BIOFILTRATION	DISCHARGE
RIM ELEVATION			
SURFACE LOAD	PARKWAY	OPEN PLANTER	PARKWAY
FRAME & COVER	ø30"	N/A	ø24"
WETLANDMEDIA VOLUME (CY)			3.05
WETLANDMEDIA DELIVERY METHOD			TBD
ORIFICE SIZE (DIA. INCHES)			ø1.71"
MAXIMUM PICK WEIGHT (LBS)			27000
NOTES:			



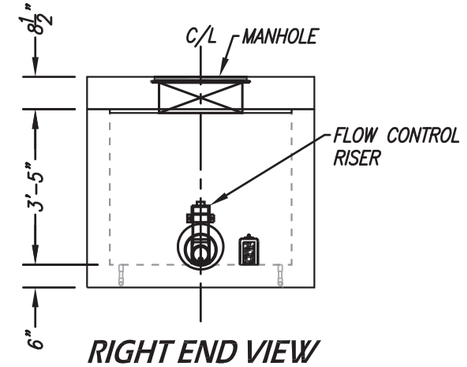
PLAN VIEW



LEFT END VIEW



ELEVATION VIEW



RIGHT END VIEW

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TREATMENT FLOW (CFS)	0.144
OPERATING HEAD (FT)	3.4
PRETREATMENT LOADING RATE (GPM/SF)	TBD
WETLAND MEDIA LOADING RATE (GPM/SF)	1.0

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MWS-L-4-13-V
STORMWATER BIOFILTRATION SYSTEM STANDARD DETAIL

Appendix H

Noise Data

Construction Generated Noise

Building Type	Domestic Housing	**Distance (ft)**
Construction Noise at 50 Feet (dBA Leq)		50
Construction Phase	**All Applicable Equipment in Use**[1]	
Ground Clearing/Demolition	83	
Excavation	88	
Foundation Construction	81	
Building Construction	81	
Finishing and Site Cleanup	88	

North - Residential Uses

Maximum Construction Noise (dBA Leq)		20
Construction Phase	**All Applicable Equipment in Use**[1]	
Ground Clearing/Demolition	91	
Excavation (Site Preparation)	96	
Foundation Construction	89	
Building Construction	89	
Paving	96	
Average Construction Noise (dBA Leq)		220
Construction Phase	**All Applicable Equipment in Use**[1]	
Ground Clearing/Demolition	70	
Excavation (Site Preparation)	75	
Foundation Construction	68	
Building Construction	68	
Paving	75	

Northwest - Office Uses

Maximum Construction Noise (dBA Leq)		105
Construction Phase	**All Applicable Equipment in Use**[1]	
Ground Clearing/Demolition	77	
Excavation (Site Preparation)	82	
Foundation Construction	75	
Building Construction	75	
Paving	82	
Average Construction Noise (dBA Leq)		370
Construction Phase	**All Applicable Equipment in Use**[1]	
Ground Clearing/Demolition	66	
Excavation (Site Preparation)	71	
Foundation Construction	64	
Building Construction	64	
Paving	71	

Southwest - Residential Uses

Maximum Construction Noise (dBA Leq)		270
Construction Phase	**All Applicable Equipment in Use**[1]	
Ground Clearing/Demolition	68	
Excavation (Site Preparation)	73	
Foundation Construction	66	
Building Construction	66	
Paving	73	
Average Construction Noise (dBA Leq)		475
Construction Phase	**All Applicable Equipment in Use**[1]	
Ground Clearing/Demolition	63	
Excavation (Site Preparation)	68	
Foundation Construction	61	
Building Construction	61	
Paving	68	

East - Commercial/Industrial Uses

Maximum Construction Noise (dBA Leq)		10
Construction Phase	**All Applicable Equipment in Use**[1]	
Ground Clearing/Demolition	97	
Excavation (Site Preparation)	102	
Foundation Construction	95	
Building Construction	95	
Paving	102	
Average Construction Noise (dBA Leq)		85
Construction Phase	**All Applicable Equipment in Use**[1]	
Ground Clearing/Demolition	78	
Excavation (Site Preparation)	83	
Foundation Construction	76	
Building Construction	76	
Paving	83	

Source: Bolt, Beranek and Newman, "Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances," prepared for the USEPA, December 31, 1971. Based on analysis for Office Building, Hotel, Hospital, School, and Public Works.

Construction Generated Vibration

North - Residential Uses		Closest Distance (feet):	20
	Approximate RMS a 66	Approximate RMS 73.000	
Equipment	inch/second	inch/second	
Vibratory roller	0.21	0.293	
Large bulldozer	0.089	0.124	
Small bulldozer	0.003	0.004	
Jackhammer	0.035	0.049	
Loaded trucks	0.076	0.106	
	Criteria	0.250	1700
Northwest - Office Uses		Closest Distance (feet):	105
	Approximate RMS a Velocity at 25 ft,	Approximate RMS Velocity Level,	
Equipment	inch/second	inch/second	
Vibratory roller	0.21	0.024	
Large bulldozer	0.089	0.010	
Small bulldozer	0.003	0.000	
Jackhammer	0.035	0.004	
Loaded trucks	0.076	0.009	
	Criteria	0.250	
Southwest - Residential Uses		Closest Distance (feet):	270
	Approximate RMS a Velocity at 25 ft,	Approximate RMS Velocity Level,	
Equipment	inch/second	inch/second	
Vibratory roller	0.21	0.006	
Large bulldozer	0.089	0.003	
Small bulldozer	0.003	0.000	
Jackhammer	0.035	0.001	
Loaded trucks	0.076	0.002	
	Criteria	0.250	
East - Commercial/Industrial Uses		Closest Distance (feet):	5
	Approximate RMS a Velocity at 25 ft,	Approximate RMS Velocity Level,	
Equipment	inch/second	inch/second	
Vibratory roller	0.21	2.348	
Large bulldozer	0.089	0.995	
Small bulldozer	0.003	0.034	
Jackhammer	0.035	0.391	
Loaded trucks	0.076	0.850	
	Criteria	0.250	

Based on distance to nearest structure

[1.] Determined based on use of jackhammers or pneumatic hammers that may be used for pavement demolition at a distance of 25 feet

Notes: RMS velocity calculated from vibration level (VdB) using the reference of one microinch/second.

Source: Based on methodology from the United States Department of Transportation Federal Transit Administration, *Transit Noise and Vibration Impact Assessment* (2006).

ParkWest Traffic Noise

Roadway Segment		Speed	24-hour Traffic Volume			Distance to CNEL from Roadway Centerline								Noise Level (CNEL or Ldn) at Distance from Roadway Centerline					
						Existing				Future No Project				Future With Project				Change From Existing	Change due to Project
			Existing	Future Without Project	Future With Project	50.0 Feet	60 CNEL	65 CNEL	70 CNEL	50.0 Feet	60 CNEL	65 CNEL	70 CNEL	50.0 Feet	60 CNEL	65 CNEL	70 CNEL		
Commonwealth Avenue	W/O Harbor Boulevard	30	14,700	16,300	16,609	71.0	269	125	58	71.4	288	134	62	71.5	292	135	63	0.5	0.1
	W/O Pomona Avenue	30	14,700	16,200	16,406	71.0	269	125	58	71.4	287	133	62	71.4	289	134	62	0.5	0.1
	W/O Lemon Street	30	14,200	15,700	16,009	70.8	263	122	57	71.2	281	130	61	71.3	285	132	61	0.5	0.1
	E/O Lemon Street	30	16,300	17,900	18,312	71.4	288	134	62	71.8	307	142	66	71.9	311	145	67	0.5	0.1
Santa Fe Avenue	W/O Harbor Boulevard	25	1,800	1,700	1,803	60.8	56	26	12	60.5	54	25	12	60.8	56	26	12	0.0	0.3
	W/O Pomona Avenue	25	2,200	2,300	3,124	61.6	64	30	14	61.8	66	31	14	63.2	81	38	18	1.5	1.3
	W/O Lemon Street	25	1,000	1,000	1,618	58.2	38	18	8	58.2	38	18	8	60.3	52	24	11	2.1	2.1
	E/O Lemon Street	25	600	600	600	56.0	27	13	6	56.0	27	13	6	56.0	27	13	6	0.0	0.0
Harbor Boulevard	N/O Commonwealth Av	35	22,200	23,900	24,106	72.8	358	166	77	73.1	376	174	81	73.2	378	175	81	0.4	0.0
	N/O Santa Fe Avenue	35	24,800	26,600	26,909	73.3	385	179	83	73.6	404	187	87	73.7	407	189	88	0.4	0.1
	S/O Santa Fe Avenue	35	25,600	27,400	27,812	73.4	393	183	85	73.7	412	191	89	73.8	416	193	90	0.4	0.1
Pomona Avenue	N/O Commonwealth Av	25	2,500	2,600	2,703	62.2	70	33	15	62.4	72	33	16	62.5	74	34	16	0.3	0.2
	N/O Santa Fe Avenue	25	2,200	2,300	2,918	61.6	64	30	14	61.8	66	31	14	62.9	78	36	17	1.2	1.0
Lemon Street	N/O Commonwealth Av	40	16,600	18,000	18,206	72.5	343	159	74	72.9	362	168	78	72.9	365	169	79	0.4	0.0
	N/O Santa Fe Avenue	40	20,000	21,600	21,909	73.4	388	180	84	73.7	409	190	88	73.7	412	191	89	0.4	0.1
	S/O Santa Fe Avenue	40	20,200	21,900	22,209	73.4	391	181	84	73.7	412	191	89	73.8	416	193	90	0.4	0.1

Assumptions:

Simplified to 2 lanes 6.1 meters= 20.0
future 6.1 meters= 20.0
Noise path decay parameter for hard site

Calculations using methods of Federal Highway Administration *Highway Traffic Noise Prediction Model*, December, 1978. Baseline California vehicle noise levels from Caltrans, TAN 95-03, 1995

Source of standard assumptions:

24-hour distribution of traffic volumes:
70% day (7-7), 15% evening (7-10), 15% night (10-7)
Analysis of L.A. County 24-hour traffic counts for selected arterial streets conducted by Pat Mann for Inglewood Noise Element, 1974
Truck Mix

ARB standard fleet mix for air quality analysis
Heavy trucks for noise model includes heavy diesel tractor-trailers only
Medium trucks for noise model includes buses and bobtail trucks
Autos includes cars, vans, pickups and light trucks

Appendix I

Parking Study, Local Transportation Analysis, and Vehicle Miles Traveled Analysis

ASSOCIATED TRANSPORTATION ENGINEERS

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Since 1978

Richard L. Pool, P.E.
Scott A. Schell

August 23, 2022 22041M01

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200 E. Santa Clara Street
San Jose, CA 95113

SCOPING MEMORANDUM FOR
THE FULLERTON APARTMENTS AND HOTEL PROJECT - CITY OF FULLERTON

Associated Transportation Engineers (ATE) is submitting a Scope of Work (SOW) for a Local Transportation Analysis (LTA) and Vehicle Miles Traveled (VMT) for the Fullerton Apartments and Hotel Project. The SOW is based on the City of Fullerton Transportation Assessment Policies and Procedures.

PROJECT DESCRIPTION

As shown on Figure 1, the Project site is located at 1799 Hamilton Avenue. The Project consists of 286 apartment units, a 124-room hotel and 3,570 square-feet of retail commercial space. As shown on the Project site plan (attached Figure 1), site access will be provided via driveway connections to Santa Fe Avenue and Pomona Avenue.

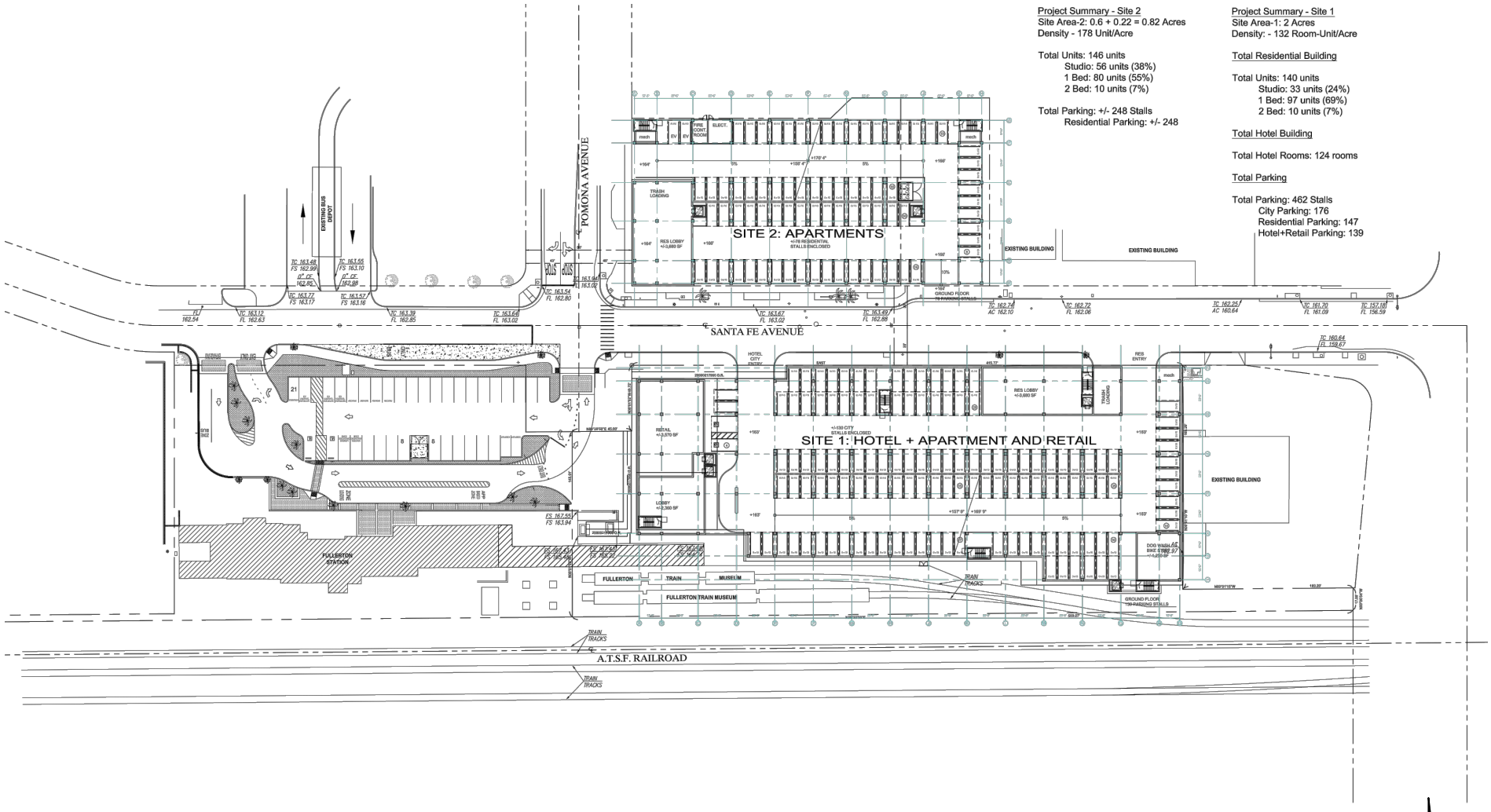
PROJECT TRIP GENERATION

Trip generation estimates were calculated for the Project based on the steps recommended for mixed-use projects in the Institute of Transportation Engineers (ITE), Trip Generation Manual, 11th Edition.[1] Given that the Project includes a mix of land uses (residential, hotel, and retail), the trip generation steps include: 1) calculating trip generation based on ITE rates and 2) calculating internal trips that would remain on-site and not affect the adjacent street network.

ITE Rates. The ITE trip rates for Multi-Family Housing (Mid-Rise - Land Use Code #221), Hotel (Land Use Code #310) and Shopping Plaza - No Supermarket (Land Use Code #821), were used in the trip generation analysis for the residential and commercial components of the Project.

Internal Capture. A portion of the trips made within the Project site between the residential and

1 Trip Generation, Institute of Transportation Engineers, 11th Edition, 2017.



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PROJECT SITE PLAN

FIGURE 1

GM- ATE#22041

retail commercial will be internal to the site and not affect the study-area street network. The trip generation analysis assumes that 7% of the PM peak hour trips would be internal capture trips. These internal capture rates were determined based on the Transportation Research Board (TRB) National Cooperative Highway Research Program (NCHRP) Report 684: Enhanced Internal Trip Capture Estimation of Mixed-Use Developments (worksheet attached).

In addition, the residential units are within walking distance of commercial uses (retail, restaurants, entertainment etc.) located within a ½ mile radius of the Project site. There is also frequent transit service in downtown area of Fullerton to accommodate trips made by residents of the Project. The trip generation analysis therefore assumes a mode split of 10% for non-motorized trips and transit mode split for the residential and hotel component. Table 1 shows the trip generation estimates for the Project.

Table 1
Project Trip Generation

Land Use	Size	ADT	AM Peak Hour			PM Peak Hour		
			Entering	Exiting	Total	Entering	Exiting	Total
Proposed Shopping Center:								
Apartments	286 Units	1,358	52	40	92	36	47	83
Hotel	124 Rooms	991	32	25	57	37	36	73
Retail Commercial	3,570 Sq.Ft.	241	4	2	6	7	11	18
Total Trips:		2,590	88	67	155	80	94	174
Total External Trips		2,486[a]	72	51	123	60	67	127

(a) External ADT (96 percent) based the average of 0 percent AM and 7 percent PM internal capture rates.

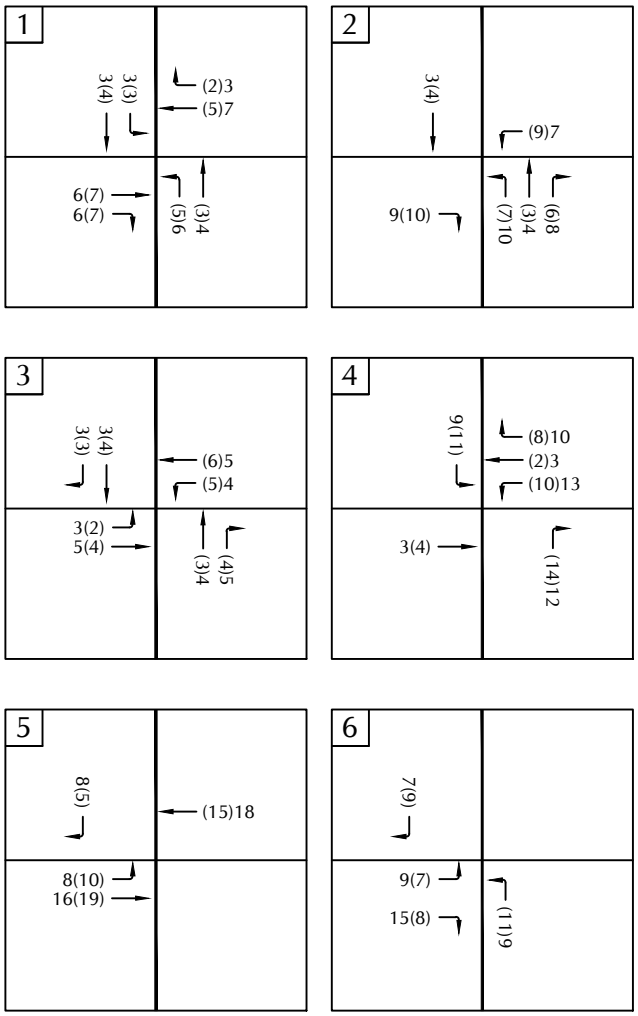
The data presented in Table 1 indicate that the Project would generate 2,486 average daily trips (ADT), 123 AM peak hour trips and 127 PM peak hour trips that would be external to the site and added to the adjacent street system.

