CITY OF INDUSTRY

CITY COUNCIL
REGULAR MEETING
AGENDA

October 8, 2020
9:00 AM

Mayor Cory C. Moss
Mayor Pro Tem Cathy Marcucci
Council Member Michael Greubel
Council Member Mark D. Radecki
Council Member Newell Ruggles

Location: City Council Chamber, 15651 East Stafford Street, City of Industry, California 91744

Addressing the City Council:

NOTICE OF TELEPHONIC MEETING:

- ***Pursuant to Section 3 of Executive Order N-29-20, issued by Governor Newsom on March 17, 2020, the regular meeting of the City Council shall be held telephonically. Members of the public shall be able to attend the meeting telephonically and offer public comment by calling the following conference call number: 657-204-3264 and entering the following Conference ID: 696 813 255#. Please be advised that pursuant to the Executive Order, and to ensure the health and safety of the public, Council Chambers will not be open for the meeting, and all public participation must occur by telephone at the number set forth above. Pursuant to the Executive Order, and in compliance with the Americans with Disabilities Act, if you need special assistance to participate in the City Council meeting (including assisted listening devices), please contact the City Clerk's Office at (626) 333-2211 by 5:00 p.m. on Tuesday, October 6, 2020, to ensure that reasonable arrangements can be made to provide accessibility to the meeting.***

- ***Agenda Items:*** *Members of the public may address the City Council on any matter listed on the Agenda. In order to conduct a timely meeting, there will be a three-minute time limit per person for any matter listed on the Agenda.*

- ***Public Comments (Non-Agenda Items Only):*** *Anyone wishing to address the City Council on an item not on the Agenda may do so during the "Public Comments" period. In order to conduct a timely meeting, there will be a three-minute time limit per person for the Public Comments portion of the Agenda. State law prohibits the City Council from taking action on a specific item unless it appears on the posted Agenda.*

Agendas and other writings:

In compliance with Government Code Section 54957.5(b), staff reports and other public records permissible for disclosure related to open session agenda items are available at City Hall, 15625 East Stafford Street, Suite 100, City of Industry, California, at the office of the City Clerk of the City Council during regular business hours, Monday through Thursday, 8:00 a.m. to 5:00 p.m., Fridays 8:00 a.m. to 4:00 pm. City Hall doors open to the public Monday through Friday 9:00 a.m. to 11:30 a.m. and 1:30 p.m. to 3:30 p.m. Any person with a question concerning any agenda item may call the City Clerk's Office at (626) 333-2211.

1. Call to Order

2. Flag Salute

3. Roll Call

4. Public Comments

5. **CONSENT CALENDAR**

All matters listed under the Consent Calendar are considered to be routine and will be enacted by one vote. There will be no separate discussion of these items unless members of the City Council, the public, or staff request specific items be removed from the Consent Calendar for separate action.

5.1 Consideration of the Register of Demands for October 8, 2020

RECOMMENDED ACTION: Approve the Register of Demands and authorize the appropriate City Officials to pay the bills.

6. **ACTION ITEMS**

6.1 Consideration of Resolution No. CC 2020-38 – A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF INDUSTRY, CALIFORNIA, APPROVING A DONATION TO THE LAND OF THE FREE FOUNDATION IN THE AMOUNT OF FIFTY THOUSAND DOLLARS ($50,000) FOR THE VETERANS DAY GOLF CLASSIC FUNDRAISER

RECOMMENDED ACTION: Adopt Resolution No. CC 2020-38.

6.2 Consideration of authorization to advertise for public bids for Arenth Avenue Improvements from Phillips Drive to Nogales Street, for an estimated cost of $5,700,000.00 (CITY-1460/MP 14-12 #2)

RECOMMENDED ACTION: Approve the plans and specifications and authorize the advertising of receipt of electronic bids.

6.3 Consideration of a Right-of-Way Agreement with MCImetro Access Transmission Services Corp., d/b/a Verizon Access Transmission Services, to construct, install, and maintain facilities that occupy public rights-of-way within the territorial limits

RECOMMENDED ACTION: Approve the Agreement.

6.4 Consideration of the cancellation of the November 26, 2020 and December 24, 2020 City Council Meetings

RECOMMENDED ACTION: Cancel the November 26, 2020 and December 24, 2020 City Council Meetings.

6.5 Consideration to close City Hall between December 24, 2020 and January 1, 2021

RECOMMENDED ACTION: Close City Hall from December 24, 2020 thru January 1, 2021.

6.6 Consideration of Amendment No. 3 to the Employment Agreement with Troy Helling for City Manager Services

RECOMMENDED ACTION: Approve Amendment No. 3 to the Employment Agreement with Troy Helling for City Manager Services.

7. PUBLIC HEARING ITEMS

Consideration of Resolution No. CC 2020-40 requesting approval of Development Plan 19-08, to allow for the conversion of an existing double-sided static billboard into a new double-sided electronic billboard, at the property located at 19465 East Walnut Drive North

7.1 Consideration of Resolution No. CC 2020-40 – A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF INDUSTRY, CALIFORNIA, ADOPTING AN INITIAL STUDY AND MITIGATED NEGATIVE DECLARATION AND MITIGATED MONOTORING AND REPORT PROGRAM, AND APPROVING DEVELOPMENT PLAN NO. 19-08, FOR THE CONVERSION OF AN EXISTING 672 SQUARE FOOT STATIC DOUBLE-SIDED BILLBOARD, TO A NEW DOUBLE-SIDED ELECTRONIC BILLBOARD, AT THE PROPERTY LOCATED AT 19465 EAST WALNUT DRIVE NORTH, IN THE CITY OF INDUSTRY, CALIFORNIA

RECOMMENDED ACTION: Adopt Resolution No. CC 2020-40.

8. CITY MANAGER REPORTS

9. AB 1234 REPORTS

10. CITY COUNCIL COMMUNICATIONS

11. **CLOSED SESSION**

11.1 CONFERENCE WITH LEGAL COUNSEL – EXISTING LITIGATION
Pursuant to Government Code Section 54956.9(d)(1)
Case: Ruiz v. City of Industry, et al.
Superior Court of California, County of Los Angeles
Case No. 20STCV29058

11.2 CONFERENCE WITH LEGAL COUNSEL - EXISITING LITIGATION
Pursuant to Government Code Section 54956.9(d)(1)
Case: City of Industry v. San Gabriel Valley Water and Power, LLC, et al.
Superior Court of California, County of Los Angeles
Case No.: 19STCV10150

12. Adjournment. The next regular City Council Meeting will be Thursday, October 22, 2020 at 9:00 a.m.

CITY COUNCIL

ITEM NO. 5.1

CITY OF INDUSTRY
AUTHORIZATION FOR PAYMENT OF BILLS
CITY COUNCIL MEETING OF OCTOBER 8, 2020

FUND RECAP:

FUND	DESCRIPTION	DISBURSEMENTS
100	GENERAL FUND	2,827,991.70
103	PROP A FUND	5,110.37
120	CAPITAL IMPROVEMENT FUND	334,447.87
TOTAL ALL FUNDS		3,167,549.94

BANK RECAP:

BANK	NAME	DISBURSEMENTS
BOFA	BANK OF AMERICA - CKING ACCOUNT	189,072.56
PROP/A	PROP A - CKING ACCOUNT	5,110.37
REF	REFUSE - CKING ACCOUNT	300,000.00
WFBK	WELLS FARGO - CKING ACCOUNT	2,673,367.01
TOTAL ALL BANKS		3,167,549.94

APPROVED PER CITY MANAGER

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CITY OF INDUSTRY

BANK OF AMERICA

October 8, 2020

Check	Date			Payee Name	Check Amount
CITYGEN.CHK - City General					
WT1175	09/17/2020			MIDAMERICA ADMINISTRATIVE &	$29,072.56
	Invoice	Date	Description	Amount	
	OCT/NOV2020	09/17/2020	MEDICAL PREMIUM REIMBURSEMENTS	$29,072.56	
24470	09/28/2020			CIVIC RECREATIONAL INDUSTRIAL	$160,000.00
	Invoice	Date	Description	Amount	
	09/28/20	09/28/2020	TRANSFER FUNDS FOR CRIA	$160,000.00	

Check	Status	Count	Transaction Amount
	Total	2	$189,072.56

CITY OF INDUSTRY

PROP A

October 8, 2020

Check	Date			Payee Name	Check Amount
PROPA.CHK - Prop A Checking					
90221	09/30/2020			SO CALIFORNIA EDISON COMPANY	$155.49
	Invoice	Date	Description	Amount	
	2021-00000483	09/23/2020	08/21-09/22/20 SVC - 600 S BREA CYN B	$155.49	
90222	10/08/2020			CNC ENGINEERING	$800.00
	Invoice	Date	Description	Amount	
	501618	09/24/2020	FAIRWAY DR GRADE SEPARATION	$800.00	
90223	10/08/2020			INDUSTRY SECURITY SERVICES	$4,154.88
	Invoice	Date	Description	Amount	
	14-24889	09/25/2020	SECURITY SVC -METROLINK	$2,077.44	
	14-24877	09/18/2020	SECURITY SVC-METROLINK	$2,077.44	

Checks	Status	Count	Transaction Amount
	Total	3	$5,110.37

CITY OF INDUSTRY

WELLS FARGO REFUSE

October 8, 2020

Check	Date			Payee Name	Check Amount
REFUSE - Refuse Account					
WT92420	09/24/2020			**CITY OF INDUSTRY**	$300,000.00
	Invoice	Date	Description	Amount	
	9/24/20	09/24/2020	TRANSFER FUNDS-CITY REG 9/24/20	$300,000.00	

Check	Status	Count	Transaction Amount
	Total	1	**$300,000.00**

CITY OF INDUSTRY
WELLS FARGO VOIDED CHECKS
October 8, 2020

Check	Date			Payee Name	Check Amount
CITY.WF.CHK - City General Wells Fargo					
73159	03/12/2020		09/21/2020	**NATALIE MEYER**	($600.00)
	Invoice	Date	Description	Amount	
			VOIDED-WORKSHOP CANCELED		
	PPNMHW2020	02/24/2020	WORKSHOP ON 3/21/20-HOMESTEAD	($600.00)	
74271	09/10/2020		09/24/2020	**GROUP C MEDIA, INC.**	($5,500.00)
	Invoice	Date	Description	Amount	
			VOIDED-DUPLICATE PAYMENT		
	30217	08/24/2020	FULL PAGE AD-PUBLISHED 7/1/20	($5,500.00)	
74384	09/24/2020		09/24/2020	**SOUTH COAST A.Q.M.D.**	($144.51)
	Invoice	Date	Description	Amount	
			VOIDED-SIGNED IN ERROR		
	3638106	06/16/2020	AQMD FEE FY 19/20-EL ENCANTO	($144.51)	
74410	09/30/2020		09/30/2020	**SO CALIFORNIA EDISON COMPANY**	($13,616.97)
	Invoice	Date	Description	Amount	
			VOIDED-INCORRECT ADDRESS		
	2021-00000495	09/22/2020	08/20-09/21/20 SVC - 14661 & 14911 CLARK AVE U	($119.50)	
	2021-00000496	09/17/2020	08/17-09/16/20 SVC - 17635 GALE	($1,866.25)	
	2021-00000497	09/17/2020	08/17-09/16/20 SVC - 1023U FAIRWAY DR PED	($94.59)	
	2021-00000498	09/17/2020	08/17-09/16/20 SVC - 1341 FULLERTON RD	($112.56)	
	2021-00000499	09/17/2020	08/17-09/16/20 SVC - PECK RD S/O PELLISSIER	($22.51)	
	2021-00000500	09/17/2020	08/17-09/16/20 SVC - 19001 TONNER CYN RD	($261.67)	
	2021-00000501	09/18/2020	08/17-09/16/20 SVC - VARIOUS SITES	($58.07)	
	2021-00000502	09/18/2020	08/18-09/17/20 SVC - 900 NOGALES U	($47.19)	

CITY OF INDUSTRY
WELLS FARGO VOIDED CHECKS
October 8, 2020

Check	Date		Payee Name	Check Amount
CITY.WF.CHK - City General Wells Fargo				
2021-00000503	09/18/2020	08/17-09/16/20 SVC - VARIOUS SITES		($9,253.66)
2021-00000504	09/18/2020	08/12-09/16/20 SVC - VARIOUS SITES		($1,780.97)

Checks	Status	Count	Transaction Amount
	Total	4	($19,861.48)

CITY OF INDUSTRY

WELLS FARGO WIRE TRANSFER

October 8, 2020

Check	Date	Payee Name	Check Amount

CITY.WF.CHK - City General Wells Fargo

WT10029	10/08/2020			**SCHLICHTING, DIANE**	$3,067.01
	Invoice	Date	Description	Amount	
	10/1-10/9/20	09/24/2020	FINAL PAYMENT PER SETTLEMENT DATED 8/22/18	$3,067.01	

Check	Status	Count	Transaction Amount
	Total	**1**	**$3,067.01**

CITY OF INDUSTRY
WELLS FARGO BANK
October 8, 2020

Check	Date			Payee Name	Check Amount
CITY.WF.CHK - City General Wells Fargo					
74396	09/23/2020			**SAN GABRIEL VALLEY WATER CO.**	$728.01
	Invoice	Date	Description	Amount	
	2021-00000469	09/14/2020	08/12-09/11/20 SVC - 132 IRRIG PUENTE	$347.21	
	2021-00000470	09/14/2020	08/12-09/11/20 SVC - 123 IRRIG WORKMAN MILL	$222.57	
	2021-00000471	09/14/2020	08/12-09/11/20 SVC - 13756 VALLEY	$158.23	
74397	09/23/2020			**SOCALGAS**	$23.78
	Invoice	Date	Description	Amount	
	2021-00000472	09/15/2020	08/12-09/11/20 SVC - 610 S BREA CYN RD	$23.78	
74398	09/23/2020			**WALNUT VALLEY WATER DISTRICT**	$2,833.54
	Invoice	Date	Description	Amount	
	3770662	09/08/2020	08/01-08/31/20 SVC - 22002 VALLEY BLVD	$343.02	
	3770660	09/08/2020	08/01-08/31/20 SVC - GRAND AVE CROSSING	$98.20	
	3770659	09/08/2020	08/01-08/31/20 SVC - GRAND AVE CROSSING	$683.36	
	3770653	09/08/2020	08/01-08/31/20 SVC - BAKER PKWY METER #2	$293.25	
	3770652	09/08/2020	08/01-08/31/20 SVC - BAKER PKWY METER #1	$571.90	
	3770617	09/08/2020	08/01-08/31/20 SVC - BREA CYN RD & OLD RANCH RD	$62.52	
	3771401	09/08/2020	08/02-08/31/20 SVC - PUMP STN N/W CHERYL	$32.60	
	3770721	09/08/2020	08/01-08/31/20 SVC - 21627 GRAND CROSSING PKWY	$383.99	
	3770722	09/08/2020	08/01-08/31/20 SVC - 21627 GRAND CROSSING PKWY	$364.70	
74399	09/24/2020			**BIGGS CARDOSA ASSOCIATES, INC.**	$325.00
	Invoice	Date	Description	Amount	
	77260-A	10/05/2019	STRATEGIC PLANS FOR CITY BRIDGES	$325.00	
74400	09/24/2020			**QUADIENT FINANCE USA, INC.**	$500.00

CITY OF INDUSTRY
WELLS FARGO BANK
October 8, 2020

Check	Date	Payee Name	Check Amount
CITY.WF.CHK - City General Wells Fargo			

Invoice	Date	Description	Amount
09/03/20	09/03/2020	POSTAGE REFILL-FINANCE DEPT	$500.00

Check	Date	Payee Name	Check Amount
74401	09/24/2020	SOUTH COAST A.Q.M.D.	$144.51

Invoice	Date	Description	Amount
3638106	06/16/2020	AQMD FEE FY 19/20-EL ENCANTO	$144.51

Check	Date	Payee Name	Check Amount
74402	09/24/2020	STATE WATER RESOURCES	$442.00

Invoice	Date	Description	Amount
APP ID #526324	09/03/2020	PDR FOR SHERIFF'S STATION SITE PLAN-15530	$442.00

Check	Date	Payee Name	Check Amount
74403	09/24/2020	WELLS FARGO	$2,518.18

Invoice	Date	Description	Amount
8/3-9/3/20	09/03/2020	CREDIT CARD EXPENSE P/E 9/3/20	$2,518.18

Check	Date	Payee Name	Check Amount
74404	09/30/2020	AT & T	$684.93

Invoice	Date	Description	Amount
2021-00000512	09/17/2020	09/17-10/16/20 SVC - TONNER CYN-GUARD SHACK	$338.90
2021-00000513	09/17/2020	09/17-10/16/20 SVC - TONNER CYN-RADIO	$346.03

Check	Date	Payee Name	Check Amount
74405	09/30/2020	FIDELITY SECURITY LIFE	$1,347.85

Invoice	Date	Description	Amount
164501795	10/01/2020	VISION PREMIUM FOR OCTOBER 2020	$1,347.85

Check	Date	Payee Name	Check Amount
74406	09/30/2020	FRONTIER	$333.05

Invoice	Date	Description	Amount

CITY OF INDUSTRY
WELLS FARGO BANK
October 8, 2020

Check	Date			Payee Name	Check Amount
CITY.WF.CHK - City General Wells Fargo					
	2021-00000514	09/16/2020	09/16-10/15/20 SVC - BREA CYN PUMP STN	$77.62	
	2021-00000515	09/19/2020	09/19-10/18/20 SVC - FOLLOWS CAMP GUARD	$72.86	
	2021-00000516	09/16/2020	09/16-10/15/20 SVC - PH AUTO PLAZA	$182.57	
74407	09/30/2020			**HUMANA INSURANCE COMPANY**	$6,849.47
	Invoice	Date	Description	Amount	
	389690701	09/13/2020	DENTAL PREMIUM FOR OCTOBER 2020	$6,849.47	
74408	09/30/2020			**MUTUAL OF OMAHA**	$5,468.53
	Invoice	Date	Description	Amount	
	1123723570	10/01/2020	LIFE INSURANCE FOR OCTOBER 2020	$5,468.53	
74409	09/30/2020			**SAN GABRIEL VALLEY WATER CO.**	$1,196.73
	Invoice	Date	Description	Amount	
	2021-00000517	09/17/2020	08/17-09/16/20 SVC - 336 EL ENCANTO	$40.25	
	2021-00000518	09/16/2020	08/14-09/15/20 SVC - 14329 VALLEY	$1,156.48	
74410	09/30/2020		09/30/2020	**SO CALIFORNIA EDISON COMPANY**	$13,616.97
	Invoice	Date	Description	Amount	
	2021-00000495	09/22/2020	08/20-09/21/20 SVC - 14661 & 14911 CLARK AVE U	$119.50	
	2021-00000496	09/17/2020	08/17-09/16/20 SVC - 17635 GALE	$1,866.25	
	2021-00000497	09/17/2020	08/17-09/16/20 SVC - 1023U FAIRWAY DR PED	$94.59	
	2021-00000498	09/17/2020	08/17-09/16/20 SVC - 1341 FULLERTON RD	$112.56	
	2021-00000499	09/17/2020	08/17-09/16/20 SVC - PECK RD S/O PELLISSIER	$22.51	
	2021-00000500	09/17/2020	08/17-09/16/20 SVC - 19001 TONNER CYN RD	$261.67	
	2021-00000501	09/18/2020	08/17-09/16/20 SVC - VARIOUS SITES	$58.07	

CITY OF INDUSTRY
WELLS FARGO BANK
October 8, 2020

Check	Date			Payee Name	Check Amount
CITY.WF.CHK - City General Wells Fargo					
	2021-00000502	09/18/2020	08/18-09/17/20 SVC - 900 NOGALES U	$47.19	
	2021-00000503	09/18/2020	08/17-09/16/20 SVC - VARIOUS SITES	$9,253.66	
	2021-00000504	09/18/2020	08/12-09/16/20 SVC - VARIOUS SITES	$1,780.97	
74411	09/30/2020			SO CALIFORNIA EDISON COMPANY	$90.46
	Invoice	Date	Description	Amount	
	2021-00000508	09/23/2020	08/21-09/22/20 SVC - 21380 VALLEY PED	$11.68	
	2021-00000509	09/23/2020	08/21-09/22/20 SVC - 580 BREA CYN RD	$12.45	
	2021-00000510	09/23/2020	08/21-09/22/20 SVC - 575 BREA CYN RD	$12.63	
	2021-00000511	09/23/2020	08/21-09/22/20 SVC - 1007 LAWSON ST	$53.70	
74412	09/30/2020			SO CALIFORNIA EDISON COMPANY	$11,018.06
	Invoice	Date	Description	Amount	
	2021-00000505	09/18/2020	08/01-09/01/20 SVC - VARIOUS SITES	$5,491.42	
	2021-00000506	09/18/2020	07/17-09/16/20 SVC - VARIOUS SITES	$3,159.93	
	2021-00000507	09/18/2020	07/17-09/16/20 SVC - VARIOUS SITES	$2,366.71	
74413	09/30/2020			SOCALGAS	$44.14
	Invoice	Date	Description	Amount	
	2021-00000519	09/21/2020	08/18-09/17/20 SVC - 13756 VALLEY BLVD	$14.79	
	2021-00000520	09/22/2020	08/19-9/18/20 SVC - 15415 DON JULIAN RD	$29.35	
74414	09/30/2020			UNUM LIFE INSURANCE COMPANY	$6,871.92
	Invoice	Date	Description	Amount	
	10/1-10/31/20	09/18/2020	LONG TERM CARE PREMIUM FOR OCTOBER 2020	$6,871.92	

CITY OF INDUSTRY
WELLS FARGO BANK
October 8, 2020

Check	Date			Payee Name	Check Amount
CITY.WF.CHK - City General Wells Fargo					
74415	09/30/2020			BRAVADO PARTNERS, LLC	$278.13
	Invoice	Date	Description	Amount	
	09/24/20	09/24/2020	COVID-19 REIMBURSEMENT PROG-OUTDOOR	$278.13	
74416	09/30/2020			KAMON RESTAURANT	$3,351.55
	Invoice	Date	Description	Amount	
	9/24/20	09/24/2020	COVID-19 REIMBURSEMENT PROG-OUTDOOR	$3,351.55	
74417	09/30/2020			MSI COMPUTER CORP	$14,500.00
	Invoice	Date	Description	Amount	
	09/24/20	09/24/2020	COVID-19 REIMBURSEMENT PROG-TESTING	$14,500.00	
74418	09/30/2020			RR&C DEVELOPMENT COMPANY	$5,000.00
	Invoice	Date	Description	Amount	
	09/24/20	09/24/2020	COVID-19 REIMBURSEMENT PROG-OUTDOOR	$5,000.00	
74419	09/30/2020			VALLEY POWER SYSTEMS, INC.	$1,800.00
	Invoice	Date	Description	Amount	
	09/24/20	09/24/2020	COVID-19 REIMBURSEMENT PROG-TESTING	$1,800.00	
74420	09/30/2020			SO CALIFORNIA EDISON COMPANY	$13,355.30
	Invoice	Date	Description	Amount	
	2021-00000495	09/22/2020	08/20-09/21/20 SVC - 14661 & 14911 CLARK AVE U	$119.50	
	2021-00000496	09/17/2020	08/17-09/16/20 SVC - 17635 GALE	$1,866.25	
	2021-00000497	09/17/2020	08/17-09/16/20 SVC - 1023U FAIRWAY DR PED	$94.59	
	2021-00000498	09/17/2020	08/17-09/16/20 SVC - 1341 FULLERTON RD	$112.56	
	2021-00000499	09/17/2020	08/17-09/16/20 SVC - PECK RD S/O PELLISSIER	$22.51	

CITY OF INDUSTRY
WELLS FARGO BANK
October 8, 2020

Check	Date			Payee Name	Check Amount
CITY.WF.CHK - City General Wells Fargo					
	2021-00000501	09/18/2020	08/17-09/16/20 SVC - VARIOUS SITES	$58.07	
	2021-00000502	09/18/2020	08/18-09/17/20 SVC - 900 NOGALES U	$47.19	
	2021-00000503	09/18/2020	08/17-09/16/20 SVC - VARIOUS SITES	$9,253.66	
	2021-00000504	09/18/2020	08/12-09/16/20 SVC - VARIOUS SITES	$1,780.97	
74421	09/30/2020			**SO CALIFORNIA EDISON COMPANY**	$261.67
	Invoice	Date	Description	Amount	
	2021-00000500	09/17/2020	08/17-09/16/20 SVC - 19001 TONNER CYN RD	$261.67	
74422	10/08/2020			**ACE FENCE COMPANY**	$9,000.00
	Invoice	Date	Description	Amount	
	18774	06/10/2020	REPAIR WROUGHT IRON FENCE ALONG NOGALES	$9,000.00	
74423	10/08/2020			**ALLIANCE ENVIRONMENTAL GROUP,**	$15,000.00
	Invoice	Date	Description	Amount	
	62X1C	06/26/2020	EAP DISINFECTANT-CITY HALL	$15,000.00	
74424	10/08/2020			**AMERICAN PAYROLL INSTITUTE, INC.**	$258.00
	Invoice	Date	Description	Amount	
	8/18/2020-353680	09/30/2020	MEMBERSHIP-J. HARDT	$258.00	
74425	10/08/2020			**ANNEALTA GROUP**	$105,702.85
	Invoice	Date	Description	Amount	
	1845	09/16/2020	BILLBOARD, 19465 EL WALNUT D	$282.00	
	1844	09/16/2020	804 S AZUSA AVE	$710.60	
	1836	09/16/2020	1020 WALLACE	$77.00	
	1837	09/16/2020	13055 E TEMPLE AVE	$327.00	

CITY OF INDUSTRY
WELLS FARGO BANK
October 8, 2020

Check	Date			Payee Name	Check Amount
CITY.WF.CHK - City General Wells Fargo					
	1840	09/16/2020	17150 GALE AVE	$192.00	
	1839	09/16/2020	15252 VALLEY BLVD	$8,174.25	
	1843	09/16/2020	SEVEN ELEVEN 7/11	$632.20	
	1841	09/16/2020	20922 CURRIER RD	$163.50	
	1835	09/16/2020	GENERAL PLANNING SVC-AUG 2020	$37,997.30	
	1834	09/16/2020	GENERAL DEV SVC-AUG 2020	$30,075.00	
	1833	09/16/2020	STORMWATER COMPLIANCE-AUG 2020	$22,132.00	
	1832	09/16/2020	PUBLIC WORKS SUPPORT-AUG 2020	$4,940.00	
74426	10/08/2020			**AVANT-GARDE, INC**	$5,305.00
	Invoice	Date	Description	Amount	
	6396	09/25/2020	PROJECT MGMT-CITYWIDE BRIDGES	$5,305.00	
74427	10/08/2020			**BLAKE AIR CONDITIONING COMPANY**	$293.00
	Invoice	Date	Description	Amount	
	57368	09/22/2020	A/C REPAIR-15559 RAUSCH RD (YAL/PO)	$293.00	
74428	10/08/2020			**BRYAN PRESS**	$55.28
	Invoice	Date	Description	Amount	
	0083754	09/08/2020	BUSINESS CARDS-M. HEAVISIDE	$55.28	
74429	10/08/2020			**CAL-STATE SITE SERVICES**	$249.76
	Invoice	Date	Description	Amount	
	164762	09/11/2020	PORTABLE RR RENTAL-EL ENCANTO (COVID 19)	$249.76	
74430	10/08/2020			**CASC ENGINEERING AND**	$21,142.50

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Check	Date			Payee Name	Check Amount
CITY.WF.CHK - City General Wells Fargo					
	Invoice	Date	Description	Amount	
	0042753	08/31/2020	841 7TH AVE (7/11 STORE)	$6,062.50	
	0042754	08/31/2020	GAS STATION-17150 GALE AVE	$13,630.00	
	42718	08/31/2020	NPDES CONSULTING-COI	$1,450.00	
74431	10/08/2020			CHEM PRO LABORATORY, INC	$283.00
	Invoice	Date	Description	Amount	
	665037	09/22/2020	WATER TREATMENT-AUG 2020	$283.00	
74432	10/08/2020			CINTAS CORPORATION LOC 693	$293.86
	Invoice	Date	Description	Amount	
	4062102977	09/21/2020	DOOR MATS	$124.12	
	4062102995	09/21/2020	DOOR MATS	$56.58	
	4061470900	09/14/2020	DOOR MATS	$56.58	
	4062818853	09/28/2020	DOOR MATS	$56.58	
74433	10/08/2020			CITY OF INDUSTRY	$499.70
	Invoice	Date	Description	Amount	
	2021-00000009	08/31/2020	IH FUEL PUMP-CITY HALL VEHICLES	$499.70	
74434	10/08/2020			CITY OF INDUSTRY-PAYROLL ACCT	$125,000.00
	Invoice	Date	Description	Amount	
	P/R PE 9/18/20	09/22/2020	REPLENISH PAYROLL FOR P/E 9/18/20	$125,000.00	
74435	10/08/2020			CITY OF INDUSTRY-REFUSE	$4,727.28
	Invoice	Date	Description	Amount	

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Check	Date			Payee Name	Check Amount
CITY.WF.CHK - City General Wells Fargo					
	4132634	08/31/2020	DISP SVC-1123 HATCHER AVE #ABC	$2,880.87	
	4131194	09/01/2020	DISP SVC-1123 HATCHER AVE #ABC	$267.03	
	4131192	09/01/2020	DISP SVC-CITY HALL	$488.84	
	4131193	09/01/2020	DISP SVC-TONNER CYN (MAINT YD)	$1,090.54	
74436	10/08/2020			CIVILTEC ENGINEERING, INC	$1,287.50
	Invoice	Date	Description	Amount	
	43048	09/10/2020	FOUR GRADE SEPARATION PUMP STATIONS	$1,287.50	
74437	10/08/2020			CNC ENGINEERING	$183,259.84
	Invoice	Date	Description	Amount	
	501556	09/24/2020	HATCHER YARD FACILITY DEMO	$2,171.09	
	501557	09/24/2020	SITE PLAN FOR SHERIFF TRAILER	$8,007.50	
	501558	09/24/2020	FOUR GRADE SEPARATION PUMP STATIONS	$1,025.00	
	501559	09/24/2020	CATCH BASIN RETROFITS	$255.00	
	501560	09/24/2020	KELLA AVE STORM DRAIN	$923.75	
	501561	09/24/2020	ANNUAL PAVEMENT REHABILITATION	$600.00	
	501562	09/24/2020	RESURFACING OF DON JULIAN RD	$200.00	
	501563	09/24/2020	GEN ENG 9/7-9/20/20	$675.00	
	501564	09/24/2020	GENERAL ENG SVC-TRAFFIC	$4,495.00	
	501565	09/24/2020	GENERAL ENG SVC-PLAN APPROVAL	$19,100.00	
	501566	09/24/2020	GENERAL ENG SVC-COUNTER SERVICE	$2,887.50	
	501567	09/24/2020	GENERAL ENG SVC-PERMITS	$22,357.50	
	501568	09/24/2020	ARENTH AVE RECONSTRUCTION	$13,772.50	
	501569	09/24/2020	TEMPLE AVE DUAL RIGHT TURN	$1,802.50	
	501570	09/24/2020	BUSINESS PKY RECONSTRUCTION	$6,862.50	

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CITY.WF.CHK - City General Wells Fargo				
501571	09/24/2020	ARENTH AVE STREET IMPROVEMENT	$16,997.50	
501575	09/24/2020	GENERAL ENG SVC 9/7-9/20/20	$60,582.50	
501576	09/24/2020	NPDES STORM WATER	$1,867.50	
501577	09/24/2020	TONNER CYN PROPERTY	$4,100.00	
501578	09/24/2020	REPLACEMENT OF STEEL WATERLINE-BREA CREEK	$2,547.50	
501579	09/24/2020	PUENTE VALLEY OPERABLE UNIT GROUNDWATER	$200.00	
501580	09/24/2020	VARIOUS CITY PAID EXPENSES FOR TRES	$1,165.00	
501581	09/24/2020	CITY HALL MAINT	$1,302.50	
501583	09/24/2020	METROLINK MAINT-PARKING LOT SOLAR SYSTEM	$500.00	
501587	09/24/2020	PAINT EVALUATION OF WROUGHT IRON FENCE	$4,885.00	
501588	09/24/2020	INDUSTRY HILLS FUEL TANKS DISPENSING	$1,002.50	
501572	09/24/2020	ROOF REPLACEMENT AT 15559 RAUSCH AND 15660	$1,400.00	
501573	09/24/2020	ROOF REPLACEMENT AT 15651 STAFFORD ST	$1,050.00	
501574	09/24/2020	ROOF REPLACEMENT AT 1123 S HATCHER AVE	$525.00	
74438	10/08/2020		**CNC ENGINEERING**	$79,830.00
Invoice	Date	Description	Amount	
501582	09/24/2020	HOMESTEAD MUSEUM IMPROVEMENTS	$200.00	
501585	09/24/2020	EL ENCANTO HVAC MAINT	$52.50	
501586	09/24/2020	SAN JOSE AVE RECONSTRUCTION	$3,200.00	
501589	09/24/2020	AZUSA AVE BRIDGE REPAINTING	$200.00	
501590	09/24/2020	FISCAL YEAR BUDGET	$12,995.00	
501591	09/24/2020	FOLLOW'S CAMP PROPERTY	$1,460.00	
501592	09/24/2020	RESURFACING VALLEY BLVD	$685.00	
501593	09/24/2020	NELSON AVE/PUENTE AVE INTERSECTION	$1,392.50	
501595	09/24/2020	TARGET SPEED SURVEY	$200.00	
501596	09/24/2020	CARTEGRAPH MGMT	$24,192.50	

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Check	Date		Payee Name		Check Amount
CITY.WF.CHK - City General Wells Fargo					
	501597	09/24/2020	GRAND AVE RECONSTRUCTION	$800.00	
	501598	09/24/2020	ANNUAL SLURRY SEAL PROJECT	$1,225.00	
	501599	09/24/2020	ANNUAL PAVEMENT REHABILITATION	$2,625.00	
	501600	09/24/2020	STREETLIGHTS ON GALE AVE	$577.50	
	501601	09/24/2020	STREETLIGHTS ALONG RAILROAD ST	$17,365.00	
	501602	09/24/2020	REPLACEMENT OF WATER LINES AT TONNER CYN	$1,600.00	
	501603	09/24/2020	GENERAL ENG SVC-HWY PERFORMANCE	$300.00	
	501604	09/24/2020	GRAND AVE NB WIDENING OVER SAN JOSE CREEK	$700.00	
	501605	09/24/2020	NOGALES GRADE SEPARATION	$1,050.00	
	501606	09/24/2020	PUENTE AVE GRADE SEPARATION	$1,162.50	
	501607	09/24/2020	TURNBULL CYN RD GRADE SEPARATION	$7,795.00	
	501584	09/24/2020	EL ENCANTO BOILER REPLACEMENT	$52.50	
74439	10/08/2020		CODE 3 CREATIONS		$21.90
	Invoice	Date	Description	Amount	
	1910	09/15/2020	NAME PLATE-M. GRUEBEL	$21.90	
74440	10/08/2020		COUNTY OF LA DEPT OF PUBLIC		$86,707.01
	Invoice	Date	Description	Amount	
	PW-20090801088	09/08/2020	INSPECTION OF SIDEWALK	$735.67	
	PW20090801089	09/08/2020	PAVEMENT PATCHING	$369.05	
	PW-20090801103	09/08/2020	REVIEW DESIGN PLANS-GRADE SEPARATION PUMP	$698.35	
	PW-20090801110	09/08/2020	PUMP HOUSE MAINT	$513.44	
	PW-20090801112	09/08/2020	EMERGENCY ROAD CLOSURE	$678.75	
	PW-20090801114	09/08/2020	CONCRETE REPAIRS-CITYWIDE	$233.70	
	PW-20090801115	09/08/2020	STORM DRAIN MAINT	$17,603.08	
	PW-20090801116	09/08/2020	STREET MAINT/INSPECTION	$6,455.05	

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Check	Date		Payee Name	Check Amount
CITY.WF.CHK - City General Wells Fargo				
PW-20090801117	09/08/2020	CLARIFIER REMOVAL-13400 NELSON AVE	$192.22	
PW-20090801120	09/08/2020	PAVEMENT PATCHING	$5,199.48	
PW-20090801126	09/08/2020	INSPECTION OF SIDEWALK	$23,648.96	
PW-20090801143	09/08/2020	TRAFFIC SIGNING	$269.66	
PW-20090801165	09/08/2020	TRAFFIC SIGNAL MAINT	$3,960.37	
PW-20090801403	09/08/2020	TRAFFIC SIGNAL MAINT	$7,540.78	
PW-20090801402	09/08/2020	TRAFFIC SIGNAL MAINT	$18,608.45	
74441	10/08/2020		DAPEER, ROSENBLIT, AND LITVAK,	$8,081.10
Invoice	Date	Description	Amount	
17729	08/31/2020	SPECIALIZED LEGAL SVC-AUG 2020	$3,280.00	
17728	08/31/2020	SPECIALIZED LEGAL SVC-AUG 2020	$1,716.00	
17727	08/31/2020	GENERAL CODE ENFORCEMENT-AUG 2020	$3,085.10	
74442	10/08/2020		DEPT OF ANIMAL CARE & CONTROL	$4,301.04
Invoice	Date	Description	Amount	
09/25/20	09/25/2020	SHELTER COST-AUG 2020	$4,301.04	
74443	10/08/2020		DEPT OF TRANSPORTATION	$894.68
Invoice	Date	Description	Amount	
21002309	09/14/2020	COOP 07-4959, SB GRAND AVE TO WB SR60 ON-RAMP	$894.68	
74444	10/08/2020		DEPT OF TRANSPORTATION	$961.24
Invoice	Date	Description	Amount	
21002310	09/14/2020	COOP 07-5033, SR60/57 CONFLUENCE AT GRAND AVE	$961.24	

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Check	Date			Payee Name	Check Amount
CITY.WF.CHK - City General Wells Fargo					
74445	10/08/2020			**ELECTRA-MEDIA, INC**	$1,763.00
	Invoice	Date	Description	Amount	
	11444	09/11/2020	PUENTE HILLS AUTO DISPLAY-OCT 2020	$1,763.00	
74446	10/08/2020			**ELEVATE PUBLIC AFFAIRS, LLC**	$15,000.00
	Invoice	Date	Description	Amount	
	2005	09/15/2020	MEDIA CONSULTING-AUG 2020	$15,000.00	
74447	10/08/2020			**ENVIRONS, INC.**	$1,130.00
	Invoice	Date	Description	Amount	
	3430	09/15/2020	LANDSCAPE PLANS-ARENTH AVE	$1,130.00	
74448	10/08/2020			**FEDERAL EXPRESS CORP.**	$247.17
	Invoice	Date	Description	Amount	
	7-120-68076	09/11/2020	MESSENGER SVC	$247.17	
74449	10/08/2020			**FUEL PROS, INC.**	$150.00
	Invoice	Date	Description	Amount	
	50869	08/25/2020	INDUSTRY HILLS FUEL STN MAINT	$150.00	
74450	10/08/2020			**FULCRUM RESOURCES INC.**	$1,700.00
	Invoice	Date	Description	Amount	
	202008-7299	09/09/2020	ENVIRONMENTAL ASSESSMENT-15710 & 15718	$1,700.00	
74451	10/08/2020			**GENTRY BROTHERS, INC.**	$66,378.40
	Invoice	Date	Description	Amount	

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CITY.WF.CHK - City General Wells Fargo					
	#2CITY-1455	10/01/2020	ANNUAL STREET REHABILITATION 2019	$69,872.00	
74452	10/08/2020			**GILBARCO, INC.**	$701.80
	Invoice	Date	Description	Amount	
	SGI1530334	09/11/2020	GASBOY RENEWAL-IND HILLS FUELING STN	$701.80	
74453	10/08/2020			**GONSALVES & SON, JOE A.**	$10,000.00
	Invoice	Date	Description	Amount	
	158494	09/15/2020	LEGISLATIVE SVC-SEP 2020	$10,000.00	
74454	10/08/2020			**HADDICK'S AUTO BODY**	$480.00
	Invoice	Date	Description	Amount	
	H-51501	09/01/2020	TOWING SVC-LiC 1210025,1320295,1279616	$240.00	
	H-51503	09/03/2020	TOWING SVC-LIC 1094930,1247776, & 1356177	$240.00	
74455	10/08/2020			**HDL COREN & CONE**	$1,099.27
	Invoice	Date	Description	Amount	
	SIN002952	08/20/2020	AUDIT SVC-PROPERTY TAX FY 19/20	$1,099.27	
74456	10/08/2020			**HELLING, TROY**	$80.09
	Invoice	Date	Description	Amount	
	09/30/20	09/30/2020	REIMBURSE FOR LUNCH MEETINGS	$80.09	
74457	10/08/2020			**HISTORICAL RESOURCES, INC.**	$18,972.00
	Invoice	Date	Description	Amount	
	COI2021-5	09/24/2020	ADMIN & MGMT SVC-HOMESTEAD	$18,972.00	

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Check	Date			Payee Name	Check Amount
CITY.WF.CHK - City General Wells Fargo					
74458	10/08/2020			INDUSTRY BUSINESS COUNCIL	$59,125.38
	Invoice	Date	Description	Amount	
	MAY 2020	09/16/2020	EXPENSE REIMBURSEMENT-MAY 2020	$59,125.38	
74459	10/08/2020			INDUSTRY SECURITY SERVICES	$49,483.54
	Invoice	Date	Description	Amount	
	14-24870	09/18/2020	SECURITY SVC-VARIOUS CITY SITES	$16,861.64	
	14-24867	09/18/2020	SECURITY SVC 9/11-9/17/20	$7,873.76	
	14-24879	09/25/2020	SECURITY SVC 9/18-9/24/20	$7,873.76	
	14-24882	09/25/2020	SECURITY SVC-VARIOUS CITY SITES	$16,874.38	
74460	10/08/2020			INDUSTRY TIRE SERVICE	$97.57
	Invoice	Date	Description	Amount	
	296994	09/08/2020	REPLACE TIRE-CITY TRAILER	$97.57	
74461	10/08/2020			JMDiaz, Inc.	$702.50
	Invoice	Date	Description	Amount	
	045(20-149)	08/31/2020	STAFF AUGMENTATION-AUG 2020	$702.50	
74462	10/08/2020			KONICA MINOLTA	$271.91
	Invoice	Date	Description	Amount	
	9007084037	08/31/2020	COPY MACHINE MAINT-HOMESTEAD 8/26-11/25/20	$271.91	
74463	10/08/2020			L A COUNTY DEPT OF PUBLIC	$11,971.15
	Invoice	Date	Description	Amount	

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CITY.WF.CHK - City General Wells Fargo					
	IN210000158	09/08/2020	ACCIDENT-VALLEY BLVD @ VINELAND AVE	$361.28	
	IN210000161	09/08/2020	ACCIDENT-HAMBLEDON AVE @ VALLEY BLVD	$1,690.36	
	IN210000163	09/08/2020	ACCIDENT-GALE AVE @ AUTO MALL	$1,645.81	
	IN210000164	09/08/2020	ACCIDENT-AMAR RD @ ECHELON AVE	$161.28	
	IN210000167	09/08/2020	ACCIDENT-TEMPLE AVE @ VINELAND AVE	$1,534.92	
	IN210000182	09/08/2020	ACCIDENT-COLIMA RD @ WALNUT HALL RD	$4,637.20	
	IN210000183	09/08/2020	ACCIDENT-AZUSA AVE @ RAILROAD ST	$869.53	
	IN210000197	09/16/2020	ACCIDENT-AMAR RD @ VINELAND AVE	$258.12	
	IN210000206	09/16/2020	ACCIDENT-AZUSA AVE @ SALAIS ST	$680.43	
	IN210000202	09/16/2020	ACCIDENT-AMAR RD @ ECHELON AVE	$132.22	
74464	10/08/2020			**L A COUNTY DEPT OF PUBLIC**	$18,305.10
	Invoice	Date	Description	Amount	
	SA210000108	09/16/2020	PAVEMENT PRESERVATION-HAMBLEDON AVE	$18,305.10	
74465	10/08/2020			**L A COUNTY SHERIFF'S**	$949,916.36
	Invoice	Date	Description	Amount	
	210285AL	09/11/2020	SHERIFF CONTRACT-AUG 2020	$949,916.36	
74466	10/08/2020			**LA PUENTE VALLEY COUNTY**	$286.48
	Invoice	Date	Description	Amount	
	BS;09/20	09/16/2020	WATER MONITORING-BOY SCOUTS RESERVE	$286.48	
74467	10/08/2020			**LEGEND PUMP AND WELL SERVICE,**	$784.00
	Invoice	Date	Description	Amount	
	56431	08/28/2020	SERVICE CALL-BAKER SLOPES	$784.00	

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CITY.WF.CHK - City General Wells Fargo					
74468	10/08/2020			LOCKS PLUS, INC.	$330.84
	Invoice	Date	Description	Amount	
	34383	07/13/2020	PADLOCKS FOR GATES	$330.84	
74469	10/08/2020			LUBE PIT STOP	$47.53
	Invoice	Date	Description	Amount	
	252562	08/13/2020	AUTO MAINT-LIC 1282846	$47.53	
74470	10/08/2020			MEAD AND HUNT, INC.	$1,412.40
	Invoice	Date	Description	Amount	
	307890	09/18/2020	CHINO RANCH #1 INUNDATION AND EAP	$1,412.40	
74471	10/08/2020			MERRITT'S ACE HARDWARE	$15.39
	Invoice	Date	Description	Amount	
	119508	09/16/2020	MISC SUPPLIES-HOMESTEAD	$15.39	
74472	10/08/2020			MR PLANT & INTERIOR BOTANICAL	$770.00
	Invoice	Date	Description	Amount	
	OCT 15393	10/01/2020	PLANT MAINT-OCT 2020	$770.00	
74473	10/08/2020			MX GRAPHICS, INC.	$992.10
	Invoice	Date	Description	Amount	
	21640	09/16/2020	BLUEPRINT SVC-MP 10 15 2	$467.81	
	21626	09/14/2020	BLUEPRINT SVC-MP 10 15 2	$130.09	
	21446	08/12/2020	TEMPORARY TRAIL SIGNS	$394.20	

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CITY.WF.CHK - City General Wells Fargo					
74474	10/08/2020			**NELSON, JOSHUA**	$506.54
	Invoice	Date	Description	Amount	
	09/13/20	09/13/2020	REIMBURSEMENT FOR MEMBERSHIP &	$506.54	
74475	10/08/2020			**NEXTIVA, INC.**	$1,625.36
	Invoice	Date	Description	Amount	
	32758487557	09/28/2020	CITY HALL PHONE SVC	$1,625.36	
74476	10/08/2020			**OCEAN BLUE ENVIRONMENTAL**	$2,715.61
	Invoice	Date	Description	Amount	
	34181	09/17/2020	HUMAN WASTE DISPOSAL-FOLLOW'S CAMP	$2,715.61	
74477	10/08/2020			**ORSA CONSULTING ENGINEERS,**	$82,500.00
	Invoice	Date	Description	Amount	
	1433-03	09/25/2020	STREET LIGHTS ALONG ARENTH AVE	$11,250.00	
	1433-04	09/25/2020	STREET LIGHTS ALONG ARENTH AVE	$71,250.00	
74478	10/08/2020			**PADILLA, YVETTE**	$1,091.36
	Invoice	Date	Description	Amount	
	9/30/20	09/30/2020	REIMBURSE FOR CLASS AT CAL STATE SAN	$1,091.36	
74479	10/08/2020			**PARS**	$600.00
	Invoice	Date	Description	Amount	
	46236	09/14/2020	ARS FEES-JUL 2020	$300.00	
	46400	09/15/2020	REP FEES-JUL 2020	$300.00	
74480	10/08/2020			**PLACEWORKS**	$42,530.26

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Invoice	Date	Description	Amount
73080	08/31/2020	GRAND AVE WIDENING	$1,683.00
73018	08/31/2020	CEQA FOR NEW BLDG-13055 TEMPLE AVE	$1,764.60
73020	08/31/2020	IS/MND FOR TRUCK RD-15252 E VALLEY BLVD	$25,863.38
73019	08/31/2020	IS/MND FOR NEW BLDG-20922 CURRIER RD	$13,219.28

74481 10/08/2020 — **POST ALARM SYSTEMS** — $304.38

Invoice	Date	Description	Amount
1305103	09/04/2020	MONITORING SVC-HOMESTEAD	$304.38

74482 10/08/2020 — **PUENTE HILLS CHEVROLET** — $4,473.80

Invoice	Date	Description	Amount
139205	09/22/2020	REPAIR ON 2011 GMC SIERRA-LIC 98407C1	$4,473.80

74483 10/08/2020 — **PURCHASE POWER** — $379.99

Invoice	Date	Description	Amount
09/06/20	09/06/2020	POSTAGE METER REFILL ON 8/7,8/27, & 9/2/20	$379.99

74484 10/08/2020 — **QUADIENT LEASING USA, INC.** — $1,815.39

Invoice	Date	Description	Amount
N8477395	09/10/2020	MAIL EQUIPMENT RENTAL 10/11/20-1/10/21	$1,815.39

74485 10/08/2020 — **RICOH USA, INC.** — $794.21

Invoice	Date	Description	Amount
34025180	09/11/2020	COPIER LEASE-TREASURY	$252.66
34025258	09/11/2020	COPIER LEASE-ENGINEERING	$289.36

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CITY.WF.CHK - City General Wells Fargo					
	5060382651	09/08/2020	METER READING-VARIOUS	$252.19	
74486	10/08/2020			**RICOH USA, INC.**	$3,509.49
	Invoice	Date	Description	Amount	
	69496106	09/06/2020	COPIER LEASE-VARIOUS	$858.73	
	69480777	09/06/2020	COPIER LEASE-VARIOUS	$2,650.76	
74487	10/08/2020			**SAGE ENVIRONMENTAL GROUP**	$12,750.00
	Invoice	Date	Description	Amount	
	916-RI	09/16/2020	PRE-STORM SEASON ROUTINE MAINT-IBC CHANNEL	$7,500.00	
	921	09/10/2020	BIOLOGICAL MONITORING-FOLLOW'S CAMP	$5,250.00	
74488	10/08/2020			**SAN GABRIEL VALLEY**	$6,285.00
	Invoice	Date	Description	Amount	
	20200924COIM	09/24/2020	LANDSCAPE SVC-EX[P TRAIL MAINT	$6,285.00	
74489	10/08/2020			**SAN GABRIEL VALLEY COUNCIL OF**	$2,500.00
	Invoice	Date	Description	Amount	
	VMT-01-10	09/17/2020	PARTICIPATION IN SGV REGIONAL VMT ANALYSIS	$2,500.00	
74490	10/08/2020			**SAN GABRIEL VALLEY NEWSPAPER**	$1,130.50
	Invoice	Date	Description	Amount	
	0011412035	09/18/2020	NOTICE OF PUBLIC HEARING	$612.50	
	0011410575	09/11/2020	NOTICE OF AVAILABILITY-DEV PLAN 19-08	$518.00	
74491	10/08/2020			**SATSUMA LANDSCAPE & MAINT.**	$133,339.57
	Invoice	Date	Description	Amount	

CITY OF INDUSTRY
WELLS FARGO BANK
October 8, 2020

Check	Date			Payee Name	Check Amount
CITY.WF.CHK - City General Wells Fargo					
	0920XROADS	09/30/2020	LANDSCAPE SVC-CROSSROADS PKY NORTH &	$53,824.98	
	0920CH	09/30/2020	LANDSCAPE SVC-CIVIC FINANCIAL CENTER	$79,514.59	
74492	10/08/2020			**SCHWEITZER ENGINEERING**	$14,164.56
	Invoice	Date	Description	Amount	
	INV-000526575	09/23/2020	SEL5045 ASCELERATOR TEAM SOFTWARE	$5,180.00	
	INV-000527556	09/25/2020	SEL-3355 RUGGED COMPUTER	$5,465.36	
	INV-00524933	09/16/2020	ASCELELATOR METER REPORTS	$3,519.20	
74493	10/08/2020			**SO CAL INDUSTRIES**	$91.26
	Invoice	Date	Description	Amount	
	459516	09/16/2020	RR RENTAL-TONNER CYN/57 FWY	$91.26	
74494	10/08/2020			**SPARKLETTS**	$77.69
	Invoice	Date	Description	Amount	
	16916898 092520	09/25/2020	WATER DELIVERY	$77.69	
74495	10/08/2020			**SPECTRUM**	$938.99
	Invoice	Date	Description	Amount	
	0362894091020	09/10/2020	BUSINESS INTERNET-SEP 2020	$938.99	
74496	10/08/2020			**SQUARE ROOT GOLF & LANDSCAPE,**	$248,497.10
	Invoice	Date	Description	Amount	
	1511-H-2	09/29/2020	SIGN REPAIR & INSTALLATION	$514.71	
	1511H-1	09/29/2020	GRAFFITI REMOVAL	$2,455.17	
	1510ELHM	09/29/2020	LANDSCAPE SVC-HOMESTEAD	$29,629.72	

CITY OF INDUSTRY
WELLS FARGO BANK
October 8, 2020

Check	Date			Payee Name	Check Amount
CITY.WF.CHK - City General Wells Fargo					
	1509ELHM	09/29/2020	LANDSCAPE SVC-EL ENCANTO	$14,092.83	
	1508ELHM	09/29/2020	LANDSCAPE SVC-VARIOUS CITY SITES	$13,360.00	
	1511H	09/29/2020	LANDSCAPE SVC-VARIOUS CITY SITES	$188,444.67	
74497	10/08/2020			STAPLES BUSINESS ADVANTAGE	$885.54
	Invoice	Date	Description	Amount	
	8059585357	09/05/2020	OFFICE SUPPLIES	$21.49	
	8059718354	09/19/2020	OFFICE SUPPLIES	$864.05	
74498	10/08/2020			THE GABRIEL FOUNDATION	$105,000.00
	Invoice	Date	Description	Amount	
	09/24/20	09/24/2020	DONATION FOR IND HILLS CHARITY RODEO EVENT	$105,000.00	
74499	10/08/2020			THE TECHNOLOGY DEPOT	$12,322.50
	Invoice	Date	Description	Amount	
	14568	09/18/2020	NETWORK MAINT 9/14-9/18/20	$3,475.00	
	14617	09/25/2020	NETWORK MAINT 9/21-9/25/20	$4,836.25	
	14391	08/28/2020	NETWORK MAINT 8/24-8/28/20	$4,011.25	
74500	10/08/2020			WALTERS WHOLESALE ELECTRIC	$7,357.28
	Invoice	Date	Description	Amount	
	S116231904.001	08/20/2020	STREETLIGHT MATERIALS	$530.38	
	S115450597.001	09/10/2020	STREETLIGHT MATERIALS	$6,826.90	
74501	10/08/2020			WEST COAST ARBORISTS, INC.	$9,588.00
	Invoice	Date	Description	Amount	

CITY OF INDUSTRY
WELLS FARGO BANK
October 8, 2020

Check	Date		Payee Name		Check Amount
CITY.WF.CHK - City General Wells Fargo					
	164316	08/31/2020	GPS TREE INVENTORY	$4,308.00	
	163998	09/10/2020	TREE PRUNING-14438 & 14458 DON JULIAN RD	$5,280.00	
74502	10/08/2020		**WKE, INC**		$33,434.80
	Invoice	Date	Description	Amount	
	19008.06	09/17/2020	BRIDGE REHABILITATION-VALLEY BLVD	$5,604.40	
	18008.06	09/14/2020	GRAND AVE NB WIDENING OVER SAN JOSE CREEK	$27,830.40	

Checks	Status	Count	Transaction Amount
	Total	107	$2,690,161.48

CITY COUNCIL

ITEM NO. 6.1

CITY OF INDUSTRY

P.O. Box 3366 • 15625 E. Stafford St. • City of Industry, CA 91744-0366 • (626) 333-2211 • FAX (626) 961-6795

MEMORANDUM

TO: Honorable Mayor Moss and Members of the City Council

FROM: Troy Helling, City Manager TH

DATE: October 8, 2020

SUBJECT: Consideration of a donation of $50,000.00 to the Land of the Free Foundation for its Veterans Day Golf Classic Fundraiser, on November 11, 2020

Background:

The Land of the Free Foundation ("Foundation") was established to recognize the men and women of our armed forces and their families who work and sacrifice every day to ensure that we will always live in the "Land of the Free". The founders of the Foundation are Ed Roski, Kent Valley and John Semcken III.

The Foundation is committed to celebrating the men and women of the United States Armed Forces. The Foundation supports programs that help our armed services personnel and their families, and works to ensure that the commitment of our nation's heroes will never be taken for granted, and that all Americans recognize the great sacrifices of our armed services personnel and their families.

The Foundation partners with the Pacific Palms Resort and Conference Center and the Industry Hills Golf Club to host an annual golf tournament on Veterans Day. This is the main fundraising event for the foundation.

Recommendation:

Staff recommends that the City Council adopt Resolution No. CC 2020-38, approving a donation in the amount of $50,000.00 to the Foundation for the Land of the Free Veterans Day Golf Classic.

Exhibits:

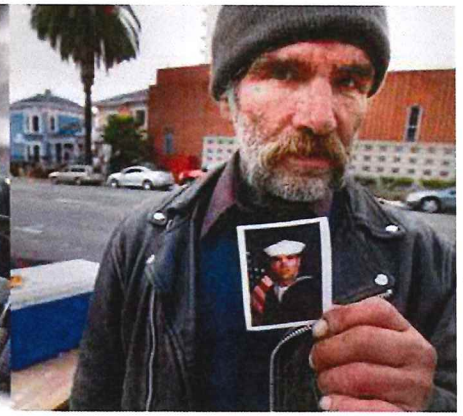
A.. Land of the Free Flyer

B. Resolution No. CC 2020-38

TH/TH

LAND OF THE FREE
Foundation

Supporting
VETERANS IN NEED HERE & ABROAD



ESPECIALLY THOSE WITHOUT A HOME

EDWARD P. ROSKI, JR., KENT R. VALLEY & JOHN H. SEMCKEN, III

Cordially Invite You to a Unique Opportunity to Support Our Troops at the

LAND OF THE FREE VETERANS DAY GOLF CLASSIC

PACIFIC PALMS RESORT ★ WEDNESDAY, NOVEMBER 11TH

SPONSORSHIP OPPORTUNITIES

TOURNAMENT SPONSOR: $100,000
- Three foursome entries (12 players) including breakfast, lunch and cocktails
- Tee Sponsorship
- Company name on website and recognition as Tournament Sponsor

4 STAR SPONSOR: $50,000
- Two foursome entries (8 players) including breakfast, lunch and cocktails
- Tee Sponsorship
- Company name on website and recognition

3 STAR SPONSOR: $25,000
- One foursome entry including breakfast, lunch and cocktails
- Tee Sponsorship
- Company name on website and recognition

2 STAR SPONSOR: $10,000
- One foursome entry (4 players) including breakfast, lunch and cocktails
- Tee Sponsorship
- Company name on website and recognition

SINGLE PLAYER ENTRY: $2,500
- Single player including breakfast, lunch and cocktails

SPONSOR A VET: $1,500

VIEW THE VIDEO OF OUR MAIN FUNDRAISING EVENT:

www.LandoftheFreeFoundation.org/golf.html

SCHEDULE OF EVENTS

8:00 am - 10:00 am	Breakfast, Registration and Putting Contest
9:45 am	Veterans Day Tribute
10:00 am	Call to the Tee
11:30 am - 1:30 pm	On Course Lunch
4:00 pm	Awards After Golf

SIGN UP FOR THIS EVENT

The Mission of the

LAND OF THE FREE FOUNDATION

The Land of the Free Foundation is committed to celebrating the men and women of the Armed Forces of the United States, past, present and future. The Foundation will support programs that help our armed service personnel and their families and will ensure that the commitment of our nation's heroes will never be taken for granted and that all Americans recognize, because of the sacrifices of our armed services personnel, we will always live in the Land of the Free. **www.LandoftheFreeFoundation.org**

The Land of the Free Foundation is proud to support the following beneficiaries

Semper Fi Fund

T.A.P.S

The Campanile Foundation SDU

Marines' Memorial Association

Congressional Medal of Honor Foundation

United States Naval Academy

Association of the United States Army

United States Veterans Initiative

USC Department of Naval Science

Bob Hope USO

Mt. San Antonio Veterans Resource Center

Special Forces Charitable Trust

The University of Idaho and Operation Education

Marine Corps Scholarship Foundation

West Point Association of Graduates

Cal Poly Pomona Veterans Resources Center

Marine Corps University Foundation

Condor Squadron

Marine Raider Foundation

Master of Business for Veterans Program (USC)

Pepperdine University Graduate School of Education and Psychology

LACBA Veterans Legal Assistance Project (LACBA Counsel for Justice)

Warriors on Cataract Canyon

Air Force Academy Foundation

Donations can be made online at: www.LandoftheFreeFoundation.org

RESOLUTION NO. CC 2020-38

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF INDUSTRY, CALIFORNIA APPROVING A DONATION TO THE LAND OF THE FREE FOUNDATION IN THE AMOUNT OF FIFTY THOUSAND DOLLARS ($50,000.00) FOR THE VETERANS DAY GOLF CLASSIC FUNDRAISER

RECITALS

WHEREAS, the Land of the Free Foundation ("Foundation") was formed to recognize the men and the women of the armed forces and their families who work and serve every day to ensure that we will always live in the "Land of the Free"; and

WHEREAS, annually, the Foundation partners with Pacific Palms Resort and Conference Center, and the Industry Hills Golf Club, to host a Veterans Day golf tournament to raise funds for the Foundation; and

WHEREAS, the Foundation requested a donation from the City to support its programs; and

WHEREAS, the City's donation serves a public purpose in that the proceeds are used by the Foundation for its various programs for our nation's veterans including career development; rehabilitation programs focusing on physical health, psychological wellness and community engagement; youth programs; and educational support and assistance; and

WHEREAS, all legal prerequisites to the adoption of this Resolution have occurred.

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF INDUSTRY DOES HEREBY RESOLVE, DETERMINE, FIND, AND ORDER AS FOLLOWS:

SECTION 1: The City Council finds that all of the facts set forth in the Recitals are true and correct, and are incorporated herein by reference.

SECTION 2: The City's donation serves a public purpose in that the proceeds are used by the Foundation for its various programs for our nation's veterans including career development; rehabilitation programs focusing on physical health, psychological wellness and community engagement; youth programs; and educational support and assistance.

SECTION 3: The City Council hereby approves the donation of Fifty Thousand Dollars ($50,000.00) to the Foundation for its Veterans Day Golf Classic Fundraiser.

SECTION 4: The City Manager is hereby authorized and directed to take such other and further action consistent with this Resolution, in order to implement this Resolution on behalf of the City.

SECTION 5: The provisions of this Resolution are severable and if any provision, clause, sentence, word or part thereof is held illegal, invalid, unconstitutional, or inapplicable to any person or circumstances, such illegality, invalidity, unconstitutionality, or inapplicability shall not affect or impair any of the remaining provisions, clauses, sentences, sections, words or parts thereof of the Resolution or their applicability to other persons or circumstances.

SECTION 6: That the City Clerk shall certify to the adoption of this Resolution and that the same shall be in full force and effect.

PASSED, APPROVED AND ADOPTED by the City Council of the City of Industry at a regular meeting held on October 8, 2020, by the following vote:

AYES:	COUNCIL MEMBERS:
NOES:	COUNCIL MEMBERS:
ABSTAIN:	COUNCIL MEMBERS:
ABSENT:	COUNCIL MEMBERS:

_____
Cory C. Moss, Mayor

ATTEST:

_____
Julie Gutierrez-Robles, City Clerk

CITY COUNCIL

ITEM NO. 6.2

CITY OF INDUSTRY

MEMORANDUM

TO: Honorable Mayor Moss and Members of the City Council

FROM: Troy Helling, City Manager TH

STAFF: Joshua Nelson, Director of Public Works/City Engineer
Upendra Joshi, Sr. Project Manager, CNC Engineering

DATE: October 8, 2020

SUBJECT: Consideration of authorization to advertise for public bids for Arenth Avenue Improvements from Phillips Drive to Nogales Street, for an estimated cost of $5,700,000.00 (CITY-1460/MP 14-12 #2)

Background:

Staff have prepared plans and specifications for the above project. This project will be implemented as CITY-1460, subject to the approval by the City Council. The pavement condition of Arenth Avenue from Phillips Drive to Nogales Street has deteriorated through the years due to use, and now exhibits cracks and an uneven pavement surface. The last major maintenance project for this street occurred in the 1990's. Currently, construction is underway on Arenth Avenue from Anaheim-Puente Road to Phillips Drive.

Discussion:

Approximately 7,900 linear feet of roadway will be fully reconstructed on Arenth Avenue from Phillips Drive to 360 feet west of Fullerton Road, and from 360 feet east of Fullerton Road to Nogales Street. The project intends to reconstruct the full Asphalt Cement pavement section to provide for better traffic movement and safety and extend the life of the pavement another 20 years. The work consists primarily of the removal of existing asphalt concrete pavement, and aggregate base and replacing with cold central-plant recycled asphalt concrete pavement. The work also includes curb and gutter repair, sidewalk installation, guard rail installation, drainage improvements, signing and striping and street lighting.

The electrical work includes installation of streetlight systems which involves installation of new power source and streetlight conduits, pull boxes, streetlight poles foundations, transformer pads, metering service pads, transformers, 12,000-Volt primary cable and low voltage secondary cables to each streetlight from the metering service pedestal, streetlight poles and luminaires. Streetlight work from Anaheim-Puente Road to Phillips Drive, which involves installation of streetlight primary and secondary cables, streetlight poles, foundations, and luminaries, will also be constructed.

Fiscal Impact:

The engineer's estimate for this project is $5,700,000.00.

Recommendation:

Staff recommends that the City Council approve the plans and specifications and authorize the solicitation of public bids.

Exhibits:

A. Notice Inviting Bids
B. Engineer's Estimate
C. Section A – Pages A-1 through A-8
D. Reduced Set of Project Plans

TH/JN/UJ:jf

EXHIBIT A

Notice Inviting Bids

[Attached]

FOR PUBLICATION

NOTICE INVITING BIDS FOR:

CITY OF INDUSTRY
PROJECT NO. 460

ARENTH AVENUE IMPROVEMENTS FROM PHILLIPS DRIVE TO NOGALES STREET

CONTRACT NO. CITY-1460

The **CITY OF INDUSTRY**, hereinafter referred to as the **CITY**, will receive bids for the construction of the above project until **10:00 A.M.** on **November 11, 2020**, via the City of Industry's PlanetBids™ vendor portal. Bids are to be submitted through https://www.planetbids.com/portal/portal.cfm?CompanyID=29042.

Postmarks, mailed, emailed, or hard copy bids will not be accepted. Late bids will not be accepted.

It is the responsibility of the bidder to be sure the bid is submitted prior to the date and time indicated above. Free digital versions of the plans and specifications are available on the vendor portal. Hard copies are no longer available for purchase.

At the time of submission of the bid and thereafter, each bidder must be licensed as a **Class A - General Engineering** as defined in Sections 7055-7058 of the Business and Professions Code. All electrical work needs to be performed by a **Class C-10 – Electrical**, as defined in Section 7055-7058 of the Business and Professions Code. Each bidder shall set forth on the Bidder's Information Sheet and the Contractor's License Affidavit the classification and number of the requisite license which that bidder holds.

The **CITY** reserves the right to award the contract to the contractor with another license class if the **CITY** determines that the license class is proper for the proposed work.

A contractor or subcontractor shall not be qualified to bid on, be listed in a bid proposal, subject to the requirements of Section 4104 of the Public Contract Code, or engage in the performance of any contract for public work, as defined in this chapter, unless currently registered and qualified to perform public work pursuant to Section 1725.5. ***Please note:*** *It is not a violation of this section for an unregistered contractor to submit a bid that is authorized by Section 7029.1 of the Business and Professions Code or by Section 10164 or 20103.5 of the Public Contract Code, provided the contractor is registered to perform public work pursuant to Section 1725.5 at the time the contract is awarded.* Any bids submitted without proof that bidder and any listed subcontractor(s) are currently registered and qualified to perform public work, pursuant to Labor Code Section 1725.5, may not be accepted by the City.

(Continued)

The Scope of Work is as follows: The work consists primarily of the removal of existing asphalt, concrete pavement, and aggregate base; and replacing with cold central-plant recycled asphalt concrete pavement. The work also includes curb and gutter repair, sidewalk installation, guard rail installation, drainage improvements, signing & striping, and lighting. Electrical work includes installation of new conduits for power source and streetlights, pull boxes, transformers and metering service pedestals, streetlight poles/foundations and luminaires including all wiring.

Plans and Specifications are available for inspection by contacting CNC Engineering at 626.333.0336 and making an appointment to visit CNC Engineering at 255 N. Hacienda Boulevard, Suite 222, City of Industry 91744.

Online Questions and Answers will be due via the City of Industry's PlanetBids™ vendor portal on **November 4, 2020 at 5:00 P.M.**

Qualifications of the Contractor: The Contractor shall have at least five (5) years of experience performing similar work in Southern California or have performed similar work for City of Industry in the past. Provide a list of three (3) projects completed within the past five (5) years with the name of the company, contact person and bid price. Contractor shall complete and submit Contractor's Statement of Experience.

CITY OF INDUSTRY
PROJECT NO. 460

ARENTH AVENUE IMPROVEMENTS FROM PHILLIPS DRIVE TO NOGALES STREET

CONTRACT NO. CITY-1460

Each bid shall be accompanied by a bid guarantee in the form of a Cashier's Check or Bidder's Bond for not less than ten percent (10%) of the total amount of the bid, made payable to the **CITY OF INDUSTRY**.

The contractor may, at his own expense, substitute securities for monies to be withheld to ensure performance under the contract.

By the order of the **CITY OF INDUSTRY** dated **October 8, 2020.**

_____
Julie Gutierrez-Robles, City Clerk

EXHIBIT B

Engineer's Estimate

[Attached]

ESTIMATE FOR:

CITY OF INDUSTRY

PROJECT NO. 460

ARENTH AVENUE IMPROVEMENTS FROM PHILLIPS DRIVE TO NOGALES STREET

CONTRACT NO. CITY-1460

ENGINEER'S ESTIMATE
$5,700,000.00

EXHIBIT C

Section A – Pages A-1 through A-8

[Attached]

SECTION A

CITY OF INDUSTRY

PROJECT NO. 460

ARENTH AVENUE IMPROVEMENTS FROM PHILLIPS DRIVE TO NOGALES STREET

CONTRACT NO. CITY-1460

The **CITY OF INDUSTRY**, hereinafter referred to as the **CITY**, will receive bids for the construction of the above project until **10:00 A.M.** on **November 11, 2020**, via the City of Industry's PlanetBids™ vendor portal. Bids are to be submitted through https://www.planetbids.com/portal/portal.cfm?CompanyID=29042.

Postmarks, mailed, emailed, or hard copy bids will not be accepted. Late bids will not be accepted.

It is the responsibility of the bidder to be sure the bid is submitted prior to the date and time indicated above. Free digital versions of the plans and specifications are available on the vendor portal. Hard copies are no longer available for purchase.

At the time of submission of the bid and thereafter, each bidder must be licensed as a **Class A - General Engineering** as defined in Sections 7055-7058 of the Business and Professions Code. All electrical work needs to be performed by a **Class C-10 – Electrical**, as defined in Section 7055-7058 of the Business and Professions Code. Each bidder shall set forth on the Bidder's Information Sheet and the Contractor's License Affidavit the classification and number of the requisite license which that bidder holds.

The **CITY** reserves the right to award the contract to the contractor with another license class if the **CITY** determines that the license class is proper for the proposed work.

A contractor or subcontractor shall not be qualified to bid on, be listed in a bid proposal, subject to the requirements of Section 4104 of the Public Contract Code, or engage in the performance of any contract for public work, as defined in this chapter, unless currently registered and qualified to perform public work pursuant to Section 1725.5. ***Please note:*** *It is not a violation of this section for an unregistered contractor to submit a bid that is authorized by Section 7029.1 of the Business and Professions Code or by Section 10164 or 20103.5 of the Public Contract Code, provided the contractor is registered to perform public work pursuant to Section 1725.5 at the time the contract is awarded.* Any bids submitted without proof that bidder and any listed subcontractor(s) are currently registered and qualified to perform public work, pursuant to Labor Code Section 1725.5, may not be accepted by the City.

The Scope of Work is as follows: The work consists primarily of the removal of existing asphalt, concrete pavement, and aggregate base; and replacing with cold central-plant recycled asphalt concrete pavement. The work also includes curb and gutter repair,

sidewalk installation, guard rail installation, drainage improvements, signing & striping, and lighting. Electrical work includes installation of new conduits for power source and streetlights, pull boxes, transformers and metering service pedestals, streetlight poles/foundations and luminaires including all wiring.

Plans and Specifications are available for inspection by contacting CNC Engineering at 626.333.0336 and making an appointment to visit CNC Engineering at 255 N. Hacienda Boulevard, Suite 222, City of Industry 91744.

Online Questions and Answers will be due via the City of Industry's PlanetBids™ vendor portal on **November 4, 2020 at 5:00 P.M.**

Qualifications of the Contractor: The Contractor shall have at least five (5) years of experience performing similar work in Southern California or have performed similar work for City of Industry in the past. Provide a list of three (3) projects completed within the past five (5) years with the name of the company, contact person and bid price. Contractor shall complete and submit Contractor's Statement of Experience.

The bid shall be accompanied by a bid guarantee in the form of a Cashier's Check or Bidder's Bond for not less than ten percent (10%) of the total amount of the bid, payable to the **CITY OF INDUSTRY**. The bid guarantee is to insure that the bidder, if awarded the work, will enter into a contract with the CITY. Failure of a contractor to enter into a contract within ten (10) days following award will cause the bid guarantee to be forfeited. If the bid guarantee is a Cashier's Check it must be delivered to City Hall prior to the bid opening date and time. The Cashier's Check shall be sealed in an envelope, endorsed as follows: CITY-1460 - ARENTH AVENUE IMPROVEMENTS FROM PHILLIPS DRIVE TO NOGALES STREET, City of Industry City Hall, 15625 E. Stafford Street, City of Industry, California 91744. If a bid bond is chosen, a scanned PDF will be accepted through PlanetBids™, however, the three apparent low bidders will be contacted to submit the original bid bond to the City and will be given a deadline to submit.

The CITY may, upon refusal or failure of a successful responsible bidder to accept the contract, award it to the next lowest bidder. If the CITY awards the contract to the second lowest bidder, the amount of the lowest bidder's bid guarantee shall be applied by the CITY to the difference between the low bid and the second lowest bid; the surplus, if any, shall be returned to the lowest bidder if cash is used, or to the surety company if a bond is used.

The successful bidder will be required to furnish a labor and materials bond in an amount equal to one hundred percent (100%) of the contract price and a faithful performance bond in an amount equal to one hundred percent (100%) of the contract price. A maintenance bond equal to ten percent (10%) of the total bid price amount is to remain in force for one (1) year after the date of completion of work, shall be submitted prior to execution of contract. The above bonds shall be secured by a surety company satisfactory to the CITY, and licensed as a Surety Insurer in the State of California and rated at least B+:V in the latest "Best's Insurance Guide." The attached bond forms shall be used without exception.

CONTRACTOR

INSURANCE

Prior to the beginning of and throughout the duration of the Project, Contractor and its subcontractors shall maintain insurance in conformance with the requirements set forth below. Contractor will use existing coverage to comply with these requirements. If that existing coverage does not meet the requirements set forth herein, Contractor agrees to amend, supplement or endorse the existing coverage to do so.

Contractor acknowledges that the insurance coverage and policy limits set forth in this section constitute the minimum amount of coverage required. Any insurance proceeds available to Contractor or its subcontractors in excess of the limits and coverage identified in this Agreement and which is applicable to a given loss, claim or demand, will be equally available to the City.

Contractor shall provide the following types and amounts of insurance:

Without limiting Contractor's indemnification of City, and prior to commencement of the Project, Contractor shall obtain, provide and maintain at its own expense during the term of this Agreement, policies of insurance of the type and amounts described below and in a form satisfactory to the City.

General Liability Insurance. Contractor shall maintain commercial general liability insurance with coverage at least as broad as Insurance Services Office form CG 00 01, in an amount not less than $5,000,000 per occurrence, $10,000,000 general aggregate, for bodily injury, personal injury, and property damage, and a $5,000,000 completed operations aggregate. The policy must include contractual liability that has not been amended. Any endorsement restricting standard ISO "insured contract" language will not be accepted.

Automobile Liability Insurance. Contractor shall maintain automobile insurance at least as broad as Insurance Services Office form CA 00 01 covering bodily injury and property damage for all activities of the Contractor arising out of or in connection with work to be performed under this Agreement, including coverage for any owned, hired, non-owned or rented vehicles, in an amount not less than $1,000,000 combined single limit for each accident.

Umbrella or Excess CGL Insurance. If the CONTRACTOR elects to include an umbrella or excess policy to cover any of the total limits required beyond the primary commercial general liability policy limits and/or the primary commercial automobile liability policy limits, then the policy must include the following:

- The umbrella or excess policy shall follow form over the CONTRACTOR's primary general liability coverage and shall provide a separate aggregate limit for products and completed operations coverage.

- The umbrella or excess policy shall not contain any restrictions or exclusions beyond what is contained in the primary policy.
- The umbrella or excess policy shall contain a clause stating that it takes effect (drops down) in the event the primary limits are impaired or exhausted.
- The umbrella or excess policy must also extend coverage over the automobile policy if it is to be used in combination with the primary automobile policy to meet the total insurance requirement limits.

Workers' Compensation Insurance. Contractor shall maintain Workers' Compensation Insurance (Statutory Limits) and Employer's Liability Insurance (with limits of at least $1,000,000) for Contractor 's employees in accordance with the laws of the State of California, Section 3700 of the Labor Code In addition, Contractor shall require each subcontractor to similarly maintain Workers' Compensation Insurance and Employer's Liability Insurance in accordance with the laws of the State of California, Section 3700 for all of the subcontractor's employees.

Contractor shall submit to the City, along with the certificate of insurance, a Waiver of Subrogation endorsement in favor of the City, its officers, agents, employees and volunteers.

Pollution Liability Insurance. Environmental Impairment Liability Insurance shall be written on a Contractor's Pollution Liability form or other form acceptable to the City providing coverage for liability arising out of sudden, accidental and gradual pollution and remediation. The policy limit shall be no less than $1,000,000 dollars per claim and in the aggregate. All activities contemplated in this agreement shall be specifically scheduled on the policy as "covered operations." The policy shall provide coverage for the hauling of waste from the project site to the final disposal location, including non-owned disposal sites.

Completed Operations Coverage. Products/completed operations coverage shall extend a minimum of ten years after project completion. Coverage shall be included on behalf of the insured for covered claims arising out of the actions of independent contractors. If the insured is using subcontractors, the Policy must include work performed "by or on behalf" of the insured. Policy shall contain no language that would invalidate or remove the insurer's duty to defend or indemnify for claims or suits expressly excluded from coverage. Policy shall specifically provide for a duty to defend on the part of the insurer. The City, its officials, officers, agents, and employees, shall be included as insureds under the policy.

Other provisions or requirements:

Proof of Insurance. Contractor shall provide certificates of insurance to the City as evidence of the insurance coverage required herein, along with a waiver of subrogation endorsement for workers' compensation. Insurance certificates and endorsements must be approved by the City's risk manager prior to commencement of performance. Current certification of insurance shall be kept on file with the City at all times during the term of

this contract. The City reserves the right to require complete, certified copies of all required insurance policies, at any time.

Duration of Coverage. Contractor shall procure and maintain for the duration of the contract insurance against claims for injuries to persons or damages to property, which may arise from or in connection with the performance of the work hereunder by Contractor, his agents, representatives, employees or subcontractors. Contractor must maintain general liability and umbrella or excess liability insurance for as long as there is a statutory exposure to completed operations claims. The City and its officers, officials, employees, and agents shall continue as additional insureds under such policies.

Primary/Noncontributing. Coverage provided by Contractor shall be primary and any insurance or self-insurance procured or maintained by the City shall not be required to contribute with it. The limits of insurance required herein may be satisfied by a combination of primary and umbrella or excess insurance. Any umbrella or excess insurance shall contain or be endorsed to contain a provision that such coverage shall also apply on a primary and non-contributory basis for the benefit of the City before the City's own insurance or self-insurance shall be called upon to protect it as a named insured.

City's Rights of Enforcement. In the event any policy of insurance required under this Agreement does not comply with these requirements or is canceled and not replaced, the City has the right but not the duty to obtain the insurance it deems necessary and any premium paid by the City will be promptly reimbursed by Contractor or the City will withhold amounts sufficient to pay premium from Contractor payments. In the alternative, the City may cancel this Agreement.

Acceptable Insurers. All insurance policies shall be issued by an insurance company currently authorized by the Insurance Commissioner to transact business of insurance or is on the List of Approved Surplus Line Insurers in the State of California, with an assigned policyholders' Rating of A- (or higher) and Financial Size Category Class VII (or larger) in accordance with the latest edition of Best's Key Rating Guide, unless otherwise approved by the City's risk manager.

Waiver of Subrogation. All insurance coverage maintained or procured pursuant to this agreement shall be endorsed to waive subrogation against City, its elected or appointed officers, agents, officials, employees and volunteers or shall specifically allow Contractor or others providing insurance evidence in compliance with these specifications to waive their right of recovery prior to a loss. Contractor hereby waives its own right of recovery against City, and shall require similar written express waivers and insurance clauses from each of its subconsultants.

Enforcement of Contract Provisions (non estoppel). Contractor acknowledges and agrees that any actual or alleged failure on the part of the City to inform Contractor of non-compliance with any requirement imposes no additional obligations on the City nor does it waive any rights hereunder.

Requirements Not Limiting. Requirements of specific coverage features or limits contained in this Section are not intended as a limitation on coverage, limits or other requirements, or a waiver of any coverage normally provided by any insurance. Specific reference to a given coverage feature is for purposes of clarification only as it pertains to a given issue and is not intended by any party or insured to be all inclusive, or to the exclusion of other coverage, or a waiver of any type. If the Contractor maintains higher limits than the minimums shown above, the City requires and shall be entitled to coverage for the higher limits maintained by the Contractor. Any available insurance proceeds in excess of the specified minimum limits of insurance and coverage shall be available to the City.

Notice of Cancellation. Contractor agrees to oblige its insurance agent or broker and insurers to provide to City with a thirty (30) day notice of cancellation (except for nonpayment for which a ten (10) day notice is required) or nonrenewal of coverage for each required coverage.

Additional Insured Status. General liability policies shall provide or be endorsed to provide that City and its officers, officials, employees, agents, and volunteers shall be additional insureds under such policies. This provision shall also apply to any excess/umbrella liability policies.

Prohibition of Undisclosed Coverage Limitations. None of the coverages required herein will be in compliance with these requirements if they include any limiting endorsement of any kind that has not been first submitted to City and approved of in writing.

Separation of Insureds. A severability of interests provision must apply for all additional insureds ensuring that Contractor's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the insurer's limits of liability. The policy(ies) shall not contain any cross-liability exclusions.

Pass Through Clause. Contractor agrees to ensure that its subconsultants, subcontractors, and any other party involved with the project who is brought onto or involved in the project by Contractor, provide the same minimum insurance coverage and endorsements required of Contractor. Contractor agrees to monitor and review all such coverage and assumes all responsibility for ensuring that such coverage is provided in conformity with the requirements of this section. Contractor agrees that upon request, all agreements with consultants, subcontractors, and others engaged in the project will be submitted to City for review.

City's Right to Revise Requirements. The City reserves the right at any time during the term of the contract to change the amounts and types of insurance required by giving the Contractor a ninety (90)-day advance written notice of such change. If such change results in substantial additional cost to the Contractor, the City and Contractor may renegotiate Contractor's compensation.

Self-insured Retentions. Any self-insured retentions must be declared to and approved by City. City reserves the right to require that self-insured retentions be eliminated,

lowered, or replaced by a deductible. Self-insurance will not be considered to comply with these specifications unless approved by the City.

Timely Notice of Claims. Contractor shall give City prompt and timely notice of claims made or suits instituted that arise out of or result from Contractor's performance under this Agreement, and that involve or may involve coverage under any of the required liability policies.

Additional Insurance. Contractor shall also procure and maintain, at its own cost and expense, any additional kinds of insurance, which in its own judgment may be necessary for its proper protection and prosecution of the work.

EXPERIENCE AND SAFETY

The successful bidder may be required to submit a statement attesting to its financial responsibility, technical ability, experience, and safety record.

PREVAILING WAGES

A. Wage rates for this Project shall be in accordance with the "General Wage Determination Made by the Director of Industrial Relations Pursuant To California Labor Code, Part 7, Chapter 1, Article 2, Sections 1770, 1773 and 1773.1 ", for Los Angeles County. Wage rates shall conform to those on file at City Hall and the Project site.

B. The following Labor Code sections are hereby referenced and made a part of this Agreement:

    (i) Section 1775, Penalty for Failure to Comply with Prevailing Wage Rates.

    (ii) Section 1777.4, Apprenticeship Requirements.

    (iii) Section 1777.5, Apprenticeship Requirements.

    (iv) Section 1813, Penalty for Failure to Pay Overtime.

    (v) Section 1810 and 1811, Working Hour Restrictions.

    (vi) Section 1775, Payroll Records.

    (vii) Section 1773.8, Travel and Subsistence Pay.