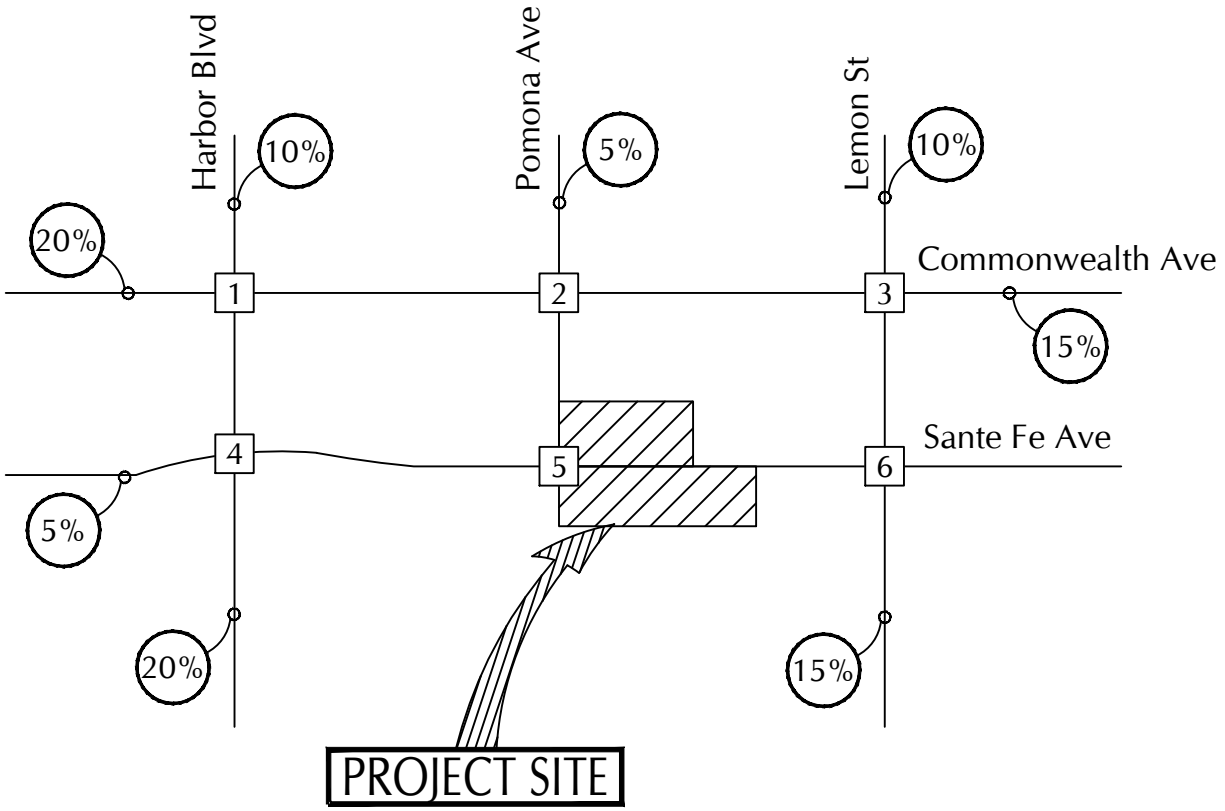
PROJECT TRIP DISTRIBUTION

Traffic generated by the Project was distributed onto the study-area street network based on the trip distribution percentages presented in Table 2 and illustrated on Figure 2 (attached). The distribution pattern was developed based on estimated service area for the Project.

Table 2
Project Trip Distribution

Route	Origin/Destination	Percentage
Commonwealth Avenue	East	15%
	West	20%
Santa Fe Avenue	West	5%
Harbor Boulevard	North	10%
	South	20%
Pomona Avenue	North	5%
Lemon Street	North	10%
	South	15%
		100%





LEGEND

% - Distribution Percentage

(XX)XX - (AM)PM Peak Hour Volume

N

NOT TO SCALE

ASSOCIATED TRANSPORTATION ENGINEERS

PROJECT TRIP DISTRIBUTION AND ASSIGNMENT

FIGURE 2

GM- ATE#22041

POTENTIAL TRAFFIC IMPACTS

The preliminary trip assignment of Project peak hour trip additions to the local street system would not be significant.

STUDY-AREA

The traffic study will analyze the following 6 study-area intersections in the vicinity of the Project.

- Commonwealth Avenue/Harbor Boulevard
- Commonwealth Avenue/Pomona Avenue
- Commonwealth Avenue/Lemon Street
- Santa Fe Avenue/Harbor Boulevard
- Santa Fe Avenue/Pomona Avenue
- Santa Fe Avenue/Lemon Street

DATA COLLECTION

New AM and PM peak hour, pedestrian and bicycle counts will be collected. ATE will document the following information in the field.

- Lane Configuration
- Signal timing and phasing
- Land Use in the study-area
- Existing pedestrian and bicycle facilities
- On-street parking conditions
- Transit facilities (Rail and Bus)

ANALYSIS SCENARIOS

- Existing Conditions
- Existing + Project Opening Year without Project Conditions
- Existing + Project Opening Year with Project Conditions
- General Plan Buildout without Project Conditions
- General Plan Buildout with Project Conditions

METHODOLOGY AND EVALUATION

Once forecast assumptions are confined, ATE will conduct capacity analysis at the study-area intersections during the AM and PM peak hour periods. Synchro 10 software and the Highway Capacity Manual (HCM) 6th Edition will be used to evaluate the operation of the study-area intersections and the Project driveways.

SITE ACCESS AND CIRCULATION

Site access to the Project site is provided via driveway connections on Santa Fe Avenue and Pomona Avenue. Site access and circulation will be evaluated. Project access is considered

constrained if the addition of Project trips to the study-area intersection would contribute to unacceptable queueing or vehicle delays. Unacceptable extended queue may be defined as spill over from turn pockets into through lanes and spill into intersections.

VEHICLE MILES TRAVELED ANALYSIS

ATE will prepare a Vehicle Miles Traveled (VMT) for the Project using the adopted City of Fullerton and State of California VMT criteria. The VMT analysis will evaluate the availability of transit, bicycle and pedestrian facilities in the vicinity of the Project. Mitigation measure will be developed based on OPR guidance in the Technical Advisory on Evaluating Transportation Impacts for VMT and recommended CAPCOA trip reduction measures.

NEXT STEPS

Once the proposed SOW is approved in writing by the City of Fullerton Public Works staff, ATE will prepare the LTA for the Fullerton Apartments and Hotel Project.

Associated Transportation Engineers



By: Richard L. Pool, P.E.
President

attachments: Figure 1 - Project Site Plan
Figure 2 - Project Trip Distribution and Assignment

ASSOCIATED TRANSPORTATION ENGINEERS

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Since 1978

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PARKING STUDY FOR THE FULLERTON MIXED-USE DEVELOPMENT - CITY OF FULLERTON, CALIFORNIA

Associated Transportation Engineers (ATE) has prepared the following parking study for the Fullerton Mixed-Use Development (the "Project"), located in the City of Fullerton. The Project is located on two developed parcels in the Fullerton Transportation Center (FTC) Specific Plan area. One parcel is located on the southeast corner of Pomona Avenue and East Santa Fe Avenue. The second parcel is located on the northeast corner of Pomona Avenue and East Santa Fe Avenue. The intent of the FTC Specific Plan is to create a sustainable transit-oriented neighborhood near the Santa Fe Train Depot.

The purpose of the parking analysis is to determine the parking supply necessary to accommodate existing demands for the Amtrack lot and the FTC parking structure with the addition of Fullerton Mixed-Use development. The parking supply is evaluated based on the Fullerton Transportation Center Specific Plan requirements as well as a shared parking demand analysis developed using empirical parking demand data and on-site weekday and weekend parking surveys.

PROJECT DESCRIPTION



The Fullerton Mixed-Use development is a Transit Oriented Development (TOD) consisting of 265 multi-family residential units with 15% as affordable units, a 209-room hotel, 3,500 square-feet of restaurant space and 3,300 square-feet of retail commercial space. A TOD is a type of development that includes a mixture of housing, retail commercial and other amenities integrated into a walkable community located within a

half-mile of quality public transportation. The Project is therefore consistent with the land use development goals of the FTC Specific Plan.

The Fullerton Mixed-Use development will provide 840 shared on-site parking spaces in two parking structures. The Project will implement innovative parking techniques to create an efficient and user-friendly parking system.

- Shared parking system to maximize the efficiency of the parking
- Implement a Parking Management Plan to ensure the efficient use of the available parking spaces.
- Provide parking for the retail commercial and hotel uses within the parking facilities.

The Project will redevelop to existing parcels occupied by the Amtrak parking lot with 163 parking spaces, the 297-space FTC public parking structure and a private 20 space parking lot. In total, 480 parking spaces would be removed by the Fullerton Mixed-Use development

BUILDING AREA AND PARKING SUPPLY

Figure 1 (attached) is an aerial photograph showing the existing parking areas provided in the immediate vicinity of the Fullerton Mixed-Use site. The land uses, site location, and parking supplies are summarized in Table 1.

Table 1
Fullerton Mixed-Use
Summary of Land Uses and Parking

Project Land Use/Site Location	Units/Size	Parking Supply	
		Proposed	Existing
Parcel 1/Amtrak Lot:			
Multi-family Residential	155 Units		
Hotel	209 Rooms	360 Spaces[1]	163 Spaces
Retail Commercial	1,300 SF		
Restaurant	3,500 SF		
Parcel 2/Parking Structure + Adjacent City Lights Lot:			
Multi-family Residential	110 Units	480 Spaces[2]	317 Spaces
Retail Commercial	2,000 SF		
Total Parking Spaces:		840 Spaces	480 Spaces

The data presented in Table 1 shows that the Fullerton Mixed-Use contains a total of 265 multi-family residential units, 209 hotel rooms, 3,500 square-feet of restaurant space and 3,300 square-feet of retail commercial space with 840 shared on-site parking spaces in two parking structures. The Project would eliminate a total of 480 existing parking spaces located in the Amtrak surface parking lot (163 spaces), FTC parking structure (297 spaces) and the City Lights apartments gated parking lot (20 spaces).

FULLERTON TRANSPORTATION CENTER SPECIFIC PLAN PARKING REQUIREMENTS

The Fullerton Transportation Center (FTC) Specific Plan parking requirements were used to calculate the required parking for the various land uses of the Fullerton Mixed-Use assuming 100 percent occupancy. The parking space requirements are as follows:

- Public Parking - Public parking in the FTC Specific Plan Area shall be replaced at a one-to-one ratio.
- Residential - 1 space per/1-bedroom unit, 2 spaces per/2-bedroom unit.
- Office/Retail Commercial/Restaurant - On-site parking is not required. Public parking shall be required in the FTC parking structure.

Tables 2 and 3 present the Fullerton Transportation Center Specific Plan parking requirements.

Table 2
Fullerton Mixed-Use Development
Transportation Center Specific Plan Total Parking Requirements

Land Use	Size	Specific Plan Parking Requirement	Required Parking
Residential - 1 Bedroom Unit - 2 Bedroom Unit	 52 Units 213 Units	 1 space/Unit 2 space/Unit	 52 Spaces 426 Spaces
Hotel	209 Rooms	Public Parking Structure, Amtrak parking lot spaces to be replaced	480 Spaces[(a)]
Retail Commercial	3,300 SF		
Restaurant	3,500 SF		
		Total Required Parking:	958 Spaces

(a) Includes replacement of 163 Amtrack parking spaces, 297 FTC parking structure spaces and 20 gated parking spaces for Fullerton City Lights Apartments.

Table 3
Fullerton Mixed-Use Development
Transportation Center Specific Plan Parking Requirements by Parcel

Parcel/Project Land Use/Site Location	Units/Size	Parking Supply	
		Proposed	Required
Parcel 1/Amtrak Lot:			
Multi-family Residential	155 Units		
Hotel	209 Rooms	360 Spaces	443 Spaces[(a)]
Retail Commercial	1,300 SF		
Restaurant	3,500 SF		
Parcel 2/Parking Structure + Adjacent City Lights Lot:			
Multi-family Residential	110 Units	480 Spaces	515 Spaces[(b)]
Retail Commercial	2,000 SF		
Total Parking Spaces:		840 Spaces	958 Spaces

(a) Includes 163 Amtrak parking spaces replaced
(b) Includes 297 FTC Parking Structure and 20 City Lights Apartment parking spaces replaced.

As shown in Tables 2 and 3 , the FTC Specific Plan requires 958 spaces for the Fullerton Mixed-Use development. The Project site provides 820 on-site parking spaces, thus a modification to the FTC Specific Plan parking requirements will be required. As shown in Table 3, the FTC Specific Plan requires 443 spaces for Parcel 1 of the Fullerton Mixed-Use development. The Parcel 1 site provides 360 on-site parking spaces. The FTC Specific Plan requires 515 spaces for Parcel 2 of the Fullerton Mixed-Use development. The Parcel 2 site provides 480 on-site parking spaces.

SHARED PARKING DEMAND ESTIMATES & ON-SITE PARKING SURVEYS

Shared parking demand estimates were developed for each parcel of the Fullerton Mixed-Use development based on empirical parking demand rates and hourly parking demands presented in the Institute of Transportation Engineers (ITE), Parking Generation, 5th Edition. The following weekday and weekend parking demand rates were used for the shared parking analysis.

Weekday Parking Demand Rates

- Residential - 1.31 vehicles per unit.
- Hotel - 0.79 vehicles per room.
- Retail Commercial - 2.61 vehicles per 1,000 SF of gross floor area.
- Restaurant - 14.84 vehicles per 1,000 SF of gross floor area.

Weekend Parking Demand Rates

- Residential - 1.22 vehicles per unit.
- Hotel - 1.15 vehicles per room.
- Retail Commercial - 2.91 vehicles per 1,000 SF of gross floor area.
- Restaurant - 17.00 vehicles per 1,000 SF of gross floor area.

The parking demands generated by the Project were then added to the existing parking demands observed in the study-area parking lots as reviewed in the following sections.

Parcel 1/Amtrak Lot

Shared parking demand estimates were developed for the Project based on the existing hourly parking demand surveys conducted at the Parcel 1/Amtrak lot and the hourly parking demand estimates developed for the proposed Project land uses based on the ITE rates. ATE collected parking demand data for the Amtrack lot on a weekday and a Saturday between the hours of 5:00 AM to 12:00 AM (survey data attached for reference). The shared parking analysis was completed assuming 100 percent occupancy of the Fullerton Mixed-Use Project.



The weekday and weekend shared parking demand estimates for the Fullerton Mixed-Use Project and the Parcel 1/Amtrack Lot are shown in Tables 4 and 5.

Table 4
Project Parcel 1/Amtrak Lot
Estimated Weekday Shared Parking Demands

Time of Day	Parking Demand			Parking	
	Existing Amtrak Lot	Parcel 1	Shared	Provided	Reserve
5:00 AM	19 Spaces	253 Spaces	272 Spaces	360 Spaces	88 Spaces
6:00 AM	33 Spaces	240 Spaces	273 Spaces	360 Spaces	87 Spaces
7:00 AM	57 Spaces	222 Spaces	279 Spaces	360 Spaces	81 Spaces
8:00 AM	75 Spaces	214 Spaces	289 Spaces	360 Spaces	71 Spaces
9:00 AM	77 Spaces	221 Spaces	298 Spaces	360 Spaces	62 Spaces
10:00 AM	83 Spaces	217 Spaces	300 Spaces	360 Spaces	60 Spaces
11:00 AM	89 Spaces	206 Spaces	295 Spaces	360 Spaces	65 Spaces
12:00 PM	78 Spaces	205 Spaces	283 Spaces	360 Spaces	77 Spaces
1:00 PM	76 Spaces	192 Spaces	268 Spaces	360 Spaces	92 Spaces
2:00 PM	88 Spaces	195 Spaces	283 Spaces	360 Spaces	77 Spaces
3:00 PM	66 Spaces	178 Spaces	244 Spaces	360 Spaces	116 Spaces
4:00 PM	48 Spaces	190 Spaces	238 Spaces	360 Spaces	122 Spaces
5:00 PM	56 Spaces	184 Spaces	240 Spaces	360 Spaces	120 Spaces
6:00 PM	46 Spaces	208 Spaces	254 Spaces	360 Spaces	106 Spaces
7:00 PM	41 Spaces	233 Spaces	274 Spaces	360 Spaces	86 Spaces
8:00 PM	37 Spaces	265 Spaces	302 Spaces	360 Spaces	58 Spaces
9:00 PM	29 Spaces	248 Spaces	277 Spaces	360 Spaces	83 Spaces
10:00 PM	17 Spaces	254 Spaces	271 Spaces	360 Spaces	89 Spaces
11:00 PM	17 Spaces	258 Spaces	275 Spaces	360 Spaces	85 Spaces
12:00 AM	17 Spaces	268 Spaces	285 Spaces	360 Spaces	75 Spaces

The data presented in Table 4 show that a shared peak parking demand of 302 parking spaces is forecast for the Fullerton Mixed-Use development on Parcel 1/Amtrack lot between the hours of 8:00 PM - 9:00 PM. The on-site parking supply of 360 parking spaces would accommodate the peak demand and provide a parking surplus of 58 spaces. The parking analysis assumed no interaction between the tenants of the Fullerton Mixed-Use development and the adjacent retail commercial which is a worst-case analysis. It is expected that once they are parked on-site, residents and customers in both Fullerton Mixed-Use development and the adjacent retail commercial could visit as walk-in customers.

Table 5
Project Parcel 1/Amtrak Lot
Estimated Weekend Shared Parking Demands

Time of Day	Parking Demand			Parking	
	Existing Amtrack Lot	Project Parcel 1	Shared	Provided	Reserve
5:00 AM	13 Spaces	259 Spaces	272 Spaces	360 Spaces	88 Spaces
6:00 AM	13 Spaces	257 Spaces	270 Spaces	360 Spaces	90 Spaces
7:00 AM	17 Spaces	254 Spaces	271 Spaces	360 Spaces	89 Spaces
8:00 AM	28 Spaces	272 Spaces	300 Spaces	360 Spaces	60 Spaces
9:00 AM	42 Spaces	271 Spaces	313 Spaces	360 Spaces	47 Spaces
10:00 AM	47 Spaces	266 Spaces	313 Spaces	360 Spaces	47 Spaces
11:00 AM	49 Spaces	270 Spaces	319 Spaces	360 Spaces	41 Spaces
12:00 PM	56 Spaces	280 Spaces	336 Spaces	360 Spaces	24 Spaces
1:00 PM	56 Spaces	281 Spaces	337 Spaces	360 Spaces	23 Spaces
2:00 PM	50 Spaces	251 Spaces	301 Spaces	360 Spaces	59 Spaces
3:00 PM	46 Spaces	241 Spaces	287 Spaces	360 Spaces	73 Spaces
4:00 PM	49 Spaces	248 Spaces	297 Spaces	360 Spaces	63 Spaces
5:00 PM	53 Spaces	265 Spaces	318 Spaces	360 Spaces	42 Spaces
6:00 PM	58 Spaces	297 Spaces	355 Spaces	360 Spaces	5 Spaces
7:00 PM	59 Spaces	335 Spaces	394 Spaces	360 Spaces	-34 Spaces
8:00 PM	51 Spaces	352 Spaces	403 Spaces	360 Spaces	-43 Spaces
9:00 PM	47 Spaces	328 Spaces	375 Spaces	360 Spaces	-15 Spaces
10:00 PM	37 Spaces	310 Spaces	347 Spaces	360 Spaces	13 Spaces
11:00 PM	40 Spaces	297 Spaces	337 Spaces	360 Spaces	23 Spaces
12:00 AM	40 Spaces	289 Spaces	329 Spaces	360 Spaces	31 Spaces

The data presented in Table 5 show that a shared peak parking demand of 403 parking spaces is forecast for the Fullerton Mixed-Use development and the Amtrack lot between the hours of 8:00 PM - 9:00 PM. The on-site parking supply of 360 parking spaces would not accommodate the peak demand and would result in a deficit of 43 spaces. A parking supply deficit would occur between the hours of 7:00 PM to 10:00 PM. The parking analysis assumed no internal interaction between the tenants of the Fullerton Mixed-Use development and the adjacent retail commercial uses which is a worst-case analysis. It is expected that once they are parked on-site, residents and customers in the Fullerton Mixed-Use development and the adjacent retail commercial could visit as walk-in customers. The excess parking demands generated on Parcel 1 could be accommodated within the adjacent FTC Parking structure which would have a surplus of parking (see following section).

Project Parcel 2/FTC Parking Structure



Shared parking demand estimates were developed for the Project based on the existing hourly parking demand surveys conducted at the FTC parking structure site and the hourly parking demand estimates developed for the proposed Project uses based on the ITE rates. ATE collected parking demand data for the FTC parking structure on a weekday and a Saturday between the hours of 5:00 AM to 12:00 AM (survey data attached for reference). The shared parking analysis was completed assuming 100 percent occupancy of the Fullerton Mixed-Use development. The weekday and weekend shared parking demand estimates for the Fullerton Mixed-Use development and the FTC parking structure are shown in Tables 6 and 7.