CONTRACTOR REGISTRATION PROGRAM

A contractor or subcontractor shall not be qualified to bid on, be listed in a bid proposal, subject to the requirements of Section 4104 of the Public Contract Code, or engage in the performance of any contract for public work, as defined in this chapter, unless currently registered and qualified to perform public work pursuant to Section

1725.5. ***Please note:*** *It is not a violation of this section for an unregistered contractor to submit a bid that is authorized by Section 7029.1 of the Business and Professions Code or by Section 10164 or 20103.5 of the Public Contract Code, provided the contractor is registered to perform public work pursuant to Section 1725.5 at the time the contract is awarded.* Any bids submitted without proof that bidder and any listed subcontractor(s) are currently registered and qualified to perform public work, pursuant to Labor Code Section 1725.5, may not be accepted by the City.

LABOR COMPLIANCE MONITORING AND ENFORCEMENT

The project is subject to compliance monitoring and enforcement by the Department of Industrial Relations (California Labor Code Section 1771.4).

AGREEMENT

When the award of a contract is made to a corporation, the Agreement must be signed by the Secretary/Treasurer of the corporation in addition to the signature of the President/Vice President, or the public agency needs to receive a copy of a resolution adopted by the Board of Directors of the corporation indicating that the party executing the contract has the authority to bind the corporation.

SURETY BONDS

All surety bonds issued in connection with projects for public works must be accompanied by a power of attorney from the surety company authorizing the person executing the bond to sign on behalf of the company. The power of attorney and the bonds must be executed by the same person, and such signatures shall be notarized.

By the order of the **CITY OF INDUSTRY** dated **October 8, 2020**.

_____

Julie Gutierrez-Robles, City Clerk

EXHIBIT D

Reduced Set of Project Plans

[Attached]

CITY OF INDUSTRY
IMPROVEMENT PROJECT NO. 460

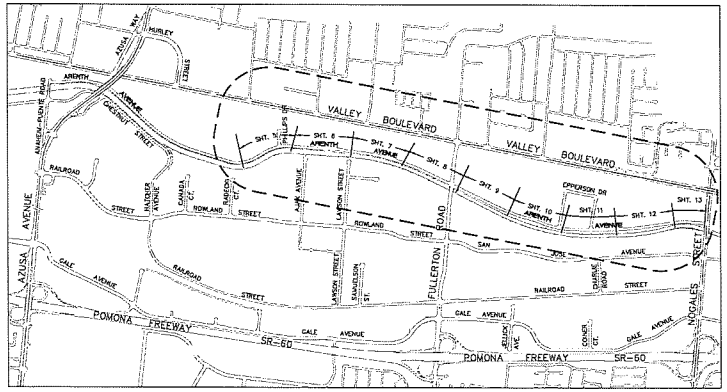
ARENTH AVENUE STREET IMPROVEMENT
PHILLIPS DRIVE TO NOGALES STREET

GENERAL NOTES

1. UNLESS OTHERWISE NOTED, ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, CURRENT EDITION WITH ALL CURRENT SUPPLEMENTS, PUBLISHED BY BUILDING NEWS INC., LOCATED AT 990 PARK CENTER DRIVE, SUITE E, VISTA, CA 92081 AND APPROPRIATE STANDARD DRAWINGS.
2. PRIOR TO BEGINNING OF ANY WORK, OBTAIN A PERMIT FROM THE CITY OF INDUSTRY, 15625 E. STAFFORD STREET, CITY OF INDUSTRY, CA 91744, (626) 333-2211.
3. ALL WORK COVERED BY THIS PLAN SHALL BE INSPECTED BY THE CITY ENGINEER. REQUEST FOR INSPECTION SERVICE SHALL BE MADE 24-HOURS IN ADVANCE AT (626) 333-0336.
4. STREET IMPROVEMENT CONSTRUCTION SHALL BE DONE ACCORDING TO THE STANDARD PLANS OF THE CITY OF INDUSTRY, AVAILABLE AT THE OFFICE OF THE CITY ENGINEER AT 15625 E. STAFFORD STREET, CITY OF INDUSTRY, CA. 91744, (626) 333-2211.
5. WORK IN EXISTING STREETS SHALL BE COMPLETED AS SOON AS POSSIBLE TO MINIMIZE INCONVENIENCE TO ADJACENT PROPERTY OWNERS AND THE TRAVELING PUBLIC. FAILURE TO COMPLY WITH THIS REQUIREMENT IS A VIOLATION OF CITY ORDINANCE.
6. THE CONTRACTOR SHALL NOTIFY THE LOS ANGELES COUNTY FIRE DEPARTMENT (626) 968-1978 AND THE LOS ANGELES SHERIFF DEPARTMENT (626) 330-3322 AT THE CITY OF INDUSTRY SUBSTATION AT LEAST 48-HOURS PRIOR TO START OF WORK.
7. 48-HOURS PRIOR TO ANY STREET WORK, THE CONTRACTOR SHALL CALL THE UNDERGROUND SERVICE ALERT AT 1 (800) 422-4133 AND OBTAIN AN INQUIRY IDENTIFICATION NUMBER.
8. ALL UTILITY TRENCHES IN PUBLIC STREETS OR FUTURE PUBLIC STREETS SHALL BE BACKFILLED WITH A CLEAN GRANULAR MATERIAL HAVING A MINIMUM SAND EQUIVALENT OF 30. BACKFILL SHALL BE COMPACTED TO A MINIMUM RELATIVE DENSITY OF 90 PERCENT.
9. THE OPTION OF USING SLAG OR CRUSHED MISC. BASE (CMB) IN LIEU OF CRUSHED AGGREGATE BASE FOR ANY STREET IMPROVEMENT IS NOT ALLOWED.
10. EXISTING CONCRETE IMPROVEMENTS AND ASPHALT CONCRETE PAVEMENT SHALL BE SAW CUT, FULL DEPTH, TO A TRUE LINE WHERE NEW CONCRETE OR ASPHALT IS TO JOIN.
11. ALL MANHOLES SHALL BE ADJUSTED TO FINISHED GRADE IN ACCORDANCE WITH SECTION 403 OF THE STANDARD SPECIFICATIONS. CONTRACTOR SHALL NOTIFY COUNTY SANITATION DISTRICT OF LOS ANGELES COUNTY (CSD), SUPERINTENDENT OF MAINTENANCE AT (626) 458-4357 A MINIMUM OF 48 HOURS PRIOR TO THE COMMENCEMENT OF ANY WORK IN THE AREA OF THEIR MANHOLES. CONTRACTOR SHALL ASSIST IN THE ADJUSTMENT OF MANHOLES IN ACCORDANCE WITH THEIR PROCEDURES S-1282, REV. 9/88.
12. THE CONTRACTOR SHALL PROTECT AND RESTORE EXISTING UTILITIES AND IMPROVEMENTS AS PER PART 4 OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.
13. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE ALL UTILITIES OF EVERY NATURE WHETHER SHOWN HEREON OR NOT TO PROTECT THEM FROM DAMAGE. THE CONTRACTOR SHALL BEAR THE TOTAL EXPENSE OF REPAIR OR REPLACEMENT OF SAID UTILITIES DAMAGED BY OPERATIONS IN CONNECTION WITH THE PROSECUTION OF THE WORK.
14. THE FOLLOWING IS A LIST OF THE UTILITY COMPANIES AND THE PERSONS TO CONTACT REGARDING THE RESPECTIVE UTILITIES WITHIN THE LIMITS OF THIS PROJECT:

MR. AMIN ABOULEHOUDA FRONTIER CALIFORNIA, INC.	(909) 649-6369
MR. ERIC DIXON SO. CALIFORNIA GAS COMPANY	(626) 855-9561
MR. MICHAEL BYRD (DISTRIBUTION) SO. CALIFORNIA EDISON COMPANY	(909) 592-3725
MR. DAVE SHUBIN ROWLAND WATER DISTRICT	(562) 690-7145
MR. ABDUL EDOUNI SANITATION DISTRICT OF L.A. COUNTY	(626) 962-8605 EXT 6204
MR. MICHAEL LAPEAUX KINDER MORGAN	(310) 930-3207

15. ALL SURVEY WORK SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. TWO COPIES OF THE STAKING SHEET MUST BE PROVIDED FOR REVIEW TO THE CITY ENGINEER'S OFFICE, AT LEAST TWENTY FOUR (24) HOURS PRIOR TO THE START OF CONSTRUCTION. ALL STAKING SHEETS MUST BE SIGNED BY A REGISTERED CIVIL ENGINEER.
16. ANY CONTRACTOR OR SUBCONTRACTOR PERFORMING WORK ON THIS PROJECT SHALL FAMILIARIZE HIMSELF WITH THE SITE AND SHALL BE SOLELY RESPONSIBLE FOR ANY DAMAGE TO EXISTING FACILITIES RESULTING DIRECTLY OR INDIRECTLY FROM HIS OPERATIONS, WHETHER OR NOT SUCH FACILITIES ARE SHOWN ON THESE PLANS.



VICINITY MAP
NOT TO SCALE

NOTICE TO CONTRACTOR

APPROVAL OF THIS PLAN BY THE ENGINEER AND CITY ENGINEER DOES NOT CONSTITUTE A REPRESENTATION AS TO THE ACCURACY OF THE LOCATION OF OR THE EXISTENCE OR NON-EXISTENCE OF ANY UNDERGROUND UTILITY PIPE OR STRUCTURE WITHIN THE LIMITS OF THIS PROJECT. THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITY PIPES OR STRUCTURES SHOWN ON THESE PLANS WERE OBTAINED BY A SEARCH OF AVAILABLE RECORDS.

CONSTRUCTION NOTES:

1. SAW CUT AND REMOVE EXISTING AC PAVEMENT INCLUDING BASE.
2. SAW CUT AND REMOVE EXISTING CURB AND GUTTER INCLUDING BASE.
3. NOT USED.
4. SAW CUT AND REMOVE EXISTING DRIVEWAY INCLUDING BASE.
5. SAW CUT AND REMOVE EXISTING SIDEWALK INCLUDING BASE.
6. REMOVE AC PAVEMENT TOP OF GUTTER AND PROTECT GUTTER SURFACE PER DETAIL "C" ON SHEET 3.
7. CONSTRUCT 3.5" AC (2" C2-PG 64-10 ON 1.5" B2-PG 64-10) OVER 6.5" CCPRAC? OVER 20" CSPS PER TYPICAL SECTION AND SPECIFICATIONS.
8. NOT USED.
9. CONSTRUCT TYPE A2 CURB AND GUTTER PER CITY OF INDUSTRY STD. PLAN NO. 112.
10. CONSTRUCT PCC DRIVEWAY PER SSPWC STD. PLAN NO. 110-2 (TYPE-B) AND PER DETAIL "D" ON SHEET 3.
11. CONSTRUCT PCC SIDEWALK INCLUDING BASE PER CITY OF INDUSTRY STD. PLAN NO. 113 AND SHEET 4.
12. COLDMILL 2" AND OVERLAY 2" AC (C2-PG 64-10). L=5'.
13. NOT USED.
14. RECONSTRUCT CSD SEWER MANHOLE FRAME AND COVER TO FINISH GRADE PER LA COUNTY SANITATION DISTRICT PROCEDURE.
15. INSTALL DETECTABLE WARNING SURFACE PER CALTRANS STD. PLAN ABBA.
16. ADJUST EXISTING WATER VALVE COVER TO GRADE.
17. SAW CUT, REMOVE AND RECONSTRUCT A PORTION OF CATCH BASIN APRON PER SPPWC STD. PLAN 313-3
18. SAW CUT, REMOVE EXISTING AC AND BASE AND RECONSTRUCT WITH 4" AC AND 8" BASE.
19. NOT USED.
20. FURNISH AND INSTALL CONNECTOR PIPE SCREEN (CPS) PER PROJECT SPECIFICATIONS.
21. FURNISH AND INSTALL AUTOMATIC RETRACTABLE SCREEN (ARS) PER PROJECT SPECIFICATIONS.
22. ADJUST WATER METER TO GRADE.
23. NOT USED.
24. NOT USED.
25. CONSTRUCT SIDEWALK AT OBSTRUCTION WIDENING PER CITY OF INDUSTRY STD. PLAN 115.
26. REMOVE TREE (SEE LANDSCAPING PLANS).
27. NOT USED.
28. REMOVE EXISTING METAL BOLLARD POST INCLUDING FOOTING.
29. CONSTRUCT PCC RETAINING CURB TRANSITION PER DETAIL "C" ON SHEET 3.
30. CONSTRUCT PCC RETAINING CURB PER DETAIL "E" ON SHEET 3.
51. INSTALL IN-LINE TERMINAL SYSTEM END TREATMENT TYPE 11A PER 2018 CALTRANS STD PLAN A77P1.
52. INSTALL MIDWEST GUARDRAIL SYSTEM TYPE 11A PER 2018 CALTRANS STD PLAN A77P1.
53. CONSTRUCT SHOULDER AND 3:1 MAX SLOPE EMBANKMENT PER GUARDRAIL DETAIL 1 ON SHEET 16.
54. MINOR REPAIR OF ERODED SLOPE PER GUARDRAIL DETAIL 2 ON SHEET 16.

Know what's below.
Call before you dig.

NO.	DATE	REVISIONS	CK. BY

CITY OF INDUSTRY
INCORPORATED JUNE 18, 1957
P.O. Box 3366, City of Industry, California 91744
Administrative Offices: 15625 E. Stafford Street
(626) 333-2211

Prepared by:
CNC
235 N Hacienda Blvd | Ste 222
City of Industry | CA | 91744
P | 626.333.0336
www.cnc-eng.com
ENGINEERING | SURVEYING | CONSTRUCTION

REGISTERED PROFESSIONAL ENGINEER UPENDRA L. JOSHI NO. 72535 CIVIL STATE OF CALIFORNIA
UPENDRA L. JOSHI, P.E. 72535 DATE

CITY OF INDUSTRY

APPROVED BY:

JOSHUA L. NELSON, P.E. CITY ENGINEER DATE | TROY HELLING CITY MANAGER DATE

ARENTH AVENUE STREET IMPROVEMENT
PHILLIPS DRIVE TO NOGALES STREET

TITLE SHEET, VICINITY MAP, GENERAL NOTES, CONSTRUCTION NOTES AND NOTICE TO CONTRACTOR

DESIGNED BY: P.L.	CHECKED BY: U.J.	JOB NO. MP 14-12	SHEET 1 OF 16
DRAFTED BY: R.L.L.	DATE: JUNE 2020	CONTRACT NO. CITY-1460	

CONTRACT DRAWING 1 OF 60

K:\CITY\C-1460 Arenth Ave Street Improvement - Phillips Dr to Nogales St\sheets\CITY-1460_Sht 1_Title Sheet.dwg
9/23/2020 10:53 AM

INDEX OF DRAWINGS

CONTRACT DWG. NO.	SHEET NO.	DESCRIPTION
1 OF 60	1 OF 16	TITLE SHEET, VICINITY MAP, GENERAL NOTES, CONSTRUCTION NOTES AND NOTICE TO CONTRACTOR
DETAILS		
2 OF 60	2 OF 16	INDEX OF DRAWINGS, ABBREVIATION, LEGEND AND CONSTRUCTION DETAIL
3 OF 60	3 OF 16	CONSTRUCTION DETAIL AND LEGEND
4 OF 60	4 OF 16	SIDEWALK GRADING PLAN
PLAN AND PROFILE		
5 OF 60	5 OF 16	PLAN AND PROFILE – STA. 50+09.00 TO STA. 54+00.00
6 OF 60	6 OF 16	PLAN AND PROFILE – STA. 54+00.00 TO STA. 65+00.00
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8 OF 60	8 OF 16	PLAN AND PROFILE – STA. 76+00.00 TO STA. 81+75.00
9 OF 60	9 OF 16	PLAN AND PROFILE – STA. 89+00.00 TO STA. 98+00.00
10 OF 60	10 OF 16	PLAN AND PROFILE – STA. 98+00.00 TO STA. 108+50.00
11 OF 60	11 OF 16	PLAN AND PROFILE – STA. 108+50.00 TO STA. 119+50.00
12 OF 60	12 OF 16	PLAN AND PROFILE – STA. 119+50.00 TO STA. 130+50.00
13 OF 60	13 OF 16	PLAN AND PROFILE – STA. 130+50.00 TO STA. 136+46.00
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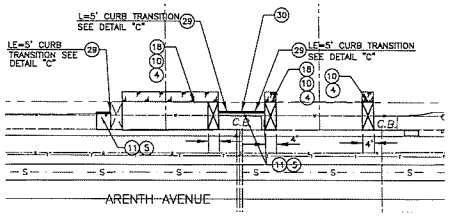
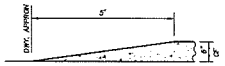
60 OF 60	E31 OF E31	WIRING DIAGRAM FOR STREET LIGHTING AND PRIMARY CABLE SCHEDULE



DETAIL "A" – SIDEWALK BACK CURB ■ STA 94+00±

NOT TO SCALE



5' TYPICAL CURB FACE TRANSITION

NOT TO SCALE

DETAIL "C" – CURB TRANSITION

NOT TO SCALE

ABBREVIATION:

A.C.	ASPHALT CONCRETE
BCR	BEGIN CURVE RETURN
BW	BACK OF WALK
C&G	CURB AND GUTTER
CB	CATCH BASIN
CCPRACP	COLD CENTRAL PLANT RECYCLED AC PAVEMENT
CF	CURB FACE
CL	CHAINLINK
CONSTR.	CONSTRUCTION
CSD	COUNTY STORM DRAIN
CSPS	CEMENT STABILIZED PULVERIZED SUBGRADE
DWY	DRIVEWAY
ECR	END CURVE RETURN
	EXISTING GRADE, EDGE OF GUTTER
ELEC.	ELECTRICAL
EP	EDGE OF PAVEMENT
EX./EXIST.	EXISTING
FL	FLOW LINE
FS	FINISHED SURFACE
GB	GRADE BREAK
HP	HIGH POINT
JPCP	JOINTED PLANE CONCRETE PAVEMENT
L	LEFT
LE	LENGTH
LACDPW	LOS ANGELES COUNTY OF PUBLIC WORKS
MAX	MAXIMUM
MH	MANHOLE
N.G.	NATURAL GROUND
PROP.	PROPOSED
PVMNT.	PAVEMENT
R	RIGHT
RCP	REINFORCED CONCRETE PIPE
R/W	RIGHT OF WAY
SCE	SOUTHERN CALIFORNIA EDISON
SD	STORM DRAIN
SPPWC	STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION
STD	STANDARD
S/W	PCC SIDEWALK
TC	TOP OF CURB
TX	TOP OF CURB AT BOTTOM OF RAMP
TYP	TYPICAL

LEGEND:

- EXIST. POWER POLE
- EXIST. TEL. POLE
- EXIST. SIGN
- PB EXIST. ELECTRICAL PULL BOX
- PB EXIST. TELEPHONE PULL BOX
- CB EXIST. CATCH BASIN
- EXIST. FIRE HYDRANT
- EXIST. WATER VALVE
- EXIST. SEWER MANHOLE
- EXIST. TELEPHONE MANHOLE
- EXIST. DRAIN MANHOLE
- EXIST. DRIVEWAY
- NEW DRIVEWAY
- NEW C&G
- NEW C.L. FENCE
- EXIST. TRAFFIC SIGNAL WITH LUMINAIRE
- EXIST. TRAFFIC SIGNAL
- EXIST. STREET LIGHT
- NEW JOINT PLANE CONCRETE PAVEMENT
- COLDMILL AND OVERLAY
- E TO BE ADJUSTED BY SCE
- P PROTECT IN PLACE
- F TO BE ADJUSTED BY FRONTIER CALIFORNIA, INC.

CONSTRUCTION NOTES:

4. SAW CUT AND REMOVE EXISTING DRIVEWAY INCLUDING BASE.
5. SAW CUT AND REMOVE EXISTING SIDEWALK INCLUDING BASE.
10. CONSTRUCT PCC DRIVEWAY PER CITY OF INDUSTRY STD. PLAN NO. 114 AND MATCH EXISTING PER DETAIL "B" ON SHEET 3.
11. CONSTRUCT PCC SIDEWALK INCLUDING BASE PER CITY OF INDUSTRY STD. PLAN NO. 115 AND SHEET 4.
18. SAW CUT, REMOVE EXISTING AC AND BASE AND RECONSTRUCT WITH 4" AC AND 8" BASE.
29. CONSTRUCT PCC RETAINING CURB TRANSITION PER DETAIL "C" ON SHEET 3.
30. CONSTRUCT PCC RETAINING CURB PER DETAIL "E" ON SHEET 3.

P PROTECT IN PLACE.

NO.	DATE	REVISIONS	CK. BY

Prepared by:

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ENGINEERING | SURVEYING | CONSTRUCTION

UPENDRA L. JOSHI, P.E. 72535 DATE

CITY OF INDUSTRY

APPROVED BY:

JOSHUA L. NELSON, R.C.E. 66958 CITY ENGINEER DATE

ARENTH AVENUE STREET IMPROVEMENT
PHILLIPS DRIVE TO NOGALES STREET

INDEX OF DRAWING, ABBREVIATION, LEGEND AND CONSTRUCTION DETAIL

DESIGNED BY:	P.L.	CHECKED BY:	U.J.	JOB NO.	MP 14-12	SHEET 2 OF 16
DRAFTED BY:	R.L.I.	DATE:	JUNE 2020	CONTRACT NO.	CITY-1460	

CONTRACT DRAWING 2 OF 60

K:\CITY\C-1460 Arenth Ave Street Improvement - Phillips Dr to Nogales St\sheets\CITY-1460_Sht 2_Index of Drawing and Construction Detail.dwg

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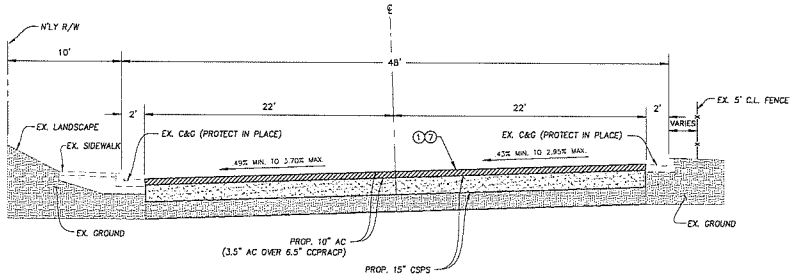
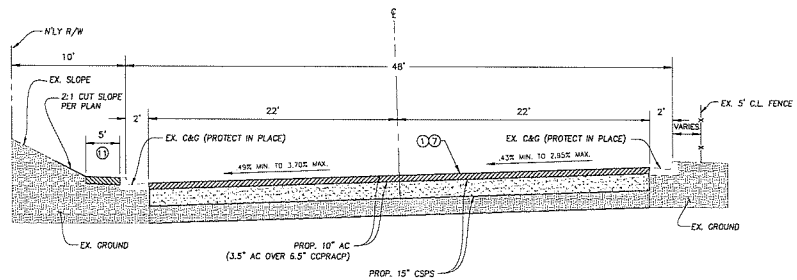


ARENTH AVENUE TYPICAL SECTION - AC CONSTRUCTION

NOT TO SCALE

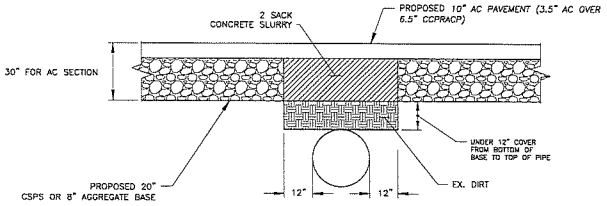
STA. 50+09.00 TO STA. 52+97.00
STA. 55+89.00 TO STA. 63+69.00
STA. 72+35.00 TO STA. 81+75.00
STA. 89+00.00 TO STA. 136+96.00



ARENTH AVENUE TYPICAL SECTION - AC AND SIDEWALK

NOT TO SCALE

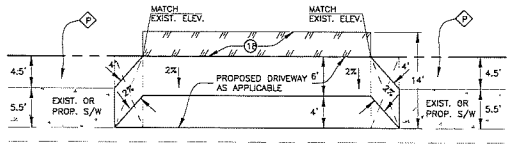
STA. 52+97.00 TO STA. 55+89.00
STA. 63+69.00 TO STA. 72+35.00



TYPICAL CONCRETE SLURRY DETAIL

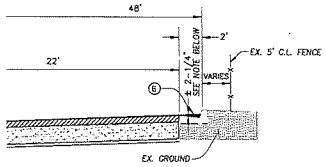
NOT TO SCALE

SHALLOW UTILITY PROTECTION DETAIL



DETAIL "D"- PROPOSED DRIVEWAY AC PAVEOUT (TYP)

NOT TO SCALE



NOTES:

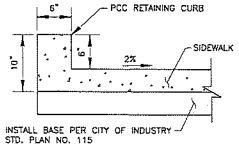
CONTRACTOR SHALL REMOVE AC PAVING ON TOP OF EXISTING SOUTH GUTTER BEING CAREFUL NOT TO DAMAGE EXISTING C&G.

AC PAVEMENT ON THE EXISTING GUTTER OR CONCRETE DRIVEWAY SHALL BE COMPLETELY REMOVED BY HEATING WITH A TORCH TO SOFTEN THE PAVEMENT. SOFTENING SHALL BE PERFORMED UNTIL THE BITUMINOUS MATERIALS CAN BE EASILY SCRAPED AWAY FROM THE UNDERLYING CONCRETE GUTTER.

DETAIL "G" - ARENTH AVENUE TYPICAL SECTION FOR EXISTING AC GUTTER OVERLAY

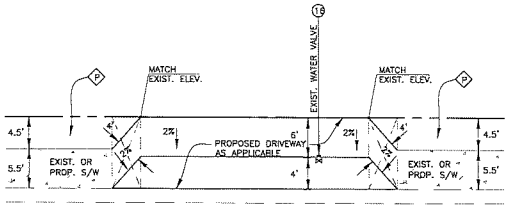
NOT TO SCALE

STA. 50+09 TO STA. 59+00
STA. 76+50 TO STA. 81+31



DETAIL "E" - RETAINING CURB

NOT TO SCALE



DETAIL "F"- STA. 91+62.64

NOT TO SCALE

CONSTRUCTION NOTES:

1. *SAW CUT AND REMOVE EXISTING AC PAVEMENT INCLUDING BASE.*
6. *REMOVE AC PAVEMENT TOP OF GUTTER AND PROTECT GUTTER SURFACE PER DETAIL "G" ON SHEET 3.*
7. *CONSTRUCT 3.5" AC (2" C2-PG 64-10 ON 1.5" B2-PG 64-10) OVER 6.5" CCPRACP OVER 20" CSPS PER TYPICAL SECTION AND SPECIFICATIONS.*
11. *CONSTRUCT PCC SIDEWALK INCLUDING BASE PER CITY OF INDUSTRY STD. PLAN NO. 115 AND SHEET 4.*

P *PROTECT IN PLACE.*

NO.	DATE	REVISIONS	CK. BY

REGISTERED PROFESSIONAL ENGINEER UPENDRA L. JOSHI NO. 72535 CIVIL STATE OF CALIFORNIA

UPENDRA L. JOSHI, P.E. 72535 DATE

Prepared by:

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CITY OF INDUSTRY

APPROVED BY:

JOSHUA L. NELSON, R.C.E. 66909 — CITY ENGINEER — DATE

ARENTH AVENUE STREET IMPROVEMENT
PHILLIPS DRIVE TO NOGALES STREET

TYPICAL SECTIONS AND CONSTRUCTION DETAIL

DESIGNED BY:	P.L.	CHECKED BY:	U.J.	JOB NO.	MP 14-12	SHEET 3 OF 16
DRAFTED BY:	R.L.I.	DATE:	JUNE 2020	CONTRACT NO.	CITY-1460	

CONTRACT DRAWING 3 OF 60

K:\CITY\C-1460 Arenth Ave Street Improvement - Phillips Dr to Nogales St\sheets\CITY-1460_Sht 3_Typical Section and Construction Detail.dwg

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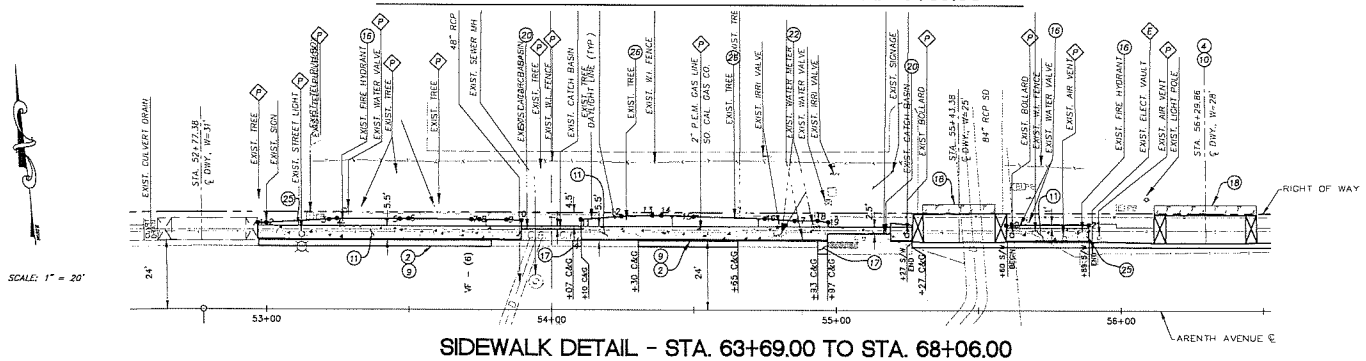
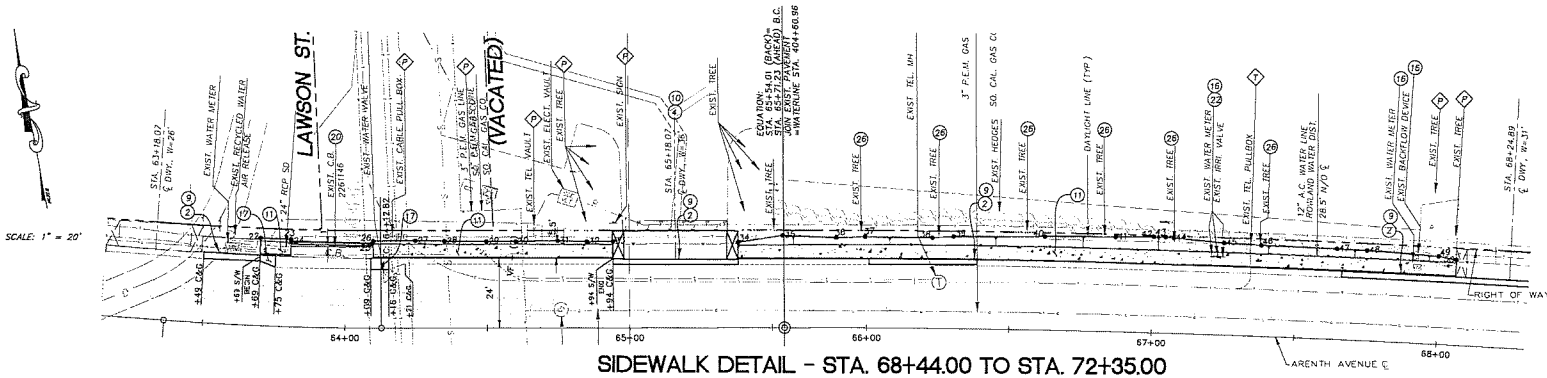
SIDEWALK DETAIL - STA. 52+97.00 TO STA. 55+89.00

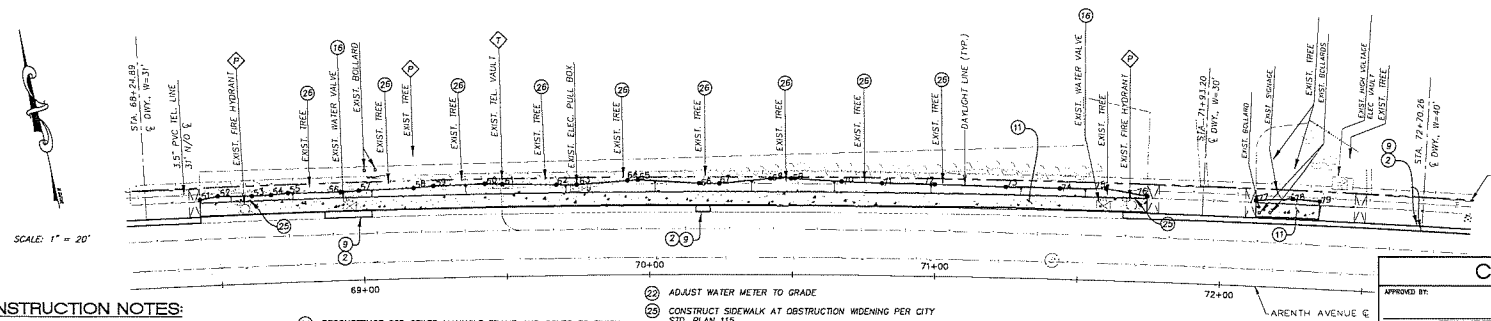


SIDEWALK DETAIL - STA. 63+69.00 TO STA. 68+06.00



SIDEWALK DETAIL - STA. 68+44.00 TO STA. 72+35.00

SCALE: 1"= 20'



POINT #	STATION	OFFSET (FT)	ELEV.
1	52+97.03	30.29	380.68'
2	53+00.03	30.31	380.75'
3	53+21.98	31.58	381.37'
4	53+24.79	31.84	381.50'
5	53+46.55	31.79	381.36'
6	53+49.87	31.90	381.40'
7	53+71.96	31.67	381.25'
8	53+74.81	31.66	381.24'
9	53+84.26	31.54	381.18'
10	53+89.53	31.36	381.10'
11	54+10.44	31.66	381.21'
12	54+24.69	32.86	381.87'
13	54+35.47	33.19	382.00'
14	54+38.67	33.19	381.98'
15	54+50.06	32.83	381.89'
16	54+75.03	32.16	381.79'
17	54+85.45	31.38	381.49'
18	54+93.58	31.40	381.55'
19	54+97.25	30.89	381.47'
20	55+59.76	29.92	381.24'
21	55+88.77	30.03	381.53'
22	63+69.43	30.76	388.59'
23	63+80.49	30.72	388.81'
24	63+80.48	30.02	388.79'
25	64+10.01	29.83	389.66'
26	64+10.17	30.48	389.66'
27	64+25.04	30.59	389.98'
28	64+35.18	30.50	390.13'
29	64+49.93	30.35	390.31'
30	64+60.22	30.37	390.47'
31	64+74.97	30.57	390.79'
32	64+85.18	30.25	390.75'
33	64+94.36	30.33	390.76'
34	65+38.14	29.95	391.25'
35	65+53.93	32.39	392.57'
36	65+89.56	31.57	392.35'
37	65+99.62	31.98	392.64'
38	66+23.09	31.80	392.53'
39	66+30.46	32.30	392.75'
40	66+62.24	32.86	393.24'

POINT #	STATION	OFFSET (FT)	ELEV.
41	66+87.00	33.25	393.33'
42	67+00.22	33.68	393.32'
43	67+04.29	33.72	393.42'
44	67+07.16	33.52	393.37'
45	67+24.75	32.34	393.31'
46	67+37.71	31.95	393.16'
47	67+64.06	31.85	393.14'
48	67+74.59	31.73	393.16'
49	67+99.56	30.90	392.73'
50	68+05.80	30.01	392.36'
51	68+43.66	30.04	392.61'
52	68+49.86	31.02	393.15'
53	68+61.77	30.64	393.01'
54	68+68.44	30.73	393.09'
55	68+74.31	31.20	393.34'
56	68+92.71	30.90	393.20'
57	68+99.05	31.23	393.45'
58	69+18.17	31.56	393.72'
59	69+25.03	32.09	394.02'
60	69+42.96	32.51	394.23'
61	69+49.18	32.30	394.18'
62	69+67.86	31.72	393.92'
63	69+74.97	31.69	393.95'
64	69+92.68	32.98	394.63'
65	69+96.25	33.18	394.74'
66	70+17.60	31.91	394.24'
67	70+24.58	31.84	394.24'
68	70+42.42	33.61	395.21'
69	70+49.61	33.69	395.29'
70	70+67.30	32.70	394.84'
71	70+81.31	32.30	394.66'
72	70+99.72	32.15	394.61'
73	71+24.54	31.75	394.37'
74	71+43.38	31.74	394.60'
75	71+59.44	32.15	394.93'
76	71+73.83	30.02	392.93'
77	72+11.80	30.09	394.08'
78	72+24.58	31.11	394.61'
79	72+33.89	30.70	394.35'

LEGEND:

- (P) PROTECT IN PLACE
- (T) TO BE ADJUSTED BY THE TELEPHONE COMPANY
- (E) TO BE ADJUSTED BY SCE

CONSTRUCTION NOTES:

(2) SAW CUT AND REMOVE EXISTING CURB AND GUTTER INCLUDING BASE.

(4) SAW CUT AND REMOVE EXISTING DRIVEWAY INCLUDING BASE.

(9) CONSTRUCT TYPE A2 CURB AND GUTTER PER CITY OF INDUSTRY STD. PLAN NO. 112.

(10) CONSTRUCT PCC DRIVEWAY PER SSPWC STD. PLAN NO. 110-2 (TYPE-B) AND PER DETAIL "D" ON SHEET 3.

(11) CONSTRUCT PCC SIDEWALK PER CITY OF INDUSTRY STD. PLAN NO. 115 AND SHEET 4.

(14) RECONSTRUCT CSD SEWER MANHOLE FRAME AND COVER TO FINISH GRADE PER LA COUNTY SANITATION DISTRICT PROCEDURE.

(16) ADJUST EXISTING WATER VALVE COVER TO GRADE

(17) SAW CUT, REMOVE AND RECONSTRUCT CATCH BASIN APRON PER SPPWC STD. PLAN 313-3

(18) SAW CUT, REMOVE EXISTING AC AND BASE AND RECONSTRUCT WITH 4" AC AND 8" BASE.

(20) FURNISH AND INSTALL CONNECTOR PIPE SCREEN (CPS) PER PROJECT SPECIFICATIONS

(22) ADJUST WATER METER TO GRADE

(25) CONSTRUCT SIDEWALK AT OBSTRUCTION WIDENING PER CITY STD. PLAN 115.

(26) REMOVE TREE

NO.	DATE	REVISIONS	CK. BY

REGISTERED PROFESSIONAL ENGINEER UPENDRA L. JOSHI NO. 72535 CIVIL STATE OF CALIFORNIA

UPENDRA L. JOSHI, P.E. 72535 DATE

Prepared by:

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CITY OF INDUSTRY

APPROVED BY:

JOSHUA L. NELSON, R.C.E. 66959 — CITY ENGINEER — DATE

ARENTH AVENUE STREET IMPROVEMENT
PHILLIPS DRIVE TO NOGALES STREET

SIDEWALK DETAIL PLAN

DESIGNED BY:	P.L.	CHECKED BY:	U.J.	JOB NO.	MP 14-12	SHEET 4 OF 16
DRAFTED BY:	R.L.L.	DATE:	JUNE 2020	CONTRACT NO.	CITY-1460	

CONTRACT DRAWING 4 OF 60

K:\CITY\C-1460 Arenth Ave Street Improvement - Phillips Dr to Nogales St\sheets\CITY-1460_Sht 4_Sidewalk Details Plan.dwg

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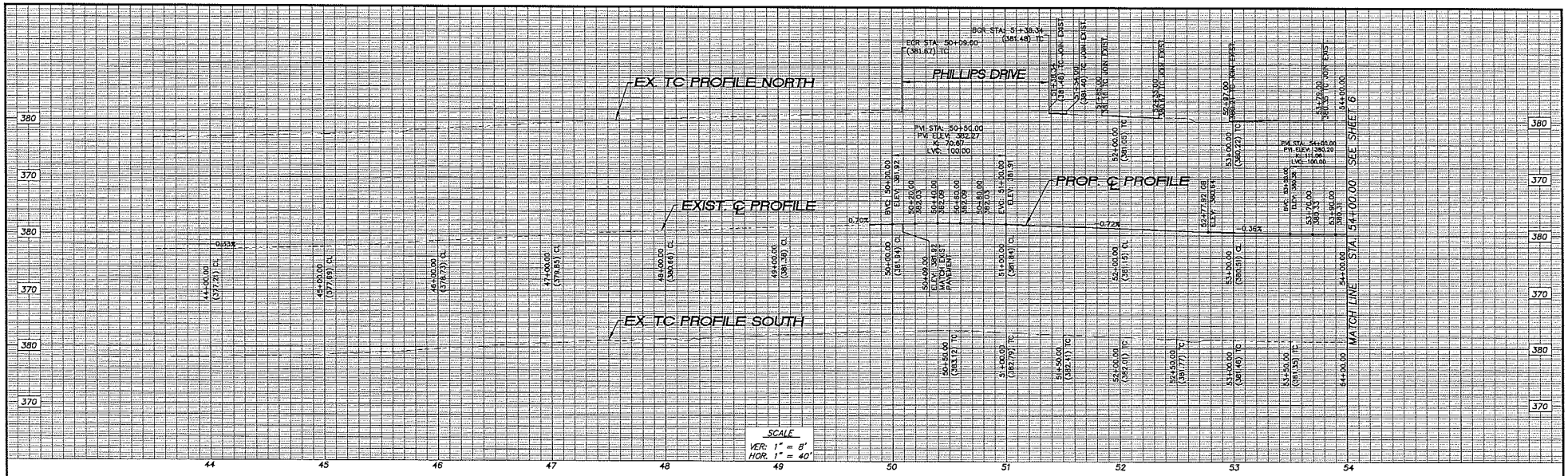

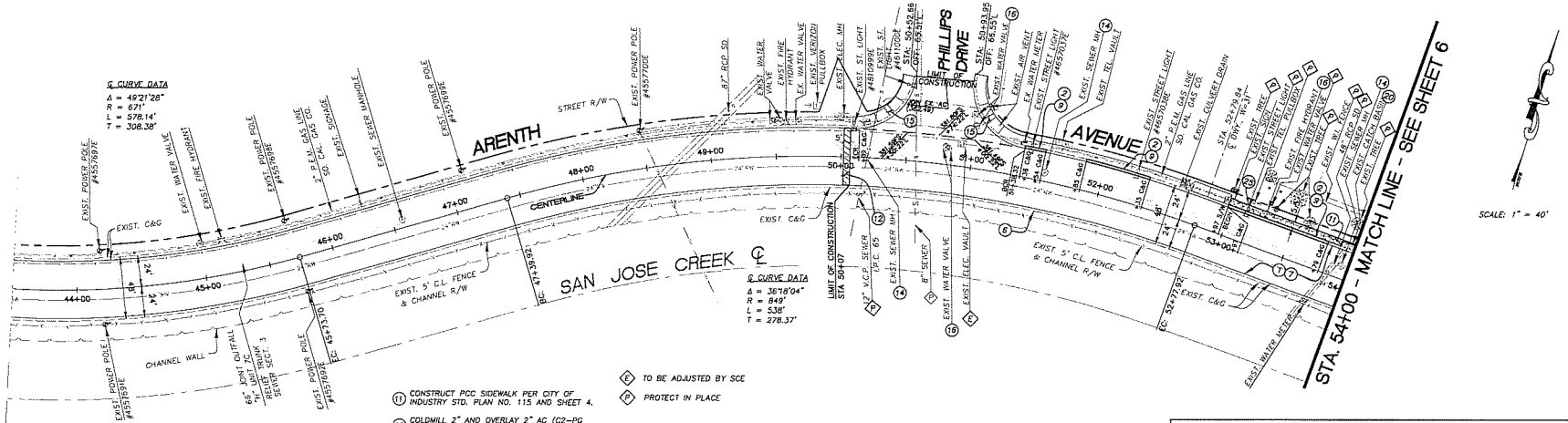

CONSTRUCTION NOTES:

1. SAW CUT AND REMOVE EXISTING AC PAVEMENT INCLUDING BASE.
2. SAW CUT AND REMOVE EXISTING CURB AND GUTTER INCLUDING BASE.
6. REMOVE AC PAVEMENT TOP OF GUTTER AND PROTECT GUTTER SURFACE PER DETAIL "G" ON SHEET 3.
7. CONSTRUCT 3.5" AC (2" C2-PG 64-10 ON 1.5" B2-PG 64-10) OVER 6.5" CCPRACP OVER 20" CSPS PER TYPICAL SECTION AND SPECIFICATIONS.
9. CONSTRUCT TYPE A2 CURB AND GUTTER PER CITY OF INDUSTRY STD. PLAN NO. 112.
11. CONSTRUCT PCC SIDEWALK PER CITY OF INDUSTRY STD. PLAN NO. 115 AND SHEET 4.
12. COLDMILL 2" AND OVERLAY 2" AC (C2-PG 64-10), L=5'.
14. RECONSTRUCT CSD SEWER MANHOLE FRAME AND COVER TO FINISH GRADE PER LA COUNTY SANITATION DISTRICT PROCEDURE.
15. INSTALL DETECTABLE WARNING SURFACE PER CALTRANS ST. PLAN ABBA.
16. ADJUST EXISTING WATER VALVE COVER TO GRADE.
20. FURNISH AND INSTALL CONNECTOR PIPE SCREEN (CPS) PER PROJECT SPECIFICATIONS.
25. CONSTRUCT SIDEWALK AT OBSTRUCTION WIDENING PER CITY STD. PLAN 115.

(E) TO BE ADJUSTED BY SCE
(P) PROTECT IN PLACE

BENCHMARK
B.M. AR-1 ELEV. 370.588 FT
B.C. MON. IN N. C.B. OF ARENTH RD.
1 FT. W. OF PP# 1862151E; E. OF
ANAHEIM PUENTE RD. @ STA. 5+18
INDUSTRY, CA

NO.	DATE	REVISIONS	CK. BY

REGISTERED PROFESSIONAL ENGINEER UPENDRA L. JOSHI NO. 72535 CIVIL STATE OF CALIFORNIA

Prepared by:
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ENGINEERING | SURVEYING | CONSTRUCTION
UPENDRA L. JOSHI, P.E. 72535 DATE

CITY OF INDUSTRY

APPROVED BY:
JOSHUA L. NELSON, R.C.E. 66956 CITY ENGINEER DATE

ARENTH AVENUE STREET IMPROVEMENT
PHILLIPS DRIVE TO NOGALES STREET

PLAN AND PROFILE
STA. 50+00.00 TO STA 54+00.00

DESIGNED BY: P.L.	CHECKED BY: U.J.	JOB NO. MP 14-12	SHEET 5 OF 16
DRAFTED BY: R.L.I.	DATE: JUNE 2020	CONTRACT NO. CITY-1460	

CONTRACT DRAWING 5 OF 60

K:\CITY\C-1460 Arenth Ave Street Improvement - Phillips Dr to Nogales St\sheets\CITY-1460_Sht 5_Plan and Profile_STA. 50+00.00 to 54+00.00.dwg
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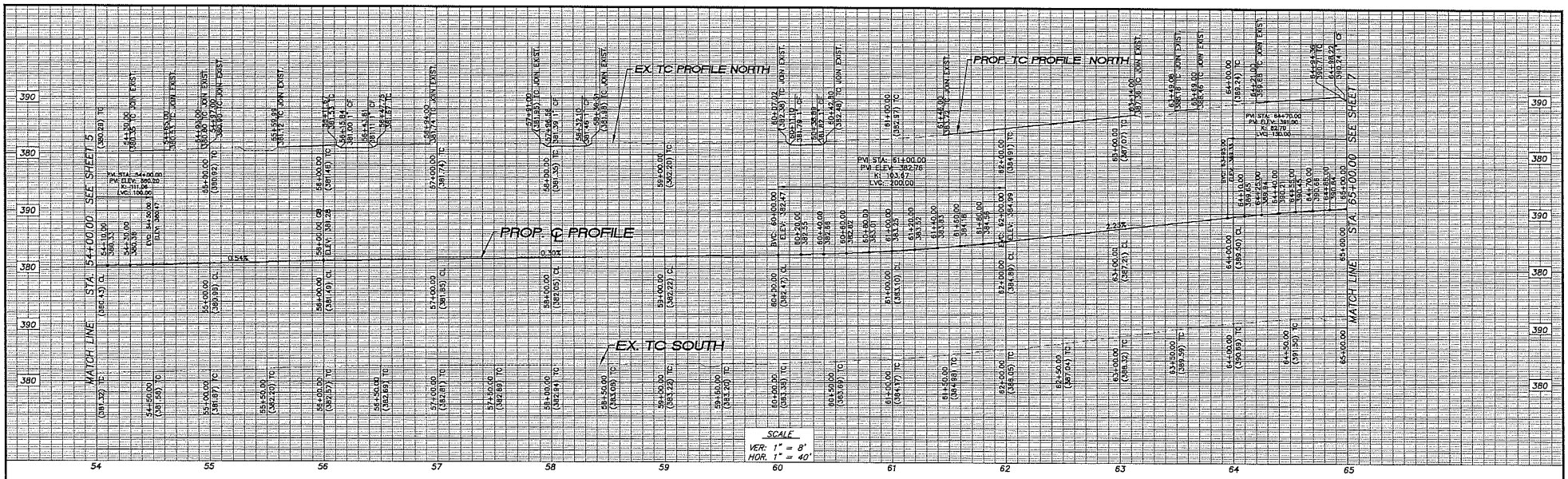

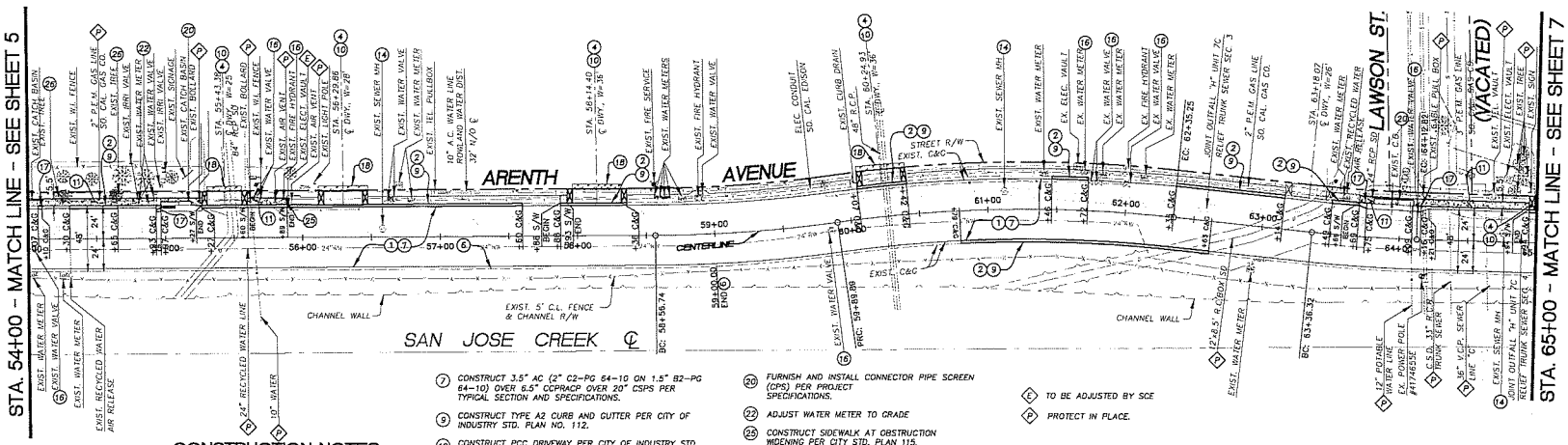

CONSTRUCTION NOTES:

1. SAW CUT AND REMOVE EXISTING AC PAVEMENT INCLUDING BASE.
2. SAW CUT AND REMOVE EXISTING CURB AND GUTTER INCLUDING BASE.
4. SAW CUT AND REMOVE EXISTING DRIVEWAY INCLUDING BASE.
6. REMOVE AC PAVEMENT TOP OF GUTTER AND PROTECT GUTTER SURFACE PER DETAIL "C" ON SHEET 3.
7. CONSTRUCT 3.5" AC (2" C2-PG 64-10 ON 1.5" B2-PG 64-10) OVER 6.5" CCPRACP OVER 20" CSPS PER TYPICAL SECTION AND SPECIFICATIONS.
9. CONSTRUCT TYPE A2 CURB AND GUTTER PER CITY OF INDUSTRY STD. PLAN NO. 112.
10. CONSTRUCT PCC DRIVEWAY PER CITY OF INDUSTRY STD. PLAN NO. 114 AND MATCH EXISTING PER DETAIL "D" ON SHEET 3.
11. CONSTRUCT PCC SIDEWALK PER CITY OF INDUSTRY STD. PLAN NO. 115 AND SHEET 4.
14. RECONSTRUCT CSD SEWER MANHOLE FRAME AND COVER TO FINISH GRADE PER LA COUNTY SANITATION DISTRICT PROCEDURE.
15. ADJUST EXISTING WATER VALVE COVER TO GRADE.
17. SAW CUT, REMOVE AND RECONSTRUCT CATCH BASIN APRON PER SPPWC STD. PLAN 313-3.
18. SAW CUT, REMOVE EXISTING AC AND BASE AND RECONSTRUCT WITH 4" AC AND 8" BASE.
20. FURNISH AND INSTALL CONNECTOR PIPE SCREEN (CPS) PER PROJECT SPECIFICATIONS.
22. ADJUST WATER METER TO GRADE
25. CONSTRUCT SIDEWALK AT OBSTRUCTION WIDENING PER CITY STD. PLAN 115.
26. REMOVE TREE

(E) TO BE ADJUSTED BY SCE
(P) PROTECT IN PLACE.

BENCHMARK
B.M. AR-1 ELEV. 370.588 FT
B.C. MON. IN N. C.B. OF ARENTH RD.
1 FT. W. OF PP# 1862151E, E. OF
ANAHEIM PUENTE RD. @ STA. 5+18
INDUSTRY, CA

NO.	DATE	REVISIONS	CK. BY

Prepared by:
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NO. 72535
CIVIL
STATE OF CALIFORNIA
UPENDRA L. JOSHI, P.E. 72535 DATE

CITY OF INDUSTRY

APPROVED BY:
JOSHUA L. NELSON, R.C.E. 56959 CITY ENGINEER DATE

ARENTH AVENUE STREET IMPROVEMENT
PHILLIPS DRIVE TO NOGALES STREET

PLAN AND PROFILE
STA. 54+00.00 TO STA. 65+00.00

DESIGNED BY: P.L.	CHECKED BY: U.J.	JOB NO. MP 14-12	SHEET 6 OF 16
DRAFTED BY: R.L.L	DATE: JUNE 2020	CONTRACT NO. CITY-1460	

CONTRACT DRAWING 6 OF 60

K:\CITY\C-1460 Arenth Ave Street Improvement - Phillips Dr to Nogales S\Arenth\CITY-1460_Sht 6_Plan and Profile_STA. 54+00.00 to 65+00.00.dwg
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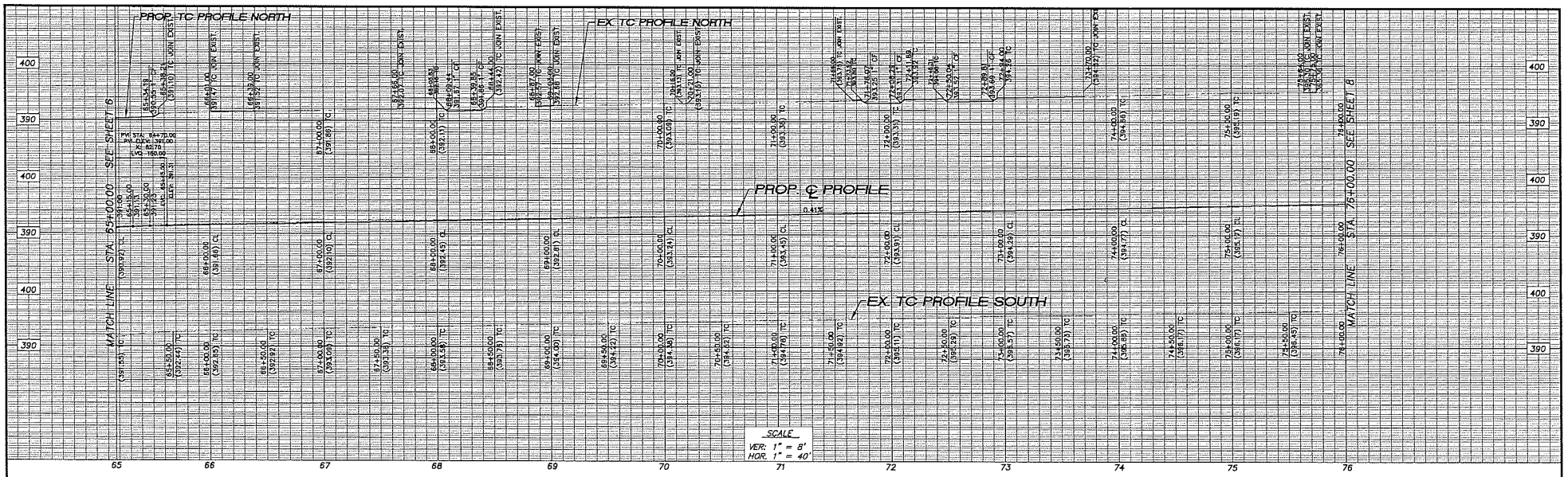
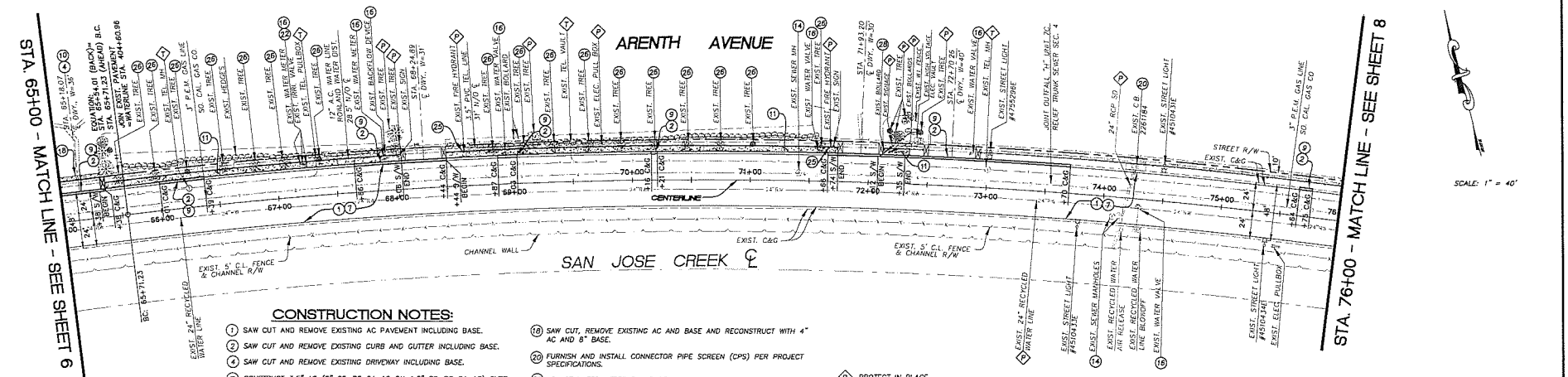




CONSTRUCTION NOTES:

1. SAW CUT AND REMOVE EXISTING AC PAVEMENT INCLUDING BASE.
2. SAW CUT AND REMOVE EXISTING CURB AND GUTTER INCLUDING BASE.
4. SAW CUT AND REMOVE EXISTING DRIVEWAY INCLUDING BASE.
7. CONSTRUCT 3.5" AC (2" C2-PG 64-10 ON 1.5" B2-PG 64-10) OVER 6.5" CCPRACP OVER 20" CSPS PER TYPICAL SECTION AND SPECIFICATIONS.
9. CONSTRUCT TYPE A2 CURB AND GUTTER PER CITY OF INDUSTRY STD. PLAN NO. 112.
10. CONSTRUCT PCC DRIVEWAY PER CITY OF INDUSTRY STD. PLAN NO. 114 AND MATCH EXISTING PER DETAIL "D" ON DRAWING SHEET 3.
11. CONSTRUCT PCC SIDEWALK PER CITY OF INDUSTRY STD. PLAN NO. 115 AND SHEET 4.
14. RECONSTRUCT CSD SEWER MANHOLE FRAME AND COVER TO FINISH GRADE PER LA COUNTY SANITATION DISTRICT PROCEDURE.
16. ADJUST EXISTING WATER VALVE COVER TO GRADE.
18. SAW CUT, REMOVE EXISTING AC AND BASE AND RECONSTRUCT WITH 4" AC AND 8" BASE.
20. FURNISH AND INSTALL CONNECTOR PIPE SCREEN (CPS) PER PROJECT SPECIFICATIONS.
22. ADJUST WATER METER TO GRADE.
23. CONSTRUCT SIDEWALK AT OBSTRUCTION WIDENING PER CITY STD. PLAN 115.
26. REMOVE TREE (SEE LANDSCAPING PLANS).
28. REMOVE EXISTING METAL BOLLARD POST INCLUDING BASE.

(P) PROTECT IN PLACE.

(T) TO BE ADJUSTED BY THE FRONTIER CALIFORNIA, INC.

NO.	DATE	REVISIONS	CK. BY

BENCHMARK
B.M. AR-1 ELEV. 370.588 FT
B.C. MON. IN N. C.B. OF ARENTH RD.
1 FT. W. OF PP# 1862151E; E. OF
ANAHEIM PUENTE RD. @ STA. 5+18
INDUSTRY, CA

Prepared by:
ACNC
ENGINEERING | SURVEYING | CONSTRUCTION
255 N Hacienda Blvd | Ste 222
City of Industry | CA | 91744
P | 626.333.0338
www.cnc-eng.com

REGISTERED PROFESSIONAL ENGINEER
UPENDRA L. JOSHI
NO. 72535
CIVIL
STATE OF CALIFORNIA
UPENDRA L. JOSHI, P.E. 72535 DATE

CITY OF INDUSTRY

APPROVED BY:

JOSHUA L. NELSON, R.C.E. 66959 CITY ENGINEER DATE

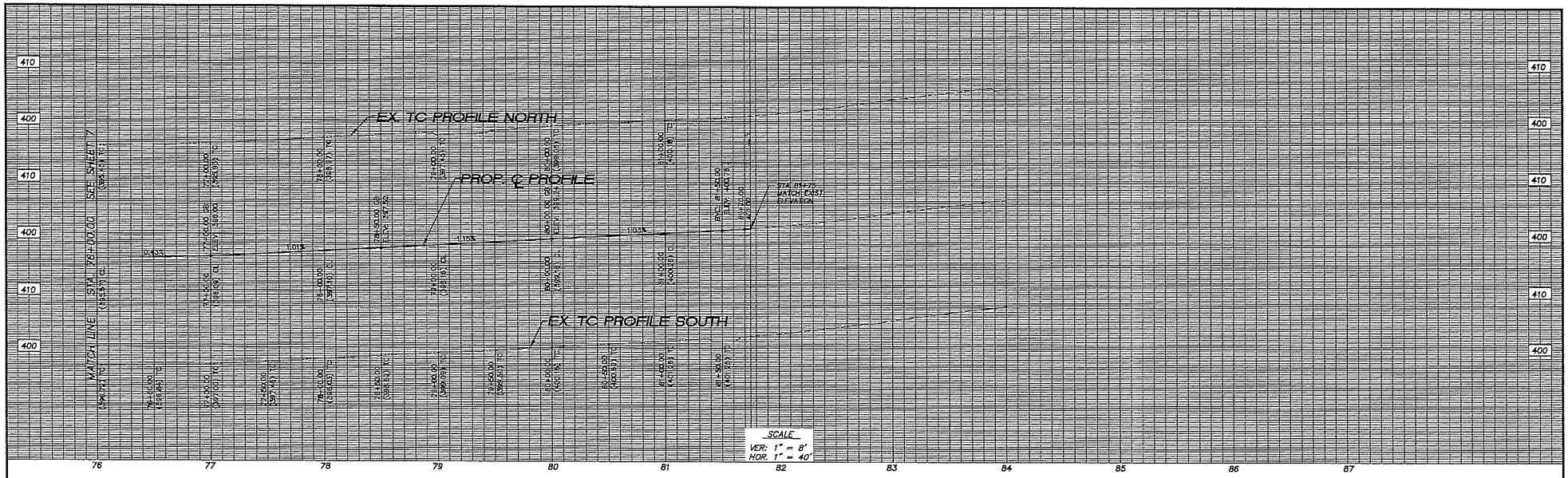
ARENTH AVENUE STREET IMPROVEMENT
PHILLIPS DRIVE TO NOGALES STREET

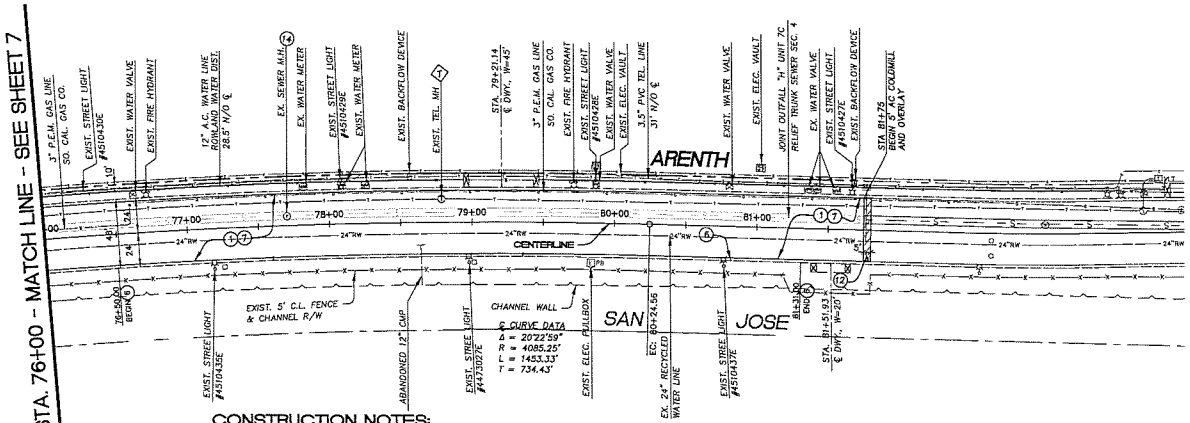
PLAN AND PROFILE
STA. 65+00.00 TO STA. 76+00.00

DESIGNED BY:	P.L.	CHECKED BY:	U.J.	JOB NO.	MP 14-12	SHEET 7 OF 16	
DRAFTED BY:	R.L.I.	DATE:	JUNE 2020	CONTRACT NO.	CITY-1460		

CONTRACT DRAWING 7 OF 60

K:\CITY\C-1460 Arenth Ave Street Improvement - Phillips Dr to Nogales St\Arenth\CITY-1460_SH 7_Plan and Profile_STA. 65+00.00 to 76+00.00.dwg
9/23/2020 11:32 AM





CONSTRUCTION NOTES:

1. SAW CUT AND REMOVE EXISTING AC PAVEMENT INCLUDING BASE.
6. REMOVE AC PAVEMENT TOP OF GUTTER AND PROTECT GUTTER SURFACE PER DETAIL "C" ON SHEET 3.
7. CONSTRUCT 3.5" AC (2" C2-PG 64-10 ON 1.5" B2-PG 64-10) OVER 6.5" CCPRACP OVER 20" CSPS PER TYPICAL SECTION AND SPECIFICATIONS.
12. COLDMILL 2" AND OVERLAY 2" AC (C2-PG 64-10), L=5'.
14. RECONSTRUCT CSD SEWER MANHOLE FRAME AND COVER TO FINISH GRADE PER LA COUNTY SANITATION DISTRICT PROCEDURE.

(T) TO BE ADJUSTED BY FRONTIER CALIFORNIA, INC.
(P) PROTECT IN PLACE.

BENCHMARK

B.M. AR-1 ELEV. 370.588 FT

B.C. MON. IN N. C.B. OF ARENTH RD. 1 FT. W. OF PP# 18821516; E. OF ANAHEIM PUENTE RD. @ STA. 5+18 INDUSTRY, CA

NO.	DATE	REVISIONS	CK. BY

Prepared by:

REGISTERED PROFESSIONAL ENGINEER UPENDRA L. JOSHI NO. 72535 CIVIL STATE OF CALIFORNIA

UPENDRA L. JOSHI, P.E. 72535 DATE

ACNC ENGINEERING | SURVEYING | CONSTRUCTION
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www.cnc-eng.com

CITY OF INDUSTRY

APPROVED BY:

JOSHUA L. NELSON, R.C.E. 66936 CITY ENGINEER DATE

ARENTH AVENUE STREET IMPROVEMENT
PHILLIPS DRIVE TO NOGALES STREET

PLAN AND PROFILE
STA. 76+00.00 TO STA. 81+75.00

DESIGNED BY:	P.L.	CHECKED BY:	U.J.	JOB NO.	MP 14-12	SHEET 8 OF 16
DRAFTED BY:	R.L.I.	DATE:	JUNE 2020	CONTRACT NO.	CITY-1460	

CONTRACT DRAWING 8 OF 60

K:\CITY\C-1460 Arenth Ave Street Improvement - Phillips Dr to Nogales St\phase1\CITY-1460_SN & Plan and Profile_STA. 76+00.00 to 81+00.00.dwg

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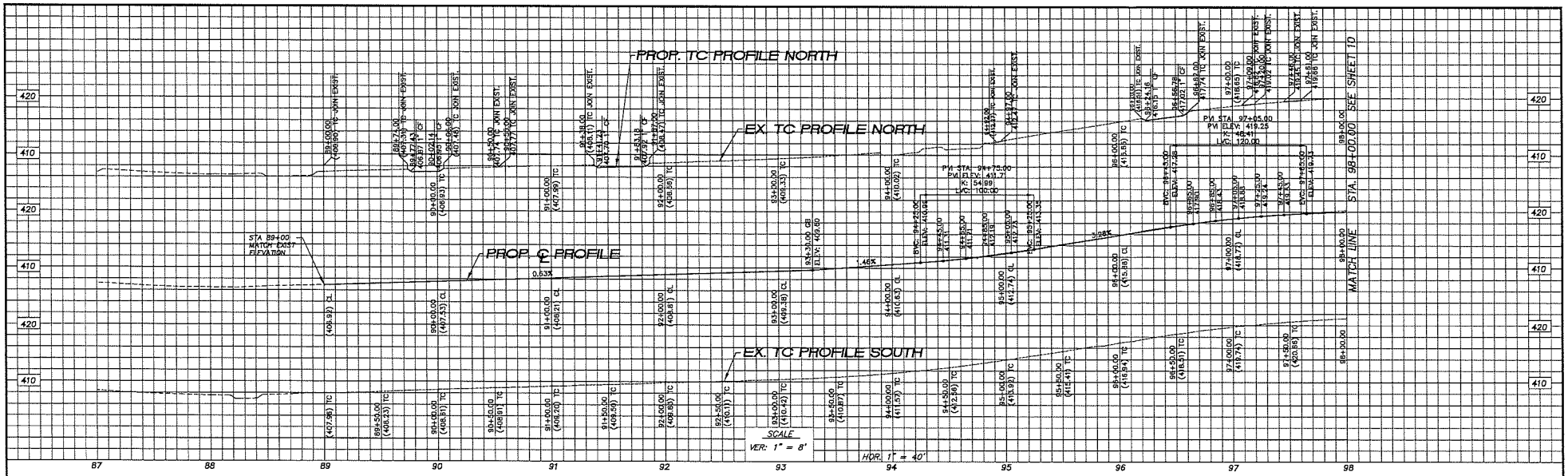

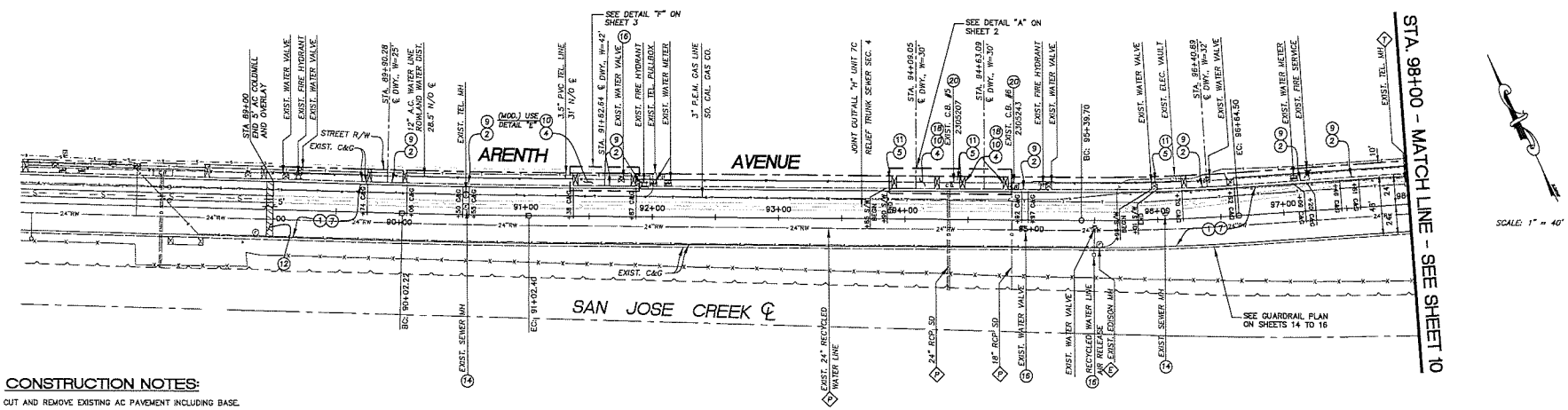

CONSTRUCTION NOTES:

1. SAW CUT AND REMOVE EXISTING AC PAVEMENT INCLUDING BASE.
2. SAW CUT AND REMOVE EXISTING CURB AND GUTTER INCLUDING BASE.
4. SAW CUT AND REMOVE EXISTING DRIVEWAY INCLUDING BASE.
5. SAW CUT AND REMOVE EXISTING SIDEWALK INCLUDING BASE.
7. CONSTRUCT 3.5" AC (2" C2-PG 64-10 ON 1.5" B2-PG 64-10) OVER 6.5" CCPRACP OVER 20" CSPS PER TYPICAL SECTION AND SPECIFICATIONS.
9. CONSTRUCT TYPE A2 CURB AND GUTTER PER CITY OF INDUSTRY STD. PLAN NO. 112.
10. CONSTRUCT PCC DRIVEWAY PER SSPWC STD. PLAN NO. 110-2 (TYPE B) AND PER DETAIL "D" ON SHEET 3.
11. CONSTRUCT PCC SIDEWALK PER CITY OF INDUSTRY STD. PLAN NO. 115 AND SHEET 4.
12. COLDMILL 2" AND OVERLAY 2" AC (C2-PG 64-10), L=5'.
14. RECONSTRUCT CSD SEWER MANHOLE FRAME AND COVER TO FINISH GRADE PER LA COUNTY SANITATION DISTRICT PROCEDURE.
16. ADJUST EXISTING WATER VALVE COVER TO GRADE.
18. SAW CUT, REMOVE EXISTING AC AND BASE AND RECONSTRUCT WITH 4" AC AND 8" BASE.
20. FURNISH AND INSTALL CONNECTOR PIPE SCREEN (CPS) PER PROJECT SPECIFICATIONS.

(E) TO BE ADJUSTED BY SCE

(P) PROTECT IN PLACE.

BENCHMARK

B.M. AR-1 ELEV. 370.588 FT

B.C. MON. IN N. C.B. OF ARENTH RD.
1 FT. W. OF PP# 188215HE; E. OF
ANAHEIM PUENTE RD. @ STA. 54+18
INDUSTRY, CA

NO.	DATE	REVISIONS	CK. BY

Prepared by:

REGISTERED PROFESSIONAL ENGINEER UPENDRA L. JOSHI NO. 72535 CIVIL STATE OF CALIFORNIA

UPENDRA L. JOSHI, P.E. 72535 DATE

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CITY OF INDUSTRY

APPROVED BY:

JOSHUA L. NELSON, R.C.E. 56250 — CITY ENGINEER — DATE

ARENTH AVENUE STREET IMPROVEMENT
PHILLIPS DRIVE TO NOGALES STREET

PLAN AND PROFILE
STA. 87+00.00 TO STA. 98+00.00

DESIGNED BY: P.L.	CHECKED BY: U.J.	JOB NO. MP 14-12	SHEET 9 OF 16
DRAFTED BY: R.L.L.	DATE: JUNE 2020	CONTRACT NO. CITY-1460	

CONTRACT DRAWING 9 OF 60

K:\CITY\C-1460 Arenth Ave Street Improvement - Phillips Dr to Nogales St\sheets\CITY-1460_Sht 9_Plan and Profile_STA. 87+00.00 to 98+00.00.dwg

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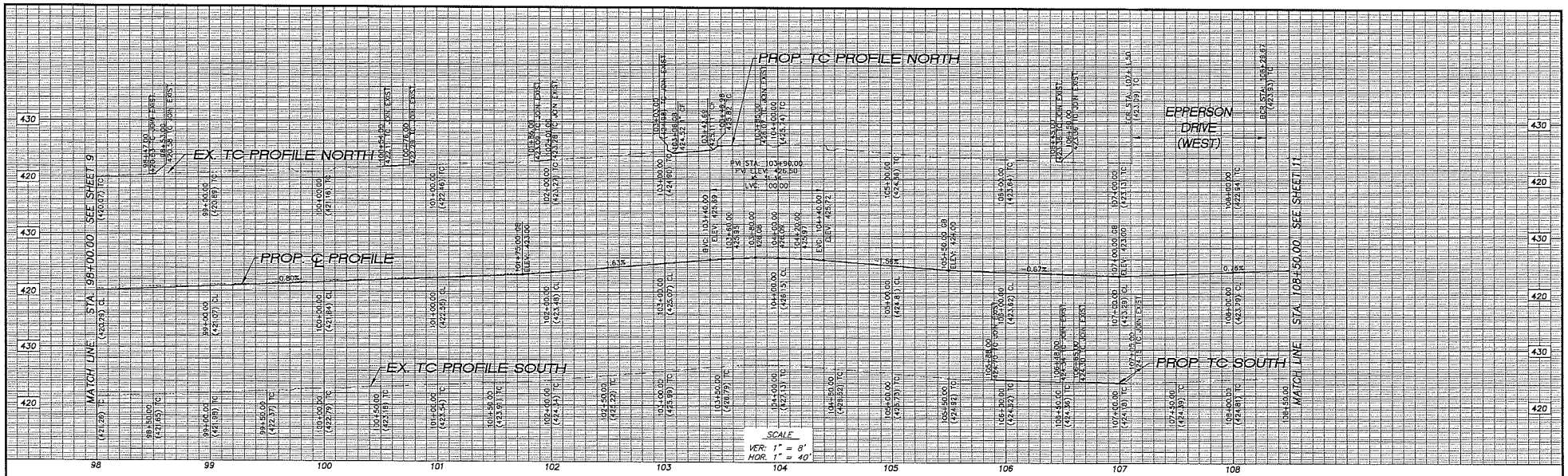

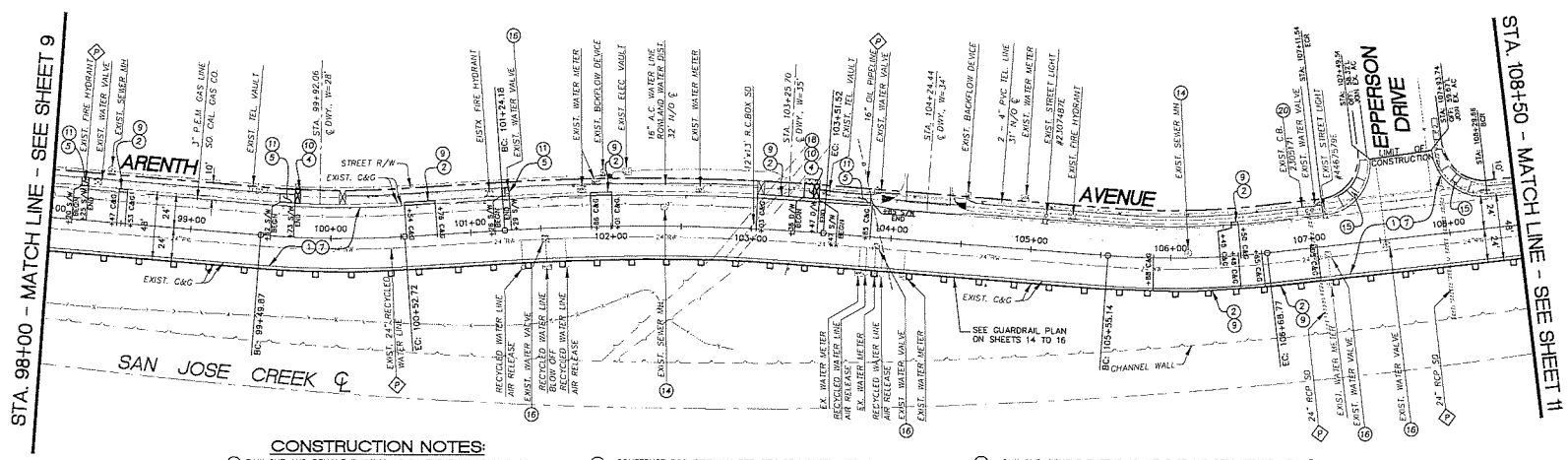

SCALE: 1" = 40'

CONSTRUCTION NOTES:

1. SAW CUT AND REMOVE EXISTING AC PAVEMENT INCLUDING BASE.
2. SAW CUT AND REMOVE EXISTING CURB AND GUTTER INCLUDING BASE.
4. SAW CUT AND REMOVE EXISTING DRIVEWAY INCLUDING BASE.
5. SAW CUT AND REMOVE EXISTING SIDEWALK INCLUDING BASE.
7. CONSTRUCT 3.5" AC (2" C2-PG 64-10 ON 1.5" B2-PG 64-10) OVER 6.5" CCPRACP OVER 20" CSPS PER TYPICAL SECTION AND SPECIFICATIONS.
9. CONSTRUCT TYPE A2 CURB AND GUTTER INCLUDING BASE PER CITY OF INDUSTRY STD. PLAN NO. 112.
10. CONSTRUCT PCC DRIVEWAY PER SSPWC STD. PLAN NO. 110-2 (TYPE B) AND PER DETAIL "B" ON SHEET 3.
11. CONSTRUCT PCC SIDEWALK PER CITY OF INDUSTRY STD. PLAN NO. 115 AND SHEET 4.
14. RECONSTRUCT CSD SEWER MANHOLE FRAME AND COVER TO FINISH GRADE PER LA COUNTY SANITATION DISTRICT PROCEDURE.
15. INSTALL DETECTABLE WARNING SURFACE PER CALTRANS STD. PLAN A88A.
16. ADJUST EXISTING WATER VALVE COVER TO GRADE.
18. SAW CUT, REMOVE EXISTING AC AND BASE AND RECONSTRUCT WITH 4" AC AND 8" BASE.
20. FURNISH AND INSTALL CONNECTOR PIPE SCREEN (CPS) PER PROJECT SPECIFICATIONS.

(P) PROTECT IN PLACE.

BENCHMARK
B.M. AR-1 ELEV. 370.588 FT
B.C. MON. IN N. C.B. OF ARENTH RD.
1 FT. W. OF PP# 18621516; E. OF
ANAHEIM PUENTE RD. @ STA. 5+18
INDUSTRY, CA

NO.	DATE	REVISIONS	CK. BY

REGISTERED PROFESSIONAL ENGINEER UPENDRA L. JOSHI NO. 72535 CIVIL STATE OF CALIFORNIA

Prepared by:
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ENGINEERING | SURVEYING | CONSTRUCTION

UPENDRA L. JOSHI, P.E. 72535 DATE

CITY OF INDUSTRY

APPROVED BY:

JOSHUA L. NELSON, R.C.E. 66959 — CITY ENGINEER — DATE

ARENTH AVENUE STREET IMPROVEMENT
PHILLIPS DRIVE TO NOGALES STREET

PLAN AND PROFILE
STA. 98+00.00 TO STA. 108+50.00

DESIGNED BY: P.L.	CHECKED BY: U.J.	JOB NO. MP 14-12	SHEET 10 OF 16
DRAFTED BY: R.L.L.	DATE: JUNE 2020	CONTRACT NO. CITY-1460	

CONTRACT DRAWING 10 OF 60

K:\CITY\C-1460 Arenth Ave Street Improvement - Phillips Dr to Nogales St\sheets\CITY-1460_Sht 10_Plan and Profile_STA. 98+00.00 to 108+50.00.dwg
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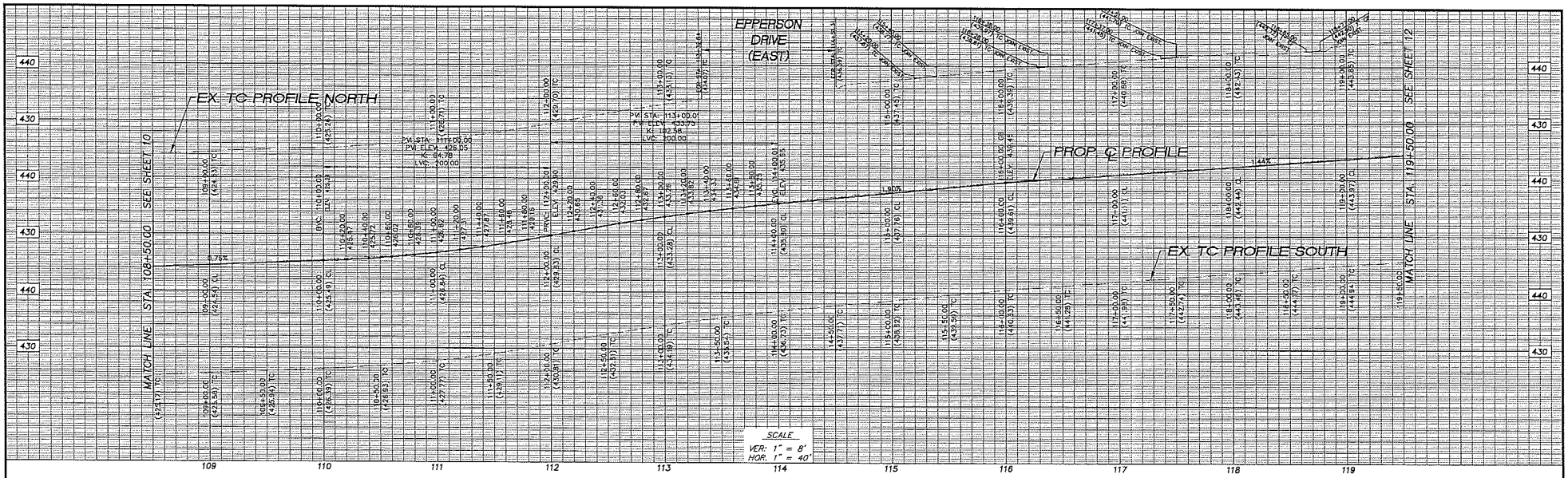

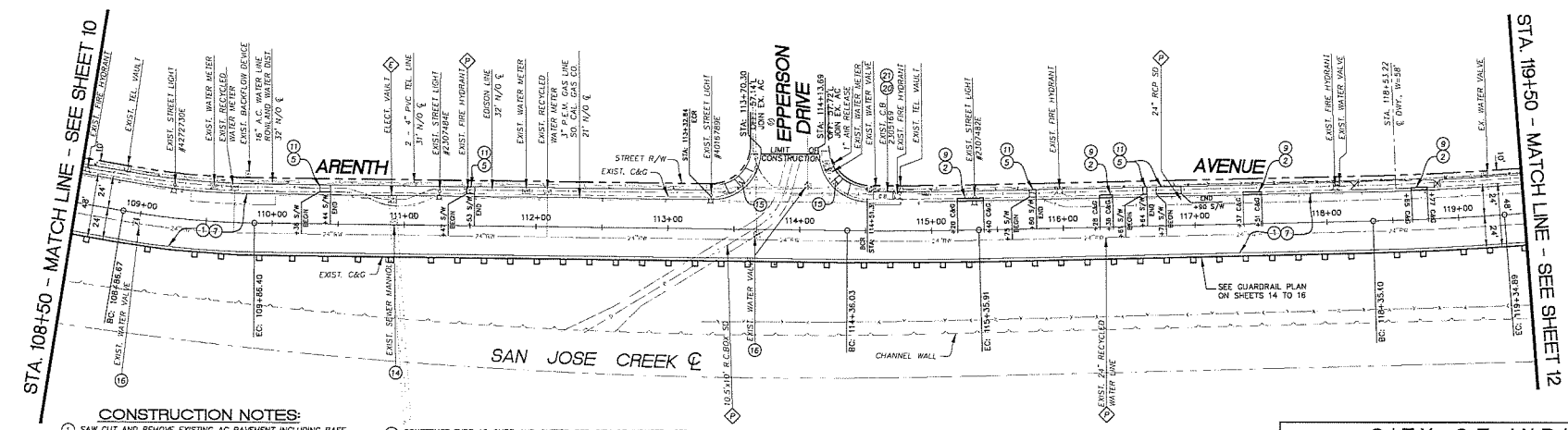

CONSTRUCTION NOTES:

1. SAW CUT AND REMOVE EXISTING AC PAVEMENT INCLUDING BASE.
2. SAW CUT AND REMOVE EXISTING CURB AND GUTTER INCLUDING BASE.
5. SAW CUT AND REMOVE EXISTING SIDEWALK INCLUDING BASE.
7. CONSTRUCT 3.5" AC (2" C2-PG 64-10 ON 1.5" B2-PG 64-10) OVER 6.5" CCPRACP OVER 20" CSPS PER TYPICAL SECTION AND SPECIFICATIONS.
9. CONSTRUCT TYPE A2 CURB AND GUTTER PER CITY OF INDUSTRY STD. PLAN NO. 112.
11. CONSTRUCT PCC SIDEWALK PER CITY OF INDUSTRY STD. PLAN NO. 115 AND SHEET 4.
14. RECONSTRUCT CSD SEWER MANHOLE FRAME AND COVER TO FINISH GRADE PER LA COUNTY SANITATION DISTRICT PROCEDURE.
15. INSTALL DETECTABLE WARNING SURFACE PER CALTRANS STD. PLAN A88A
16. ADJUST EXISTING WATER VALVE COVER TO GRADE.
20. FURNISH AND INSTALL CONNECTOR PIPE SCREEN (CPS) PER PROJECT SPECIFICATIONS.
21. FURNISH AND INSTALL AUTOMATIC RETRACTABLE SCREEN (ARS) PER PROJECT SPECIFICATIONS.

(E) TO BE ADJUSTED BY SCE
(P) PROTECT IN PLACE.

BENCHMARK
B.M. AR-1 ELEV. 370.588 FT
B.C. MON. IN N. C.B. OF ARENTH RD.
1 FT. W. OF PP# 18521516; E. OF
ANAHEIM PUENTE RD. @ STA. 5+18
INDUSTRY, CA

NO.	DATE	REVISIONS	CK. BY

REGISTERED PROFESSIONAL ENGINEER UPENDRA L. JOSHI NO. 72535 CIVIL STATE OF CALIFORNIA

Prepared by:
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www.cnc-eng.com
ENGINEERING | SURVEYING | CONSTRUCTION

UPENDRA L. JOSHI, P.E. 72535 DATE

CITY OF INDUSTRY

APPROVED BY:
JOSHUA L. NELSON, R.C.E. 66959 CITY ENGINEER DATE

ARENTH AVENUE STREET IMPROVEMENT
PHILLIPS DRIVE TO NOGALES STREET

PLAN AND PROFILE
STA. 108+50.00 TO STA. 119+50.00

DESIGNED BY: P.L.	CHECKED BY: U.J.	JOB NO. MP 14-12	SHEET 11 OF 16
DRAFTED BY: R.L.I.	DATE: JUNE 2020	CONTRACT NO. CITY-1460	

CONTRACT DRAWING 11 OF 60

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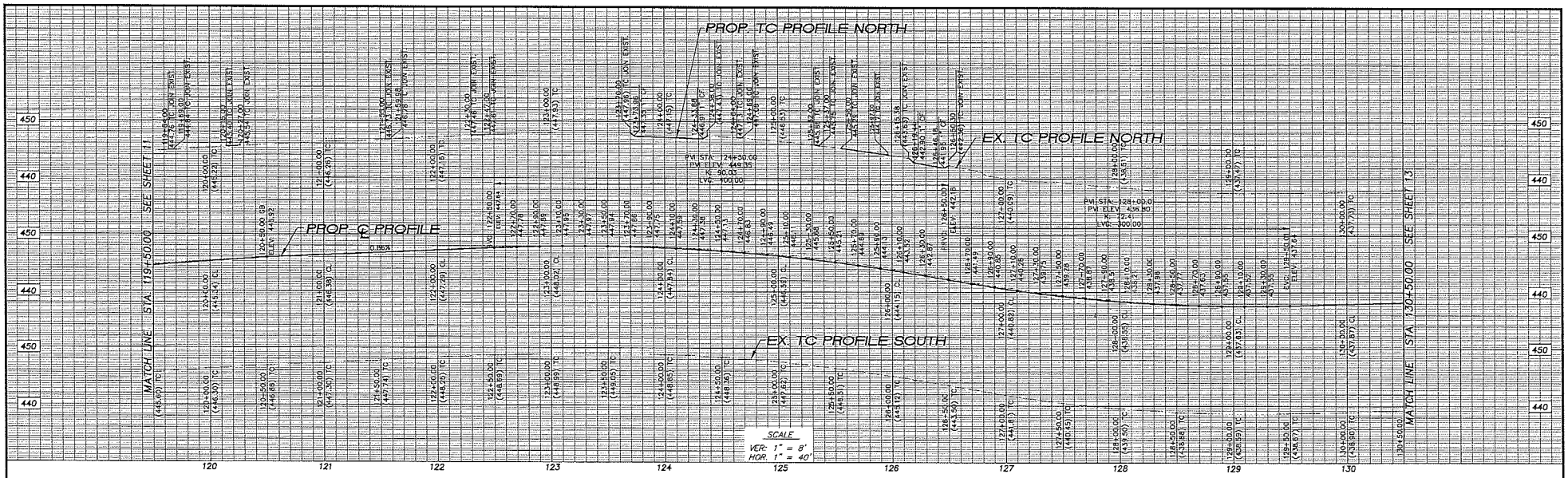

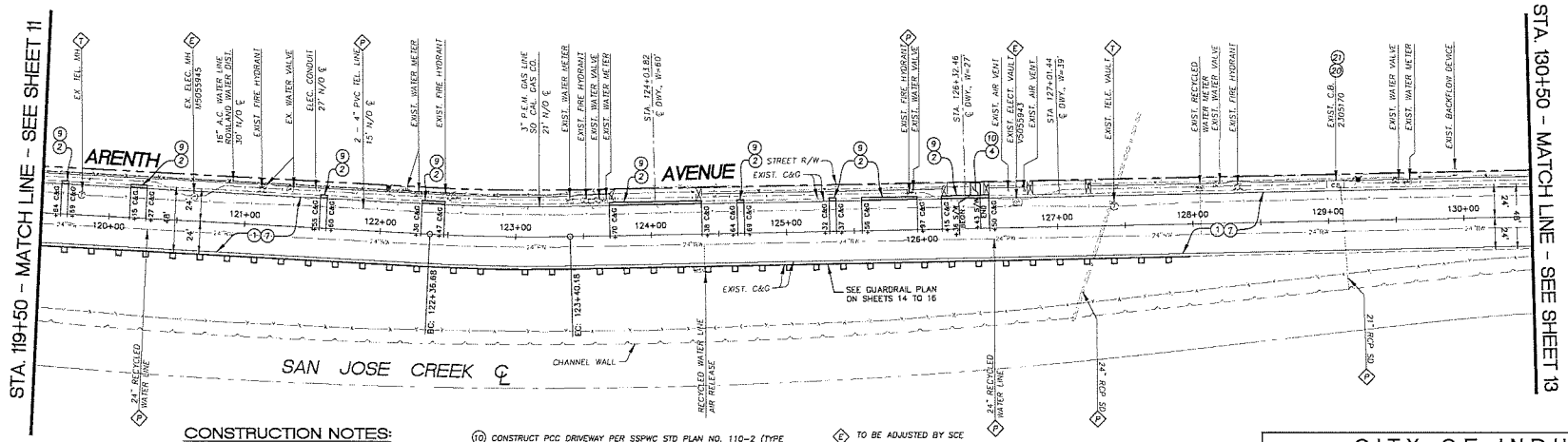

CONSTRUCTION NOTES:

1. SAW CUT AND REMOVE EXISTING AC PAVEMENT INCLUDING BASE.
2. SAW CUT AND REMOVE EXISTING CURB AND GUTTER INCLUDING BASE.
4. SAW CUT AND REMOVE EXISTING DRIVEWAY INCLUDING BASE.
7. CONSTRUCT 3.5" AC (2" C2-PG 64-10 ON 1.5" B2-PG 64-10) OVER 6.5" CCPRACP OVER 20" CSPS PER TYPICAL SECTION AND SPECIFICATIONS.
9. CONSTRUCT TYPE A2 CURB AND GUTTER PER CITY OF INDUSTRY STD. PLAN NO. 112.
10. CONSTRUCT PCC DRIVEWAY PER SSPWC STD PLAN NO. 110-2 (TYPE B) AND PER DETAIL "D" ON SHEET 3.
20. FURNISH AND INSTALL CONNECTOR PIPE SCREEN (CPS) PER PROJECT SPECIFICATIONS.
21. FURNISH AND INSTALL AUTOMATIC RETRACTABLE SCREEN (ARS) PER PROJECT SPECIFICATIONS.

(C) TO BE ADJUSTED BY SCE
(P) PROTECT IN PLACE.
(T) TO BE ADJUSTED BY THE TELEPHONE COMPANY

BENCHMARK
B.M. AR-1 ELEV. 370.588 FT.
B.C. MON. IN N. C.B. OF ARENTH RD.
1 FT. W. OF PP# 1862151E; E. OF
ANAHEIM PUENTE RD. @ STA. 5+18
INDUSTRY, CA

NO.	DATE	REVISIONS	CK. BY

Prepared by:
ACNC
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City of Industry | CA | 91744
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www.acnc-eng.com
ENGINEERING | SURVEYING | CONSTRUCTION

REGISTERED PROFESSIONAL ENGINEER UPENDRA L. JOSHI NO. 72535 CIVIL STATE OF CALIFORNIA

UPENDRA L. JOSHI, P.E. 72535 DATE

CITY OF INDUSTRY

APPROVED BY:
JOSHUA L. NELSON, R.C.E. 66959 — CITY ENGINEER — DATE

ARENTH AVENUE STREET IMPROVEMENT
PHILLIPS DRIVE TO NOGALES STREET

PLAN AND PROFILE
STA. 119+50.00 TO STA. 130+50.00

DESIGNED BY: P.L.	CHECKED BY: U.J.	JOB NO. MP 14-12	SHEET 12 OF 16
DRAFTED BY: R.L.I.	DATE: JUNE 2020	CONTRACT NO. CITY-1460	

CONTRACT DRAWING 12 OF 60

K:\CITY\C-1460 Arenth Ave Street Improvement - Phillips Dr to Nogales St\sheets\CITY-1460_Sht 12_Plan and Profile_STA. 119+50.00 to 130+50.00.dwg
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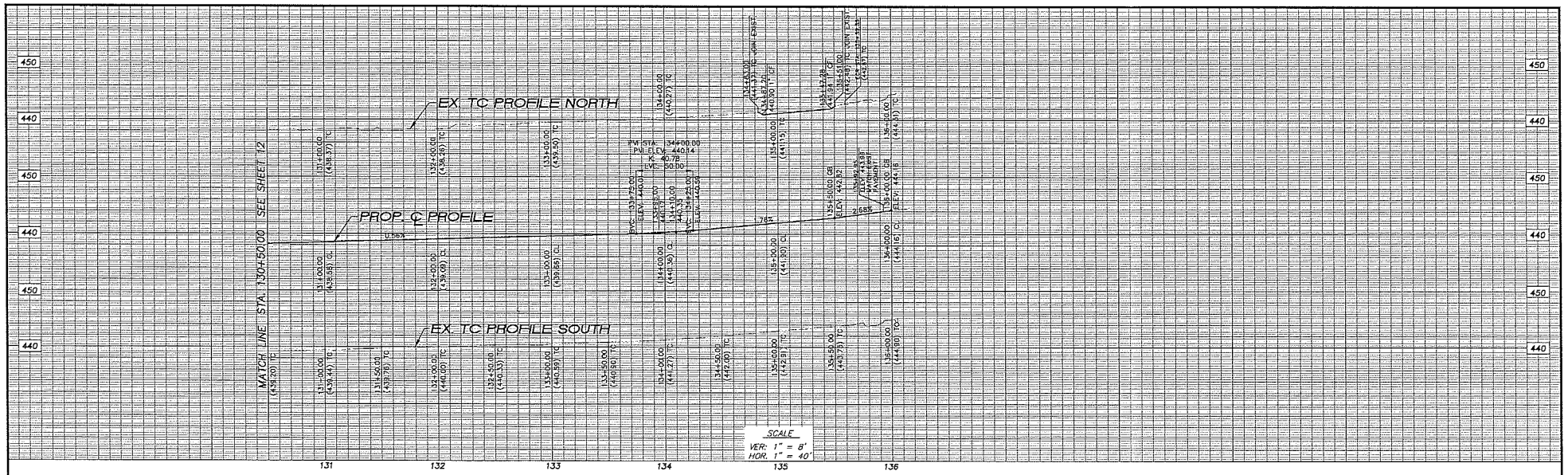

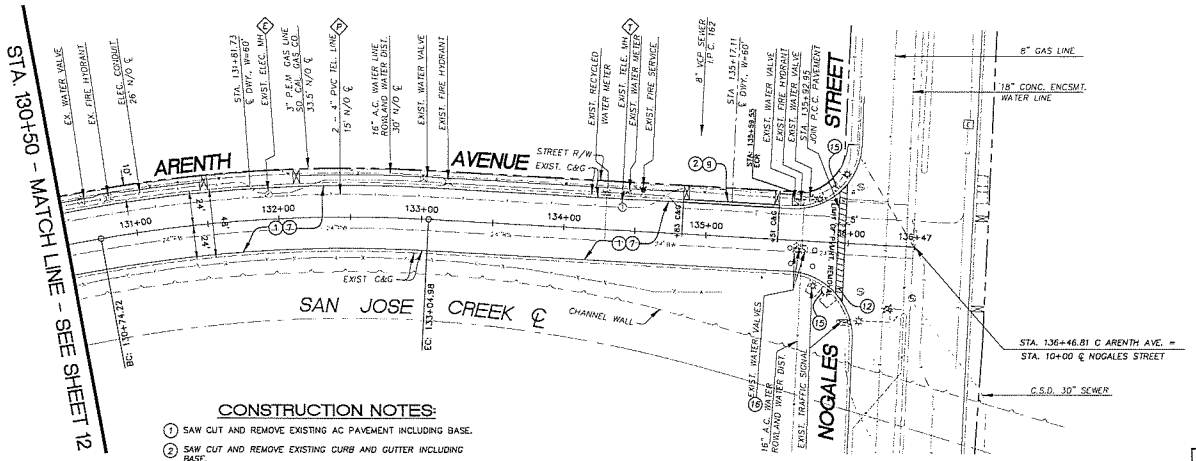

SCALE: 1" = 40'

CONSTRUCTION NOTES:

1. SAW CUT AND REMOVE EXISTING AC PAVEMENT INCLUDING BASE.
2. SAW CUT AND REMOVE EXISTING CURB AND GUTTER INCLUDING BASE.
7. CONSTRUCT 3.5" AC (2" C2-PG 64-10 ON 1.5" B2-PG 64-10) OVER 6.5" CCPRACP OVER 20" CSPS PER TYPICAL SECTION AND SPECIFICATIONS.
9. CONSTRUCT TYPE A2 CURB AND GUTTER PER CITY OF INDUSTRY STD. PLAN NO. 112.
12. COLDMILL 2" AND OVERLAY 2" AC (C2-PG 64-10), L=5'.
15. INSTALL DETECTABLE WARNING SURFACE PER CALTRANS STD. PLAN A88A.
16. ADJUST EXISTING WATER VALVE COVER TO GRADE.

C. TO BE ADJUSTED BY SCE

T. TO BE ADJUSTED BY THE TELEPHONE COMPANY

BENCHMARK

B.M. AR-1 ELEV. 370.588 FT.

B.C. MON. IN N. C.B. OF ARENTH RD.
1 FT. W. OF PP# 186215HE; E. OF
ANAHEIM PUENTE RD. @ STA. 5+18
INDUSTRY, CA

NO.	DATE	REVISIONS	CK. BY

Prepared by:

ACNC
255 N Hacienda Blvd | Ste 222
City of Industry | CA | 91744
P | 626.333.0336
www.acnc-eng.com
ENGINEERING | SURVEYING | CONSTRUCTION

REGISTERED PROFESSIONAL ENGINEER UPENDRA L. JOSHI NO. 72535 CIVIL STATE OF CALIFORNIA

UPENDRA L. JOSHI, P.E. 72535 DATE

CITY OF INDUSTRY

APPROVED BY:

JOSHUA L. NELSON, R.C.E. 66959 CITY ENGINEER DATE

ARENTH AVENUE STREET IMPROVEMENT
PHILLIPS DRIVE TO NOGALES STREET

PLAN AND PROFILE
STA. 130+50.00 TO STA. 136+46.00

DESIGNED BY:	P.L.	CHECKED BY:	U.J.	JOB NO.	MP 14-12	SHEET 13 OF 16	
DRAFTED BY:	R.L.I.	DATE:	JUNE 2020	CONTRACT NO.	CITY-1460		

CONTRACT DRAWING 13 OF 60

K:\CITY\C-1460 Arenth Ave Street Improvement - Phillips Dr. to Nogales St\Sheets\CITY-1460_Sht 13 Plan and Profile_STA.130+50.00 to 136+46.00.dwg

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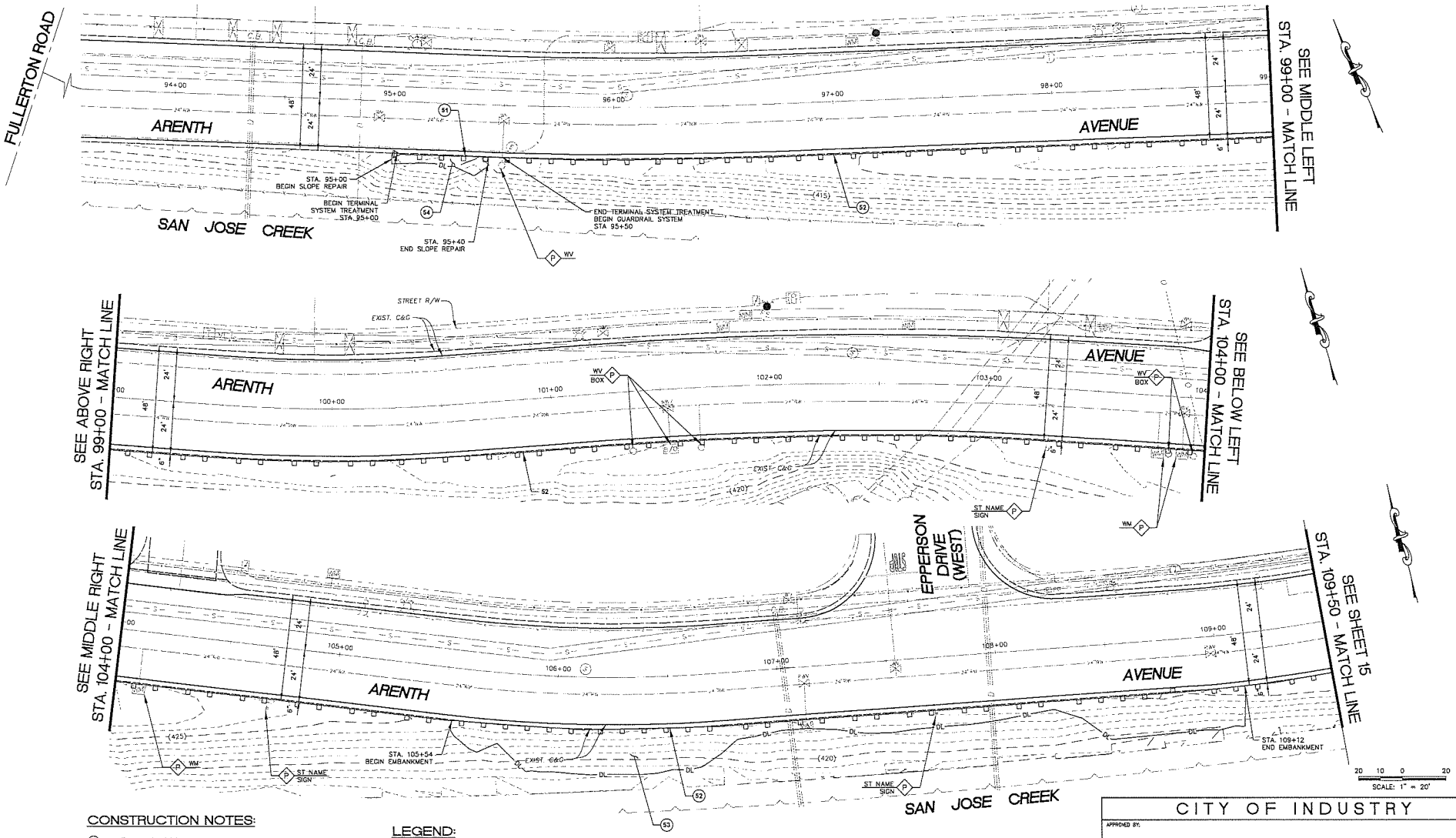

CONSTRUCTION NOTES:

51 — INSTALL IN-LINE TERMINAL SYSTEM END TREATMENT TYPE 11A PER 2015 CALTRANS STD PLAN A77P1.

52 — INSTALL MIDWEST GUARDRAIL SYSTEM TYPE 11A PER 2018 CALTRANS STD PLAN A77P1.

53 — CONSTRUCT SHOULDER AND 3:1 MAX SLOPE EMBANKMENT PER GUARDRAIL DETAIL 1 ON SHEET 16.

54 — MINOR REPAIR OF ERODED SLOPE PER GUARDRAIL DETAIL 2 ON SHEET 16.

LEGEND:

PROPOSED GUARDRAIL

DL — DAYLIGHT LINE (SLOPE = 3:1)

P — PROTECT IN PLACE

NO.	DATE	REVISIONS	CK. BY

Prepared by:

REGISTERED PROFESSIONAL ENGINEER UPENDRA L. JOSHI NO. 72535 CIVIL STATE OF CALIFORNIA

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www.cnc-eng.com

UPENDRA L. JOSHI, P.E. 72535 DATE

CITY OF INDUSTRY

APPROVED BY:

JOSHUA L. NELSON, R.C.E. 68830 — CITY ENGINEER — DATE

ARENTH AVENUE STREET IMPROVEMENT
PHILLIPS DRIVE TO NOGALES STREET

GUARDRAIL - PLAN
STA. 95+00.00 TO STA. 109+50.00

DESIGNED BY:	P.L.	CHECKED BY:	U.J.	JOB NO.	MP 14-12	SHEET 14 OF 16	
DRAFTED BY:	R.L.I.	DATE:	JUNE 2020	CONTRACT NO.	CITY-1460		

CONTRACT DRAWING 14 OF 60

K:\07\C-1460 Arenth Ave Street Improvement - Phillips Dr to Nogales St\Sheets\CITY-1460_Sht 14_Guardrail Plan_STA. 95+00.00 to 109+50.00.dwg

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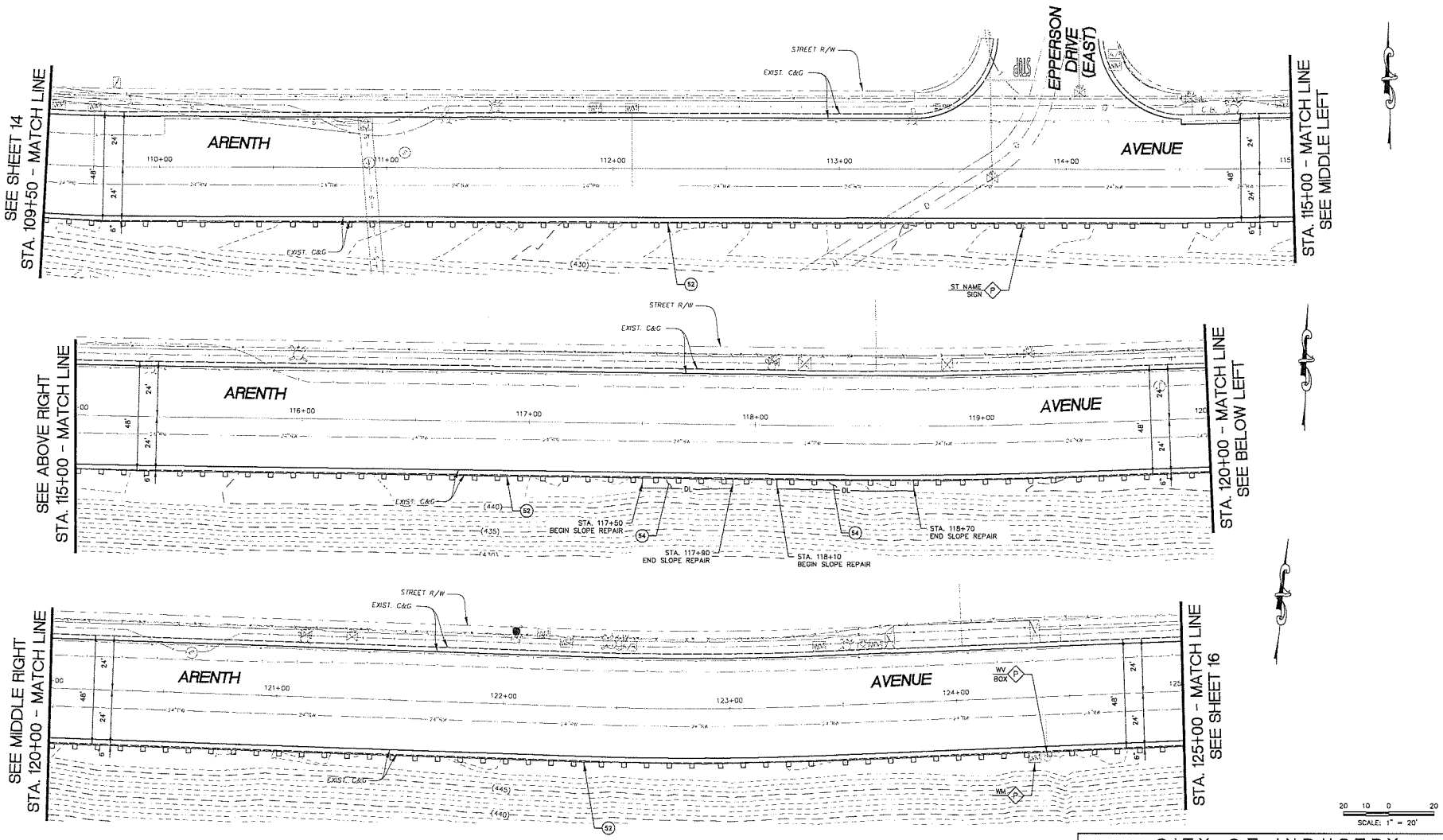

CONSTRUCTION NOTES:

(51) INSTALL IN-LINE TERMINAL SYSTEM END TREATMENT TYPE 11A PER 2018 CALTRANS STD PLAN A77P1.

(52) INSTALL MIDWEST GUARDRAIL SYSTEM TYPE 11A PER 2018 CALTRANS STD PLAN A77P1.

(54) MINOR REPAIR OF ERODED SLOPE PER GUARDRAIL DETAIL 2 ON SHEET 16.

LEGEND:

PROPOSED GUARDRAIL

DL DAYLIGHT LINE (SLOPE = 3:1)

P PROTECT IN PLACE

NO.	DATE	REVISIONS	CK. BY

Prepared by:

REGISTERED PROFESSIONAL ENGINEER UPENDRA L. JOSHI NO. 72535 CIVIL STATE OF CALIFORNIA

UPENDRA L. JOSHI, P.E. 72535 DATE

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CITY OF INDUSTRY

APPROVED BY:

JOSHUA L. NELSON, R.C.E. 65859 CITY ENGINEER DATE

ARENTH AVENUE STREET IMPROVEMENT
PHILLIPS DRIVE TO NOGALES STREET

GUARDRAIL - PLAN
STA. 109+580.00 TO STA. 125+00.00

DESIGNED BY:	P.L.	CHECKED BY:	U.J.	JOB NO.	MP 14-12	SHEET 15 OF 16
DRAFTED BY:	R.L.I.	DATE:	JUNE 2020	CONTRACT NO.	CITY-1455	

CONTRACT DRAWING 15 OF 60

K:\CITY\C-1460 Arenth Ave Street Improvement - Phillips Dr to Nogales St\Sheets\CITY-1460_Sht 15_Guardrail Plan_STA. 109+50.00 to 125+00.00.dwg

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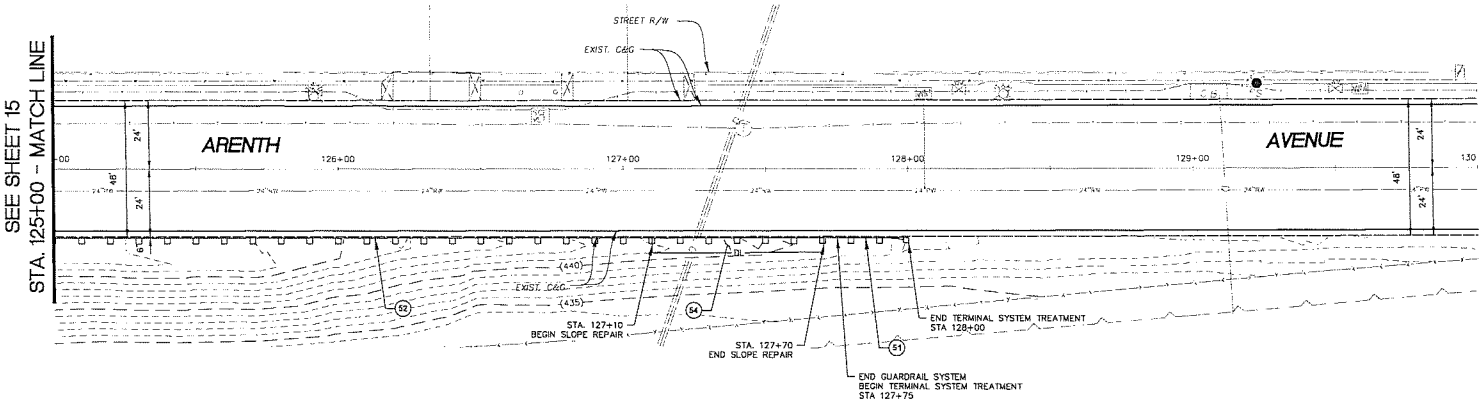
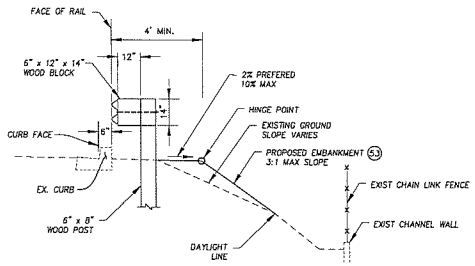
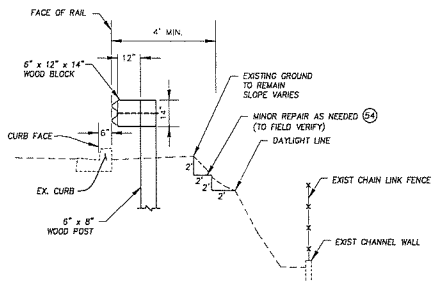




DETAIL 1 – GUARDRAIL SYSTEM POSITIONING AND 3:1 SLOPE

NOT TO SCALE

STA. 105+54 TO STA. 109+12



DETAIL 2 – GUARDRAIL SYSTEM POSITIONING AND SLOPE REPAIR

NOT TO SCALE

STA. 95+00 TO STA. 95+40
STA. 117+50 TO STA. 117+90
STA. 118+10 TO STA. 118+70
STA. 127+10 TO STA. 127+70

20 10 0 20
SCALE: 1" = 20'

CONSTRUCTION NOTES:

51 – INSTALL IN-LINE TERMINAL SYSTEM END TREATMENT TYPE 11A PER 2018 CALTRANS STD PLAN A77P1.

52 – INSTALL MIDWEST GUARDRAIL SYSTEM TYPE 11A PER 2018 CALTRANS STD PLAN A77P1.

54 – MINOR REPAIR OF ERODED SLOPE PER GUARDRAIL DETAIL 2 ON SHEET 16.

LEGEND:

PROPOSED GUARDRAIL

DL – DAYLIGHT LINE (SLOPE = 3:1)

P – PROTECT IN PLACE

NO.	DATE	REVISIONS	CK. BY

REGISTERED PROFESSIONAL ENGINEER UPENDRA L. JOSHI NO. 72535 CIVIL STATE OF CALIFORNIA

Prepared by:

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UPENDRA L. JOSHI, P.E. 72535 DATE

CITY OF INDUSTRY

APPROVED BY:

JOSHUA L. NELSON, R.C.E. 66959 CITY ENGINEER DATE

ARENTH AVENUE STREET IMPROVEMENT
PHILLIPS DRIVE TO NOGALES STREET

GUARDRAIL – PLAN AND SECTION DETAIL
STA. 125+00.00 TO STA. 128+00.00

DESIGNED BY:	P.L.	CHECKED BY:	U.J.	JOB NO.	MP 14-12	SHEET 16 OF 16	
DRAFTED BY:	R.L.I.	DATE:	JUNE 2020	CONTRACT NO.	CITY-1460		

CONTRACT DRAWING 16 OF 60

K:\CITY\C-1460 Arenth Ave Street Improvement - Phillips Dr to Nogales St\Sheets\CITY-1460_Sht 16_Guardrail Plan_STA. 125+00.00 to 128+00.00.dwg

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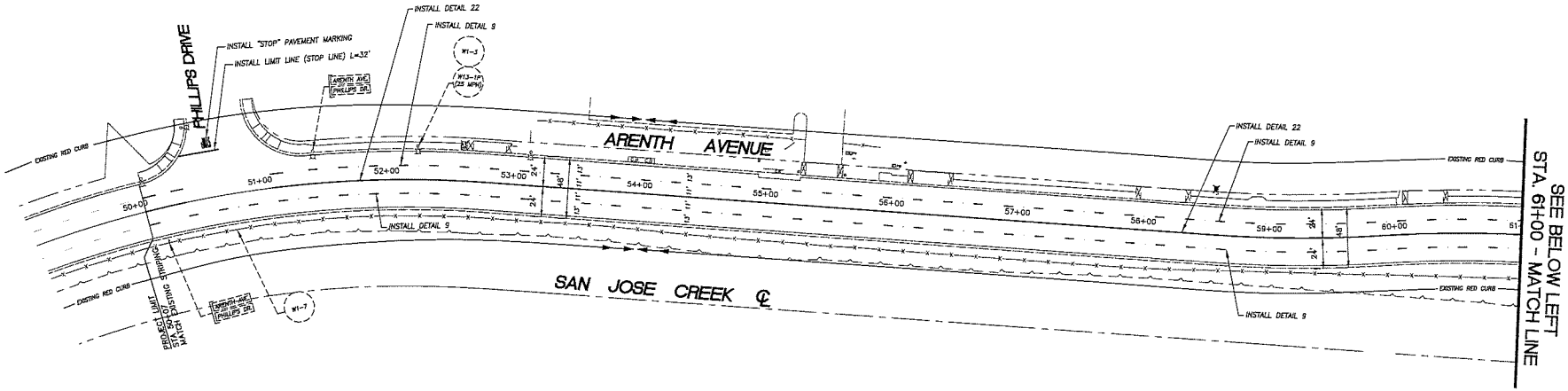

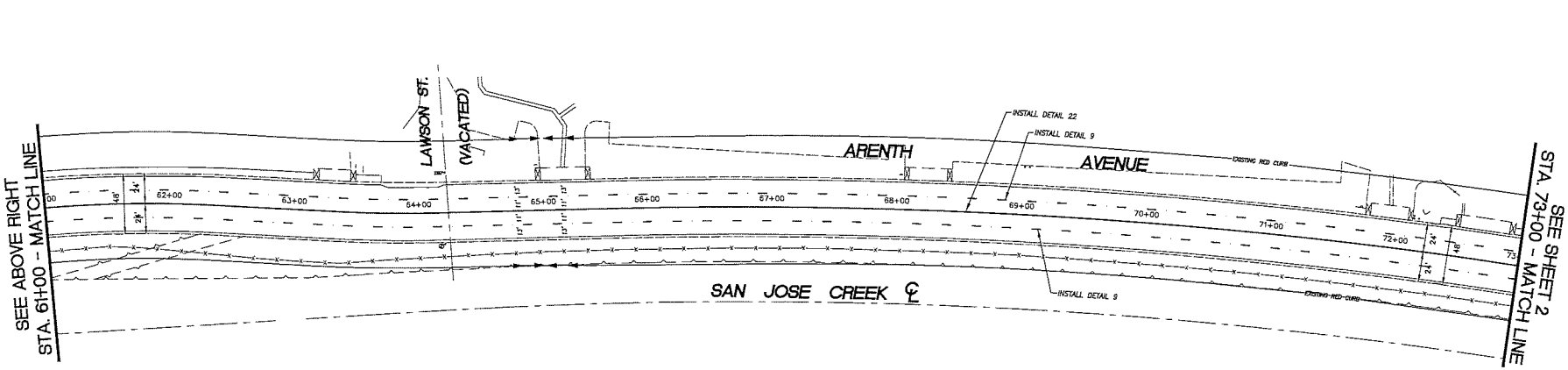

GENERAL NOTES:

1. ALL TRAFFIC LINES AND PAVEMENT MARKINGS SHOWN SHALL BE INSTALLED WITH THERMOPLASTIC.
2. ALL TRAFFIC LINES AND PAVEMENT MARKINGS SHALL CONFORM TO CALTRANS STANDARD PLANS AND SPECIFICATIONS (LATEST EDITION)
3. ALL CONFLICTING LINES AND MARKINGS SHALL BE REMOVED BY WET SANDBLASTING OR GRINDING (THEN PAINTED BLACK) AND INCLUDES REMOVAL OF RAISED PAVEMENT MARKERS.
4. ALL TURN ARROW MARKINGS SHALL BE TYPE IV (L OR R) UNLESS OTHERWISE NOTED.
5. ALL LANE STRIPING AT INTERSECTION APPROACHES WITHOUT CROSSWALKS OR LIMIT LINES SHALL END 10 FEET FROM THE EXTENSION OF THE INTERSECTING CURB LINE.
6. ALL LANE LINES AT INTERSECTION APPROACHES AND DEPARTURES SHALL BEGIN AND END WITH 50 FEET OF 6-INCH SOLID WHITE LINE.
7. LANE WIDTHS SHALL BE MEASURED BETWEEN THE CENTERLINES OF EACH ADJACENT SINGLE OR DOUBLE STRIPE OR TOP OF CURB AS APPROPRIATE.
8. PROPOSED LIMIT LINE SHALL BE PLACED AT A MINIMUM OF 4 FEET BEHIND THE CURB EXTENSION OR EDGE OF TRAVEL WAY (NO EXISTING CURB RAMP). IN THE CASE OF INTERSECTION WITH CURB RAMP, THE LIMIT LINE SHALL BE PLACED BEHIND THE RAMP'S LANDING AREA, BUT IN NO CASE GREATER THAN 30 FEET BACK.
9. ALL NEW SIGNING SHALL CONFORM TO THE CALIFORNIA MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION.
10. ALL SIGNING SHOWN HEREON SHALL BE INSTALLED, RELOCATED OR REMOVED BY COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS UNLESS OTHERWISE NOTED. CALL 626-458-1708 5 DAYS PRIOR FOR COORDINATION.
11. PROPOSED STRIPING BY COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS. CALL 626-458-1708 5 DAYS PRIOR FOR COORDINATION.
12. ALL STRIPING SHALL BE 6" THICK UNLESS OTHERWISE NOTED IN CALIFORNIA DEPARTMENT OF TRANSPORTATION STANDARD PLANS LATEST EDITION.

LEGEND:

(XX-XX) EXISTING SIGNAGE

SINGLE POST WITH SIGNAGE

BENCHMARK
B.M. AR-1 ELEV. 370.588 FT
B.C. MON. IN N. C.B. OF ARENTH RD.
1 FT. W. OF PP# 18821516; E. OF
ANAHEIM PUENTE RD. @ STA. 5+18
INDUSTRY, CA

NO.	DATE	REVISIONS	CK. BY

Prepared by:
REGISTERED PROFESSIONAL ENGINEER UPENDRA L. JOSHI NO. 72535 CIVIL STATE OF CALIFORNIA
UPENDRA L. JOSHI, P.E. 72535 DATE

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CITY OF INDUSTRY

APPROVED BY:
JOSHUA L. NELSON, R.C.E. 66959 CITY ENGINEER DATE

ARENTH AVENUE STREET IMPROVEMENT
PHILLIPS DRIVE TO NOGALES STREET

SIGNING AND STRIPING PLAN
STA. 50+09.00 TO STA. 73+00.00

DESIGNED BY:	P.L.	CHECKED BY:	U.J.	JOB NO.	MP 14-12	SHEET 1 OF 3	
DRAFTED BY:	R.L.L.	DATE:	JUNE 2020	CONTRACT NO.	CITY-1460		

CONTRACT DRAWING 17 OF 60

K:\CITY\C-1460 Arenth Ave Street Improvement - Phillips Dr to Nogales St\sheets\CITY-1460_Sht 17_Striping_STA. 50+09.00 to 73+00.dwg
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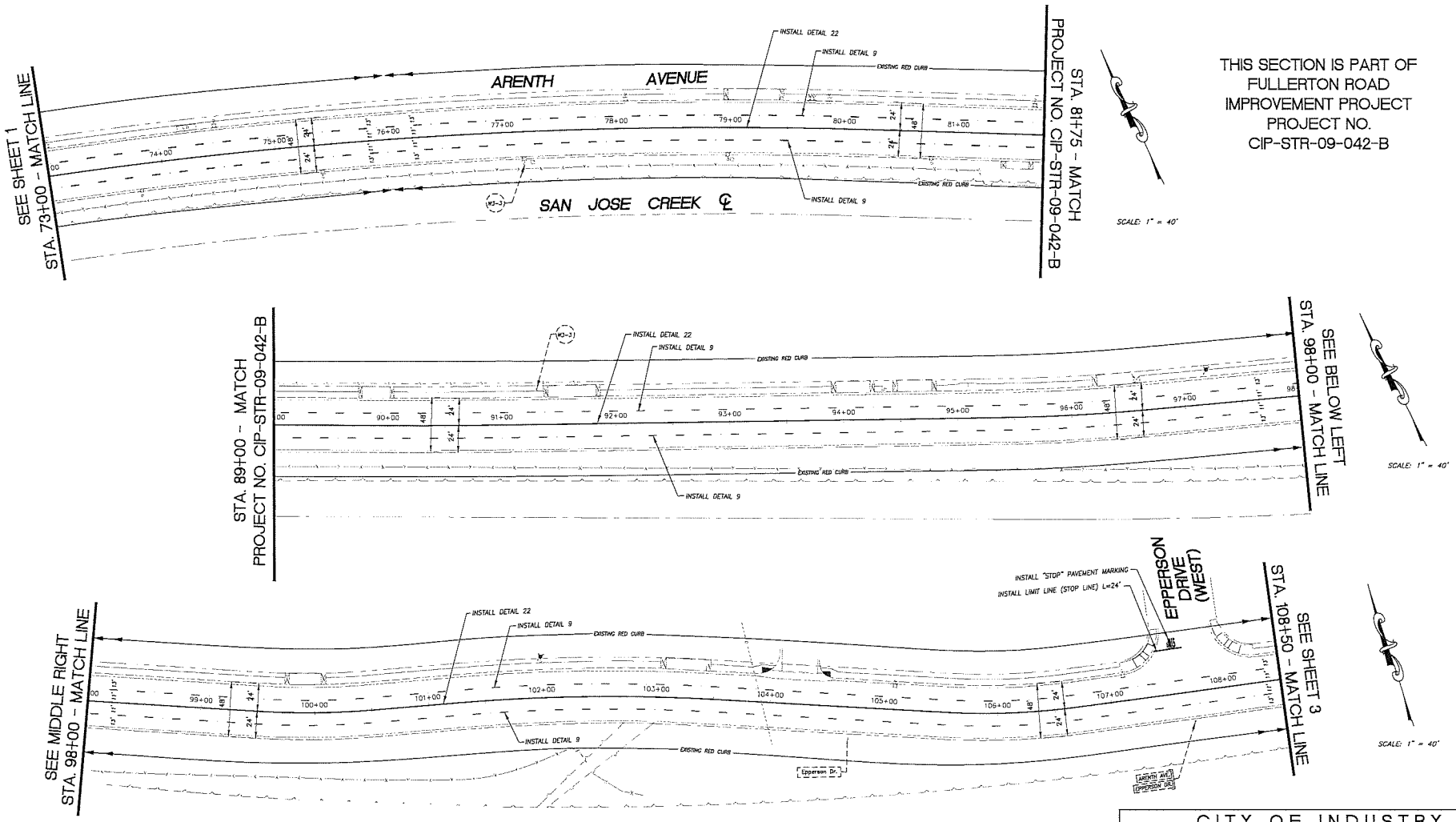

THIS SECTION IS PART OF
FULLERTON ROAD
IMPROVEMENT PROJECT
PROJECT NO.
CIP-STR-09-042-B

LEGEND:

- EXISTING SIGNAGE
- SINGLE POST WITH SIGNAGE

BENCHMARK
B.M. AR-1 ELEV. 370.588 FT
B.C. MON. IN N. C.B. OF ARENTH RD.
1 FT. W. OF PP# 1862151E; E. OF
ANAHEIM PUENTE RD. @ STA. 5+18
INDUSTRY, CA

NO.	DATE	REVISIONS	CK. BY

Prepared by:
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City of Industry | CA | 91744
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REGISTERED PROFESSIONAL ENGINEER UPENDRA L. JOSHI NO. 72535 CIVIL STATE OF CALIFORNIA
UPENDRA L. JOSHI, P.E. 72535 DATE

CITY OF INDUSTRY

APPROVED BY:
JOSHUA L. NELSON, R.C.E. 86959 CITY ENGINEER DATE

ARENTH AVENUE STREET IMPROVEMENT
PHILLIPS DRIVE TO NOGALES STREET

SIGNING AND STRIPING PLAN
STA. 73+00.00 TO STA. 108+50.00

DESIGNED BY: P.L.	CHECKED BY: U.J.	JOB NO. MP 14-12	SHEET 2 OF 3
DRAFTED BY: R.L.I.	DATE: JUNE 2020	CONTRACT NO. CITY-1460	

CONTRACT DRAWING 18 OF 60

K:\CITY\C-1460 Arenth Ave Street Improvement - Phillips Dr to Nogales St\sheets\CITY-1460_Sht 18_Striping_STA. 73+00.00 to 108+50.00.dwg
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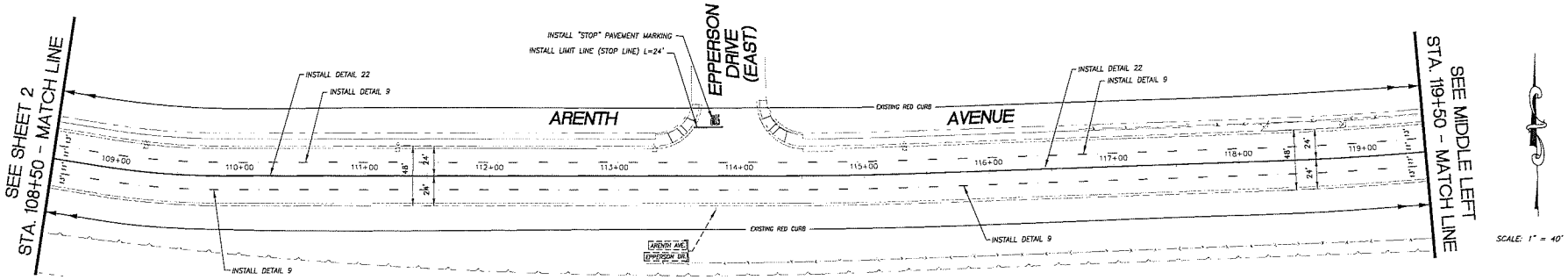

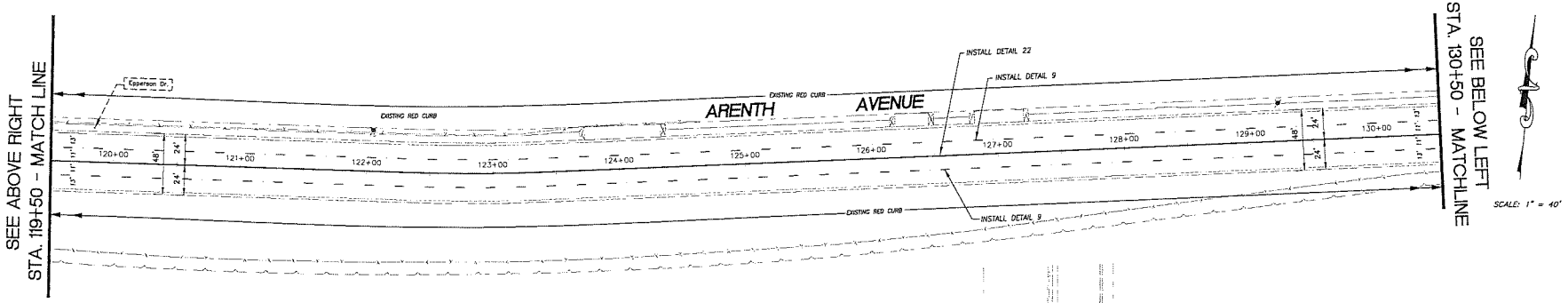

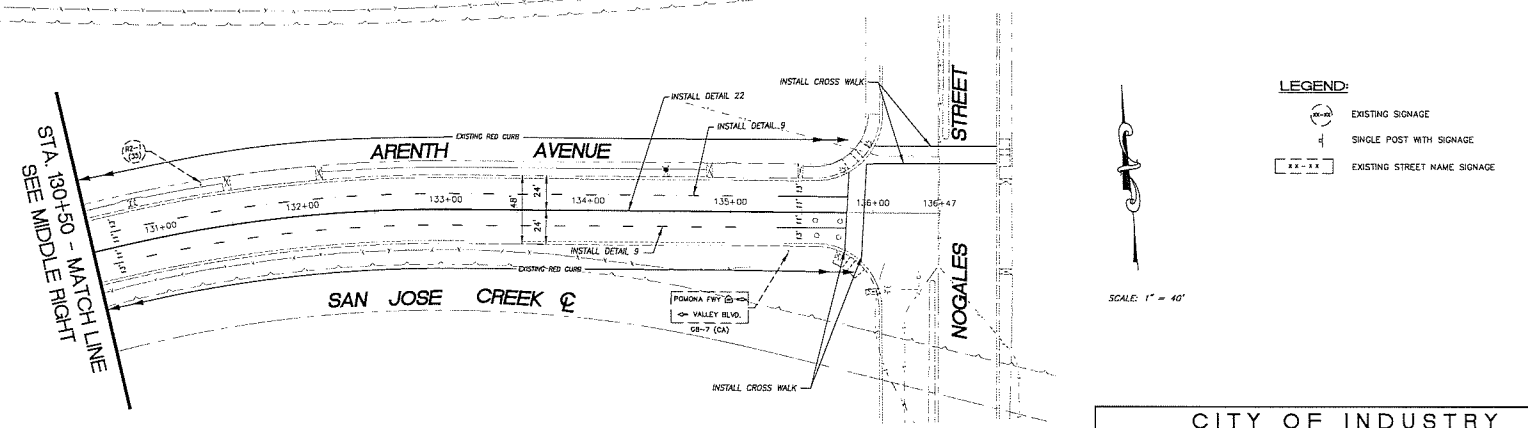

LEGEND:

- (XX-XX) EXISTING SIGNAGE
- SINGLE POST WITH SIGNAGE
- XX - XX EXISTING STREET NAME SIGNAGE

BENCHMARK

B.M. AR-1 ELEV. 370.588 FT.
B.C. MON. IN N. C.B. OF ARENTH RD.
1 FT. W. OF PP# 186215TE; E. OF
ANAHEIM PUENTE RD. @ STA. 5+18
INDUSTRY, CA

NO.	DATE	REVISIONS	CK. BY

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UPENDRA L. JOSHI, P.E. 72535 DATE

CITY OF INDUSTRY

APPROVED BY:

JOSHUA L. NELSON, R.C.E. 56959 CITY ENGINEER DATE

ARENTH AVENUE STREET IMPROVEMENT
PHILLIPS DRIVE TO NOGALES STREET

SIGNING AND STRIPING PLAN
STA. 108+50.00 TO STA. 136+46.00

DESIGNED BY:	P.L.	CHECKED BY:	U.J.	JOB NO.	MP 14-12	SHEET 3 OF 3	
DRAFTED BY:	R.L.L.	DATE:	JUNE 2020	CONTRACT NO.	CITY-1460		

CONTRACT DRAWING 19 OF 60

K:\CITY\C-1460 Arenth Ave Street Improvement - Phillips Dr to Nogales St\sheets\CITY-1460 Sht 19 Striping STA. 108+50.00 to 136+46.00.dwg

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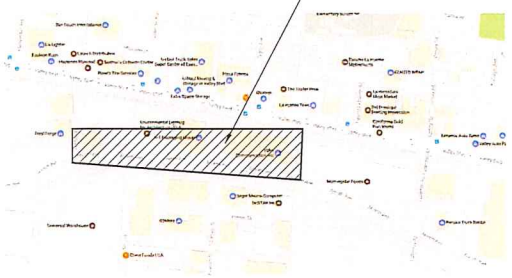
CITY OF INDUSTRY IMPROVEMENT PROJECT
ARENTH AVENUE STREET IMPROVEMENT
PHILLIPS DRIVE TO NOGALES STREET
LANDSCAPE PLANS
CITY OF INDUSTRY, CA

PROJECT LOCATION

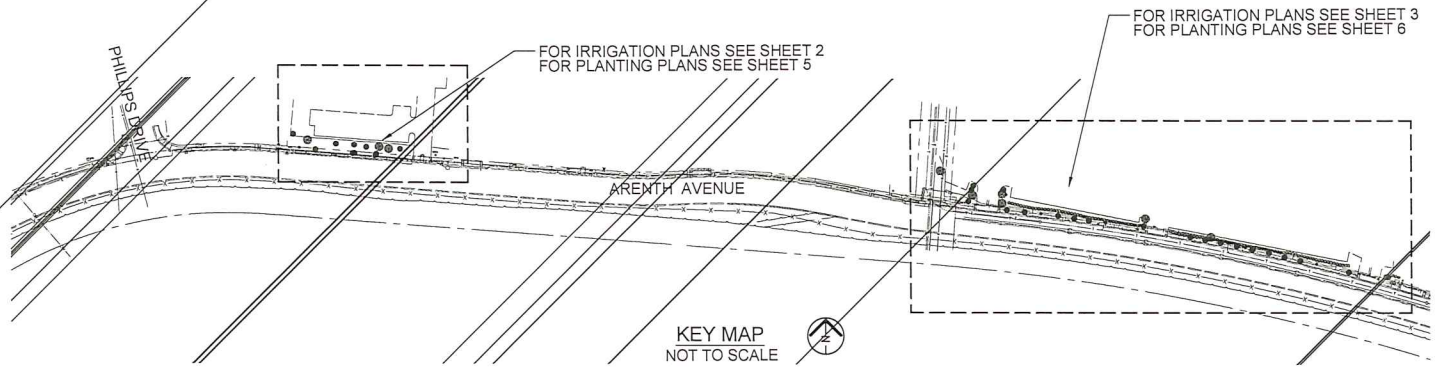


VICINITY MAP

NORTH

L.A. COUNTY DEPARTMENT OF PUBLIC HEALTH NOTE:

1. NO PIPES MAY BE BURIED BEFORE A PIPELINE ID INSPECTION IS CONDUCTED BY AYUSH DHRUV (626) 430-5290 OR DAN BACANI OF L.A. COUNTY PUBLIC HEALTH CROSS CONNECTION & WATER POLLUTION CONTROL PROGRAM. SEE NOTES AND GUIDLINES ON SHEET 4
2. NO PIPES MAY BE BURIED BEFORE A SHUTDOWN TEST IS CONDUCTED



KEY MAP
NOT TO SCALE

SHEET INDEX

COVER SHEET	SHEET 1
IRRIGATION PLANS	SHEET 2 - 3
L.A.C.D.P.H. RECYCLED WATER GUIDLINES	SHEET 4
PLANTING PLAN	SHEET 5 - 6
LANDSCAPE DETAILS	SHEET 7
SPECIFICATIONS	SHEET 8-10

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CITY OF INDUSTRY
INCORPORATED JUNE 18, 1957
P.O. Box 3366, City of Industry, California 91744
Administrative Offices: 15625 E. Stafford Street
(626) 333-2211

LICENSED LANDSCAPE ARCHITECT — BRETT K. FRENCH — 3416 — Signature — 10/31/20 Renewal Date — STATE OF CALIFORNIA

NO.	DATE	REVISIONS	CK. BY

Prepared by: Environs, Inc. LANDSCAPE ARCHITECTURE — Creating Sustainable & Water Conserving Solutions — 1746 N. Bridgeport Avenue * Claremont, CA 91711 — Ph. (909) 626-4663 * Fax (909) 626-0443

BRETT FRENCH, RLA #3416 DATE
DESIGN BY: BKF DRAWN BY: BKF

CITY OF INDUSTRY
APPROVED BY:
JOSHUA L. NELSON, R.C.E. 66959 CITY ENGINEER DATE

ARENTH AVENUE STREET IMPROVEMENTS
PHILLIPS DRIVE TO NOGALES STREET
COVER SHEET

CHECKED BY: -
DATE: 09-10-20 -
JOB NO. CITY - 1460
SHT. 1 OF 10

CONTRACT DRAWING 20 OF 60

IRRIGATION NOTES

1. IT IS THE INTENT OF THESE DRAWINGS TO INDICATE A COMPLETE AND OPERATIONAL IRRIGATION SYSTEM GIVING FULL COVERAGE AND READY FOR USE BY THE OWNER. THE DRAWINGS ARE BASED ON LANDSCAPE AND GRADING DRAWINGS IN EFFECT AT THE TIME THESE DRAWINGS WERE MADE. ANY DISCREPANCIES, OMISSIONS, ERRORS, ETC. ON THESE DRAWINGS OR ON SITE CHANGES, DO NOT AND SHALL NOT RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITY TO PROVIDE A COMPLETE SYSTEM AS SHOWN. IF NECESSARY, THE CONTRACTOR MAY, WHERE CHANGES OCCUR, ADD OR DELETE SPRINKLERS, REROUTE PIPE, ETC. TO ASSURE ADEQUATE AND FULL COVERAGE.
2. IRRIGATION CONTRACTOR SHALL VERIFY ALL PRESSURES ON SITE PRIOR TO CONSTRUCTION.
3. CONTRACTOR SHALL INSTALL CHECK VALVES IN ALL HEADS IN WHICH LOW HEAD DRAINAGE OCCURS.
4. LOCATE ALL VALVES IN PLANTING AREAS.
5. IRRIGATION SYSTEM IS STRICTLY DIAGRAMMATIC, THEREFORE, CONTRACTOR MUST MAKE ADJUSTMENTS IN THE FIELD TO INSURE ADEQUATE COVERAGE.
6. IRRIGATION SYSTEM SHALL CONFORM TO STATE AND LOCAL CODES.
7. ALL SHRUBBERY-TYPE HEADS ADJACENT TO WALKS SHALL BE INSTALLED AS LOW AS NECESSARY TO PREVENT ANY DAMAGE TO IRRIGATION SYSTEM.
8. THE SYSTEM SHALL BE FULLY GUARANTEED FOR A PERIOD OF ONE YEAR. ANY DEFECTIVE MATERIAL OR POOR WORKMANSHIP SHALL BE REPLACED OR CORRECTED BY THE IRRIGATION CONTRACTOR AT NO COST TO THE OWNER.
9. 120 VOLT ELECTRICAL POWER OUTLET FOR CONTROLLERS SHALL BE PROVIDED AS NOTED. IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING HOOK-UP FROM OUTLET TO CONTROLLER.
10. ALL WIRE FROM CONTROLLER TO ELECTRIC CONTROL VALVES SHALL BE COPPER UF #14 DIRECT BURIAL. USE BLACK FOR PILOT, WHITE FOR COMMON. INSTALL IN COMMON TRENCH WITH MAIN LINE PIPING WHERE POSSIBLE.
11. PROVIDE MINIMUM 18" COVER OVER ALL PRESSURE MAIN LINE PIPING, AND 12" OVER ALL NON-PRESSURE LATERAL LINE PIPING. ALL PIPE UNDER PAVED AREAS IS TO BE INSTALLED IN A PVC SCH. 40 SLEEVE WITH 30" MIN. COVER. SLEEVE LOCATIONS TO BE AS SHOWN ON PLANS. CITY DEPTH REQUIREMENTS FOR PIPE SUPERCEDE ALL THE ABOVE DIMENSIONS.
12. IRRIGATION CONTRACTOR SHALL FLUSH ALL LINES AND ADJUST ALL HEADS FOR MAXIMUM PERFORMANCE AND TO PREVENT OVERSPRAY AS MUCH AS POSSIBLE.
13. DO NOT WILLFULLY INSTALL THE SYSTEM AS DESIGNED WHEN IT IS OBVIOUS IN THE FIELD THAT UNKNOWN OBSTRUCTIONS OR GRADE DIFFERENCES EXIST THAT WERE NOT KNOWN DURING THE DESIGN PROCESS. SUCH CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER'S AUTHORIZED REPRESENTATIVE. OTHERWISE, THE IRRIGATION CONTRACTOR MUST ASSUME FULL RESPONSIBILITY FOR ANY AND ALL NECESSARY REVISIONS.
14. FINAL LOCATION OF AUTOMATIC CONTROLLER AND THE BACKFLOW PREVENTER SHALL BE DETERMINED BY OWNER'S AUTHORIZED REPRESENTATIVE AND/OR LANDSCAPE ARCHITECT.
15. FLUSH AND ADJUST ALL SPRINKLER HEADS FOR OPTIMUM PERFORMANCE AND TO PREVENT OVERSPRAY ONTO WALKS AND WALLSFENCES AS MUCH AS POSSIBLE.
16. RAINBIRD DRIP LINE SHALL BE INSTALLED 4" BELOW GRADE (NOT INCLUDING MULCH COVER).
17. LOCATION OF P.O.C. IS ONLY DIAGRAMATIC. LOCATION MUST BE VERIFIED IN FIELD.
18. IN ADDITION TO THE SLEEVES SHOWN ON THE PLAN, THE IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF ADDITIONAL SLEEVES OF SUFFICIENT SIZE UNDER ALL PAVED AREAS PRIOR TO PAVING UPON APPROVAL OF THE OWNER'S REPRESENTATIVE, IF REQUIRED TO OPERATE SYSTEMS.
19. MAINLINE FEEDER BETWEEN POINT OF CONNECTION, METER AND BACKFLOW PREVENTER TO BE OF MATERIAL AS REQUIRED BY CURRENT WATER DISTRICT.

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION
	Rain Bird PEB Electric Remote Control Valve in Recycled Water Purple Valve Box. - Contractor to replace existing valves and connect into existing control wires and controller. Contractor to field verify existing valves since As-Built Irrigation Plans are unavailable.
	Nibco T-113 Class 125 bronze gate shut off valve with wheel handle, same size as mainline pipe diameter at valve location. Located in purple recycled water round valve box
	Wilkins Model 500 YSBR Pressure Regulator Line Siz Pressure Regulator line size in a purple recyled water valve box. Set Regulator at 75 PSI
BS	Hayward Basket Strainer - Line Size Hayward Basket Strainer #72 Cast Iron with 200 Mesh Located in a Rectangular Recycled Water Purple Valve Box
RW	Water Meter 1-1/2" Existing Recycled Water Meter - Static Pressure = 110 PSI - Information provided by Dave Miller of Rowland Water District (562) 383-2346
	Irrigation Lateral Line: PVC Class 200 (Purple) SDR 21 PVC Class 200 recycled water (Purple) irrigation pipe. Only lateral transition pipe sizes 1" and above are indicated on the plan, with all others being 3/4" in size
	Irrigation Mainline: Existing Mainline to Remain - Protect in Place Contractor to field verify location as As-built Irrigation Plans are not available.

Valve Callout

Valve Number
Valve Flow
Valve Size

NOTE:

1. CONTRACTOR TO INSTALL OVERHEAD SPRAY SPRINKLERS 24" & ROTARY HEADS 12" AWAY FROM NON-PERMEABLE PAVING EXCEPT WHERE EXISTING TURF IS LOCATED. WHERE EXISTING TURF IS LOCATED LOCATE HEADS 6" AWAY FROM NON-PERMEABLE PAVING.

SUBSURFACE DRIPLINE NOTES:

1. SUBSURFACE DRIP SYMBOL (HATCH) IS DIAGRAMATIC AND DOES NOT REFLECT ACTUAL QUANTITY OF TUBING. REFER TO SUBSURFACE DRIPLINE DETAILS ON SHEET 5
2. ALL TREES IN DRIP AREAS TO RECEIVE DRIP RINGS SEE SHEET 5 DETAIL 7
3. ALL 15 GAL. AND SMALLER SHRUBS / GROUND COVER TO RECEIVE DRIPLINE ON EACH SIDE OF ROOTBALL WITH A MAXIMUM SPACING BETWEEN LINES OF 18". ALL DRIP LINE TO BE BURIED 2" BELOW GRADE.
4. CONTRACTOR TO INSTALL THE FOLLOWING EQUIPMENT WITH SUBSURFACE DRIPLINE:

TORO DRIP FLUSH CAP IN A ROUND VALVE BOX - LOCATE AT BOTH ENDS OF THE SYSTEM

CONTRACTOR TO INSTALL (1) RAINBIRD AIR/VACUUM RELIEF VALVE IN A ROUND VALVE BOX AT THE HIGHEST ELEVATION OF EACH PLANTER IN EACH VALVE SYSTEM WHERE SUBSURFACE DRIP LINE IS USED. WHEN A SUBSURFACE DRIP VALVE SERVICES SEPARATE PLANTERS, EACH MUST HAVE ITS OWN RELIEF VALVE.

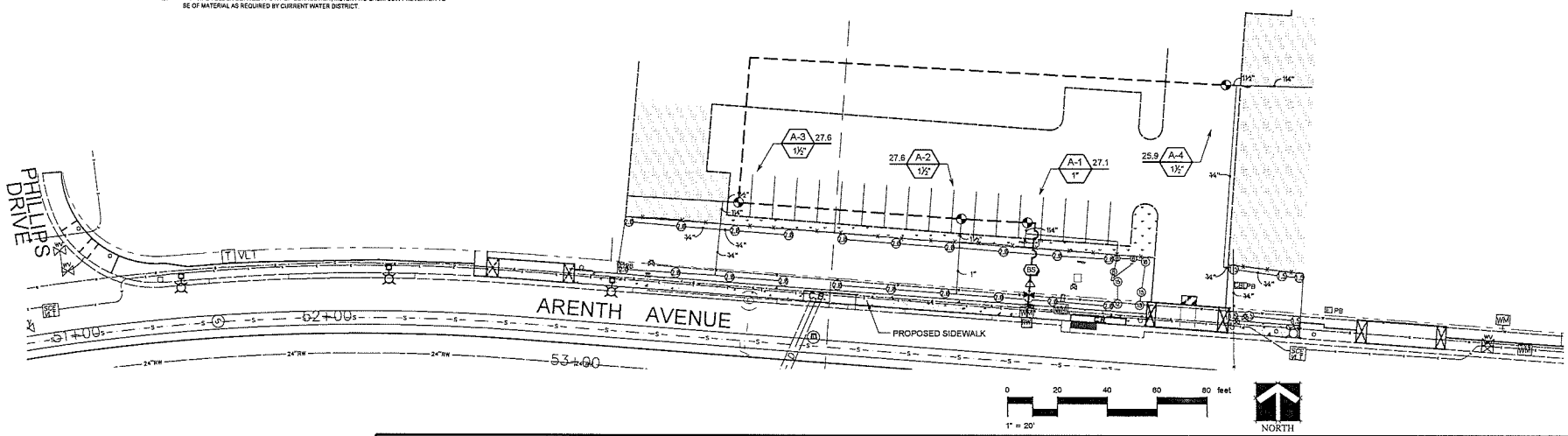
IRRIGATION SCHEDULE

SYMBOL	DESCRIPTION	PRECIP	PSI	GPM
	EXISTING SPRAY IRRIGATION TO REMAIN. Note: Contractor to protect in place. Contractor responsible to repair and or replace irrigation equipment damaged during construction.	1.65 in/h	25	180
	EXISTING TURF ROTORS TO REMAIN Contractor to repair and or replace where damaged during construction.	0.50 in/h	45	24

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	PSI
4V 8V 18V	Rain Bird 1812-SAM-NP ADJ Shrub Spray 12.0" Pop-Up Sprinkler with Co-Molded Wiper Seal. 1/2" NPT Female Threaded Inlet. With Seal-A-Matic Check Valve, and Non-Potable Purple Cap.	30
8HE-VAN 12HE-VAN 18HE-VAN 15HE-VAN	Rain Bird 1812-SAM-NP ADJ Shrub Spray 12.0" Pop-Up Sprinkler with Co-Molded Wiper Seal. 1/2" NPT Female Threaded Inlet. With Seal-A-Matic Check Valve, and Non-Potable Purple Cap.	30

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	PSI	GPM	RADIUS
1.7	Hunter PGJ-06-R Turf Rotor, 6.0" Pop-Up. Adjustable and Full Circle. With Reclaimed Water Purple ID, and Drain Check Valve.	50	1.70	22'
2.3	Hunter PGJ-06-R Turf Rotor, 6.0" Pop-Up. Adjustable and Full Circle. With Reclaimed Water Purple ID, and Drain Check Valve.	50	2.30	25'

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION
	Rain Bird XCZ-100-PRB-COM Drip Control Kit, 1" PESB valve, 1" Basket Filter, and 40psi Pressure Regulator, 1" Ball Valve located in a Recycled Water Purple Valve Box.
	Toro T-FCH-H-FIPT Flush Valve in a 6" round purple valve box, plumbed to flush manifold at low point.
	Rain Bird ARV075 3/4" Air Relief Valve, made of quality rust-proof materials, with a 6.0" drip purple valve box. Use with installation below soil. The valve will allow air to escape the pipeline, thus preventing water hammer or blockage.
	Circular Dripline for Medium Water Trees Rainbird XFSP-09-12 (12) in a double circular pattern around trees. See typical dripline details.
	Area to Receive Dripline Rain Bird XFS-P-09-18 (18) XFS Sub-Surface Pressure Compensating Landscape Dripline w/Copper Shield Technology. 0.9GPH emitters at 18.0" O.C. Dripline laterals spaced at 18.0" apart, with emitters offset for triangular pattern. Purple Tubing for Non-Potable Water.



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CITY OF INDUSTRY
INCORPORATED JUNE 18, 1957
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Administrative Offices: 15625 E. Stafford Street
(626) 333-2211

LICENSED LANDSCAPE ARCHITECT BRETT K. FRENCH 3416 Expires 12/31 STATE OF CALIFORNIA

NO.	DATE	REVISIONS	CK. BY

Prepared by: Environs, Inc. LANDSCAPE ARCHITECTURE
Creating Sustainable & Water Conserving Solutions
1749 N. Hedgepeth Avenue * Claremont, CA 91711
Ph. (909) 626-4663 * Fax (909) 626-8463

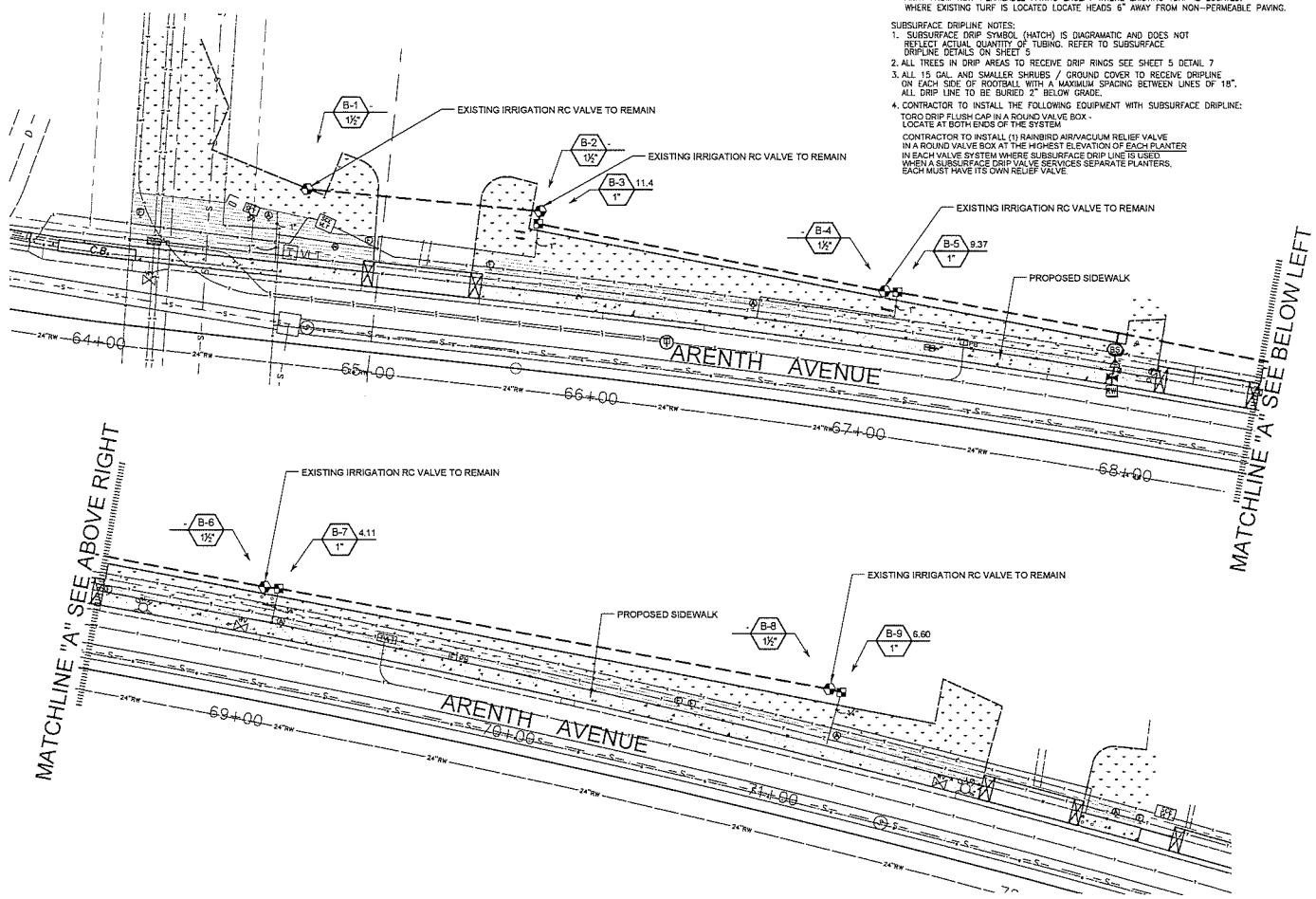
BRETT FRENCH, RLA #3416 DATE
DESIGN BY: BKF DRAWN BY: BKF

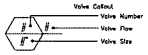
ARENTH AVENUE STREET IMPROVEMENTS
PHILLIPS DRIVE TO NOGALES STREET

IRRIGATION PLAN

CHECKED BY: -
DATE: 09-10-20 -
JOB NO. CITY - 1460
SHT. 2 OF 10

CONTRACT DRAWING 21 OF 60





NOTE:

1. CONTRACTOR TO INSTALL OVERHEAD SPRAY SPRINKLERS 24" & ROTARY HEADS 12" AWAY FROM NON-PERMEABLE PAVING EXCEPT WHERE EXISTING TURF IS LOCATED. WHERE EXISTING TURF IS LOCATED LOCATE HEADS 6" AWAY FROM NON-PERMEABLE PAVING.

SUBSURFACE DRIPLINE NOTES:

1. SUBSURFACE DRIP SYMBOL (HATCH) IS DIAGRAMATIC AND DOES NOT REFLECT ACTUAL QUANTITY OF TUBING. REFER TO SUBSURFACE DRIPLINE DETAILS ON SHEET 5
2. ALL TREES IN DRIP AREAS TO RECEIVE DRIP RINGS SEE SHEET 5 DETAIL 7
3. ALL 15 GAL. AND SMALLER SHRUBS / GROUND COVER TO RECEIVE DRIPLINE ON EACH SIDE OF ROOTBALL WITH A MAXIMUM SPACING BETWEEN LINES OF 18". ALL DRIP LINE TO BE BURIED 2" BELOW GRADE.
4. CONTRACTOR TO INSTALL THE FOLLOWING EQUIPMENT WITH SUBSURFACE DRIPLINE:
   TORO DRIP FLUSH CAP IN A ROUND VALVE BOX - LOCATE AT BOTH ENDS OF THE SYSTEM
   CONTRACTOR TO INSTALL (1) RAINBIRD AIR/VACUUM RELIEF VALVE IN A ROUND VALVE BOX AT THE HIGHEST ELEVATION OF EACH PLANTER IN EACH VALVE SYSTEM WHERE SUBSURFACE DRIP LINE IS USED. WHEN A SUBSURFACE DRIP VALVE SERVICES SEPARATE PLANTERS, EACH MUST HAVE ITS OWN RELIEF VALVE.

IRRIGATION SCHEDULE

SYMBOL	DESCRIPTION	PRECIP	PSI	GPM
	EXISTING SPRAY IRRIGATION TO REMAIN. Note: Contractor to protect in place. Contractor responsible to repair and or replace irrigation equipment damaged during construction.	1.65 in/h	25	180
	EXISTING TURF ROTORS TO REMAIN. Contractor to repair and or replace where damaged during construction.	0.50 in/h	45	24

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	PSI
4V 6V 18V	Rain Bird 1812-SAM-NP ADJ. Shrub Spray 12.0" Pop-Up Sprinkler with Co-Molded Wiper Seal 1/2" NPT Female Threaded Inlet. With Seal-A-Matic Check Valve, and Non-Potable Purple Cap.	30
4SHE-VAN 12HE-VAN 18HE-VAN 12HE-VAN	Rain Bird 1812-SAM-NP ADJ. Shrub Spray 12.0" Pop-Up Sprinkler with Co-Molded Wiper Seal. 1/2" NPT Female Threaded Inlet. With Seal-A-Matic Check Valve, and Non-Potable Purple Cap.	30

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	PSI	GPM	RADIUS
	Hunter PGJ-06-R. Turf Rotor, 6.0" Pop-Up. Adjustable and Full Circle. With Reclaimed Water Purple ID, and Drain Check Valve	50	1.70	22'
	Hunter PGJ-06-R. Turf Rotor, 6.0" Pop-Up. Adjustable and Full Circle. With Reclaimed Water Purple ID, and Drain Check Valve.	50	2.30	25'

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION
	Rain Bird XCZ-100-PRB-COM. Drip Control Kit, 1" PESB valve, 1" Basket Filter, and 40psi Pressure Regulator, 1" Ball Valve located in a Recycled Water Purple Valve Box.
	Toro T-FCH-H-FIPT. Flush Valve in a 6" round purple valve box, plumbed to flush manifold at low point.
	Rain Bird ARV075. 3/4" Air Relief Valve, made of quality rust-proof materials, with a 6.0" drip purple valve box. Use with installation below soil. The valve will allow air to escape the pipeline, thus preventing water hammer or blockage.
	Circular Dripline for Medium Water Trees. Rainbird XFSP-09-12 (12) in a double circular pattern around trees. See typical dripline details.
	Area to Receive Dripline. Rain Bird XFS-P-09-18 (18). XFS Sub-Surface Pressure Compensating Landscape Dripline w/Copper Shield Technology. 0.9GPH emitters at 18.0" O.C. Dripline laterals spaced at 18.0" apart, with emitters offset for triangular pattern. Purple Tubing for Non-Potable Water.

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION
	Rain Bird PEB. Electric Remote Control Valve in Recycled Water Purple Valve Box. - Contractor to replace existing valves and connect into existing control wires and controller. Contractor to field verify existing valves since As-Built Irrigation Plans are unavailable.
	Nibco T-113. Class 125 bronze gate shut off valve with wheel handle, same size as mainline pipe diameter at valve location. Located in purple recycled water round valve box
	Wilkins Model 500 YSBR Pressure Regulator Line Siz. Pressure Regulator line size in a purple reycled water valve box. Set Regulator at 75 PSI
BS	Hayward Basket Strainer - Line Size. Hayward Basket Strainer #72 Cast Iron with 200 Mesh Located in a Rectangular Recycled Water Purple Valve Box
MW	Water Meter 1-1/2". Existing Recycled Water Meter - Static Pressure = 110 PSI - Information provided by Dave Miller of Rowland Water District (562) 363-2340
	Irrigation Lateral Line: PVC Class 200 (Purple) SDR 21. PVC Class 200 recycled water (Purple) irrigation pipe. Only lateral transition pipe sizes 1" and above are indicated on the plan, with all others being 3/4" in size
	Irrigation Mainline: Existing Mainline to Remain - Protect in Place. Contractor to field verify location as As-built Irrigation Plans are not available.

0 20 40 60 80 feet

1" = 20'

NORTH

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CITY OF INDUSTRY

INCORPORATED JUNE 18, 1957
P.O. Box 3388, City of Industry, California 91744
Administrative Offices: 15625 E. Stafford Street
(626) 333-2211

LICENSED LANDSCAPE ARCHITECT — BRETT K. FRENCH — 3416 — 10/21/20 — STATE OF CALIFORNIA

NO.	DATE	REVISIONS	CK. BY

Prepared by: Environs, Inc. LANDSCAPE ARCHITECTURE — Creating Sustainable & Water Conserving Solutions — 1716 N. Bridgeport Avenue * Claremont, CA 91711 — Ph. (909) 626-4663 * Fax (909) 626-9416

BRETT FRENCH, RLA #3416 DATE
DESIGN BY: BKF DRAWN BY: BKF

ARENTH AVENUE STREET IMPROVEMENTS
PHILLIPS DRIVE TO NOGALES STREET

IRRIGATION PLAN

CHECKED BY: -
DATE: 09-10-20 -
JOB NO. CITY - 1460
SHT. 3 OF 10

CONTRACT DRAWING 22 OF 60

- The use of recycled / reclaimed wastewater for irrigation purposes shall minimize exposure of the wastewater spray to drinking fountains and picnic tables through selective location of equipment and by appropriate irrigation system design. Additionally, the following measures should be taken: recycled wastewater spraying shall be done during hours of least public exposure; any area where recycled wastewater is released, used or impounded should be posted, informing the public that recycled water is being used; and irrigation practices utilizing recycled water shall be controlled to prevent surface runoff.