Table 6
Project Parcel 2/FTC Parking Structure
Estimated Weekday Shared Parking Demands

Time of Day	Parking Demand			Parking	
	Existing Parking Structure	Project Parcel 2	Shared	Provided	Reserve
5:00 AM	23 Spaces	79 Spaces	102 Spaces	480 Spaces	378 Spaces
6:00 AM	28 Spaces	69 Spaces	97 Spaces	480 Spaces	383 Spaces
7:00 AM	36 Spaces	59 Spaces	95 Spaces	480 Spaces	385 Spaces
8:00 AM	45 Spaces	52 Spaces	97 Spaces	480 Spaces	383 Spaces
9:00 AM	50 Spaces	48 Spaces	98 Spaces	480 Spaces	382 Spaces
10:00 AM	47 Spaces	48 Spaces	95 Spaces	480 Spaces	385 Spaces
11:00 AM	49 Spaces	46 Spaces	95 Spaces	480 Spaces	385 Spaces
12:00 PM	49 Spaces	46 Spaces	95 Spaces	480 Spaces	385 Spaces
1:00 PM	46 Spaces	44 Spaces	90 Spaces	480 Spaces	390 Spaces
2:00 PM	47 Spaces	44 Spaces	91 Spaces	480 Spaces	389 Spaces
3:00 PM	43 Spaces	45 Spaces	88 Spaces	480 Spaces	392 Spaces
4:00 PM	36 Spaces	51 Spaces	87 Spaces	480 Spaces	393 Spaces
5:00 PM	35 Spaces	56 Spaces	91 Spaces	480 Spaces	389 Spaces
6:00 PM	40 Spaces	59 Spaces	99 Spaces	480 Spaces	381 Spaces
7:00 PM	43 Spaces	61 Spaces	104 Spaces	480 Spaces	366 Spaces
8:00 PM	54 Spaces	66 Spaces	120 Spaces	480 Spaces	360 Spaces
9:00 PM	48 Spaces	69 Spaces	117 Spaces	480 Spaces	363 Spaces
10:00 PM	36 Spaces	75 Spaces	111 Spaces	480 Spaces	369 Spaces
11:00 PM	33 Spaces	78 Spaces	111 Spaces	480 Spaces	369 Spaces
12:00 AM	33 Spaces	84 Spaces	117 Spaces	480 Spaces	363 Spaces

The data presented in Table 6 show that a shared peak parking demand of 120 parking spaces is forecast for the Fullerton Mixed-Use development and the FTC parking structure between the hours of 8:00 PM - 9:00 PM. The on-site parking supply of 480 parking spaces would accommodate the peak demand and provide a parking surplus of 360 spaces. The parking analysis assumed no internal interaction between the tenants of the Fullerton Mixed-Use and the adjacent retail commercial uses which is a worst-case analysis. It is expected that once they are parked on-site, residents and customers in the Fullerton Mixed-Use development and the adjacent retail commercial would visit as walk-in customers.

Table 7
Project Parcel 2/FTC Parking Structure
Estimated Weekend Shared Parking Demands

Time of Day	Parking Demand			Parking	
	Existing Parking Structure	Project Parcel 2	Shared	Provided	Reserve
5:00 AM	19 Spaces	78 Spaces	97 Spaces	480 Spaces	383 Spaces
6:00 AM	18 Spaces	76 Spaces	94 Spaces	480 Spaces	386 Spaces
7:00 AM	20 Spaces	75 Spaces	95 Spaces	480 Spaces	385 Spaces
8:00 AM	20 Spaces	71 Spaces	91 Spaces	480 Spaces	389 Spaces
9:00 AM	19 Spaces	67 Spaces	86 Spaces	480 Spaces	394 Spaces
10:00 AM	17 Spaces	62 Spaces	79 Spaces	480 Spaces	401 Spaces
11:00 AM	21 Spaces	59 Spaces	80 Spaces	480 Spaces	400 Spaces
12:00 PM	22 Spaces	57 Spaces	79 Spaces	480 Spaces	401 Spaces
1:00 PM	23 Spaces	56 Spaces	79 Spaces	480 Spaces	401 Spaces
2:00 PM	24 Spaces	59 Spaces	83 Spaces	480 Spaces	397 Spaces
3:00 PM	25 Spaces	57 Spaces	82 Spaces	480 Spaces	398 Spaces
4:00 PM	29 Spaces	60 Spaces	89 Spaces	480 Spaces	391 Spaces
5:00 PM	26 Spaces	61 Spaces	87 Spaces	480 Spaces	393 Spaces
6:00 PM	28 Spaces	61 Spaces	89 Spaces	480 Spaces	391 Spaces
7:00 PM	43 Spaces	59 Spaces	102 Spaces	480 Spaces	378 Spaces
8:00 PM	52 Spaces	62 Spaces	114 Spaces	480 Spaces	366 Spaces
9:00 PM	52 Spaces	64 Spaces	114 Spaces	480 Spaces	366 Spaces
10:00 PM	46 Spaces	66 Spaces	112 Spaces	480 Spaces	368 Spaces
11:00 PM	46 Spaces	70 Spaces	116 Spaces	480 Spaces	364 Spaces
12:00 AM	46 Spaces	79 Spaces	125 Spaces	480 Spaces	355 Spaces

The data presented in Table 7 show that a shared peak parking demand of 125 parking spaces is forecast for the Fullerton Mixed-Use development and the FTC parking structure between the hours of 12:00 AM - 1:00 AM. The on-site parking supply of 480 parking spaces would accommodate the peak demand and provide a parking surplus of 355 spaces. The parking analysis assumed no internal interaction between the tenants of the Fullerton Mixed-Use development and the adjacent retail commercial uses which is a worst-case analysis. It is expected that once they are parked on-site, residents and customers in the Fullerton Mixed-Use development and the adjacent retail commercial would visit as walk-in customers. As noted

previously, this surplus in parking can be used to accommodate a portion of the parking demands generated on Parcel 1/Amtrak Lot.

SUMMARY

The Fullerton Mixed-Use development is a Transit Oriented Development (TOD) consisting of 265 multi-family residential units with 15% as affordable units, a 209-room hotel, 3,500 square-feet of restaurant space and 3,300 square-feet of retail commercial space. A TOD is a type of development that includes a mixture of housing, retail commercial and other amenities integrated into a walkable community located within a half-mile of quality public transportation. The Project is therefore consistent with the land use development goals of the FTC Specific Plan. The Fullerton Transportation Center Specific Plan requires 958 spaces for the Fullerton Mixed-Use development. The Project site provides 820 on-site parking spaces, thus a modification to the FTC Specific Plan parking requirements will be required.

The peak weekday shared parking demand forecast for Parcel 1 based on the ITE rates and the existing parking lot surveys is 302 parking spaces. The on-site parking supply of 360 spaces would meet the shared weekday parking demand and provide a reserve parking supply of 58 spaces. The peak weekend shared parking demand forecast for Parcel 1 based on the ITE rates and the existing parking lot surveys is 403 parking spaces. The on-site parking supply of 360 spaces would not meet the shared weekend parking demand. There would be a deficit parking supply of 43 spaces which could be accommodated in the adjacent FTC parking structure.

The peak weekday shared parking demand forecast for the Parcel 2 based on the ITE rates and the on-site parking surveys is 120 parking spaces. The on-site parking supply of 480 spaces would meet the shared weekday parking demand and provide reserve parking supply of 360 spaces. The peak weekend shared parking demand forecast for the Parcel 2 based on the ITE rates and the on-site surveys is 125 parking spaces. The on-site parking supply of 480 spaces would meet the shared weekend parking demand and provide a reserve parking supply of 355 spaces.

The Fullerton Mixed-Use development will provide 840 shared on-site parking spaces in two parking structures. There would be a deficit of 43 parking spaces on Parcel 1 between the hours of 7:00 PM to 10:00 PM. The parking structure on Parcel 2 would have a surplus of 366 spaces during this time period which would easily accommodate the excess parking demands from Parcel 1. The deficit could also be addressed by adding parking spaces to Parcel 1 and reduce the parking spaces in Parcel 2. The overall parking demand can be managed via a Parking Management Plan. The Project will implement innovative parking techniques to create an efficient and user-friendly parking system.

- Shared parking system to maximize the efficiency of the parking
- Implement a Parking Management Plan to ensure the efficient use of the available parking spaces.
- Provide parking for the retail commercial and hotel uses within the parking facilities.

This concludes ATE's parking study for the Fullerton Mixed-Use Development.

Associated Transportation Engineers

By: Scott A. Schell
Principal Transportation Planner

SAS/DFN

attachments: Figure 1 - Aerial Photo
Shared Weekday Parking Spreadsheet
Shared Weekend Parking Spreadsheet
Shared Weekday Parking Spreadsheet
Shared Weekend Parking Spreadsheet
Weekday Parking Survey Data
Saturday Parking Survey Data

TRANSPORATION ASSESSMENT POLICIES AND PROCEEDURES (TAPP) WORKSHEET

PROJECT NUMBER	TBD
PROJECT NAME	WestPark Fullerton Station
PROJECT LOCATION	200 E. Santa Fe Avenue / 215 E. Santa Fe Avenue
APN(s)	033-030-18, 033-032-04, 033-032-28, 033-032-27
PROJECT PLANNER	Bradley Misner
PROPOSED LAND USES	286 multi-family residential units, 140 room hotel, & 3,570 retail in two separate buildings.
EXISTING LAND USES TO BE REMOVED	Existing parking structure and surface parking lots
VMT SCREENING ☐Project is exempt from CEQA; therefore, a VMT Analysis is not required. ☒Project passes Primary and Secondary Screening; therefore, a VMT Analysis is not required. ☐Project fails screening; therefore, a VMT Analysis is required.	<u>Primary Screening</u> The Proposed Project: ☒Located in a Transit Priority Area ☐Located in a Low VMT-generating area ☐Project type is presumed to have a less than significant impact ☐Project generates less than 836 VMT *If any of the above boxes are checked, the project passes Primary Screening and the Project Planner completes applicable Secondary Screening.*
	<u>Secondary Screening – Transit Priority Area</u> The Proposed Project: ☐Has a Floor Area Ratio (FAR) of less than 0.75 ☐Is overparked in relation to City Code. ☐Is inconsistent with the applicable Sustainable Communities Strategy ☐Replaces affordable residential units with a smaller number of moderate- or high-income residential units. *If any of the above boxes are checked, the project fails Secondary Screening.*
	<u>Secondary Screening – Low VMT-generating Area</u> The Proposed Project: ☐Is inconsistent with the existing land use[1] (i.e. if the project is proposing single-family housing, there should be existing single-family housing of approximately the same density); or ☐Has a unique attribute that would otherwise be misrepresented utilizing the data from the travel demand model such as including land uses that would alter the existing built environment in such a way as to increase the rate or length of vehicle trips. *If any of the above boxes are checked, the project fails Secondary Screening.*

[1] Residential and office projects located within a low VMT area may be presumed to have a less than significant impact absent substantial evidence to the contrary. In addition, other employment- related and mixed- use land use projects may qualify for the use of screening if the project can reasonably be expected to generate VMT per service population that is similar to the existing land uses in the low VMT area.

VMT ANALYSIS ☒Preliminary project analysis reveals no probable VMT impact, therefore, no further study is required. ☐Project may have a VMT impact and thus a VMT Analysis is required.	The Proposed Project: Estimated Daily Trips: 4,278 Average Trip Length: 7.0 Service Population 908 VMT per Service Population: 32.9 VMT Credit: 0 Target VMT per Service Population Threshold: 29.6 Percentage above/below VMT Target: 11.15% City Traffic Engineer's Finding: *The proposed project demolishes a City parking structure and surface parking lot to construct two separate buildings over multiple lots in the vicinity of the Fullerton Station. The proposed project will replace existing public parking in-kind and include multi-family residential units, a hotel, and retail. The proposed project is located within a Transit Priority Area (TPA), will have a floor area ratio greater than 0.75, and will not be overparked as to City Code. Consistent with the City of Fullerton TAPP and the State of California's Technical Advisory on Evaluating Transportation Impacts in CEQA, the project is presumed have a less-than-significant transportation impact. The implementation of the proposed project will result an increase in trips and VMT over the existing parking facilities; however, the resulting VMT is anticipated to be acceptable in consideration of the State's environmental and housing goals. Therefore, based on this review it is reasonable to conclude that the proposed project will have no probable VMT impact and thus no further study is required.*
LOS SCREENING ☐Project is not expected to have an effect on transportation; therefore, a LOS Analysis is not required. ☒Project fails screening and may have a potential effect on transportation; therefore, a LOS Analysis is required.	The Proposed Project: Peak Hour Trip Generation: AM: 146 PM: 166 Peak Hour Trip Credit: AM: 0 PM: 0 Proposed Project Net Peak Trip Generation: AM: 146 PM: 166 ☒AM or PM peak hour trip generation is anticipated to exceed 40 net new vehicle trips. ☐The combination of land use and location necessitates further study. *If any of the above boxes are checked, the project fails LOS Screening.*
Approved by:	 David Roseman City Traffic Engineer September 23, 2022

NOCC+

North Orange County Collaborative VMT Traffic Study Screening Tool

Project Information

Project Name	Opening Year
Parkwest Fullerton Station	2026

Parcel Number (OCTAM TAZ#114)

033-032-04, 033-032-28, 033-032-27, 033-030-18

Screening Criteria for Fullerton

Is the project location in a Transit Priority Area?	Yes
Is the project location in a low VMT generating zone?	No
Is the Project one of these land use types? (show land use types)	No
Does the project generate fewer than 836 VMT? (enter project land use in the section below)	No

The Project can be considered for screening from additional analysis.
Please refer to the 'secondary screening checks' table in the User Guide.

Project Land Use Information

		Unit
Residential : Single Family Homes	0	Dwelling Units
Residential : MultiFamily Homes	286	Dwelling Units
Office	0.000	1,000 Sqaure Feet
Retail	3.570	1,000 Sqaure Feet
Industrial	0.000	1,000 Sqaure Feet
Private School	0	Students
University	0	Students
Entertainment	0.000	1,000 Sqaure Feet
Hotel	124	Rooms

Project Trips and VMT Information

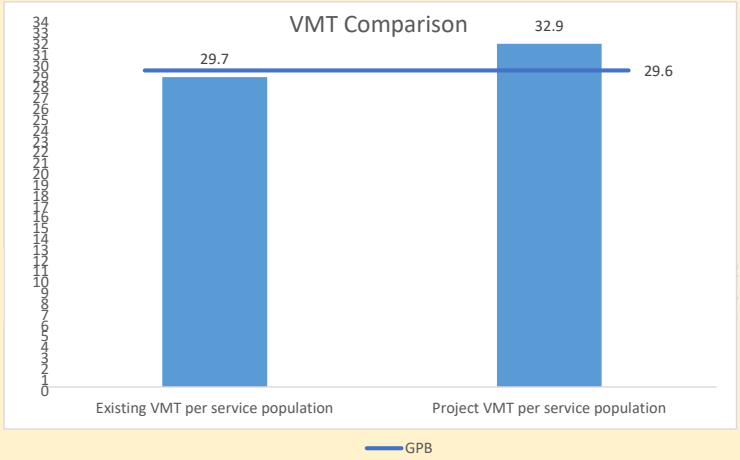
VMT Methodology: Origin Destination (OD)

Daily Trips: 4278 Average Trip Length: 7.0 Service Population: 908

VMT per service population: 32.9

Project VMT Thresholds Comparison

- [ ] OPR Guidance (15% Below Existing)
- [ ] GHG Reduction Targets (14.3% Below Existing)
- [ ] Below Existing
- [x] Better than General Plan Buildout



FEHR PEERS

Appendix J

AB 52 and SB 18 Letters

CITY OF FULLERTON
Community & Economic Development Department

July 18, 2022

Mr. Sam Dunlap
Gabrielino – Tongva Tribe

VIA EMAIL
TongvaTCR@gmail.com

Subject: Assembly Bill 52 (Public Resources Code §21080.3.1): Proposed Parkwest Development Project, City of Fullerton, Orange County, California

Dear Mr. Dunlap:

Pursuant to the provisions of Assembly Bill 52 (AB 52), the City of Fullerton (hereinafter referred to as the City), the lead agency pursuant to the California Environmental Quality Act (CEQA) for the proposed ParkWest Development Project (hereinafter referred to as Project), hereby extends an invitation to consult on the CEQA review for the Project. An Initial Study/Mitigated Negative Declaration (IS/MND) is being prepared for the Project to analyze the environmental impacts of the Project and to define mitigation to reduce or avoid any Project impacts, including those related to tribal cultural resources.

The proposed ParkWest Development Project, within the Fullerton Transportation Center Specific Plan, would involve re-development of a 2.5-acre site with apartment units, hotel, retail, restaurant, a pedestrian bridge, and parking, located at the southeast corner of South Pomona Avenue and East Santa Fe Avenue and northeast corner of South Pomona Avenue and East Santa Fe Avenue. The site is bound by Metrolink and Amtrak Transportation corridor to the south and Terry's Automotive to the east. Local access to the site is provided by Harbor Boulevard, Commonwealth Avenue, and Lemon Street, and regional access is provided by State Route 57 (SR-57) to the east, Interstate 5 (I-5) to the west, SR-91 to the south, and SR-90 to the north. Regional access is also provided by Santa Fe Train Depot (Fullerton Amtrak/Metrolink station).

The site is currently developed with surface parking and a parking structure, which provides parking for Amtrak and Metrolink commuters. The proposed Project is a multi-story development, ranging from 8 to 10 stories in height. The Project proposes to: 1) construct 163 apartments, 209-room hotel, 4,800 square feet of retail, and roof-top restaurant at the southeast corner of South Pomona Avenue and East Santa Fe Avenue; 2) demolish the existing parking structure including the private parking lot at the northeast corner of South Pomona Avenue and East Santa Fe Avenue and construct 107 apartments on that site; 3) reconfigure the surface parking lot in front of the Train Depot to provide better flow and parking; and 4) construct a pedestrian bridge over East Santa Fe Avenue connecting the new parking structure on the north side of East Santa Fe Avenue to the hotel and apartments on the south side of East Santa Fe Avenue. Plans for creating a more efficient and user-friendly parking system are currently under consideration.

The proposed Project is within the Fullerton Transportation Center Specific Plan for which an Environmental Impact Report (EIR) was previously prepared. Implementation of the proposed Project would require a Specific Plan Amendment.

AB 52 requires lead agencies to consult with the California Native American tribes that request such consultation in writing prior to adopting or amending a General Plan or Specific Plan, or the agency's release of a Notice of Preparation (NOP) of an Environmental Impact Report (EIR) or notice of a Mitigated Negative Declaration (MND), or Negative Declaration (ND). To that end, the City is notifying you of this Project. AB 52 allows tribes 30 days after receiving notification to request consultation.

Your participation in this local planning process is important. The City would welcome a response at your earliest possible convenience, but no later than 30 days after receiving this letter. Should we not receive a response within 30 days, we will presume that you have declined consultation under AB 52. Please do not hesitate to let me know if you have any questions or would like to discuss the proposed Project. I can be reached by email at bradley.misner@cityoffullerton.com. Witten correspondence regarding this matter can also be sent to:

Kellee Fritzal
Acting Deputy Community & Economic Development Director
City of Fullerton
Community & Economic Development Department
303 W. Commonwealth Avenue
Fullerton, CA 92832

Thank you very much for your assistance.