BACKFLOW PROTECTION

- There shall be no interconnection between a potable water system and a recycled / reclaimed water system within the user's premises.
- A dye or pressure test shall be utilized to confirm the physical separation of a recycled wastewater system and a potable water system. Testing shall be performed in conjunction with the Water Purveyor and this Department and conducted before the introduction of recycled wastewater.
- An approved backflow prevention device shall be installed at the potable water service connection.
- In a recycled / reclaimed wastewater distribution system, a backflow prevention device may be required at the recycled wastewater meter or at specific on-site locations where said use could degrade the quality of the recycled wastewater supply.

- Cross-Over Construction: Buried potable water pipes crossing over pressurized recycled / reclaimed water pipes shall be laid not less than twelve inches (12") above the reclaimed water pipes. Reclaimed water pipes laid in the same trench or crossing-over building sewer or drainage piping shall be installed in compliance with the LACC – Title 28, Plumbing, Sections 609.0 and 720.0.
- Unused or Abandoned Potable Water Lines: These lines are to be severed as close to water mains as practical, capped, and a ten foot (10') section of abandoned line removed and cemented under direct supervision by the Department.
- Existing On-site Piping: Maximum separation of recycled / reclaimed wastewater lines and potable water lines shall be maintained upon system additions or modification.

PIPELINE MATERIALS AND IDENTIFICATION

All recycled / reclaimed water pipe materials, valves and fittings shall conforms to the requirements of the LACC – Title 28, Plumbing, Sections 604.0, 605.0 and 606.0.

All recycled / reclaimed wastewater lines (pressure / non-pressure), valve boxes, hydrants and appurtenances shall be identified to clearly distinguish between recycled / reclaimed wastewater, non-potable and potable water systems (as specified in LACC – Title 28, Plumbing, Appendix J).

- Recycled / Reclaimed Wastewater: All buried, recycled, wastewater systems (pressure / non-pressure) shall utilize purple pipe with black uppercase lettering "CAUTION: RECYCLED WATER – DO NOT DRINK" printed on opposite sides of the pipe. For limited application, the use of continuous lettering on three inch (3") minimum width purple tape with one inch black or white contrasting uppercase lettering "CAUTION RECYCLED WATER – DO NOT DRINK" permanently affixed at intervals not to exceed five feet, atop all horizontal piping, laterals and mains. Identification tape shall extend to all valve boxes and / or vaults, exposed piping, hydrants and quick couplers. All valves, except fixture supply control valves shall be equipped with a locking feature. All mechanical equipment that is appurtenant to the recycled / reclaimed water system shall be painted purple.
- Potable Water: All potable water lines shall be installed in accordance with the Uniform Plumbing Code and all other applicable potable water system construction standards. All buried potable water lines shall be clearly identified by continuous lettering on three inch (3") minimum width blue tape with one inch (1") white lettering bearing the repeated wording "POTABLE WATER" permanently affixed at ten foot intervals atop all horizontal piping, laterals and mains. Identification tape shall extend to all valve boxes and / or vaults, exposed piping and hydrants. Identification tape is not necessary for extruded colored PVC with continuous wording "POTABLE WATER" printed in contrasting lettering on opposite sides of the pipe.
- Non-Potable Water: All non-potable irrigation / industrial water lines (pressure / non-pressure) shall be identified by continuous lettering on three inch (3") minimum width tape with one inch (1") contrasting lettering bearing the continuous uppercase lettering "NON-POTABLE WATER – DO NOT DRINK" permanently affixed at ten foot (10') intervals atop all horizontal piping, laterals and mains. Identification tape shall extend to all valve boxes and / or vaults, exposed piping, hydrants and quick couplers. Exposed piping, valve boxes, vaults, control valves, quick coupling valves, outlets and related appurtenances shall be color-coded and labeled / tagged to differentiate between recycled / reclaimed wastewater, potable water and non-potable water systems. Tags identifying recycled / reclaimed water shall have the appropriate identification on both sides (wording on one side and symbol on the opposite side).

THE SAFE USE OF RECYCLED / RECLAIMED WATER PROTECTS POTABLE WATER

- Deteriorated or inadequately-protected well water casings shall be repaired or replaced to protect aquifers against contamination from recycled / reclaimed wastewater systems.
- An On-Site Water Supervisor shall be appointed, having the responsibility of oversight for the protection of the potable water system (provided for under Title 17, Section 7586, and California Code of Regulations). The name and position of the On-Site Water Supervisor shall be reported to the water purveyor and to the Department. This position will be responsible for the installation, operation and maintenance of the recycled / reclaimed wastewater and potable water systems; authorization of any piping changes or additions to either the potable or recycled systems; prevention of potential hazards; implementation of the regulations; and coordination with the Cross-Connection Program of the water purveyor and of this Department.
- Hose bibbs shall not be permitted in any areas of public access to recycled / reclaimed wastewater systems, to prevent unauthorized use of recycled wastewater. Quick-couplers are permitted in lieu of hose-bibb outlets but shall only be connected to recycled / reclaimed wastewater lines. Hose bibs may be permitted in areas that are not accessible to the public, provided they are properly identified with permanently affixed tags, labels, or plates with uppercase lettering "RECYCLED WATER – DO NOT DRINK" in English.

LOS ANGELES COUNTY • DEPARTMENT OF PUBLIC HEALTH
ENVIRONMENTAL HEALTH

County of Los Angeles Public Health

CROSS CONNECTIONS AND WATER POLLUTION CONTROL PROGRAM
5050 Commerce Drive, Baldwin Park, CA 91706-1423
Tel (626) 430-5296 FAX (626) 813-3023

GUIDELINES FOR PIPELINE CONSTRUCTION AND INSTALLATION - FOR THE SAFE USE OF RECYCLED / RECLAIMED WASTEWATER

PURPOSE: As a result of increasing availability of recycled / reclaimed wastewater and an increased need for the transmission and use thereof, the Department of Public Health – Environmental Health (the Department) has found it necessary to establish the following regulations for pipeline construction and installation as well as for the safe use of recycled / reclaimed wastewater. These regulations are intended to protect public health by ensuring the safety of our domestic potable water supplies.

BACKGROUND: A recent increase in the number of inquiries and interest displayed regarding the use of recycled / reclaimed water, in the ongoing efforts to conserve water, have necessitated the need to establish definitions, standards and regulation for the uniform review and approval of recycled / reclaimed wastewater. Recycled / reclaimed water may be used for surface irrigation of the following: food crops; parks and playgrounds; school yards; residential landscaping; and unrestricted access golf courses.

DEFINITIONS:

Gray Water means untreated wastewater that has not come into contact with toilet waste, kitchen sink waste, dishwasher waste or similarly contaminated sources. Gray water includes water from bathtubs, showers, bathroom wash basins, clothes-washers and laundry tubs.

Non-Potable Water means water which is unfit for human or animal consumption due to contaminants that exceed the current permissible Maximum Contaminant Level (MCL) in drinking water.

Potable Water means water which is fit for consumption by humans and other animals. The U.S. Environmental Protection Agency (EPA) identifies contaminants that may adversely affect public health and occur in drinking water with a frequency and at levels that pose a threat to public health. The EPA establishes (MCLs) for both biological and chemical contaminants permissible in drinking water. These MCLs become enforceable standards that determine the potability of water.

Recycled / Reclaimed Water means non-potable water that meets or as a result of treatment, meets federal requirements for its intended uses. The level of treatment and quality of the reclaimed / recycled water shall be approved by the Authority Having Jurisdiction. Reclaimed / recycled water systems shall have no connection to any potable water system, with or without mechanical backflow prevention devices.

RECYCLED / RECLAIMED WASTEWATER SYSTEMS SHALL BE CONSTRUCTED IN COMPLIANCE WITH APPLICABLE POTABLE WATER SYSTEM CONSTRUCTION STANDARDS AS WELL AS THOSE SPECIFIED IN "THE PURPLE BOOK", CALIFORNIA HEALTH LAWS RELATED TO RECYCLED WATER, (CALIFORNIA HEALTH AND SAFETY CODE, WATER CODE, TITLES 22 AND 17 OF THE CALIFORNIA CODE OF REGULATIONS) AND THE LOS ANGELES COUNTY CODE (LACC), TITLE 28 – PLUMBING, APPENDIX J.

PRELIMINARY REQUIREMENTS

- Plans and specifications for recycled / reclaimed wastewater distribution systems, as well as the use and operation of such systems shall be submitted to the Department for review and approval prior to construction or implementation.
- Prior to commencing construction, the Contractor shall contact the Department to schedule an inspection of the proposed on-site recycled / reclaimed and potable water work.
- No piping for potable or recycled / reclaimed water in conjunction with a specified project shall be installed prior to plan check approval and preliminary inspection.
- Upon completion of construction, no excavation or open trench may be backfilled without first securing the Department approval. Any areas backfilled without prior approval will be required to be exposed and corrected as necessary.
- Only a Department approved temporary water connection, to a potable water supply via a dedicated, approved, reduced-pressure-principle backflow prevention device shall be permitted to be utilized for the purpose of flushing, pressure testing, construction, landscape use or the final cross-connection testing.

SEPARATION REQUIREMENTS

The maximum attainable separation of recycled / reclaimed wastewater lines and potable water lines shall be enforced in order to minimize potential risks associated with pipeline breaks resulting in infiltration of wastewater from leaking wastewater lines into domestic water lines, or accidental cross-connections between recycled wastewater and potable water systems.

- Parallel Construction: A horizontal separation of at least ten feet (10') shall be required between pressurized, buried, recycled / reclaimed and potable water piping (all distance to be measured from pipeline outside diameter).

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LICENSED LANDSCAPE ARCHITECT
BRETT K. FRENCH
3416
10/31/20
Renewal Date
STATE OF CALIFORNIA

NO.	DATE	REVISIONS	CK. BY

Prepared by:
Environs, Inc
LANDSCAPE ARCHITECTURE
Creating Sustainable & Water Conserving Solutions
1746 N. Bridgeport Avenue • Claremont, CA 91711
Ph. (909) 626-4663 • Fax (909) 626-2446

BRETT FRENCH, RLA #3416 DATE
DESIGN BY: BKF DRAWN BY: BKF

ARENTH AVENUE STREET IMPROVEMENTS
PHILLIPS DRIVE TO NOGALES STREET

L.A.C.D.P.H. RECYCLED WATER GUIDLINES

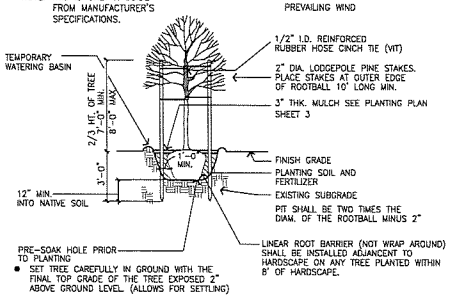
CHECKED BY: –
DATE: 09-10-20 –
JOB NO. CITY - 1460
SHT. 4 OF 10

CONTRACT DRAWING 23 OF 60

FERTILIZER TABLET SCHEDULE

NO. OF TABLETS	
24" BOX	15 TABLETS
36" BOX	19 TABLETS

NOTE: THIS IS ONLY A GUIDE FROM MANUFACTURER'S SPECIFICATIONS.



- SET TREE CAREFULLY IN GROUND WITH THE FINAL TOP GRADE OF THE TREE EXPOSED 2" ABOVE GROUND LEVEL. (ALLOWS FOR SETTLING)
- REMOVE BASIN PRIOR TO END OF MAINTENANCE PERIOD.
- TRIPPLE STAKE OR (2) GALVANIZED STAKES REQUIRED IN WINDY AREAS.

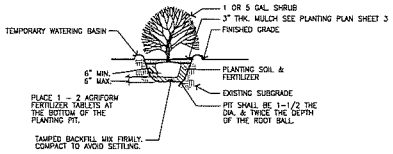
TREE PLANTING DETAIL

NOTE:

1. ALL TREES WITHIN 8' OF HARDSCAPE SHALL BE IN A SHAWTOWN LINEAR (WRAP AROUND NOT ALLOWED) ROOT BARRIER 24" HIGH LINEAR ROOT BARRIER SHALL BE CENTERED ON TREE AND EXTEND 5' IN BOTH DIRECTIONS FOR A TOTAL OF 10'
2. NOTE: QUANTITIES AND AREA CALCULATIONS SHOWN IN LEGEND ARE FOR REFERENCE ONLY CONTRACTOR RESPONSIBLE FOR ALL QUANTITY TAKE-OFFS AND AREA CALCULATIONS FOR DETERMINING COST AND DELIVERY OF MATERIALS TO SITE. NOTE AREA CALCULATIONS DO NOT REFLECT SLOPE FACTORS.

SHREDDED MULCH NOTE

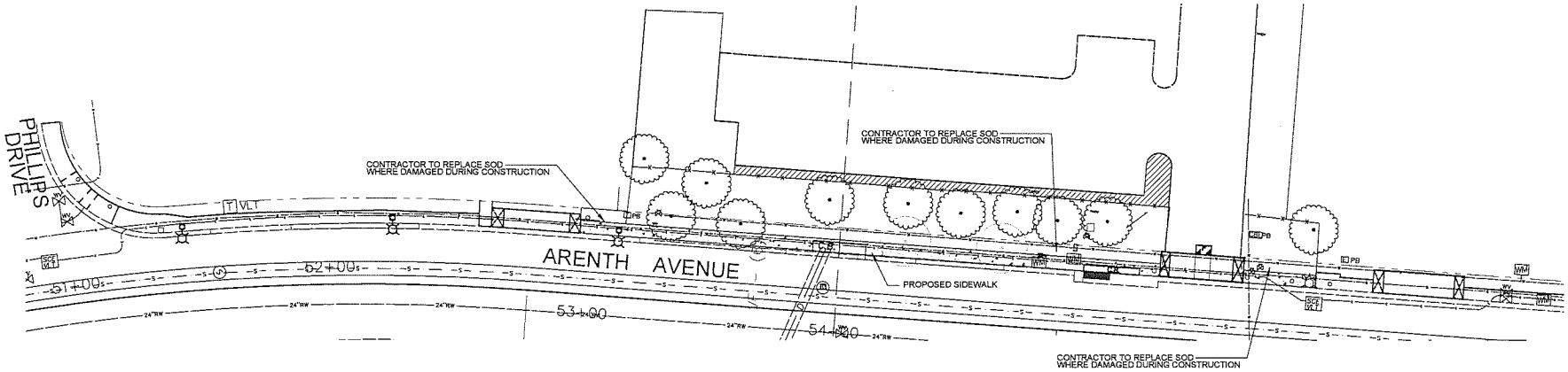
ALL PLANTER AREAS TO RECEIVE A 3" LAYER OF SHREDDED COVER MULCH AVAILABLE FROM EARTHWORKS (951)782-0260



SHRUB PLANTING DETAIL

PLANT SCHEDULE

TREES	BOTANICAL NAME / COMMON NAME	CONT	WUCOLS		QTY
	Existing Tree To Be Removed	Existing			18
	Existing Tree to Remain- Protect in Place	Existing			24
GROUND COVERS	**BOTANICAL NAME / COMMON NAME**	**CONT**	**WUCOLS**	**SPACING**	**QTY**
	Acacia redolens 'Lowboy' / Bank Catclaw	1 gal	Low	48" o.c.	56
	Existing Grass / to Remain	Existing	High		9,550 sf
	Existing Grass / Shrubs / Ground Cover / to Remain	Existing			10,576 sf
	Contractor to replace with new sod where damaged during construction				
	Lantana montevidensis 'New Gold' / Trailing Lantana	1 gal	LOW	36" o.c.	414



0 20 40 60 80 feet
1" = 20'

NORTH
SCALE 1" = 20'-0"

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INCORPORATED JUNE 18, 1957
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Administrative Offices: 15625 E. Stafford Street
(626) 333-2211

LICENSED LANDSCAPE ARCHITECT BRETT K. FRENCH 3415 10/31/20 Renewal Date STATE OF CALIFORNIA

NO.	DATE	REVISIONS	CK. BY

Prepared by: Environs, Inc. LANDSCAPE ARCHITECTURE
Creating Sustainable & Water Conserving Solutions
1746 N. Bridgeport Avenue • Claremont, CA 91711
Ph. (909) 626-4062 • Fax (909) 626-3946

BRETT FRENCH, RLA #3415 DATE
DESIGN BY: BKF DRAWN BY: BKF

ARENTH AVENUE STREET IMPROVEMENTS
PHILLIPS DRIVE TO NOGALES STREET

PLANTING PLAN

CHECKED BY: - DATE: 09-10-20 -
JOB NO. CITY - 1460
SHT. 5 OF 10

CONTRACT DRAWING 24 OF 60

NOTE:

1. ALL TREES WITHIN 8' OF HARDSCAPE SHALL BE IN A SHAWTOWN LINEAR (WRAP AROUND NOT ALLOWED) ROOT BARRIER 24" HIGH LINEAR ROOT BARRIER SHALL BE CENTERED ON TREE AND EXTEND 5' IN BOTH DIRECTIONS FOR A TOTAL OF 10'
2. NOTE: QUANTITIES AND AREA CALCULATIONS SHOWN IN LEGEND ARE FOR REFERENCE ONLY CONTRACTOR REPONSIBLE FOR ALL QUANTITY TAKE-OFFS AND AREA CALCULATIONS FOR DETERMINING COST AND DELIVERY OF MATERIALS TO SITE. NOTE AREA CALCULATIONS DO NOT REFLECT SLOPE FACTORS.

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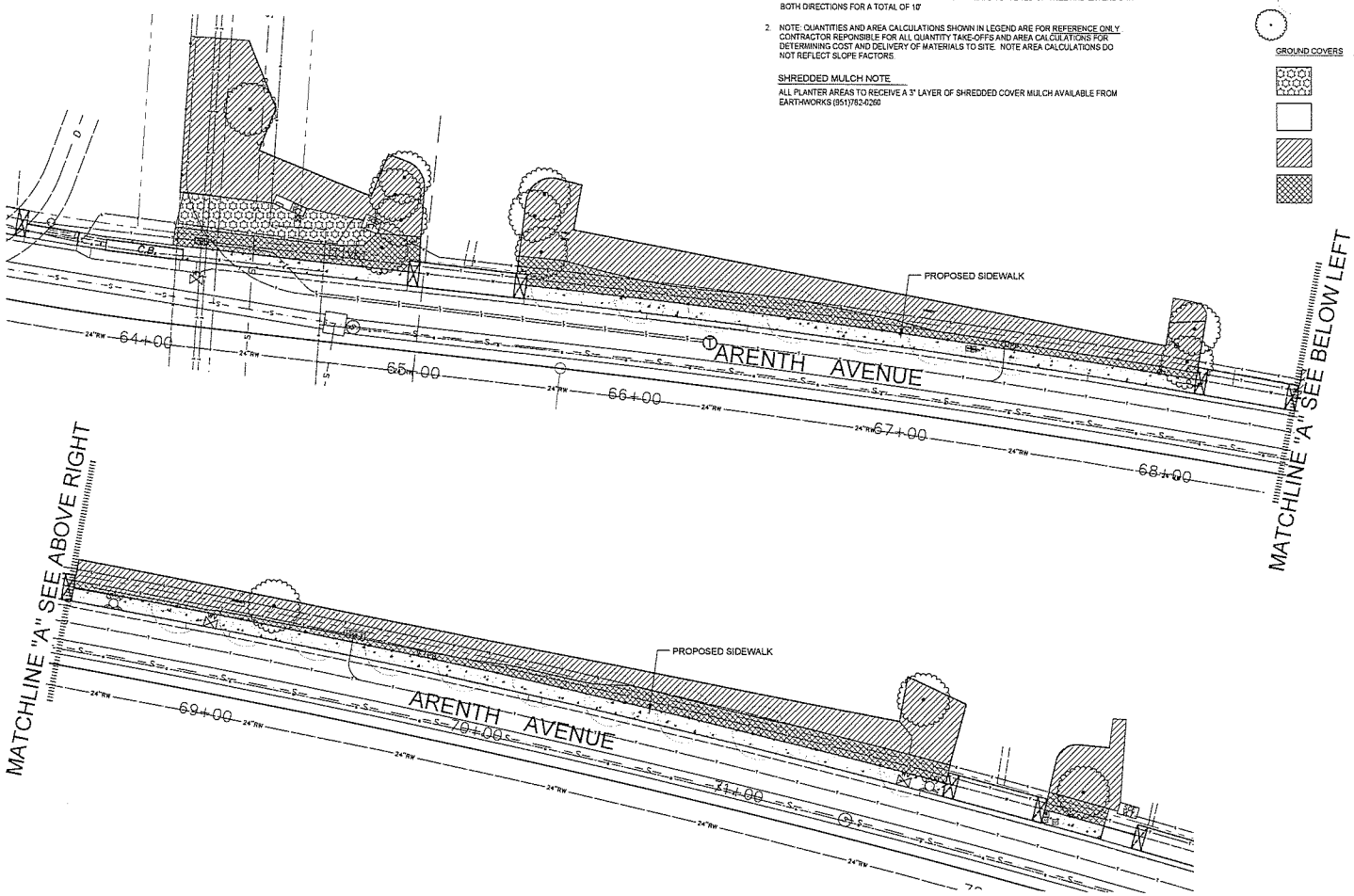
ALL PLANTER AREAS TO RECEIVE A 3" LAYER OF SHREDDED COVER MULCH AVAILABLE FROM EARTHWORKS (951)782-0260

PLANT SCHEDULE

TREES	BOTANICAL NAME / COMMON NAME	CONT	WUCOLS		QTY
	Existing Tree To Be Removed	Existing			19
	Existing Tree to Remain- Protect in Place	Existing			24
GROUND COVERS	**BOTANICAL NAME / COMMON NAME**	**CONT**	**WUCOLS**	**SPACING**	**QTY**
	Acacia redolens 'Lowboy' / Bank Catclaw	1 gal	Low	48" o.c.	56
	Existing Grass / to Remain	Existing	High		9,550 sf
	Existing Grass / Shrubs / Ground Cover / to Remain	Existing			10,576 sf
	Lantana montevidensis 'New Gold' / Trailing Lantana	1 gal	LOW	36" o.c	414



NORTH

SCALE 1" = 20'-0"

0 20 40 60 80 feet

1" = 20'

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CITY OF INDUSTRY

INCORPORATED JUNE 18, 1957
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LICENSED LANDSCAPE ARCHITECT BRETT K. FRENCH 3416 10/21/20 STATE OF CALIFORNIA

NO.	DATE	REVISIONS	CK. BY

Prepared by: Environs, Inc. LANDSCAPE ARCHITECTURE
Crewing Sustainable & Water Conserving Solutions
3746 N. Bridgeport Avenue • Claremont, CA 91711
Ph. (909) 626-4663 • Fax (909) 626-3446

BRETT FRENCH, RLA #3416 DATE
DESIGN BY: BKF DRAWN BY: BKF

ARENTH AVENUE STREET IMPROVEMENTS
PHILLIPS DRIVE TO NOGALES STREET

PLANTING PLAN

CHECKED BY: –
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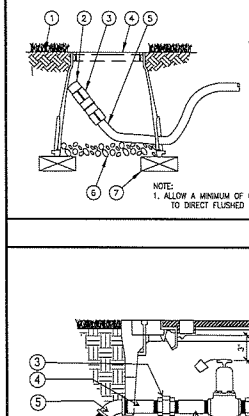
SHT. 6 OF 10

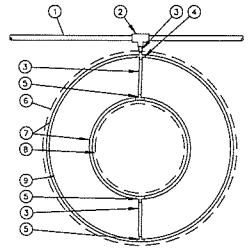
CONTRACT DRAWING 25 OF 60



1. FINISH GRADE/TURF
2. FLUSH CAP FOR EASY FIT COMPRESSION FITTINGS:
   POTABLE: RAIN BIRD MDCFCAP
   NON-POTABLE: RAIN BIRD MDCFPCAP
3. EASY FIT COUPLING: RAIN BIRD MDCFCOUP
4. ROUND PURPLE VALVE BOX
5. LANDSCAPE DRIPLINE TUBING:
   RAIN BIRD XF-SDI DRIPLINE
   POTABLE: XFS SERIES
   NON-POTABLE: XFSP SERIES
6. 3-INCH MINIMUM DEPTH OF 3/4-INCH WASHED GRAVEL
7. BRICK (1 OF 2)

NOTE:
1. ALLOW A MINIMUM OF 6-INCHES OF DRIPLINE TUBING IN VALVE BOX IN ORDER TO DIRECT FLUSHED WATER OUTSIDE VALVE BOX.

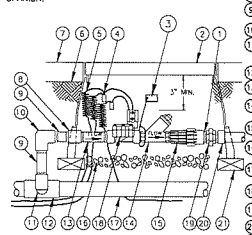
DRIP FLUSH VALVE 10



1. PVC DRIP MANIFOLD PIPE
2. PVC SCH 40 TEE OR EL
3. ½" POLYETHYLENE TUBING:
   RAIN BIRD XF SERIES BLANK TUBING
4. BARB CROSS INSERT FITTING:
   RAIN BIRD XFD-CROSS
5. BARB TEE INSERT FITTING:
   RAIN BIRD XFD-TEE
6. PROJECTED CANOPY LINE OF TREE
7. SUB-SURFACE DRIPLINE:
   RAIN BIRD XF SERIES DRIPLINE
   POTABLE: XFS DRIPLINE
   NON-POTABLE: XFSP DRIPLINE
   PLACE AS SHOWN (LENGTH AS REQUIRED)
   ROOT BALL
8. TIE DOWN STAKE:
   RAIN BIRD TDS-050 WITH BEND (QUANTITY AS REQUIRED, SEE NOTES 2-3 BELOW)

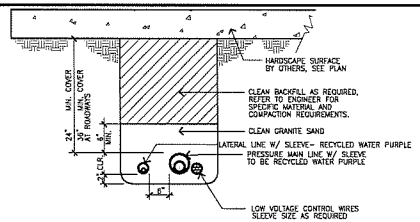
NOTES:
1. DISTANCE BETWEEN LATERAL RINGS AND EMITTER SPACING TO BE BASED ON SOIL TYPE, AND TREE CANOPY. SEE RAIN BIRD XF-SDI DRIPLINE INSTALLATION GUIDE FOR SUGGESTED SPACINGS.
2. PLACE TIE DOWN STAKES EVERY THREE FEET IN SAND, FOUR FEET IN LOAM, AND FIVE FEET IN CLAY.
3. AT FITTINGS WHERE THERE IS A CHANGE OF DIRECTION SUCH AS TEES OR ELBOWS, USE TIE-DOWN STAKES ON EACH LEG OF THE CHANGE OF DIRECTION.

TYPICAL DRIP LINE AROUND TREE 7



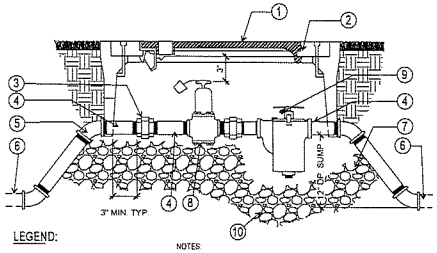
1. PVC SCH 80 NIPPLE
2. PLASTIC PURPLE VALVE BOX & LID – SEE PLAN FOR LOCATION OF PROPOSED EQUIPMENT
3. PLASTIC LABEL ATTACHED W/ NYLON TIE. LABEL TO READ: "RECYCLED WATER-DO NOT DRINK" IN ENGLISH & SPANISH.
4. WATER PROOF CONNECTION (1 OF 2)
5. 30-INCH LINEAR LENGTH OF WIRE, COILED
6. FINISH GRADE
7. TOP OF MULCH OR GRAVEL
8. PVC SCH 40 COUPLING
9. PVC SCH 80 NIPPLE (LENGTH AS REQUIRED)
10. PVC SCH 40 ELL
11. PVC SCH 80 NIPPLE (2-INCH LENGTH, HIDDEN) AND PVC SCH 40 ELL
12. PVC SCH 40 TEE OR ELL
13. SCH. 80 PVC NIPPLE
14. INLINE WYE FILTER: RAIN BIRD MODEL SC 150 050 SS (50 MESH)
15. SENNINER 30 PSI PRESSURE REGULATOR
16. 3.0-INCH MINIMUM DEPTH OF 3/4-INCH WASHED GRAVEL
17. MAINLINE- EXISTING
18. REMOTE CONTROL VALVE: SEE PLAN FOR TYPE
19. PVC SCH 80 UNION FOR SERVICING ASSEMBLY
20. PVC SCH 40 MALE ADAPTER
21. BRICK (1 OF 4)

DRIP IRRIGATION REMOTE CONTROL VALVE 4



- NOTE: NO OTHER TRADES (ELECT., LIGHTING) SHALL BE ALLOWED TO USE THE SAME TRENCH AS IRRIGATION PIPE
- PROVIDE 24" COVER FOR DIRECT BURIAL CABLE
- ALL SLEEVES TO BE PVC SCH 40 PIPE
- ALL SLEEVES TO BE SIZED TWICE THE DIA. OF THE PIPE RUN
- ALL SLEEVES TO RUN A MIN. OF 12" BEYOND HARDSCAPE EDGES
- NOTE: IRRIGATION PIPES UNDER ROADWAYS SHALL BE INSTALLED 36" DEEP, SLEEVED AND IDENTIFIED WITH MARKING TAPE INSTALLED 12" FROM THE SURFACE IDENTIFYING TYPE OF LINE WITH APWA STANDARD "CAUTION WATERLINE BURIED BELOW" IN BLUE OR "CAUTION RECYCLED WATERLINE BURIED BELOW" IN PURPLE. SLEEVES SHALL BE SCHEDULE 40 PVC, TWO TIMES THE DIAMETER OF THE PIPE BEING SLEEVED.

IRRIGATION SLEEVE DETAIL 1



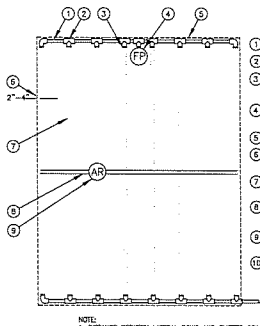
LEGEND:

1. Approved (Purple) rectangular plastic valve box with locking cover.
2. Finish grade
3. PVC Schd 40 union
4. PVC Schd 40 nipple
5. Purple PVC Schd 40 45° (TYP.)
6. Mainline - w/ words "Recycled Water - Do Not Drink"
7. Pea gravel
8. Pressure regulator
9. Christy ID Tag as required
10. Gravel Sump

NOTES:

A. Pressure setting shall be as specified on plans
B. Valve box shall be of sufficient size to accommodate Pressure Regulator Assembly.
C. Pressure Regulator shall be installed horizontally so adjustment nut, and main cap on Pressure Regulator are accessible
D. All piping and fittings shall be pvd schd 40 unless noted otherwise.
E. Close nipples shall not be used
F. Wrap below grade brass piping w/UPC 10 mil. black pipe wrap (as req'd).
G. Plastic Label attached w/ Nylon Tie Label to Read: "Recycled Water - Do Not Drink" in English and Spanish
H. Plastic valve box & lid (purple) branded w/ "recycled water". see plan for location

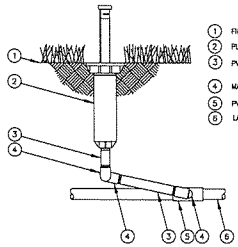
BASKET STRAINER WITH PRESSURE REGULATOR 11



1. PVC EXHAUST HEADER
2. PVC SCH 40 TEE OR EL (TYPICAL)
3. BARB X MALE FITTING:
   RAIN BIRD XFD-MA FITTING (TYPICAL)
4. FLUSH POINT (TYPICAL)
   SEE RAIN BIRD DETAIL "XF-SDI FLUSH POINT" OR "XF-SDI FLUSH POINT WITH BALL VALVE"
5. PERIMETER OF AREA
6. PERIMETER DRIPLINE PIPE TO BE INSTALLED 2"-4" FROM PERIMETER OF AREA
7. SUB-SURFACE DRIPLINE PIPE:
   RAIN BIRD XF-SDI SERIES DRIPLINE (TYPICAL)
8. ½" POLYETHYLENE BLANK TUBING:
   RAIN BIRD XF SERIES BLANK TUBING
9. AIR RELIEF VALVE:
   RAIN BIRD AR VALVE KIT
   SEE RAIN BIRD DETAIL "AIR RELIEF VALVE KIT"
10. PVC (PURPLE NON POTABLE) SUPPLY MANIFOLD

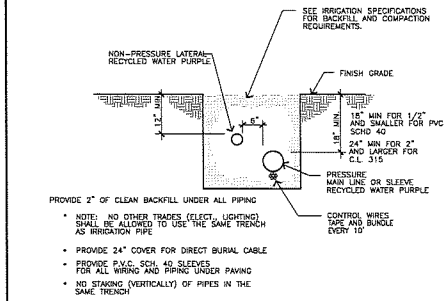
NOTE:
1. DISTANCE BETWEEN LATERAL ROWS AND EMITTER SPACING TO BE BASED ON SOIL TYPE, PLANT MATERIALS AND CHANGES IN ELEVATION. SEE RAIN BIRD XF-SDI DRIPLINE INSTALLATION GUIDE FOR SUGGESTED SPACINGS.

INLINE DRIP LINE TYPICAL LAYOUT 8



1. FINISH GRADE/TOP OF MULCH
2. PLASTIC POP-UP SPRAY SPRINKLER W/ PURPLE CAP
3. PVC SCH 80 NIPPLE (LENGTH AS REQUIRED)
4. MARLEX STREET ELLS
5. PVC SCH 40 TEE OR ELL
6. LATERAL PIPE 12" MIN. DEPTH

POP UP SPRAY 5

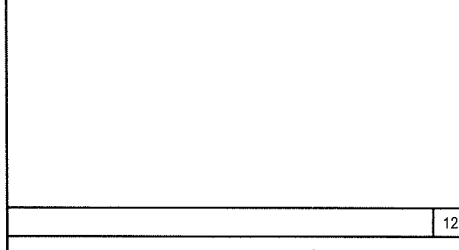


- SEE IRRIGATION SPECIFICATIONS FOR BACKFILL AND COMPACTION REQUIREMENTS.
- NON-PRESSURE LATERAL RECYCLED WATER PURPLE
- FINISH GRADE
- 18" MIN FOR 1/2" AND SMALLER FOR PVC SCHD 40
- 24" MIN FOR 2" AND LARGER FOR C.I. 315
- PRESSURE MAIN LINE OR SLEEVE RECYCLED WATER PURPLE
- CONTROL WIRES TAPE AND BUNDLE EVERY 10'

PROVIDE 2" OF CLEAN BACKFILL UNDER ALL PIPING

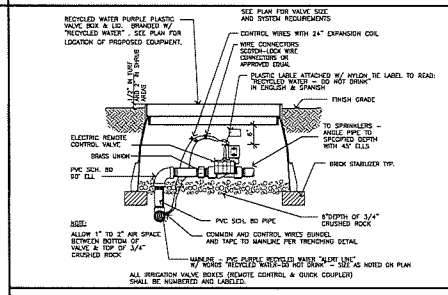
- NOTE: NO OTHER TRADES (ELECT., LIGHTING) SHALL BE ALLOWED TO USE THE SAME TRENCH AS IRRIGATION PIPE
- PROVIDE 24" COVER FOR DIRECT BURIAL CABLE
- PROVIDE P.V.C. SCH. 40 SLEEVES FOR ALL WIRING AND PIPING UNDER PAVING
- NO STAKING (VERTICALLY) OF PIPES IN THE SAME TRENCH

IRRIGATION TRENCHING DETAIL 2



1. FINISH GRADE
2. POP-UP ROTOR W/ PURPLE CAP
3. KBI: KC-500 (MXF) THREADED 1/2" IN-LINE CHECK VALVE
4. 1/2" X 2" SCH. 80 NIPPLE
5. PVC SCH 80 NIPPLE (LENGTH AS REQUIRED)
6. MARLEX STREET ELLS
7. PVC SCH 40 TEE OR ELL
8. PVC LATERAL PIPE 12" MIN. DEPTH
   KBI: KC-500 (MXF) THREADED 1/2"

POP UP ROTOR 6



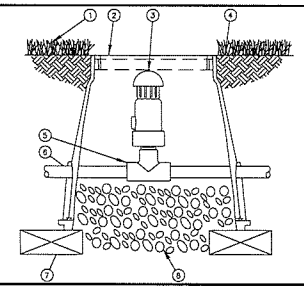
- SEE PLAN FOR VALVE SIZE AND SYSTEM REQUIREMENTS
- RECYCLED WATER PURPLE PLASTIC VALVE BOX & LID. BRANDED W/ "RECYCLED WATER". SEE PLAN FOR LOCATION OF PROPOSED EQUIPMENT.
- CONTROL WIRES WITH 24" EXPANSION COIL
- WIRE CONNECTORS SCOTCH-LOCK WIRE CONNECTORS OR APPROVED EQUAL
- PLASTIC LABEL ATTACHED W/ NYLON TIE LABEL TO READ: "RECYCLED WATER - DO NOT DRINK" IN ENGLISH & SPANISH
- 1/2" IN EXCESS OF THE 3" SPIKE HEIGHT
- FINISH GRADE
- ELECTRIC REMOTE CONTROL VALVE
- TO SPRINKLERS – ANGLE PIPE TO SPECIFIED DEPTH WITH 45° ELLS
- BRASS UNION
- BRICK STABILIZER TYP.
- PVC SCH. 80 90° ELL
- PVC SCH. 80 PIPE
- 6"(DEPTH OF 3/4" CRUSHED ROCK
- COMMON AND CONTROL WIRES BUNDEL AND TAPE TO MAINLINE PER TRENCHING DETAIL
- MAINLINE – PVC PURPLE RECYCLED WATER "LEAK TIGHT" W/ WORDS "RECYCLED WATER-DO NOT DRINK" – SIZE AS NOTED ON PLAN

NOTE:
ALLOW 1" TO 2" AIR SPACE BETWEEN BOTTOM OF VALVE & TOP OF 3/4" CRUSHED ROCK

ALL IRRIGATION VALVE BOXES (REMOTE CONTROL & QUICK COUPLER) SHALL BE NUMBERED AND LABELED.

REMOTE CONTROL VALVE 3

12



1. TURF GRASS OR SHRUB AREA
2. ROUND PURPLE VALVE BOX
3. AIR/VACUUM RELIEF VALVE KIT:
   RAIN BIRD AR VALVE KIT
4. FINISH GRADE
5. PVC SCH 40 TEE
6. PVC HEADER PIPE (PURPLE) W/ WORDS "RECYCLED WATER – DO NOT DRINK"
7. BRICK (1 OF 2)
8. 3" MINIMUM DEPTH OF ¾" WASHED GRAVEL

DRIP AIR/VACUUM RELIEF 9

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LICENSED LANDSCAPE ARCHITECT — BRETT R. FRENCH — 3416 — 10/31/20 — STATE OF CALIFORNIA

NO.	DATE	REVISIONS	CK. BY

Prepared by: Environs Inc
LANDSCAPE ARCHITECTURE
Creating Sustainable & Water Conserving Solutions
1746 N. Hedgepeth Avenue • Claremont, CA 91711
Ph. (909) 626-1063 • Fax (909) 626-0445

BRETT FRENCH, RLA #3416 — DATE
DESIGN BY: BKF — DRAWN BY: BKF

ARENTH AVENUE STREET IMPROVEMENTS
PHILLIPS DRIVE TO NOGALES STREET

IRRIGATION DETAILS

CHECKED BY: –
DATE: 09-10-20 –
JOB NO. CITY - 1460
SHT. 7 OF 10

CONTRACT DRAWING 26 OF 60

LANDSCAPE CONSTRUCTION

1. SCOPE

THE WORK OF THIS SECTION INCLUDES ALL LABOR, MATERIALS AND EQUIPMENT REQUIRED TO COMPLETE WORK INDICATED ON THE DRAWINGS. THE WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE BEST STANDARDS OF PRACTICE RELATING TO THE VARIOUS TRADES AND UNDER THE CONTINUOUS SUPERVISION OF A COMPETENT FOREMAN, CAPABLE OF INTERPRETING THE DRAWINGS AND THESE SPECIFICATIONS. THE WORK INCLUDED IN THIS SECTION IS AS FOLLOWS: FINISH GRADING FOR PLANTING; SOIL PREPARATION; FERTILIZATION; PLANTING, INCLUDING LAWN; MAINTENANCE; INSPECTION AND CERTIFICATIONS; GUARANTEES; CLEAN-UP; STAKING, GUYING AND ESPALIERING; MISCELLANEOUS ALLOWANCES.

2. APPROVALS

A. ALL SPRINKLER WORK SHALL BE INSPECTED AND APPROVED PRIOR TO THE START OF ANY WORK.

B. PRIOR TO EXCAVATION FOR PLANTING OR PLACING OF STAKES, LOCATE ALL UTILITIES, ELECTRIC CABLES, CONDUITS, SPRINKLER LINES, HEADS, VALVES AND VALVE CONTROL WIRES, AND ALL UTILITY LINES SO THAT PROPER PRECAUTIONS MAY BE TAKEN NOT TO DAMAGE SUCH IMPROVEMENTS. IN THE EVENT OF A CONFLICT BETWEEN SUCH LINES AND PLANT LOCATIONS, PROMPTLY NOTIFY LANDSCAPE ARCHITECT (L.A.) WHO SHALL ARRANGE FOR RELOCATION FOR ONE OR THE OTHER. FAILURE TO FOLLOW THIS PROCEDURE PLACES UPON CONTRACTOR THE RESPONSIBILITY FOR, AT HIS OWN EXPENSE, MAKING ANY AND ALL REPAIRS FOR DAMAGES RESULTING FROM WORK HEREUNDER.

3. QUANTITIES AND TYPES

PLANT MATERIALS SHALL BE FURNISHED IN THE QUANTITIES AND/OR SPACING AS SHOWN OR NOTED FOR EACH LOCATION, AND SHALL BE OF THE SPECIES, KINDS, SIZES, ETC., AS SYMBOLIZED AND/OR DESCRIBED IN THE "PLANT MATERIAL LEGEND", AS INDICATED ON THE DRAWINGS. THE L.A. HAS PREPARED THIS LIST ONLY AS A CONVENIENCE TO CONTRACTOR AND ASSUMES NO RESPONSIBILITY FOR ITS ACCURACY. THE LANDSCAPE CONTRACTOR IS TO VERIFY ALL SIZES AND QUANTITIES.

4. VERIFICATION OF DIMENSIONS AND QUANTITIES

DIMENSIONS ARE APPROXIMATE. BEFORE PROCEEDING WITH ANY WORK, CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND QUANTITIES AND SHALL IMMEDIATELY INFORM L.A. AND OWNER OF ANY DISCREPANCIES BETWEEN THE DRAWINGS AND/OR SPECIFICATIONS AND ACTUAL CONDITIONS. NO WORK SHALL BE DONE IN ANY AREA WHERE THERE IS SUCH A DISCREPANCY UNTIL APPROVAL FOR SAME HAS BEEN GIVEN BY L.A. AND OWNER.

5. INSPECTION

A. ALL INSPECTIONS SHALL BE MADE BY L.A. AND OWNER. CONTRACTOR SHALL REQUEST INSPECTION AT LEAST TWO (2) DAYS IN ADVANCE OF THE TIME INSPECTION IS REQUIRED.

B. INSPECTION WILL BE REQUIRED FOR THE FOLLOWING PARTS OF THE WORK:

(1) DURING FINISH GRADING AND SOIL PREPARATION
(2) PLANTS, AFTER DELIVERY TO SITE AND PRIOR TO PLANTING.
(3) WHEN VINES, SHRUBS AND TREES ARE SPOTTED FOR PLANTING, BUT PLANTING HOLES ARE NOT EXCAVATED.
(4) SPECIMEN TREES AT SOURCE, BEFORE DELIVERY.
(5) LAWN AREAS PRIOR TO PLANTING.
(6) PLANTING AREAS PRIOR TO PLANTING.
(7) ALL LANDSCAPE CONSTRUCTION ITEMS, PRIOR TO THE START OF THE CALENDAR DAY MAINTENANCE PERIOD ("FINAL INSPECTION").
(8) AT COMPLETION OF CALENDAR DAY MAINTENANCE PERIOD ("FINAL MAINTENANCE INSPECTION").
(9) INSPECTION REPORTS SHALL BE MADE FOR EACH INSPECTION BY THE L.A. AND ONE COPY SHALL BE SUBMITTED TO OWNER AND CONTRACTOR.

6. CERTIFICATION

PRIOR TO JOB ACCEPTANCE WRITTEN CERTIFICATIONS SHALL BE SUBMITTED TO THE L.A. FOR THE FOLLOWING:

A. QUANTITY AND QUALITY OF COMMERCIAL FERTILIZER AND ORGANIC FERTILIZER.

B. QUANTITY AND QUALITY OF ALL SOIL AMMENDMENTS CALLED FOR BY PLANS AND SPECIFICATIONS.

7. MATERIALS

PLANT MATERIALS INDICATED ON THE DRAWINGS AND HEREIN SPECIFIED SHALL CONFORM TO THE FOLLOWING:

A. NOMENCLATURE – PLANT NAMES INDICATED ON THE DRAWINGS CONFORM TO "STANDARD PLANT NAMES" ESTABLISHED BY THE AMERICAN JOINT COMMITTEE ON HORTICULTURE. EXCEPT FOR NAMES COVERED THEREIN, THE ESTABLISHED CUSTOM OF THE NURSERY IS FOLLOWED.

B. CONDITION– PLANTS SHALL BE SYMMETRICAL, TYPICAL FOR VARIETY AND SPECIES, SOUND, HEALTHY, VIGOROUS, FREE FROM PLANT DISEASE, INSECT PESTS, OR THEIR EGGS, AND SHALL HAVE HEALTHY, NORMAL ROOT SYSTEMS, WELL FILLING THEIR CONTAINERS, BUT NOT TO THE POINT OF BEING ROOT BOUND. PLANTS SHALL NOT BE PRUNED PRIOR TO DELIVERY, EXCEPT AS AUTHORIZED BY L.A. OR HIS REPRESENTATIVE. IN NO CASE SHALL TREES BE TOPPED BEFORE DELIVERY.

C. DIMENSIONS– THE HEIGHT AND SPREAD OF ALL PLANT MATERIAL SHALL BE MEASURED WITH BRANCHES IN THEIR NORMAL POSITION, AND SHALL BE AS INDICATED ON THE DRAWINGS. THE CALIPER OF ALL TREES SHALL BE MEASURED 4'-0" ABOVE THE SURFACE OF THE GROUND. WHERE CALIPER OR OTHER DIMENSIONS OF ANY PLANT MATERIALS ARE OMITTED FROM THE "PLANT LEGEND", IT SHALL BE UNDERSTOOD THAT THESE PLANT MATERIALS SHALL BE NORMAL STOCK FOR TYPE LISTED.

D. INSPECTION – ALL PLANT MATERIALS MUST HAVE BEEN PREVIOUSLY INSPECTED AT THE NURSERY BY THE COUNTY HORTICULTURAL DEPARTMENT, AND SHALL BE SUBJECT TO THE INSPECTION AND APPROVAL OF THE L.A. BEFORE PLANTING.

E. PLANT LIST– IS INDICATED ON DRAWINGS.

F. SIZES OF PLANTS – SHALL BE AS STATED ON THE PLAN. CONTAINER STOCK (1– GALLON, 5– GALLON AND 15–GALLON), SHALL HAVE BEEN GROWN IN CONTAINERS FOR AT LEAST ONE (1) YEAR, BUT NOT OVER TWO YEARS.

G. SUBSTITUTIONS– SUBSTITUTIONS FOR THE INDICATED PLANT MATERIALS WILL BE PERMITTED PROVIDED THE SUBSTITUTE MATERIALS ARE APPROVED IN ADVANCE BY THE L.A. AND THE SUBSTITUTIONS ARE MADE AT NO ADDITIONAL COST TO OWNER. EXCEPT FOR AUTHORIZED VARIATIONS, ALL SUBSTITUTE PLANT MATERIALS SHALL CONFORM TO THE REQUIREMENTS OF THESE SPECIFICATIONS. IF THE ACCEPTED SUBSTITUTE MATERIALS ARE OF A LESS VALUE THAN THOSE INDICATED OR SPECIFIED, THE CONTRACT PRICE WILL BE ADJUSTED IN ACCORDANCE WITH THE PROVISIONS OF THE CONTRACT.

H. PLANTS NOT APPROVED – PLANTS NOT APPROVED ARE TO BE REMOVED FROM SITE IMMEDIATELY AND REPLACED WITH SUITABLE PLANTS. THE L.A. AND/OR OWNER RESERVES THE FIGHT TO REJECT ENTIRE LOTS OF PLANTS REPRESENTED BY DEFECTIVE SAMPLES.

8. FERTILIZERS AND SOIL CONDITIONERS

SAMPLES OF ALL SOIL AMENDMENTS, SOD AND PLANTS SHALL BE SUBMITTED FOR INSPECTION AND STORED ON THE SITE UNTIL FURNISHING OF MATERIALS IS COMPLETED. DELIVERY MAY BEGIN UPON APPROVAL OF AAMPLES OR AS DIRECTED BY L.A. AND THE OWNER.

A. ORGANIC FERTILIZER SHALL BE PROCESSED SEWAGE SLUDGE WITH A MINIMUM CONTENT OF 1% NITROGEN AND 2% PHOSPHORIC ACID SIMILAR TO "NITROHUMUS". METHOD OF PROCESSING SHALL NOT DESTROY NORMAL BACTERIAL CONTENT.

B. NITROGEN STABILIZED SAWDUST SHALL BE BULK, WITH THE FOLLOWING NITROGEN CONTENT BASED ON DRY WEIGHT:
0.5% FOR REDWOOD SAWDUST
0.7% FOR FIR SAWDUST
1.0% FOR BARK OR PINE BARK OR MIXTURE

SALINITY – THE SATURATION EXTRACT CONDUCTIVITY SHALL NOT EXCEED 3.5 MILLIMHOS /CM AT 25

C. COMMERCIAL FERTILIZER SHALL BE DELIVERED IN SACKS WITH MANUFACTURER'S LABEL SHOWING WEIGHT AND ANALYSIS ATTACHED TO EACH SACK.

9. STAKING MATERIALS

A. TREE-STAKING SHALL BE AS PER PLAN.

B. TIES FOR HOLDING TREES SHALL BE AS PER PLAN.

10. GRADING AND SOIL PREPARATION

A. CONTRACTOR IS TO FINISH GRADE TO WITHIN 1/10TH OF A FOOT OR 1" BELOW PAVING WHERE PAVING EXISTS.

B. MOISTURE CONTENT – THE SOILS SHALL NOT BE WORKED WHEN THE MOISTURE CONTENT IS SO GREAT THAT EXCESSIVE COMPACTION WILL OCCUR; AND NOT WHEN IT IS SO DRY THAT DUST WILL FORM IN THE AIR OR THAT CLODS WILL NOT BREAK READILY. WATER SHALL BE APPLIED IF NECESSARY TO PROVIDE IDEAL MOISTURE CONTENT FOR TILLING AND FOR PLANTING.

C. PRELIMINARY GRADING – PRELIMINARY GRADING SHALL BE DONE IN SUCH A MANNER AS TO ANTICIPATE THE FINISH GRADING. EXCESS SOILS SHALL BE REMOVED OR REDISTRIBUTED BEFORE APPLICATION OF FERTILIZER AND MULCH. WHERE SOIL IS TO BE REPLACED BY PLANTS AND MULCH, ALLOWANCE SHALL BE MADE SO THAT WHEN FINISH GRADING HAS BEGUN, THERE SHALL BE NO DEFICIENCY IN THE SPECIFIED DEPTH OF MULCHED PLANTING BEDS.

D. WEEDING – BEFORE AND DURING PRELIMINARY AND FINISH GRADING, ALL WEEDS AND GRASSES SHALL BE DUG OUT BY THE ROOTS AND DISPOSED OF OFF SITE (EXCEPT THOSE WEEDS AND GRASSES NOT OF THE PERENNIAL TYPE, LESS THAN 2-1/2" HIGH AND NOT BEARING SEEDS, WHICH MAY BE TURNED UNDER). OATS MORE THAN 2-1/2" HIGH AND NOT BEARING SEEDS MAY BE TURNED UNDER. PERENNIAL WEEDS AND GRASSES TO BE REMOVED INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING: NUT GRASS, PUNCTURE VINE, DALLAS GRASS, MUSTARD PLANT, ST. AUGUSTINE, ALFALFA, JOHNSON GRASS, WIRE WEED, MORNING GLORY.

E. ALL PLANTING AREAS SHALL BE SCARIFIED TO A DEPTH OF 12 INCHES BELOW GRADE WITH THE SPACING OF THE RIPPER TEETH NO GREATER THAN 12 INCHES ON CENTER PRIOR TO PLACING CONDITIONERS AND FERTILIZERS. ALL ROCK AND DEBRIS MORE THAN 2" IN DIAMETER SHALL BE REMOVED FROM THE SITE.

F. TRENCHES– IF IRRIGATION SYSTEM IS INSTALLED AFTER GRADING AND FERTILIZING IS COMPLETED, THE UPPER PORTION OF THE BACKFILL SHALL BE RETILLED AND FERTILIZED TO THE DEPTH SPECIFIED FOR THE AREA REQUIRED, TO CONFORM TO THE SPECIFICATIONS.

11. SOIL CONDITIONERS (TO BE REVISED PER SOILS REPORT)

A. TURF, GROUND COVER & SHRUB AREA: WITH THE EXCEPTION OF THE SLOPES THE AREAS TO BE LANDSCAPED SHOULD BE CROSS-RIPPED OR OTHERWISE TILLED TO A DEPTH OF 9-12 INCHES. FOR TURF AND GROUND COVER PLANTING, THE FOLLOWING AMENDMENT SHOULD BE UNIFORM BY BROADCAST AND THOROUGHLY INCORPORATED TO A DEPTH OF 6 INCHES BY MEANS OF ROTOTILLER OR EQUAL; AMT PER 1,000 SQUARE FEET 6 CU. YDS. NITROGEN STABILIZED ORGANIC AMENDMENT DERIVED FROM REDWOOD SAWDUST, FIR SAWDUST OR CEDAR SAWDUST 12 LBS. 16-20-0 AMMONIUM PHOSPHATE (TO BE INCORPORATED TO THE 6" DEPTH FOLLOWING LEACHING). FOLLOWING AMENDING AND PRIOR TO PLANTING, INCLUDING TREES AND SHRUBS, LEACHING IRRIGATIONS SHOULD BE MADE IN A MANNER THAT WILL PASS THE MINIMUM OF 12 INCHES OF WATER THROUGH THE SURFACE SOIL ZONE. WHEN THE LEACHING PROGRAM HAS BEEN COMPLETED, ADDITIONAL SAMPLES SHOULD BE COLLECTED FOR SOIL FERTILITY ANALYSES ONLY.

B. SLOPES:

300 LBS./ACRE 16-20-0 AMMONIUM PHOSPHATE
300 LBS./ACRE UREA FORMALDEHYDE
MULCH SILVA FIBER PLUS, 2,000 LB./ACRE
BINDING AGENT (PER CONTRACTOR'S ACCEPTED PROCEDURE)

WHILE THE UREA FORMALDEHYDE IS A SLOW-RELEASE NITROGEN FERTILIZER, IT WILL PROBABLY BE NECESSARY TO MAKE DRY SUPPLEMENTAL FERTILIZER APPLICATIONS, PARTICULARLY DURING THE ESTABLISHMENT PERIOD. IF THIS IS THE CASE, THE 16-20-0 SHOULD BE UNIFORMLY BROADCAST OVER DRY SLOPE AREAS AT THE RATE OF 6 POUNDS PER 1,000 SQUARE FEET AND FOLLOWED WITH A NORMAL IRRIGATION AT EACH FERTILIZING PERIOD.

C. PLANTING PITS – TREE & SHRUB, ALL AREAS INLUDING SLOPES: PLANTING PITS SHALL BE EXCAVATED TWICE THE DIAMETER AND TWICE THE DEPTH OF THE ROOTBALL. BACKFILL SHALL THEN BE ADDED AS SPECIFIED.

(1) A CHEMICALLY SUITABLE SANDY TEXTURED IMPORT SOIL MEETING THE FOLLOWING SPECIFICATIONS SHOULD BE USED FOR BACKFILL TO THE DEPTH OF THE ROOTBALL. FOR TREES, SHRUBS AND VINES (OTHER THAN AZALEAS, FERNS AND PALMS).

SILT PLUS CLAY CONTENT OF THE IMPORT SOIL SHALL NOT EXCEED 30 % BY WEIGHT WITH A MINIMUM 95% PASSING THE 2.0 MILLIMETER SLEEVE. THE SODIUM ABSORPTION RATIO (SAR) SHALL NOT EXCEED 6 AND THE ELECTRICAL CONDUCTIVITY (ECE) SHALL NOT EXCEED 3.0 MILLIMHOS PER CENTIMETER AT 25 DEGREES CENTIGRADE. THE BORON CONTENT SHALL BE NO GREATER THAN 1 PPM AS MEASURED ON THE SATURATION EXTRACT. IN ORDER TO INSURE CONFORMANCE, SAMPLES OF THE IMPORT SOIL SHOULD BE SUBMITTED TO THE LABORATORY FOR ANALYSIS PRIOR TO AND FOLLOWING BACKFILLING. THE BACKFILL MIX FOR USE AROUND THE ROOTBALL SHOULD BE PREPARED AS FOLLOWS:
6 PARTS BY VOLUME SANDY-TEXTURED IMPORT SOIL
4 PARTS BY VOLUME NITROGEN STABILIZED WOOD RESIDUAL
1 LB. 16-20-0 PER CU. YD. OF MIX
2 LBS. IRON SULFATE PER CU. YD. OF MIX
THE ABOVE MATERIALS SHOULD BE THOROUGHLY BLENDED PRIOR TO USE FOR BACKFILL PURPOSES. ALSO, THE IRON SULFATE SHOULD NOT CONTACT CEMENT SURFACES SINCE SEVERE STAINING COULD OCCUR. APPLY PLANTING TABLETS AS PER MANUFACTURER'S RECOMMENDATIONS. IF THE 16-20 IS INCORPORATED PREPLANT AS RECOMMENDED, THE POST PLANT MAINTENANCE CAN CONSIST PRIMARILY OF A NITROGEN-ONLY FERTILIZER PROGRAM. BEGINNING APPROXIMATELY 30 DAYS AFTER PLANTING, AMMONIUM SULFATE SHOULD BE APPLIED AT THE RATE OF 5 LBS./1,000 S.F. OR AMMONIUM NITRATE AT THE RATE OF 3 LBS./1,000 S.F. ON A MONTHLY BASIS. HOWEVER, IN ORDER TO ENSURE CONTINUING ADEQUATE SOIL PHOSPHORUS AND POTASSIUM NUTRITION, BEST FERTILIZER COMPANY'S 16-6-8 OR EQUAL SHOULD BE SUBSTITUTED FOR THE NITROGEN MATERIALS TWICE A YEAR AT THE RATE OF 6 POUNDS PER 1,000 SQUARE FEET. ALSO, WHEN PLANTS HAVE BECOME WELL ESTABLISHED, THE FREQUENCY OF FERTILIZER APPLICATIONS CAN BE DECREASED.

D. THE PREPARED SOIL SHALL BE UNIFORMLY BLENDED IN AN AREA ADJACENT TO THE PLANTING WORK AND SHALL BE ACCURATELY PROPORTIONED USING A SUITABLE MEASURING CONTAINER. UNUSED EXCAVATED SOIL SHALL BE REMOVED FROM SITE. PROTECT THE MIX FROM WATER UNTIL IT HAS BEEN PLACED IN BACKFILL AROUND PLANTS.

12. FINISH GRADING

WHEN PRELIMINARY GRADING, INCLUDING WEEDING AND FERTILIZING, HAS BEEN COMPLETED AND THE SOIL HAS DRIED SUFFICIENTLY TO BE READILY WORKED, ALL LAWN AND PLANTING AREAS SHALL BE GRADED TO THE ELEVATIONS INDICATED ON THE DRAWINGS. GRADES NOT OTHERWISE INDICATED SHALL BE UNIFORM LEVELS OR SLOPES BETWEEN POINTS WHERE ELEVATIONS ARE GIVEN. MINOR ADJUSTMENTS OF FINISH GRADES SHALL BE MADE AT THE DIRECTION OF THE L.A., IF REQUIRED.

FINISH GRADE SHALL BE A SMOOTH, EVEN AND UNIFORM PLANE WITHOUT ABRUPT CHANGE OF SURFACE. SOIL AREAS ADJACENT TO BUILDINGS TO ALLOW A NATURAL RUN-OFF OF WATER, AND SURFACE DRAINAGE SHALL BE DIRECTED AS INDICATED ON THE DRAWINGS BY REMODELING SURFACES TO FACILITATE THE NATURAL "RUN-OFF" OF WATER. LOW SPOTS AND POCKETS SHALL BE ONE INCH BELOW GRADE OF ADJACENT PAVEMENT OF ANY KIND. GRADING SHALL BE DONE WHEN SOIL IS AT OPTIMUM MOISTURE CONTENT FOR WORKING.

13. METHOD OF PLANTING AND WORK PROCEDURE

A. NO PLANTING SHALL BE DONE UNTIL ALL OPERATIONS IN CONJUNCTION WITH THE INSTALLATION OF THE IRRIGATION SYSTEM HAVE BEEN COMPLETED, FINAL GRADES HAVE BEEN ESTABLISHED, THE PLANTING AREAS HAVE BEEN PROPERLY GRADED AND PREPARED AS SPECIFIED, AND THE WORK APPROVED BY THE L.A.

B. THE RELATIVE POSITION OF ALL TREES AND PLANTS IS SUBJECT TO APPROVAL BY L.A. AND OWNER, AND THEY SHALL, IF NECESSARY, BE RELOCATED AS DIRECTED AS PART OF THE CONTRACT.

C. ALL PLANTS SHALL BE REMOVED FROM THEIR CONTAINER AND SET SO THAT, WHEN SETTLED, THEY BEAR THE SAME RELATION TO THE REQUIRED GRADE THAT THEY BORE TO THE NATURAL GRADE BEFORE BEING TRANSPLANTED. EACH PLANT SHALL BE PLANTED IN THE CENTER OF THE PIT AND BACKFILLED UNLESS OTHERWISE SPECIFIED, WITH THE PREPARED SOIL. NO SOIL IN MUDDY CONDITION SHALL BE USED FOR BACKFILLING. NO FILLING WILL BE PERMITTED AROUND TRUNKS OR STEMS. ALL BROKEN OR FRAYED ROOTS SHALL BE PROPERLY CUT OFF.

D. L.A. AND/OR OWNER SHALL SUPERVISE THE PLACING AND PLANTING OF ALL PLANTS.

E. IN THE EVENT THAT UNDERGROUND CONSTRUCTION WORK OR OBSTRUCTIONS ARE ENCOUNTERED IN THE PLANTING OPERATION, ALTERNATE LOCATIONS FOR PLANT MATERIAL WILL BE SELECTED BY L.A. AND OWNER; OPERATION WILL BE DONE AT NO EXTRA COST TO OWNER.

14. PLANTING OF TREES

A. POSITION PLANTS IN PLANT LOCATIONS INDICATED ON DRAWINGS AND SECURE APPROVAL BEFORE EXCAVATING PITS, MAKING NECESSARY ADJUSTMENTS AS INDICATED.

B. ALL PITS FOR TREES SHALL BE DUG SQUARE WITH BOTTOMS LEVEL, THE LENGTH OF SIDES AND DEPTH EQUAL TO TWO TIMES THE DIAMETER OF THE TREE BALL. COMPACTED SOILS AT SIDES AND BOTTOMS SHALL BE LOOSENED BY SCARIFYING OR OTHER APPROVED METHOD. PITS SHALL BE BACKFILLED WITH "PREPARED SOIL" TO THE REQUIRED GRADE, AND THE BALANCE OF THE PIT FILLED WITH "PREPARED SOIL" THOROUGHLY SETTLED BY WATER APPLICATION.

C. SET PLANTS IN CENTER OF PIT, IN A VERTICAL POSITION, SO THAT CROWN OF BALL WILL BE LEVEL WITH FINISH GRADE AFTER ALLOWING FOR WATERING AND SETTLING AND SHALL BEAR THE SAME RELATIONSHIP TO THE FINISH GRADE THAT IT DID TO THE SOIL SURFACE IN THE CONTAINER.

D. PREPARE DEPRESSED WATER BASIN AS WIDE AS PLANT BALLS AT EACH PLANT. WATER THOROUGHLY, BACKFILLING ANY VOIDS WITH ADDITIONAL PREPARED PLANTING MIX.

15. PLANTING VINES, SHRUBS AND GROUNDCOVERS

A. VINES AND SHRUBS SHALL BE PLANTED IN PITS AT LEAST 18" GREATER IN DIAMETER THAN THEIR BALL OF EARTH AND AT LEAST 12" BELOW THE BOTTOM OF THE BALL. COMPACTED SOIL AT BOTTOM OF PIT SHALL BE LOOSENED AND THE PIT FILLED WITH "PREPARED SOIL" TO THE BOTTOM OF THE BALL. WHEN THE PLANT HAS BEEN PROPERLY SET, THE PIT SHALL BE FILLED TO THE REQUIRED GRADE WITH "PREPARED SOIL" AND THOROUGHLY SETTLED BY TAPING AND WATERING. ALL VINES SHALL BE REMOVED FROM STAKES, UNTIED, AND SECURELY FASTENED IN AN APPROVED MANNER TO THE WALL, FENCE OR OTHER SURFACE NEXT TO WHICH THEY ARE PLANTED.

B. PREPARE A DEPRESSED WATER BASIN AS WIDE AS PLANT BALLS AT EACH PLANT. WATER THOROUGHLY, BACKFILLING ANY VOIDS WITH ADDITIONAL PREPARED PLANTING MIX.

C. GROUND COVERS

(1) PITS FOR FLAT SIZED PLANTS TO BE AT LEAST 6"X6"X6". GROUND COVER AREAS SHALL BE MOISTENED PRIOR TO PLANTING. NO FLAT PLANTS SHALL BE PLANTED IN DRY SOIL.

(2) SET PLANTS IN CENTER OF PITS SO THAT CROWN OFPLANT WILL BE LEVEL WITH FINISHED GRADE AFTER SETTLING OF SOIL, THEN BACKFILL AND WATER.

(3) FLATTED PLANTS SHALL BE WELL-ROOTED WITH RUNNERS AT LEAST 4" BUT NOT MORE THAN 6" IN LENGTH.

16. TREES AND VINES OCCURING IN LAWN

TREES AND VINES OCCURRING IN LAWN SHALL BE PLANTED BEFORE FINAL PREPARATION OF THOSE AREAS.

17. CARE OF PLANTS BEFORE AND DURING PLANTING

PLANTS SHALL NOT BE ALLOWED TO DRY OUT BEFORE OR WHILE BEING PLANTED. KEEP EXPOSED ROOTS MOIST BY MEANS OF WET SAWDUST, PEAT MOSS OR BURLAP AT ALL TIMES DURING PLANTING OPERATIONS. DO NOT EXPOSE ROOTS TO THE AIR EXCEPT WHILE BEING PLACED IN THE GROUND. WILTED PLANTS, WHETHER IN PLACE OR NOT, WILL NOT BE ACCEPTED AND SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.

18. WATERING BASINS

A. CONSTRUCT A FIRMLY COMPACTED MOUND OF SOIL AROUND EACH TREE AND PLANT TO FORM A WATERING BASIN AT THE EDGE OF AND FOLLOWING THE SHAPE OF THE PLANTING PIT AREA. MOUNDS OR TREES AND FOR VINES FROM 5-GALLON OR LARGER CONTAINERS, SHALL BE AT LEAST 4" HIGH. MOUNDS FOR ALL OTHER TREES, VINES OR PLANTS NOT OTHERWISE SPECIFIED SHALL BE AT LEAST 2" HIGH. EXCAVATED EARTH, IF CAPABLE OF RETAINING WATER, MAY BE USED. ANY SETTLEMENT WITHIN THE BASINS RETAINING WATER SHALL BE REFILLED TO THE REQUIRED GRADE WITH PREPARED SOIL, AND ADDITIONAL NITROGEN STABILIZED SAWDUST WORKED INTO THE SURFACE AS REQUIRED TO RESTORE THE MULCHED CONDITION.

B. AT THE END OF THE DAY MAINTENANCE PERIOD ALL WATERING BASINS IN LAWN AREAS SHALL BE LEVELED TO FINISH GRADE AND THE AREA SHALL BE SODDED WITH THE SPECIFIC SOD.

19. SODDED LAWN

A. CULTIVATE ALL LAWN AREAS TO A DEPTH OF 8". ROCKS AND DEBRIS LARGER THAN 1" IN DIAMETER WHICH ARE BROUGHT TO THE SURFACE BY CULTIVATION SHALL BE REMOVED FROM THE SITE. IF CULTIVATION DOES NOT BREAK LUMPS, A SPIKE TOOTH HARROW SHALL BE PULLED BEHIND A MECHANICAL SEEDER OR TRACTOR.

B. AREAS TO BE PLANTED IN LAWN SHALL BE FINISHED SMOOTH TO PRESENT A NEAT AND UNIFORM GRADE PRIOR TO INSTALLATION OF SOD. THE LAWN BED SHALL BE INSPECTED BY THE L.A. TO DETERMINE SUITABILITY FOR PLANTING PRIOR TO SODDING. CONTRACTOR SHALL OBTAIN SUCH APPROVAL BEFORE SODDING.

C. ALL SODDED AREAS SHALL BE THOROUGHLY WATERED. LAWNS ARE TO BE KEPT CONTINUOUSLY MOIST BY WATERING AS OFTEN AS REQUIRED.

D. ANY LAWN AREAS THAT DO NOT SHOW A PROMPT CATCH OF GRASS SHALL BE RE-SODDED AT TEN DAY INTERVALS UNTIL AN ACCEPTABLE STAND OF GRASS IS ASSURED.

20. WATERING

A. IMMEDIATELY AFTER PLANTING, WATER SHALL BE APPLIED TO EACH TREE BY MEANS OF A HOSE. THE WATER SHALL BE APPLIED IN A MODERATE STREAM IN THE PLANTING HOLES UNTIL THE MATERIAL ABOUT THE ROOTS IS COMPLETELY SATURATED FROM THE BOTTOM OF THE HOLE TO THE TOP OF THE GROUND.

B. PLANTS WHICH CANNOT BE WATERED EFFICIENTLY WITH THE EXISTING WATER SYSTEM SHALL BE WATERED BY MEANS OF A HOSE.

C. APPLY WATER IN SUFFICIENT QUANTITIES, AND AS OFTEN AS SEASONAL CONDITIONS REQUIRE, TO KEEP THE GROUND WET AT ALL TIMES, WELL BELOW THE ROOT SYSTEM OF GRASS AND PLANTING. CARE IS TO BE TAKEN IN WATERING SLOPES SO AS NOT TO CAUSE EROSION DAMAGE.

D. FOLLOWING THE PLANTING OF GROUND COVER PLANTS FURNISHED IN FLATS, EACH PLANT SHALL BE IMMEDIATELY AND THOROUGHLY WATERED BY MEANS OF A HOSE WITH A SLOW RUNNING STREAM OF WATER.

21. TREE STAKING

A. STAKE ALL NON-GUYED TREES AT TIME OF PLANTING BY PLACING STAKE IN THE PREPARED HOLE AND DRIVING IT 18" INTO SOLID GROUND. PLANT THE TREE AS CLOSE TO THE STAKE AS POSSIBLE WITHOUT CROWDING THE ROOTS. FASTEN THE TREE TO THE UPPER END OF STAKE IN AT LEAST THREE PLACES USING "CINCH TIES". (SEE DRAWINGS)

B. TREES 36" BOX SIZE OR LARGER, SHALL BE IMMEDIATELY GUYED AFTER PLANTING WITH NOT LESS THAN THREE GUYS PER TREE, OR AS DIRECTED BY THE L.A.

(1) PROTECT BARK OF TREE BY COVERING WIRE WITH GREEN 1/2" DIAMETER RUBBER HOSE.
(2) GUYS TO BE ANCHORED BY 2"X2"X2" REDWOOD DRIVEN FLUSH WITH FINISH GRADE OR 1"X2" GALVANIZED PIPE IN ROCKY AREAS.
(3) GUY WIRES SHALL BE #12 GA. GALVANIZED WIRED. MARK GUYS WITH 3'-0" LONG 1/2" DIA. WHITE PVC PIPE.
(4) GUY LINES ARE TO BE TIGHTENED TO FIRM TENSION.

22. ESPALIERING OF VINES

ALL TRELLISES AND STAKES ARE TO BE REMOVED FROM PLANTS AND THE PLANTS SHALL BE FASTENED AND TRAINED AGAINST FENCES OR WALLS AS DIRECTED BY THE L.A.

23. CERTIFICATES

IN ADDITION TO ANY OTHER CERTIFICATES SPECIFIED, CONTRACTOR SHALL FURNISH A CERTIFICATE WITH EACH DELIVERY OF BULK MATERIAL, STATING THE SOURCE, QUANTITY AND TYPE OF MATERIAL AND THAT THE MATERIAL CONFORMS TO THE SPECIFICATION REQUIREMENTS. FOR BULK DELIVERED ORGANIC FERTILIZER, THE CERTIFICATE SHALL ALSO STATE THE VOLUME, NET WEIGHT, PERCENT OF NITROGEN AND PERCENT OF PHOSPHORIC ACID. FOR EACH FERTILIZER AND SOIL CONDITIONER, IN CANTAINERS, A SIMILAR CERTIFICATE OR INVOICE SHALL BE FURNISHED STATING TOTAL QUANTITIES BY WEIGHT AND VOLUME FOR EACH MATERIAL. THESE CERTIFICATES SHALL BE SUBMITTED TO THE L.A. AND OWNER PRIOR TO THE STRART OF THE MAINTENANCE PERIOD.

24. PROTECTION

CONTRACTOR SHALL CAREFULLY AND CONTINUOUSLY PROTECT ALL AREAS INCLUDED IN THE CONTRACT, INCLUDING PLANT MATERIALS, FENCES, SUPPORTS, ETC., UNTIL FINAL ACCEPTANCE OF THE WORK BY THE L.A. AND OWNER.

25. MAINTENANCE

A. CONTRACTOR SHALL MAINTAIN A SUFFICIENT NUMBER OF MEN AND ADEQUATE EQUIPMENT TO PERFORM THE WORK HERE IN SPECIFIED. PLANT MAINTENANCE WORK SHALL CONSIST OF APPLYING WATER, WEEDING, CARING FOR PLANTS, INCLUDING GROUNDCOVERS, SHRUBS AND TREES, EDGING, AERATING AND MOWING OF LAWNS, FERTILIZING AND CONTROL OF PESTS AND DISEASES.

B. DAMAGE TO ANY PLANTED AREA SHALL BE REPAIRED IMMEDIATELY. DEPRESSIONS CAUSED BY VEHICLES OR FOOT TRAFFIC SHALL BE FILLED WITH TOPSOIL, LEVELED AND REPLANTED. EXTERMINATE GOPHERS AND MOLES, AND REPAIR DAMAGE.

C. THE ENTIRE PROJECT SHALL BE MAINTAINED FOR A PERIOD OF DAYS COMMENCING FROM THE TIME ALL ITEMS OF WORK HAVE BEEN COMPLETED TO THE SATISFACTION OF L.A. AND OWNER.

D. THE PROJECT SHALL BE CARED FOR IN A NEAT, CLEAN CONDITION AT ALL TIMES TO THE SATISFACTION OF OWNER AND L.A.

26. LAWN MAINTENANCE

A. WATERING – WATER EVERY DAY ONCE PER DAY FOR TWO WEEKS AND THEREAFTER GRADUALLY REDUCE FREQUENCY OF WATERING TO THREE TIMES PER WEEK. CONTRACTOR SHALL CONTINUE TO MAINTAIN THE LAWN UNTIL FINAL ACCEPTANCE BY THE L.A. AND OWNER.

B. FERTILIZING – APPLY 16-6-8 AT THE RATE OF 5 POUNDS PER 1,000 SQUARE FEET THREE WEEKS AFTER INSTALLATION AND WATER IMMEDIATELY THEREAFTER.

C. DISEASES AND PEST CONTROL – TWO WEEKS AFTER INSTALLATION OF LAWN, APPLY A GRANULAR MERCURIAL FUNGICIDE OF 1.8% MERCUROUS CHLORIDE AS PER MANUFACTURER'S RECOMMENDATION.

D. MOWING – THE LAWN SHALL BE MOWED AT A HEIGHT OF 1-1/2" WITH A ROTARY MOWER, EQUIPPED WITH ROLLERS, BEFORE IT REACHES 2" IN HEIGHT. COLLECT GRASS CUPPING DURING MOWING OPERATIONS AND REMOVE FROM THE SITE.

27. GROUNDCOVER AND SHRUB AREA MAINTENANCE

A. WATERING – NEW PLANTINGS SHALL BE WATERED ONCE PER DAY FOR TWO (2) WEEKS AFTER INSTALLATION. REDUCE WATERING TO EVERY OTHER DAY FOR THE NEXT TWO (2) WEEKS. WATER THEREAFTER THREE (3) TIMES PER WEEK UNTIL FINAL ACCEPTANCE.

B. FERTILIZATION – FERTILIZE THREE (3) WEEKS AFTER PLANTING WITH 5 POUNDS 16-6-8 PER 1,000 SQUARE FEET; FERTILIZE THEREAFTER EVERY THIRTY (30) DAYS.

C. DISEASE AND PEST CONTROL – FOR CONTROL OF SLUGS AND SNAILS, APPLY PELLETIZED TRICALCIUM ARSINATE 5% BY WEIGHT AND METALDEHYDE 5% BY WEIGHT AS PER MANUFACTURER'S RECOMMENDATIONS TWO (2) WEEKS AFTER INSTALLATION.

D. PRUNING – ALL SHRUBS AND TREES SHALL BE PINCH PRUNED AS NECESSARY TO ENCOURAGE NEW GROWTH AND TO ELIMINATE RANK SUCKER GROWTH. OLD FLOWERS, AND DEAD FOLIAGE AND LIMBS SHALL BE REMOVED. NO MAJOR PRUNING SHALL BE DONE WITHOUT THE APPROVAL OF THE L.A.

E. WEEDING – ALL PLANTING AREAS INCLUDING LAWN, GROUNDCOVER AND SHRUB AREAS SHALL BE KEPT WEED-FREE AT ALL TIMES. WEED SHALL BE DUG OUT BY THE ROOTS AND DISPOSED OF OFF SITE. UPON COMPLETION OF THE DAY MAINTENANCE PERIOD, THE CONTRACTOR SHALL FERTILIZE PER #26 – LAWN MAINTENANCE AND #27 GROUNDCOVERS AND SHRUB AREA MAINTENANCE OF THESE SPECIFICATIONS.

28. GUARANTEE AND REPLACEMENTS

A. ALL SHRUBS AND GROUNDCOVER SHALL BE GUARANTEED BY CONTRACTOR AS TO GROWTH AND HEALTH FOR A PERIOD OF ONE HUNDRED EIGHTY (180) DAYS AFTER COMPLETION OF THE SPECIFIED MAINTENANCE PERIOD, AND/OR FINAL ACCEPTANCE BY THE L.A. ALL TREES SHALL BE GUARANTEED BY CONTRACTOR TO LIVE AND GROW IN AN ACCEPTABLE UPRIGHT POSITION FOR A PERIOD OF (1) YEAR AFTER COMPLETION OF THE SPECIFIED MAINTENANCE PERIOD, AND/OR FINAL ACCEPTANCE BY THE L.A.

B. ALL PLANTS THAT SHOW SIGNS OF FAILING GROWTH AT ANY TIME DURING THE LIFE OF THE CONTRACT, INCLUDING THE MAINTENANCE PERIOD, OR THOSE PLANTS INJURED OR DAMAGED AS TO RENDER THEM UNSUITABLE FOR THE PURPOSE INTENDED, SHALL BE GUARANTEED AS SPECIFIED FOR THE ORIGINAL GUARANTEED MATERIALS.

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BRETT K. FRENCH
3416
Signature
10/31/20
Renewal Date
STATE OF CALIFORNIA

NO.	DATE	REVISIONS	CK. BY

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ARENTH AVENUE STREET IMPROVEMENTS
PHILLIPS DRIVE TO NOGALES STREET

LANDSCAPE SPECIFICATIONS

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29. CLEAN-UP

UPON COMPLETION OF THE WORK IN THIS SECTION, CONTRACTOR SHALL REMOVE ALL RUBBISH, TRASH AND DEBRIS RESULTING FROM THE OPRERATIONS; REMOVE DISUSED EQUIPMENT AND IMPLEMENTS OF SERVICE; LEAVE ENTIRE AREA INVOLVED IN A NEAT AND ACCEPTABLE CONDITION SUCH AS TO MEET THE APPROVAL OF THE LANDSCAPE ARCHITECT (L.A.).

HYDROSEED

1. GENERAL

A. EQUIPMENT MUST HAVE MINIMUM CAPACITY OF 1,500 GALLONS AND A POSITIVE DISPLACEMENT PUMP WITH THE ABILITY TO AGITATE AND PROPERLY MIX THE SPECIFIED MATERIALS. PUMP MUST BE CAPABLE OF CREATING 100 POUNDS PSI PRESSURE WITH SUFFICIENT VOLUME TO DISTRIBUTE ABOVE SLURRY EVENLY OVER 12,000 SQ. FT. WITHIN A 15-MINUTE PERIOD.

B. VENDOR FURNISHED LABEL: VENDOR AGREES TO FURNISH NOT LESS THEN TWO (2) EMPLOYEES DURING ALL HYDROMULCHING APPLICATIONS.

C. THE VENDOR SHALL FULLY GUARANTEE HIS WORK AND SERVICES AND SHALL BE FULLY INSURED AND BE PREPARED TO FURNISH SATISFACTORY EVIDENCE OF SUCH INSURANCE UPON DEMAND.

2. SLOPE & PLANTING AREA PREPARATION

A. SCARIFICATION – PRIOR TO INSTALLATION OF THE IRRIGATION SYSTEM, THE SURFACE OF ALL SLOPES SHALL BE CLEANED AND GRUBBED TO PREPARE THE SLOPE SURFACE FOR SEEDING.

B. MULCH – TO BE SILVA FIBER PLUS (AT 2,000 POUNDS PER ACRE). A GREEN COLORED, FIBROUS MULCH, CONTAINING NO GROWTH OR GERMINATION INHIBITING FACTORS. SILVA FIBER PLUS IS MANUFACTURED IN SUCH A MANNER THAT AFTER ADDITION OF SEED, FERTILIZER, WATER AND ADDITIVES IN A SPECIAL 1500-GALLON SLURRY TANK, THE FIBERS AND ABOVE-MATERIALS WILL BECOME UNIFORMLY MIXED TO FORM A HOMOGENEOUS SLURRY; AND USING THE GREEN COLOR TO FACILITATE PROPER DISTRIBUTION, THE SLURRY SHALL BE HYDRAULICALLY SPRAYED ONTO THE GROUND FORMING A BLOTTER-LIKE GROUND COVER WHICH AFTER APPLICATION WILL ALLOW THE ABSORPTION AND RETENTION OF MOISTURE. SUPPLIERS SHALL BE PREPARED TO CERTIFY THAT LABORATORY AND FIELD TESTING OF THEIR PRODUCT HAS BEEN ACCOMPLISHED, AND THAT IT MEETS ALL OF THE FOREGOING REQUIREMENTS, BASED ON TESTING. WEIGHT SPECIFICATIONS OF THIS MATERIAL FROM SUPPLIERS, AND FOR ALL APPLICATION, SHALL REFER ONLY TO AIR DRY WEIGHT OF THE FIBER MATERIAL. ABSOLUTE AIR DRY WEIGHT BASED ON THE NORMAL STANDARDS OF THE TECHNICAL ASSOCIATION OF THE PULP INDUSTRY FOR SILVA FIBER PLUS IS CONSIDERED EQUIVALENT TO 10% MOISTURE. EACH PACKAGE OF SILVA FIBER PLUS SHALL BE MARKED BY THE MANUFACTURER TO SHOW THE AIR DRY WEIGHT CONTENT.

C. SEED MIXES

TURF SEED MIX: "MARATHON" BY SOUTHLAND SOD

SLOPE SEED MIX: APPLIED AT LBS. PER ACRE

FUEL MODIFICATION SEED MIX:

D. WEED ABATEMENT PROGRAM – UPON COMPLETION OF THE IRRIGATION SYSTEM AND AFTER ALL EXISTING WEEDS HAVE BEEN REMOVED FROM THE PLANTING AREAS, THE FOLLOWING WEED PREVENTION SHALL BE USED:

APPLY FERTILIZER MIXTURE BY SPRAY PER ACRE AS FOLLOWS:

300 LBS. 12-12-12 COMMERCIAL FERTILIZER
300 LBS. UREA FORMALDEHYDE
1000 LBS. AGRICULTURAL GYPSUM

APPLY PRE-EMERGENT HERBICIDE AS RECOMMENDED BY A LICENSED PEST CONTROL ADVISOR TO BE COMPATIBLE WITH THE SEEDED PLANT VARIETIES.