Sincerely,

Kellee Fritzal
Acting Deputy Community & Economic Development Director
City of Fullerton

Attachments: Exhibit 1, Department of Parks and Recreation Location Map

State of California -- The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary #
HRI #
Trinomial

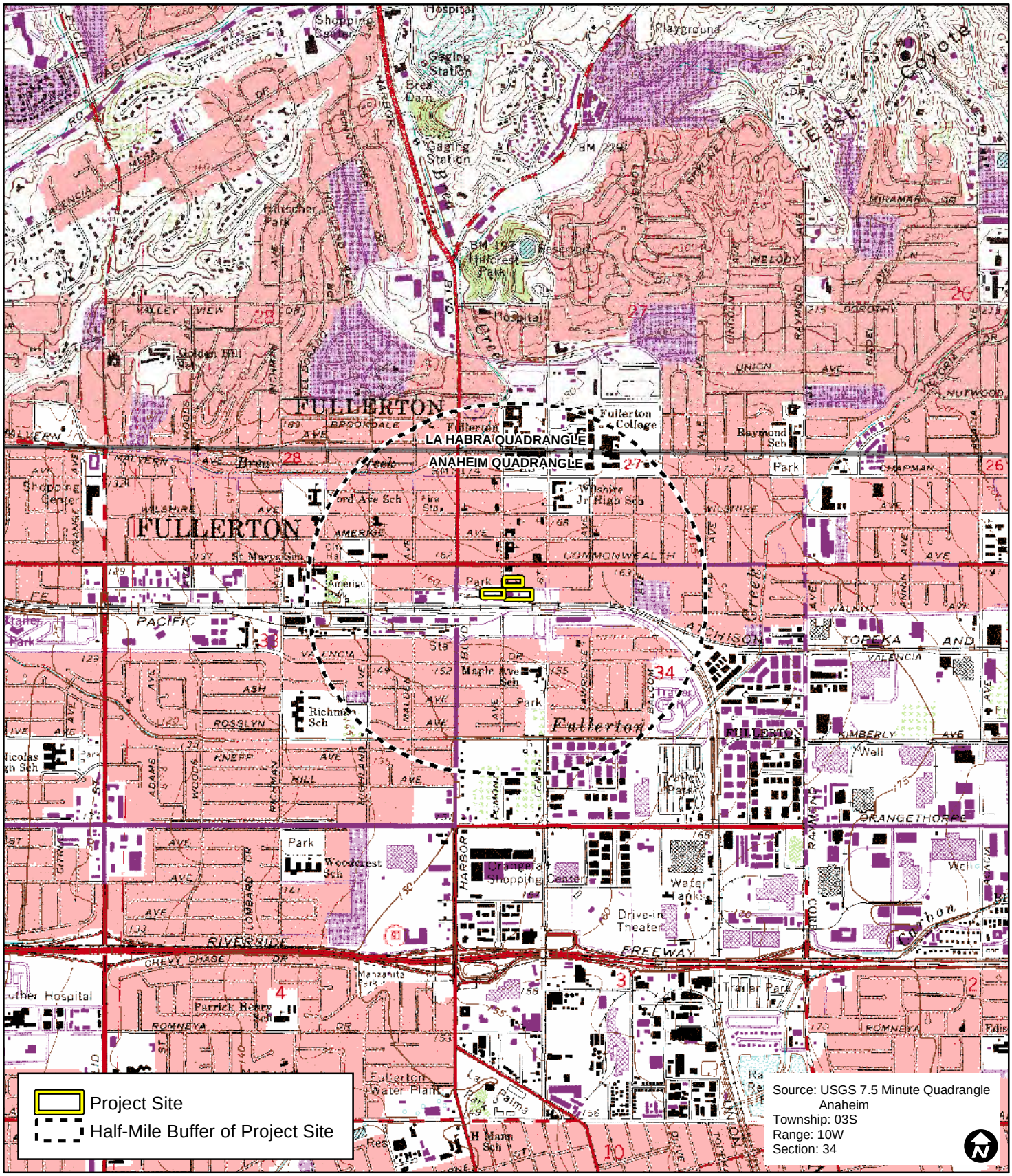
Page 1 of 1

***Resource Name or #:** _____

***Map Name:** Anaheim

***Scale:** 1:24,000

***Date of Map:** Digital 2014



DPR 523J (1/95)

*Required Information

CITY OF FULLERTON
Community & Economic Development Department

July 18, 2022

Mr. Joseph Ontiveros
Cultural Resources Director
Soboba Band of Luiseno Indians
P.O. Box 487
San Jacinto, CA 92581

VIAL EMAIL
Jontiveros@soboba-nsn.gov

Subject: Assembly Bill 52 (Public Resources Code §21080.3.1): Proposed Parkwest Development Project, City of Fullerton, Orange County, California

Dear Mr. Ontiveros:

Pursuant to the provisions of Assembly Bill 52 (AB 52), the City of Fullerton (hereinafter referred to as the City), the lead agency pursuant to the California Environmental Quality Act (CEQA) for the proposed ParkWest Development Project (hereinafter referred to as Project), hereby extends an invitation to consult on the CEQA review for the Project. An Initial Study/Mitigated Negative Declaration (IS/MND) is being prepared for the Project to analyze the environmental impacts of the Project and to define mitigation to reduce or avoid any Project impacts, including those related to tribal cultural resources.

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The site is currently developed with surface parking and a parking structure, which provides parking for Amtrak and Metrolink commuters. The proposed Project is a multi-story development, ranging from 8 to 10 stories in height. The Project proposes to: 1) construct 163 apartments, 209-room hotel, 4,800 square feet of retail, and roof-top restaurant at the southeast corner of South Pomona Avenue and East Santa Fe Avenue; 2) demolish the existing parking structure including the private parking lot at the northeast corner of South Pomona Avenue and East Santa Fe Avenue and construct 107 apartments on that site; 3) reconfigure the surface parking lot in front of the Train Depot to provide better flow and parking; and 4) construct a pedestrian bridge over East Santa Fe Avenue connecting the new parking structure on the north side of East Santa Fe Avenue to the hotel and apartments on the south side of East Santa Fe Avenue. Plans for creating a more efficient and user-friendly parking system are currently under consideration.

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Kellee Fritzal
Acting Deputy Community & Economic Development Director
City of Fullerton
Community & Economic Development Department
303 W. Commonwealth Avenue
Fullerton, CA 92832

Thank you very much for your assistance.

Sincerely,

Kellee Fritzal
Acting Deputy Community & Economic Development Director
City of Fullerton

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Primary #
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Trinomial

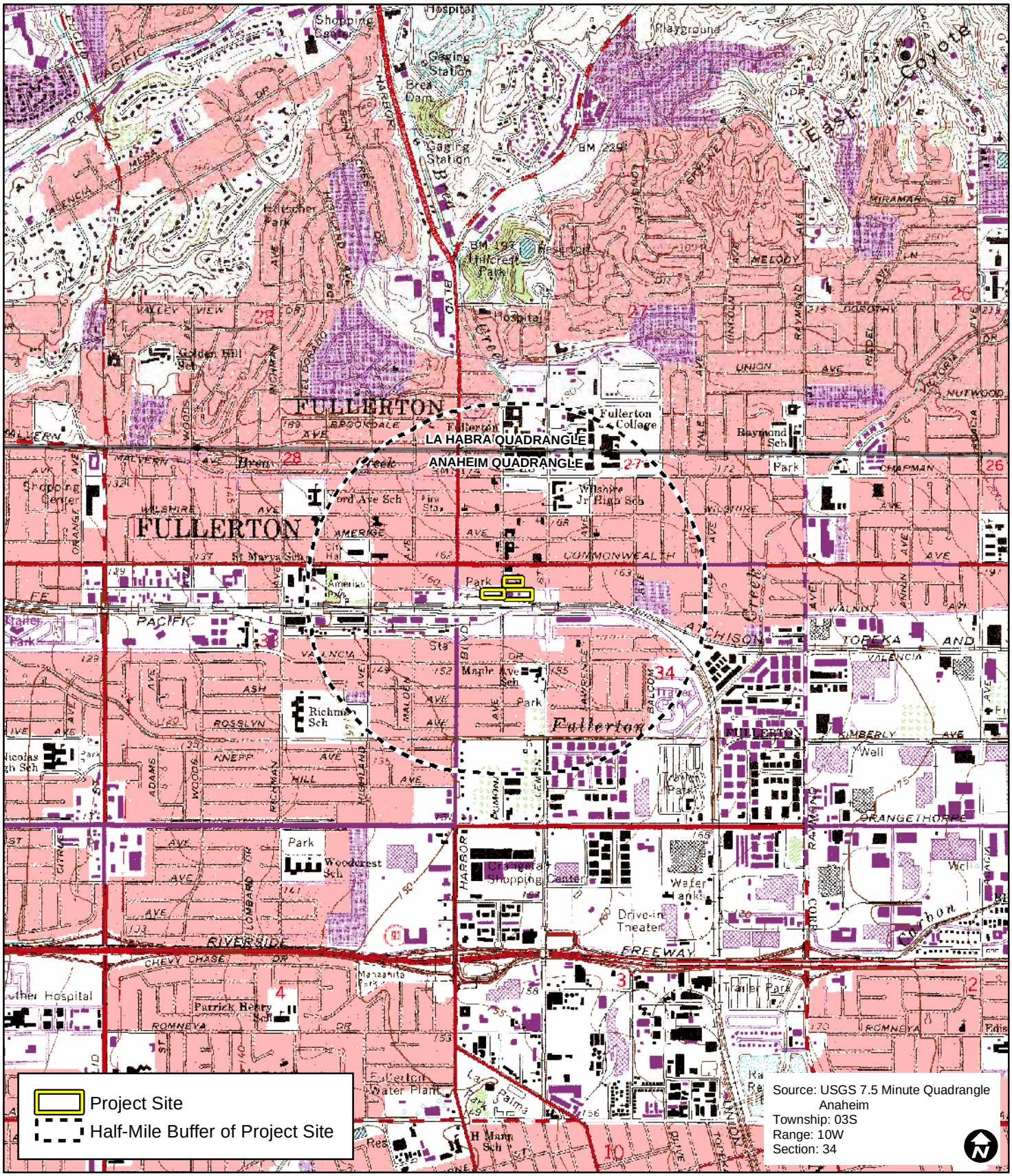
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***Map Name:** Anaheim

***Scale:** 1:24,000

***Date of Map:** Digital 2014



DPR 523J (1/95)

*Required Information

CITY OF FULLERTON
Community & Economic Development Department

July 18, 2022

Ms. Joyce Stanfield Perry
Tribal Manager
Juaneno Band of Mission Indians – Acjachemen Nation
4955 Paseo Segovia
Irvine, CA 92603

VIA EMAIL
Kaamalam@gmail.com

Subject: Assembly Bill 52 (Public Resources Code §21080.3.1): Proposed Parkwest Development Project, City of Fullerton, Orange County, California

Dear Ms. Perry:

Pursuant to the provisions of Assembly Bill 52 (AB 52), the City of Fullerton (hereinafter referred to as the City), the lead agency pursuant to the California Environmental Quality Act (CEQA) for the proposed ParkWest Development Project (hereinafter referred to as Project), hereby extends an invitation to consult on the CEQA review for the Project. An Initial Study/Mitigated Negative Declaration (IS/MND) is being prepared for the Project to analyze the environmental impacts of the Project and to define mitigation to reduce or avoid any Project impacts, including those related to tribal cultural resources.

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Kellee Fritzal
Acting Deputy Community & Economic Development Director
City of Fullerton
Community & Economic Development Department
303 W. Commonwealth Avenue
Fullerton, CA 92832

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Sincerely,

Kellee Fritzal
Acting Deputy Community & Economic Development Director
City of Fullerton

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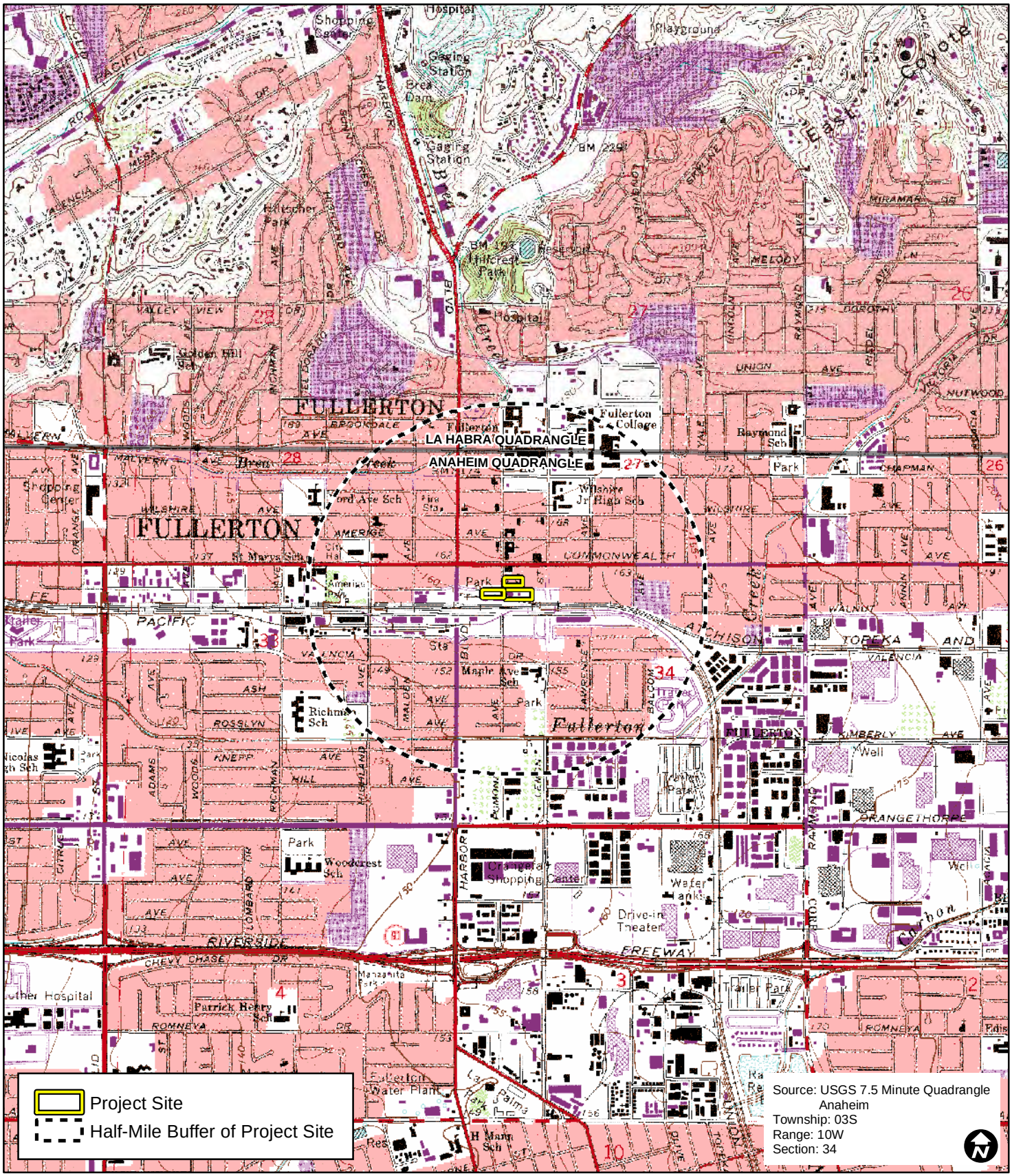
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DPR 523J (1/95)

*Required Information

CITY OF FULLERTON
Community & Economic Development Department

July 18, 2022

Mr. Andrew Salas
Chairman
Gabrieleno Band of Mission Indians – Kizh Nation
P.O. Box 393
Covina, CA 91723

VIA EMAIL
Chairman@gabrielenoindians.org

Subject: Assembly Bill 52 (Public Resources Code §21080.3.1): Proposed Parkwest Development Project, City of Fullerton, Orange County, California

Dear Mr. Salas:

Pursuant to the provisions of Assembly Bill 52 (AB 52), the City of Fullerton (hereinafter referred to as the City), the lead agency pursuant to the California Environmental Quality Act (CEQA) for the proposed ParkWest Development Project (hereinafter referred to as Project), hereby extends an invitation to consult on the CEQA review for the Project. An Initial Study/Mitigated Negative Declaration (IS/MND) is being prepared for the Project to analyze the environmental impacts of the Project and to define mitigation to reduce or avoid any Project impacts, including those related to tribal cultural resources.

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The proposed Project is within the Fullerton Transportation Center Specific Plan for which an Environmental Impact Report (EIR) was previously prepared. Implementation of the proposed Project would require a Specific Plan Amendment.

AB 52 requires lead agencies to consult with the California Native American tribes that request such consultation in writing prior to adopting or amending a General Plan or Specific Plan, or the agency's release of a Notice of Preparation (NOP) of an Environmental Impact Report (EIR) or notice of a Mitigated Negative Declaration (MND), or Negative Declaration (ND). To that end, the City is notifying you of this Project. AB 52 allows tribes 30 days after receiving notification to request consultation.

Your participation in this local planning process is important. The City would welcome a response at your earliest possible convenience, but no later than 30 days after receiving this letter. Should we not receive a response within 30 days, we will presume that you have declined consultation under AB 52. Please do not hesitate to let me know if you have any questions or would like to discuss the proposed Project. I can be reached by email at bradley.misner@cityoffullerton.com. Witten correspondence regarding this matter can also be sent to:

Kellee Fritzal
Acting Deputy Community & Economic Development Director
City of Fullerton
Community & Economic Development Department
303 W. Commonwealth Avenue
Fullerton, CA 92832

Thank you very much for your assistance.

Sincerely,

Kellee Fritzal
Acting Deputy Community & Economic Development Director
City of Fullerton

Attachments: Exhibit 1, Department of Parks and Recreation Location Map

State of California -- The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary #
HRI #
Trinomial

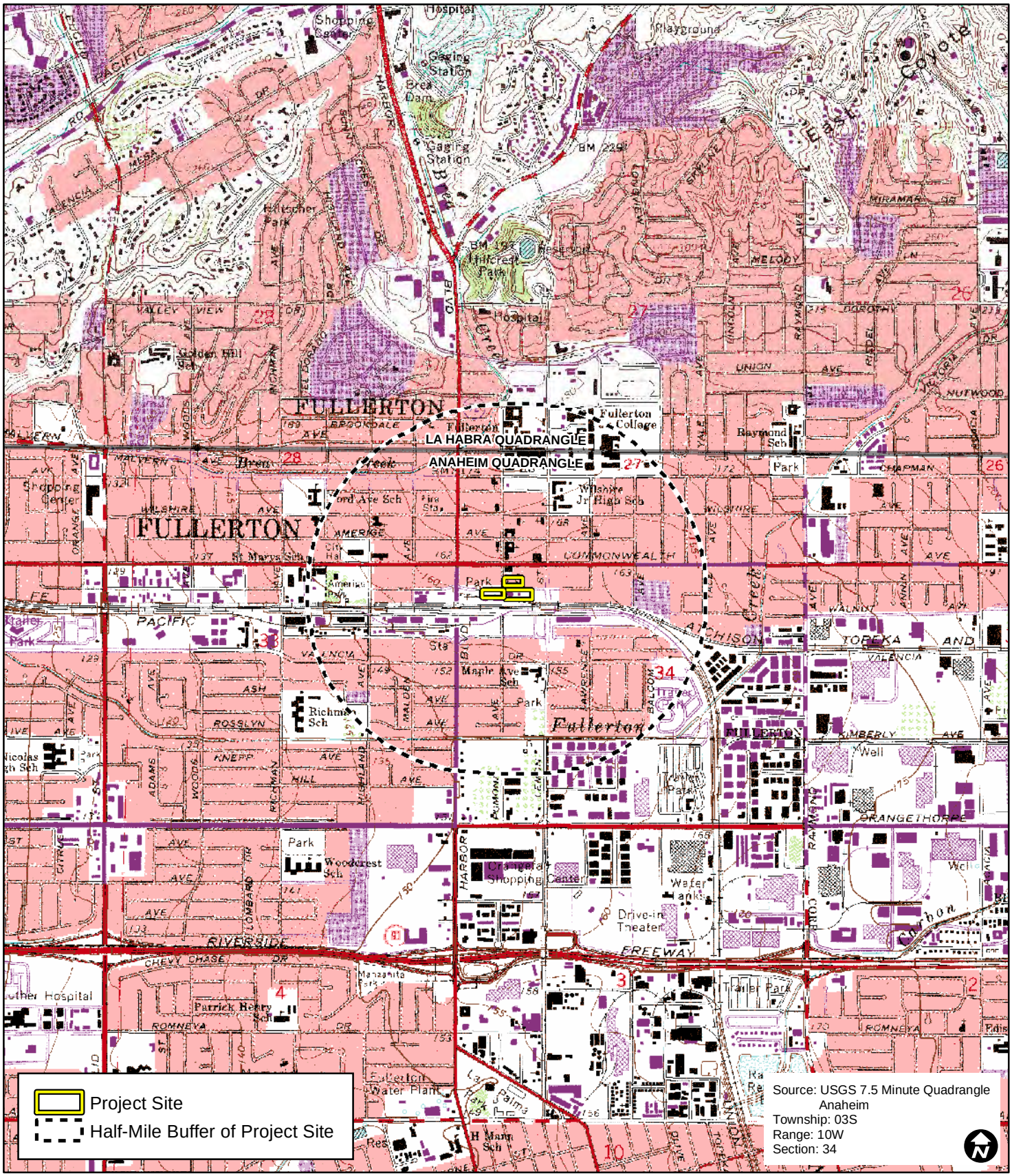
Page 1 of 1

***Resource Name or #:** _____

***Map Name:** Anaheim

***Scale:** 1:24,000

***Date of Map:** Digital 2014



DPR 523J (1/95)

*Required Information

PSOMAS

Balancing the Natural and Built Environment

July 18, 2022

Mr. Charles Alvarez
Gabrielino-Tongva Tribe
23454 Vanowen Street
West Hills, California 91307

VIA EMAIL
roadkingcharles@aol.com

Subject: Invitation to Consult Under Senate Bill 18, Specific Plan Amendment for the Proposed Parkwest Project, Fullerton, Orange County, California

Dear Mr. Alvarez:

This letter is to inform you of the proposed Parkwest Project (hereinafter referred to as Project or proposed Project) in Fullerton, Orange County, California, and to formally invite you to request consultation with the City of Fullerton (hereinafter referred to as the City) regarding the Project pursuant to Senate Bill 18 (SB 18). Please see the attached Exhibit 1, for the proposed Project's location.

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The site is currently developed with surface parking and a parking structure, which provides parking for Amtrak and Metrolink commuters. The proposed Project is a multi-story development, ranging from 8 to 10 stories in height. The Project proposes to: 1) construct 163 apartments, 209-room hotel, 4,800 square feet of retail, and roof-top restaurant at the southeast corner of South Pomona Avenue and East Santa Fe Avenue; 2) demolish the existing parking structure including the private parking lot at the northeast corner of South Pomona Avenue and East Santa Fe Avenue and construct 107 apartments on that site; 3) reconfigure the surface parking lot in front of the Train Depot to provide better flow and parking; and 4) construct a pedestrian bridge over East Santa Fe Avenue connecting the new parking structure on the north side of East Santa Fe

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Tel 714.751.7373
Fax 714.545.8883
www.Psomas.com

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Your participation in this local planning process is important. If you possess any information or knowledge regarding Native American Sacred Lands or other tribal cultural resources in and around the Project site and wish to consult with the City regarding these resources or mitigation measures to reduce the potential impacts of the proposed Project, please direct your email to kfritzal@cityoffullerton.com or send your written correspondence on this matter to:

Kellee Fritzal
Acting Deputy Community & Economic Development Director
City of Fullerton
Community & Economic Development Department
303 W. Commonwealth Avenue
Fullerton, CA 92832

Should your tribe participate in the consultation process, please note that at your request, any sensitive information you share with the City regarding cultural places and/or sacred sites will be kept strictly confidential and will not be divulged to the public.

Thank you for your participation in this process.

Sincerely,
PSOMAS



Charles Cisneros, RPA
Senior Archaeologist

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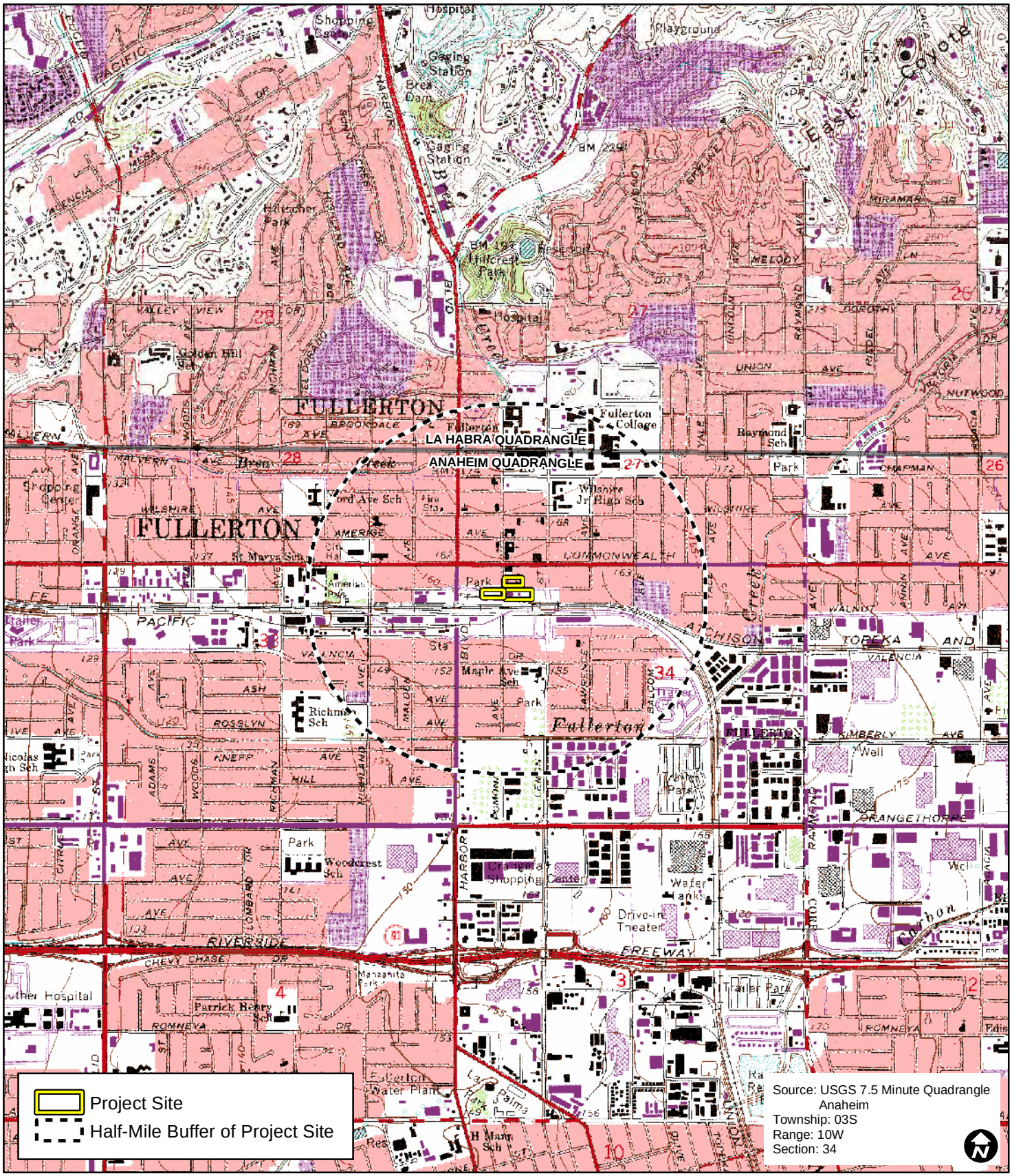
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DPR 523J (1/95)

*Required Information

PSOMAS

Balancing the Natural and Built Environment

July 18, 2022

Mr. Matias Belardes, Chairperson
Juaneño Band of Mission Indians Acjachemen Nation
32161 Avenida Los Amigos
San Juan Capistrano, California 92675

VIA EMAIL
kaamalam@gmail.com

Subject: Invitation to Consult Under Senate Bill 18, Specific Plan Amendment for the Proposed Parkwest Project, Fullerton, Orange County, California

Dear Mr. Belardes:

This letter is to inform you of the proposed Parkwest Project (hereinafter referred to as Project or proposed Project) in Fullerton, Orange County, California, and to formally invite you to request consultation with the City of Fullerton (hereinafter referred to as the City) regarding the Project pursuant to Senate Bill 18 (SB 18). Please see the attached Exhibit 1, for the proposed Project's location.

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PSOMAS



Charles Cisneros, RPA
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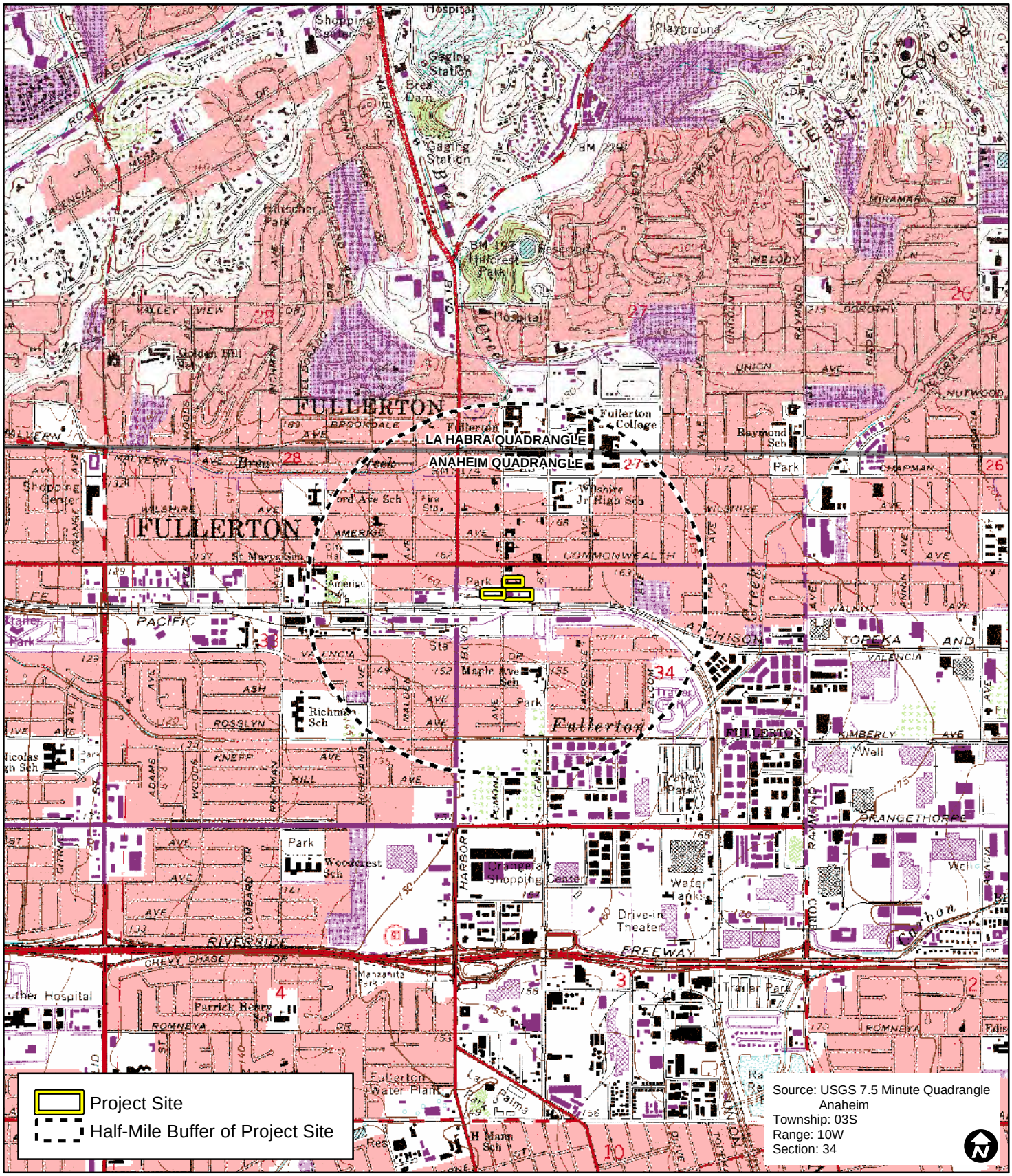
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DPR 523J (1/95)

*Required Information

PSOMAS

Balancing the Natural and Built Environment

July 18, 2022

Mr. Robert Dorame, Chairperson
Gabrielino Tongva Indians of California Tribal Council
P.O. Box 490
Bellflower, California 90707

VIA EMAIL
gtongva@gmail.com

Subject: Invitation to Consult Under Senate Bill 18, Specific Plan Amendment for the Proposed Parkwest Project, Fullerton, Orange County, California

Dear Mr. Dorame:

This letter is to inform you of the proposed Parkwest Project (hereinafter referred to as Project or proposed Project) in Fullerton, Orange County, California, and to formally invite you to request consultation with the City of Fullerton (hereinafter referred to as the City) regarding the Project pursuant to Senate Bill 18 (SB 18). Please see the attached Exhibit 1, for the proposed Project's location.

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Senior Archaeologist

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DEPARTMENT OF PARKS AND RECREATION

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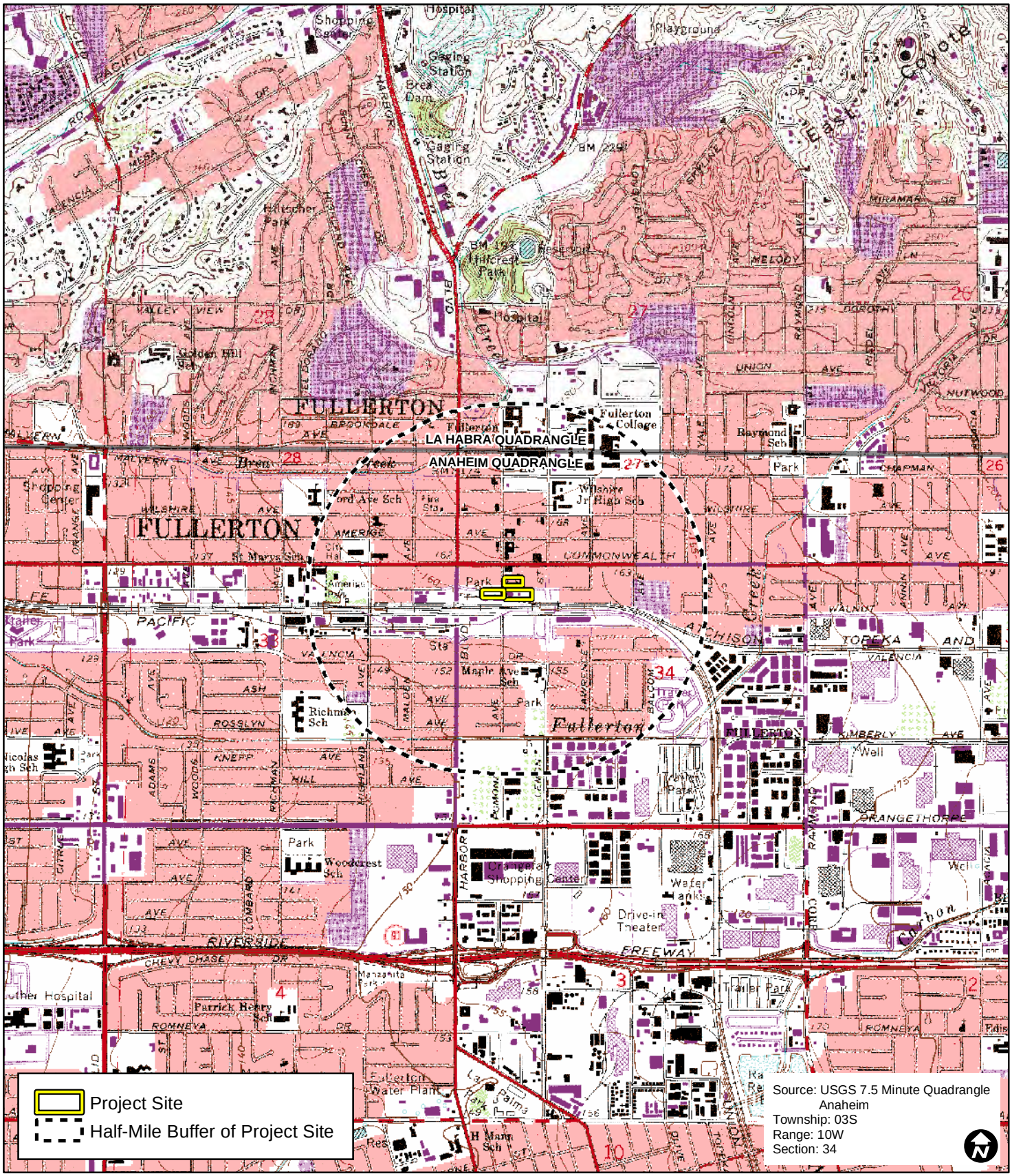
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DPR 523J (1/95)

*Required Information

PSOMAS

Balancing the Natural and Built Environment

July 18, 2022

Mr. Michael Garcia, Vice Chairperson
Ewiiaapaayp Tribal Office
4054 Willows Road
Alpine, California 91901

VIA EMAIL
michaelg@leaningrock.net

Subject: Invitation to Consult Under Senate Bill 18, Specific Plan Amendment for the Proposed Parkwest Project, Fullerton, Orange County, California

Dear Mr. Garcia:

This letter is to inform you of the proposed Parkwest Project (hereinafter referred to as Project or proposed Project) in Fullerton, Orange County, California, and to formally invite you to request consultation with the City of Fullerton (hereinafter referred to as the City) regarding the Project pursuant to Senate Bill 18 (SB 18). Please see the attached Exhibit 1, for the proposed Project's location.

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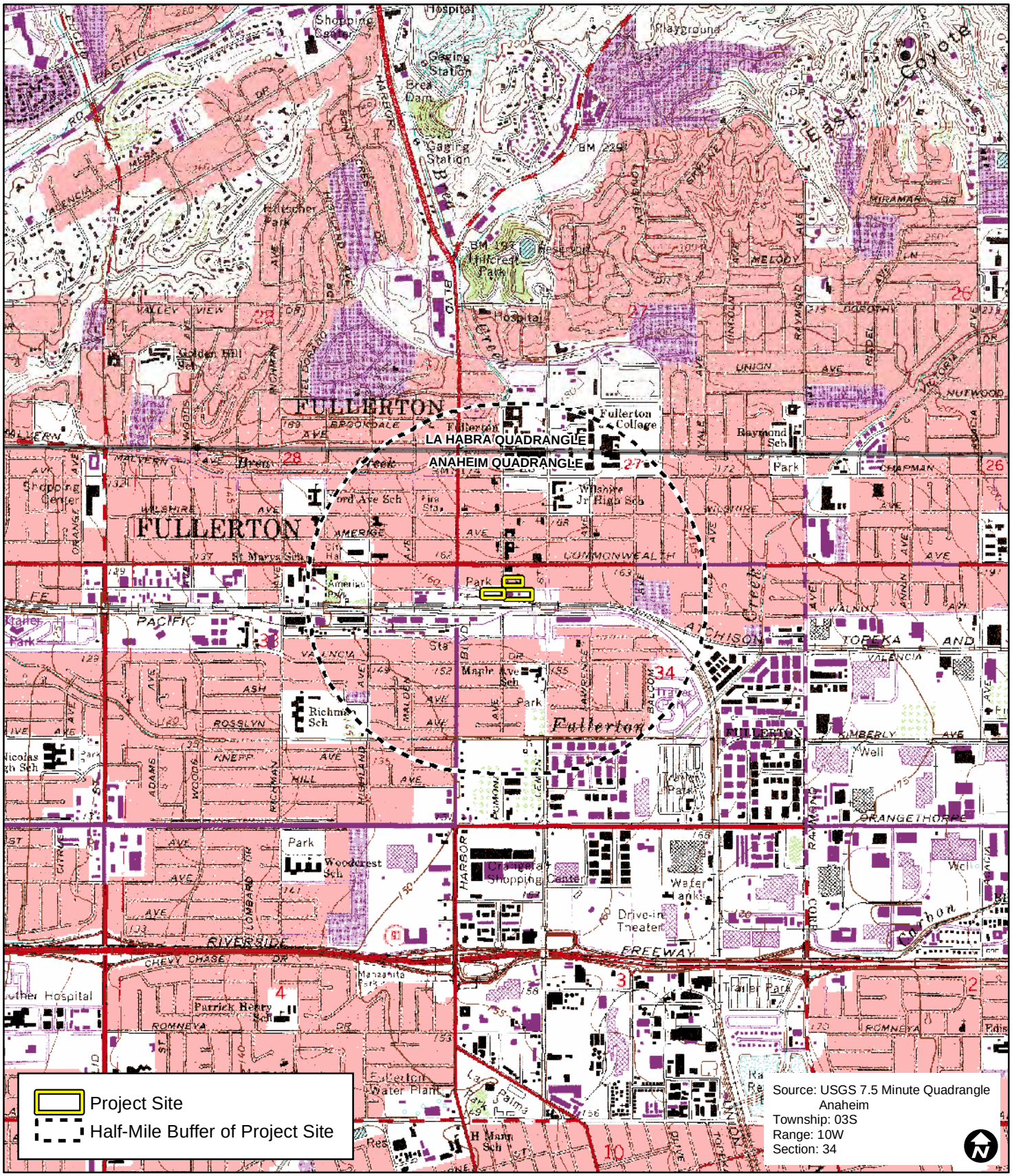
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DPR 523J (1/95)

*Required Information

July 18, 2022

Ms. Shasta Gaughen, Tribal Historic Preservation Officer
Pala Band of Mission Indians
35008 Pala-Temecula Road
PMB Box 50
Pala, California 92059

VIA EMAIL
sgaughen@palatribe.com

Subject: Invitation to Consult Under Senate Bill 18, Specific Plan Amendment for the Proposed Parkwest Project, Fullerton, Orange County, California

Dear Ms. Gaughen:

This letter is to inform you of the proposed Parkwest Project (hereinafter referred to as Project or proposed Project) in Fullerton, Orange County, California, and to formally invite you to request consultation with the City of Fullerton (hereinafter referred to as the City) regarding the Project pursuant to Senate Bill 18 (SB 18). Please see the attached Exhibit 1, for the proposed Project's location.