APPLY MIXTURES PER THE FOLLOWING TIME SCHEDULE:

FERTILIZE/WATER	21 DAYS
WAIT	2 DAYS
SPRAY THE PRE-EMERGENT PER PEST CONTROL ADVISOR RECOMMENDATIONS	7-10 DAYS
FERTILIZE/WATER	14 DAYS
SPRAY WEED MIXTURE	7 DAYS
FERTILIZE/WATER	14 DAYS
SPRAY WEED MIXTURE	7 DAYS
GRUB/CLEAN ALL AREAS TO PREPARE FOR SEEDING	2 DAYS
PLANT	23 DAYS MAXIMUM
TOTAL	100 DAYS MAXIMUM

3. PLANTING

A. TREES AND SHRUBS – TREES AND SHRUBS CAN BE PLANTED AFTER WEED GERMINATION AND DURING THE CONTACT KILL OF WEEDS, AS SPECIFIED.

B. HYDROSEEDING

(1) WHEN ALL WEEDS HAVE BEEN ELIMINATED TO THE SATISFACTION OF THE LANDSCAPE ARCHITECT AND THE OWNER'S AUTHORIZED REPRESENTATIVE, THE HYDROSEEDING OPERATION MAY BEGIN.

(2) THE MATERIALS FOR SEEDED AREAS SHALL BE MACHINE MIXED BEFORE APPLICATION.

(3) THE MIXTURE OF STOLONS OR SEED AND ADDITIVES ARE TO BE APPLIED BY A HYDRO-MULCHING MACHINE. THE NOZZLE HEIGHT SHALL BE BETWEEN 6' AND 10' ABOVE THE GROUND LEVEL. DISCHARGED PRESSURE AT THE NOZZLE SHALL BE 100 PSI.

(4) SPRAYING SHALL BE DONE IN A SWEEPING MOTION ALLOWING THE SLURRY TO FALL EVENLY AND EVENTUALLY BUILD UP A CONSISTENT MATTING.

(5) SOIL MOISTURE: AREA TO BE PLANTED SHALL BE IRRIGATED TO OBTAIN 12 INCHES OF PENETRATION. THIS SHOULD BE DONE 4 TO 7 DAYS PRIOR TO PLANTING.

C. MIXTURE

(1) COMMERCIAL FERTILIZER SHALL BE APPLIED AT THE FOLLOWING RATES: 500 LBS./ACRE....16-20-0 (BEST FERTILIZER COMPANY CROP MAKER OR EQUAL)
(2) FIBER MATERIAL (CONWED 2000) AT THE RATE OF 2,000 LBS./ACRE.
(3) WATER WITH MIXTURE OF 3,000 GALLONS/ACRE.
(4) STABILIZING BINDER – 120 LBS/ACRE FOR SLOPES, 80 LBS/ACRE FOR FLAT AREAS

D. WATERING – IMMEDIATELY AFTER PLANTING, THE SLOPES AND OTHER PLANTING AREAS SHALL BE WATERED WITH A FINE SPRAY, CARE BEING TAKEN TO AVOID EROSION, AND THE PLANTED AREA KEPT MOIST UNTIL THE SEED HAS GERMINATED (OR THE PLANTS HAVE BECOME ESTABLISHED).

E. CLEAN-UP – AFTER COMPLETION OF THE WORK, ALL RUBBISH AND SURPLUS MATERIAL SHALL BE REMOVED FROM THE SITE, AND IT SHALL BE LEFT NEAT AND CLEAN.

4. PLANT ESTABLISHMENT

A. IRRIGATION – THE IRRIGATION SYSTEM WILL BE OPERATED TO PROVIDE AN OPTIMUM AMOUNT OF SURFACE MOISTURE FOR GERMINATION OF THE SEEDED VARIETIES AVOIDING ALL RUN-OFF AND DEEP SATURATION OF WATER.

B. FERTILIZATION – THE AREA SHALL BE HYDRO-FERTILIZED EVERY 30 DAYS AFTER PLANTING WITH THE FOLLOWING COMBINATION OF MATERIALS: 250 LBS./ACRE....16-6-8 (BEST FERTILIZER COMPANY CROP MAKER OR EQUAL)

C. PRE-EMERGENT HERBICIDE – SIXTY (60) DAYS AFTER PLANTING, APPLY A BROAD SPECTRUM PRE-EMERGENT HERBICIDE AS RECOMMENDED BY AN EXPERIENCED LICENSED PEST CONTROL ADVISOR.

5. MAINTENANCE

A. MAINTENANCE OF THE PROJECT SHALL BE FOR A PERIOD OF 180 DAYS.

B. MAINTENANCE SHALL INCLUDE ALL WATERING, FERTILIZATION, MOWING, WEEDING, CULTIVATING, SPRAYING AND PRUNING NECESSARY TO KEEP THE PLANT MATERIALS IN A HEALTHY GROWING CONDITION AND TO KEEP THE PLANTED AREAS NEAT AND ATTRACTIVE THROUGHOUT THE MAINTENANCE PERIOD.

C. PROTECT ALL PLANTED AREAS AGAINST DAMAGE, INCLUDING EROSION AND TRESSPASSING, BY PROVIDING AND MAINTAINING PROPER SAFEGUARDS.

D. DURING THE MAINTENANCE PERIOD, ALL PLANTED AREAS SHALL BE KEPT WELL WATERED AND WEED-FREE AT ALL TIMES.

E. FROM THE TIME ANY PLANTING IS DONE, UNTIL THE END OF THE MAINTENANCE PERIOD, THE CONTRACTOR SHALL MAINTAIN A SUFFICIENT NUMBER OF MEN AND ADEQUATE EQUIPMENT TO PERFORM THE WORK HEREIN SPECIFIED.

F. THE CONTRACTOR WILL BE RELIEVED FROM MAINTENANCE WORK WHEN THE FINAL PLANT ESTABLISHMENT AND MAINTENANCE WORK HAS BEEN COMPLETED TO THE SATISFACTION OF THE OWNER.

G. DAMAGE TO PLANTING AREAS SHALL BE REPLACED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE.

H. DEPRESSIONS CAUSED BY VEHICLES, BICYCLES, OR FOOT TRAFFIC, SHALL BE FILLED AND LEVELED. REPLANT DAMAGED AREAS.

I. EXTERMINATE GOPHERS AND MOLES, GROUND SQUIRRELS, AND REPAIR DAMAGE AS ABOVE.

J. ALL PAVED AREAS WILL BE WASHED AND MAINTAINED IN A NEAT AND CLEAN CONDITION AT ALL TIMES, AS DIRECTED BY THE OWNER.

K. PINCH-PRUNE ALL SHRUBS AND TREES TO ENCOURAGE NEW GROWTH AND TO ELIMINATE RANK SUCKER GROWTH. REMOVE ALL OLD FLOWERS AND DEAD FOLIAGE AND LIMBS. DO NO MAJOR PRUNING WITHOUT THE APPROVAL OF THE OWNER. REMOVE DAMAGED BRANCHES ON TREES BACK TO POINT OF GROWTH. TREAT CUTS OVER 2" IN DIAMETER WITH AN APPROVED TREE WOUND DRESSING.

L. DURING THE MAINTENANCE PERIOD, SHOULD THE APPEARANCE OF ANY PLANT INDICATE WEAKNESS AND PROBABILITY OF DYING, IMMEDIATELY REPLACE THAT PLANT WITH A NEW AND HEALTHY PLANT OF THE SAME TYPE AND SIZE WITHOUT ADDITIONAL COST TO THE OWNER.

M. AT THE END OF THE MAINTENANCE PERIOD, ALL PLANT MATERIAL SHALL BE IN A HEALTHY GROWING CONDITION.

N. CONTRACTOR SHALL CONTINUE THE MAINTENANCE PERIOD PAST THE SPECIFIED DATE AT NO ADDITIONAL COST TO THE OWNER UNTIL ALL DEFICIENCIES HAVE BEEN CORRECTED.

IRRIGATION

1. SCOPE

FURNISH ALL MATERIALS, TOOLS, EQUIPMENT AND LABOR REQUIRED TO INSTALL A COMPLETE OPERABLE IRRIGATION SYSTEM AS INDICATED ON THE DRAWINGS, AS SPECIFIED AND AS NECESSARY TO COMPLETE THE CONTRACT, INCLUDING, BUT NOT LIMITED TO, THESE MAJOR ITEMS:

A. IRRIGATION SYSTEM AND RELATED APPURTENANCES.

B. CONNECTIONS TO WATER AND ELECTRICAL UTILITIES.

C. EXCAVATION AND BACKFILL OF PIPE TRENCHES.

D. RECORD DRAWINGS AND GUARANTEES.

E. PERMITS AND LICENSES.

F. TESTING OF COMPLETED SYSTEMS.

G. CLEAN-UP

2. QUALITY ASSURANCE

A. QUALIFICATIONS OF INSTALLERS – PROVIDE AT LEAST ONE PERSON WHO SHALL BE PRESENT AT ALL TIMES DURING EXECUTION OF THIS PORTION OF THE WORK AND WHO SHALL BE THOROUGHLY FAMILIAR WITH THE TYPE OF MATERIALS BEING INSTALLED AND THE MATERIAL MANUFACTURERS' RECOMMENDED METHODS OF INSTALLATION AND WHO SHALL DIRECT ALL WORK PERFORMED UNDER THIS SECTION.

B. CODES AND STANDARDS – IN ADDITION TO COMPLYING WITH ALL PERTINENT CODES AND REGULATION, COMPLY WITH THE LATEST RULES OF THE NATIONAL ELECTRICAL CODE AND THE ELECTRICAL SAFETY ORDERS OF THE STATE OF CALIFORNIA, DIVISION OF INDUSTRIAL SAFETY ORDERS OF THE STATE OF CALIFORNIA, DIVISION OF INDUSTRIAL SAFETY, FOR ALL ELECTRICAL WORK AND MATERIALS.

3. SUBMITTALS

A. MATERIALS LIST – WITHIN THIRTY-FIVE (35) CALENDAR DAYS AFTER AWARD OF CONTRACT, AND BEFORE ANY IRRIGATION SYSTEM MATERIALS ARE DELIVERED TO THE JOB SITE, SUBMIT TO THE OWNER A COMPLETE LIST OF ALL IRRIGATION SYSTEM MATERIALS PROPOSED TO BE FURNISHED AND INSTALLED.

(1) SHOW MANUFACTURER'S NAME AND CATALOG NUMBER FOR EACH ITEM; FURNISH THE MANUFACTURER'S RECOMMENDATIONS AS TO METHOD OF INSTALLATION.

(2) UPON APPROVAL BY THE OWNER, THE MANUFACTURER'S RECOMMENDATIONS SHALL BECOME THE BASIS FOR ACCEPTANCE OR REJECTION OF ACTUAL METHODS OF INSTALLATION USED IN THE WORK.

(3) DO NOT PERMIT ANY IRRIGATION SYSTEM COMPONENT TO BE BROUGHT ONTO THE JOB SITE UNTIL IT HAS BEEN APPROVED BY THE OWNER OR HIS REPRESENTATIVE.

(4) APPROVAL OF ANY ITEM OR ALTERNATE ITEM INDICATES ONLY THAT IT APPARENTLY MEETS THE REQUIREMENTS OF THE DRAWINGS ON THE BASIS OF THE INFORMATION SUBMITTED, AND DOES NOT RELIEVE CONTRACTOR OF ANY RESPONSIBILITY.

B. AS-BUILT DRAWINGS

(1) DURING THE COURSE OF INSTALLATION, CAREFULLY SHOW IN RED LINE ON A PRINT OF THE IRRIGATION SYSTEM DRAWINGS ALL CHANGES MADE TO THE IRRIGATION SYSTEM DURING INSTALLATION.

(2) DIMENSION FROM EASILY IDENTIFIABLE PERMANENT FEATURES (BUILDINGS, MONUMENTS, SIDEWALKS, PAVEMENT, ETC.) POINTS OF CONNECTION (WATER AND ELECTRICAL), WIRE ROUTING, SPRINKLER MAIN ROUTING, VALVE LOCATIONS AND OTHER RELATED EQUIPMENT AS DIRECTED BY OWNER.

(3) UPON COMPLETION OF THE IRRIGATION SYSTEM INSTALLATION, CAREFULLY TRANSFER THE AS-BUILT DATA TO REPRODUCIBLES AS SPECIFIED IN THE GENERAL CONDITIONS AND SUBMIT ONE LEGIBLE COPY AS DESCRIBED UNDER "AS-BUILTS" BELOW, TO THE OWNER.

C. SUBMITTAL OF "AS-BUILTS" – UPON COMPLETION OF THE IRRIGATION SYSTEM INSTALLATION, AND AS A CONDITION OF ITS ACCEPTANCE, DELIVER TO THE OWNER THE AS-BUILT DRAWINGS REFERRED TO ABOVE. THE DELIVERY OF THE AS-BUILT DRAWINGS SHALL NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF FURNISHING REQUIRED INFORMATION THAT MAY HAVE BEEN OMITTED.

4. PRODUCT HANDLING

A. PROTECTION – USE ALL MEANS NECESSARY TO PROTECT IRRIGATION SYSTEM MATERIALS BEFORE, DURING, AND AFTER INSTALLATION AND TO PROTECT THE INSTALLED WORK AND MATERIALS OF ALL OTHER TRADES.

B. REPLACEMENTS – IN THE EVENT OF DAMAGE, IMMEDIATELY MAKE ALL REPAIRS AND REPLACEMENTS NECESSARY TO THE APPROVAL OF THE OWNER AND AT NO ADDITIONAL COST TO THE OWNER.

(1) EXERCISE CARE IN HANDLING, LOADING, UNLOADING AND STORING PLASTIC PIPE AND FITTINGS UNDER COVER UNTIL READY TO INSTALL; TRANSPORT PLASTIC PIPE ONLY ON A VEHICLE WITH A BED LONG ENOUGH TO ALLOW THE PIPE TO LAY FLAT TO AVOID UNDUE BENDING AND CONCENTRATED EXTERNAL LOAD.

(2) REPAIR ALL DENTED OR DAMAGED PIPE BY CUTTING OUT THE DENTED OR DAMAGED SECTION AND REJOINING WITH A COUPLING.

C. CONNECTION TO UTILITIES

(1) SOURCE OF WATER AND POWER SUPPLY: VERIFY AND BE FAMILIAR WITH THE LOCATION, SIZE AND DETAIL OF STUBOUTS PROVIDED AS THE SOURCE OF WATER AND ELECTRICAL SUPPLY TO THE IRRIGATION SYSTEM, AS SHOWN ON THE PLANS. SOURCE OF SUPPLY AND POINT OF CONNECTION SHALL BE EXISTING STUB-OUTS AT APPROXIMATE LOCATIONS AS SHOWN ON PLANS (UNLESS OTHER WISE NOTED).

(2) EXISTING UTILITIES AND CONDITIONS: PRIOR TO CUTTING INTO THE SOIL, LOCATE ALL CABLES, CONDUITS, SEWER SEPTIC TANKS, AND OTHER UTILITIES AS ARE COMMONLY ENCOUNTERED UNDERGROUND AND TAKE PROPER PRECAUTIONS NOT TO DAMAGE OR DISTURB SUCH IMPROVEMENTS. IF A CONFLICT EXISTS BETWEEN SUCH OBSTACLES AND THE PROPOSED WORK, PROMPTLY NOTIFY THE OWNER WHO WILL ARRANGE FOR RELOCATIONS. PROCEED IN THE SAME MANNER IF ROCK LAYER OR ANY OTHER CONDITIONS ENCOUNTERED UNDERGROUND MAKE CHANGES ADVISABLE.

A. WHERE INVESTIGATION OF SUBSURFACE CONDITIONS HAS BEEN MADE BY A QUALIFIED BODY IN AREAS IN WHICH LOCAL MATERIALS MAY BE OBTAINED, THE CONTRACTOR MAY REQUEST THE USE OF SUCH INFORMATION BUT WILL BE DIRECTLY RESPONSIBLE FOR ITS VERIFICATION AND ACCURACY.

D. INSPECTION

(1) AT ALL TIMES PERMIT THE OWNER OR HIS AUTHORIZED AGENTS TO VISIT AND OBSERVE THE WORK OR ANY PART THEREOF. MAINTAIN PROPER FACILITIES AND PROVIDE SAFE ACCESS FOR SUCH OBSERVATIONS TO ALL PARTS OF THE WORK. WHERE THE SPECIFICATIONS REQUIRE WORK TO BE TESTED, IT SHALL NOT BE COVERED UP UNTIL TESTED OR APPROVED BY THE OWNER AND GOVERNING AGENCIES. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR NOTIFYING THE OWNER AND REQUIRED AGENCY (48 HOURS NOTICE MINIMUM REQUIRED), WHERE AND WHEN SUCH WORK IS IN READINESS FOR TESTING. SHOULD ANY SUCH WORK BE COVERED WITHOUT SUCH TEST OR APPROVAL, IT SHALL, IF SO ORDERED, BE UNCOVERED AT THE CONTRACTOR'S EXPENSE.

(2) OBSERVATIONS REQUIRED
A. PRESTART MEETING
B. LAYOUT OF CONTROL EQUIPMENT AND HEADS.
C. MAIN LINE PRESSURE TEST AND TRENCH DEPTH CHECK.
D. LATERAL TRENCH DEPTH CHECK.
E. COVERAGE TEST AND PREFINAL OBSERVATION.
F. FINAL OBSERVATION.

E. STANDARD OF INSTALLATION – MATERIAL AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH LOCAL CODES AND ORDINANCES OF LEGALLY CONSTITUTED AUTHORITIES, EXCEPT THAT WHERE PROVISIONS OF THESE SPECIFICATIONS EXCEED SUCH REQUIREMENTS, THESE SPECIFICATIONS SHALL GOVERN.

F. PRESERVATION AND CLEANING – CLEANUP ALL WORK AS IT PROGRESSES. AT FREQUENT INTERVALS, AND AT ALL TIMES WHEN DIRECTED BY THE OWNER, REMOVE AND DISPOSE OF ACCUMULATIONS OF RUBBISH AND DEBRIS OF ALL KINDS. AT THE TIME OF COMPLETION, THE ENTIRE SITE SHALL BE CLEARED OF TOOLS, EQUIPMENT, RUBBISH, ETC., ALL OF WHICH SHALL BE LEFT IN PROPER, CLEAN CONDITION READY FOR ACCEPTANCE.

G. COMPLETION – THE WORK SHALL BE ACCEPTED IN WRITTING WHEN THE ENTIRE SCOPE OF WORK HAS BEEN COMPLETED SATISFACTORILY TO THE OWNER. IN JUDGING THE WORK, NO ALLOWANCE FOR DEVIATION FROM THE ORIGINAL PLANS AND SPECIFICATIONS WILL BE MADE UNLESS PREVIOUSLY APPROVED BY THE OWNER.

(1) WHEN ANY ITEM APPEARS ON THE PLAN AND NOT IN THE SPECIFICATIONS, OR IN THE SPECIFICATIONS AND NOT ON THE PLAN, IT SHALL BE CONSIDERED IN BOTH.

(2) THE OWNER OR HIS AUTHORIZED REPRESENTATIVE SHALL HAVE THE FINAL AUTHORITY ON ALL ITEMS OF THE PROJECT.

H. EQUIPMENT TO BE FURNISHED – IRRIGATION EQUIPMENT, OPERATING KEYS AND SPARE PARTS SHALL BE FURNISHED TO THE OWNER AS SHOWN ON THE PLANS.

I. SERVICE BY THE CONTRACTOR – THE CONTRACTOR SHALL SERVICE THE SYSTEM AT THE OWNER'S REQUEST DURING THE GUARANTEE PERIOD AND SHALL BE PAID FOR WORK PERFORMED WHICH IS NOT COVERED BY THE GUARANTEE. IF REQUESTED BY THE OWNER, THE CONTRACTOR SHALL FURNISH THE OWNER WITH A SCHEDULE OF SERVICES FEES.

J. FINAL ACCEPTANCE – WITHIN 10 DAYS OF THE CONTRACTOR'S NOTIFICATION THAT THE INSTALLATION IS COMPLETE, THE OWNER AND REQUIRED AGENCIES WILL OBSERVE THE INSTALLATION AND, IF FINAL ACCEPTANCE IS NOT GIVEN, WILL PREPARE A "PUNCH LIST" WHICH, UPON COMPLETION BY THE CONTRACTOR, AND APPROVED BY THE OWNER, WILL SIGNIFY FINAL ACCEPTANCE BY THE OWNER.

K. IRRIGATION GUARANTEE

(1) THE ENTIRE IRRIGATION SYSTEM SHALL BE UNCONDITIONALLY GURARANTEED BY THE CONTRACTOR AS TO MATERIAL AND WORKMANSHIP, INCLUDING SETTLING OF BACKFILLED AREAS BELOW GRADE FOR A PERIOD OF ONE YEAR FOLLOWING THE DATE OF FINAL ACCEPTANCE OF THE WORK.

(2) IF, WITHIN ONE YEAR FROM THE DATE OF COMPLETION, SETTLEMENT OCCURS AND ADJUSTMENTS IN PIPE, VALVES, AND IRRIGATION HEADS, SOD OR PAVING TO THE PROPER LEVEL OF THE PERMANENT GRADES, THE CONTRACTOR AS PART OF THE WORK UNDER THIS CONTRACT, SHALL MAKE ALL ADJUSTMENTS WITHOUT EXTRA COST TO THE OWNER, INCLUDING COMPLETE RESTORATION OF ALL DAMAGED PLANTING, PAVING OR OTHER IMPROVEMENTS.

(3) SHOULD ANY OPERATIONAL DIFFICULTIES IN CONNECTION WITH THE IRRIGATION SYSTEM DEVELOP WITHIN THE SPECIFIED GUARANTEE PERIOD, WHICH IN THE OPINION OF THE OWNER MAY BE DUE TO INFERIOR MATERIAL OR WORKMANSHIP, SAID DIFFICULTIES SHALL BE IMMEDIATELY REPAIRED AT NO ADDITIONAL COST TO THE OWNER, INCLUDING ANY AND ALL OTHER DAMAGE CAUSED BY SUCH DEFECTS.

L. PERMITS AND LICENSES – UNLESS OTHERWISE STATED, SECURE THE REQUIRED LICENSES AND PERMITS INCLUDING PAYMENTS OF CHARGES AND FEES, GIVE REQUIRED NOTICES TO PUBLIC AUTHORITIES, AND VERIFY PERMITS SECURED OR ARRANGEMENTS MADE BY OTHERS AFFECTING THE WORK OF THIS SECTION.

5. MATERIALS

MATERIALS LISTED IN THIS SECTION ENCOMPASS THE GENERAL ITEMS ENCOUNTERED. IF PRODUCTS LISTED BELOW ARE NOT USED FOR THE PROJECT BEING INSTALLED, THEY ARE TO BE OMITTED.

6. PIPE

A. PVC

(1) PVC PRESSURE RATED PIPE – TYPE 1220 (PVC CLASS 200 AND 315 AND PVC SCHEDULE 40-1120.

A. TYPE I GRADE II PRESSURE RATED PIPE.
B. MATERIALS SHALL MEET REQUIREMENTS SET FORTH IN THE ASTM CURRENT STANDARDS.
C. OUTSIDE DIAMETER OF PIPE SHALL BE THE SAME SIZE AS IRON PIPE.
D. PIPE SHALL BE MARKED AT INTERVALS NOT TO EXCEED 5 FEET WITH THE FOLLOWING INFORMATION:
MANUFACTURER'S NAME, NOMINAL PIPE SIZE, PVC TYPE AND GRADE (I.E. PVC 1220), S.D.R. RATING CLASS, NSF APPROVAL AND COMMERCIAL STANDARD DESIGNATION CS 256-63.
E. PVC PIPE SHALL COMPLY WITH STANDARDS SET FORTH IN CS 256-63.
F. PVC TYPE I SHALL NOT BE THREADED.
G. PVC FITTINGS SHALL BE SCHEDULE 40 OR 80, PVC TYPE II.
H. SOLVENT SHALL BE #715 GRAY NSF APPROVED AS MANUFACTURED BY INDUSTRIAL POLYCHEMICAL SERVICE, GARDENA, CALIFORNIA, OR APPROVED EQUAL.
I. CAUTION SHALL BE UTILIZED IN HANDLING TYPE I PIPE DUE TO THE POSSIBILITY OF CRACKING OR SPLITTING WHEN DROPPED OR HANDLED CARELESSLY.
J. WHERE CALLED FOR ON DRAWINGS, PIPE SHALL BE BELL END, CONFORMING TO ASTMD-2672. INSTALL CONCRETE THRUST BLOCKS AS RECOMMENDED IN JOHNS-MANSVILLE INSTALLATION GUIDE NO. TR-624, WHERE CONDITIONS DICTATE.

(2) PVC HIGH IMPACT PIPE – TYPE 2110 (PVC SCHEDULE 40 AND 80).

A. TYPE II GRADE I HIGH IMPACT PIPE.
B. OUTSIDE DIAMETER OF PIPE SHALL BE THE SAME SIZE AS IRON PIPE.
C. PIPE SHALL BE MARKED AT INTERVALS NOT TO EXCEED 5 FEET WITH THE FOLLOWING INFORMATION:
MANUFACTURER'S NAME, NOMINAL PIPE SIZE, PVC TYPE AND GRADE (I.E. PVC 2110), SCHEDULE, NSF APPROVAL AND COMMERCIAL STANDARD DESIGNATION CS 207-60.
D. PVC PIPE SHALL COMPLY WITH STANDARDS SET FORTH IN CS 207-60.
E. PVC SCHEDULE 40 SHALL NOT BE THREADED.
F. FITTINGS SHALL BE PVC SCHEDULE 40 OR 80, TYPE I, NSF APPROVED, AS REQUIRED.

G. ALL THREADED PVC PIPE SHALL BE SCHEDULE 80, TYPE 2110.
H. SOLVENT SHALL BE #175 OR #710 GRAY, NSF APPROVED AS MANUFACTURED BY INDUSTRIAL POLYCHEMICAL SERVICE, GARDENA, CALIFORNIA, OR APPROVED EQUAL.

(3) UVR – PVC – "BROWNLINE" PIPE.
WHERE CALLED FOR – ON GRADE PIPE SHALL BE UVR– PVC PIPE ANCHORED AT 10' INTERVALS WITH RE-BAR. ALL UVR – PVC PIPE SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.

(4) WHEN CONNECTION IS PLASTIC TO METAL, MALE ADAPTERS SHALL BE USED. THE MALE ADAPTER SHALL BE HAND TIGHTENED, PLUS ONE TURN WITH A STRAP WRENCH. JOINT COMPOUND SHALL BE NONHARDENING SEALING COMPOUND COMPATIBLE TO PLASTICS. COMPOUND MUST NOT LUBRICATE THE JOINT.

B. BRASS PIPE

(1) WHERE INDICATED ON THE DRAWINGS, BRASS PIPE SHALL BE RED BRASS SCREWED PIPE CONFORMING TO FEDERAL SPECIFICATION #WW-P-351.

(2) FITTINGS SHALL BE RED BRASS CONFORMING TO FEDERAL SPECIFICATION WW-P-460.

C. GALVANIZED PIPE

(1) WHERE INDICATED ON THE DRAWINGS, GALVANIZED STEEL PIPE SHALL BE ASA SCHEDULE 40, MILD STEEL SCREWED PIPE.

(2) FITTINGS SHALL BE MEDIUM GALVANIZED SCREWED BEADED MALLEABLE IRON. GALVANIZED COUPLINGS MAYBE MERCHANT COUPLING.

(3) ALL GALVANIZED PIPE AND FITTINGS INSTALLED BELOW GRADE SHALL BE PAINTED WITH TWO (2) COATS OF KOPPERS #50 BITUMASTIC AND WRAPPED WITH 20 MIL TAPE.

(4) ALL NONDOMESTIC GALVANIZXED PIPE INSTALLED ON GRADE SHALL BE STENCILED OR IDENTIFIED WITH GREEN TAPE AT ALL CONNECTIONS AND CONTINUOUSLY ALONG ITS LENGTH.

D. COPPER PIPE AND FITTINGS – WHERE INDICATED ON THE DRAWINGS, COPPER PIPE SHALL BE TYPE "K" SWEAT SOLDERED PIPE.

7. RISERS

ALL SPRINKLER HEADS SHALL HAVE RISERS AS SHOWN IN THE DETAIL DRAWINGS.

8. VALVES

A. GATE VALVES

(1) GATE VALVES 3" AND SMALLER SHALL BE 125 LB. SWP BRONZE GATE VALVE WITH SCREW-IN BONNET, NONRISING STEM AND SOLID WEDGE DISC.

(2) GATE VALVES 3" AND SMALLER SHALL HAVE THREADED ENDS AND SHALL BE EQUIPPED WITH A BRONZE HAND WHEEL OR OPERATING NUTS.

(3) GATE VALVES 3" AND SMALLER SHALL BE SIMILAR TO THOSE MANUFACTURED BY KENNEDY OR APPROVED EQUAL.

(4) ALL GATE VALVES SHALL BE INSTALLED PER DETAILED DRAWINGS.

B. QUICK COUPLING VALVES – QUICK COUPLING VALVES SHALL BE OF MANUFACTURER SHOWN ON THE DRAWINGS OR APPROVED EQUAL. EACH QUICK COUPLER SHALL HAVE A MOLDED VINYL LOCKING COVER. UPON COMPLETION OF THE CONTRACT AND PRIOR TO FINAL ACCEPTANCE, SUPPLY THE OWNER WITH QUICK COUPLER KEYS AND HOSE ELLS OF THE QUANTITY CALLED FOR ON THE PLANS. THE QUICK COUPLER KEYS AND HOSE ELLS SHALL BE OF THE SAME MANUFACTURER AS THE COUPLING VALVE. ALL QUICK COUPLING VALVES SHALL BE INSTALLED PER DETAILED DRAWINGS.

C. REMOTE CONTROL VALVES

(1) THE ELECTRIC REMOTE CONTROL VALVES SHALL BE OF THE TYPE AND MANUFACTURER SHOWN ON THE DRAWINGS, OR APPROVED EQUAL, AND INSTALLED PER DETAILED DRAWINGS AND MANUFACTURER'S RECOMMENDATIONS.

(2) VALVES SHALL BE INSTALLED MINIMUM 6" FROM ALL FIXED OBJECTS AND 12" APART.

D. PRESSURE REGULATING VALVES – PRESSURE REGULATING VALVES SHALL BE OF THE TYPE AND MANUFACTURER SHOWN ON THE DRAWINGS, OR APPROVED EQUAL, AND INSTALLED PER DETAILED DRAWINGS AND MANUFACTURER'S RECOMMENDATIONS.

E. CHECK VALVES – ANTI-DRAIN VALVES SHALL BE OF HEAVY DUTY VIRGIN PVC OR BRASS CONSTRUCTION WITH F.I.P. THREAD INLET AND OUTLET. INTERNAL PARTS SHALL BE STAINLESS STEEL AND NEOPRENE. ANTI-DRAIN VALVES SHALL BE FIELD ADJUSTABLE AGAINST DRAIN OUT FROM 5 TO 40 FEET OF HEAD. THE ANTI-DRAIN VALVE, WHERE INDICATED ON THE PLANS, SHALL HAVE AN EXCESS FLOW FEATURE WHICH WILL AUTOMATICALLY STOP THE FLOW OF WATER WHEN IT EXCEEDS THE GPM PRESET BY THE MANUFACTURER. THE ANTI-DRAIN AND EXCESS FLOW VALVE SHALL BE SIMILAR TO THE VALCON ADV-XS, RAIN BIRD SM-1 OR APPROVED EQUAL. SPRINKLER HEADS HAVING CHECK VALVES IN HEADS WILL NOT REQUIRE ADDITIONAL CHECK VALVES.

9. VALVE BOXES

ALL VALVES, INCLUDING PRESSURE REGULATING VALVES, REMOTE CONTROL VALVES AND GATE VALVES SHALL BE INSTALLED IN SUITABLE VALVE BOXES AS SHOWN IN DETAILS. ALL SHALL BE MARKED "PRV", "RCV", OR "GV" RESPECTIVELY WITH STATION NUMBERS FOR CONTROL VALVES STENCILED IN WHITE ON THE VALVE COVER. (RCV BOXES SHALL HAVE LOCKING COVERS.)

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LICENSED LANDSCAPE ARCHITECT · BRETT K. FRENCH · 3416 · Signature · 10/31/20 Renewal Date · STATE OF CALIFORNIA

NO.	DATE	REVISIONS	CK. BY

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ARENTH AVENUE STREET IMPROVEMENTS
PHILLIPS DRIVE TO NOGALES STREET

LANDSCAPE SPECIFICATIONS

CHECKED BY: –
DATE: 09-10-20 –

JOB NO. CITY - 1460

SHT. 9 OF 10

IRRIGATION SPECIFICATIONS CONTINUED

10. CONTROLS

A. AUTOMATIC CONTROLLER – AUTOMATIC CONTROLLERS SHALL BE OF THE TYPE AND MANUFACTURER SHOWN ON THE DRAWINGS OR APPROVED EQUAL AND INSTALLED PER MANUFACTURER'S RECOMMENDATIONS AND DETAILED DRAWINGS.

B. LOW VOLTAGE CONTROL WIRE – ALL WIRING TO BE USED FOR CONNECTING THE AUTOMATIC CONTROLLER TO THE ELECTRIC SOLENOID ACTUATED REMOTE CONTROL VALVE SHALL BE TYPE UF-600V, 7-STRAND OR SOLID COPPER, PVC INSULATION, SINGLE CONDUCTOR, UL APPROVED UNDERGROUND FEEDER CABLE. EACH PILOT OR "HOT" WIRE SHALL BE BLACK WITH THE COMMON WIRE BEING WHITE. FIELD SPLICES BETWEEN THE CONTROLLER AND ELECTRIC VALVES ARE NOT PERMITTED. CONTROL WIRE SHALL BE OF THE GAUGE INDICATED ON THE DETAILED DRAWINGS.

C. COMMUNICATION CABLE – COMMUNICATION CABLE FROM THE CENTRAL COMPUTER TO THE FIELD CONTROL UNITS SHALL BE TORO P-716-D AT CABLE.

D. 110 VOLT WIRE TO CONTROLLER – 110 VOLT WIRE SHALL BE PER LOCAL CODE AS TO TYPE AND QUALITY. INSTALL IN CONDUIT 24" BELOW GRADE.

11. BACKFLOW PREVENTION UNITS

BACKFLOW PREVENTION UNITS SHALL BE OF SIZE AND TYPE AS INDICATED ON THE DRAWINGS. ALL BACKFLOW PREVENTION UNITS SHALL BE INSTALLED IN ACCORDANCE WITH DETAILED DRAWINGS AND THE REQUIREMENTS SET FORTH BY LOCAL CODES AND/OR THE COUNTY HEALTH DEPARTMENT.

12. IRRIGATION HEADS

A. SPRINKLER HEADS SHALL BE OF THE TYPES AND SIZES WITH THE DIAMETER (OR RADIUS) OF THROW, PRESSURE, DISCHARGE AND OTHER DESIGNATIONS NECESSARY TO DETERMINE THE TYPES AND SIZES AS INDICATED ON THE PLANS. THEY SHALL BE CONSTRUCTED OF BRONZE, BRASS, STAINLESS STEEL AND/OR HIGH IMPACT PLASTIC.

B. ALL HEADS OF A PARTICULAR TYPE OF FUNCTION IN THE SYSTEM SHALL BE OF THE SAME MANUFACTURER AND SHALL BE MARKED WITH THE MANUFACTURER'S NAME AND IDENTIFICATION IN SUCH A POSITION THAT THEY CAN BE IDENTIFIED WITHOUT BEING REMOVED FROM THE SYSTEM.

13. OTHER MATERIALS

ALL OTHER MATERIALS NOT SPECIFICALLY DESCRIBED BUT REQUIRED FOR A COMPLETE AND PROPER IRRIGATION SYSTEM INSTALLATION, SHALL BE NEW, FIRST QUALITY OF THEIR RESPECTIVE KINDS, AND SUBJECT TO THE APPROVAL OF THE OWNER.

14. EXECUTION

A. INSPECTION

(1) PRIOR TO ALL WORK OF THIS SECTION, CAREFULLY INSPECT THE INSTALLED WORK OF ALL OTHER TRADES AND VERIFY THAT ALL SUCH WORK IS COMPLETE TO THE POINT WHERE THIS INSTALLATION MAY PROPERLY COMMENCE.

(2) VERIFY THAT THE IRRIGATION SYSTEM WILL BE INSTALLED IN STRICT ACCORDANCE WITH ALL PERTINENT CODES AND REGULATIONS, THE ORIGINAL DESIGN, THE REFERENCE STANDARD AND THE MANUFACTURER'S RECOMMENDATIONS.

(3) VERIFY ALL FIELD CONDITIONS INCLUDING PROPERTY LINES, RIGHTS OF WAY, TRACT BOUNDARIES, EASEMENTS AND ANY OTHER LEGAL OR PHYSICAL ELEMENT AS REQUIRED FOR THE SUCCESSFUL COMPLETION OF THE PROJECT.

B. DISCREPANCIES

(1) IN THE EVENT OF DISCREPANCY, IMMEDIATELY NOTIFY THE CONTRACTOR OR HIS AUTHORIZED REPRESENTATIVE.

(2) DO NOT PROCEED WITH INSTALLATION IN AREAS OF DISCREPANCY UNTIL ALL SUCH DISCREPANCIES HAVE BEEN FULLY RESOLVED.

15. FIELD MEASUREMENTS

MAKE ALL NECESSARY MEASUREMENTS IN THE FIELD TO ENSURE PRECISE FIT OF ITEMS IN ACCORDANCE WITH THE ORIGINAL DESIGN.

16. TRENCHING AND BACKFILLING

A. TRENCHING

(1) EXCAVATION SHALL BE OPEN VERTICAL CONSTRUCTION SUFFICIENTLY WIDE TO PROVIDE FREE WORKING SPACE AROUND THE WORK INSTALLED AND TO PROVIDE AMPLE SPACE FOR BACKFILLING AND COMPACTING.

(2) TRENCHES FOR PIPE SHALL BE CUT TO REQUIRED GRADE LINES, AND TRENCH BOTTOM SHALL BE COMPACTED TO PROVIDE AN ACCURATE GRADE AND UNIFORM BEARING FOR THE FULL LENGTH OF THE PIPE RUN.

(3) WHEN TWO PIPES ARE TO BE PLACED IN THE SAME TRENCH, MAINTAIN A SIX-INCH SPACE BETWEEN PIPES AS A MINIMUM. NO PIPE SHALL BE INSTALLED DIRECTLY OVER ANOTHER.

B. BACKFILLING

(1) BACKFILL MATERIAL SHALL BE APPROVED SOIL. UNSUITABLE MATERIAL, INCLUDING CLODS AND ROCKS OVER 2 1/2" IN SIZE, SHALL BE REMOVED FROM THE PREMISES AND DISPOSED OF LEGALLY AT NO COST TO THE OWNER.

(2) ALL BACKFILLING SHALL BE DONE CAREFULLY AND SHALL BE PROPERLY COMPACTED.

(3) DEPTH OF TRENCHES SHALL BE SUFFICIENT TO PROVIDE A MINIMUM COVER ABOVE THE TOP OF THE PIPE AS FOLLOWS:

A. 14" OVER NON-PRESSURE WATER POP-UP LINES (MINIMUM).
B. 12" OVER NON-PRESSURE LATERAL LINES (MINIMUM).
C. 18" OVER 24 VOLT CONDUIT AND NON-POTABLE IRRIGATION MAIN LINE 3" AND SMALLER (MINIMUM).
D. 24" COVER OVER PIPE SERVING POTABLE WATER TO A BACKFLOW PREVENTER AND 120V CONDUIT (MINIMUM).
E. 30" COVER OVER PIPE CROSSING UNDER PAVING (MINIMUM).
F. SURPLUS EARTH REMAINING AFTER BACKFILLING SHALL BE DISPOSED OF ON THE PREMISES AS DIRECTED BY THE OWNER.

17. INSTALLATION OF PIPE

A. GENERAL

(1) THE IRRIGATION PIPING LAYOUT IS SCHEMATIC. CONTRACTOR CAN MAKE MINOR ADJUSTMENTS TO THE SYSTEM AS REQUIRED TO AVOID PHYSICAL ELEMENTS OR CONFORM TO OTHER SITE CONDITIONS. IN ALL CASES THERE SHOULD BE NO CONFLICTS BETWEEN THE IRRIGATION SYSTEM, PLANTING, AND STRUCTURAL ELEMENTS. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING COVERAGE AS INDICATED, PRIOR APPROVAL OF ANY SUCH ADJUSTMENT FROM THE OWNER AND FOR RECORDING OF ANY SUCH CHANGE.

(2) PRIOR TO INSTALLATION, PRESSURE, METER SIZE, SIZE OF SERVICE TO METER, AT EACH POINT OF CONNECTION. MAKE FINAL CONNECTIONS ALLOWING FOR POSSIBLE MINOR DEVIATIONS FROM LOCATIONS SHOWN ON PLANS DUE TO SITE CONDITIONS. ANY DEVIATION FROM DESIGN CRITERIA SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER. CONTINUATION OF WORK SHALL BE AT CONTRACTOR'S RISK AND EXPENSE.

(3) VERIFY THE STATIC PRESSURE, METER SIZE, SIZE OF SERVICE TO METER, AT EACH POINT OF CONNECTION. MAKE FINAL CONNECTIONS ALLOWING FOR POSSIBLE MINOR DEVIATIONS FROM LOCATIONS SHOWN ON PLANS DUE TO SITE CONDITIONS. ANY DEVIATION FROM DESIGN CRITERIA SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER. CONTINUATIONS OF WORK SHALL BE AT CONTRACTOR'S RISK AND EXPENSE.

B. UNDER EXISTING PAVEMENT

(1) PIPE REQUIRED UNDER EXISTING PAVEMENT SHALL BE INSTALLED BY JACKING, BORING OR HYDRAULIC DRIVING EXCEPT THAT NO HYDRAULIC DRIVING WILL BE PERMITTED UNDER ASPHALTIC CONCRETE PAVEMENT.

(2) WHERE CUTTING OR BREAKING OF EXISTING PAVEMENT IS NECESSARY, SECURE PERMISSION FROM THE OWNER BEFORE CUTTING OR BREAKING THE PAVEMENT AND THEN MAKE ALL NECESSARY REPAIRS AND REPLACEMENTS TO THE APPROVAL OF THE OWNER AND AT NO ADDITIONAL COST TO THE OWNER.

C. INSPECTION OF PIPE AND FITTINGS – CAREFULLY INSPECT ALL PIPE AND FITTINGS BEFORE INSTALLATION, REMOVING ALL DIRT, SCALE, AND BURRS AND REAMING AS REQUIRED; INSTALL ALL PIPE WITH ALL MARKINGS UP FOR VISUAL INSPECTION AND VERIFICATION.

D. PVC PIPE

(1) PVC PIPE SHALL BE INSTALLED IN A MANNER WHICH WILL PROVIDE FOR EXPANSION AND CONTRACTION AS RECOMMENDED BY THE PIPE MANUFACTURER. ROUTING IS DIAGRAMMATIC AND SHALL BE INSTALLED IN SUCH A MANNER AS TO CONFORM WITH THE DETAILS PER THE DRAWINGS.

(2) IN JOINING, USE ONLY THE SPECIFIED OR MANUFACTURER'S RECOMMENDED SOLVENT AND MAKE ALL JOINTS IN STRICT ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDED METHODS; GIVE SOLVENT WELDS AT LEAST 15 MINUTES SET UP TIME BEFORE MOVING OR HANDLING AND 24 HOURS CURING TIME BEFORE FILLING WITH WATER.

18. INSTALLATION OF EQUIPMENT

A. AUTOMATIC CONTROLLER LOCATION AND INSTALLATION

(1) AUTOMATIC CONTROLLER(S) SHALL BE INSTALLED AT THE LOCATION(S) SHOWN ON THE DRAWINGS.

(2) THE CONTROLLER LOCATION IS ESSENTIALLY DIAGRAMMATIC AND SHALL BE SPECIFICALLY LOCATED BY THE OWNER OR HIS REPRESENTATIVE.

(3) ALL LOCAL AND APPLICABLE CODES SHALL TAKE PRECEDENCE IN THE FURNISHING AND/OR CONNECTING OF 110V ELECTRICAL SERVICE TO THE CONTROLLER.

(4) ADEQUATE COVERAGE (18" MINIMUM) OF THE 24V SERVICE WIRE LEADING FROM THE CONTROLLER SHALL BE INSTALLED FROM THE BOTTOM OF THE CONTROLLER TO TRENCHES.

(5) CONTROLLERS SHALL BE INSTALLED WITHIN VANDAL-RESISTANT ENCLOSURES AS CALLED FOR ON THE DRAWINGS.

B. CONTROL WIRES

(1) ALL ELECTRICAL EQUIPMENT AND WIRING SHALL COMPLY WITH LOCAL AND STATE CODES AND BE INSTALLED BY THOSE SKILLED AND IN THE TRADE. UNLESS THE GOVERNING CODE SPECIFIES OTHERWISE, LOW VOLTAGE CONTROL WIRE MAY BE INSTALLED BY THE IRRIGATION CONTRACTOR.

(2) CONNECTING AND SPLICING OF WIRE AT THE VALVES SHALL BE MADE USING DURA SEAL CRIMP SPLICES AS MANUFACTURED BY RAYCHEM CORPORATION. CONTRACTOR SHALL REFER TO RAYCHEM INSTALLATION PROCEDURES USING THE ULTRATORCH 3 HEATING TOOL. NO OTHER SPLICES WILL BE ALLOWED.

C. COMMUNICATION CABLE

(1) COMMUNICATION CABLE SHALL BE INSTALLED FROM THE FIELD CONTROL UNIT TO THE AREA CALLED FOR ON THE PLANS.

(2) INSTALL CABLE IN PVC CONDUIT AND STUB IN VALVE BOX AS INDICATED ON THE PLANS. ENDS OF CABLE SHALL BE SEALED WITH AN APPROVED WATER TIGHT CONNECTORS AS SPECIFIED. (SEE SECTION 18-B-2 ABOVE.)

(3) FIELD SPLICES ARE NOT PERMITTED, EXCEPT WHERE TYING IN TO CABLE WHICH HAS BEEN STUBBED OUT BY OTHERS. SPLICES SHALL BE MADE USING A PAGE SPLICE KIT NO. P716ZD-1 AND IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

(4) INSTALL ALL COMMUNICATION CABLE IN APPROVED PVC ELECTRICAL CONDUIT.

D. ELECTRICAL WORK – ALL ELECTRICAL WORK SHALL BE INSTALLED PER CODE REQUIREMENTS.

E. QUICK COUPLING VALVES – QUICK COUPLING VALVES SHALL BE SET APPROXIMATELY 12" FROM WALKS, CURBS, HEADER BOARDS, OR PAVED AREAS WHERE APPLICABLE PER DETAIL DRAWINGS.

F. VALVES

(1) ALL VALVES SHALL BE INSTALLED AS SHOWN IN THE DETAILS AND IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

(2) ALL AUTOMATIC VALVES SHALL BE SIZED AS SHOWN ON PLANS. GATE VALVES SHALL BE LINE SIZE.

(3) INSTALL EACH CONTROL VALVE IN A SEPARATE VALVE BOX WITH A MINIMUM OF 12" BETWEEN VALVES AND 6" FROM ANY WALK OR STRUCTURE.

G. VALVE BOXES

(1) VALVE BOXES INSTALLED NEAR WALKS, CURBS, HEADER BOARDS AND PAVING SHALL ABUT THOSE ITEMS AND THE TOP SURFACES SHALL BE FLUSH WITH HEAD LISTED ABOVE.

(2) ALL VALVE BOXES SHALL BE INSTALLED AS SHOWN IN THE DETAILS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

19. TESTING AND INSPECTION

A. GENERAL

(1) FURNISH ALL NECESSARY TESTING EQUIPMENT AND PERSONNEL.

(2) CORRECT ALL LEAKS AND RETEST UNTIL ACCEPTANCE BY THE OWNER.

B. COVERING UP UNINSPECTED WORK – DO NOT ALLOW OR CAUSE ANY OF THE WORK OF THIS SECTION TO BE COVERED UP OR ENCLOSED UNTIL IT HAS BEEN INSPECTED, TESTED AND APPROVED BY THE OWNER AND AUTHORIZED AGENCIES. (SEE SECTION 4-D-2)

C. FLUSHING – BEFORE BACKFILLING THE MAIN LINE, AND WITH ALL CONTROL VALVES IN PLACE BUT BEFORE LATERAL PIPES ARE CONNECTED, COMPLETELY FLUSH AND TEST THE MAIN LINE AND REPAIR ALL LEAKS; FLUSH OUT EACH SECTION OF LATERAL PIPE BEFORE IRRIGATION HEADS ARE ATTACHED.

D. TESTING

(1) MAKE ALL NECESSARY PROVISIONS FOR THOROUGHLY BLEEDING THE LINE OF AIR AND DEBRIS.

(2) BEFORE TESTING, FILL THE LINE WITH WATER FOR A PERIOD OF AT LEAST 24 HOURS.

(3) PRIOR TO INSTALLATION OF CONTROL VALVES, TEST ALL LIVE WATER LINES FOR LEAKS AT A PRESSURE OF 150 PSI FOR A PERIOD OF TWO HOURS, WITH ALL COUPLINGS EXPOSED AND WITH ALL PIPE SECTIONS CENTER LOADED.

(4) ADJUST REMOTE CONTROL VALVES SO THAT THE MOST REMOTE SPRINKLER HEADS OPERATE AT THE PRESSURE RECOMMENDED BY THE HEAD MANUFACTURER. ADJUST REMOTE CONTROL VALVES SO A UNIFORM DISTRIBUTION OF WATER IS APPLIED BY THE SPRINKLER HEADS TO THE PLANTING AREA FOR EACH INDIVIDUAL VALVE SYSTEM.

E. FINAL INSPECTION

(1) THOROUGHLY CLEAN, ADJUST AND BALANCE ALL SYSTEMS.

(2) DEMONSTRATE THE ENTIRE SYSTEM TO THE OWNER, HIS AUTHORIZED AGENT AND/OR GOVERNING AGENCIES TO SHOW THAT ALL REMOTE CONTROL VALVES ARE PROPERLY BALANCED, ALL HEADS ARE PROPERLY ADJUSTED FOR RADIUS AND ARC OF COVERAGE, AND THAT THE INSTALLED SYSTEM IS WORKABLE, CLEAN AND EFFICIENT.

20. OPERATIONAL AND MATERIALS MANUALS

A. OPERATIONAL AND PRODUCT MANUALS – PREPARE AND DELIVER TO THE OWNER, PRIOR TO APPROVED FINAL INSPECTION, ALL REQUIRED AND NECESSARY DESCRIPTIVE MATERIAL IN COMPLETE DETAIL AND SUFFICIENT QUANTITY, OPERATION AND PRODUCT MANUAL. THE MANUAL SHALL DESCRIBE THE MATERIAL INSTALLED AND SHALL BE IN SUFFICIENT DETAIL TO PERMIT OPERATING PERSONNEL TO UNDERSTAND, OPERATE AND MAINTAIN ALL EQUIPMENT. SPARE PARTS LISTS AND RELATED MANUFACTURER INFORMATION SHALL BE INCLUDED FOR EACH EQUIPMENT ITEM INSTALLED.

B. EACH COMPLETE, BOUND MANUAL SHALL INCLUDE THE FOLLOWING INFORMATION:

(1) INDEX SHEET STATING CONTRACTOR'S ADDRESS AND TELEPHONE NUMBER.

(2) DURATION OF GUARANTEE PERIOD.

(3) LIST OF EQUIPMENT WITH NAMES AND ADDRESSES OF LOCAL MANUFACTURER REPRESENTATIVES.

(4) COMPLETE OPERATING AND MAINTENANCE INSTRUCTIONS ON ALL MAJOR EQUIPMENT.

C. IN ADDITION TO THE ABOVE MANUALS, PROVIDE THE MAINTENANCE PERSONNEL WITH INSTRUCTIONS FOR MAJOR EQUIPMENT AND SHOW WRITTEN EVIDENCE TO THE OWNER, AT THE CONCLUSION OF THE PROJECT, THAT THIS SERVICE HAS BEEN RENDERED.

D. INSPECTION

(1) AT ALL TIMES PERMIT THE OWNER OR HIS AUTHORIZED AGENTS TO VISIT AND OBSERVE THE WORK OR ANY PART THEREOF. MAINTAIN PROPER FACILITIES AND PROVIDE SAFE ACCESS FOR SUCH OBSERVATIONS TO ALL PARTS OF THE WORK. WHERE THE SPECIFICATIONS REQUIRE WORK TO BE TESTED, IT SHALL NOT BE COVERED UP UNTIL TESTED OR APPROVED BY THE OWNER AND GOVERNING AGENCIES. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR NOTIFYING THE OWNER AND REQUIRED AGENCY (48 HOUS NOTICE MINIMUM REQUIRED), WHERE AND WHEN SUCH WORK IS IN READINESS FOR TESTING. SHOULD ANY SUCH WORK BE COVERED WITHOUT SUCH TEST OR APPROVAL, IT SHALL, IF SO ORDERED, BE UNCOVERED AT THE CONTRACTOR'S EXPENSE.

(2) OBSERVATION REQUIRED

A. PRESTART MEETING
B. LAYOUT OF CONTROL EQUIPMENT AND HEADS
C. MAIN LINE PRESSURE TEST AND TRENCH DEPTH CHECK.
D. LATERAL TRENCH DEPTH CHECK
E. COVERAGE TEST AND PRELIMINAL OBSERVATION
F. FINAL OBSERVATION

E. STANDARD OF INSTALLATION – MATERIAL AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH LOCAL CODES AND ORDINANCES OF LEGALLY CONSTITUTED AUTHORITIES, EXCEPT THAT WHERE PROVISIONS OF THESE SPECIFICATIONS EXCEED SUCH REQUIREMENTS, THESE SPECIFICATIONS SHALL GOVERN.

F. PRESERVATION AND CLEANING – CLEANUP ALL WORK AS IT PROGRESSES. AT FREQUENT INTERVALS, AND AT ALL TIMES WHEN DIRECTED BY THE OWNER, REMOVE AND DISPOSE OF ACCUMULATIONS OF RUBBISH AND DEBRIS OF ALL KINDS. AT THE TIME OF COMPLETION, THE ENTIRE SITE SHALL BE CLEARED OF TOOLS, EQUIPMENT, RUBBISH, ETC., ALL OF WHICH SHALL BE LEFT IN PROPER, CLEAN CONDITION READY FOR ACCEPTANCE.

G. COMPLETION – THE WORK SHALL BE ACCEPTED IN WRITING WHEN THE ENTIRE SCOPE OF WORK HAS BEEN COMPLETED SATISFACTORILY TO THE OWNER. IN JUDGING THE WORK, NO ALLOWANCE FOR DEVIATION FROM THE ORIGINAL PLANS AND SPECIFICATIONS WILL BE MADE UNLESS PREVIOUSLY APPROVED BY THE OWNER

H. EQUIPMENT – IRRIGATION EQUIPMENT, OPERATING KEYS AND SPARE PARTS SHALL BE FURNISHED TO THE OWNER AS SHOWN ON THE PLANS.

I. SERVICE BY THE CONTRACTOR – THE CONTRACTOR SHALL SERVICE THE SYSTEM AS THE OWNER'S REQUEST DURING THE GUARANTEE PERIOD AND SHALL BE PAID FOR WORK PERFORMED WHICH IS NOT COVERED BY THE GUARANTEE. IF REQUESTED BY THE OWNER, THE CONTRACTOR SHALL FURNISH THE OWNER WITH A SCHEDULE OF SERVICES AND FEES.

J. FINAL ACCEPTANCE – WITHIN 10 DAYS OF THE CONTRACTOR'S NOTIFICATION THAT THE INSTALLATION IS COMPLETE, THE OWNER AND REQUIRED AGENCIES WILL OBSERVE THE INSTALLATION AND, IF FINAL ACCEPTANCE IS NOT GIVEN, WILL PREPARE A "PUNCH LIST" WHICH, UPON COMPLETION BY THE CONTRACTOR, AND APPROVED BY THE OWNER, WILL SIGNIFY FINAL ACCEPTANCE BY THE OWNER.

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LICENSED LANDSCAPE ARCHITECT
BRETT A. FRENCH
3416
10/31/20
Expiration Date
STATE OF CALIFORNIA

NO.	DATE	REVISIONS	CK. BY

Prepared by:
Environs Inc
LANDSCAPE ARCHITECTURE
Creating Sustainable & Water Conserving Solutions
1748 N. Bridgeport Avenue • Claremont, CA 91711
Ph. (909) 626-4663 • Fax (909) 626-0446

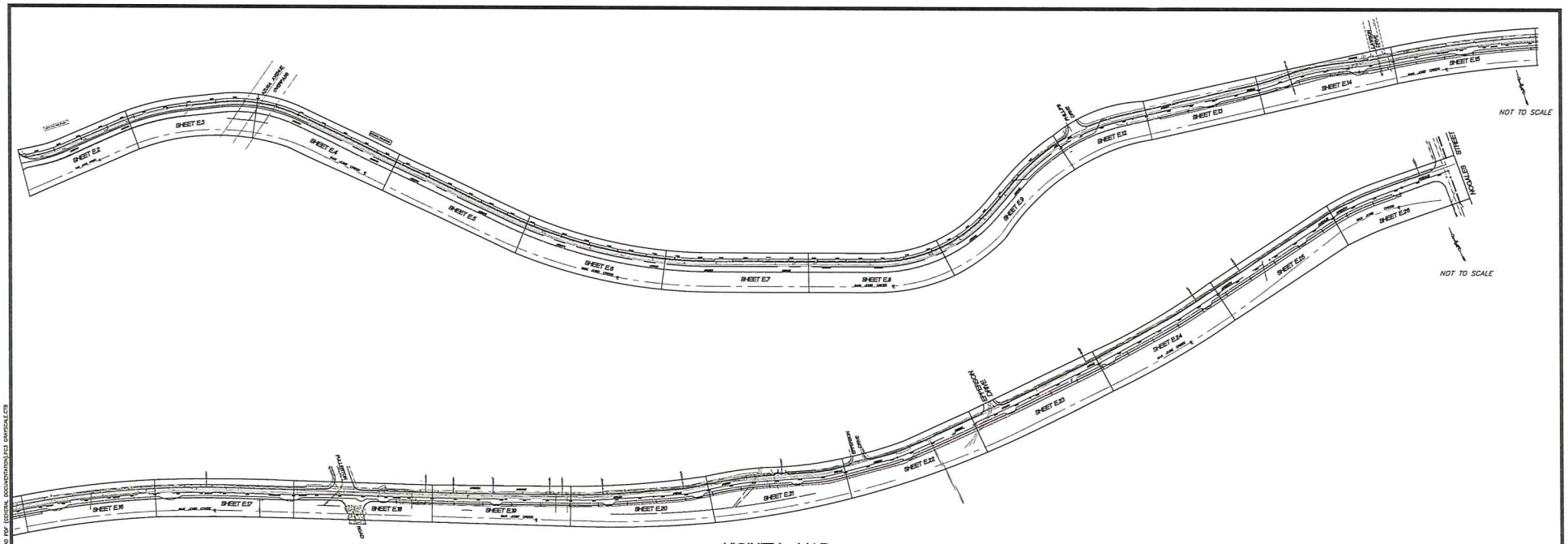
BRETT FRENCH, RLA #3416 DATE
DESIGN BY: BKF DRAWN BY: BKF

ARENTH AVENUE STREET IMPROVEMENTS
PHILLIPS DRIVE TO NOGALES STREET

LANDSCAPE SPECIFICATIONS

CHECKED BY: –
DATE: 09-10-20 –
JOB NO. CITY - 1460
SHT 10 OF 10

CONTRACT DRAWING 29 OF 60



VICINITY MAP

NOT TO SCALE

INDEX OF DRAWINGS

SHEET NO.	DESCRIPTION
E1 OF E31	ELECTRICAL- PLAN VICINITY MAPS, INDEX OF DRAWINGS AND LEGEND
LIGHT POLES PLANS (ANAHEIM PUENTE RD. TO PHILLIPS DR.)	
E2 OF E31	STREET LIGHTNING POLES - STA. 1+68 TO STA. 6+50
E3 OF E31	STREET LIGHTNING POLES - STA. 6+50 TO STA. 12+00
E4 OF E31	STREET LIGHTNING POLES - STA. 12+00 TO STA. 18+00
E5 OF E31	STREET LIGHTNING POLES - STA. 18+00 TO STA. 24+00
E6 OF E31	STREET LIGHTNING POLES - STA. 24+00 TO STA. 29+75
E7 OF E31	STREET LIGHTNING POLES - STA. 29+75 TO STA. 36+00
E8 OF E31	STREET LIGHTNING POLES - STA. 36+00 TO STA. 42+00
E9 OF E31	STREET LIGHTNING POLES - STA. 42+00 TO STA. 50+00
WIRING DIAGRAMS (ANAHEIM PUENTE RD. TO PHILLIPS DR.)	
E10 OF E31	WIRING DIAGRAM FOR STREET LIGHTNING AND PRIMARY CABLE SCHEDULE
E11 OF E31	WIRING DIAGRAM FOR STREET LIGHTNING AND PRIMARY CABLE SCHEDULE

INDEX OF DRAWINGS

SHEET NO.	DESCRIPTION
ARENTH AVE. POWER SOURCE, FIBER OPTIC CONDUITS & STREET LIGHTING (PHILLIPS DR. TO NOGALES ST.)	
E12 OF E31	STA. 50+00 TO STA. 54+00
E13 OF E31	STA. 54+00 TO STA. 59+00
E14 OF E31	STA. 59+00 TO STA. 65+00
E15 OF E31	STA. 65+00 TO STA. 71+25
E16 OF E31	STA. 71+25 TO STA. 77+00
E17 OF E31	STA. 77+00 TO STA. 83+00
E18 OF E31	STA. 83+00 TO STA. 89+00
E19 OF E31	STA. 89+00 TO STA. 95+00
E20 OF E31	STA. 95+00 TO STA. 101+00
E21 OF E31	STA. 101+00 TO STA. 107+00
E22 OF E31	STA. 107+00 TO STA. 113+00
E23 OF E31	STA. 113+00 TO STA. 119+00
E24 OF E31	STA. 119+00 TO STA. 125+00
E25 OF E31	STA. 125+00 TO STA. 131+00
E26 OF E31	STA. 131+00 TO STA. 134+05
SECTION AND DETAILS PLANS (PHILLIPS DR. TO NOGALES ST.)	
E27 OF E31	STREET LIGHTING POLES - LIGHT POLE, 12"X24" PULLBOX AND INSTALLATION DETAILS
E28 OF E31	POWER SOURCE CONDUITS FOR STREET LIGHTING AND FIBER OPTICS PULLBOX, SERVICE PEDESTAL METER AND CONDUIT ENCASEMENT
E29 OF E31	STREET LIGHTING POLES - 3'X5' PULLBOX AND DETAILS

INDEX OF DRAWINGS

SHEET NO.	DESCRIPTION
WIRING DIAGRAMS (PHILLIPS DR. TO NOGALES ST.)	
E30 OF E31	WIRING DIAGRAM FOR STREET LIGHTNING AND PRIMARY CABLE SCHEDULE
E31 OF E31	WIRING DIAGRAM FOR STREET LIGHTNING AND PRIMARY CABLE SCHEDULE

LEGEND:

- EXIST. POWER POLE
- EXIST. TEL. POLE
- EXIST. SIGN
- PB EXIST. ELECTRICAL PULL BOX
- PB EXIST. TELEPHONE PULL BOX
- CB EXIST. CATCH BASIN
- EXIST. FIRE HYDRANT
- EXIST. WATER VALVE
- EXIST. SEWER MANHOLE
- EXIST. TELEPHONE MANHOLE
- EXIST. DRAIN MANHOLE
- EXIST. DRIVEWAY
- EXIST. TRAFFIC SIGNAL WITH LUMINAIRE
- EXIST. TRAFFIC SIGNAL
- EXIST. STREET LIGHT
- 3'X5' ELECTRICAL PULLBOX
- NEW STREET LIGHT W/FOUNDATION AND PULLBOX.
- 4'X6' ELECTRICAL PULLBOX
- TRANSFORMER
- SERVICE PEDESTAL METER
- HT1324-B, 13"X24"X12" DEEP W/BOLT-DOWN AND JENSEN MODEL LID HT1324-L01
- EXISTING ELECTRICAL PVC
- NEW ELECTRICAL PVC

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NO.	DATE	REVISIONS	CK. BY

REGISTERED PROFESSIONAL ENGINEER — MARK E. DRIGGS — EXPIRATION 9-30-2021 — No. E013480 — ELECTRICAL

ELECTRICAL P.E. 6/26/2020 DATE

Prepared by:

ORSA Consulting Engineers, Inc.
Fullerton, California

223 E. Imperial Hwy., #130
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Phone (714) 441-2323
Fax (714) 441-1348

CITY OF INDUSTRY

APPROVED BY:

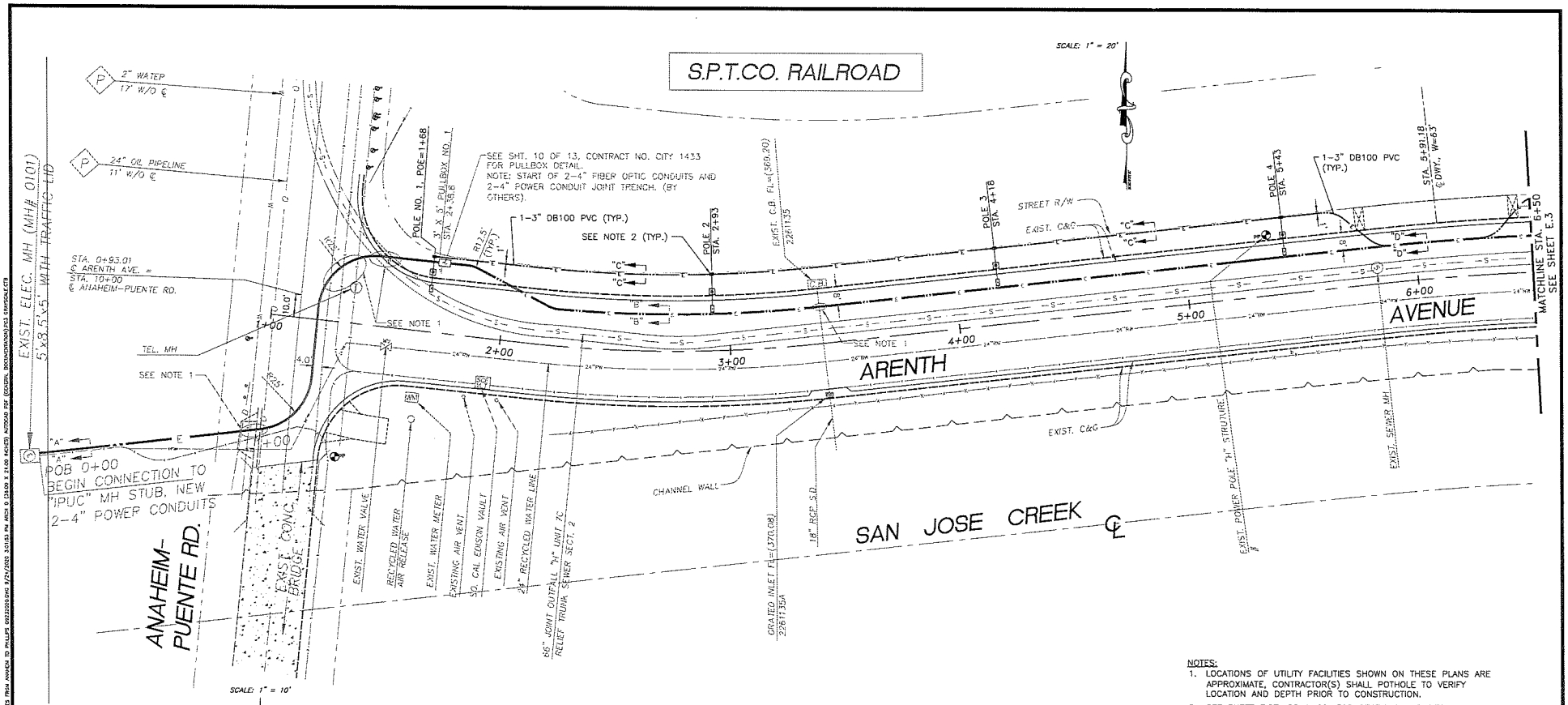
JOSHUA L. NELSON, R.C.E. 66959 — CITY ENGINEER — DATE

ARENTH AVENUE STREET IMPROVEMENT
PHILLIPS DRIVE TO NOGALES STREET

ELECTRICAL PLAN
VICINITY MAP, INDEX OF DRAWINGS AND LEGEND

DESIGN BY: JAF	CHECKED BY: MZD	JOB NO.: MP 14-12	SHEET E.1 OF E.32
DRAWN BY: JAF	DATE: JUNE, 2020	CONTRACT NO.: CITY-1460	

G:\JOBS\MP 14-12 ARENTH AVE POWER FIBER OPTICS AND LIGHTING PHASE 2 PLAN TITLE SHEET 09232020.DWG 9/24/2020 2:55:50 PM ARCH D (36.00 X 24.00 INCHES) AUTOCAD PDF (GENERAL DOCUMENTATION).PC3 GRAYSCALE.CTB



ENLARGED ALIGNMENT PLAN AT POLE 1, PULLBOX NO. 1

POLE SPACING

POLE 1 – 2 = 125' APART: STA. 1+68 TO 2+93
POLE 2 – 3 = 125' APART: STA. 2+93 TO 4+18
POLE 3 – 4 = 125' APART: STA. 4+18 TO 5+43
POLE 4 – 5 = 111' APART: STA. 5+43 TO 6+54
NOTE: ABOVE DISTANCE IS APPROXIMATE AND MAY NEED TO BE FIELD ADJUSTED 10'± DEPENDING ON FIELD CONDITIONS.

NOTES:

1. LOCATIONS OF UTILITY FACILITIES SHOWN ON THESE PLANS ARE APPROXIMATE, CONTRACTOR(S) SHALL POTHOLE TO VERIFY LOCATION AND DEPTH PRIOR TO CONSTRUCTION.
2. SEE SHEET E.27, 28 & 29, FOR SECTIONS AND DETAILS.
3. THIS PROJECT ALSO INCLUDES STREET LIGHT WORK FROM ANAHEIM-PUENTE ROAD TO PHILLIPS DRIVE WHICH INVOLVES INSTALLATION OF STREETLIGHT PRIMARY AND SECONDARY CABLES, STREETLIGHT POLES, FOUNDATIONS AND LUMINAIRES.

NOTE TO CONTRACTOR:
WHEN INSTALLING LIGHT POLES IN AREAS WHERE TERRAIN IS UNEVEN, CONTRACTOR WILL ENSURE THE SLOPE OF THE TERRAIN BETWEEN THE PULLBOX TO POLE IS SMOOTH AND NOT EXCEED 45° INCLINE.

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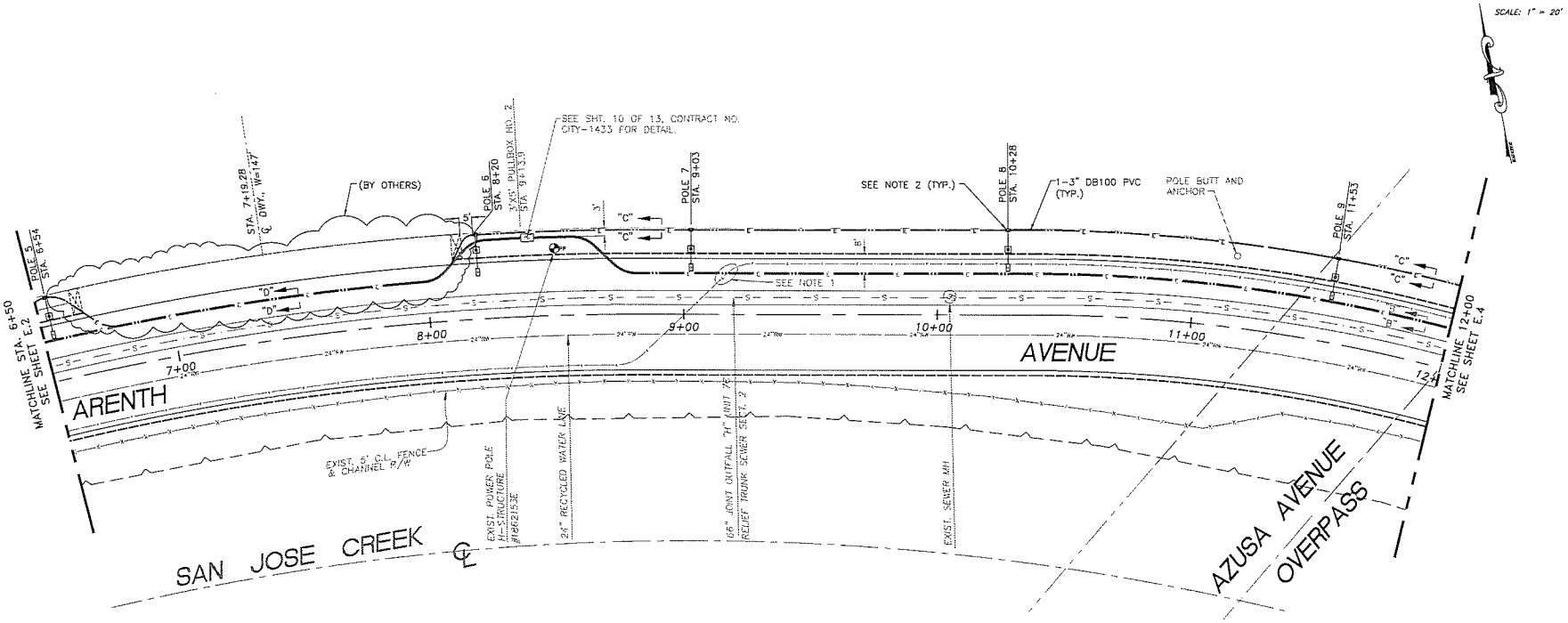
ELECTRICAL P.E. — 5/26/2020 DATE

Prepared by: ORSA Consulting Engineers, Inc. Fullerton, California
223 E. Imperial Hwy., #130 City of Fullerton, CA 92835 Phone (714) 441-2323 Fax (714) 441-1348

ARENTH AVENUE STREET IMPROVEMENT
PHILLIPS DRIVE TO NOGALES STREET
STREET LIGHTING POLES
STA. 1+68 TO STA. 6+50

DESIGN BY: JAF	CHECKED BY: MZD	JOB NO.: MP 14-12	SHEET E.2 OF E.31
DRAWN BY: JAF	DATE: JUNE, 2020	CONTRACT NO.: CITY-1460	

X:_ARENTH FINAL\MP 14-12 ARENTH AVE. POWER FIBER OPTICS AND LIGHTING PHASE 2 PLAN INCLUDING LIGHT POLES FROM ANAHEIM TO PHILLIPS 09232020.DWG 9/24/2020 3:01:51 PM ANSI D (28.00 X 21.00 INCHES) AUTOCAD PDF (DIGITAL BOOKMARKING)=23 STATUS:CLCTD



NOTES:

1. LOCATIONS OF UTILITY FACILITIES SHOWN ON THESE PLANS ARE APPROXIMATE, CONTRACTOR(S) SHALL POTHOLE TO VERIFY LOCATION AND DEPTH PRIOR TO CONSTRUCTION.
2. SEE SHEETS E.27, 28 & 29, FOR SECTIONS AND DETAILS.

POLE SPACING

POLE 4 – 5 = 111' APART: STA. 5+45 TO 6+54
POLE 5 – 6 = 166' APART: STA. 6+54 TO 8+20
POLE 6 – 7 = 83' APART: STA. 8+20 TO 9+03
POLE 7 – 8 = 125' APART: STA. 9+03 TO 10+28
POLE 8 – 9 = 125' APART: STA. 10+28 TO 11+53
POLE 9 – 10 = 125' APART: STA. 11+53 TO 12+78

NOTE: ABOVE DISTANCE IS APPROXIMATE AND MAY NEED TO BE FIELD ADJUSTED 10'± DEPENDING ON FIELD CONDITIONS.

811 Know what's below. Call before you dig.

NO.	DATE	REVISIONS	CK. BY
0			

REGISTERED PROFESSIONAL ENGINEER — MARK ZEMPEL — EXPIRATION 9-30-2021 — No. E012486 — ELECTRICAL — STATE OF CALIFORNIA

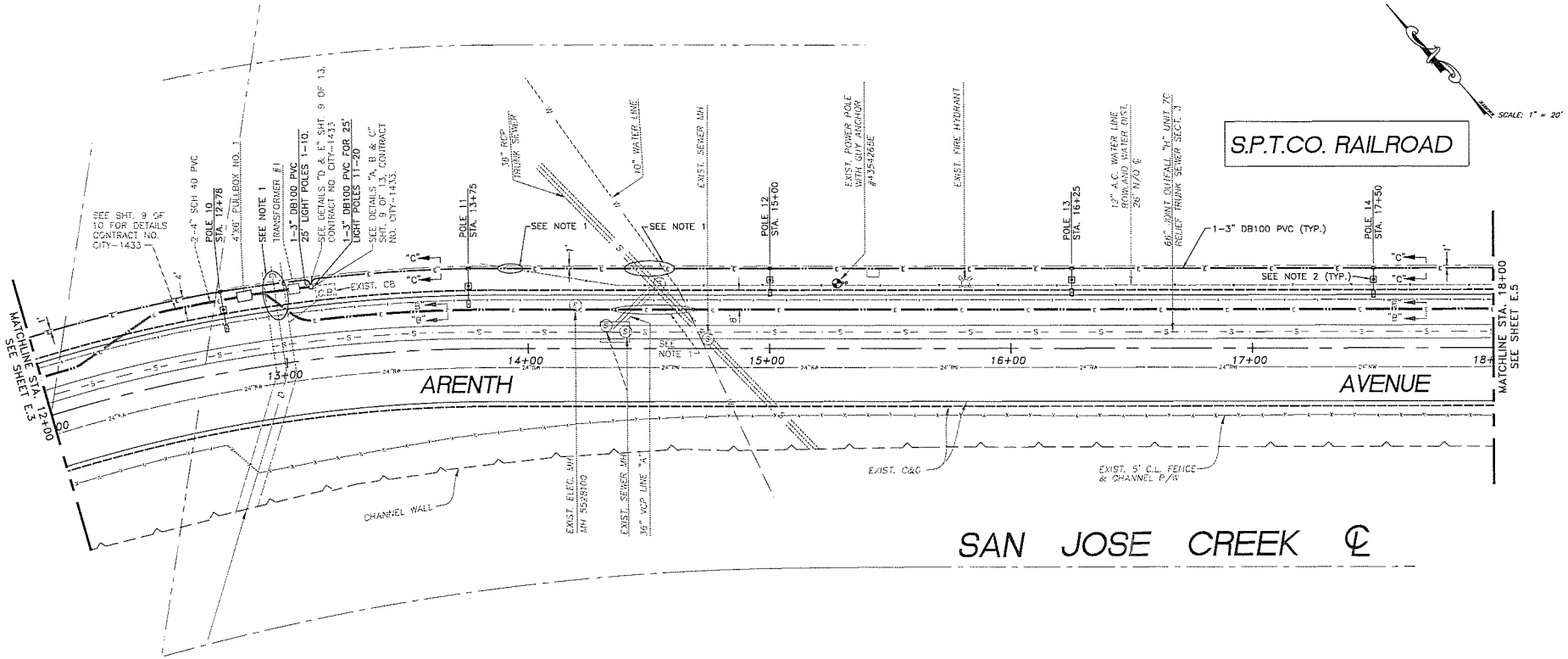
ELECTRICAL P.E. — 6/26/2020 DATE

Prepared by:
ORSA Consulting Engineers, Inc.
Fullerton, California
223 E. Imperial Hwy., #130
City of Fullerton, CA 92835
Phone (714) 441-2323
Fax (714) 441-1348

ARENTH AVENUE STREET IMPROVEMENT
PHILLIPS DRIVE TO NOGALES STREET
STREET LIGHTING POLES
STA. 6+50 TO STA. 12+00

DESIGN BY: JAF	CHECKED BY: MZD	JOB NO.: MP 14-12	SHEET E.3 OF E.31
DRAWN BY: JAF	DATE: JUNE, 2020	CONTRACT NO.: CITY-1460	

J:_AROYO FINAL\JP 14-12 ARENTH AVE POWER FIBER OPTICS AND LIGHTING PHASE 2 PLAN INCLUDING LIGHT POLES FROM ANAHEIM TO PHILLIPS 09232020.DWG 6/24/2020 1:32:40 PM ARCH-D (36.00 X 24.00 INCHES) AUTOCAD PDF (GENERAL DOCUMENTATION).PC3 DRAWSCALE.CTB



POLE SPACING

POLE 9 – 10 = 125' APART: STA. 11+53 TO 12+78
POLE 10 – 11 = 97' APART: STA. 12+78 TO 13+75
POLE 11 – 12 = 125' APART: STA. 13+75 TO 15+00
POLE 12 – 13 = 125' APART: STA. 15+00 TO 16+25
POLE 13 – 14 = 125' APART: STA. 16+25 TO 17+50
POLE 14 – 15 = 125' APART: STA. 17+50 TO 18+75

NOTE: ABOVE DISTANCE IS APPROXIMATE AND MAY NEED TO BE FIELD ADJUSTED 10'± DEPENDING ON FIELD CONDITIONS.

NOTES:

1. LOCATIONS OF UTILITY FACILITIES SHOWN ON THESE PLANS ARE APPROXIMATE, CONTRACTOR(S) SHALL POTHOLE TO VERIFY LOCATION AND DEPTH PRIOR TO CONSTRUCTION.
2. SEE SHEETS E.27, 28 & 29, FOR SECTIONS AND DETAILS.
3. REVISED LOCATION OF 4'X6' PULLBOX, TRANSFORMER AND SERVICE PEDESTAL FOUNDATION PART OF CITY-1433, SHEET 11 OF 20. PLEASE VERIFY BY THE FIELD SURVEY BEFORE CONSTRUCTION.

811 Know what's below. Call before you dig.

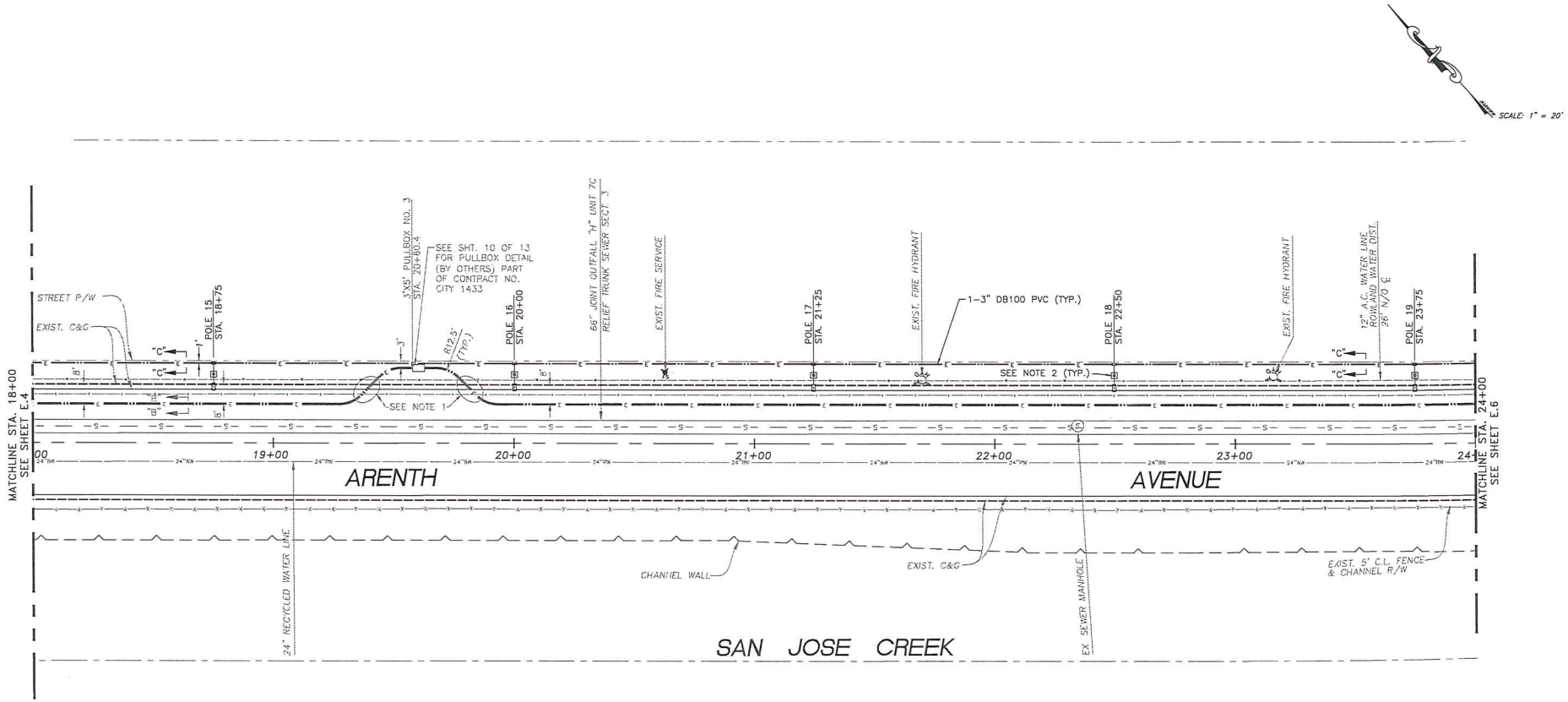
NO.	DATE	REVISIONS	CK. BY
0			

ELECTRICAL P.E. — 6/26/2020 DATE

Prepared by:
ORSA Consulting Engineers, Inc.
Fullerton, California
223 E. Imperial Hwy., #130
City of Fullerton, CA 92835
Phone (714) 441-2323
Fax (714) 441-1348

ARENTH AVENUE STREET IMPROVEMENT
PHILLIPS DRIVE TO NOGALES STREET
STREET LIGHTING POLES
STA. 12+00 TO STA. 18+00

DESIGN BY: JAF	CHECKED BY: MZD	JOB NO.: MP 14-12	SHEET E.4 OF E.31
DRAWN BY: JAF	DATE: JUNE, 2020	CONTRACT NO.: CITY-1460	



POLE SPACING

POLE 14 – 15 = 125' APART: STA. 17+50 TO 18+75
POLE 15 – 16 = 125' APART: STA. 18+75 TO 20+00
POLE 16 – 17 = 125' APART: STA. 20+00 TO 21+25
POLE 17 – 18 = 125' APART: STA. 21+25 TO 22+50
POLE 18 – 19 = 125' APART: STA. 22+50 TO 23+75
POLE 19 – 20 = 125' APART: STA. 23+75 TO 25+00

NOTE: ABOVE DISTANCE IS APPROXIMATE AND MAY NEED TO BE FIELD ADJUSTED 10'± DEPENDING ON FIELD CONDITIONS.