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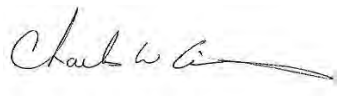
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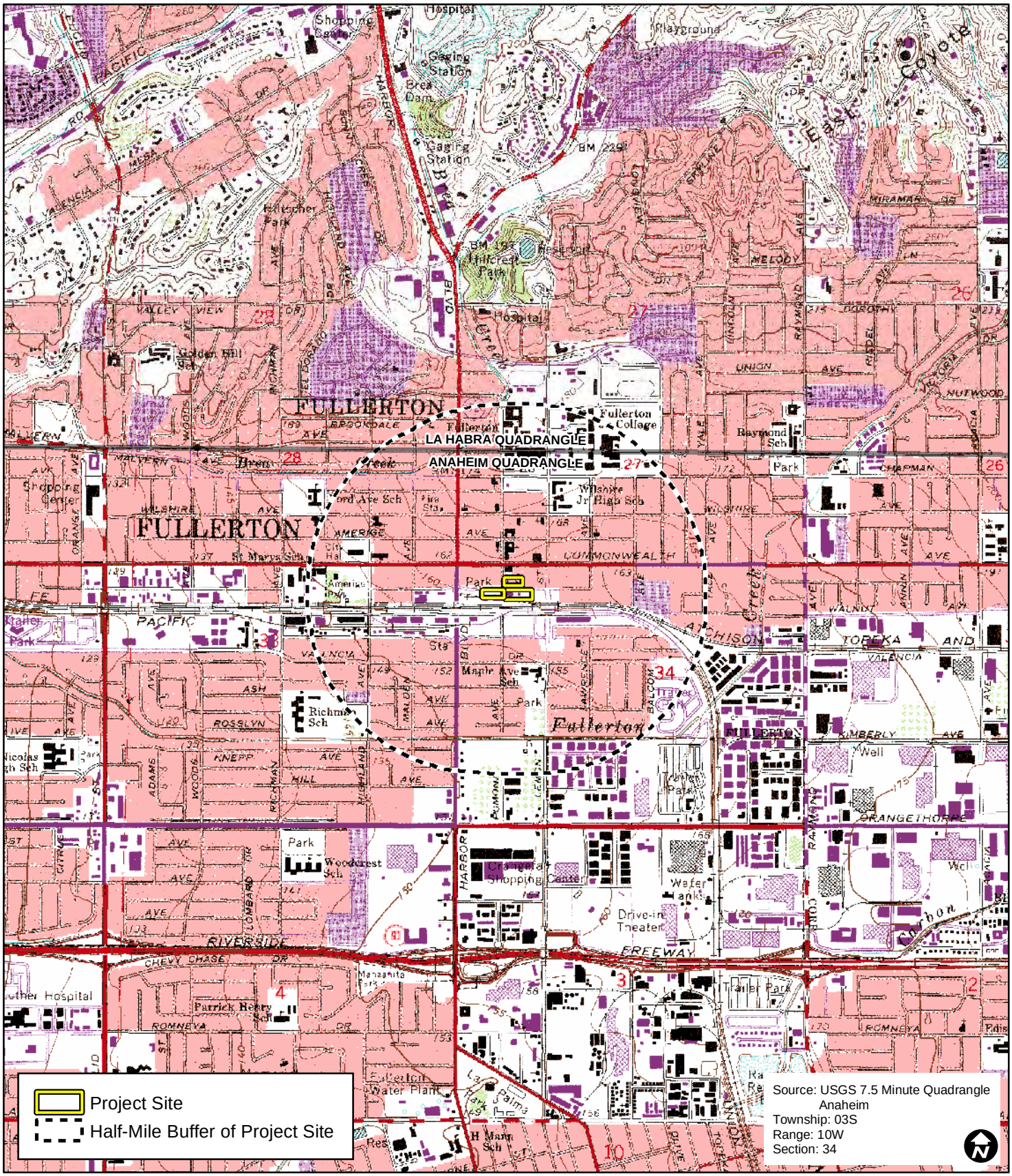
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DPR 523J (1/95)

*Required Information

PSOMAS

Balancing the Natural and Built Environment

July 18, 2022

Sandonne Goad, Chairperson
Gabrielino/ Tongva Nation
106 1/2 Judge John Aiso Street #231
Los Angeles, California 90012

VIA EMAIL
sgoad@gabrielino-tongva.com

Subject: Invitation to Consult Under Senate Bill 18, Specific Plan Amendment for the Proposed Parkwest Project, Fullerton, Orange County, California

Dear Sandonne Goad:

This letter is to inform you of the proposed Parkwest Project (hereinafter referred to as Project or proposed Project) in Fullerton, Orange County, California, and to formally invite you to request consultation with the City of Fullerton (hereinafter referred to as the City) regarding the Project pursuant to Senate Bill 18 (SB 18). Please see the attached Exhibit 1, for the proposed Project's location.

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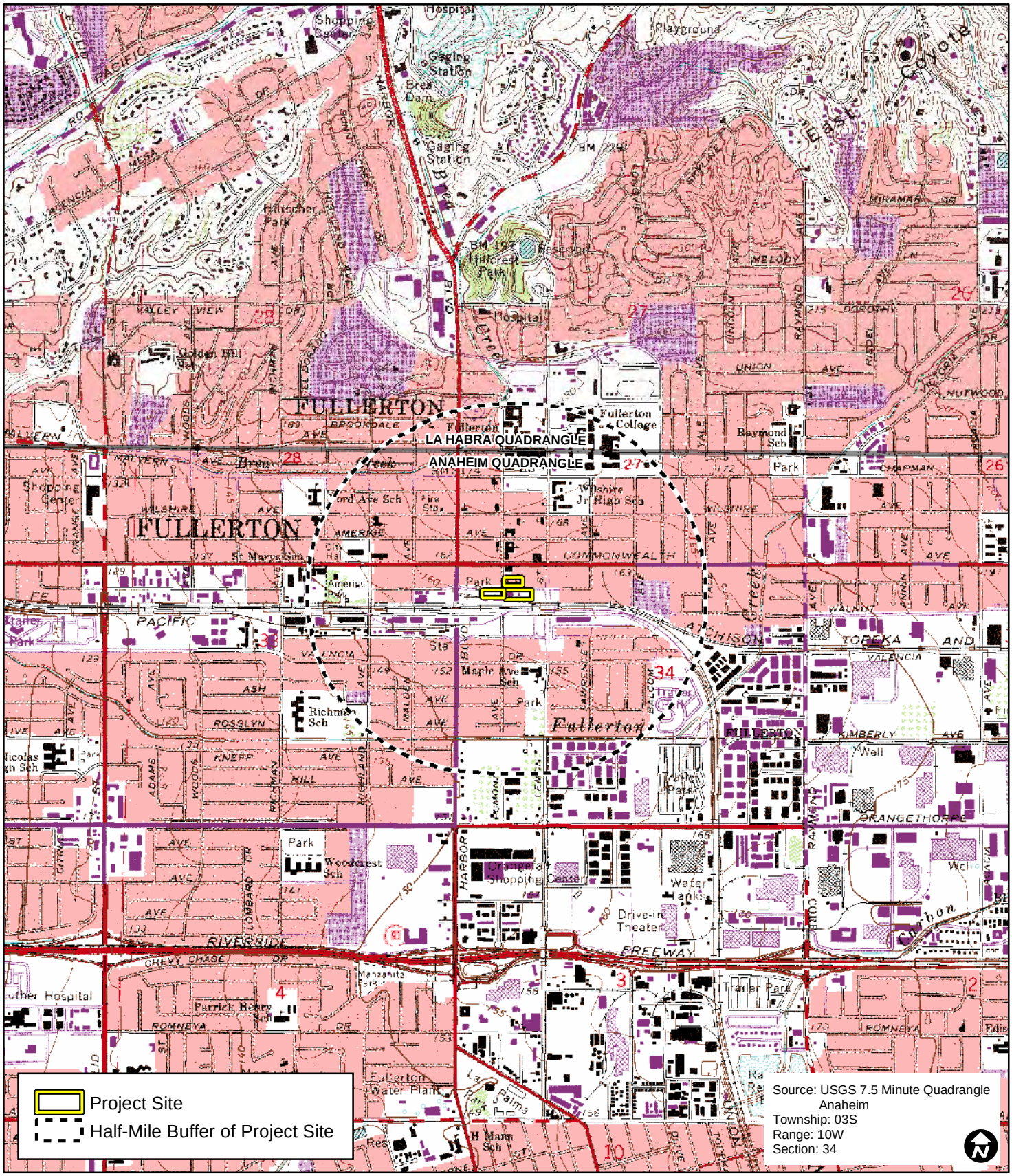
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DPR 523J (1/95)

*Required Information

PSOMAS

Balancing the Natural and Built Environment

July 18, 2022

Mr. Ralph Goff, Chairperson
Campo Band of Diegueno Mission Indians
36190 Church Road, Suite 1
Campo, California 91906

VIA EMAIL
rgoff@campo-nsn.gov

Subject: Invitation to Consult Under Senate Bill 18, Specific Plan Amendment for the Proposed Parkwest Project, Fullerton, Orange County, California

Dear Mr. Goff:

This letter is to inform you of the proposed Parkwest Project (hereinafter referred to as Project or proposed Project) in Fullerton, Orange County, California, and to formally invite you to request consultation with the City of Fullerton (hereinafter referred to as the City) regarding the Project pursuant to Senate Bill 18 (SB 18). Please see the attached Exhibit 1, for the proposed Project's location.

SB 18 became effective on March 1, 2005, and it requires local governments to invite Native American tribes, identified by the Native American Heritage Commission (NAHC), to participate in consultation about the General Plan and Specific Plan adoptions or amendments for the purpose of preserving or mitigating potential impacts from a project to Native American cultural places. The proposed Project would necessitate amendments to the Fullerton Transportation Center Specific Plan and is therefore subject to the requirements for SB 18.

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The site is currently developed with surface parking and a parking structure, which provides parking for Amtrak and Metrolink commuters. The proposed Project is a multi-story development, ranging from 8 to 10 stories in height. The Project proposes to: 1) construct 163 apartments, 209-room hotel, 4,800 square feet of retail, and roof-top restaurant at the southeast corner of South Pomona Avenue and East Santa Fe Avenue; 2) demolish the existing parking structure including the private parking lot at the northeast corner of South Pomona Avenue and East Santa Fe Avenue and construct 107 apartments on that site; 3) reconfigure the surface parking lot in front of the Train Depot to provide better flow and parking; and 4) construct a pedestrian bridge over East Santa Fe Avenue connecting the new parking structure on the north side of East Santa Fe

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Fax 714.545.8883
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The proposed Project is within the Fullerton Transportation Center Specific Plan for which an Environmental Impact Report (EIR) was previously prepared. Implementation of the proposed Project would require a Specific Plan Amendment.

Your participation in this local planning process is important. If you possess any information or knowledge regarding Native American Sacred Lands or other tribal cultural resources in and around the Project site and wish to consult with the City regarding these resources or mitigation measures to reduce the potential impacts of the proposed Project, please direct your email to kfritzal@cityoffullerton.com or send your written correspondence on this matter to:

Kellee Fritzal
Acting Deputing Community & Economic Development Director
City of Fullerton
Community & Economic Development Department
303 W. Commonwealth Avenue
Fullerton, CA 92832

Should your tribe participate in the consultation process, please note that at your request, any sensitive information you share with the City regarding cultural places and/or sacred sites will be kept strictly confidential and will not be divulged to the public.

Thank you for your participation in this process.

Sincerely,
PSOMAS



Charles Cisneros, RPA
Senior Archaeologist

Attachment: Exhibit 1, Department of Parks and Recreation Location Map

State of California -- The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary #
HRI #
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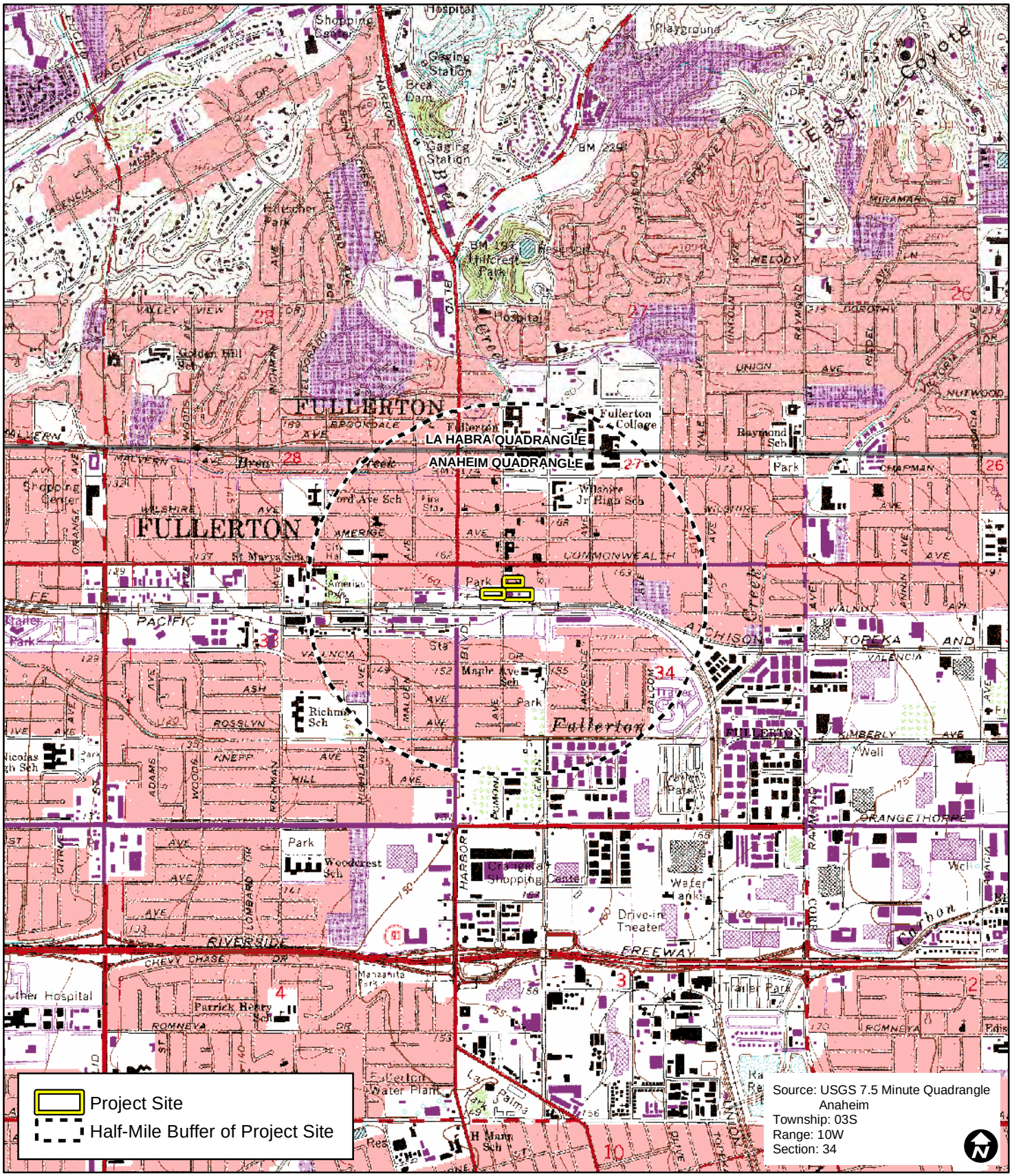
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***Resource Name or #:** _____

***Map Name:** Anaheim

***Scale:** 1:24,000

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DPR 523J (1/95)

*Required Information

PSOMAS

Balancing the Natural and Built Environment

July 18, 2022

Mr. Michael Linton, Chairperson
Mesa Grande Band of Diegueno Mission Indians
P.O. Box 270
Santa Ysabel, California 92070

VIA EMAIL
mesagrandeband@msn.com

Subject: Invitation to Consult Under Senate Bill 18, Specific Plan Amendment for the Proposed Parkwest Project, Fullerton, Orange County, California

Dear Mr. Michael Linton:

This letter is to inform you of the proposed Parkwest Project (hereinafter referred to as Project or proposed Project) in Fullerton, Orange County, California, and to formally invite you to request consultation with the City of Fullerton (hereinafter referred to as the City) regarding the Project pursuant to Senate Bill 18 (SB 18). Please see the attached Exhibit 1, for the proposed Project's location.

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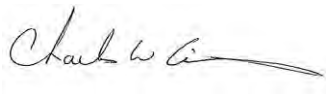
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City of Fullerton
Community & Economic Development Department
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Thank you for your participation in this process.

Sincerely,
PSOMAS



Charles Cisneros, RPA
Senior Archaeologist

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DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

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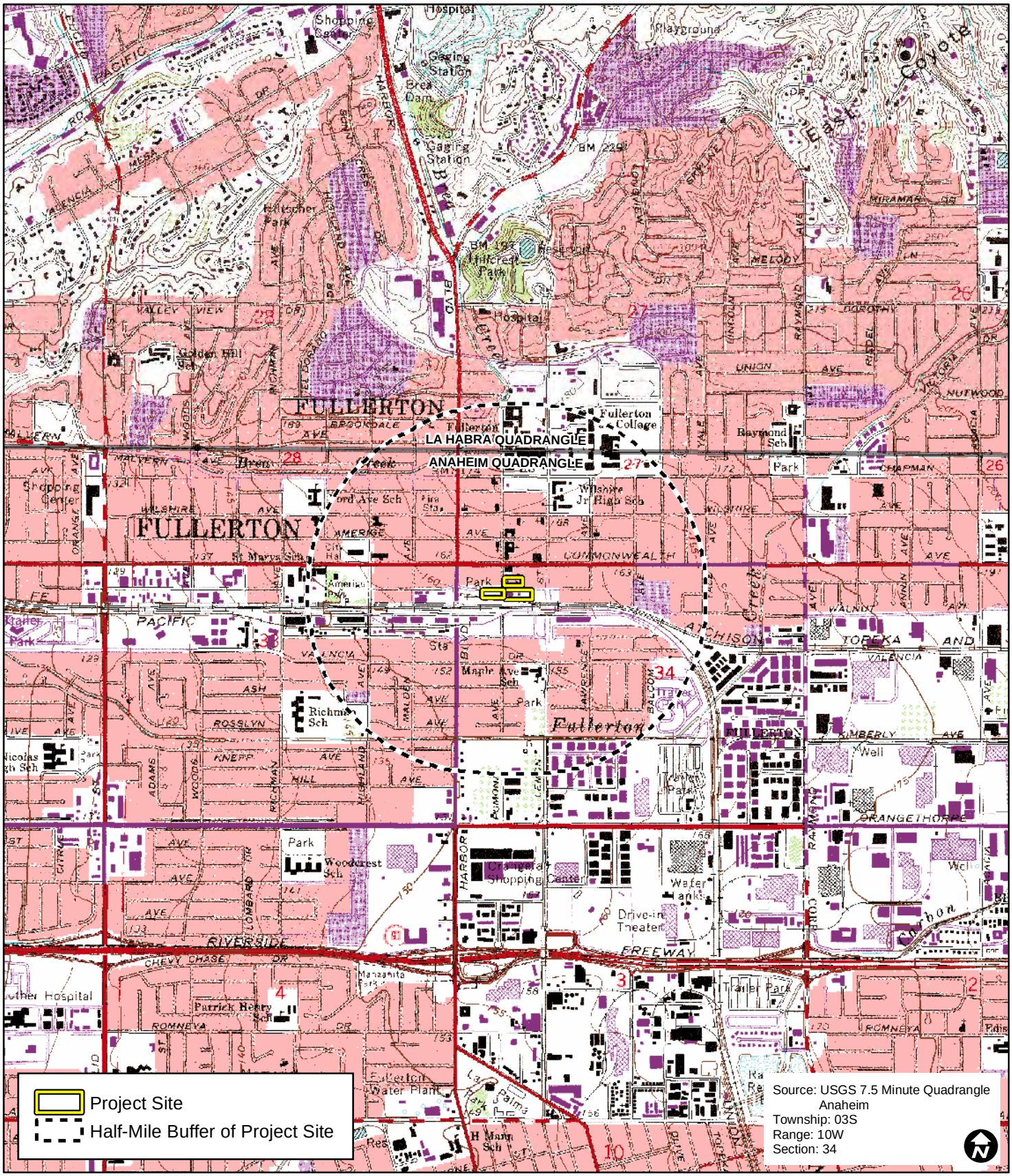
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***Resource Name or #:** _____

***Map Name:** Anaheim

***Scale:** 1:24,000

***Date of Map:** Digital 2014



DPR 523J (1/95)

*Required Information

PSOMAS

Balancing the Natural and Built Environment

July 18, 2022

Mr. Cody Martinez, Chairperson
Sycuan Band of Kumeyaay Nation
1 Kwaaypaay Ct.
El Cajon, California 92019

VIA EMAIL
ssilva@sycuan-nsn.gov

Subject: Invitation to Consult Under Senate Bill 18, Specific Plan Amendment for the Proposed Parkwest Project, Fullerton, Orange County, California

Dear Mr. Martinez:

This letter is to inform you of the proposed Parkwest Project (hereinafter referred to as Project or proposed Project) in Fullerton, Orange County, California, and to formally invite you to request consultation with the City of Fullerton (hereinafter referred to as the City) regarding the Project pursuant to Senate Bill 18 (SB 18). Please see the attached Exhibit 1, for the proposed Project's location.

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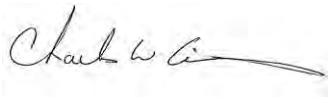
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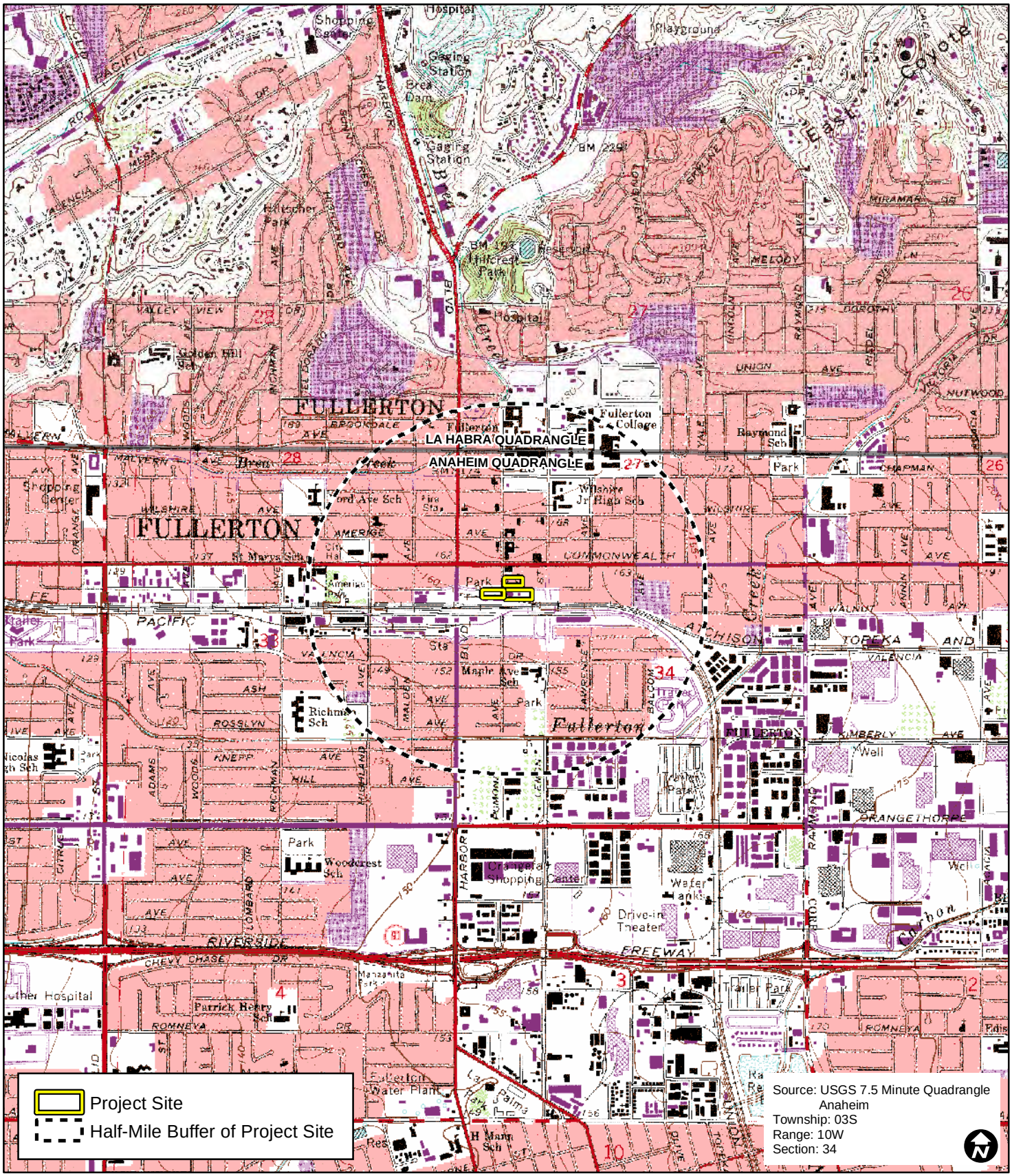
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DPR 523J (1/95)

*Required Information

PSOMAS

Balancing the Natural and Built Environment

July 18, 2022

Ms. Javaughn Miller, Tribal Administrator
La Posta Band of Diegueno Mission Indians
8 Crestwood Road
Boulevard, California 91905

VIA EMAIL
jmiller@LPtribe.net

Subject: Invitation to Consult Under Senate Bill 18, Specific Plan Amendment for the Proposed Parkwest Project, Fullerton, Orange County, California

Dear Ms. Miller:

This letter is to inform you of the proposed Parkwest Project (hereinafter referred to as Project or proposed Project) in Fullerton, Orange County, California, and to formally invite you to request consultation with the City of Fullerton (hereinafter referred to as the City) regarding the Project pursuant to Senate Bill 18 (SB 18). Please see the attached Exhibit 1, for the proposed Project's location.

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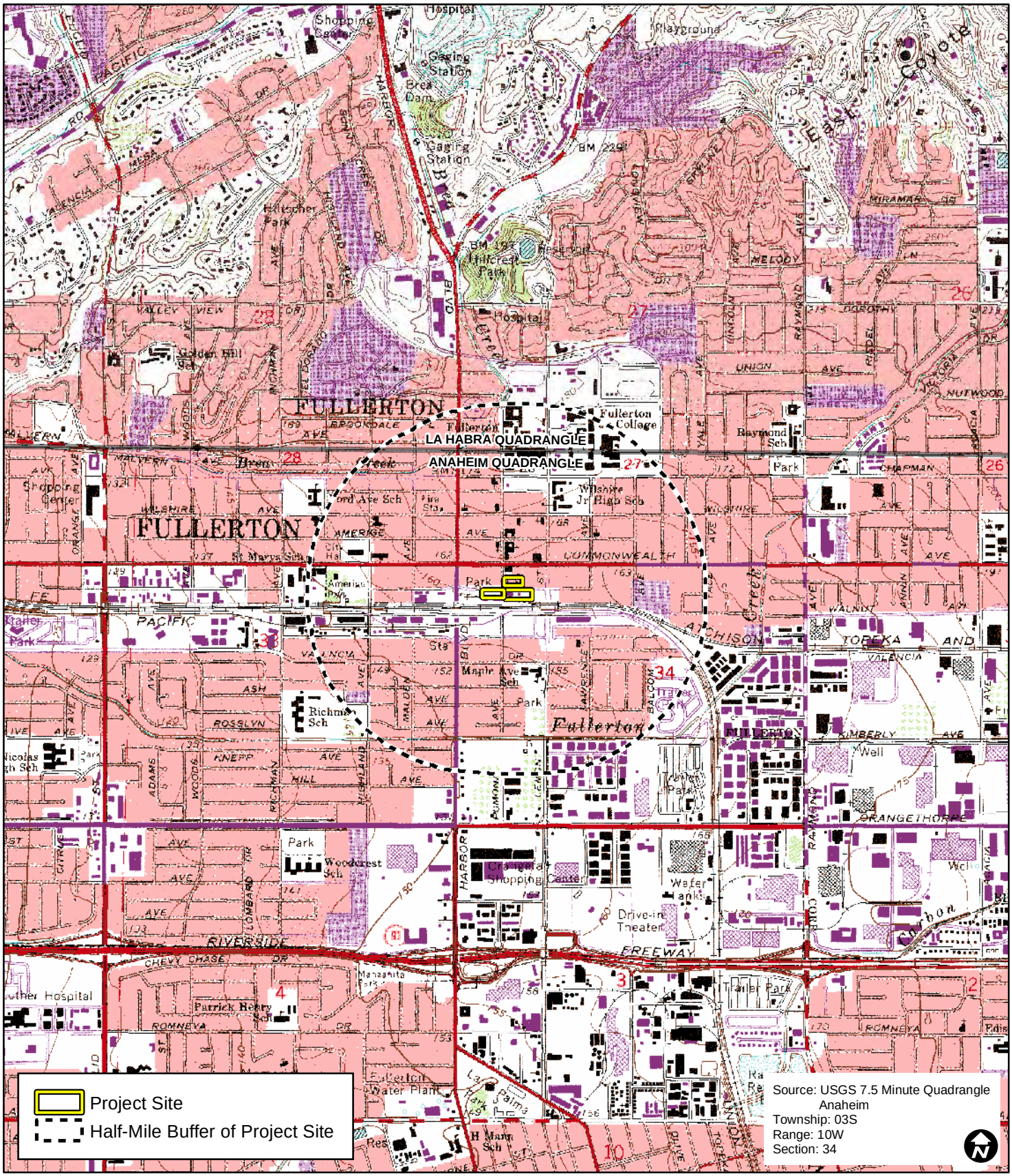
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DPR 523J (1/95)

*Required Information

PSOMAS

Balancing the Natural and Built Environment

July 18, 2022

Mr. Anthony Morales, Chairperson
Gabrieleno/Tongva San Gabriel Band of Mission Indians
P.O. Box 693
San Gabriel, California 91778

VIA EMAIL
GTTribalcouncil@aol.com

Subject: Invitation to Consult Under Senate Bill 18, Specific Plan Amendment for the Proposed Parkwest Project, Fullerton, Orange County, California

Dear Mr. Morales:

This letter is to inform you of the proposed Parkwest Project (hereinafter referred to as Project or proposed Project) in Fullerton, Orange County, California, and to formally invite you to request consultation with the City of Fullerton (hereinafter referred to as the City) regarding the Project pursuant to Senate Bill 18 (SB 18). Please see the attached Exhibit 1, for the proposed Project's location.

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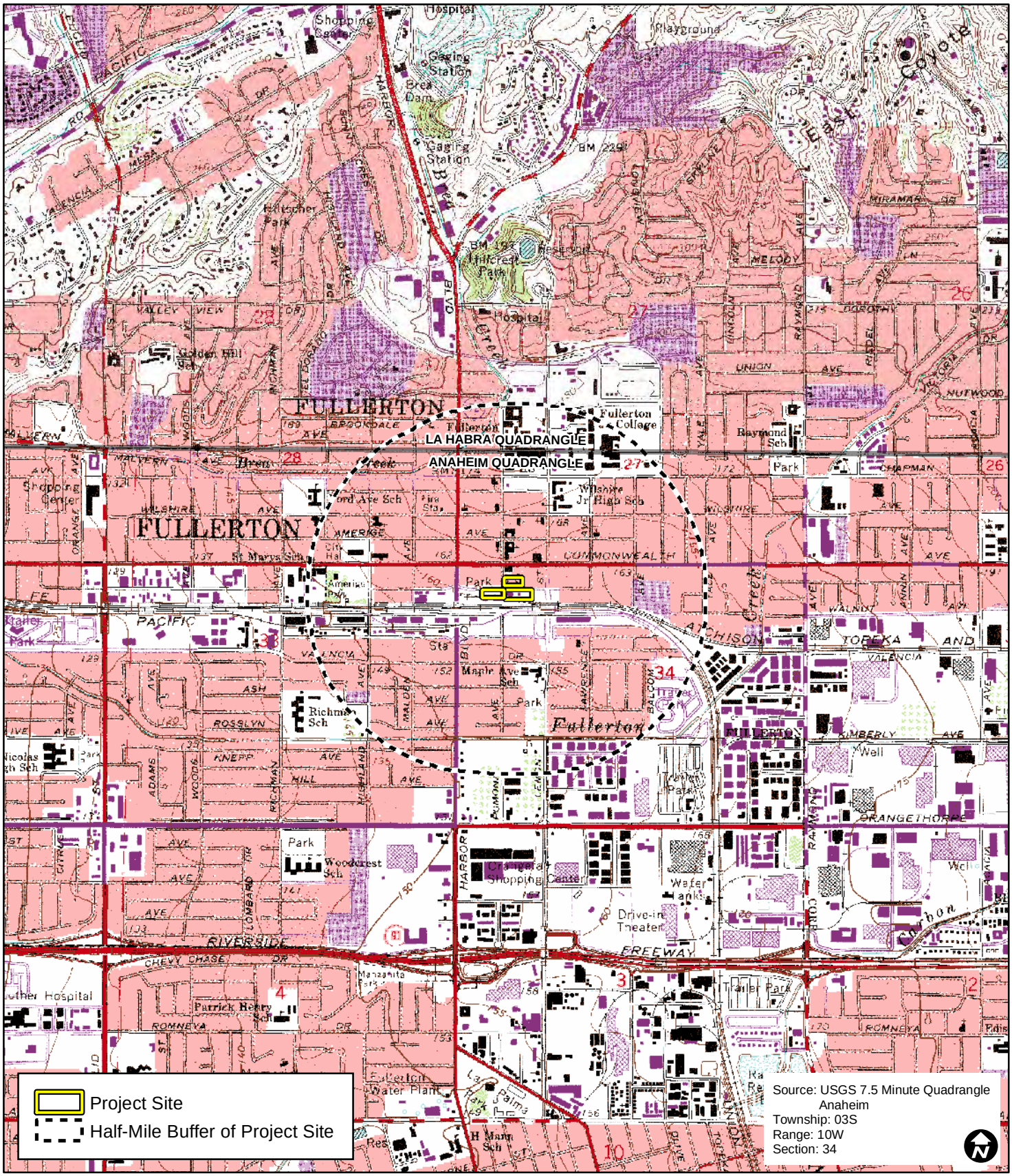
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DPR 523J (1/95)

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PSOMAS

Balancing the Natural and Built Environment

July 18, 2022

Ms. Gwendolyn Parada, Chairperson
La Posta Band of Diegueno Mission Indians
8 Crestwood Road
Boulevard, California 91905

VIA EMAIL
LP13boots@aol.com

Subject: Invitation to Consult Under Senate Bill 18, Specific Plan Amendment for the Proposed Parkwest Project, Fullerton, Orange County, California

Dear Ms. Parada:

This letter is to inform you of the proposed Parkwest Project (hereinafter referred to as Project or proposed Project) in Fullerton, Orange County, California, and to formally invite you to request consultation with the City of Fullerton (hereinafter referred to as the City) regarding the Project pursuant to Senate Bill 18 (SB 18). Please see the attached Exhibit 1, for the proposed Project's location.

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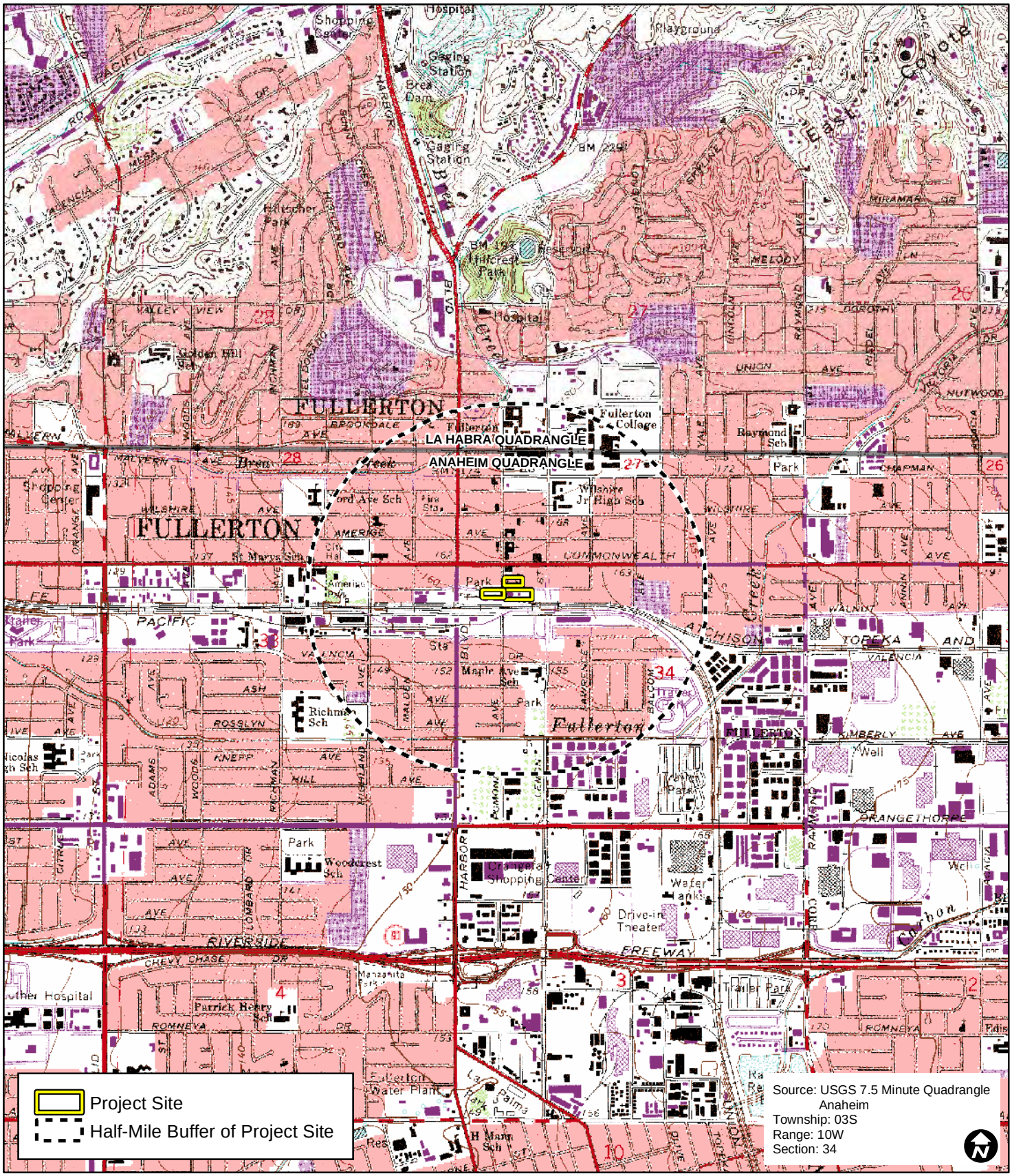
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PSOMAS

Balancing the Natural and Built Environment

July 18, 2022

Mr. Robert Pinto, Chairperson
Ewiiaapaayp Tribal Office
4054 Willows Road
Alpine, California 91901

VIA EMAIL
wmicklin@leaningrock.net

Subject: Invitation to Consult Under Senate Bill 18, Specific Plan Amendment for the Proposed Parkwest Project, Fullerton, Orange County, California

Dear Mr. Pinto:

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Avenue to the hotel and apartments on the south side of East Santa Fe Avenue. Plans for creating a more efficient and user-friendly parking system are currently under consideration.

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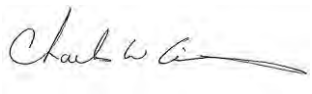
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Kellee Fritzal
Acting Deputing Community & Economic Development Director
City of Fullerton
Community & Economic Development Department
303 W. Commonwealth Avenue
Fullerton, CA 92832

Should your tribe participate in the consultation process, please note that at your request, any sensitive information you share with the City regarding cultural places and/or sacred sites will be kept strictly confidential and will not be divulged to the public.

Thank you for your participation in this process.