NOTES:

1. LOCATIONS OF UTILITY FACILITIES SHOWN ON THESE PLANS ARE APPROXIMATE, CONTRACTOR(S) SHALL POTHOLE TO VERIFY LOCATION AND DEPTH PRIOR TO CONSTRUCTION.
2. SEE SHEETS E.27, 28 & 29, FOR SECTIONS AND DETAILS.

811 Know what's below. Call before you dig.

NO.	DATE	REVISIONS	CK. BY
0			

REGISTERED PROFESSIONAL ENGINEER
MARK Z. DARROW
EXPIRATION 9-30-2021
No. E012460
ELECTRICAL
STATE OF CALIFORNIA

ELECTRICAL P.E.

6/26/2020
DATE

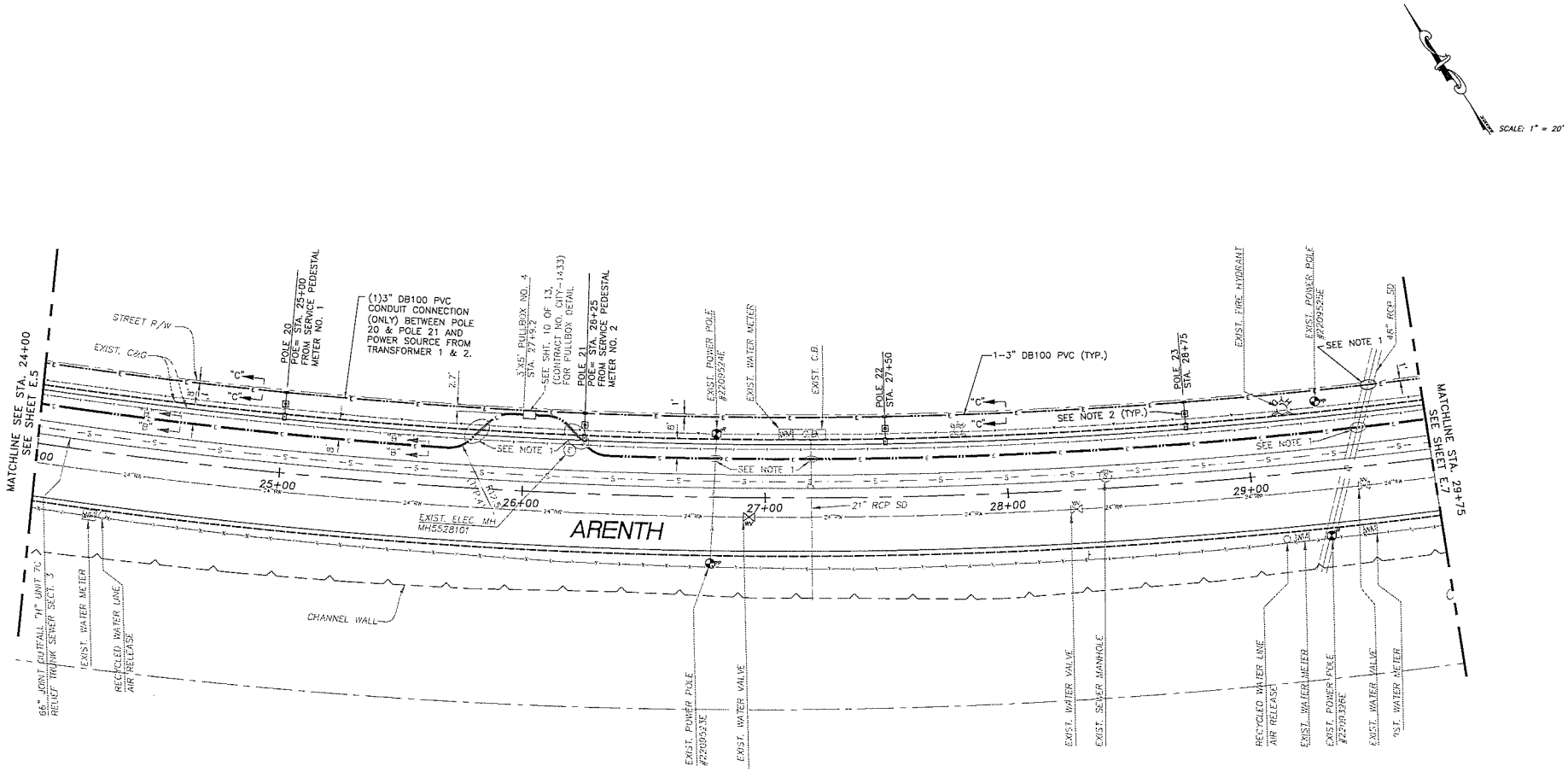
Prepared by:

ORSA Consulting Engineers, Inc.
Fullerton, California

223 E. Imperial Hwy., #130
City of Fullerton, CA 92835
Phone (714) 441-2323
Fax (714) 441-1348

ARENTH AVENUE STREET IMPROVEMENT
PHILLIPS DRIVE TO NOGALES STREET
STREET LIGHTING POLES
STA. 18+00 TO STA. 24+00

DESIGN BY: JAF	CHECKED BY: MZD	JOB NO.: MP 14-12	SHEET E.5 OF E.31
DRAWN BY: JAF	DATE: JUNE, 2020	CONTRACT NO.: CITY-1460	



POLE SPACING

POLE 19 – 20 = 125' APART: STA. 23+75 TO 25+00
POLE 20 – 21 = 125' APART: STA. 25+00 TO 26+25
POLE 21 – 22 = 125' APART: STA. 26+25 TO 27+50
POLE 22 – 23 = 125' APART: STA. 27+50 TO 28+75
POLE 23 – 24 = 125' APART: STA. 28+75 TO 30+00

NOTE: ABOVE DISTANCE IS APPROXIMATE AND MAY NEED TO BE FIELD ADJUSTED 10'± DEPENDING ON FIELD CONDITIONS.

NOTES:

1. LOCATIONS OF UTILITY FACILITIES SHOWN ON THESE PLANS ARE APPROXIMATE AND SHALL BE POTHOLE AND VERIFIED BY THE CONTRACTOR(S) PRIOR TO CONSTRUCTION
2. SEE SHEET E.27, 28 & 29, FOR SECTIONS AND DETAILS.

811 Know what's below. Call before you dig.

NO.	DATE	REVISIONS	CK. BY
0			

REGISTERED PROFESSIONAL ENGINEER — MICHAEL ZAMORA — EXPIRATION 6-30-2021 — No. E013480 — ELECTRICAL

ELECTRICAL P.E.

6/26/2020
DATE

Prepared by:
ORSA Consulting Engineers, Inc.
Fullerton, California

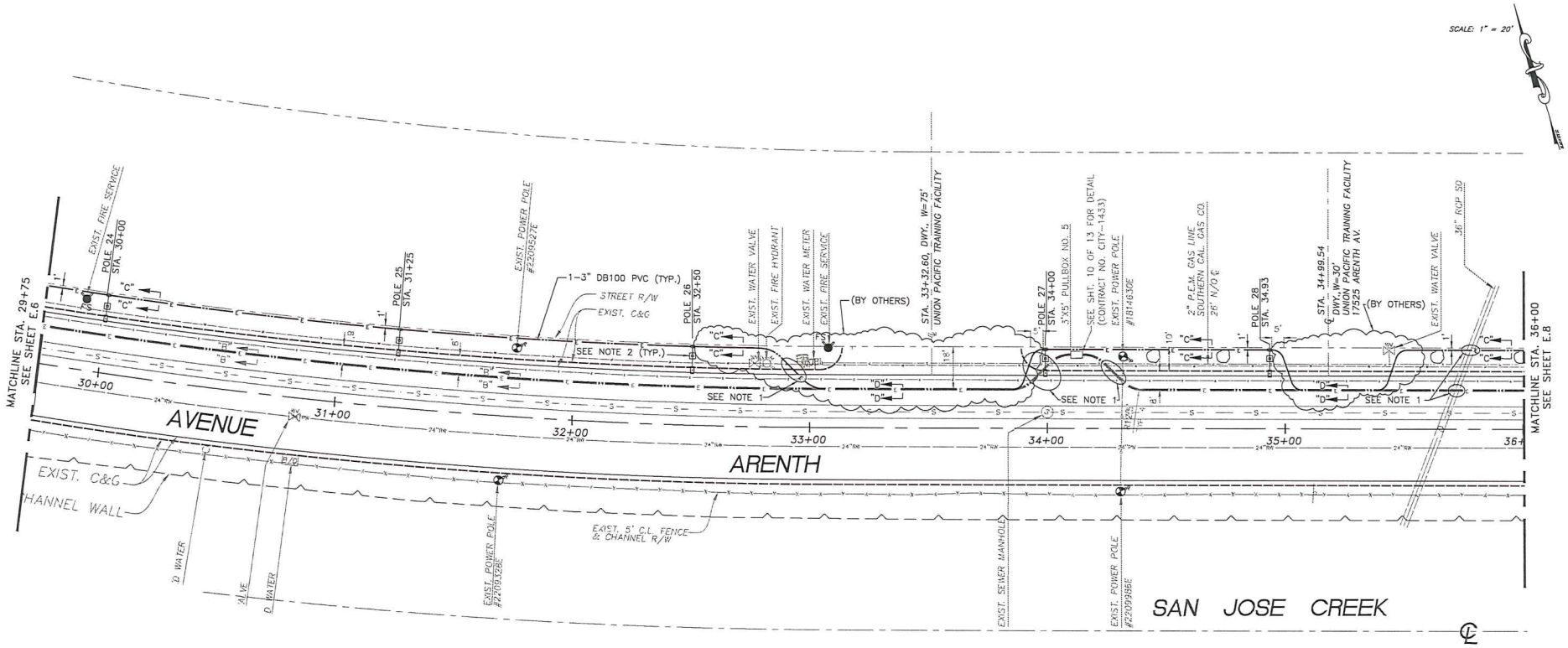
223 E. Imperial Hwy., #130
City of Fullerton, CA 92835
Phone (714) 441-2323
Fax (714) 441-1348

ARENTH AVENUE STREET IMPROVEMENT
PHILLIPS DRIVE TO NOGALES STREET

STREET LIGHTING POLES
STA. 24+00 TO STA. 29+75

DESIGN BY: JAF	CHECKED BY: MZD	JOB NO.: MP 14-12	SHEET E.6 OF E.31
DRAWN BY: JAF	DATE: JUNE, 2020	CONTRACT NO.: CITY-1460	

X:_ARENTH PHASE\MP 14-12 ARENTH AVE POWER FIBER OPTICS AND LIGHTING PHASE 2 PLAN INCLUDING LIGHT POLES FROM ARENTH TO PHILLIPS 09232020.DWG 7/21/2020 3:01:18 PM ARCH D (36.00 X 24.00 INCHES) AUTOCAD PDF (GENERAL DOCUMENTATION).PC3 SAVINGSLC.CTB



NOTES:

1. LOCATIONS OF UTILITY FACILITIES SHOWN ON THESE PLANS ARE APPROXIMATE. CONTRACTOR(S) SHALL POTHOLE TO VERIFY LOCATION AND DEPTH PRIOR TO CONSTRUCTION.
2. SEE SHEET E.27, 28 & 29, FOR SECTIONS AND DETAILS.

POLE SPACING

POLE 23 – 24 = 125' APART: STA. 28+75 TO 30+00
POLE 24 – 25 = 125' APART: STA. 30+00 TO 31+25
POLE 25 – 26 = 125' APART: STA. 31+25 TO 32+50
POLE 26 – 27 = 150' APART: STA. 32+50 TO 34+00
POLE 27 – 28 = 93' APART: STA. 34+00 TO 34+93
POLE 28 – 29 = 132' APART: STA. 34+93 TO 36+25

NOTE: ABOVE DISTANCE IS APPROXIMATE AND MAY NEED TO BE FIELD ADJUSTED 10'± DEPENDING ON FIELD CONDITIONS.

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NO.	DATE	REVISIONS	CK. BY
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REGISTERED PROFESSIONAL ENGINEER — MARK F. TRAPP — CORPORATION — 5-30-2021 — No. E012480 — ELECTRICAL — STATE OF CALIFORNIA

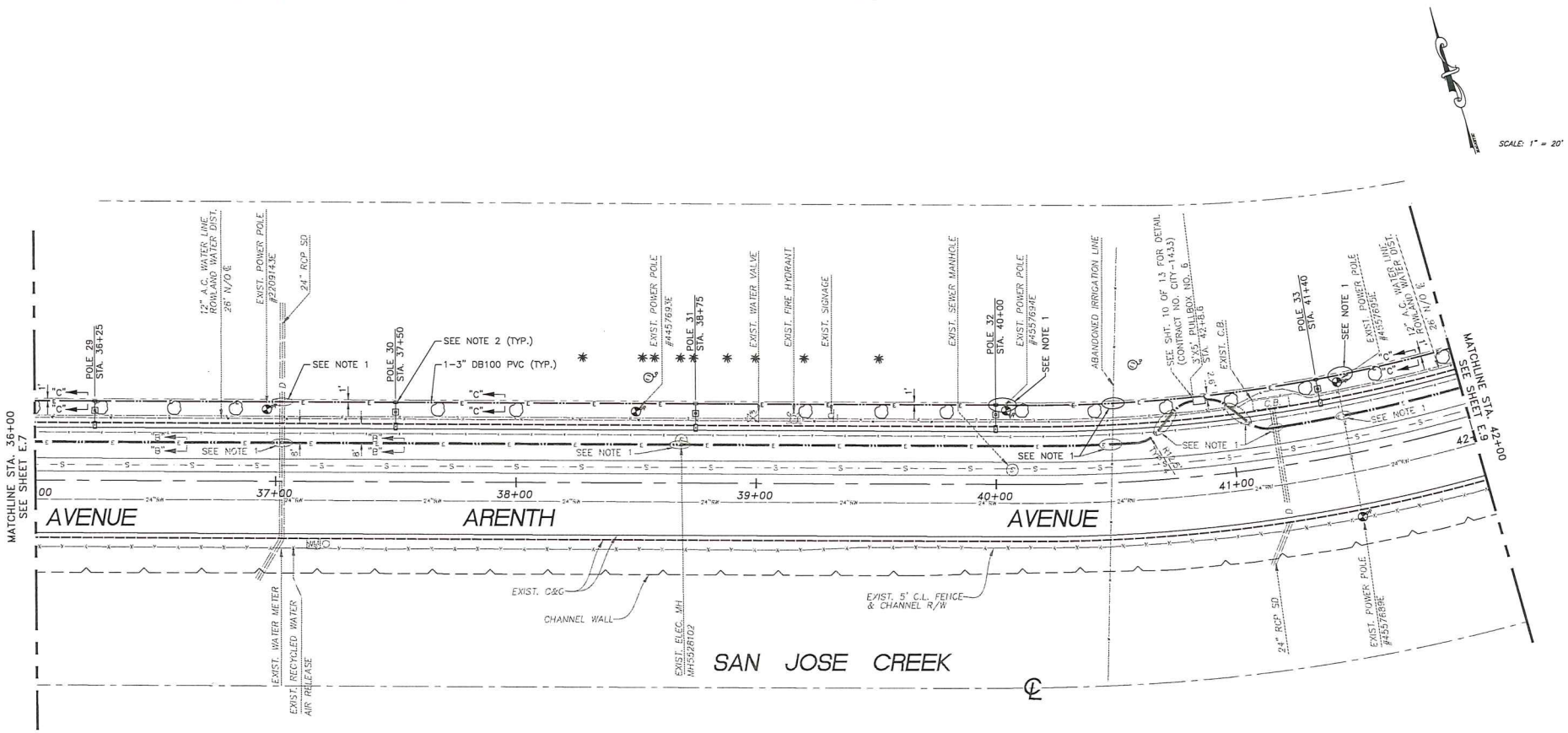
ELECTRICAL P.E. — 6/26/2020 DATE

Prepared by:
ORSA Consulting Engineers, Inc.
Fullerton, California
223 E. Imperial Hwy., #130
City of Fullerton, CA 92835
Phone (714) 441-2323
Fax (714) 441-1348

ARENTH AVENUE STREET IMPROVEMENT
PHILLIPS DRIVE TO NOGALES STREET
STREET LIGHTING POLES
STA. 29+75 TO STA. 36+00

DESIGN BY: JAF	CHECKED BY: MZD	JOB NO.: MP 14-12	SHEET E.7 OF E.31
DRAWN BY: JAF	DATE: JUNE, 2020	CONTRACT NO.: CITY-1460	

X:\ARENTH FINALVIP 14-12 ARENTH AVE POWER FIBER OPTICS AND LIGHTING PHASE 2 PLAN INCLUDING LIGHT POLES FROM ANAHEIM TO PHILLIPS 09232020.DWG 9/24/2020 3:05:13 PM ANSI D (36.00 X 24.00 INCHES) AUTOCAD PDF (GENERAL DOCUMENTATION).PC3 CAN'DCALC.CTB



NOTES:

1. LOCATIONS OF UTILITY FACILITIES SHOWN ON THESE PLANS ARE APPROXIMATE, CONTRACTOR(S) SHALL POTHOLE TO VERIFY LOCATION AND DEPTH PRIOR TO CONSTRUCTION.
2. SEE SHEET E.27, 28 & 29, FOR SECTIONS AND DETAILS.

POLE SPACING

POLE 28 – 29 = 132' APART: STA. 34+93 TO 36+25
POLE 29 – 30 = 125' APART: STA. 36+25 TO 37+50
POLE 30 – 31 = 125' APART: STA. 37+50 TO 38+75
POLE 31 – 32 = 125' APART: STA. 38+75 TO 40+00
POLE 32 – 33 = 140' APART: STA. 40+00 TO 41+40
POLE 33 – 34 = 125' APART: STA. 41+40 TO 42+65

NOTE: ABOVE DISTANCE IS APPROXIMATE AND MAY NEED TO BE FIELD ADJUSTED 10'± DEPENDING ON FIELD CONDITIONS.

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NO.	DATE	REVISIONS	CK. BY
0			

REGISTERED PROFESSIONAL ENGINEER
ISAAK L. DAVIDSON
EXPIRATION 9-30-2021
No. EO12480
ELECTRICAL
STATE OF CALIFORNIA

ELECTRICAL P.E.

6/26/2020
DATE

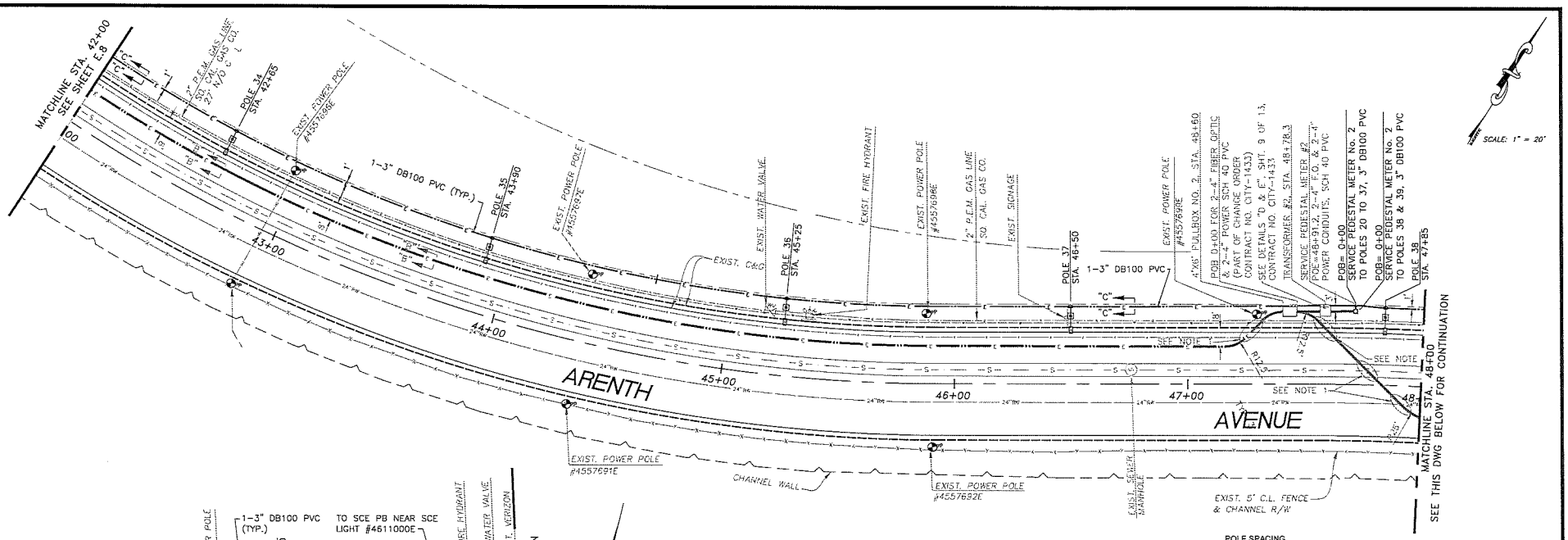
Prepared by:

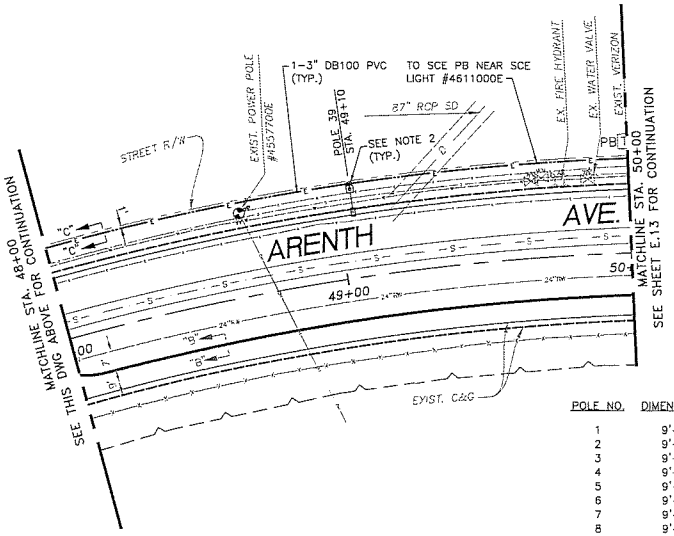
ORSA Consulting Engineers, Inc.
Fullerton, California

223 E. Imperial Hwy., #130
City of Fullerton, CA 92835
Phone (714) 441-2323
Fax (714) 441-1348

ARENTH AVENUE STREET IMPROVEMENT
PHILLIPS DRIVE TO NOGALES STREET
STREET LIGHTING POLES
STA. 36+00 TO STA. 42+00

DESIGN BY: JAF	CHECKED BY: MZD	JOB NO.: MP 14-12	SHEET E.8 OF E.31
DRAWN BY: JAF	DATE: JUNE, 2020	CONTRACT NO.: CITY-1460	





POLE SPACING

POLE 33 – 34 = 125' APART: STA. 41+40 TO 42+65
POLE 34 – 35 = 125' APART: STA. 42+65 TO 43+90
POLE 35 – 36 = 135' APART: STA. 43+90 TO 45+25
POLE 36 – 37 = 125' APART: STA. 45+25 TO 46+50
POLE 37 – 38 = 135' APART: STA. 46+50 TO 47+85
POLE 38 – 39 = 125' APART: STA. 47+85 TO 49+10
NOTE: ABOVE DISTANCE IS APPROXIMATE AND MAY NEED TO BE FIELD ADJUSTED 10'± DEPENDING ON FILED CONDITIONS.

NOTES:

1. LOCATIONS OF UTILITY FACILITIES SHOWN ON THESE PLANS ARE APPROXIMATE, CONTRACTOR(S) SHALL POTHOLE TO VERIFY LOCATION AND DEPTH PRIOR TO CONSTRUCTION.
2. SEE SHEET E.27, 28 & 29, FOR SECTIONS AND DETAILS.

ANAHEIM– PUENTE ROAD TO PHILLIPS ROAD POLE TABLE

POLE NO.	DIMENSION "A"	DIMENSION "B"	ARM SIZE	POLE NO.	DIMENSION "A"	DIMENSION "B"	ARM SIZE	POLE NO.	DIMENSION "A"	DIMENSION "B"	ARM SIZE	POLE NO.	DIMENSION "A"	DIMENSION "B"	ARM SIZE
1	9'–0"	2'–0"	8'–0"	11	9'–0"	2'–0"	8'–0"	21	9'–0"	4'–6"	10'–0"	31	9'–0"	5'–0"	10'–0"
2	9'–0"	2'–0"	8'–0"	12	9'–0"	4'–6"	10'–0"	22	9'–0"	4'–6"	10'–0"	32	9'–0"	5'–0"	10'–0"
3	9'–0"	2'–0"	8'–0"	13	9'–0"	4'–6"	10'–0"	23	9'–0"	4'–6"	10'–0"	33	9'–0"	5'–0"	10'–0"
4	9'–0"	2'–0"	8'–0"	14	9'–0"	4'–6"	10'–0"	24	9'–0"	4'–6"	10'–0"	34	9'–0"	5'–0"	10'–0"
5	9'–0"	3'–0"	8'–0"	15	9'–0"	4'–6"	10'–0"	25	9'–0"	4'–6"	10'–0"	35	9'–0"	5'–0"	10'–0"
6	9'–0"	2'–0"	8'–0"	16	9'–0"	4'–6"	10'–0"	26	9'–0"	4'–6"	10'–0"	36	9'–0"	5'–0"	10'–0"
7	9'–0"	2'–0"	8'–0"	17	9'–0"	4'–6"	10'–0"	27	9'–0"	2'–0"	8'–0"	37	9'–0"	5'–0"	10'–0"
8	9'–0"	2'–0"	8'–0"	18	9'–0"	4'–6"	10'–0"	28	9'–0"	5'–0"	10'–0"	38	9'–0"	5'–0"	10'–0"
9	9'–0"	2'–0"	8'–0"	19	9'–0"	4'–6"	10'–0"	29	9'–0"	5'–0"	10'–0"	39	9'–0"	7'–0"	10'–0"
10	9'–0"	2'–0"	8'–0"	20	9'–0"	4'–6"	10'–0"	30	9'–0"	5'–0"	10'–0"				

811 Know what's below. Call before you dig.

NO.	DATE	REVISIONS	CK. BY
0			

REGISTERED PROFESSIONAL ENGINEER — ROY L. SIMON — EXPIRATION 9-30-2021 — No. E012480 — ELECTRICAL — STATE OF CALIFORNIA

ELECTRICAL P.E. — 5/26/2020 DATE

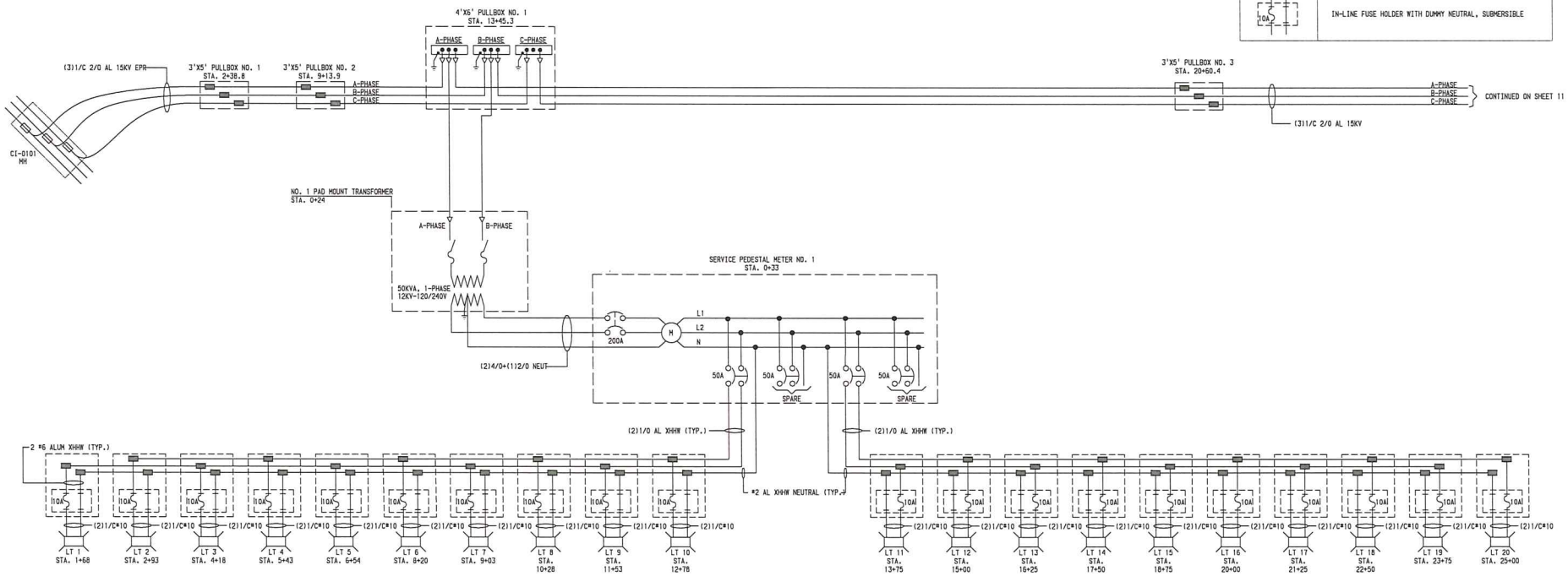
Prepared by:
ORSA Consulting Engineers, Inc.
Fullerton, California
223 E. Imperial Hwy., #130
City of Fullerton, CA 92835
Phone (714) 441-2323
Fax (714) 441-1348

ARENTH AVENUE STREET IMPROVEMENT
PHILLIPS DRIVE TO NOGALES STREET
STREET LIGHTING POLES
STA. 42+00 TO STA. 50+00

DESIGN BY: JAF	CHECKED BY: MZD	JOB NO.: MP 14-12	SHEET E.9 OF E.31
DRAWN BY: JAF	DATE: JUNE, 2020	CONTRACT NO.: CITY-1460	

X:_ARENTH-PHILLIPS 14-12 ARENTH AVE POWER FIBER OPTICS AND LIGHTING PHASE 2 PLAN INCLUDING LIGHT POLES FROM ANAHEIM TO PHILLIPS 6213\DWG 9/21/2020 3:56:01 PM ARCH D (36.00 X 24.00 INCHES) AUTOCAD PDF (GENERAL DOCUMENTATION).PC3 CAN\SCALE.CTB

SYMBOLS	DESCRIPTION
	TRANSFORMER
	CIRCUIT BREAKER
M	METER
	PULL BOX
	LED LIGHT 180W, ON THE POLE
	SPLICE COMPRESSION TYPE, WATER PROOF, 15KV OR 600V AS NEEDED
	200A 15KV, LOAD BREAK ELBOW
	3-WAY 200A 15KV LOADBREAK JUNCTION WITH GROUNDING CONNECTOR
10A	IN-LINE FUSE HOLDER WITH DUMMY NEUTRAL, SUBMERSIBLE



811 Know what's below. Call before you dig.

NO.	DATE	REVISIONS	CK. BY
0			

REGISTERED PROFESSIONAL ENGINEER — MICHAEL ZAMBRANO — EXPIRATION 9-30-2021 No. EE12480 — ELECTRICAL — STATE OF CALIFORNIA

ELECTRICAL P.E.

6/26/2020
DATE

Prepared by:

ORSA Consulting Engineers, Inc.
Fullerton, California

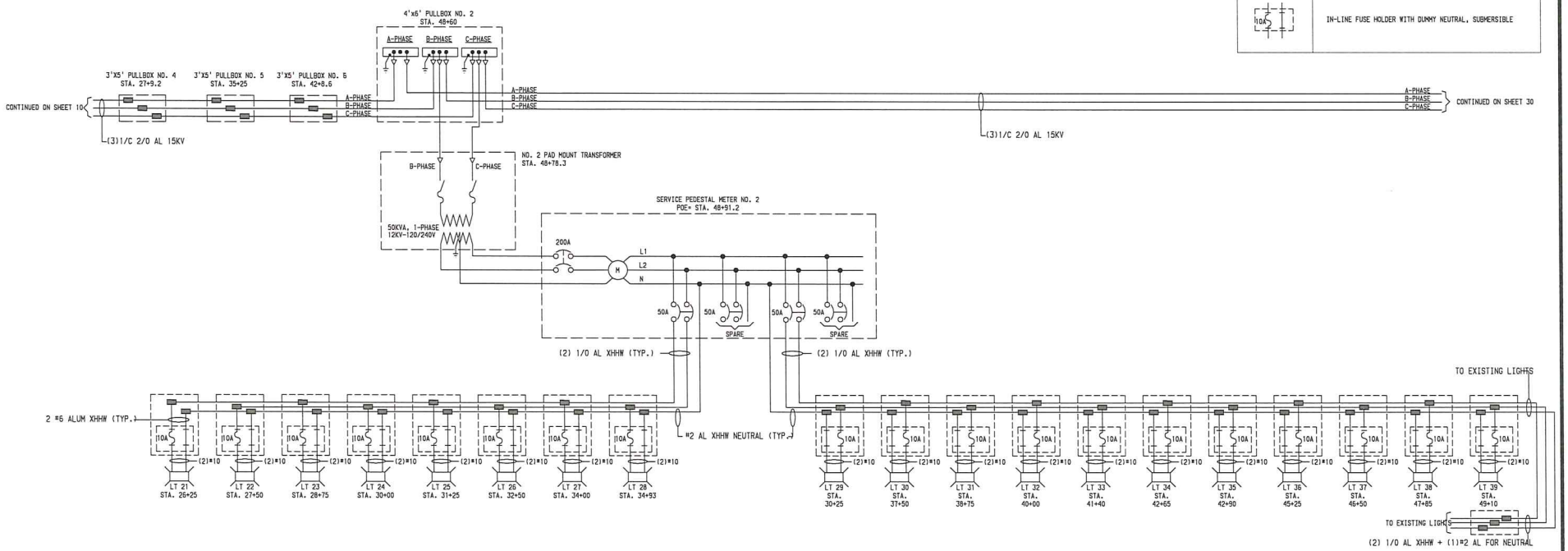
223 E. Imperial Hwy., #130
City of Fullerton, CA 92835
Phone (714) 441-2322
Fax (714) 441-1348

ARENTH AVENUE STREET IMPROVEMENT
PHILLIPS DRIVE TO NOGALES STREET
WIRING DIAGRAM FOR STREET LIGHTING AND PRIMARY CABLE SCHEDULE

DESIGN BY: JAF	CHECKED BY: MZD	JOB NO.: MP 14-12	SHEET E.10 OF E.31
DRAWN BY: JAF	DATE: JUNE, 2020	CONTRACT NO.: CITY-1460	

G:\DRAWINGS\ARENTH AVE ARENTH AVE PHILLIPS DR TO NOGALES ST\GENERAL DOCUMENTATION\PCI DRAWINGS\ELE\E-11-1 ARENTH AVE PHILLIPS DR TO NOGALES ST.DWG 6/26/2020 2:54:31 PM PDT

SYMBOLS	DESCRIPTION
	TRANSFORMER
	CIRCUIT BREAKER
M	METER
	PULL BOX
	LED LIGHT 180W, ON THE POLE
	SPLICE COMPRESSION TYPE, WATER PROOF, 15KV OR 600V AS NEEDED
	200A 15KV, LOAD BREAK ELBOW
	3-WAY 200A 15KV LOADBREAK JUNCTION WITH GROUNDING CONNECTOR
10A	IN-LINE FUSE HOLDER WITH DUMMY NEUTRAL, SUBMERSIBLE



811 Know what's below. Call before you dig.

NO.	DATE	REVISIONS	CK. BY

REGISTERED PROFESSIONAL ENGINEER
JOSHUA Z. DAVIDSON
EXPIRATION 9-30-2021
No. EC12460
ELECTRICAL
STATE OF CALIFORNIA

ELECTRICAL P.E.

6/26/2020
DATE

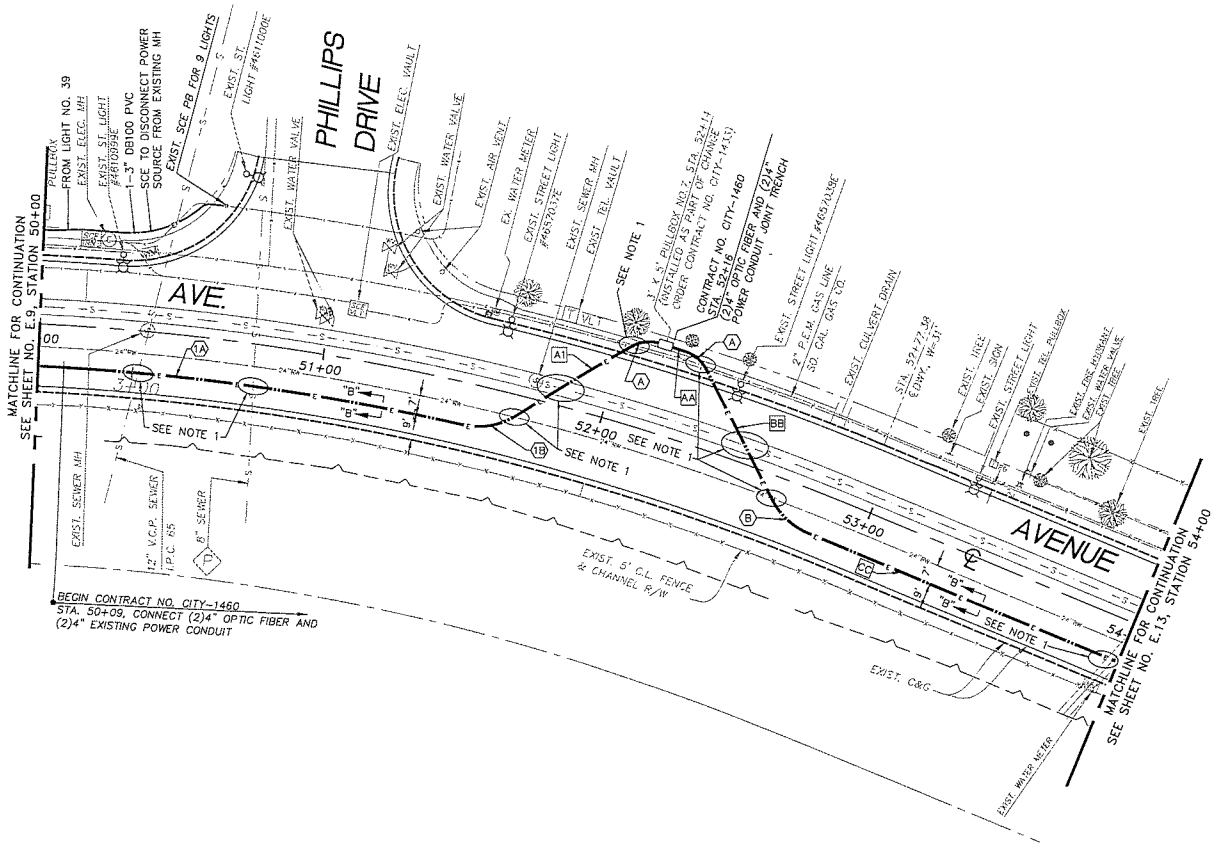
Prepared by:

ORSA Consulting Engineers, Inc.
Fullerton, California

223 E. Imperial Hwy., #130
City of Fullerton, CA 92835
Phone (714) 441-2323
Fax (714) 441-1348

ARENTH AVENUE STREET IMPROVEMENT
PHILLIPS DRIVE TO NOGALES STREET
WIRING DIAGRAM FOR STREET LIGHTING AND PRIMARY CABLE SCHEDULE

DESIGN BY: JAF	CHECKED BY: MZD	JOB NO.: MP 14-12	SHEET E.11 OF E.31
DRAWN BY: JAF	DATE: JUNE, 2020	CONTRACT NO.: CITY-1460	



SCALE: 1" = 20'

CURVE DATA				
○	Δ	R	L	T
1A	9.71°	834.15'	141.36'	70.34'
1B	46°	25'	19.95'	10.52'
A	45°	12.5'	9.82'	5.18'
B	41°	25'	17.79'	9.29'

COURSE DATA		
□	BEARING	DISTANCE
A1	N47°59'59.8"W	47.40'
AA	0'E	4.82'
BB	S45°0'E	51.18'
CC	S85°45'45.2"E	352'

NOTES:

1. LOCATIONS OF UTILITY FACILITIES SHOWN ON THESE PLANS ARE APPROXIMATE, CONTRACTOR(S) SHALL POTHOLE TO VERIFY LOCATION AND DEPTH PRIOR TO CONSTRUCTION.
2. SEE SHEETS E.27, E.28 & E.29, FOR SECTIONS AND DETAILS.

811 Know what's below. Call before you dig.

NO.	DATE	REVISIONS	CK. BY
0			

REGISTERED PROFESSIONAL ENGINEER — MICHAEL L. DAVIDSON — EXPIRATION 9-30-2021 — No. EE12460 — ELECTRICAL — STATE OF CALIFORNIA

ELECTRICAL P.E.

6/26/2020
DATE

Prepared by:

ORSA Consulting Engineers, Inc.
Fullerton, California

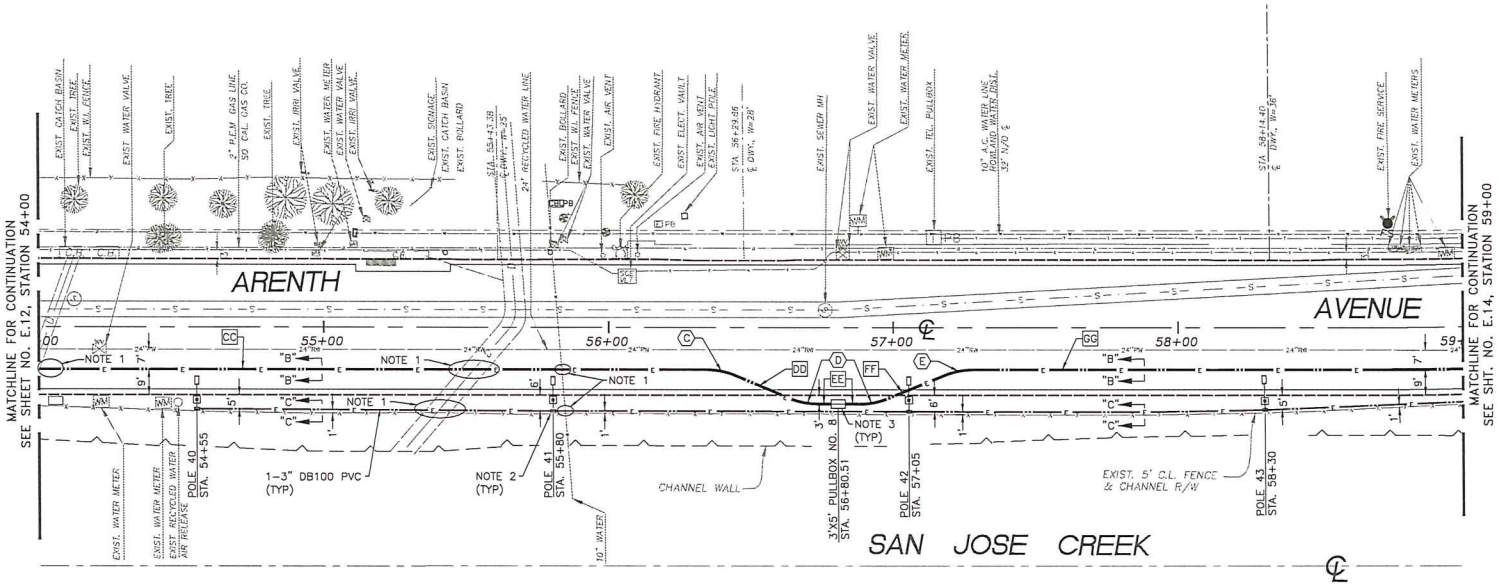
223 E. Imperial Hwy., #130
City of Fullerton, CA 92835
Phone (714) 441-2323
Fax (714) 441-1348

ARENTH AVENUE STREET IMPROVEMENT
PHILLIPS DRIVE TO NOGALES STREET
POWER SOURCE, FIBER OPTIC CONDUITS AND STREET LIGHTNING
STA. 50+00 TO STA. 54+00

DESIGN BY: JAF	CHECKED BY: MZD	JOB NO.: MP 14-12 #2	SHEET E.12 OF E.31
DRAWN BY: JAF	DATE: JUNE, 2020	CONTRACT NO.: CITY-1460	

E:_ARENTH FINAL\MP 14-12 ARENTH AVE POWER FIBER OPTICS AND LIGHTING PHASE 2 PLAN INCLUDING LIGHT POLES FROM ANAHEIM TO PHILLIPS 6/12/2020 2:08:23 PM JRICH 0 (36.00 X 24.00 INCHES) AUTOCAD PDF (GENERAL DOCUMENTATION).PC3 CAMPCALCER

SCALE: 1" = 20'



NOTES:

1. LOCATIONS OF UTILITY FACILITIES SHOWN ON THESE PLANS ARE APPROXIMATE AND SHALL BE POTHOLE AND VERIFIED BY THE CONTRACTOR(S) PRIOR TO CONSTRUCTION
2. SEE SHEETS E.27, E.28 AND E.29, FOR SECTIONS AND DETAILS.
3. SEE SHEET NO. E.29, FOR 3'X5' PULLBOXES DETAILS.

CURVE DATA				
○	Δ	R	L	T
C	23°	25'	9.98'	5.05'
D	22.50°	25'	9.81'	4.97'
E	22.50°	25'	4.97'	4.89'

COURSE DATA		
□	BEARING	DISTANCE
CC	S85°45'45.2"E	352'
DD	S62°53'39"E	20.72'
EE	S85°23'39"E	7.53'
FF	N72°7'17.7"E	22.31'
GG	S85°45'45"E	146.71'

POLE SPACING

POLE EXIST. - 40 = 125' APART: STA. 53+30 TO 54+55
POLE 40 - 41 = 125' APART: STA. 54+55 TO 55+80
POLE 41 - 42 = 125' APART: STA. 55+80 TO 57+05
POLE 42 - 43 = 125' APART: STA. 57+05 TO 58+30
POLE 43 - 44 = 145' APART: STA. 58+30 TO 59+75
NOTE: ABOVE DISTANCE IS APPROXIMATE AND MAY NEED TO BE FIELD ADJUSTED 10'± DEPENDING ON FIELD CONDITIONS.

811 Know what's below. Call before you dig.

NO.	DATE	REVISIONS	CK. BY
0			

REGISTERED PROFESSIONAL ENGINEER — MICHAEL Z. DAVOODI — EXPIRATION 6-30-2020 — No. E012480 — STATE OF CALIFORNIA — ELECTRICAL

ELECTRICAL P.E.

6/26/2020
DATE

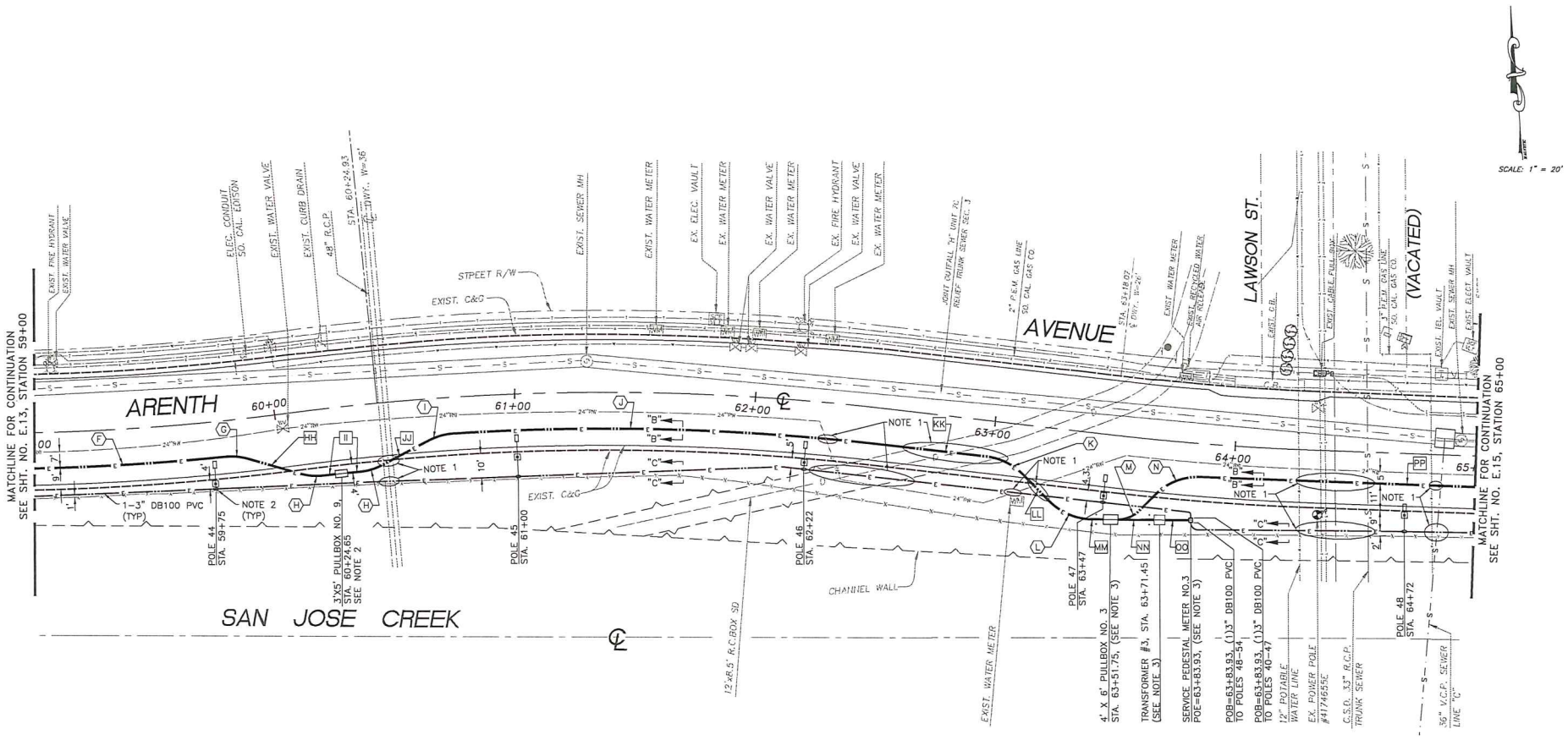
Prepared by:
ORSA Consulting Engineers, Inc.
Fullerton, California

223 E. Imperial Hwy., #130
City of Fullerton, CA 92835
Phone (714) 441-2323
Fax (714) 441-1348

ARENTH AVENUE STREET IMPROVEMENT
PHILLIPS DRIVE TO NOGALES STREET
POWER SOURCE, FIBER OPTIC CONDUITS AND STREET LIGHTING
STA. 54+00 TO STA. 59+00

DESIGN BY: JAF	CHECKED BY: MZD	JOB NO.: MP 14-12#2	SHEET E.13 OF E.31
DRAWN BY: JAF	DATE: JUNE, 2020	CONTRACT NO.: CITY-1460	

X:_ARENTH PHASE\MP 14-12 ARENTH AVE POWER FIBER OPTICS AND LIGHTING PHASE 2 PLAN INCLUDING LIGHT POLES FROM ANAHEIM TO PHILLIPS 6/23/2020 3:37:03 PM ARCH B (24.00 X 36.00 INCHES) AUTOCAD PDF (GENERAL DOCUMENTATION).PC3 CONFIGURED



CURVE DATA				
○	Δ	R	L	T
F	6°	1015'	105.21'	52.65'
G	22.5°	25'	9.65'	4.81'
H	22.5°	25'	9.81'	4.97'
I	22°	25'	9.65'	4.89'
J	10°	984.19'	177.45'	88.86'
K	39°	25'	17.02'	8.85'
L	45°	25'	19.63'	10.36'
M	45°	12.5'	9.82'	5.0'
N	47°	25'	20.38'	10.79'

COURSE DATA		
□	BEARING	DISTANCE
HH	S69°56'18.9"E	22.31'
II	N87°34'38"E	7.54'
JJ	N66°15'2"E	22.31'
KK	S79°19'59""E	45.02'
LL	S40°20'10"E	15.89'
MM	S85°0'53"E	7.67'
NN	S85°24'52.6"E	20.29'
OO	S85°34'23.5"E	12.04'
PP	S85°42'39"E	186.01'

POLE SPACING

POLE 43 - 44 = 145' APART: STA. 58+30 TO 59+75
POLE 44 - 45 = 125' APART: STA. 59+75 TO 61+00
POLE 45 - 46 = 122' APART: STA. 61+00 TO 62+22
POLE 46 - 47 = 125' APART: STA. 62+22 TO 63+47
POLE 47 - 48 = 125' APART: STA. 63+47 TO 64+72
POLE 48 - 49 = 125' APART: STA. 64+72 TO 65+97
NOTE: ABOVE DISTANCE IS APPROXIMATE AND MAY NEED TO BE FIELD ADJUSTED 10'± DEPENDING ON FIELD CONDITIONS.

NOTES:

1. LOCATIONS OF UTILITY FACILITIES SHOWN ON THESE PLANS ARE APPROXIMATE, CONTRACTOR(S) SHALL POTHOLE TO VERIFY LOCATION AND DEPTH PRIOR TO CONSTRUCTION.
2. SEE SHEETS E.27, E.28 AND E.29, FOR SECTIONS AND DETAILS.
3. FOR TRANSFORMER, PULLBOXES, SERVICE PEDESTAL METER, FIBER OPTIC, AND POWER CONDUIT DETAILS, SEE SHEETS E.27, E.28 & E.29.

811 Know what's below. Call before you dig.

NO.	DATE	REVISIONS	CK. BY
0			

REGISTERED PROFESSIONAL ENGINEER — MICHAEL F. DAVIS — EXPIRATION 9-30-2019 — No. E012480 — ELECTRICAL

ELECTRICAL P.E.

6/26/2020
DATE

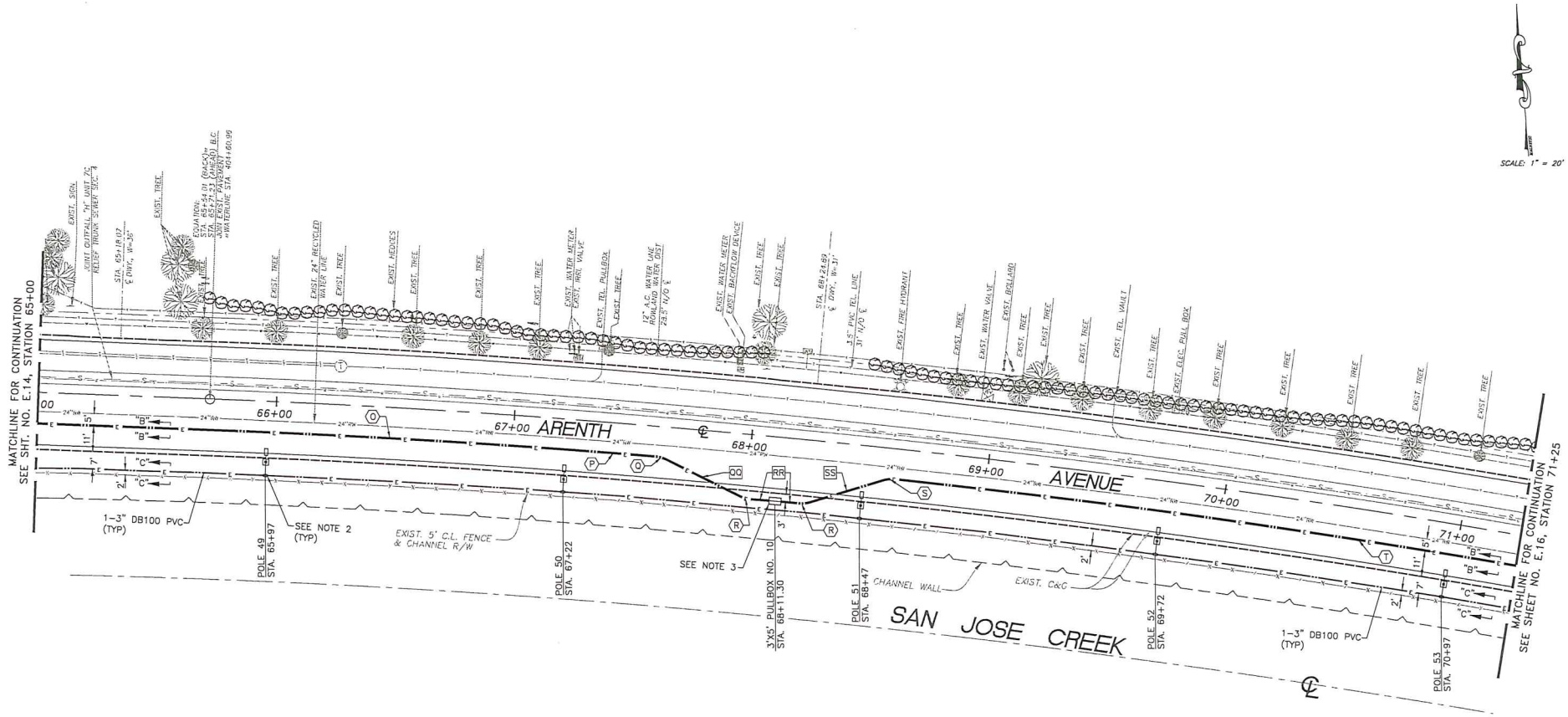
Prepared by:
ORSA Consulting Engineers, Inc.
Fullerton, California
223 E. Imperial Hwy., #130
City of Fullerton, CA 92835
Phone (714) 441-2323
Fax (714) 441-1348

ARENTH AVENUE STREET IMPROVEMENT
PHILLIPS DRIVE TO NOGALES STREET
POWER SOURCE, FIBER OPTIC CONDUITS AND STREET LIGHTNING
STA. 59+00 TO STA. 65+00

DESIGN BY: JAF	CHECKED BY: MZD	JOB NO.: MP 14-12#2
DRAWN BY: JAF	DATE: JUNE, 2020	CONTRACT NO.: CITY-1460

SHEET E.14 OF E.31

X:_WORK\ PHILLIP 14-12 ARENTH AVE POWER FIBER OPTICS AND LIGHTING PHASE 2 PLAN INCLUDING LOST POLES FROM ARENTH TO PHILLIPS 6931\20\DWG 6/24/2020 3:07:33 PM ARCH D (24.00 X 36.00 INCHES) AUTOCAD PDF (GENERAL DOCUMENTATION).PC3 DWF(SCALE=1)



NOTES:

1. LOCATIONS OF UTILITY FACILITIES SHOWN ON THESE PLANS ARE APPROXIMATE AND SHALL BE POTHOLE AND VERIFIED BY THE CONTRACTOR(S) PRIOR TO CONSTRUCTION
2. SEE SHEETS E.27, E.28 AND E.29, FOR SECTIONS AND DETAILS.
3. SEE SHEET NO. E.29, FOR 3'X5' PULLBOXES DETAILS.

CURVE DATA				
○	Δ	R	L	T
O	2°	4072.25'	152.35'	76.18'
P	1°	4072.25'	35.60'	17.80'
Q	22.48°	12.5'	4.82'	2.48'
R	22.48°	12.5'	4.91'	2.48'
S	23.41°	12.5'	5.11'	2.59'
T	5°	4088.15'	355.01'	177.61'

COURSE DATA		
□	BEARING	DISTANCE
QQ	S58°58'42.6"E	34.46'
RR	S81°27'45.7"E	10.02'
SS	S77°12'38.3"E	32.08'

POLE SPACING

POLE 48 - 49 = 125' APART: STA. 64+72 TO 65+97
POLE 49 - 50 = 125' APART: STA. 65+97 TO 67+22
POLE 50 - 51 = 125' APART: STA. 67+22 TO 68+47
POLE 51 - 52 = 125' APART: STA. 68+47 TO 69+72
POLE 52 - 53 = 125' APART: STA. 69+72 TO 70+97
POLE 53 - 54 = 125' APART: STA. 70+97 TO 72+22
NOTE: ABOVE DISTANCE IS APPROXIMATE AND MAY NEED TO BE FIELD ADJUSTED 10'± DEPENDING ON FIELD CONDITIONS.

811 Know what's below. Call before you dig.

NO.	DATE	REVISIONS	CK. BY
0			

REGISTERED PROFESSIONAL ENGINEER — MICHAEL Z. DOZIER — EXPIRATION 9-30-2018 — No. E012480 — ELECTRICAL — STATE OF CALIFORNIA

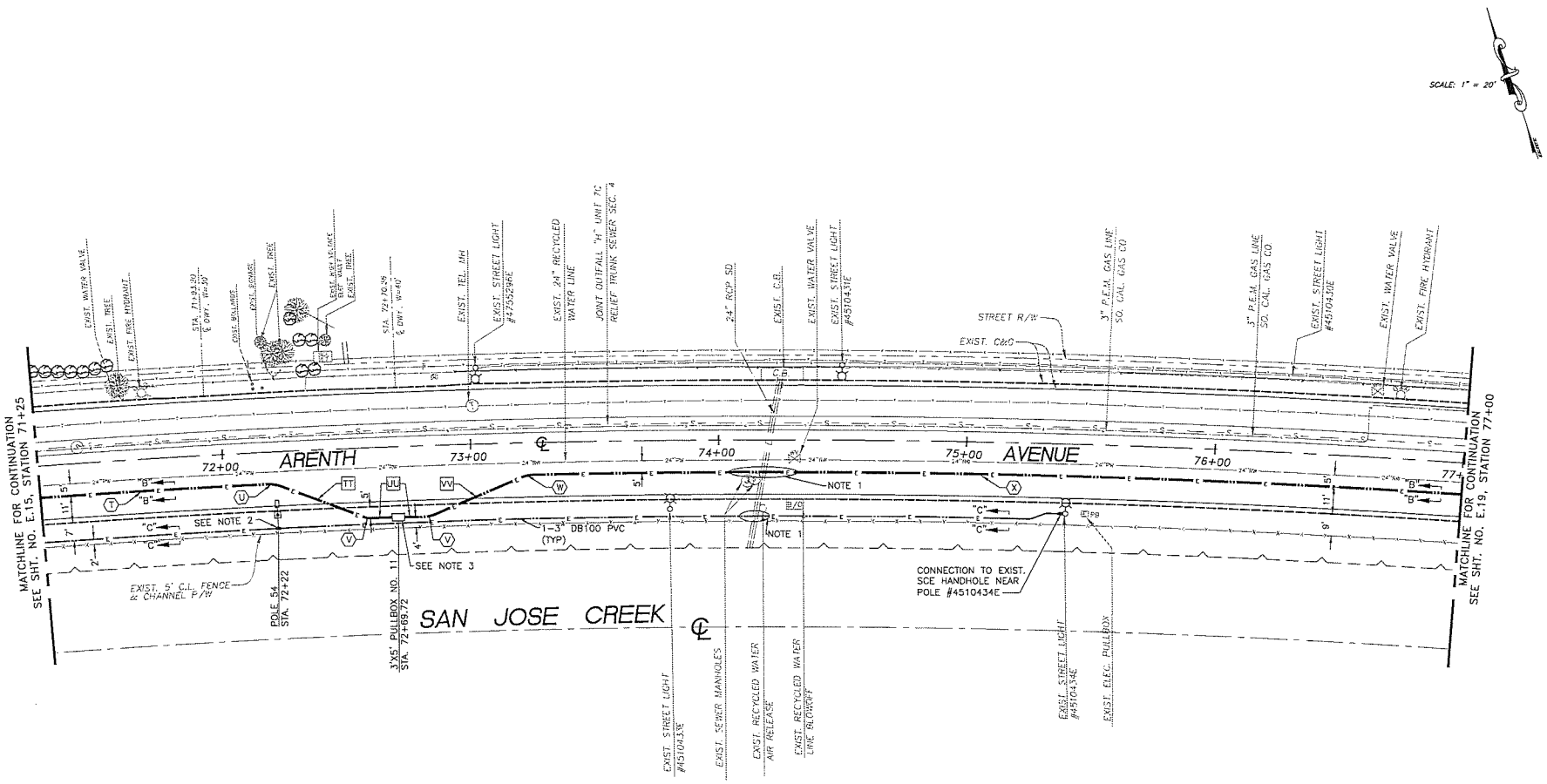
ELECTRICAL P.E. — 6/26/2020 DATE

Prepared by:
ORSA Consulting Engineers, Inc.
Fullerton, California
223 E. Imperial Hwy., #130
City of Fullerton, CA 92835
Phone (714) 441-2323
Fax (714) 441-1348

ARENTH AVENUE STREET IMPROVEMENT
PHILLIPS DRIVE TO NOGALES STREET
POWER SOURCE, FIBER OPTIC CONDUITS AND STREET LIGHTING
STA. 65+00 TO STA. 71+25

DESIGN BY: JAF	CHECKED BY: MZD	JOB NO.: MP 14-12#2	SHEET E.15 OF E.31
DRAWN BY: JAF	DATE: JUNE, 2020	CONTRACT NO.: CITY-1460	

X:_ARENTH FINAL\MP 14-12 ARENTH AVE POWER FIBER OPTICS AND LIGHTING PHASE 2 PLAN INCLUDING LIGHT POLES FROM ARAMEN TO PHILLIPS 09232018\DWG 9/24/2020 3:58:18 PM ARCH D (48.00 X 36.00 INCHES) AUTOCAD PDF (GENERAL DOCUMENTATION).PC3 GRAYSCALE.CTB



CURVE DATA				
○	Δ	R	L	T
T	5°	4088.15'	355.01'	177.61'
U	23.35°	12.5'	5.09'	2.58'
V	22.48°	12.5'	4.91'	2.48'
W	21.96°	12.5'	4.79'	2.42'
X	5.39°	4094.97'	385.50'	192.89'

COURSE DATA		
□	BEARING	DISTANCE
TT	N51°18'15.4"W	34.65'
UU	N73°47'18.5"W	10.02'
VV	N84°53'5.6"E	38.13'

POLE SPACING
POLE 53 - POLE 54 = 125' APART: STA. 70+97 TO 72+22
POLE 54 - EXIST. POLE #4755296E = 83' APART: STA. 72+22 TO 73+05
NOTE: ABOVE DISTANCE IS APPROXIMATE AND MAY NEED TO BE FIELD ADJUSTED 10± DEPENDING ON FIELD CONDITIONS.

NOTES:
1. LOCATIONS OF UTILITY FACILITIES SHOWN ON THESE PLANS ARE APPROXIMATE AND SHALL BE POTHOLE AND VERIFIED BY THE CONTRACTOR(S) PRIOR TO CONSTRUCTION
2. SEE SHEETS E.27, E.28 AND E.29, FOR SECTIONS AND DETAILS.
3. SEE SHEET NO. E.29, FOR 3'X5' PULLBOXES DETAILS.

811 Know what's below. Call before you dig.

NO.	DATE	REVISIONS	CK. BY
0			

REGISTERED PROFESSIONAL ENGINEER — MICHAEL P. DRIGGS — EXPIRATION 9-30-2019 — No. E012460 — ELECTRICAL

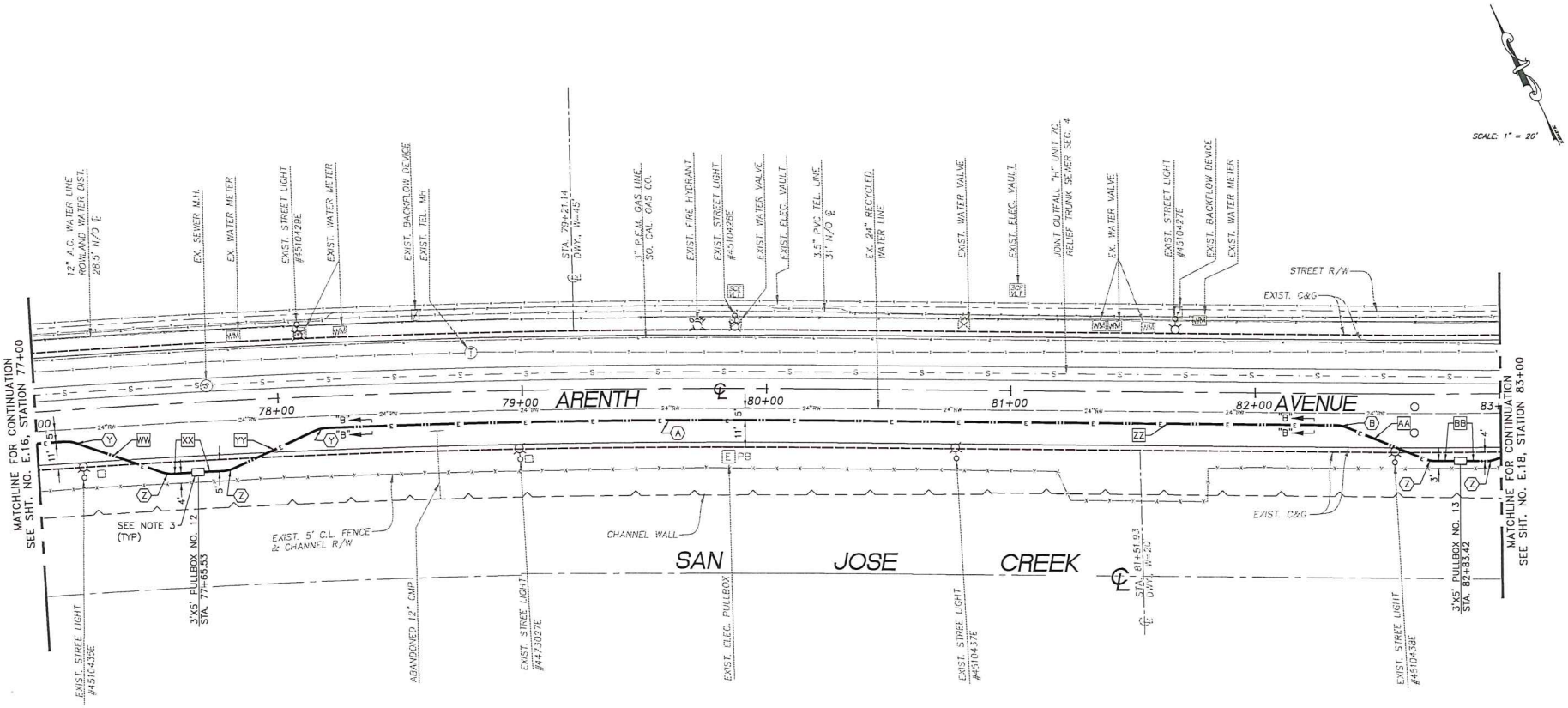
ELECTRICAL P.E. — 6/26/2020 DATE

Prepared by:
ORSA Consulting Engineers, Inc.
Fullerton, California
223 E. Imperial Hwy., #130
City of Fullerton, CA 92835
Phone (714) 441-2323
Fax (714) 441-1348

ARENTH AVENUE STREET IMPROVEMENT
PHILLIPS DRIVE TO NOGALES STREET
POWER SOURCE, FIBER OPTIC CONDUITS AND STREET LIGHTING
STA. 71+25 TO STA. 77+00

DESIGN BY: JAF	CHECKED BY: MZD	JOB NO.: MP 14-12#2	
DRAWN BY: JAF	DATE: JUNE, 2020	CONTRACT NO.: CITY-1460	SHEET E.16 OF E.31

P:_ARENTH PHILLMP 14-12 ARENTH AVE POWER FIBER OPTICS AND LIGHTING PHASE 2 PLAN INCLUDING LIGHT POLES FROM JAMISON TO PHILLIPS 6/23/2020 Dwg 6/24/2020 3:08:16 PM JAFCH 0 (36.00 X 24.00 INCHES) JAFCH20.PGP (ORIGINAL DOCUMENT)(PAGE 16) (JAFCH20.CTB)



CURVE DATA				
○	Δ	R	L	T
Y	22.67°	12.5'	4.95'	2.51'
Z	22.48°	12.5'	4.91'	2.48'
A	2.93°	4006.96'	204.99'	102.52'
B	21.73°	12.5'	4.74'	2.40'

COURSE DATA		
□	BEARING	DISTANCE
WW	S45°1'8.2"E	39.28'
XX	S67°30'11.4"E	10.02'
YY	S88°49'47.3"E	36.62'
ZZ	S63°19'58.2"E	208.09'
AA	S41°35'54.6"E	34.18'
BB	S64°4'57.7"E	10.02'

NOTES:

1. LOCATIONS OF UTILITY FACILITIES SHOWN ON THESE PLANS ARE APPROXIMATE AND SHALL BE POTHOLE AND VERIFIED BY THE CONTRACTOR(S) PRIOR TO CONSTRUCTION
2. SEE SHEETS E.27, E.28 AND E.29, FOR SECTIONS AND DETAILS.
3. SEE SHEET NO. E.29, FOR 3'X5' PULLBOXES DETAILS.

811 Know what's below. Call before you dig.

NO.	DATE	REVISIONS	CK. BY
0			

REGISTERED PROFESSIONAL ENGINEER — MARK Z. DAVIDIAN — EXPIRATION 6-30-2018 — No. E012480 — ELECTRICAL — STATE OF CALIFORNIA

ELECTRICAL P.E.

6/26/2020
DATE

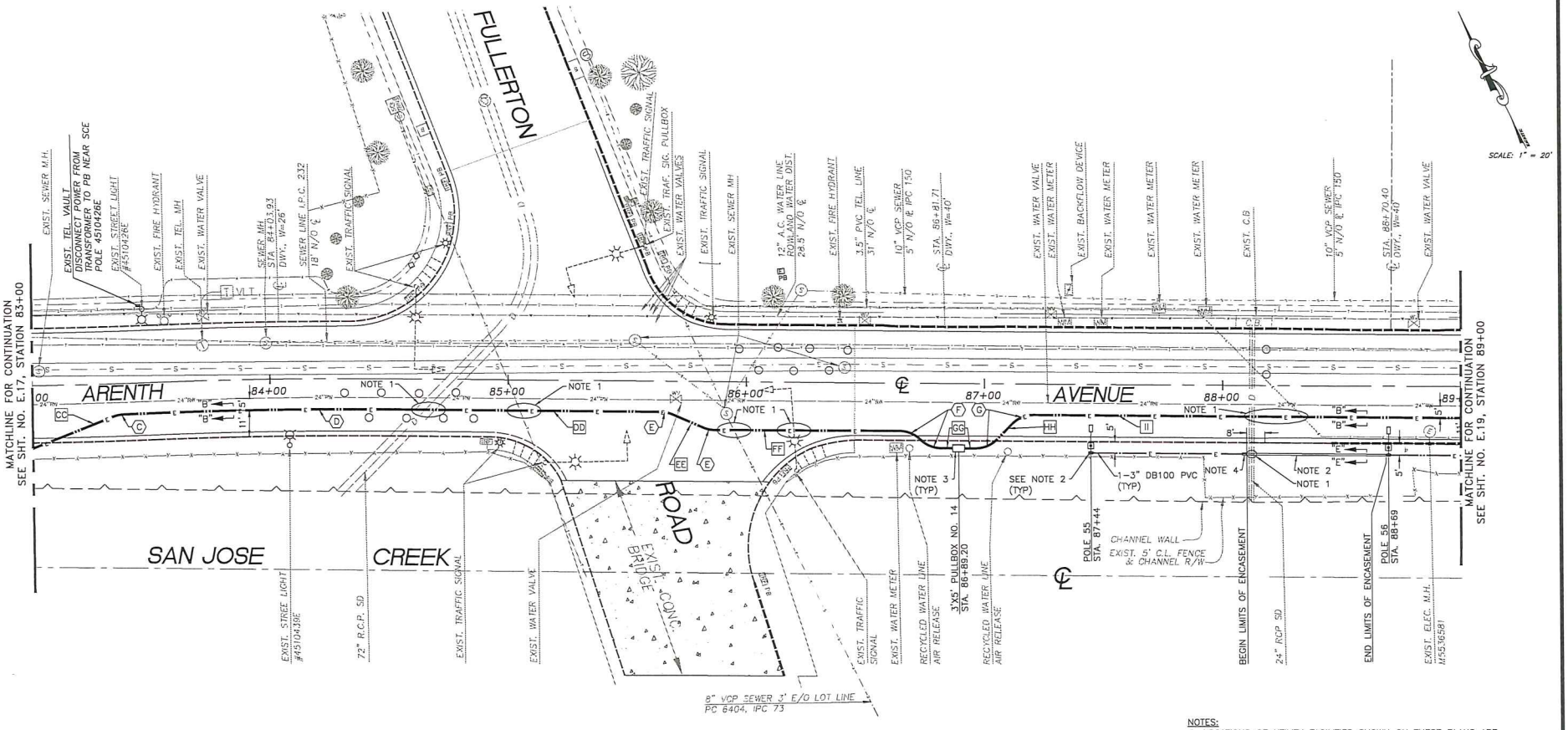
Prepared by:
ORSA Consulting Engineers, Inc.
Fullerton, California

223 E. Imperial Hwy., #130
City of Fullerton, CA 92835
Phone (714) 441-2323
Fax (714) 441-1348

ARENTH AVENUE STREET IMPROVEMENT
PHILLIPS DRIVE TO NOGALES STREET
POWER SOURCE, FIBER OPTIC CONDUITS AND STREET LIGHTING
STA. 77+00 TO STA. 83+00

DESIGN BY: JAF	CHECKED BY: MZD	JOB NO.: MP 14-12#2	SHEET E.17 OF E.31
DRAWN BY: JAF	DATE: JUNE, 2020	CONTRACT NO.: CITY-1460	

X:_ARENTH PHILLIP 14-12 ARENTH AVE POWER FIBER OPTICS AND LIGHTING PHASE 2 PLAN INCLUDING LIGHT POLES FROM AMHEIN TO PHILLIPS 0933\933\DWG 9/24/2020 3:39:13 PM ARCH B (18.00 X 24.00 INCHES) AUTOCAD PDF (GENERAL DOCUMENTATION).PC3 CANTALCETE



CURVE DATA				
○	Δ	R	L	T
C	19.58°	12.5'	4.27'	2.16'
D	3.07°	2099.22'	112.35'	56.19'
E	22.5°	12.5'	4.91'	2.49'
F	45°	12.5'	4.91'	5.17'
G	45°	12.5'	9.91'	5.23'

COURSE DATA		
□	BEARING	DISTANCE
CC	S85°24'33.7"E	38.30'
DD	S63°19'58.2"E	115.67'
EE	S40°49'58.2"E	14.6'
FF	S63°32'9.3"E	77.58'
GG	S63°30'42.6"E	7.24'
HH	N71°12'51.9"E	9.32'
II	S64°4'57.7"E	231.80'

POLE SPACING
EXISTING LIGHT - 55 = 125' APART: STA. 86+19 TO 87+44
POLE 55 - POLE 56 = 125' APART: STA. 87+44 TO 88+69
POLE 56 - 57 = 125' APART: STA. 88+69 TO 89+94
NOTE: ABOVE DISTANCE IS APPROXIMATE AND MAY NEED TO BE FIELD ADJUSTED 10'± DEPENDING ON FIELD CONDITIONS.

NOTES:
1. LOCATIONS OF UTILITY FACILITIES SHOWN ON THESE PLANS ARE APPROXIMATE AND SHALL BE POTHOLE AND VERIFIED BY THE CONTRACTOR(S) PRIOR TO CONSTRUCTION
2. SEE SHEETS E.27, E.28 AND E.29, FOR SECTIONS AND DETAILS.
3. SEE SHEET NO. E.29, FOR 3'X5' PULLBOXES DETAILS.
4. HT1324-B 13"X24"X12" DEEP W/BOLT-DOWN AND JENSEN MODEL LID HT1324-LO1 OR APPROVED EQUAL.
5. BETWEEN STA. 81+75 TO STA. 89+00, BEING FUTURE FULLERTON ROAD INTERSECTION PROJECT, PAVEMENT AND AGGREGATE BASE OVER TRENCH ON THE STREET NEEDS TO BE REPAIRED PER CITY OF INDUSTRY STANDARD PLAN 211.

811 Know what's below. Call before you dig.

NO.	DATE	REVISIONS	CK. BY
0			

REGISTERED PROFESSIONAL ENGINEER — MICHAEL F. DAVIDSON — EXPIRATION 9-30-2018 — No. E012480 — ELECTRICAL — STATE OF CALIFORNIA

ELECTRICAL P.E.

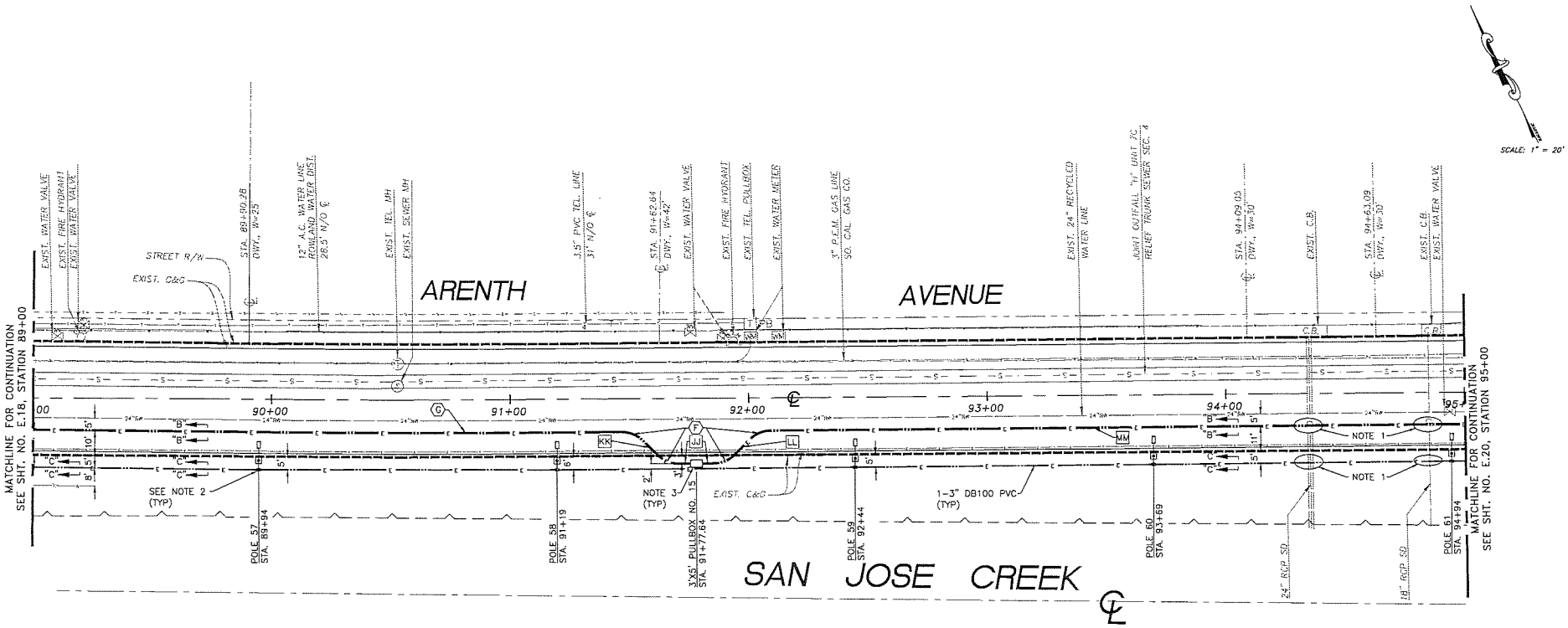
6/26/2020
DATE

Prepared by:
ORSA Consulting Engineers, Inc.
Fullerton, California
223 E. Imperial Hwy., #130
City of Fullerton, CA 92835
Phone (714) 441-2323
Fax (714) 441-1348

ARENTH AVENUE STREET IMPROVEMENT
PHILLIPS DRIVE TO NOGALES STREET
POWER SOURCE, FIBER OPTIC CONDUITS AND STREET LIGHTING
STA. 83+00 TO STA. 89+00

DESIGN BY: JAF	CHECKED BY: MZD	JOB NO.: MP 14-12#2	SHEET E.18 OF E.31
DRAWN BY: JAF	DATE: JUNE, 2020	CONTRACT NO.: CITY-1460	

X:_ARENTH FINAL\MP 14-12 ARENTH AVE POWER FIBER OPTICS AND LIGHTING PHASE 2 PLAN INCLUDING LIGHT POLES FROM ANAHEIM TO PHILLIPS 6918300\6918-E18.DWG 6/24/2020 3:09:39 PM ARCH D (24.00 X 24.00 INCHES) AUTOCAD PDF (GENERAL DOCUMENTATION).PC3 GRAYSCALE.CTB



CURVE DATA				
○	Δ	R	L	T
F	45°	12.5'	9.82'	5.18'
G	1.19°	6955.80'	144.22'	72.11'

COURSE DATA		
□	BEARING	DISTANCE
JJ	S64°28'56.6"E	7.29'
KK	S19°28'56.6"E	8.91'
LL	S70°31'3.4"E	8.91'
MM	S64°25'34.2"E	331.27'

POLE SPACING

POLE 56 - 57 = 125' APART: STA. 88+69 TO 89+94
POLE 57 - 58 = 125' APART: STA. 89+94 TO 91+19
POLE 58 - 59 = 125' APART: STA. 91+19 TO 92+44
POLE 59 - 60 = 125' APART: STA. 92+44 TO 93+69
POLE 60 - 61 = 125' APART: STA. 93+69 TO 94+94
POLE 61 - 62 = 118' APART: STA. 94+94 TO 96+12
NOTE: ABOVE DISTANCE IS APPROXIMATE AND MAY NEED TO BE FIELD ADJUSTED 10'± DEPENDING ON FIELD CONDITIONS.