Sincerely,
PSOMAS



Charles Cisneros, RPA
Senior Archaeologist

Attachment: Exhibit 1, Department of Parks and Recreation Location Map

State of California -- The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary #
HRI #
Trinomial

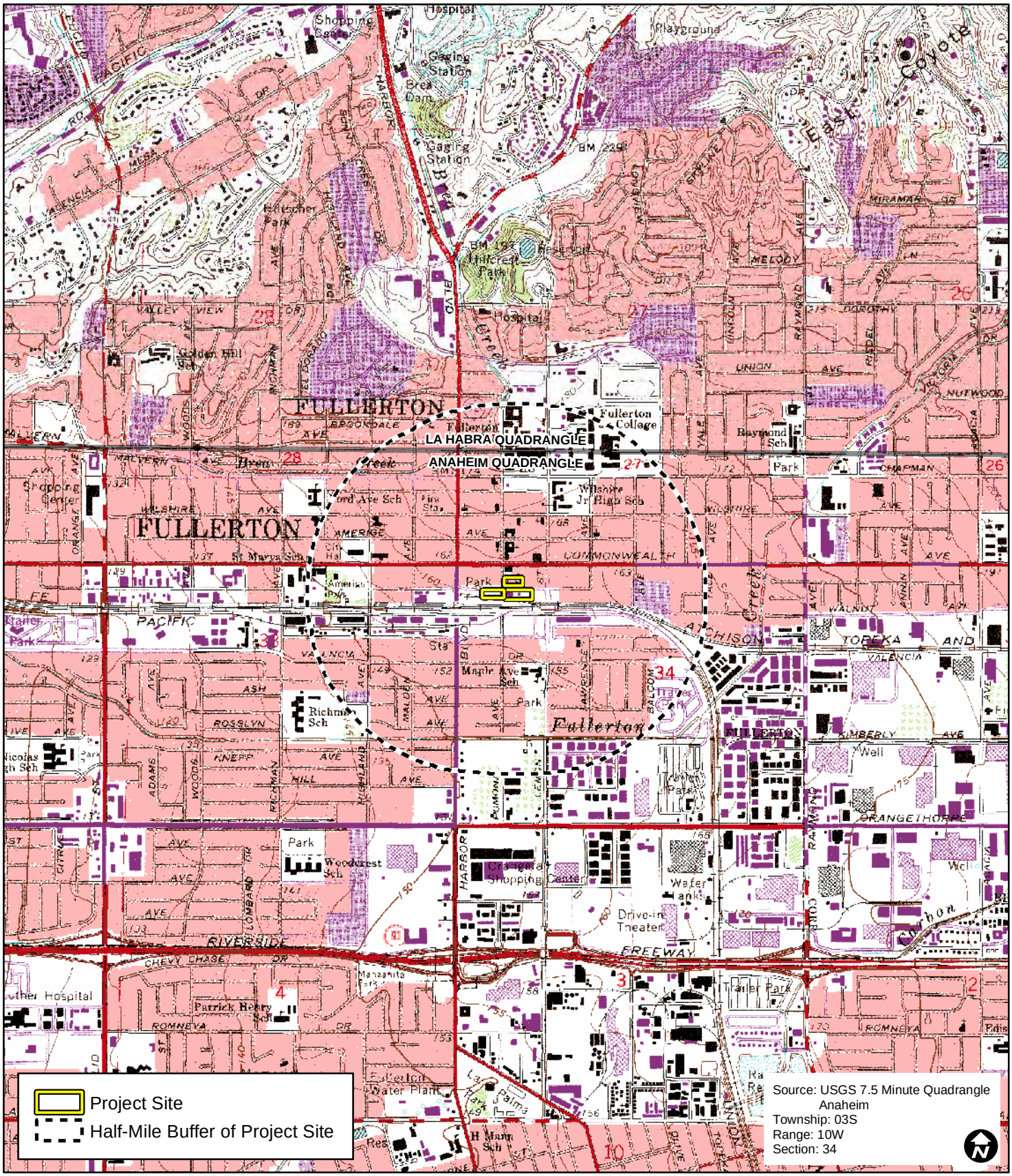
Page 1 of 1

***Resource Name or #:** _____

***Map Name:** Anaheim

***Scale:** 1:24,000

***Date of Map:** Digital 2014



DPR 523J (1/95)

*Required Information

July 18, 2022

Ms. Lovina Redner, Tribal Chair
Santa Rosa Band of Cahuilla Indians
P.O. Box 391820
Anza, California 92539

VIA EMAIL
lsaul@santarosa-nsn.gov

Subject: Invitation to Consult Under Senate Bill 18, Specific Plan Amendment for the Proposed Parkwest Project, Fullerton, Orange County, California

Dear Ms. Redner:

This letter is to inform you of the proposed Parkwest Project (hereinafter referred to as Project or proposed Project) in Fullerton, Orange County, California, and to formally invite you to request consultation with the City of Fullerton (hereinafter referred to as the City) regarding the Project pursuant to Senate Bill 18 (SB 18). Please see the attached Exhibit 1, for the proposed Project's location.

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City of Fullerton
Community & Economic Development Department
303 W. Commonwealth Avenue
Fullerton, CA 92832

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Thank you for your participation in this process.

Sincerely,
PSOMAS



Charles Cisneros, RPA
Senior Archaeologist

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State of California -- The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

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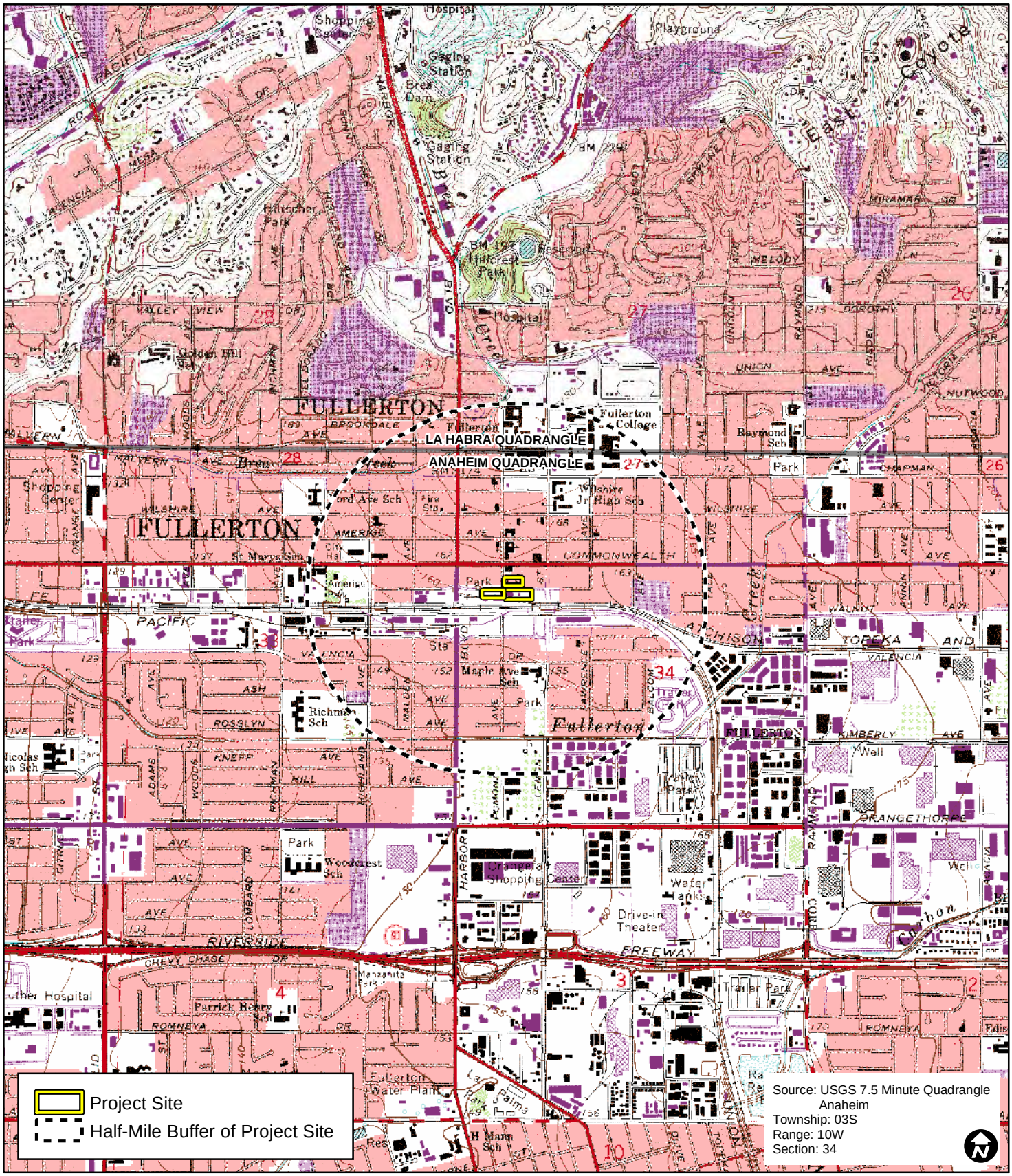
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***Map Name:** Anaheim

***Scale:** 1:24,000

***Date of Map:** Digital 2014



DPR 523J (1/95)

*Required Information

July 18, 2022

Mr. Andrew Salas, Chairperson
Gabrieleno Band of Mission Indians - Kizh Nation
P.O. Box 393
Covina, California 91723

Subject: Invitation to Consult Under Senate Bill 18, Specific Plan Amendment for the Proposed Parkwest Project, Fullerton, Orange County, California

Dear Mr. Salas:

This letter is to inform you of the proposed Parkwest Project (hereinafter referred to as Project or proposed Project) in Fullerton, Orange County, California, and to formally invite you to request consultation with the City of Fullerton (hereinafter referred to as the City) regarding the Project pursuant to Senate Bill 18 (SB 18). Please see the attached Exhibit 1, for the proposed Project's location.

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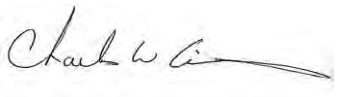
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Charles Cisneros, RPA
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DEPARTMENT OF PARKS AND RECREATION

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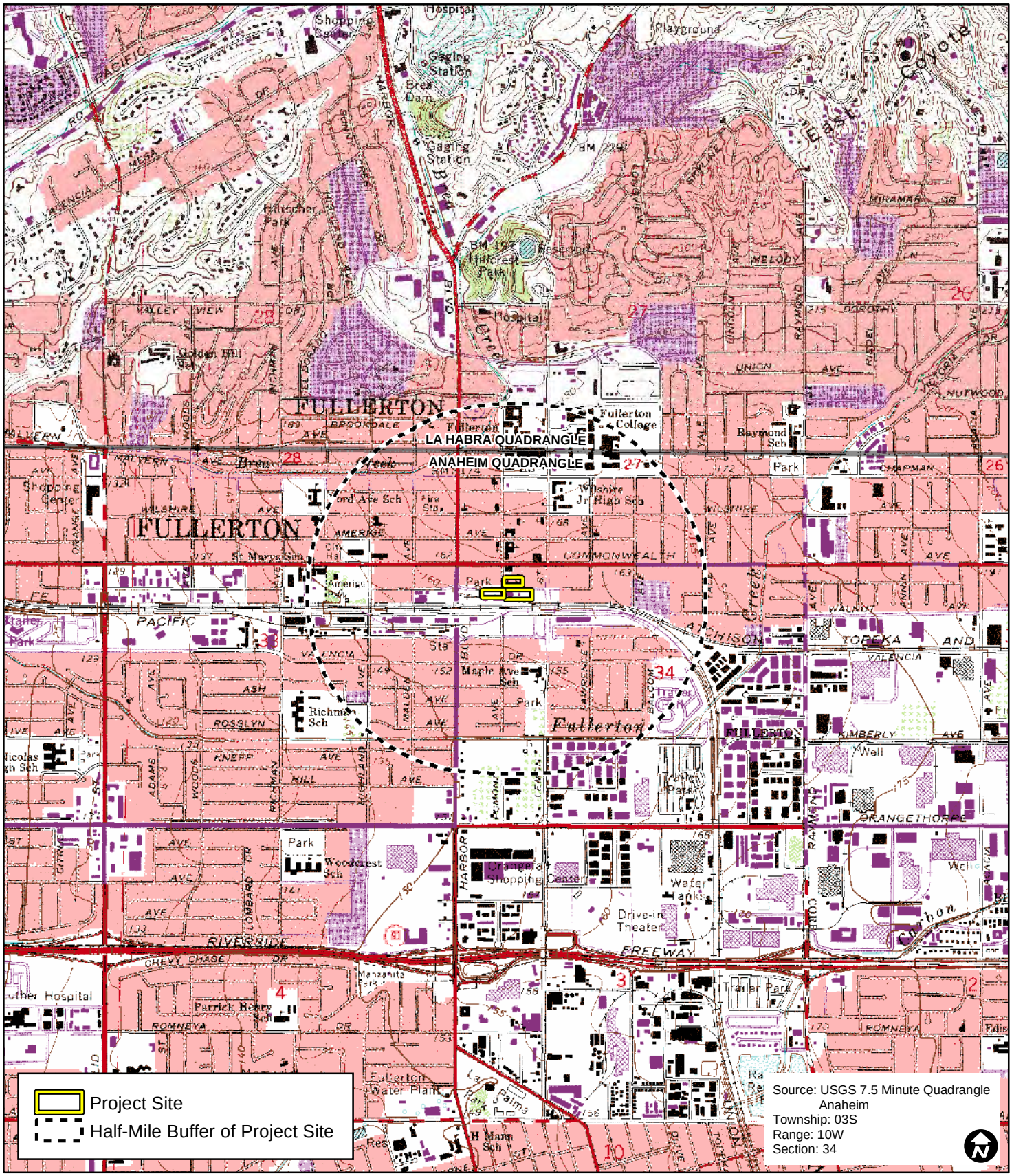
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***Resource Name or #:** _____

***Map Name:** Anaheim

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DPR 523J (1/95)

*Required Information

July 18, 2022

Ms. Angela Elliott Santos, Chairperson
Manzanita Band of Kumeyaay Nation
P.O. Box 1302
Boulevard, California 91905

Subject: Invitation to Consult Under Senate Bill 18, Specific Plan Amendment for the Proposed Parkwest Project, Fullerton, Orange County, California

Dear Ms. Santos:

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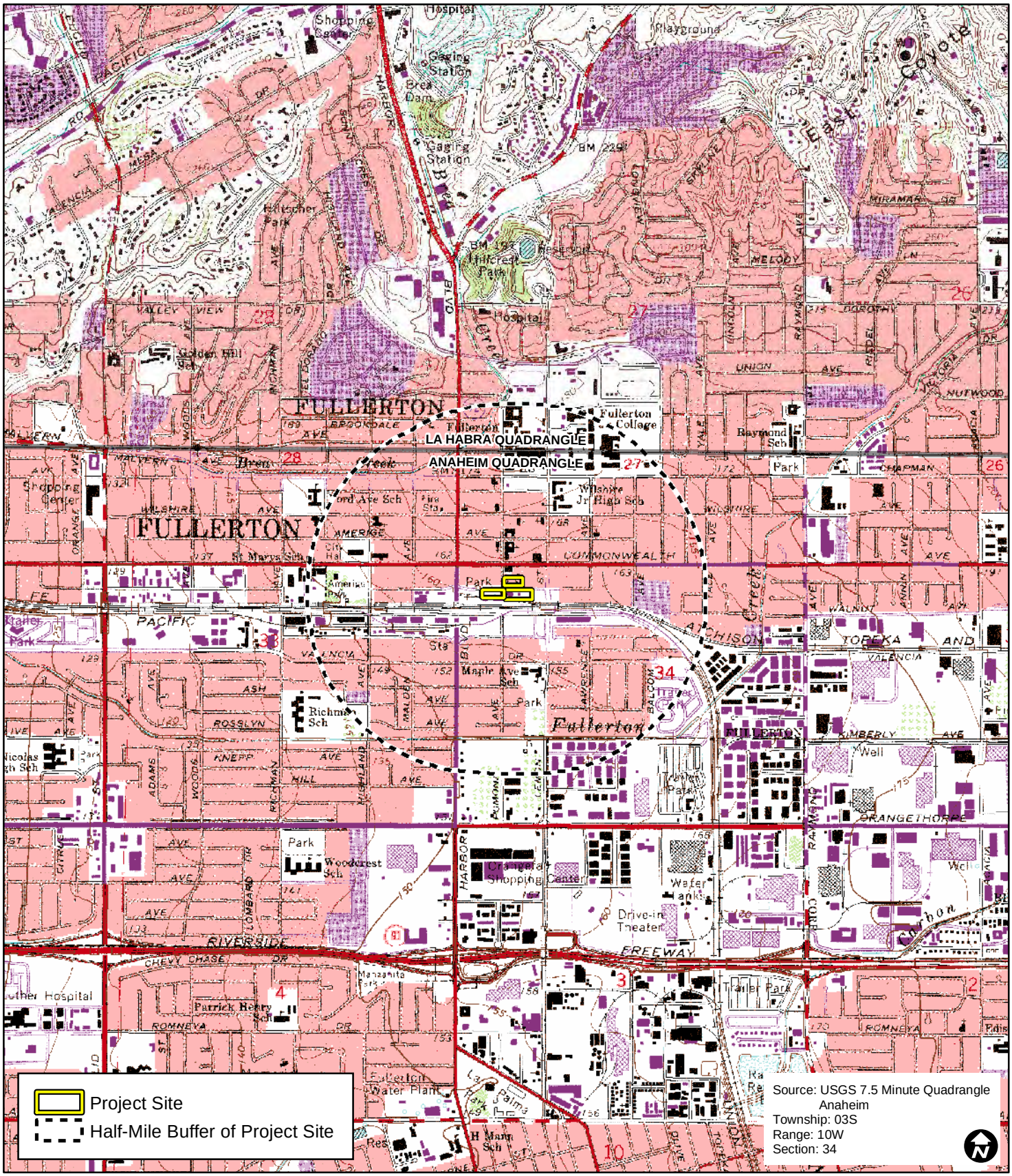
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DPR 523J (1/95)

*Required Information

July 18, 2022

Mr. Isaiah Vivianco, Chairperson
Soboba Band of Luiseno Indians
P.O. Box 487
San Jacinto, California 92581

VIA EMAIL
ivivanco@soboba-nsn.gov

Subject: Invitation to Consult Under Senate Bill 18, Specific Plan Amendment for the Proposed Parkwest Project, Fullerton, Orange County, California

Dear Mr. Vivianco:

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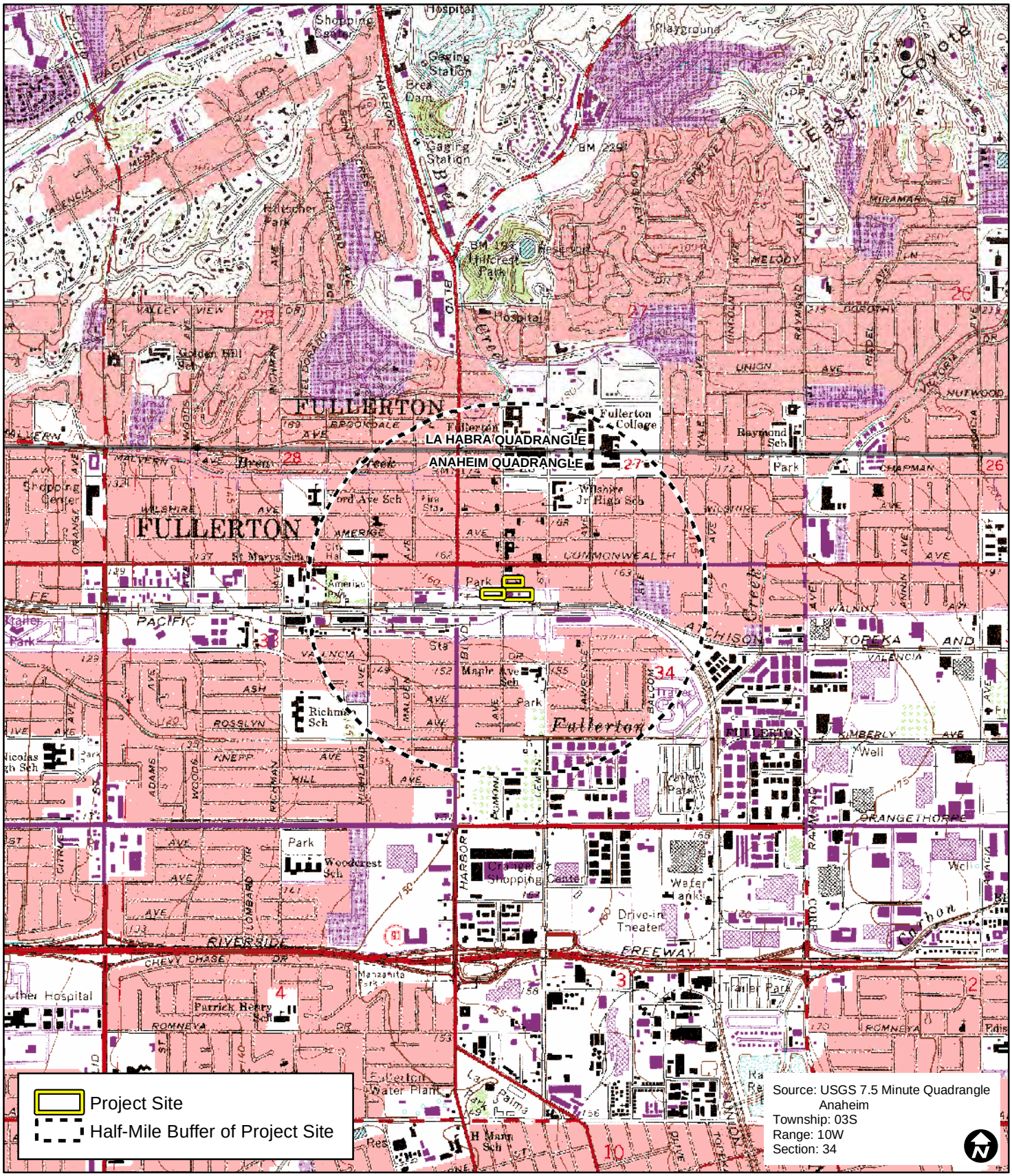
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