NOTES:

1. LOCATIONS OF UTILITY FACILITIES SHOWN ON THESE PLANS ARE APPROXIMATE AND SHALL BE POTHOLE AND VERIFIED BY THE CONTRACTOR(S) PRIOR TO CONSTRUCTION
2. SEE SHEETS E.27, E.28 AND E.29, FOR SECTIONS AND DETAILS.
3. SEE SHEET NO. E.29, FOR 3'X5' PULLBOXES DETAILS.

811 Know what's below. Call before you dig.

NO.	DATE	REVISIONS	CK. BY
0			

REGISTERED PROFESSIONAL ENGINEER — JOSEPH L. HANDOGAN — EXPIRATION 9-30-2018 — No. E012480 — ELECTRICAL — STATE OF CALIFORNIA

ELECTRICAL P.E. — DATE 6/26/2020

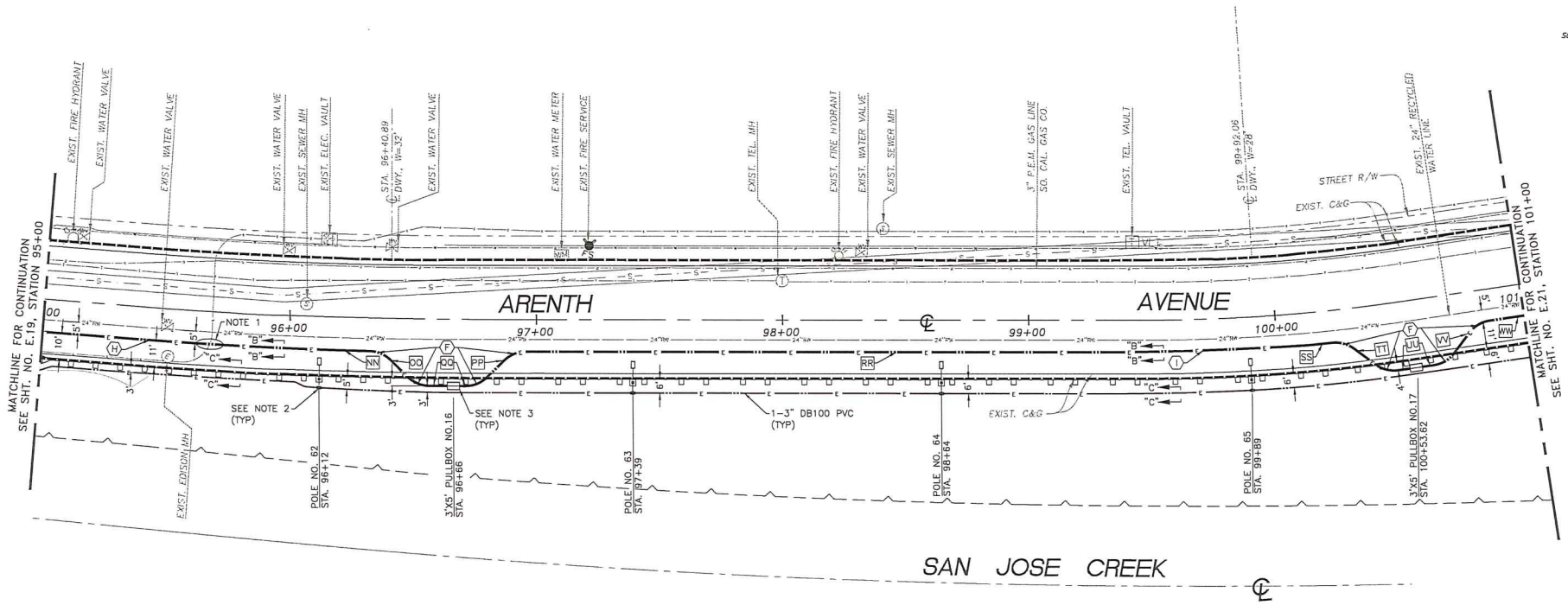
Prepared by:

ORSA Consulting Engineers, Inc. Fullerton, California

223 E. Imperial Hwy., #130
City of Fullerton, CA 92835
Phone (714) 441-2323
Fax (714) 441-1348

ARENTH AVENUE STREET IMPROVEMENT
PHILLIPS DRIVE TO NOGALES STREET
POWER SOURCE CONDUITS FOR STREET LIGHTING AND FIBER OPTICS
STA. 89+00 TO STA. 95+00

DESIGN BY: JAF	CHECKED BY: MZD	JOB NO.: MP 14-12#2	SHEET E.19 OF 31
DRAWN BY: JAF	DATE: JUNE, 2020	CONTRACT NO.: CITY-1460	



CURVE DATA				
○	Δ	R	L	T
F	45°	12.5'	9.82'	5.18'
H	2.39°	1884.23'	78.73'	39.37'
I	2.94°	1472.08'	75.41'	37.38'

COURSE DATA		
□	BEARING	DISTANCE
NN	S67°15'24.8"E	14.26'
OO	S23°29'33.1"E	9.53'
PP	N66°30'26.9"E	9.80'
QQ	S68°29'33.1"E	7.32'
RR	S68°47'26.2"E	242.01'
SS	S74°33'42.6"E	10.51'
TT	S32°6'34.5"E	10.87'
UU	S77°6'34.5"E	7.32'
VV	N57°53'25.5"E	10.38'
WW	S77°0'41.6"E	57.03'

POLE SPACING

POLE 61 - 62 = 118' APART: STA. 94+94 TO 96+12
POLE 62 - 63 = 127' APART: STA. 96+12 TO 97+39
POLE 63 - 64 = 125' APART: STA. 97+39 TO 98+64
POLE 64 - 65 = 125' APART: STA. 98+64 TO 99+89
POLE 65 - 66 = 125' APART: STA. 99+89 TO 101+14
NOTE: ABOVE DISTANCE IS APPROXIMATE AND MAY NEED TO BE ADJUSTED 10± DEPENDING ON FIELD CONDITIONS.

NOTES:

1. LOCATIONS OF UTILITY FACILITIES SHOWN ON THESE PLANS ARE APPROXIMATE AND SHALL BE POTHOLE AND VERIFIED BY THE CONTRACTOR(S) PRIOR TO CONSTRUCTION
2. SEE SHEETS E.27, E.28 AND E.29, FOR SECTIONS AND DETAILS.
3. SEE SHEET NO. E.29, FOR 3'X5' PULLBOXES DETAILS.

811 Know what's below. Call before you dig.

NO.	DATE	REVISIONS	CK. BY
0			

REGISTERED PROFESSIONAL ENGINEER — MARK A. DAVIDSON — EXPIRATION 6-30-2022 — No. EE12460 — ELECTRICAL — STATE OF CALIFORNIA

ELECTRICAL P.E.

6/26/2020
DATE

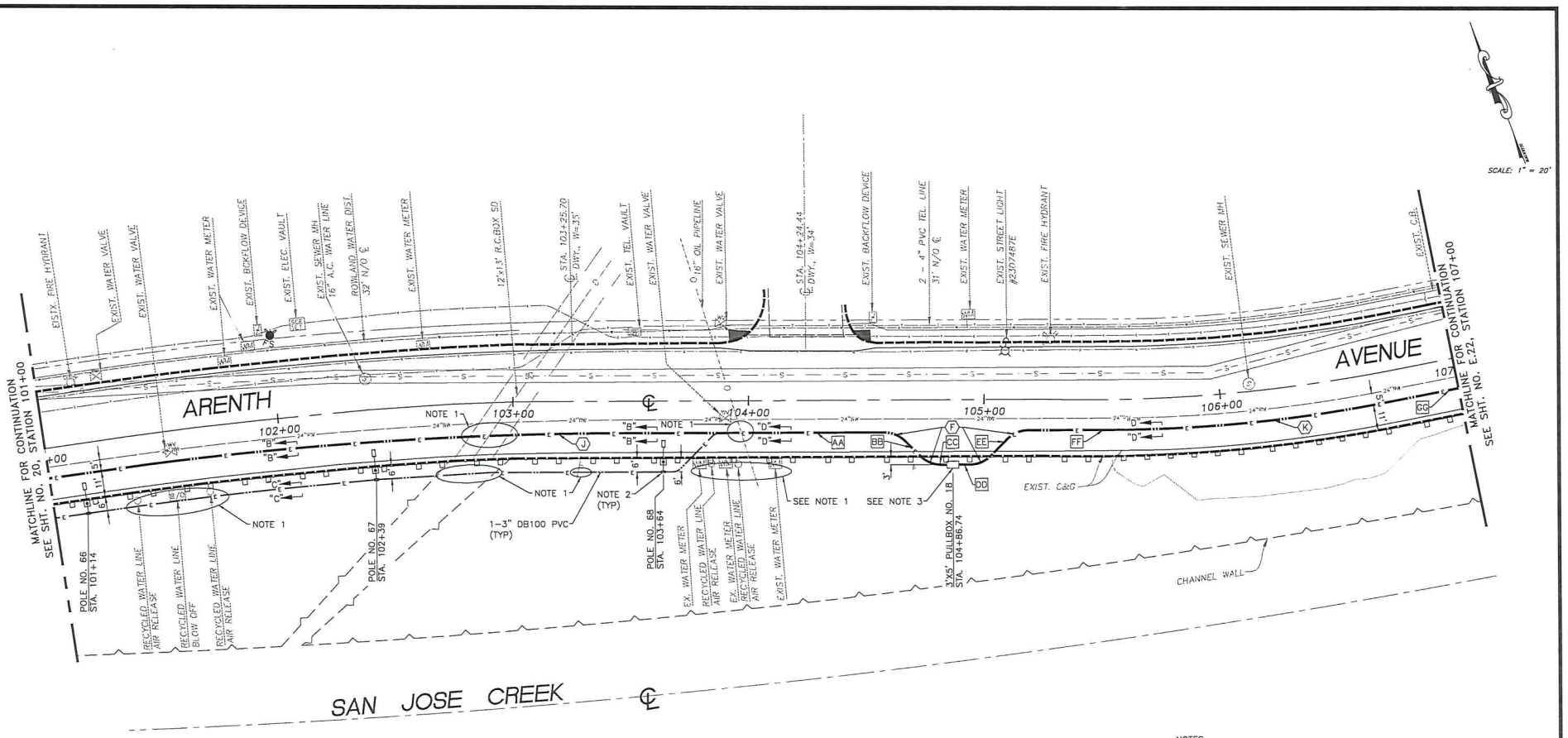
Prepared by:
ORSA Consulting Engineers, Inc.
Fullerton, California

223 E. Imperial Hwy., #130
City of Fullerton, CA 92835
Phone (714) 441-2323
Fax (714) 441-1348

ARENTH AVENUE STREET IMPROVEMENT
PHILLIPS DRIVE TO NOGALES STREET
POWER SOURCE CONDUITS FOR STREET LIGHTING AND FIBER OPTICS
STA. 95+00 TO STA. 101+00

DESIGN BY: JAF	CHECKED BY: MZD	JOB NO.: MP 14-12#2	SHEET E.20 OF E.31
DRAWN BY: JAF	DATE: JUNE, 2020	CONTRACT NO.: CITY-1460	

X:_ARENTH FINAL\MP 14-12 ARENTH AVE POWER FIBER OPTICS AND LIGHTING PHASE 2 PLAN INCLUDING LIGHT POLES FROM AVENIDA TO PHILLIPS 6123\DGN\ 9/24/2019 3:10:24 PM ARCH B (24.00 X 21.00 INCHES) AUTOCAD PDF (GENERAL DOCUMENTATION).PC3 COMPOSITE.CTB



CURVE DATA				
○	Δ	R	L	T
F	45°	12.5'	9.82'	5.18'
J	7.20°	1587'	199.41'	99.93'
K	10.85°	613'	116.09'	58.22'

COURSE DATA		
□	BEARING	DISTANCE
AA	S69°4'4.2"E	113.17'
BB	S24°9'33.4"E	9.12'
CC	N69°9'33.4"E	4.85'
DD	N69°9'33.4"E	7.32'
EE	N65°50'26.6"E	9.93'
FF	S69°4'4.2"E	36.43'
GG	S79°55'7.2"E	217.87'

POLE SPACING
POLE 65 - 66 = 125' APART: STA. 99+89 TO 101+14
POLE 66 - 67 = 125' APART: STA. 101+14 TO 102+39
POLE 67 - 68 = 125' APART: STA. 102+39 TO 103+64
POLE 68 - EXISTING POLE # 2307487E = 141' APART: STA. 103+64 TO 105+05
NOTE: ABOVE DISTANCE IS APPROXIMATE AND MAY NEED TO BE FIELD ADJUSTED 10'± DEPENDING ON FIELD CONDITIONS.

NOTES:
1. LOCATIONS OF UTILITY FACILITIES SHOWN ON THESE PLANS ARE APPROXIMATE AND SHALL BE POTHOLE AND VERIFIED BY THE CONTRACTOR(S) PRIOR TO CONSTRUCTION
2. SEE SHEETS E.27, E.28 AND E.29, FOR SECTIONS AND DETAILS.
3. SEE SHEET NO. E.29, FOR 3'X5' PULLBOXES DETAILS.

811 Know what's below. Call before you dig.

NO.	DATE	REVISIONS	CK. BY
0			

REGISTERED PROFESSIONAL ENGINEER — MICHAEL A. FERNANDEZ — EXPIRATION 6-30-2018 — No. E012480 — ELECTRICAL — STATE OF CALIFORNIA

ELECTRICAL P.E.

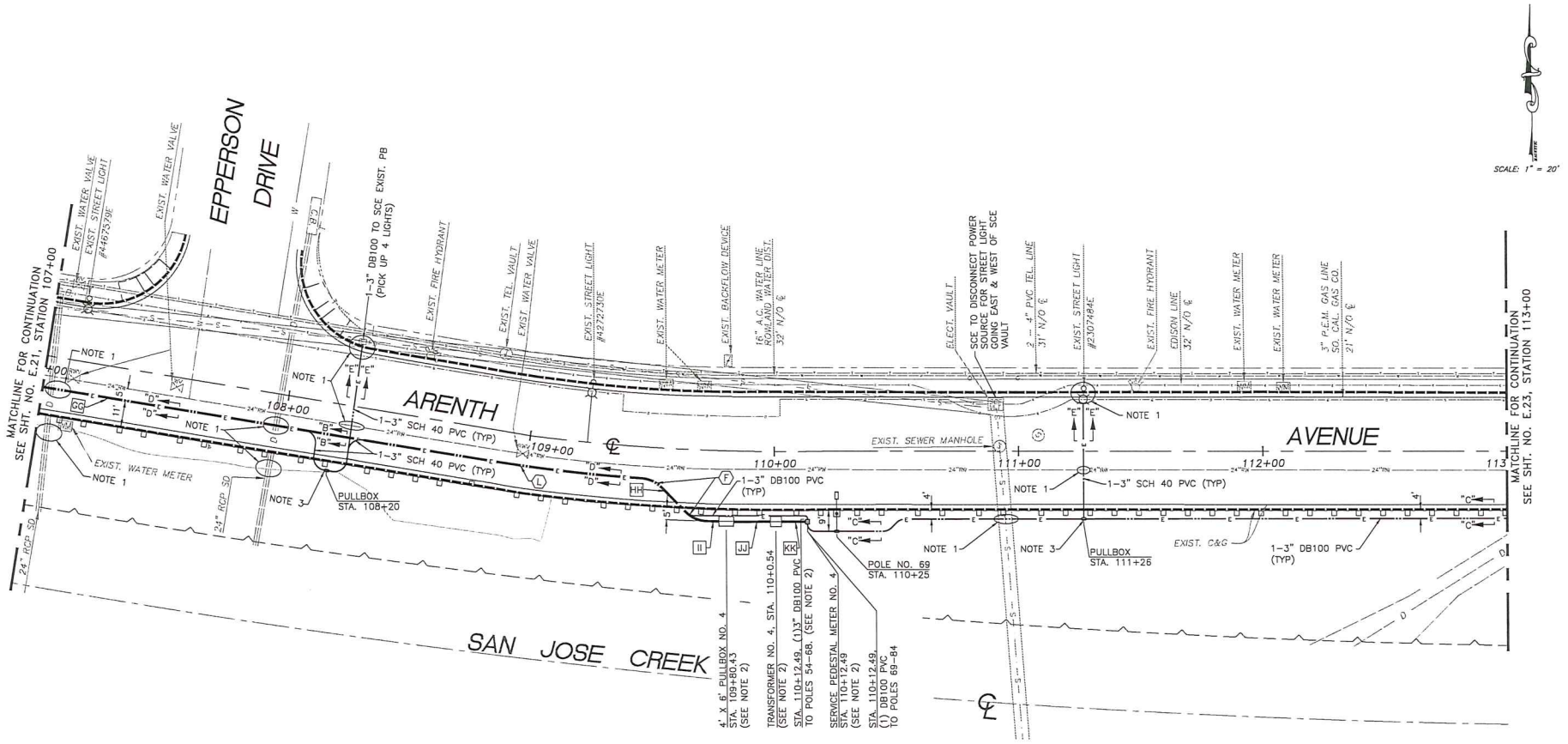
6/26/2020
DATE

Prepared by:
ORSA Consulting Engineers, Inc.
Fullerton, California
223 E. Imperial Hwy., #130
City of Fullerton, CA 92835
Phone (714) 441-2323
Fax (714) 441-1348

ARENTH AVENUE STREET IMPROVEMENT
PHILLIPS DRIVE TO NOGALES STREET
POWER SOURCE CONDUITS FOR STREET LIGHTING AND FIBER OPTICS
STA. 101+00 TO STA. 107+00

DESIGN BY: JAF	CHECKED BY: MZD	JOB NO.: MP 14-12#2	SHEET E.21 OF E.31
DRAWN BY: JAF	DATE: JUNE, 2020	CONTRACT NO.: CITY-1460	

X:_ARENTH PHASE\MP 14-12 ARENTH AVE POWER FIBER OPTICS AND LIGHTING PHASE 2 PLAN INCLUDING LIGHT POLES FROM ANAHEIM TO PHILLIPS 6/23/2020 9:11:01 PM ARCH B (36.00 X 24.00 INCHES) AUTOCAD PDF (GENERAL DOCUMENTATION).PC3 CONFIGURED



CURVE DATA				
○	Δ	R	L	T
F	45°	12.5'	9.82'	5.18'
L	2.39°	1884.23'	78.73'	39.37'

COURSE DATA		
□	BEARING	DISTANCE
GG	S67°15'24.8"E	217.87'
HH	S23°29'33.1"E	14.11'
II	N66°30'26.9"E	7.75'
JJ	S74°33'42.6"E	17.27'
KK	S32°6'34.5"E	12.5'

POLE SPACING
POLE 69 - EXISTING POLE #2307484E= 100' APART: STA. 110+25 TO 111+25

NOTES:
1. LOCATIONS OF UTILITY FACILITIES SHOWN ON THESE PLANS ARE APPROXIMATE AND SHALL BE POTHOLE AND VERIFIED BY THE CONTRACTOR(S) PRIOR TO CONSTRUCTION
2. SEE SHEETS E.27, E.28 AND E.29, FOR SECTIONS AND DETAILS.
3. HT1324-B 13"X24"X12" DEEP W/BOLT-DOWN AND JENSEN MODEL LID HT1324-L01 OR APPROVED EQUAL.

811 Know what's below. Call before you dig.

NO.	DATE	REVISIONS	CK. BY
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REGISTERED PROFESSIONAL ENGINEER — MICHAEL E. DAVIDSON — EXPIRATION 9-30-2019 — No. E012480 — ELECTRICAL — STATE OF CALIFORNIA
ELECTRICAL P.E.
6/26/2020
DATE

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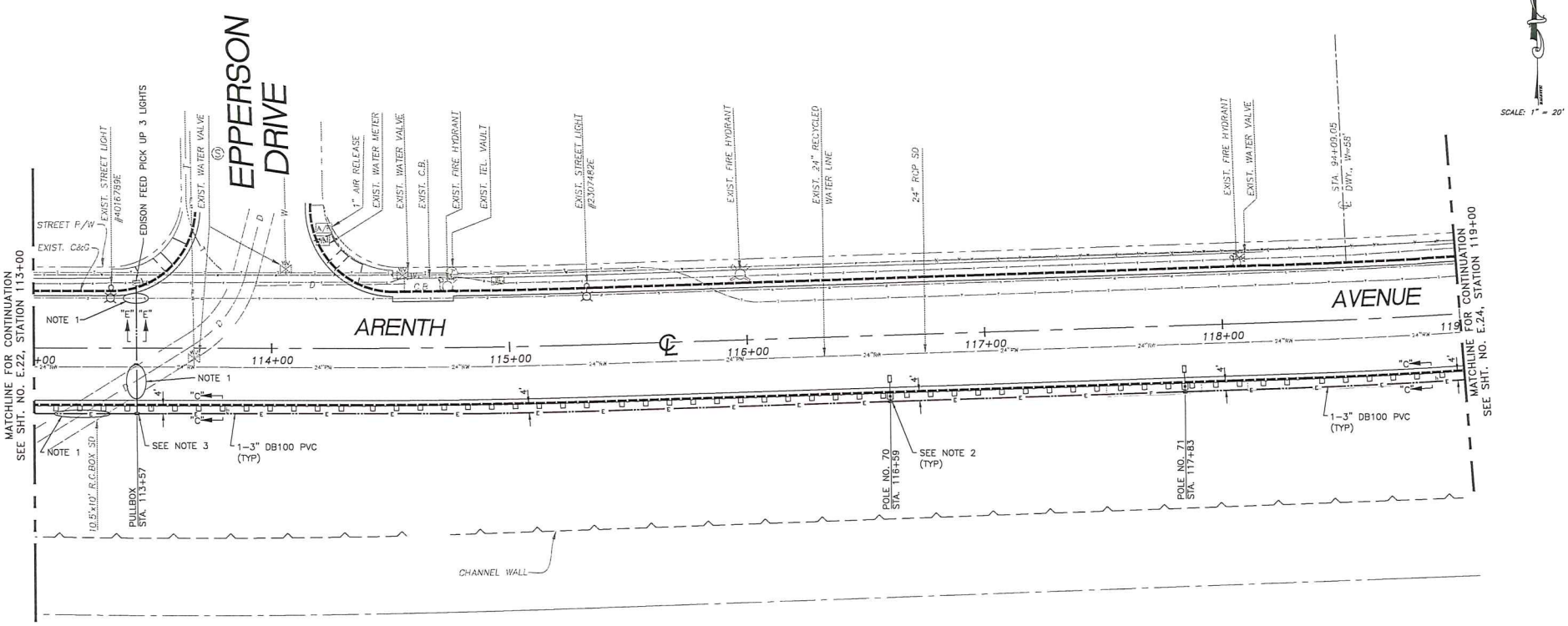
ARENTH AVENUE STREET IMPROVEMENT
PHILLIPS DRIVE TO NOGALES STREET
POWER SOURCE CONDUITS FOR STREET LIGHTING AND FIBER OPTICS
STA. 107+00 TO STA. 113+00

DESIGN BY: JAF	CHECKED BY: MZD	JOB NO.: MP 14-12#2	SHEET E.22 OF E.31
DRAWN BY: JAF	DATE: JUNE, 2020	CONTRACT NO.: CITY-1460	

X:_ARENTH FIA\VOL# 14-15 ARENTH AVE POWER FIBER OPTICS AND LIGHTING PHASE 2 PLAN INCLUDING LIGHT POLES FROM AVAEVA TO PHILLIPS 0123202020 6/24/2020 3:11:27 PM ARCH B (36.00 X 24.00 INCHES) AUTOCAD PDF (GENERAL DOCUMENTATION).PC3 GMPGALE.CTB



POLE SPACING
EXISTING POLE #2307482E - POLE 70 = 125' APART: STA. 115+34 TO 116+59
POLE 70 - 71 = 124' APART: STA. 116+59 TO 117+83
POLE 71 - 72 = 124' APART: STA. 117+83 TO 119+07

NOTES:
1. LOCATIONS OF UTILITY FACILITIES SHOWN ON THESE PLANS ARE APPROXIMATE AND SHALL BE POTHOLE AND VERIFIED BY THE CONTRACTOR(S) PRIOR TO CONSTRUCTION
2. SEE SHEETS E.27, E.28 AND E.29, FOR SECTIONS AND DETAILS.
3. HT1324-B 23"X24"X12" DEEP W/BOLT-DOWN AND JENSEN MODEL LID HT1324-L01 OR APPROVED EQUAL.

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NO.	DATE	REVISIONS	CK. BY
0			

REGISTERED PROFESSIONAL ENGINEER — MICHAEL E. DAMOSO — EXPIRATION 9-30-2016 — No. EE12480 — ELECTRICAL — STATE OF CALIFORNIA

ELECTRICAL P.E.

6/26/2020
DATE

Prepared by:
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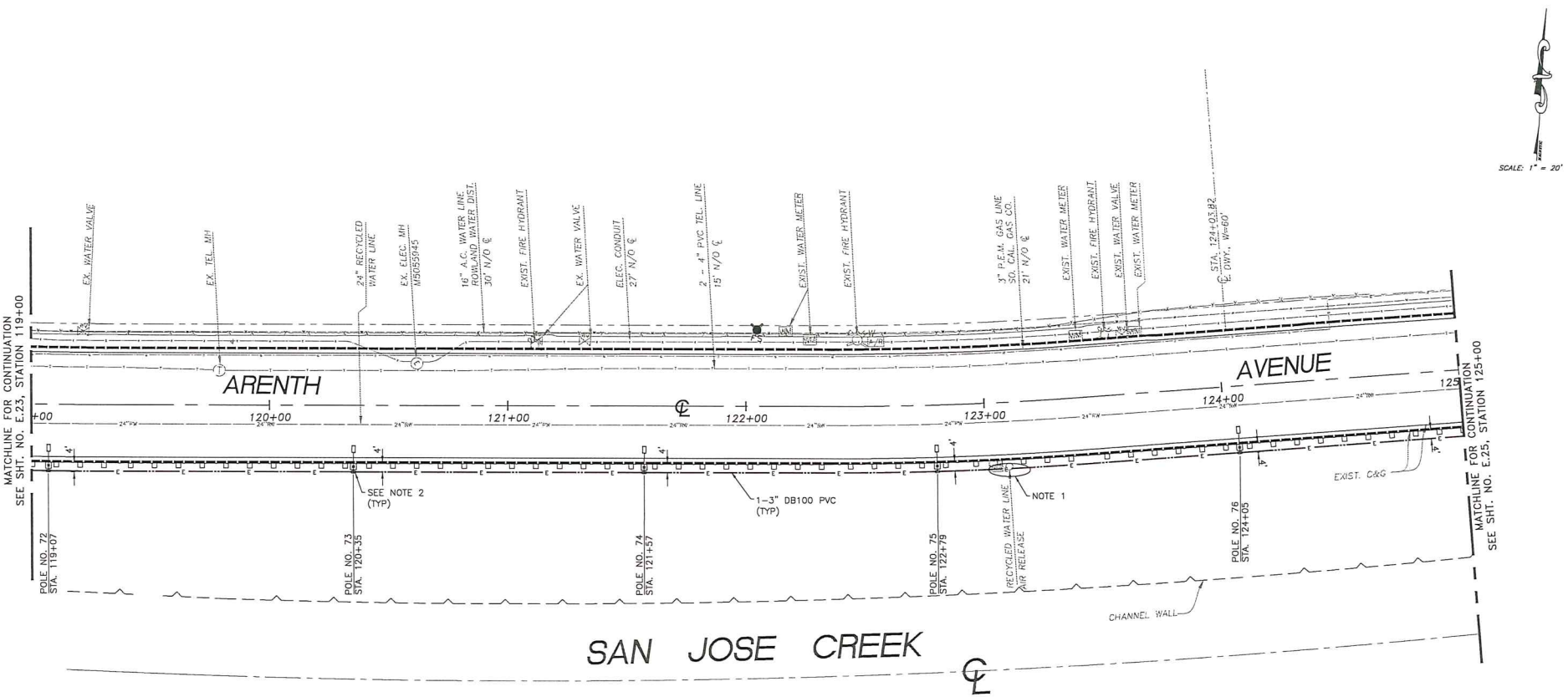
ARENTH AVENUE STREET IMPROVEMENT
PHILLIPS DRIVE TO NOGALES STREET
POWER SOURCE CONDUITS FOR STREET LIGHTING AND FIBER OPTICS
STA. 113+00 TO STA. 119+00

DESIGN BY: JAF	CHECKED BY: MZD	JOB NO.: MP 14-12#2	SHEET E.23 OF E.31
DRAWN BY: JAF	DATE: JUNE, 2020	CONTRACT NO.: CITY-1460	

X:_ARENTH FWY\Up 14-12 ARENTH AVE POWER FIBER OPTICS AND LIGHTING PAGE 2 PLAN INCLUDING LIGHT POLES FROM ANAHEIM TO PHILLIPS 6/23/2020 3:11:52 PM ARCH B (36.00 X 24.00 INCHES) AUTOCAD PDF (GEOSPAL DOCUMENT(WIN)).PC3 CMYK.CTB



POLE SPACING

POLE 71 - 72 = 124' APART: STA. 117+83 TO 119+07
POLE 72 - 73 = 128' APART: STA. 119+07 TO 120+35
POLE 73 - 74 = 122' APART: STA. 120+35 TO 121+57
POLE 74 - 75 = 122' APART: STA. 121+57 TO 122+79
POLE 75 - 76 = 126' APART: STA. 122+79 TO 124+05
POLE 76 - 77 = 127' APART : STA. 124+05 TO 125+32

NOTES:

1. LOCATIONS OF UTILITY FACILITIES SHOWN ON THESE PLANS ARE APPROXIMATE AND SHALL BE POTHOLE AND VERIFIED BY THE CONTRACTOR(S) PRIOR TO CONSTRUCTION
2. SEE SHEETS E.27, E.28 AND E.29, FOR SECTIONS AND DETAILS.

811 Know what's below. Call before you dig.

NO.	DATE	REVISIONS	CK. BY
0			

REGISTERED PROFESSIONAL ENGINEER JOSHUA L. DAVIDSON EXPIRATION 9-30-2019 No. E012480 ELECTRICAL STATE OF CALIFORNIA

ELECTRICAL P.E.

6/26/2020
DATE

Prepared by:
ORSA Consulting Engineers, Inc.
Fullerton, California

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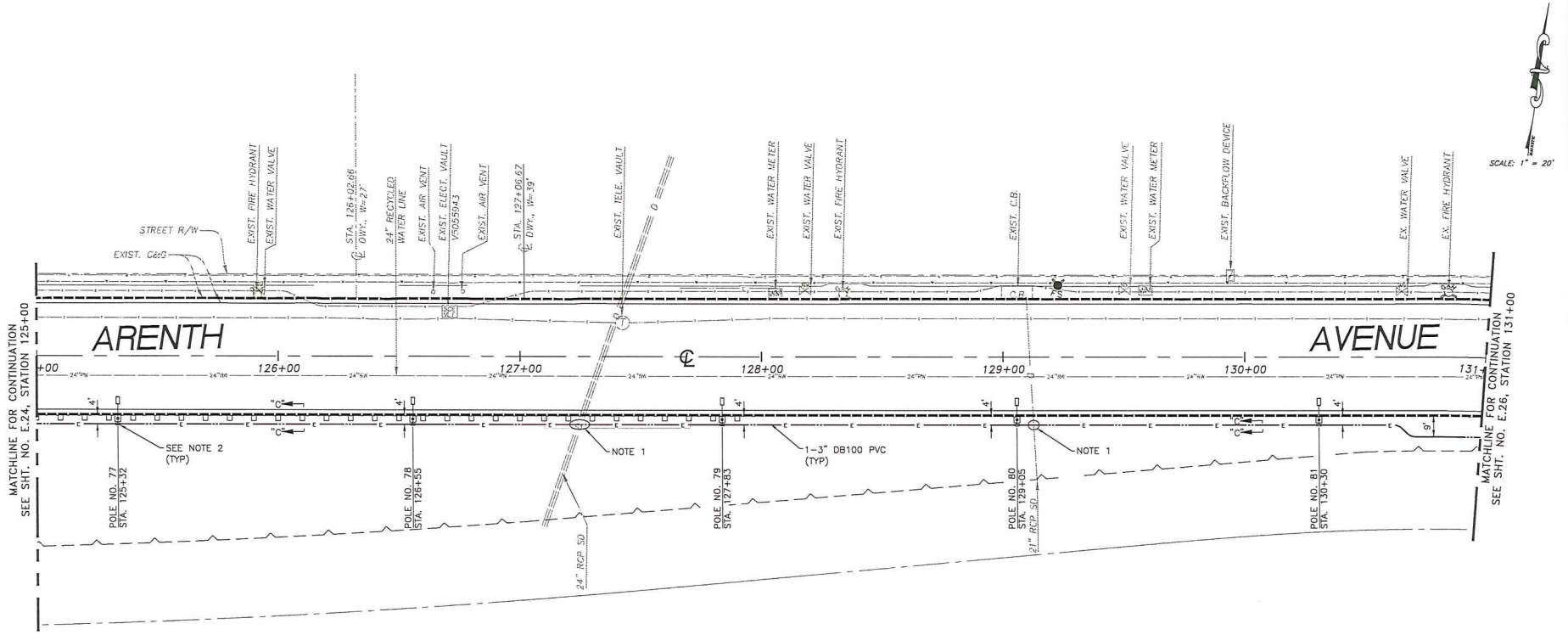
ARENTH AVENUE STREET IMPROVEMENT
PHILLIPS DRIVE TO NOGALES STREET
POWER SOURCE CONDUITS FOR STREET LIGHTING AND FIBER OPTICS
STA. 119+00 TO STA. 125+00

DESIGN BY: JAF	CHECKED BY: MZD	JOB NO.: MP 14-12#2	SHEET E.24 OF E.31
DRAWN BY: JAF	DATE: JUNE, 2020	CONTRACT NO.: CITY-1460	



POLE SPACING

POLE 75 - 76 = 127' APART: STA. 124+05 TO 125+32
POLE 76 - 77 = 123' APART: STA. 125+32 TO 126+55
POLE 77 - 78 = 128' APART: STA. 126+55 TO 127+83
POLE 78 - 79 = 122' APART: STA. 127+83 TO 129+05
POLE 79 - 80 = 125' APART: STA. 129+05 TO 130+30
POLE 80 - 81 = 125' APART: STA. 130+30 TO 131+55

NOTES:

1. LOCATIONS OF UTILITY FACILITIES SHOWN ON THESE PLANS ARE APPROXIMATE AND SHALL BE POTHOLE AND VERIFIED BY THE CONTRACTOR(S) PRIOR TO CONSTRUCTION
2. SEE SHEETS E.27, E.28 AND E.29, FOR SECTIONS AND DETAILS.
3. SEE SHEET NO. E.29, FOR 3'X5' PULLBOXES DETAILS.

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NO.	DATE	REVISIONS	CK. BY
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REGISTERED PROFESSIONAL ENGINEER — MICHAEL Z. DAVIDSON — EXPIRATION 9-30-2018 No. E012480 — ELECTRICAL — STATE OF CALIFORNIA

ELECTRICAL P.E.

6/26/2020
DATE

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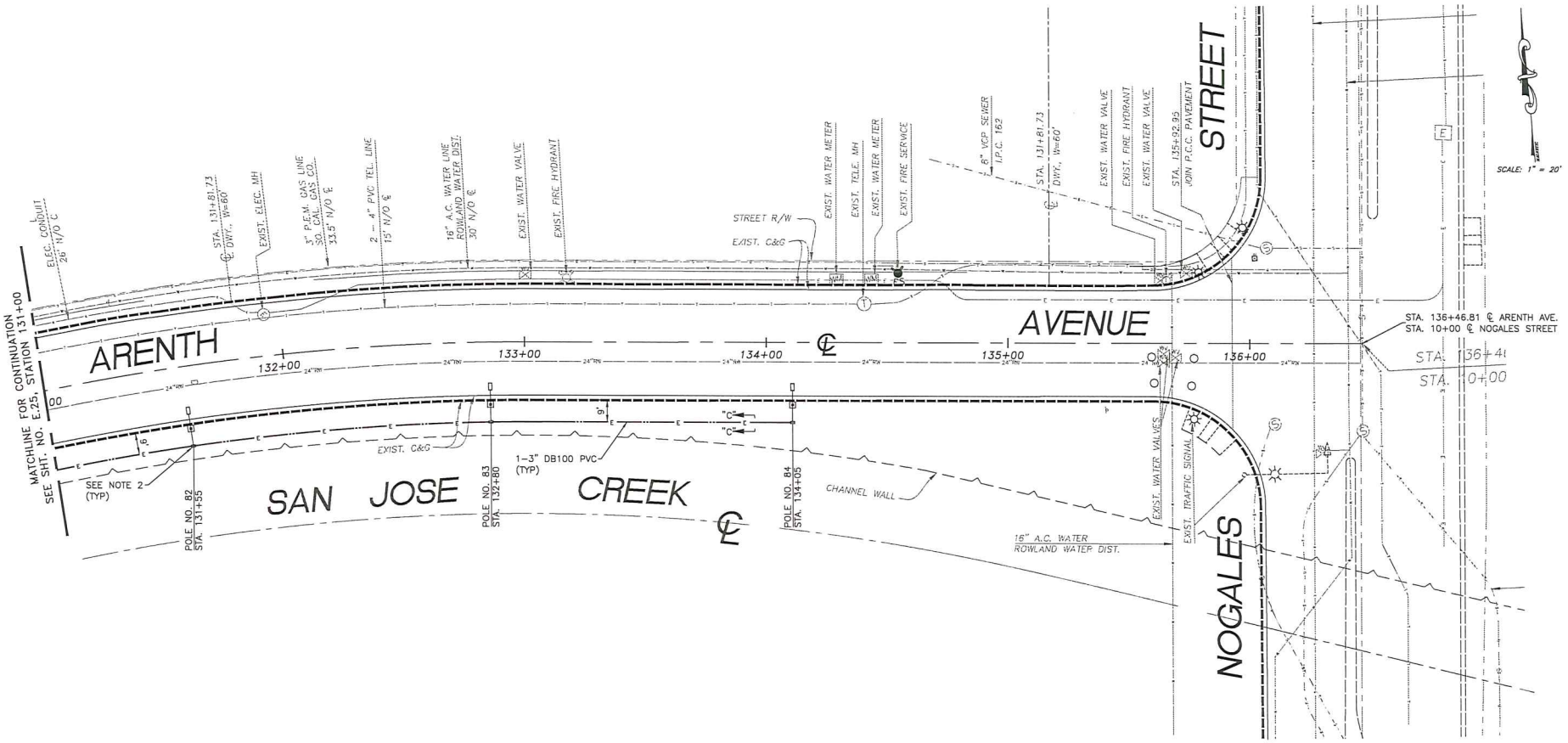
ARENTH AVENUE STREET IMPROVEMENT
PHILLIPS DRIVE TO NOGALES STREET
POWER SOURCE CONDUITS FOR STREET LIGHTING AND FIBER OPTICS
STA. 125+00 TO STA. 131+00

DESIGN BY: JAF	CHECKED BY: MZD	JOB NO.: MP 14-12#2	SHEET E.25 OF E.31
DRAWN BY: JAF	DATE: JUNE, 2020	CONTRACT NO.: CITY-1460	



NOTES:

1. LOCATIONS OF UTILITY FACILITIES SHOWN ON THESE PLANS ARE APPROXIMATE AND SHALL BE POTHOLE AND VERIFIED BY THE CONTRACTOR(S) PRIOR TO CONSTRUCTION.
2. SEE SHEETS E.27, E.28 AND E.29, FOR SECTIONS AND DETAILS.

POLE SPACING

POLE 81 - 82 = 125' APART: STA. 130+30 TO 131+55
POLE 82 - 83 = 125' APART: STA. 131+55 TO 132+80
POLE 83 - 84 = 125' APART: STA. 132+80 TO 134+05

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NO.	DATE	REVISIONS	CK. BY
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REGISTERED PROFESSIONAL ENGINEER — MICHAEL ZIEGLER — EXPIRATION 9-30-2019 — No. E012460 — ELECTRICAL — STATE OF CALIFORNIA

ELECTRICAL P.E. 6/26/2020 DATE

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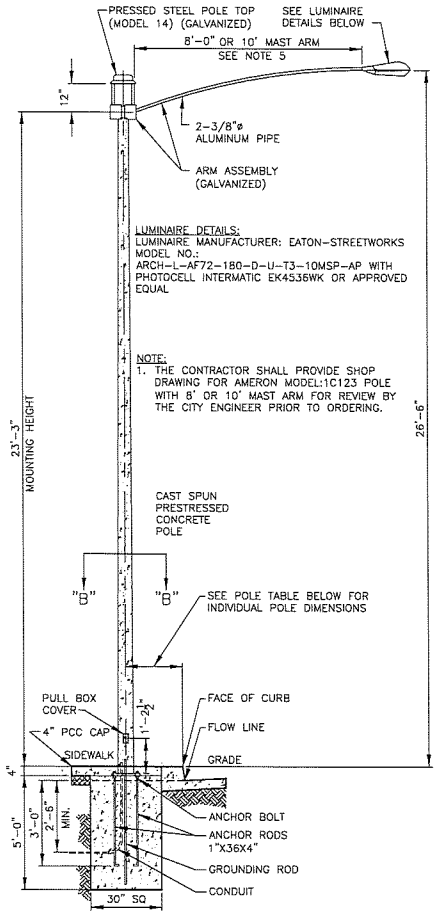
ARENTH AVENUE STREET IMPROVEMENT
PHILLIPS DRIVE TO NOGALES STREET
POWER SOURCE CONDUITS FOR STREET LIGHTING AND FIBER OPTICS
STA. 131+00 TO STA. 134+05

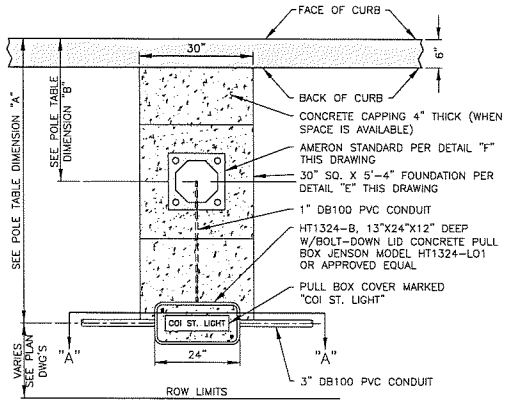
DESIGN BY: JAF	CHECKED BY: MZD	JOB NO.: MP 14-12#2	
DRAWN BY: JAF	DATE: JUNE. 2020	CONTRACT NO.: CITY-1460	SHEET E.26 OF E.31

X:_ARENTH PHILLIP 14-12 ARENTH AVE POWER FIBER OPTICS AND LIGHTING PHASE 2 PLAN INCLUDING LIGHT POLES FROM AVAYON TO PHILLIPS 0123202DWG 6/24/2020 3:13:55 PM ARCH D (36.00 X 24.00 INCHES) AUTOCAD PDF (GEOPDF) DOCUMENTATION\CS DRAWINGS\E26

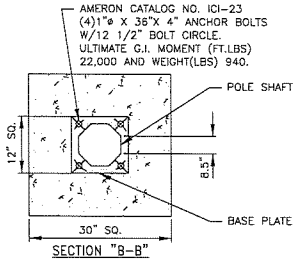


DETAIL "E"
POLE MOUNTING DETAIL
COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS
SCALE: N.T.S.

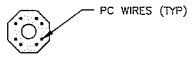
NOTES:
1. PULL BOXES SHALL BE INSTALLED AT THE LOCATIONS SHOWN ON THE STREET LIGHT PLANS OR AS OTHERWISE SPECIFIED.
2. PULL BOXES SHALL BE PRECAST REINFORCED CONCRETE NO. 6 PER CAL TRANS STD PLAN OR APPROVED EQUAL.
3. WIRING SHALL NOT BE PULLED INTO CONDUIT UNTIL PULL BOXES ARE CAPPED.
4. REFER TO TYPICAL POLE MOUNTING DETAIL SHOWN HEREON.
5. FOR POLES 1 THRU 39, SEE TABLE SHEET 9 OF 31. FOR POLES 40 THRU 84, SEE TABLE BELOW.



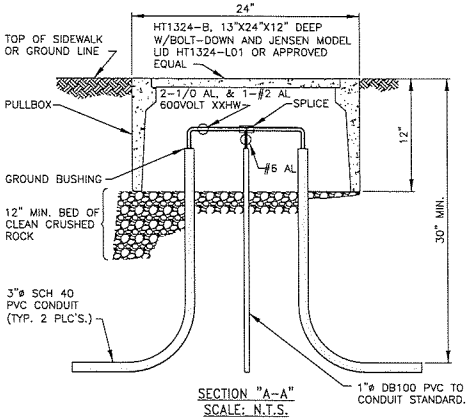
POLE AND FOUNDATION PLAN VIEW
SCALE: N.T.S.



SECTION "B-B"
BASE PLATE DETAIL
SCALE: N.T.S.



SHAFT CROSS SECTION
SCALE: N.T.S.



SECTION "A-A"
SCALE: N.T.S.

GENERAL NOTES FOR STREET LIGHTING LAYOUT

1. THIS STREET LIGHTING LAYOUT EXPIRES TWO YEARS AFTER THE LATEST DATE OF APPROVAL.
2. THE LOCATION OF A STREET POLE MAY BE ADJUSTED UP TO TEN (10) FEET, ONLY TO AVOID ANY OBSTRUCTION SUCH AS A CATCH BASIN, DRIVEWAY, UTILITY LINE. ETC. ANY DEVIATION EXCEEDING TEN (10) FEET MUST HAVE THE APPROVAL OF IPUC.
3. A REVISED STREET LIGHTING LAYOUT SHALL BE SUBMITTED FOR ANY CHANGES IN THE MAP, SUCH AS STREET ALIGNMENT, LOT OR PARCEL SIZES, BOUNDARIES, ETC.
4. THE STREET LIGHT POLES SHALL BE AMERON TYPE 1-C1 SERIES.
5. ALL STREET LIGHT WIRING SHALL BE UNDERGROUND.
6. IN ORDER FOR THE IPUC TO ASSUME THE OPERATION AND MAINTENANCE FOR THE LIGHTING SYSTEM ON ANY PUBLIC AND FUTURE STREET, THE STREET SHALL BE OPEN TO THE GENERAL PUBLIC AT ALL TIMES.
7. ALL LIGHTS ON THIS LAYOUT SHALL BE ENERGIZED PRIOR TO ACCEPTANCE OF THE LIGHTING SYSTEM BY IPUC.
8. FIVE-FOOT (5') CLEARANCE TO BE MAINTAINED FROM FIRE HYDRANT.
9. FOUR-FOOT (4') CLEARANCE TO BE MAINTAINED FROM TOP OF SLOPE AT COMMERCIAL DRIVEWAY, AND TWO-FOOT (2') CLEARANCE FROM RESIDENTIAL DRIVEWAY.
10. STANDARDS SHALL BE INSTALLED ON CONCRETE FOUNDATIONS OF 2'-6"SQ. X 4'-4" DEEP, THE FOUNDATION BEING LEVEL WITH THE TOP OF THE CURB. A MAXIMUM OF 6" HOLE OVERDIG FROM THE SPECIFIED DIMENSIONS SHALL BE ALLOWED; OTHERWISE, FORMS SHALL BE USED IF OVERDIG EXCEEDS 6". ONE INCH (1") DIAMETER LONG RADIUS CONDUIT ELL SHALL BE INSTALLED IN FOUNDATION POINTING TOWARDS THE PULL BOX. FOUR (4) GALVANIZED STEEL RODS AS SUPPLIED BY MANUFACTURER SHALL BE INSTALLED IN EACH FOUNDATION IN ACCORDANCE WITH TEMPLATE PROVIDED BY MANUFACTURER.
11. STANDARDS SHALL BE INSTALLED 24" BEHIND FACE OF CURB UNLESS SPECIFIED DIFFERENTLY ON THE DRAWING. THE POLES SHALL BE PLUMB AND VERTICAL. MASTARMS SHALL BE INSTALLED PROJECTING IN A DIRECTION PERPENDICULAR TO THE CENTERLINE OF THE STREET OR TOWARDS THE CENTER OF THE CUL-DE-SAC. ALONG THE LINE OF THE MASTARM, THE LUMINAIRE SHALL BE LEVELED. ALONG THE LINE OF THE ℄ OF THE STREET THE LUMINAIRE SHALL BE INSTALLED PARALLEL TO STREET GRADE.
12. STREET LIGHTING CONDUITS BETWEEN PULL BOXES AND SOURCE TO PULL BOX SHALL BE 3" SCH 40 PVC INSTALLED 30" BELOW GRADE AND APPROXIMATELY 72" FROM THE FACE OF THE CURB IN THE PLANTER AREA, UNLESS SPECIFIED DIFFERENTLY ON THE DRAWING. THE PROJECTING CONDUIT ELL FROM THE STREET LIGHT STANDARD FOUNDATION SHALL BE CAPPED TO PREVENT DEBRIS FROM ENTERING CONDUIT DURING CONSTRUCTION. COMPLETION AND JOINING OF THE STREET LIGHT SERVICE SHALL BE COMPLETED AS PART OF CONSTRUCTION OF SECONDARY DUCT SYSTEM.
13. STREET LIGHTING CONDUIT SHALL BE ONE-INCH (1") SCH 40 PVC BETWEEN PULL BOXES AND STANDARDS.
14. STREET LIGHT CIRCUITS BEYOND THE SOURCE POINT TO BE WIRED COMPLETE BY CONTRACTOR.
15. CONDUCTORS SHALL BE SPLICED BY USE OF C-SHAPED COMPRESSION CONNECTORS OR PROPER SIZE OF SPLIT BOLT CONNECTORS.
16. THE CONCRETE MIX SHALL CONSIST OF THE FOLLOWING BATCH WEIGHTS PER CUBIC YARD OF CONCRETE.
17. CONCRETE TO BE 6,000 PSI COMPRESSION MINIMUM IN 28 DAYS. MANUFACTURED TO ASTM C 1089-88. BASEPLATE ASTM A-36 FULLY PRESTRESSED WITH (8) $\frac{5}{8}$"ø (8) A-416 WIRES.

PHILLIPS ROAD TO NOGALES STREET POLE TABLE

POLE NO.	DIMENSION "A"	DIMENSION "B"	ARM SIZE	POLE NO.	DIMENSION "A"	DIMENSION "B"	ARM SIZE	POLE NO.	DIMENSION "A"	DIMENSION "B"	ARM SIZE	POLE NO.	DIMENSION "A"	DIMENSION "B"	ARM SIZE	POLE NO.	DIMENSION "A"	DIMENSION "B"	ARM SIZE
40	5'-0"	2'-0"	8'-0"	50	7'-0"	2'-0"	8'-0"	60	5'-0"	2'-0"	8'-0"	70	4'-0"	2'-0"	8'-0"	80	4'-0"	2'-0"	8'-0"
41	6'-0"	2'-0"	8'-0"	51	7'-0"	2'-0"	8'-0"	61	5'-0"	2'-0"	8'-0"	71	4'-0"	2'-0"	8'-0"	81	4'-0"	2'-0"	8'-0"
42	6'-0"	2'-0"	8'-0"	52	7'-0"	2'-0"	8'-0"	62	5'-0"	2'-0"	8'-0"	72	4'-0"	2'-0"	8'-0"	82	9'-0"	2'-0"	8'-0"
43	5'-0"	2'-0"	8'-0"	53	7'-0"	2'-0"	8'-0"	63	6'-0"	2'-0"	8'-0"	73	4'-0"	2'-0"	8'-0"	83	9'-0"	2'-0"	8'-0"
44	4'-0"	2'-0"	8'-0"	54	7'-0"	2'-0"	8'-0"	64	6'-0"	2'-0"	8'-0"	74	4'-0"	2'-0"	8'-0"	84	9'-0"	2'-0"	8'-0"
45	10'-0"	2'-0"	8'-0"	55	5'-0"	2'-0"	8'-0"	65	6'-0"	2'-0"	8'-0"	75	4'-0"	2'-0"	8'-0"				
46	5'-0"	2'-0"	8'-0"	56	5'-0"	2'-0"	8'-0"	66	6'-0"	2'-0"	8'-0"	76	4'-0"	2'-0"	8'-0"				
47	4'-0"	2'-0"	8'-0"	57	5'-0"	2'-0"	8'-0"	67	6'-0"	2'-0"	8'-0"	77	4'-0"	2'-0"	8'-0"				
48	9'-0"	2'-0"	8'-0"	58	6'-0"	2'-0"	8'-0"	68	6'-0"	2'-0"	8'-0"	78	4'-0"	2'-0"	8'-0"				
49	7'-0"	2'-0"	8'-0"	59	5'-0"	2'-0"	8'-0"	69	9'-0"	2'-0"	8'-0"	79	4'-0"	2'-0"	8'-0"				

811 Know what's below. Call before you dig.

NO.	DATE	REVISIONS	CK. BY
0			

ELECTRICAL P.E. — DATE 6/26/2020

Prepared by:
ORSA Consulting Engineers, Inc.
Fullerton, California
223 E. Imperial Hwy., #130
City of Fullerton, CA 92835
Phone (714) 441-2323
Fax (714) 441-1348

ARENTH AVENUE STREET IMPROVEMENT
PHILLIPS DRIVE TO NOGALES STREET
STREET LIGHTING POLES
LIGHT POLE, 12"X24" PULLBOX AND INSTALLATION DETAILS

DESIGN BY: JAF	CHECKED BY: MZD	JOB NO.: MP 14-12	SHEET E.27 OF E.31
DRAWN BY: JAF	DATE: JUNE, 2020	CONTRACT NO.: CITY-1460	

X:_ARENTH FINAL\MP 14-12 ARENTH AVE POWER FIBER OPTICS AND LIGHTING PHASE 2 PLAN\ACTIONS LIGHT POLES FROM ANAHEIM TO PHILLIPS 09232020\2ND 9/24/2020 3:13:38 PM ARCH D (36.00 X 24.00) ACTIVEST AUTOCAD PDF (GENERAL DOCUMENTATION).PC3 (SAVESCALE.CTB)

4'-0" x 6'-6" PARKWAY SPRING ASSIST PULL BOX x 60" DEEP

NOTES:

CONCRETE IS DESIGNED FOR H-20-44 TRAFFIC LOADING USING 5,500 PSI [37.92 MPa] COMPRESSIVE STRENGTH CONCRETE AND 60,000 PSI [413.2 MPa] YIELD STRENGTH ASTM A-706 STEEL REINFORCEMENT PER CALC. #31612.

STEEL COVER DESIGNED FOR PARKWAY USE (300 PSF).

INSIDE SURFACES OF HANDHOLE TO BE PAINTED WITH WHITE LATEX PAINT.

HANDHOLE TO BE PLACED ON A 6" BASE OF CRUSHER RUN FOR EASE OF INSTALLATION AND EVEN LOAD DISTRIBUTION.

ORDERING INFORMATION

K466-FP60-31PSA FOR ASSEMBLY AS SHOWN.
TOTAL WEIGHT AS SHOWN IS 12,625 lbs.

GENERAL NOTES:

1. Minimum soil bearing capacity is hereby assumed to be 2000 PSF unless otherwise documented by a geotechnical report that shall be provided to Jensen Precast by the end user. Jensen Precast shall not be held responsible for the soil bearing capacity.
2. Installation of Manholes, Vaults, Handholes, Meter Boxes etc. will be as per Jensen Installation procedures.
3. Structural modification to the Jensen line of products is not permitted without prior written approval from Jensen Engineering Department.
4. Do not scale the drawings, verify all dimensions including rough openings. If any discrepancies are found, notify the Jensen Engineer immediately.
5. The Jensen Engineer will interpret the intent of the drawings in case of possible conflict or discrepancy.
6. Permissible Variations:
   Dimensional Tolerances – The length, width, height, or dia. measurements of the structure when measured on the inside surfaces shall not deviate form design dimensions by more than the following:

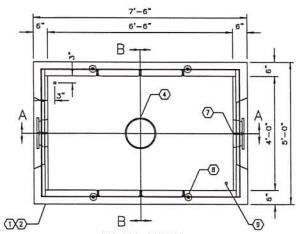
Dimensions:	Tolerance:
0 to 5 Feet	1/4"
5 to 10 Feet	3/8"
10 to 20 Feet as agreed upon between the supplier and purchaser.	

7. Squareness Tolerance:
   he inside of the precast concrete component shall be square as determined by diagonal measurements. The difference between such measurements shall not exceed the following:

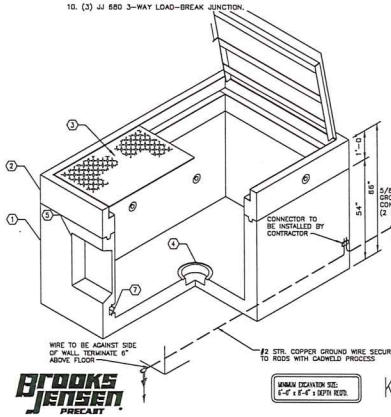
Measured Length:	Allowable Difference
0 to 10 Feet	1/2"
10 to 20 Feet	3/4"
20 Feet and over as agreed upon between the supplier and purchaser.	

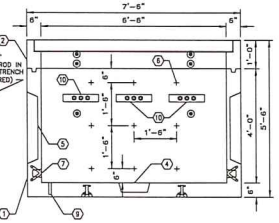
1. PB466-B48-31, 48" BOTTOM SECTION (CG-466-B48-31(XXX). WT. 9,713 lbs.
2. PB466-T12-17H, 12" TOP SECTION (CG-466-T12-08H) W/FRAME F466-PB-HNG CAST-IN. WT. 1,650 lbs.
3. SC466-PHOV-31, TWO PIECE SPRING ASSISTED GALV. PARKWAY COVER.

   W/(2) 1/2" x 2 1/2" S.S. PENTA HEAD BOLTS FOR BOLT DOWN. WT. 600 lbs.
4. 12" x 13" DIA. SUMP x 4" DEEP. LOCATE AS FOLLOWS: BOTTOM SECTION, (1) CORE MTD.
5. 26" x 26" KNOCKOUT x 4 1/2" DEEP , 2" DRAFT ALL AROUND. LOCATE AS FOLLOWS: BOTTOM SECTION, (2) SHELL MTD.
6. 1/2" PLASTIC RACKING INSERTS AS REQ'D. LOCATE AS FOLLOWS: BOTTOM SECTION (18), CORE MTD.
7. 7/8" x 3 3/8" GALVANIZED RECESSED PULL IRON. LOCATE AS FOLLOWS: BOTTOM SECTION, (2) CORE MTD.
9. 1" DIA. GROUND ROD KNOCKOUT (2) BOTTOM SECTION.
10. (3) JJ 880 3-WAY LOAD-BREAK JUNCTION.

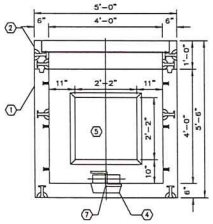


PLAN VIEW





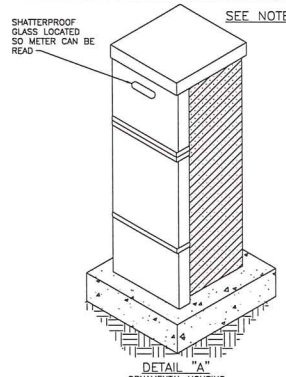
SECTION A–A



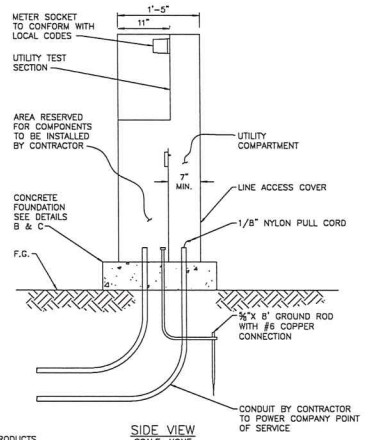
SECTION B–B

HUMAN EXCAVATION SIZE: 6'-6" x 6'-6" x DEPTH REQ'D.

K466-FP60-31PSA

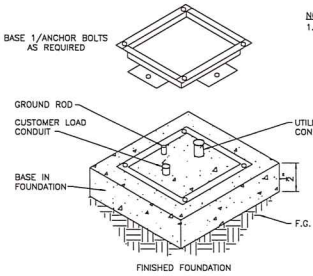


DETAIL "A"
ORNAMENTAL HOUSING
16" WIDE, 17" DEEP, 48" HIGH
(TYPICAL INSTALLATION)
SCALE: NONE

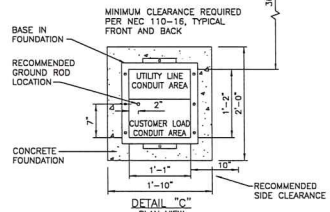


SIDE VIEW
SCALE: NONE

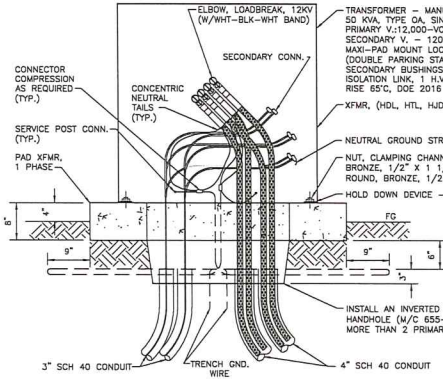
NOTE:
1. MYERS ELECTRICAL PRODUCTS MODEL MEUGG-M100C/M200 C/SS ENCLOSURE TYPE 3R RAINPROOF 120/240 1ø 3/WIRE OR EQUIVALENT IS ACCEPTABLE



DETAIL "B"
SCALE: NONE



DETAIL "C"
PLAN VIEW
SCALE: NONE



TRANSFORMER – MANUFACTURER ABB
50 KVA, TYPE OA, SINGLE – PHASE, PAD MTD., PRIMARY V.:12,000-VOLTS
SECONDARY V. – 120/240V. NO TAPS 95 KV BIL, 60 HZ, MAXI-PAD MOUNT LOOP FEED, 4 BUSHING WELLS B (DOUBLE PARKING STAND), HOOD DEPTH 20, STUD TYPE SECONDARY BUSHINGS, BAYONET EXPULSION FUSE PLUS ISOLATION LINK, 1 H.V. SW, 4 POSITIONS V BLADE, TEMP RISE 65°C, DOE 2016 STD. COMPLIANT DESIGN.

XFMR. (HDL, HTL, HJD OR HSL)

NEUTRAL GROUND STRAP ON TRANSFORMER

NUT, CLAMPING CHANNEL, SCREW, HEX HEAD CAP, BRONZE, 1/2" X 1 1/2", WASHER, STANDARD FLAT ROUND, BRONZE, 1/2" (TYP.)

HOLD DOWN DEVICE – (SUPPLIED W/XFMR) (TYP.)

INSTALL AN INVERTED 17"X30"X15" PLASTIC HANDHOLE (M/C 655-48000) SINCE THERE ARE NO MORE THAN 2 PRIMARY CABLES.

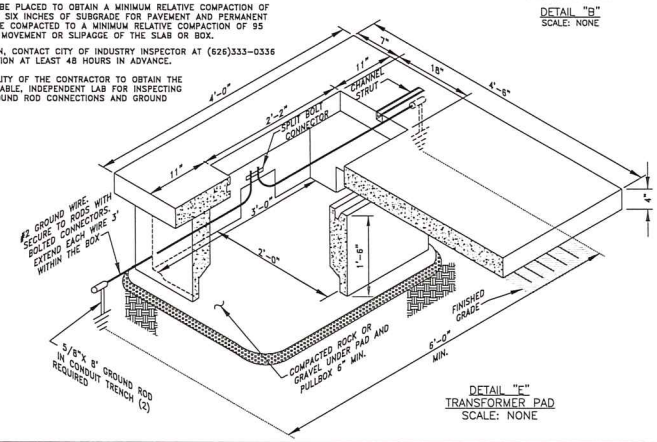
DETAIL "D"
NEW UNIT TRANSFORMER
SCALE: NONE

4'-6" X 4'-0" TRANSFORMER PAD, WITH 3'-0" X 2'-0" X 1'-6" BOX JENSEN PRECAST ASSEMBLY MODEL NO. PD4854-T4-17B.

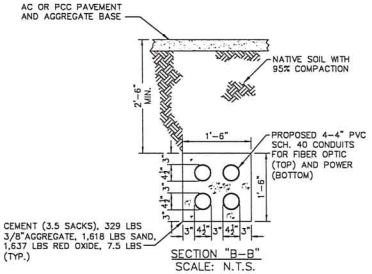
BACKFILL SOIL SHALL BE PLACED TO OBTAIN A MINIMUM RELATIVE COMPACTION OF 90 PERCENT. THE TOP SIX INCHES OF SUBGRADE FOR PAVEMENT AND PERMANENT RESURFACING SHALL BE COMPACTED TO A MINIMUM RELATIVE COMPACTION OF 95 PERCENT TO PREVENT MOVEMENT OR SLIPAGGE OF THE SLAB OR BOX.

PRIOR TO INSTALLATION, CONTACT CITY OF INDUSTRY INSPECTOR AT (626)333-0336 TO SCHEDULE INSPECTION AT LEAST 48 HOURS IN ADVANCE.

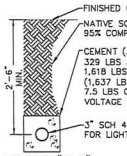
IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN THE SERVICES OF A REPUTABLE, INDEPENDENT LAB FOR INSPECTING AND TESTING THE GROUND ROD CONNECTIONS AND GROUND RESISTANCE.



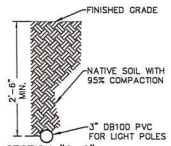
DETAIL "E"
TRANSFORMER PAD
SCALE: NONE



SECTION "B–B"
SCALE: N.T.S.



SECTION "E–E"
SCALE: N.T.S.



SECTION "C–C"
SCALE: N.T.S.

811 Know what's below. Call before you dig.

NO.	DATE	REVISIONS	CK. BY
0			

REGISTERED PROFESSIONAL ENGINEER — ELECTRICAL — STATE OF CALIFORNIA — EXPIRATION 6-30-2021 — No. E012480

ELECTRICAL P.E. — 6/26/2020 DATE

Prepared by:
ORSA Consulting Engineers, Inc.
Fullerton, California
223 E. Imperial Hwy., #130
City of Fullerton, CA 92835
Phone (714) 441-2323
Fax (714) 441-1348

ARENTH AVENUE STREET IMPROVEMENT
PHILLIPS DRIVE TO NOGALES STREET

POWER SOURCE CONDUITS FOR STREET LIGHTING AND FIBER OPTICS, PULLBOX, SERVICE PEDESTAL METER, CONDUIT ENCASEMENT AND SECTIONS

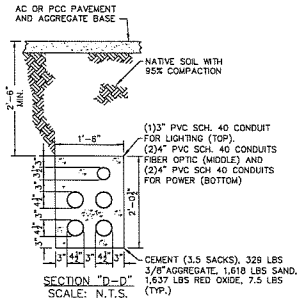
DESIGN BY: JAF	CHECKED BY: MZD	JOB NO.: MP 14-12	
DRAWN BY: JAF	DATE: JUNE, 2020	CONTRACT NO.: CITY-1460	SHEET E.28 OF E.31

X:_ARENTH PH&LVP 14-12 ARENTH AVE POWER FIBER OPTICS AND LIGHTING PHASE 2 PLAN IN\CLUDING LIGHT POLES FROM ANAHEIM TO PHILLIPS 09232020.DWG 9/21/2020 3:14:11 PM ARCH D (36.00 X 24.00 INCHES) AUTOCAD PDF (GENERAL DOCUMENTATION).PC3 GRAYSCALE.CTB

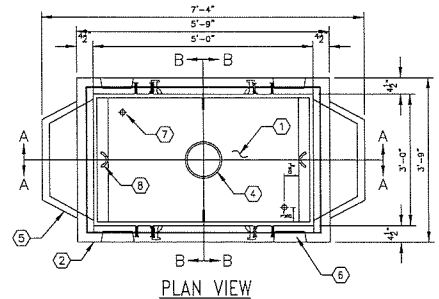
NOTES:

- PULL BOX DESIGNED IN ACCORDANCE WITH AASHTO H-20-44 TRAFFIC BRIDGE LOADING USING 5,500 PSI [37.92MPa] COMPRESSIVE STRENGTH CONCRETE AND 60,000 PSI [413.2MPa] YIELD STRENGTH ASTM A-706 STEEL REINFORCEMENT PER CALC. #31395.
- COVER DESIGNED FOR H-20-44 TRAFFIC LOADING FOR USE IN OFF-STREET LOCATIONS PER CALC. #31683.
- PULL BOX TO BE PLACED ON A MIN. 6" BASE OF CRUSHER RUN FOR EASE OF INSTALLATION AND EVEN LOAD DISTRIBUTION.

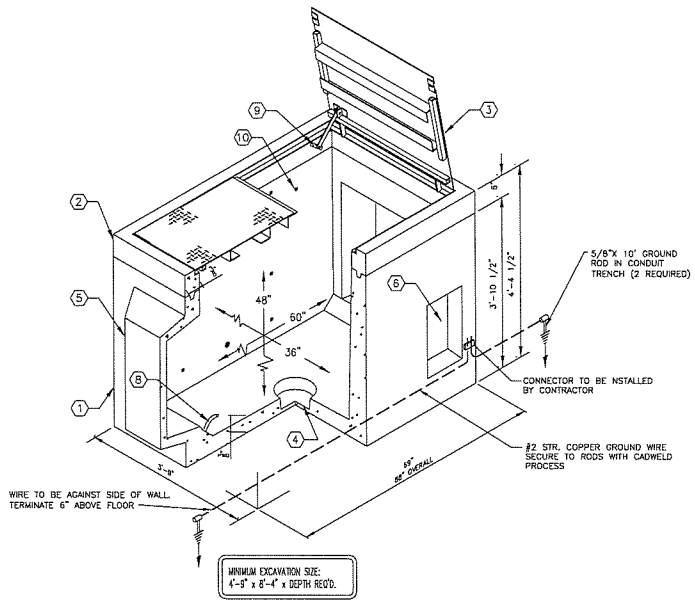
1. PB3660D-B42-05, 42" BOTTOM SECTION. WT. 4,870 Lbs.
2. PB3660-T6H, 6" TOP SECTION, W/ FRAME (F3660-PB-HNG) CAST-IN.
3. CA3660-TGSA-17, TWO PIECE STEEL TRAFFIC HINGED COVER (SC3660-THGV-17), W/(2) 1/2" S.S. BOLTS. GALVANIZED FINISH. WT 316 Lbs.
4. 6" DIA. SUMP x 3 1/2" DEEP. LOCATE AS FOLLOWS: BOTTOM SECTION (1) CORE MTD.
5. 26" x 26 1/2" DUCTED K.O. x 12" DEEP. LOCATE AS FOLLOWS BOTTOM SECTION (2) CORE MTD.
6. 8" x 16" K.O. x 3" DEEP. LOCATE AS FOLLOWS: BOTTOM SECTION (4) SHELL MTD.
7. 1" DIA. BLIND GROUND ROD HOLE. LOCATE AS FOLLOWS: BOTTOM SECTION (2) CORE MTD.
8. 7/8" x 4 1/2" GALV. PULL IRON LOCATE AS FOLLOWS: BOTTOM SECTION (2) CORE MTD.
9. ⊙ 1/2" F-36-T INSERT. LOCATE AS FOLLOWS: TOP SECTION (4) CORE MTD.
10. ◎ 1/2" PLASTIC INSERT . LOCATE AS FOLLOWS: BOTTOM SECTION (20) CORE MTD.



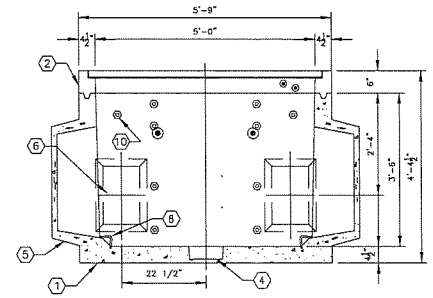
SECTION "D-D"
SCALE: N.T.S.



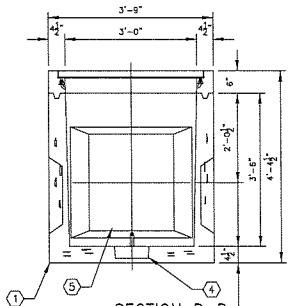
PLAN VIEW



K3660-DP48-17TSA



SECTION A-A



SECTION B-B

GENERAL NOTES:

1. MINIMUM SOIL BEARING CAPACITY IS HEREBY ASSUMED TO BE 2000 PSF UNLESS OTHERWISE DOCUMENTED BY A GEOTECHNICAL REPORT THAT SHALL BE PROVIDED TO JENSEN PRECAST BY THE END USER. JENSEN PRECAST SHALL NOT BE RESPONSIBLE FOR THE SOIL BEARING CAPACITY.
2. INSTALLATION OF MANHOLES, VAULTS, HANDHOLES, METER BOXES, ETC. WILL BE AS PER JENSEN INSTALLATION PROCEDURES.
3. STRUCTURAL MODIFICATION TO THE JENSEN LINE OF PRODUCTS IS NOT PERMITTED WITHOUT PRIOR WRITTEN APPROVAL FROM JENSEN ENGINEERING DEPARTMENT.
4. DO NOT SCALE THE DRAWINGS. VERIFY ALL DIMENSIONS INCLUDING ROUGH OPENINGS. IF ANY DISCREPANCIES ARE FOUND, NOTIFY THE JENSEN ENGINEER IMMEDIATELY.
5. THE JENSEN ENGINEER WILL INTERPRET THE INTENT OF THE DRAWINGS IN CASE OF POSSIBLE CONFLICT OR DISCREPANCY.
6. PERMISSIVE VARIATIONS:
   DIMENSIONAL TOLERANCES – THE LENGTH, WIDTH, HEIGHT, OR DIAMETER MEASUREMENTS OF THE STRUCTURE WHEN MEASURED ON THE INSIDE SURFACES SHALL NOT DEVIATE FORM DESIGN DIMENSIONS BY MORE THEN THE FOLLOWING:

DIMENSIONS:	TOLERANCE:
0 TO 15 FEET	¼"
5 TO 10 FEET	⅜"
10 TO 20 FEET AS AGREED UPON BETWEEN THE SUPPLIER AND PURCHASER.	

7. SQUARENESS TOLERANCE:
   THE INSIDE OF THE PRECAST CONCRETE COMPONENT SHALL BE SQUARE AS DETERMINED BY DIAGONAL MEASUREMENTS. THE DIFFERENCE BETWEEN SUCH MEASUREMENTS SHALL NOT EXCEED THE FOLLOWING:

MEASURED LENGTH:	ALLOWABLE DIFFERENCE:
0 TO 10 FEET	½"
10 TO 20 FEET	¾"
20 FEET AND OVER AS AGREED UPON BETWEEN THE SUPPLIER AND PURCHASER.	

ORDERING INFORMATION:
K3660-DP48-17TSA FOR ASSEMBLY AS SHOWN.
TOTAL WEIGHT OF ASSEMBLY SHOWN IS 5,816 Lbs.

JENSEN PRECAST

811 Know what's below. Call before you dig.

NO.	DATE	REVISIONS	CK. BY
0			

REGISTERED PROFESSIONAL ENGINEER — CIVIL — CORPORATION — 9-30-2021 — No. C051460 — STATE OF CALIFORNIA

ELECTRICAL P.E.

6/26/2020
DATE

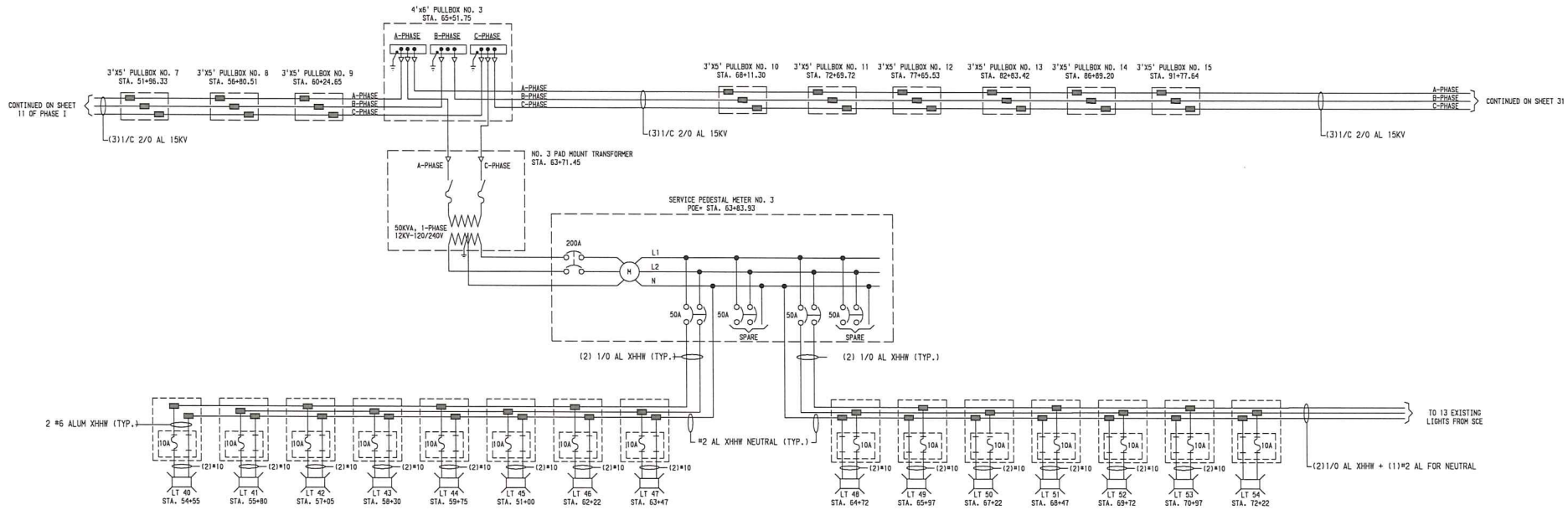
Prepared by:
ORSA Consulting Engineers, Inc.
Fullerton, California
223 E. Imperial Hwy., #130
City of Fullerton, CA 92835
Phone (714) 441-3323
Fax (714) 441-1345

ARENTH AVENUE STREET IMPROVEMENT
PHILLIPS DRIVE TO NOGALES STREET

STREET LIGHTING POLES
3'X5' PULLBOX, DETAILS
AND SECTIONS

DESIGN BY: JAF	CHECKED BY: MZD	JOB NO.: MP 14-12	SHEET E.29 OF E.31
DRAWN BY: JAF	DATE: JUNE, 2020	CONTRACT NO.: CITY-1460	

X:_ARENTH PHASE1\MP 14-12 ARENTH AVE POWER FIBER OPTICS AND LIGHTING PHASE 2 PLAN INCLUDING LIGHT POLES FROM ANAHEIM TO PHILLIPS 6/23/2020 3:14:46 PM ANSI D (28.00 X 34.00 INCHES) ARTICAD PDF (GENERAL DOCUMENTATION).PC3 GRAYSCALE.CTB



SYMBOLS	DESCRIPTION
	TRANSFORMER
	CIRCUIT BREAKER
M	METER
	PULL BOX
	LED LIGHT 180W, ON THE POLE
	SPLICE COMPRESSION TYPE, WATER PROOF, 15KV OR 600V AS NEEDED
	200A 15KV, LOAD BREAK ELBOW
	3-WAY 200A 15KV LOADBREAK JUNCTION WITH GROUNDING CONNECTOR
10A	IN-LINE FUSE HOLDER WITH DUMMY NEUTRAL, SUBMERSIBLE

811 Know what's below. Call before you dig.

NO.	DATE	REVISIONS	CK. BY
0		FOR CONSTRUCTION	

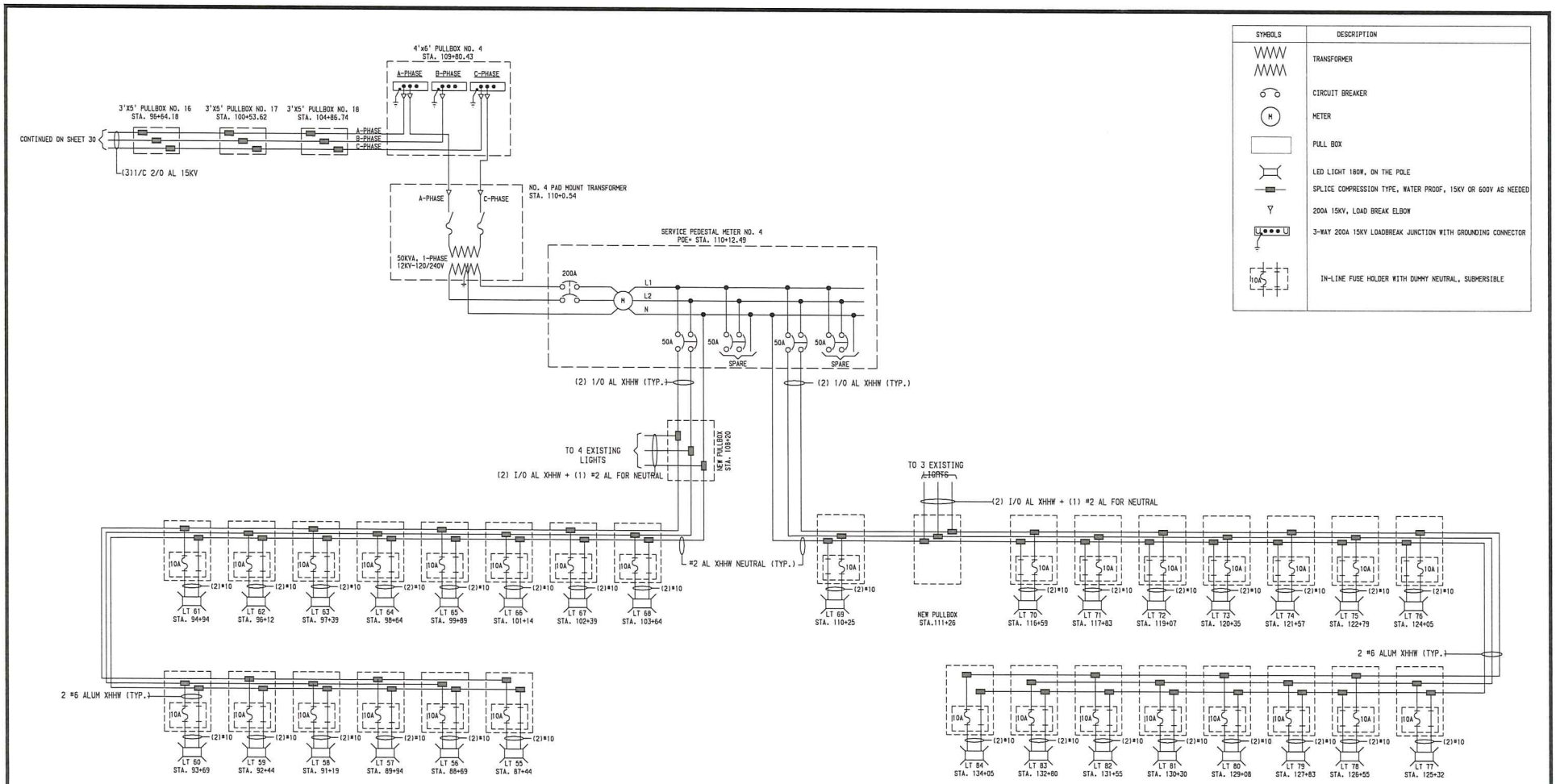
REGISTERED PROFESSIONAL ENGINEER — MARK D. TAPIA — CORPORATION — 5-30-2021 — No. E012480 — ELECTRICAL — STATE OF CALIFORNIA

ELECTRICAL P.E. 6/26/2020 DATE

Prepared by:
ORSA Consulting Engineers, Inc.
Fullerton, California
223 E. Imperial Hwy., #130
City of Fullerton, CA 92835
Phone (714) 441-2323
Fax (714) 441-1348

ARENTH AVENUE STREET IMPROVEMENT
PHILLIPS DRIVE TO NOGALES STREET
WIRING DIAGRAM FOR STREET LIGHTING AND PRIMARY CABLE SCHEDULE

DESIGN BY: JAF	CHECKED BY: MZD	JOB NO.: MP 14-12	SHEET E.30 OF E.31
DRAWN BY: JAF	DATE: JUNE, 2020	CONTRACT NO.: CITY-1460	



SYMBOLS	DESCRIPTION
	TRANSFORMER
	CIRCUIT BREAKER
M	METER
	PULL BOX
	LED LIGHT 180W, ON THE POLE
	SPLICE COMPRESSION TYPE, WATER PROOF, 15KV OR 600V AS NEEDED
	200A 15KV, LOAD BREAK ELBOW
	3-WAY 200A 15KV LOADBREAK JUNCTION WITH GROUNDING CONNECTOR
10A	IN-LINE FUSE HOLDER WITH DUMMY NEUTRAL, SUBMERSIBLE

811 Know what's below. Call before you dig.

NO.	DATE	REVISIONS	CK. BY
0		FOR CONSTRUCTION	

REGISTERED PROFESSIONAL ENGINEER — MICHAEL ZIEGLER — EXPIRATION 9-30-2021 — No. E012480 — ELECTRICAL

ELECTRICAL P.E.

6/26/2020
DATE

Prepared by:
ORSA Consulting Engineers, Inc.
Fullerton, California

223 E. Imperial Hwy., #130
City of Fullerton, CA 92835
Phone (714) 441-2323
Fax (714) 441-1348

ARENTH AVENUE STREET IMPROVEMENT
PHILLIPS DRIVE TO NOGALES STREET
WIRING DIAGRAM FOR STREET LIGHTING AND PRIMARY CABLE SCHEDULE

DESIGN BY: JAF	CHECKED BY: MZD	JOB NO.: MP 14-12	SHEET E.31 OF E.31
DRAWN BY: JAF	DATE: JUNE, 2020	CONTRACT NO.: CITY-1460	

CITY COUNCIL

ITEM NO. 6.3

CITY OF INDUSTRY

MEMORANDUM

TO: Honorable Mayor Moss and Members of the City Council

FROM: Troy Helling, City Manager TH

STAFF: Joshua Nelson, Director of Public Works/City Engineer
Upendra Joshi, Senior Project Manager, CNC Engineering

DATE: October 8, 2020

SUBJECT: Consideration of a Right-of-Way Agreement with MCImetro Access Transmission Services Corp., d/b/a Verizon Access Transmission Services, to construct, install, and maintain facilities that occupy public rights-of-way within the territorial limits

---

Background:

The City received an application for an encroachment permit from a telecommunication service provider, MCImetro Access Transmission Services Corp., d/b/a Verizon Access Transmission Services ("MCI"), to locate certain facilities within City right-of-ways. MCI does not have, and is not required to have, a franchise agreement with the City but is permitted under State law to use City right-of-way for their facilities subject to such reasonable and uniformly applied time, place and manner regulations as may be imposed by the City.

Discussion:

As part of the encroachment permit process, the City is requiring MCI to enter into a Right-of-Way Agreement ("Agreement") in order to establish clear terms and conditions by which such facilities may be placed in the City's right-of-way, including MCI's obligation to remove and relocate their facilities under prescribed circumstances. MCI has reviewed and agreed to the proposed Agreement. After City Council approval, any work proposed by MCI within the City Right-of-Way, will be reviewed and approved by the City Engineer as part of the encroachment permit process.

Fiscal Impact:

There is no fiscal impact associated with this Agreement.

Recommendation:

Staff recommends that the City Council approve the Right-of-Way Agreement and authorize the Mayor and City Clerk to execute the same.

Exhibit:

A. Right-of-Way Agreement between the City of Industry and MCImetro Access Transmission Services Corp., d/b/a Verizon Access Transmission Services, dated October 8, 2020

TH/JN/UJ:jf

EXHIBIT A

Right-of-Way Agreement between the City of Industry and MCImetro Access Transmission Services Corp., d/b/a Verizon Access Transmission Services dated October 8, 2020

[Attached]

RIGHT-OF-WAY AGREEMENT

This Right-of-Way Agreement ("Agreement") is entered into as of October 8, 2020 (the "Effective Date"), between the City of Industry, California, a California a municipal corporation ("CITY"), and MCIMETRO Access Transmission Services CORP., a Delaware Corporation, d/b/a Verizon Access Transmission Services ("UTILITY"). CITY and UTILITY are individually referred to in this Agreement as a "Party", and collectively as the "Parties."

RECITALS

A. UTILITY is authorized to provide telecommunications services within the state of California ("State") pursuant to a Certificate of Public Convenience and Necessity issued by the Public Utilities Commission of the State of California (Certificate No. U-5253-C.

B. UTILITY has the requisite authority to construct, install, and maintain facilities that occupy public rights-of-way within the territorial limits of the CITY (the "Territory") and to otherwise provide telecommunications services, and desires to construct, install, and maintain such facilities.

C. The Parties desire to establish the terms and conditions on which UTILITY will access and occupy the CITY's public rights-of-way for purposes of constructing, installing, and maintaining facilities in the CITY's Territory in connection with its provision of telecommunications services.

NOW, THEREFORE, in consideration of the mutual agreements, provisions, and covenants contained in this Agreement, the Parties agree as follows:

I. SCOPE OF RIGHTS AND OBLIGATIONS

A. Installation and Operation of Facilities. Subject to the terms of this Agreement, all applicable CITY laws, ordinances, codes, policies and administrative regulations, including, but not limited to, Chapter 12.08 of the Industry Municipal Code, as they may be amended (collectively "CITY laws"); and the issuance of any applicable permits required by the CITY laws or any other Federal or State laws (including any permits for the making of excavations, fills, or obstructions in any streets or highways in the Territory required by the CITY), UTILITY may, at UTILITY's expense and during the Term:

1. locate, lay, place, attach, install, control, construct, repair, and maintain wires, cables, pipes, and other equipment and services (the "Facilities") on, in, along, across, under, over, or through the streets, alleys, highways, bridges, or other dedicated public vehicular rights-of-way, in the Territory (i) owned or acquired by the CITY from and after the Effective Date, or (ii) over which the CITY

has or acquires jurisdiction or control from and after the Effective Date (the "Rights-of-Way"); and

2. operate and use the Facilities to conduct its business in the Territory.

B. Permitted Uses. This Agreement does not convey any property interest to UTILITY, nor may UTILITY claim under this Agreement any property interest, in the Rights-of-Way. The rights granted to UTILITY and arising under this Agreement are subject and subordinate to the CITY's right to use the Rights-of-Way in the performance of its Public Duties. For purposes of this Agreement, "Public Duties" means the laying, installation, maintenance, protection, replacement, and removal of sanitary sewers, water mains, storm drains, gas mains, overhead and underground electric lines data communication lines, , together with any appurtenances thereof and the right of egress and ingress on, along, across, under, over, and through the Rights-of-Way, and any change of grade, alignment or width of the Rights-of-Way, the installation of curbs, gutters, or landscaping along the Rights-of-Way, and any maintenance, repair, or resurfacing of any Rights-of-Way.

C. No Interference. Except as authorized or permitted by applicable law, in the performance of and exercise of its rights under this Agreement, UTILITY may not materially interfere with the operation of any sanitary sewers, water mains, storm drains, gas mains, overhead and underground electric lines, telephone lines, cable television lines, or facilities relating thereto, located in the Territory and owned or controlled by the CITY or a third party. UTILITY shall not obstruct any public street or sidewalk without obtaining such encroachment permits or other approvals as may be required by CITY. UTILITY shall conduct construction, maintenance or repair work only during those hours set forth in the approved encroachment permit(s).

D. Maintenance. UTILITY agrees to maintain its Facilities in good condition at all times during the Term. In the event that any Facilities cause damage to the CITY's Rights-of-Way or interfere with the performance of any Public Duties or other uses of the Rights-of-Way as provided in Section 1.C above, UTILITY agrees, upon notice from the CITY, to promptly commence and complete all necessary repairs to cure any such damage caused by the Facilities, at its own cost and expense.

E. Removal and Relocation.

1. If UTILITY has attached or connected its Facilities to the facilities of other utilities or parties located in the Rights-of-Way such as light poles or telephone poles or is otherwise sharing such facilities pursuant to any lease, sublease or other agreement, UTILITY will be bound to relocate or remove its Facilities at the same time and in the same manner as such utilities or parties at UTILITY's sole cost and expense.

2. UTILITY shall complete the removal or relocation no later than 90 days after its receipt of a removal order, or such earlier or later date as agreed between the Parties, except in the event Utility is subject to a force majeure or other event beyond its control.

3. In the event that UTILITY fails to remove and relocate the Facilities identified in the removal order within the applicable time period established under Section I.E.1 above, then such Facilities will automatically be deemed abandoned and may be removed or caused to be removed by the CITY or any third party without liability to UTILITY for any damages or costs of any kind. Notwithstanding the foregoing, the time period established under Section I.E.1 above, as the case may be, shall be extended, at the discretion of the City, without liability to UTILITY, for at least as long as UTILITY's ability to remove and/or relocate the Facilities is delayed for reasons beyond UTILITY's control, provided that UTILITY shall employ all commercially reasonable efforts to eliminate or mitigate the impact of said reasons and to thereafter reasonably accelerate, where feasible, the removal/relocation.

Abandonment

1. Nothing in this Agreement may be construed as requiring UTILITY to exercise its rights hereunder. Accordingly, UTILITY may abandon any of its Facilities in its sole discretion at any time upon written notice to the CITY (an "Abandoned Facility"). In the event UTILITY abandons one or more Facilities, UTILITY will, at its sole expense, vacate and remove the Facilities within six (6) months of such abandonment. UTILITY's obligations arising under this Section 1.F are in addition to obligations imposed on UTILITY by applicable CITY laws or other laws relating to the refilling of excavations or removal of obstructions. Notwithstanding the foregoing, with the CITY's written consent, UTILITY will not be required to vacate or remove an Abandoned Facility, and such Abandoned Facility will convey to the CITY as part of such written agreement.

2. If UTILITY fails to vacate or remove an Abandoned Facility (or otherwise obtain consent from the CITY not to vacate or remove the Abandoned Facility) within six (6) months of its notice of abandonment, the CITY will deliver UTILITY written notice of such failure. UTILITY will have an additional three (3) months from and after the date it receives such notice from the CITY to remove the Abandoned Facility. If UTILITY fails to vacate or remove the Abandoned Facility after such three-month period, the CITY may either (i) remove the Abandoned Facility at UTILITY's expense, which expense UTILITY must remit to the CITY within sixty (60) days of receiving an invoice from the CITY setting forth the nature and scope of such expenses; or (ii) deem the Abandoned Facility to have been abandoned and conveyed to the CITY.

F. Non-Exclusivity. UTILITY acknowledges that the rights granted under this Agreement are not exclusive, and that CITY may grant the same or similar rights and privileges to other authorized persons or companies, provided that such grant of rights or privileges does not materially interfere with UTILITY's Facilities.

II. TERM

A. Term. The initial term of this Agreement is for 10 years from the Effective Date (the "Initial Term"), unless otherwise terminated as set forth herein.

B. Renewal. Upon the expiration of the Initial Term, this Agreement will automatically renew for successive one-year terms unless UTILITY notifies CITY of its intent not to renew the Agreement (any such period, the "Renewal Term," together with the Initial Term, the "Term"). Such notice must be made in writing no less than 30 days prior to the expiration of the Initial Term or the Renewal Term, as applicable.

C. Effect of Expiration. Upon the expiration of this Agreement, all rights and obligations between the Parties will cease except for UTILITY's removal obligations under Section 1.E and its indemnity obligations under Section IV.D, which will expressly survive the expiration of this Agreement. Notwithstanding the forgoing, the expiration of this Agreement, will not affect or diminish either Party's rights, claims, or remedies available in equity, at law or otherwise arising hereunder.

D. Termination. This Agreement may be terminated by the CITY upon 30 days' prior written notice to the UTILITY for breach of the Agreement. Upon receipt of the termination notice, UTILITY shall have 30 days to cure the breach, and provide evidence to the satisfaction of the CITY that the breach is cured, or if such breach cannot be reasonably cured within 30 days, Utility shall have a reasonable period of time, as determined by the City, to cure provided Utility has initiated action to cure such breach within such 30-day period and diligently pursues such activity until the breach is cured. In the event the breach remains uncured, and the CITY has not provided an extension to cure, the termination shall be effective.

III. COMPLIANCE WITH APPLICABLE LAW

UTILITY agrees to comply with all CITY laws; provided, however, that such laws are consistent with State and Federal laws, including those relating to UTILITY's right to construct, install, and maintain the Facilities and its right to provide intrastate and interstate telecommunications services. In the event of a conflict between such laws and this Agreement, the provisions of such laws will control.

IV. MISCELLANEOUS

A. Assignment and Transfer of Control; Binding Effect. UTILITY may assign or transfer its rights and obligations under this Agreement to any other party upon prior notice to and consent from CITY based upon reasonable evidence that such party is authorized to maintain and operate the Facilities. Without limiting the generality of the foregoing, this Agreement is binding upon and will inure to the benefit of the Parties and their successors.

B. Notice. Every notice or response to be served on the CITY or UTILITY must be in writing and will be deemed to have been duly given to the required party on the earlier of: (i) where there is personal delivery; the date of actual receipt; or (ii) three (3) business days after having been posted in a properly sealed and correctly addressed envelope by certified or registered mail, postage prepaid, at a post office or branch thereof regularly maintained by the U.S. Postal Service. Such notices or responses shall be addressed as follows:

If to the CITY:
City Manager
City of Industry
15625 East Stafford Street, Suite #100
Industry, CA 91744

With copies to:
CNC Engineering
255 N. Hacienda Blvd.
Industry, CA 91744

James M. Casso, City Attorney
Casso & Sparks, LLP
13300 Crossroads Parkway North, Suite 410
City of Industry, CA 91746

If to UTILITY: MCImetro Access Transmission Services Corp.
600 Hidden Ridge, Room HQE02E102
Irving, TX 75038
Attn: Franchise Manager
Phone: 972-457-7420
Email: hayes.robert@verizon.com

With a copy to: Verizon Business Services
1320 N. Courthouse Road, Suite 900
Arlington, VA 22201
Attn: General Counsel, Network & Technology

C. Governing Law; Venue. This Agreement will be governed and construed in accordance with the laws of the State of California without regard to the principles of conflicts of laws thereof. All actions and proceedings arising out of or relating to this Agreement will be heard and determined in the municipal, superior, or federal district court in Los Angeles County, California, and the Parties hereby irrevocably submit to the exclusive jurisdiction of such courts in any such action or proceeding. If any action at law or suit in equity is brought to enforce or interpret the provisions of this Agreement, or arising out of or relating to the UTILITY's use and operation of Facilities on City Territory, pursuant to Section I.A of this Agreement, the prevailing party shall be entitled to reasonable attorneys' fees and all related costs, including costs of expert witnesses and consultants, as well as costs on appeal, in addition to any other relief to which it may be entitled.

D. Indemnification. UTILITY agrees to indemnify, defend and hold harmless CITY from and against, any and all liabilities, claims, actions, causes of action, proceedings, suits, damages, judgments, liens, levies, costs and expenses of whatever nature, including reasonable attorneys' fees and disbursements (collectively, "Claims"), which the CITY may suffer or incur or to which the CITY may become subject by reason of or arising out of any negligent or willfully wrongful acts or omissions of UTILITY, or its officers, employees, contractors or agents committed with respect to or arising from the installation, operation or use of UTILITY's Facilities under this Agreement.

E. Insurance. UTILITY shall maintain prior to the beginning of and for the duration of this Agreement insurance coverage as specified in Exhibit A attached hereto and incorporated herein by reference.

F. Approval for Use of Streetlights. Prior to commencement of the installation and operation of the Facilities, UTILITY shall obtain written approval from the owner of the streetlight to which the Facilities will be attached, and shall provide proof of such approval to the CITY. In the event the ownership of the streetlights is transferred during the Term of this Agreement, UTILITY shall provide the CITY with proof of written approval from any subsequent owner.

G. Counterparts; Effectiveness. This Agreement may be executed in two or more consecutive counterparts, each of which will be an original, with the same effect as if the signatures thereto and hereto were upon the same instrument, and shall become effective when one or more counterparts have been signed by each of the Parties and delivered (by facsimile or otherwise) to the other Party.

H. Expenses. Except as otherwise provided under the CITY laws, all costs and expenses (including legal fees and expenses) incurred in connection with this Agreement and the transactions contemplated hereby will be paid by the Party incurring such expenses.

I. Electricity. Licensee shall pay for the electricity it consumes in its operations at the rate charged by the servicing utility company. Notwithstanding the foregoing, in the event that the ownership of the poles to which the Facilities are attached transfer in ownership to the CITY, or an entity of the CITY, UTILITY shall pay to the CITY the fee established by the CITY for the operation and maintenance of each pole.

J. Severability. If a court of competent jurisdiction finds any provision of this Agreement to be illegal, invalid or unenforceable, the Parties agree that such provision will be enforced to the maximum extent permissible so as to effect the intent of the Parties, and the validity, legality and enforceability of the remaining provisions of this Agreement will not in any way be affected or impaired thereby. If necessary to effectuate the intent of the Parties, the Parties will negotiate in good faith to amend this Agreement to replace the unenforceable language with enforceable language that reflects such intent as closely as possible.

K. Entire Agreement. This Agreement constitutes the entire agreement between the Parties, and supersedes all other prior written and oral agreements and understandings between the Parties, with respect to the subject matter hereof.

L. Waiver. Unless agreed to in writing by the Parties, the waiver by a Party of any breach, violation, or default of a provision of this Agreement will not operate as a waiver of any subsequent breach, violation, or default of that or of any other provision of this Agreement. No extension of time for the performance of any obligation or act required by a Party hereunder will be

deemed to be an extension of time for the performance of any other obligation or act.

M. Headings. Captions and section headings used in this Agreement are for convenience of the Parties only, are not a part of this Agreement, and will be given no substantive or interpretive effect whatsoever.

N. Amendment. This Agreement may only be amended by a written agreement signed by both Parties.

O. Authority. Each individual executing this Agreement on behalf of each respective Party acknowledges and warrants that: (i) it has full authority to execute this Agreement on behalf of such Party, (ii) this Agreement has been duly authorized and approved by such Party, and (iii) this Agreement constitutes a valid and binding obligation of such Party.

IN WITNESS WHEREOF, the Parties hereto have executed and delivered this Agreement, or caused it to be executed and delivered, as of the Effective Date.

"CITY"

City of Industry

By:_____
Troy Helling, City Manager

"UTILITY"

MCImetro Access Transmission Services Corp. d/b/a Verizon Access Transmission Services

By_____
Robert Hayes, Sr. Manager

Attest:

By:_____
Julie Gutierrez-Robles, City Clerk

Approved as to form:

By:_____
James M. Casso, City Attorney

Attachments: Exhibit A Insurance Requirements

EXHIBIT A
INSURANCE REQUIREMENTS

Without limiting UTILITY's indemnification of City, and prior to commencement of the installation of the Facilities, UTILITY shall obtain, provide and maintain at its own expense during the term of this Agreement, policies of insurance of the type and amounts described below and in a form satisfactory to the City.

General liability insurance. UTILITY shall maintain commercial general liability insurance with coverage at least as broad as Insurance Services Office form CG 00 01, in an amount not less than $1,000,000.00 per occurrence, $2,000,000.00 general aggregate, for bodily injury, personal injury, and property damage. The policy must include contractual liability that has not been amended. Any endorsement restricting standard ISO "insured contract" language will not be accepted.

Automobile liability insurance. UTILITY shall maintain automobile insurance at least as broad as Insurance Services Office form CA 00 01 covering bodily injury and property damage for all activities of the UTILITY arising out of or in connection with the installation and operation of the Facilities to be performed under this Agreement, including coverage for any owned, hired, non-owned or rented vehicles, in an amount not less than $1,000,000.00 combined single limit for each accident.

Workers' compensation insurance. UTILITY shall maintain Workers' Compensation Insurance (Statutory Limits) and Employer's Liability Insurance (with limits of at least $1,000,000.00).

UTILITY shall submit to City, along with the certificate of insurance, a Waiver of Subrogation endorsement in favor of the City, its officers, agents, employees and volunteers.

Proof of insurance. UTILITY shall provide certificates of insurance to City as evidence of the insurance coverage required herein, along with a waiver of subrogation endorsement for workers' compensation. Insurance certificates and endorsement must be approved by City's Risk Manager prior to commencement of performance. Current certification of insurance shall be kept on file with City at all times during the term of this contract. City reserves the right to require complete, certified copies of all required insurance policies, at any time.

Duration of coverage. UTILITY shall procure and maintain for the duration of the contract insurance against claims for injuries to persons or damages to property, which may arise from or in connection with the performance of installation and operation of the Facilities hereunder by UTILITY, its agents, representatives, employees or subconsultants.

Primary/noncontributing. Coverage provided by UTILITY shall be primary and any insurance or self-insurance procured or maintained by City shall not be required to

contribute with it. The limits of insurance required herein may be satisfied by a combination of primary and umbrella or excess insurance. Any umbrella or excess insurance shall contain or be endorsed to contain a provision that such coverage shall also apply on a primary and non-contributory basis for the benefit of City before the City's own insurance or self-insurance shall be called upon to protect it as a named insured.

City's rights of enforcement. In the event any policy of insurance required under this Agreement does not comply with these specifications or is canceled and not replaced, City has the right but not the duty to obtain the insurance it deems necessary and any premium paid by City will be promptly reimbursed by UTILITY. In the alternative, City may cancel this Agreement.

Acceptable insurers. All insurance policies shall be issued by an insurance company currently authorized by the Insurance Commissioner to transact business of insurance in the State of California, with an assigned policyholders' Rating of A- (or higher) and Financial Size Category Class VI (or larger) in accordance with the latest edition of Best's Key Rating Guide, unless otherwise approved by the City's Risk Manager.

Waiver of subrogation. All insurance coverage maintained or procured pursuant to this Agreement shall be endorsed to waive subrogation against City, its elected or appointed officers, agents, officials, employees and volunteers or shall specifically allow UTILITY or others providing insurance evidence in compliance with these specifications to waive their right of recovery prior to a loss. UTILITY hereby waives its own right of recovery against City, and shall require similar written express waivers and insurance clauses from each of its subconsultants.

Enforcement of contract provisions (non estoppel). UTILITY acknowledges and agrees that any actual or alleged failure on the part of the City to inform UTILITY of non-compliance with any requirement imposes no additional obligations on the City nor does it waive any rights hereunder.

Requirements not limiting. Requirements of specific coverage features or limits contained in this Section are not intended as a limitation on coverage, limits or other requirements, or a waiver of any coverage normally provided by any insurance. Specific reference to a given coverage feature is for purposes of clarification only as it pertains to a given issue and is not intended by any party or insured to be all inclusive, or to the exclusion of other coverage, or a waiver of any type. If the UTILITY maintains higher limits than the minimums shown above, the City requires and shall be entitled to coverage for the higher limits maintained by the UTILITY. Any available insurance proceeds in excess of the specified minimum limits of insurance and coverage shall be available to the City.

Notice of cancellation. UTILITY agrees to oblige its insurance agent or broker and insurers to provide to City with a thirty (30) day notice of cancellation (except for

nonpayment for which a ten (10) day notice is required) or nonrenewal of coverage for each required coverage.

Additional insured status. General liability policies shall provide or be endorsed to provide that City and its officers, officials, employees, and agents, and volunteers shall be additional insureds under such policies. This provision shall also apply to any excess liability policies.

Prohibition of undisclosed coverage limitations. None of the coverages required herein will be in compliance with these requirements if they include any limiting endorsement of any kind that has not been first submitted to City and approved of in writing.

Separation of Insureds. A severability of interests provision must apply for all additional insureds ensuring that UTILITY's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the insurer's limits of liability. The policy(ies) shall not contain any cross-liability exclusions.

Pass Through Clause. UTILITY shall require its subconsultants, subcontractors, and any other party involved with the project who is brought onto or involved in the project by UTILITY, provide the same minimum insurance coverage and endorsements required of UTILITY. UTILITY agrees to monitor and review all such coverage and assumes all responsibility for requiring such persons to provide coverage in conformity with the requirements of this section. UTILITY agrees that upon request, all agreements with consultants, subcontractors, and others engaged in the project will be submitted to City for review.

City's right to revise specifications. The City reserves the right at any time during the term of the contract to change the amounts and types of insurance required by giving the UTILITY ninety (90) days advance written notice of such change.

Self-insured retentions. Any self-insured retentions must be declared to and approved by the City. The City reserves the right to require that self-insured retentions be eliminated, lowered, or replaced by a deductible. Self-insurance will not be considered to comply with these specifications unless approved by the City.

Timely notice of claims. UTILITY shall give the City prompt and timely notice of claims made or suits instituted that arise out of or result from UTILITY's performance under this Agreement, and that involve or may involve coverage under any of the required liability policies.

Additional insurance. UTILITY shall also procure and maintain, at its own cost and expense, any additional kinds of insurance, which in its own judgment may be necessary for its proper protection and prosecution of the work.

CITY COUNCIL

ITEM NO. 6.4

CITY OF INDUSTRY

P.O. Box 3366 • 15625 E. Stafford St. • City of Industry, CA 91744-0366 • (626) 333-2211 • FAX (626) 961-6795

MEMORANDUM

To: Honorable Mayor Moss and Members of the City Council

FROM: Troy Helling, City Manager TH

DATE: October 8, 2020

SUBJECT: Consideration to cancel the November 26, 2020 and December 24, 2020 City Council Meetings.

BACKGROUND:

The November 26, 2020 regularly scheduled Council Meeting falls on Thanksgiving and the December 24, 2020 regularly scheduled Council Meeting falls on Christmas Eve. Staff recommends canceling the meetings.

RECOMENDATION:

Staff recommends canceling the November 26, 2020 and December 24, 2020 Regular City Council meetings.

TH/TH

CITY COUNCIL

ITEM NO. 6.5

CITY OF INDUSTRY

P.O. Box 3366 • 15625 E. Stafford St. • City of Industry, CA 91744-0366 • (626) 333-2211 • FAX (626) 961-6795

MEMORANDUM

TO: Honorable Mayor Moss and Members of the City Council

FROM: Troy Helling, City Manager TH

DATE: October 8, 2020

SUBJECT: Consideration to close City Hall between December 24, 2020 and January 1, 2021.

BACKGROUND:

This year Christmas falls on a Friday. If approved, City Hall will be closed December 24, 2020 thru January 1, 2021 and will be open again on Monday, January 4, 2021.

RECOMENDATION:

Staff closing City Hall from December 24, 2020 thru January 1, 2021.

TH/TH

CITY COUNCIL

ITEM NO. 6.6

CITY OF INDUSTRY

MEMORANDUM

TO: Honorable Mayor Moss and Members of the City Council

FROM: James M. Casso, City Attorney

DATE: October 8, 2020

SUBJECT: Consideration of Amendment No. 3 to the Employment Agreement with Troy Helling for City Manager Services

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Background/Discussion:

The City Council appointed Troy Helling as Acting City Manager on or about April 12, 2018, and as the permanent City Manager, on or about October 25, 2018.

Pursuant to the terms of Mr. Helling's employment agreement, he is to be evaluated annually by the City Council. In accordance with the provisions of the agreement, the City Council evaluated Mr. Helling at the September 24, 2020 City Council meeting.

Based on Mr. Helling's performance, direction was given to the City Attorney's office to amend Mr. Helling's employment agreement, to increase his salary to $278,200.52. Further, the City Council desires to clarify that upon separation from the City, pursuant to the terms of the City's Employee Handbook, Mr. Helling, his spouse and any dependents shall receive lifetime medical, dental and vision benefits.

Fiscal Impact:

Mr. Helling's prior salary was $260,000.52, the raise results in a seven percent increase, which is consistent with what is being provided to other City employees, based on a two percent cost of living adjustment, and a five percent merit increase.

Recommendation:

Staff recommends that the City Council approve Amendment No. 3 to the Employment Agreement with Troy Helling for City Manager services.

AMENDMENT NO. 3
TO EMPLOYMENT AGREEMENT No. 18-2
WITH TROY HELLING

This Third Amendment to the City Manager Employment Agreement No. 18-2 (the "Agreement"), is made and effective this 8th day of October, 2020 by and between the City of Industry, State of California, a municipal corporation and charter city (hereinafter, the "City") and Troy Helling, an individual, (hereinafter, "Helling"). City and Helling are hereinafter collectively referred to as the "Parties" and individually as "Party."

RECITALS

WHEREAS, the City Council appointed Mr. Helling as Acting City Manager, effective on or about April 12, 2018; and

WHEREAS, on or about October 25, 2018, the City Council appointed Mr. Helling as the permanent City Manager; and

WHEREAS, pursuant to Section II. of the Agreement, on September 24, 2020, the City Council reviewed Mr. Helling's performance, during a duly noticed public meeting. Based on Mr. Helling's performance, the City Council desires to amend Mr. Helling's salary, and clarify his health benefits, as set forth herein.

AMENDMENT

NOW, THEREFORE, in consideration of the mutual covenants, promises and agreements set forth herein, it is agreed the aforesaid Agreement shall remain in full force and effect except as otherwise hereinafter provided:

Section V., Compensation, is hereby revised to read in its entirety as follows:

Effective as of October 8, 2020, the City agrees to pay Helling for his services rendered hereunder at an annual rate of Two Hundred Seventy Eight Thousand Two Hundred Dollars and Fifty-Two Cents ($278,200.52), which sum shall be considered the base salary and shall be payable in installments at the same times as the City's other employees are paid, and subject to customary withholdings.

Upon Helling's separation from the City whether voluntary or involuntary, Helling, his spouse, and any dependent children shall receive lifetime medical, dental and vision benefits, as set forth in Section IX (A, B, & D) of the Employee Handbook, in effect as of the date of this Agreement. In the event of any inconsistency between any resolution adopted by the City Council and the terms of this Agreement, with respect to lifetime medical, dental and vision benefits, the terms of this Agreement shall prevail, and these benefits are hereby deemed vested.

(SIGNATURES ON FOLLOWING PAGE)

IN WITNESS WHEREOF, the Parties hereto have hereunto affixed their signatures as of the date and year first above written.

CITY MANAGER

_____

Troy Helling, an individual

CITY OF INDUSTRY

_____

Cory C. Moss, Mayor

ATTEST:

_____

Julie Gutierrez-Robles, City Clerk

APPROVED AS TO FORM

_____

James M. Casso, City Attorney

CITY COUNCIL

ITEM NO. 7.1

CITY OF INDUSTRY

MEMORANDUM

TO: Honorable Mayor Moss and Members of the City Council

FROM: Troy Helling, City Manager TH

STAFF: Eduardo Manriquez, Contract Planning Technician EM
Dina Lomeli, Contract Associate Planner DL

DATE: October 8, 2020

SUBJECT: Development Plan 19-08, 19465 East Walnut Drive North, City of Industry

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Proposal:

Peter Raulli of POP! Outdoor Media, is requesting approval of Development Plan 19-08, to allow conversion of an existing double-sided static billboard into a new double-sided electronic billboard, at the property located at 19465 East Walnut Drive North ("Property"). The applicant's request complies with the City's development guidelines set forth in the City's Municipal Code ("Code").

Location and Surroundings:

As shown on the location map (Exhibit A), the project site is located within an irregular shaped parcel (APN 8564-011-016) of approximately 13.21 acres (575,436 square-feet) with an approximate frontage of 625 feet on East Walnut Drive North, located on the northside of East Walnut Drive North, and approximately 1,013 feet west of Fairway Drive. The Property is surrounded by industrial uses to the north, east, and west, and California State Route 60 to the south.

Staff Analysis:

Staff has determined that the proposed development project is consistent with the Zoning ("M" – Industrial Zone) and General Plan (Employment) designations of the Property, and complies with the development and design standards found in Chapter 17.36, Design Review, and Chapter 15.32.050, Permitted Signs by Zone and Use, of the City's Code, as set forth above. Specifically, the project complies with all applicable development standards found in Chapter 15.32.050.I.4, Electronic Message Board Signs.

Property
The Property currently has two existing industrial buildings totaling 300,000 square feet. The billboard is located on the southeast corner of the Property fronting the street and

freeway. According to CalTrans records, a transfer of permit ownership was recorded in 2000. Thus, the billboard was constructed prior to 2000.

Access
The Property is served by East Walnut Drive North and one driveway entrance that meets the minimum driveway width of 26 feet. The existing drive aisles meets the City's minimum drive aisle width of 26 feet. The proposed electronic billboard is intended for advertisement only and is not anticipated to generate new vehicle trips, other than occasional maintenance.

Compatibility
The proposed new electronic billboard will have the same function and purpose as the existing static billboard and is compatible with the surrounding land uses because it is located on a lot where Land Use Element of the General Plan designates the Property as Employment. The Project is consistent with General Plan Goal LU5, which provides that the City's goal is to create high quality and well-maintained properties, buildings, and infrastructure that enhance property values and encourage additional public and private investment. The Project will assist with the maintenance of a professional appearance on privately owned property through application of standards that address signage treatments, which is consistent with the aforementioned General Plan goal. Additionally, other billboards, both electronic and static, can be found to the east and west of this site on both sides of California State Route 60. The existence and proximity of other billboards makes it compatible with the surrounding properties and land uses because the addition of the billboard will remain consistent with visual character of this vicinity. The project is in an urbanized area and is surrounded by various industrial uses and industrially zoned property to the north, east and west of the property. To the south, is California State Route 60, which is the primary target audience of the billboard.

As shown in the elevations (Exhibit D) the proposed electronic billboard will be similar in height and in area. The height of the column will remain at 53 feet 1.5 inches, and the proposed sign area is 672 square feet per face, which are both the same as the existing billboard. The proposed electronic billboard will also have the same total height of 67 feet 1.5 inches as the existing static billboard. While the height and sign dimensions will remain the same, the column of the proposed electronic billboard will be relocated five feet to the north of the existing column as allowed per Section 15.32.050.I.4.c.vi. of the City's Code. With the new column location, the proposed electronic billboard will be located approximately 25 feet from the East Walnut Drive North property line, which is 5 feet more than the setback of the existing billboard.

Landscaping
Section 17.36.060.Q. of the City's Code requires that a minimum of 12 percent of the site be devoted to landscaping. The site was developed with 12 percent landscaping as approved by City Council under Job Number 6540. The landscaping removed due to the new column location will be replaced with landscaping on the column's previous location.

Parking
Per Section 17.36.060 K. of the Code, the site was developed with the required parking as approved by City Council under Job Number 6540. The electronic billboard does not require additional parking spaces per Section 15.32.050.I.4 . Per Section 17.36.060 K.1.parking spaces shall be provided based upon the building square footage they are

intended to serve and the use. Since this is a sign, no parking is required. Further, the project will not reduce the number of parking spaces provided.

Environmental Analysis:

An Initial Study and Mitigated Negative Declaration ("IS/MND") has been prepared in accordance with the California Environmental Quality Act ("CEQA") to determine if the proposed project could have a significant impact on the environment. The proposed project has the potential for significant effects on Tribal Cultural Resources, but the potential impact is mitigated to less than significant with the mitigation measures identified in the proposed IS/MND. The Gabrieleño Band of Mission Indians – Kizh Nation indicated that the project site is located within and around a sacred village (Pimokangna), adjacent to sacred water courses and major traditional trade routes. Therefore, there is a potentially significant impact to tribal cultural resources being present within the soil from prehistoric activities that occurred within and around these areas. Mitigation measure TCR-1 has been identified to ensure impacts to tribal cultural resources would be less than significant. Per mitigation measure TCR-1, prior to the commencement of any ground disturbing activity at the project site, the project applicant shall retain a Native American Monitor approved by the Gabrieleno Band of Mission Indians-Kizh Nation – the tribe that consulted on this project pursuant to Assembly Bill A52 - SB18 (the "Tribe" or the "Consulting Tribe"). The mitigation measure contained in the Mitigated Negative Declaration has been prepared in conformance with Section 21081.6 of the Public Resources Code and which provides a vehicle to monitor compliance with the mitigation measures (Exhibit E, Attachment 2.

The Notice of Intent to Adopt a Mitigated Negative Declaration (Exhibit E) was posted at the Project site, City Hall, Council Chambers and Fire Station 118, and published in the San Gabriel Valley Tribune on September 11, 2020.

Fiscal Impact:

The overall project will have no fiscal impact.

Recommendation:

The proposed development complies with the development standards of the City's Code and satisfies the findings noted in the Resolution. Staff therefore recommends that the City Council adopt Resolution No. CC 2020-40 (Exhibit E) approving a Mitigated Negative Declaration and Mitigation Monitoring and Reporting Program, Resolution No. CC 2020-40, approving Development Plan 19-08 and Standard Requirements and Conditions of Approval contained in the Resolution.

Exhibits:

A. Location Map - DP 19-08-
B. Site Plan – DP 19-08
C. Elevations of Proposed Structure – DP 19-08
D. Notice of Intent - DP 19-08
E. Resolution No. CC 2020 - 40 recommending City Council to adopt Mitigated Negative Declaration and Mitigation Monitoring and Reporting Program and

approval of Development Plan No. 19- 08 with findings of approval, Standard Requirements and Conditions of Approval.

F. PowerPoint Presentation – DP 19-08

EXHIBIT A

Location Map – Development Plan 19-08

[Attached]

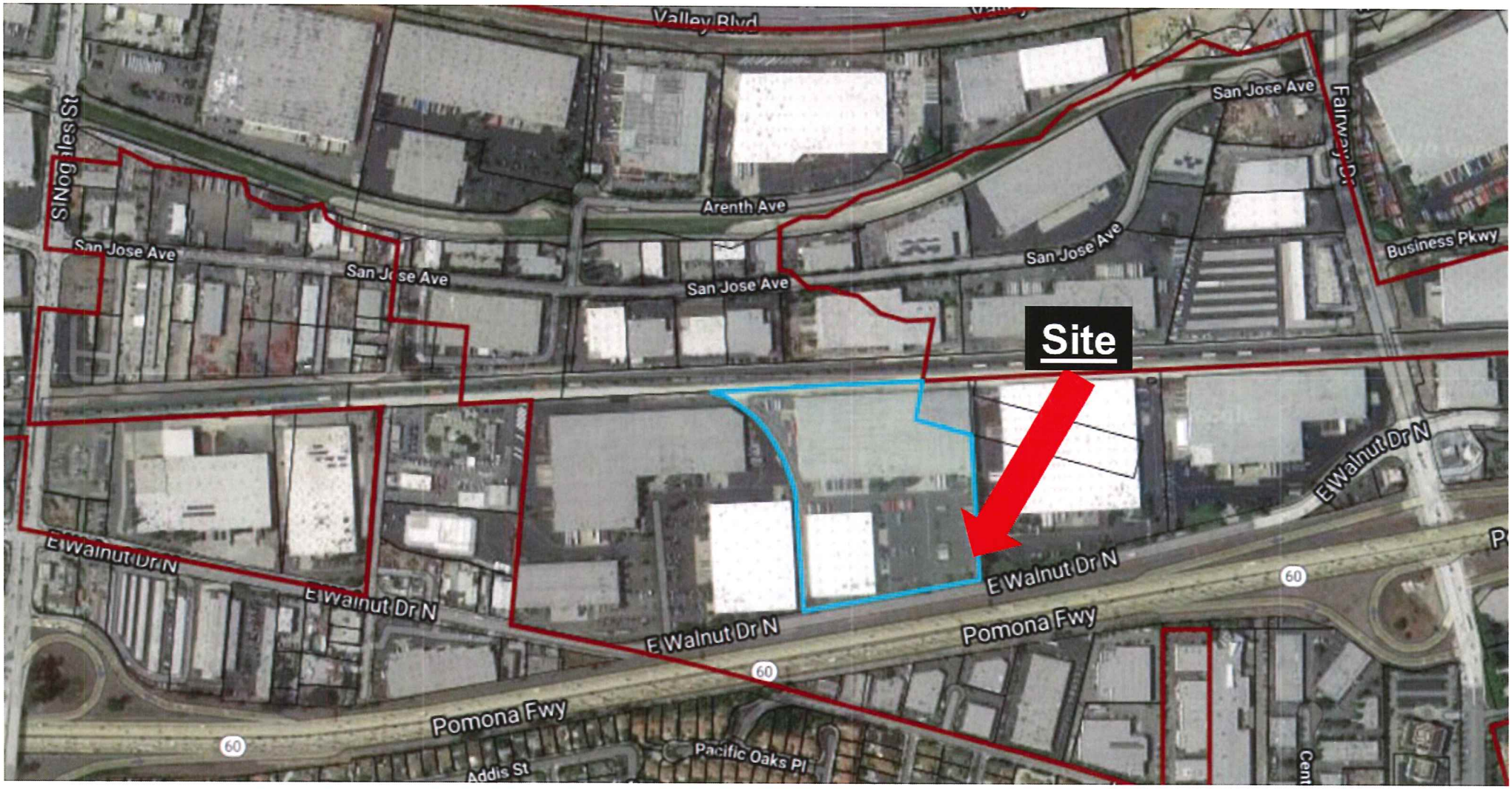
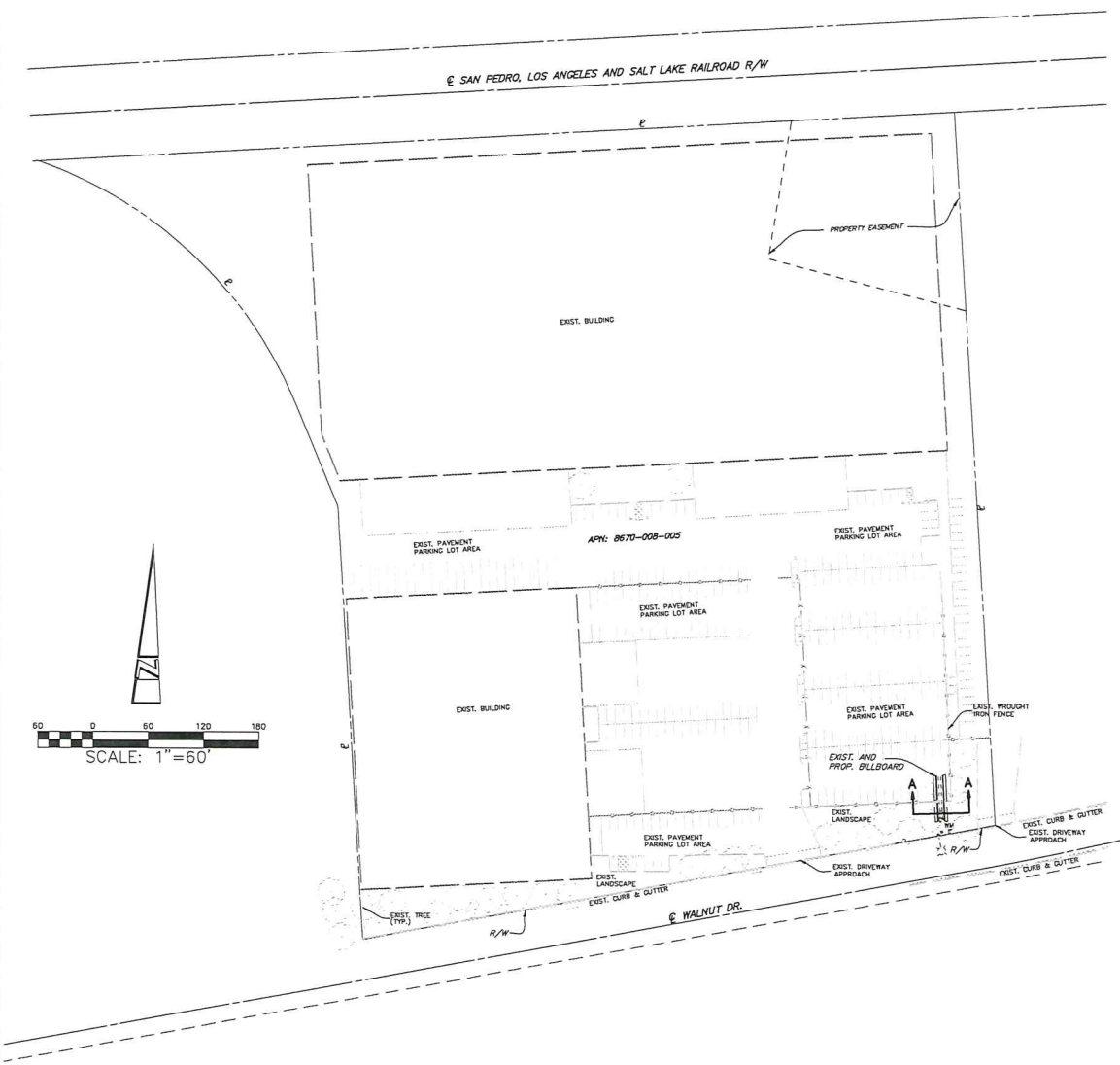
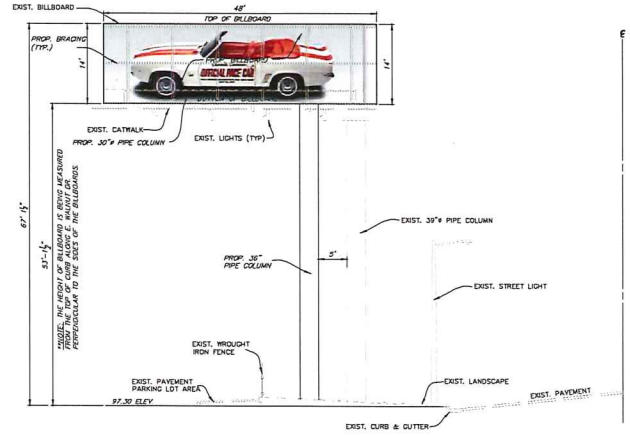

Valley Blvd
San Jose Ave
Arenth Ave
San Jose Ave
San Jose Ave
San Jose Ave
San Jose Ave
Business Pkwy
Site
E Walnut Dr N
E Walnut Dr N
E Walnut Dr N
E Walnut Dr N
E Walnut Dr N
Pomona Fwy
Pomona Fwy
60
60
60
Pacific Oaks Pl
Addis St

EXHIBIT B

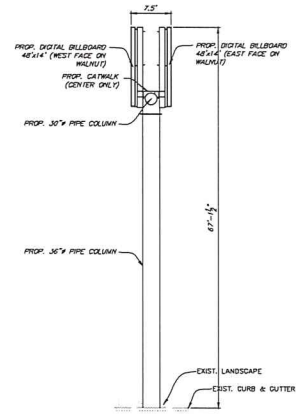
Site Plan – Development Plan 19-08

[Attached

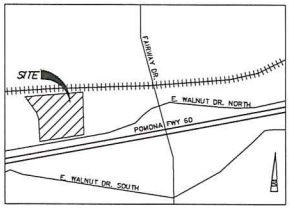




WEST ELEVATION FACE BILLBOARD DETAIL
SCALE: 1"=10'



SECTION A-A
SCALE: 1"=10'



VICINITY MAP
N.T.S.

REGISTERED PROFESSIONAL ENGINEER
KEVIN J. RICHER
No. 43714
Exp. 3/31/2021
CIVIL
STATE OF CALIFORNIA

NOTE:
1. A CENTER CATWALK WILL BE CONSTRUCTED ON THE NEW LED BILLBOARD.
2. THE FRONT AND REAR CATWALKS WILL BE REMOVED, ALONG WITH THE EXISTING EXTERNAL LIGHTS

PREPARED UNDER THE SUPERVISION OF:
RICHER & ROSER
R.C.E. 43714 LIC. EXP. 3/31/2021
7/1/19
DATE

APPROVED BY:
DATE

REVISIONS:

PLOT PLAN

SITE:
13445 E. WALNUT DR.
CITY OF INDUSTRY 91789

PREPARED FOR:
TM MCGRAVEE
MCGRAVEE INC.
10607 MONTE VISTA AVE.
MONTCLAIR, CA 91763
TEL: (909) 341-8383

BENCHMARK:

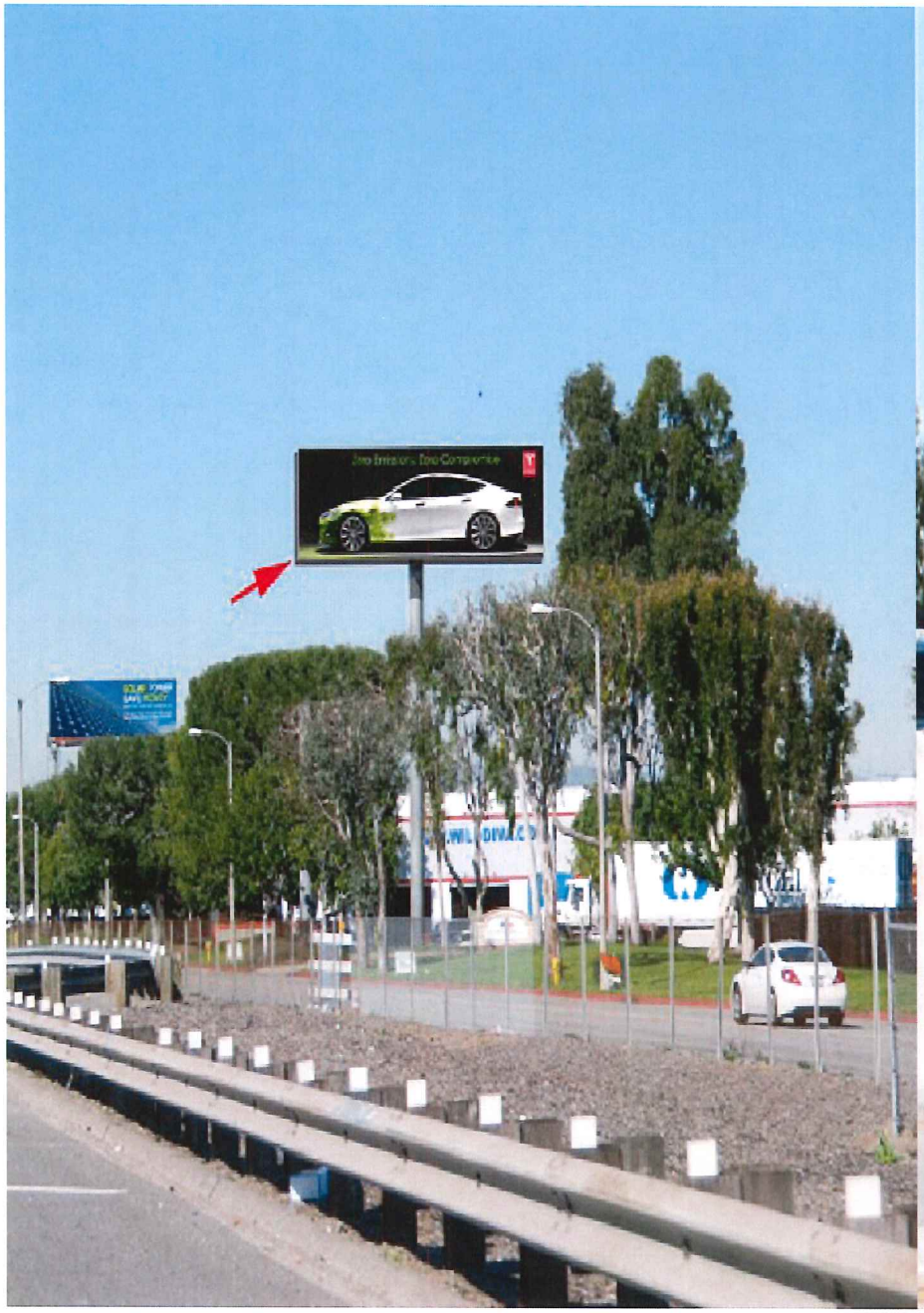
LAND DEVELOPMENT DESIGN COMPANY, LLC
PLANNING · CIVIL · SURVEYING
2303 E. Philadelphia Street, Unit "J" Ontario, CA 91761
PH: (909) 930-1468 FAX: (909) 930-1468

DATE: 7/1/19	JOB NO. 6063
DRAWN BY: CAZ	SCALE 1"=60'
DESIGNED BY: KJR	SHEET 1 OF 1 SHEETS
CHECKED BY: KJR	

Exhibit C

Elevations of Proposed Structure - Development Plan 19-08

[Attached]



BE ALERT, OUR DADS AT WORK.

Exhibit D

Notice of Intent – DP 19-08

[Attached]

CITY OF INDUSTRY

15625 E. Stafford St. • City of Industry, CA 91744-0366 • (626) 333-2211 • FAX (626) 961-6795

NOTICE OF AVAILABILITY AND INTENT TO ADOPT A MITIGATED NEGATIVE DECLARATION DEVELOPMENT PLAN 19-08 19465 EAST WALNUT DRIVE NORTH, CITY OF INDUSTRY

Purpose: In accordance with the State of California Public Resources Code Section 21092, Sections 15063 and 15072 of Title 14 of the California Code of Regulations pertaining to the California Environmental Quality Act, and the Industry Municipal Code, this is to advise you that the Planning Department of the City of Industry has prepared an Initial Study of environmental impacts on the following project and is recommending the environmental determination described below.

Project Description: Development Plan Application 19-08 is proposed by Peter Raulli of POP! Outdoor Media, to allow for the conversion of an existing 672 square foot per face display, static double-sided billboard into a new double-sided electronic billboard, located at 19465 East Walnut Drive North.

Location: The proposed project is located at 19465 East Walnut Drive North, City of Industry, and Los Angeles County (APN: 8760-008-005)

Environmental Determination: It has been determined through an Initial Study ("IS") analyzing the proposed Project has the potential for significant effect in the environmental topics such as Tribal Cultural Resources, but this potential impact is mitigated to less than significant with the mitigation measures identified in the proposed Mitigated Negative Declaration.

The project site is not included on any lists of hazardous waste sites enumerated pursuant to Section 65962.5 of the California Government Code (Cortese List).

The Initial Study/Environmental Checklist that has been prepared for the project recommends that the lead agency adopt a Mitigated Negative Declaration for the project pursuant to Section 21080 (c) of the Public Resources Code.

Public Review and Comment Period: Copies of the proposed Mitigated Negative Declaration and Initial Study are available in the Planning Department at the address listed below or via www.cityofindustry.org. **A 20-day public review period for the Mitigated Negative Declaration begins September 11, 2020, and ends October 1, 2020**. Written comments on the adequacy of the document must be received by the City prior to 5:00 PM on October 1, 2020. If you would like to comment, please send written comments to:

Eduardo Manriquez, Contract Planning Technician
15625 E. Stafford Street, Suite 100
City of Industry, CA 91744
emanriquez@cityofindustry.org
(626) 333-2211

Public Meeting: The City Council is scheduled to consider the Mitigated Negative Declaration and proposed project at a regularly scheduled meeting to be held on October 8, 2020, at 9:00 AM. The meeting will be held in the City of Industry Council Chambers located at 15651 E. Stafford Street, City of Industry, CA 91744. To confirm the date and time of the meeting, please check the City's website: www.cityofindustry.org.

Exhibit E

Resolution No. CC 2020-40

[Attached]

RESOLUTION NO. CC 2020-40

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF INDUSTRY, CALIFORNIA, ADOPTING AN INITIAL STUDY AND MITIGATED NEGATIVE DECLARATION AND MITIGATED MONOTORING AND REPORT PROGRAM, AND APPROVING DEVELOPMENT PLAN NO. 19-08, FOR THE CONVERSION OF AN EXISTING 672 SQUARE FOOT STATIC DOUBLE-SIDED BILLBOARD, TO A NEW DOUBLE-SIDED ELECTRONIC BILLBOARD, AT THE PROPERTY LOCATED AT 19465 EAST WALNUT DRIVE NORTH, IN THE CITY OF INDUSTRY, CALIFORNIA

RECITALS

WHEREAS, on July 31, 2019 Peter Raulli of POP! Outdoor Media, ("Applicant") filed a complete application requesting the approval of Development Plan ("DP") No. 19-08 described herein ("Application"); and

WHEREAS, the Application applies to an irregular shaped lot of approximately 13.21 acres, located on the north side of East Walnut Drive North, with an approximate frontage of 625 feet on East Walnut Drive North. The parcel is identified by the Assessor's Parcel Number 8760-008-005, and is located at 19465 East Walnut Drive North, City of Industry, California ("Property"); and

WHEREAS, the Application is for the conversion of an existing double-sided static billboard to a new double-sided electronic billboard in the "M" Industrial Zone ("Project"). In accordance with Section 17.36.020 of the City's Municipal Code ("Code"), a Development Plan is required for this type of activity; and

WHEREAS, the Land Use Element of the General Plan designates the Property as Employment. The Project is consistent with General Plan Goal LU5, which provides that the City's goal is to create high quality and well-maintained properties, buildings, and infrastructure that enhance property values and encourage additional public and private investment. The Project will assist with the maintenance of a professional appearance on privately owned property through application of standards that address signage treatments, which is consistent with the aforementioned General Plan goal; and

WHEREAS, in accordance with CEQA, California Environmental Quality Act ("CEQA"), California Public Resources Code section 21000 *et seq.,* the State CEQA Guidelines, and California Code of Regulations, Title 14, Chapter 3, sections 15000 *et seq*, an initial study was performed, the result of which was preparation and circulation of a mitigated negative declaration ("IS/MND") analyzing the proposed Project and concluding that approval of the Project could not have a significant effect on the environment because the impacts of the Project could all be mitigated to levels below established CEQA thresholds of significance with the adoption of mitigation measures and enforcement of such measures through a Mitigation Monitoring and Reporting Program ("MMRP"); and

WHEREAS, the IS/MND concluded that implementation of the Project could result in a significant effect on the environment and identified mitigation measures that would reduce the significant effects to a less-than-significant level. The mitigation measures address Tribal Cultural Resources. During the required AB52 consultation, The Gabrieleño Band of Mission Indians – Kizh Nation indicated that the project site is located within and around a sacred village (Pimokangna), adjacent to sacred water courses, and major traditional trade routes. Therefore, there is a potentially significant impact to tribal cultural resources being present within the soil from prehistoric activities that occurred within and around these areas. Mitigation measure TCR-1 has been identified to ensure impacts to tribal cultural resources would be less than significant. Per mitigation measure TCR-1, prior to the commencement of any ground disturbing activity at the project site, the project applicant shall retain a Native American Monitor approved by the Gabrieleno Band of Mission Indians-Kizh Nation – the tribe that consulted on this project pursuant to Assembly Bill A52 - SB18 (the "Tribe" or the "Consulting Tribe"). The potential impact is mitigated to less than significant with the mitigation measures identified in the proposed Mitigated Negative Declaration and MMRP; and

WHEREAS, the IS/MND was circulated for public review and comment on September 11, 2020 through and including, October 1, 2020. Copies of the IS/MND were made available to the public at the Planning Department on September 11, 2020, and the IS/MND was distributed to interested parties and agencies. On September 11, 2020, a Notice of Intent to Adopt a Mitigated Negative Declaration (Exhibit D), including the time and place of the City Council meeting to review the Application and the IS/MND, was published in the local newspaper of general circulation and posted at the Project site, City Hall, Council Chambers and Fire Station 118; and

WHEREAS, on October 8, 2020, the City Council of the City of Industry conducted a duly noticed public meeting on the Application, and the IS/MND, and considered all testimony written and oral; and

WHEREAS, the City Council has reviewed and carefully considered the information in the IS/MND and the MMRP, including all comment letters submitted, and makes the findings contained in this Resolution, and adopts the Initial Study/Mitigated Negative Declaration and the MMRP, as an objective and accurate document that reflects the independent judgment and analysis of the City in the discussion of the Project's environmental impacts; and

WHEREAS, all legal prerequisites have occurred prior to the adoption of this Resolution.

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF INDUSTRY DOES HEREBY RESOLVE, DETERMINE, FIND, AND ORDER AS FOLLOWS:

SECTION 1: The City Council finds that all of the facts set forth in the Recitals are true and correct and are incorporated herein by reference.

SECTION 2: All necessary public meetings and opportunities for public testimony and comment have been conducted in compliance with State law and the City's Code.

SECTION 3: CEQA FINDINGS. That based on the entirety of the record before it, which includes without limitation, the California Environmental Quality Act, Public Resources Code §§ 21000, et seq. ("CEQA") and the CEQA Guidelines, 14 California Code of Regulations § 15000, *et seq.*; the IS/MND, prepared for the Project, including all written comments received; all reports,

minutes, and public testimony submitted as part of the City Council's duly noticed public meeting of October 8, 2020; and any other evidence (within the meaning of Public Resources Code §21080(e) and §21082.2), the City Council hereby finds as follows:

a. The IS/MND for the Project including any comment letters received, are attached hereto as Attachment 1 and are incorporated by reference as part of this Resolution, as if each were set forth fully herein.

b. The documents and other material constituting the record for these proceedings are located at the Office of the City Clerk, City of Industry, 15625 E. Stafford, Suite 100, City of Industry, CA 91744.

c. The Land Use Element of the General Plan designates the Property as Employment. The Project is consistent with General Plan Goal LU5, which provides that the City's goal is to create high quality and well-maintained properties, buildings, and infrastructure that enhance property values and encourage additional public and private investment. The Project will assist with the maintenance of a professional appearance on privately owned property through application of standards that address signage treatments, which is consistent with the aforementioned General Plan goal.

d. In accordance with CEQA, the City Council has considered the IS/MND for the Project, including all comments received on the IS/MND, and based on the entirety of the record, as described above, the City Council, exercising its independent judgment and analysis, makes the following findings regarding the environmental analysis of the Project:

   i. Design features of the Project, as well as the mitigation measures proposed in the IS/MND and included in the MMRP, will operate to ensure the impacts of the proposed Project will not exceed established CEQA thresholds of significance. Therefore, and as further documented in the IS/MND for the Project, additional mitigation measures beyond those established in the MMRP are not required for the Project.

   ii. For the reasons stated in this Resolution, the City Council finds that there is no substantial evidence in the record supporting a fair argument that approval of the Project will result in a significant environmental effect.

SECTION 4: Based upon substantial evidence presented to the City Council during the October 8, 2020 public meeting, including public testimony and written and oral staff reports, this City Council finds as follows:

A. The Property is suitable for development in accordance with the Development Plan because the Project conforms with the City of Industry General Plan, Zoning Code and all applicable development standards outlined within Section 15.32.050.I.4 of the City's Code. Furthermore, the Project is within a geographic area that is fully developed and is currently served by all public services and facilities such as sewer, water and gas and is designated as Employment in the General Plan and zoned Industrial, which is consistent with the surrounding properties; and

B. The total development is arranged as to avoid traffic congestion, ensure the public health, safety and general welfare or prevent adverse effects upon neighboring properties. No aspects of the proposed project's operation phase would result in the generation of any traffic or increase in vehicle miles traveled (VMT). Construction activities associated with installation of the proposed digital billboard would generate small numbers of worker commute trips and heavy truck trips. However, the traffic generated during the construction phase would be minimal and would cease upon installation of each billboard. The proposed project would also not result in the need for new or expanded pedestrian, bicycle, or public transit services or facilities. Installation of the billboard would not interrupt or block public sidewalks or bicycle lanes adjacent to or surrounding the proposed billboard site. Installation of the billboard would also not result in the interruption of or block access to public transit. As noted in the accompanying IS/MND, the Project would have no transportation impacts, and no mitigation measures are necessary. As set forth in Section 15.32.050.I.4.b. of the City's Code, the proposed electronic billboard will not adversely impact the existing residential neighborhood because it is located approximately 750 feet southwest from the Project site, the billboard will replace an existing outdated billboard with new and improved lighting that meets all City Code requirements, and will be screened from the existing residential by the existing industrial buildings that serve as a buffer from light and glare because the buildings are approximately 25-30 feet in height. According to the light level survey that was prepared by a City-approved lighting engineer, it was determined that the project would not adversely impact surrounding light sensitive uses. As stated in the IS/MND, evening ambient light level is presumed to be above 1.0 foot candles due to the presence of street lighting, SR-60 lighting and security lighting for the existing billboards. The proposed project would not increase ambient lighting over 0.3 foot candles during either day time or nighttime conditions with installation of the automatic dimmer as required by Section 15.32.05.I.4.c.iii. With this mitigation measure, the proposed project would not be a substantial source of light or glare and impacts would be less than significant.

C. The development is in general accord with all elements of the City's Zoning Code because, with the approval of the Development Plan, and conditions of approval, the Project complies with development standards in regards to pole height, freeway orientation, distance separation from other billboards, distance separation from the nearest wall of residence, and design. The pole height will remain the same at 53 feet 1.5 inches. As required by Section 15.32.050.I.4.c.i. all distancing requirements are met. The sign will be facing State Route 60 (SR-60) which is directly south of the project. The closest billboards within the vicinity of the proposed project site include a static billboard located approximately 700 feet to the east of the existing static billboard, and a static billboard located approximately 1,180 feet to the west of the proposed project site. Further, a single family residential neighborhood is located approximately 750 feet south of the project site, which is greater than the 200 foot distance imposed by the City's Code.

D. The Land Use Element of the General Plan designates the Property as Employment. The Project is consistent with General Plan Goal LU5, which provides that the City's goal is to create high quality and well-maintained properties, buildings, and infrastructure that enhance property values and encourage additional public and private investment. The Project will assist with the maintenance of a professional appearance on privately owned property through application of standards that address signage treatments, which is consistent with the aforementioned General Plan goal. Furthermore, the request to replace the static billboard with an electronic billboard is consistent with the industrial land use designation of the property and with the requirements set forth in Section 15.20.050.I.4 of the City's Code. The uses of the

surrounding properties may change, but the character will remain industrial in nature and consistent with the general plan and zoning designation of the site.

SECTION 5: Based upon the foregoing findings, the City Council hereby makes the findings contained this Resolution and adopts the IS/MND for the Project and approves DP No. 19-08, subject to the conditions contained in Attachment 2, attached hereto and incorporated herein by reference.

SECTION 6: The provisions of this Resolution are severable and if any provision, clause, sentence, word or part thereof is held illegal, invalid, unconstitutional, or inapplicable to any person or circumstances, such illegality, invalidity, unconstitutionality, or inapplicability shall not affect or impair any of the remaining provisions, clauses, sentences, sections, words or parts thereof of the Resolution or their applicability to other persons or circumstances.

SECTION 7: That the City Clerk shall certify to the adoption of this Resolution and that the same shall be in full force and effect.

PASSED, APPROVED AND ADOPTED by the City Council of the City of Industry at a regular meeting held on October 8, 2020 by the following vote:

AYES: COMMISSIONERS:

NOES: COMMISSIONERS:

ABSTAIN: COMMISSIONERS:

ABSENT: COMMISSIONERS:

_____
Cory C. Moss, Mayor

ATTEST:

_____
Julie Gutierrez-Robles, City Clerk

Attachment 1

IS/MND & MMRP - Resolution No. CC 2020-40

[Attached]

September 2020 | **Initial Study**

19465 EAST WALNUT DRIVE ELECTRONIC BILLBOARD

For City of Industry

Prepared for:

Client
Contact: Kathy Tai, Development Services Manager
City of Industry
15625 Stafford Street
City of Industry, CA 91744
626.333.2211

Prepared by:

PlaceWorks
Contact: Julian Capata
700 S. Flower Street, Suite 600
Los Angeles, CA 90017
213.623.1443
info@placeworks.com
www.placeworks.com

PLACEWORKS

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Abbreviations and Acronyms

AAQS	ambient air quality standards
AB	Assembly Bill
AQMP	air quality management plan
CAL FIRE	California Department of Forestry and Fire Protection
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
CEQA	California Environmental Quality Act
CGS	California Geologic Survey
CMP	congestion management program
CNEL	community noise equivalent level
CO	carbon monoxide
CO2e	carbon dioxide equivalent
DPM	diesel particulate matter
DTSC	Department of Toxic Substances Control
EIR	environmental impact report
EPA	United States Environmental Protection Agency
FEMA	Federal Emergency Management Agency
GHG	greenhouse gases
GWP	global warming potential
IPCC	Intergovernmental Panel on Climate Change
LST	localized significance thresholds
NOX	nitrogen oxides
O3	ozone
PM	particulate matter
ppm	parts per million
PPV	peak particle velocity
RPS	renewable portfolio standard
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SCAG	Southern California Association of Governments

Abbreviations and Acronyms

South Coast AQMD	South Coast Air Quality Management District
SoCAB	South Coast Air Basin
SOX	sulfur oxides
SWRCB	State Water Resources Control Board
VHFHSZ	very high fire hazard severity zone
VMT	vehicle miles traveled
VOC	volatile organic compound

1. Introduction

The project applicant, POP! Outdoor Media, is seeking approval of the City of Industry ("City") for the conversion of an existing double-sided billboard to a new double-sided electronic billboard on a 13.21-acre parcel located in the southern portion of the City.

The City serves as the Lead Agency for the proposed project in accordance with the California Environmental Quality Act (CEQA), Section 15051(c). This Initial Study is a preliminary evaluation of the potential environmental consequences associated with the proposed project. As part of the City's approval process, the proposed project is required to undergo an environmental review pursuant to CEQA. The lead agency uses the initial study analysis to determine whether an environmental impact report (EIR) or a negative declaration (ND) is required. If the initial study concludes that the project may have a significant effect on the environment, an EIR must be prepared. Otherwise, a ND or mitigated negative declaration (MND) is prepared

1.1 PROJECT LOCATION

The proposed project site is located at 19465 East Walnut Drive North in the City of Industry, Los Angeles County, (APN: 8760-008-005) (*see Figure 1, Regional Location*). The closest major intersection is Fairway Drive and East Walnut Drive North, approximately 1,745feet to the northeast. Regional access to the site is provided from State Route 60 (SR-60) via Fairway Drive to East Walnut Drive North. Direct access to the project site from East Walnut Street is provided via a driveway on the southern boundary of the project site (*see Figure 2, Local Vicinity*).

1.2 ENVIRONMENTAL SETTING

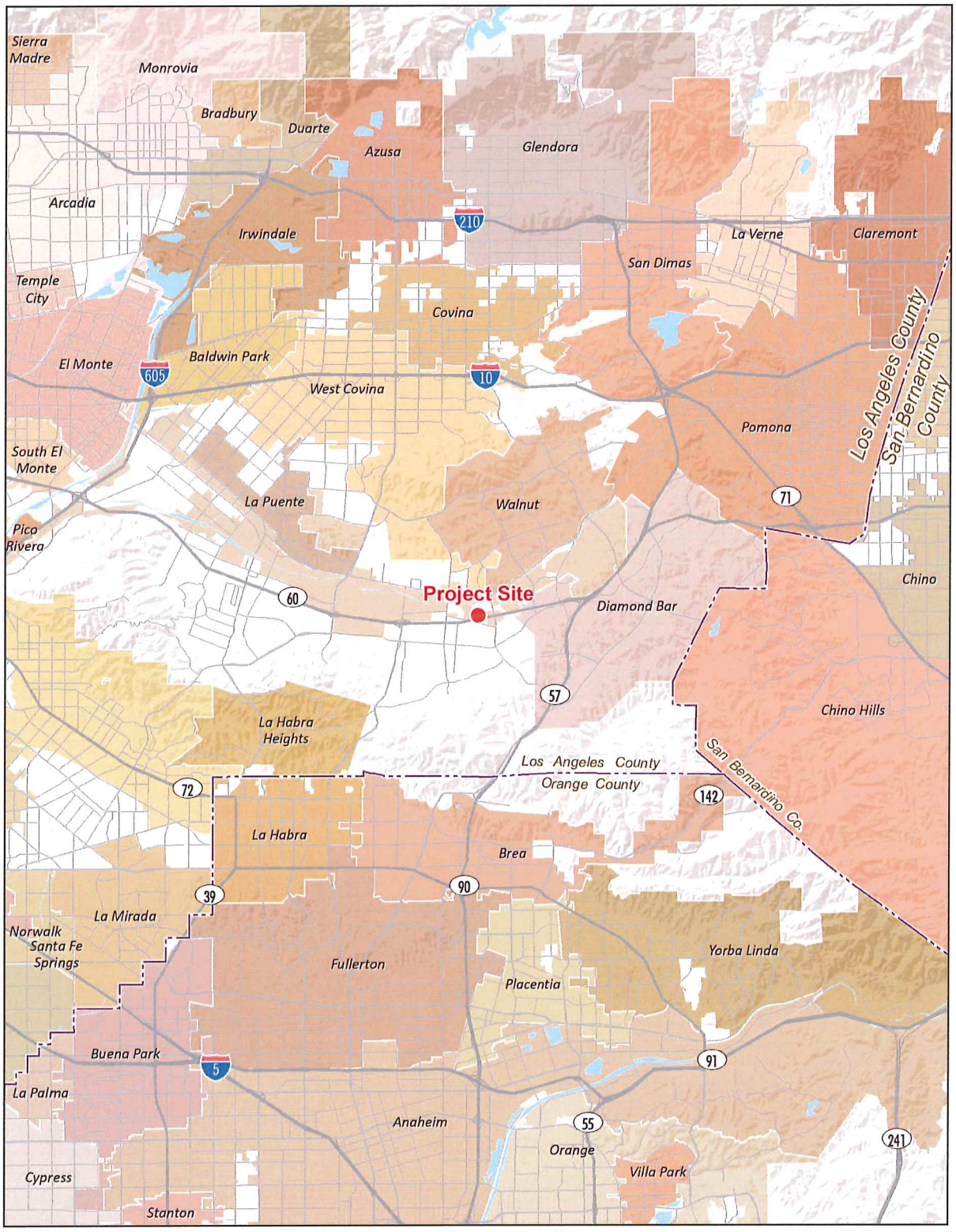
1.2.1 Existing Land Use

The project site is fully developed with two warehouse buildings, one on the southwestern portion of the project site and the other on the northern portion of the project site. A paved surface parking lot for passenger vehicles, as well as semi-trucks, occupies the southeastern portion of the project site. Light landscaping consisting of trees, shrubs, grass, and bushes are located along portions of the building and the southern boundary of the project site. An existing static dual-sided billboard sign is located along the southeastern perimeter of the proposed project site that is 67'-1.5" in height with 14-feet high by 48-feet wide sign faces, approximately 30 feet higher than the adjacent industrial buildings. The current billboard is located approximately 125 feet to the north of the westbound travel lanes of SR-60. Site lighting is limited to security lighting along the perimeter of the existing buildings and the up light of the billboard.

1.2.2 Surrounding Land Use

The project area is largely characterized by industrial uses with some proximate commercial and residential uses. Industrial uses exist in the immediate vicinity of the project site to the west, north, and east. The Union Pacific railroad runs proximate to the northern boundary of the project site. Directly south of the project site is State Route 60 (SR-60) with auto-oriented commercial uses south of SR-60. Further south, approximately 750 feet, exists single family residential neighborhoods. The closest billboards within the vicinity of the proposed project site include a static billboard located approximately 700 feet to the east of the existing static billboard, and a static billboard located approximately 1,180 feet to the west of the proposed project site.

Figure 1 - Regional Location



Note: Unincorporated county areas are shown in white.

0 3
Scale (Miles)

Source: ESRI, 2020

1. Introduction

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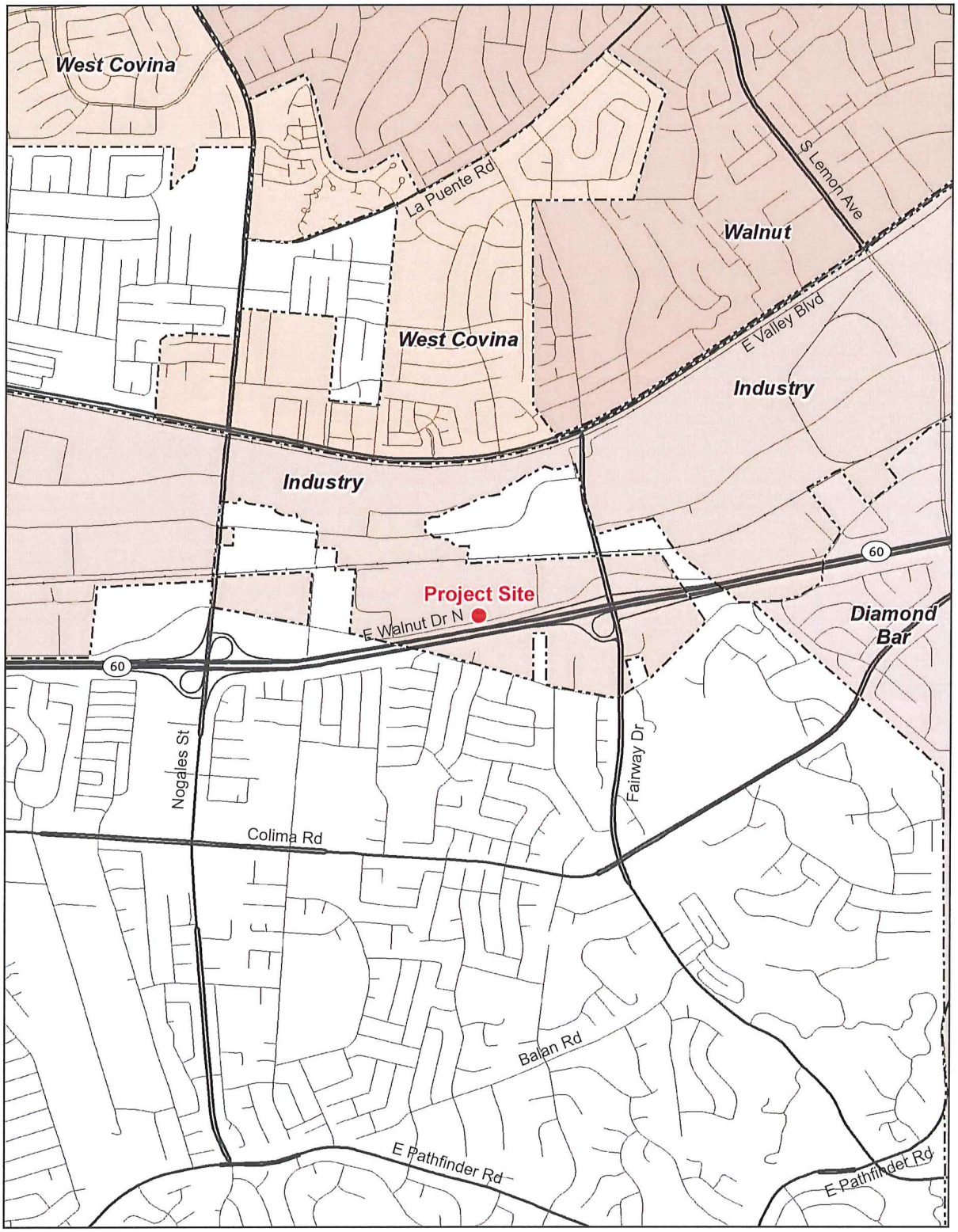
Figure 2 - Local Vicinity



City Boundary

Note: Unincorporated county areas are shown in white.

Source: ESRI, 2020

0 2,000
Scale (Miles)

1. Introduction

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1.3 PROJECT DESCRIPTION

1.3.1 Proposed Project

The proposed project involves the conversion of an existing double-sided billboard into a new double-sided electronic billboard. The new electronic billboard will be located at the southeastern corner of a 13.21-acre parcel in the City of Industry. The 13.21-acre parcel contains a warehouse on the southwest portion of the parcel, a warehouse on the northern part of the parcel, a paved parking lot in the central and southeast part of the parcel, and landscaping consisting of grass, trees, bushes, and shrubs running along portions of the warehouses and the southern boundary of the parcel. The new electronic billboard will be oriented for viewing from the westbound lanes of the SR-60 located approximately 125 feet south of the proposed billboard. Hours of operation for the new electronic billboard would be 24 hours a day, 7 days a week. The proposed project would conform with all of the provision of the City of Industry's Municipal Code (Code), Section 15.32.050.I regarding off-site signs. Per Section 15.32.050.I.4.c.v. the display would be visible for a minimum of 8-seconds before changing, and the image projected would appear static. Additionally, the applicant would be required to demonstrate that the lighting levels of the proposed billboard would not exceed 0.3 foot candles of the ambient light levels during daytime and evening hours (refer to Section 3.1 for an analysis of the proposed project's light level impacts).

Figure 3, *Billboard Site Plan*, shows the general layout of the proposed billboard, while *Figures 4* through *6* provide visual simulations of how the billboard would appear to motorists along SR-60. There are no electronic billboards within 0.25 miles of the project site along the westbound lanes of the SR-60.

The new electronic billboard will be 67'-1.5" in height (same as the existing billboard) with a double sided display face that would be 14-feet high by 48-feet wide, for an area of 672 square feet per display face — the exact same display face dimensions as the existing billboard. The new electronic billboard would consist of a 36-foot pipe column fixed to the ground, five feet north of the original footing – as allowed by Section 15.32050.I.4.c.vi. – and would run vertically toward a 30-foot horizontal pipe column supporting the east and west facing electronic signs. A center catwalk would run above the horizontal pipe column and between the two signs. Approximately half of the billboard will be suspended over the existing paved parking lot with the other portion suspended over landscaping.

Demolition and construction are anticipated to begin between Spring 2020 to Fall 2020 and be completed in one phase lasting 5 to 7 business days. Demolition of the current billboard would remove all existing features including the 39-foot pipe column supporting the sign, display lights, two catwalks, and signage. Approximately 14 cubic yards of soil would be exported during demolition and construction activities. No trees would be removed during construction.

1.4 EXISTING ZONING AND GENERAL PLAN

The project site is zoned as Industrial ("I") and designated as Employment in the General Plan.

The proposed project's sign use is allowed under existing zoning and General Plan designations, pursuant to Section 15.32.050.I.4 of the City's Code. Additional approvals required from the City currently in process include:

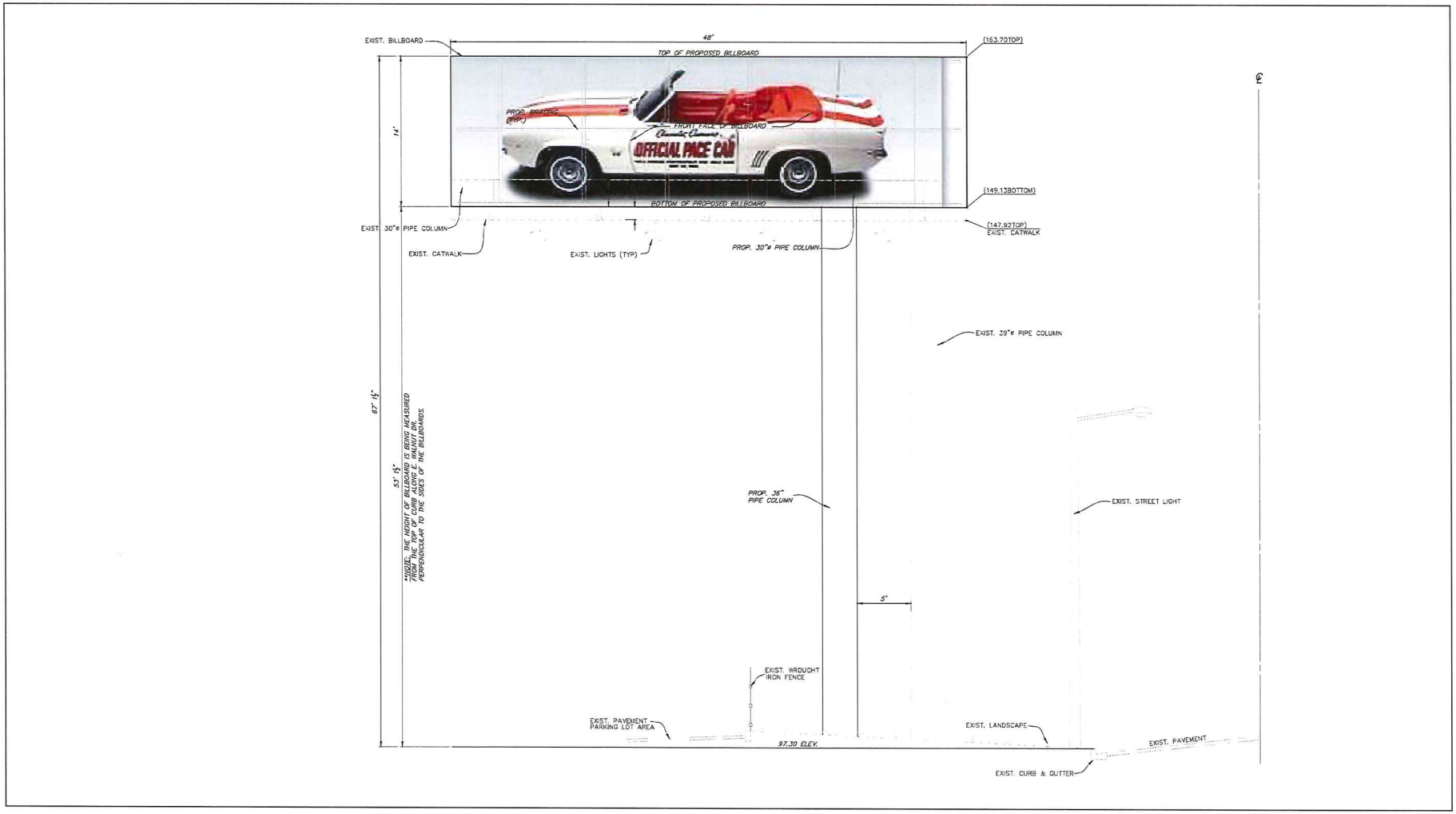
- Development Plan Application.

1.5 OTHER AGENCY ACTION REQUESTED

REGIONAL AGENCIES

- California Department of Transportation (Caltrans) for Outdoor Advertising Permit. – Caltrans provides specific requirements and restrictions concerning outdoor advertising displays and the conduct of outdoor advertising activities, including licensing and permitting requirements.

Figure 3 - Site Plan - Billboard



0 10
Scale (Feet)

Source: LDDC, 2019

1. Introduction

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Figure 4 - Visual Simulation A.

View from State Route 60 looking west.

Source: Peter Raulli, Pop! Outdoor Media, 2019

1. Introduction

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Figure 5 - Visual Simulation B.

View from eastbound State Route 60 looking northeast.

Source: Peter Raulli, Pop! Outdoor Media, 2019

1. Introduction

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Figure 6 - Visual Simulation C.

View from E Walnut Dr looking north.

Source: Peter Raulli, Pop! Outdoor Media, 2019

1. Introduction

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2. Environmental Checklist

2.1 PROJECT INFORMATION

1. **Project Title:** 19465 East Walnut Drive Electronic Billboard

2. **Lead Agency Name and Address:**
   City of Industry
   15625 Stafford Street
   City of Industry, CA 91744

3. **Contact Person and Phone Number:**
   Kathy Tai, Development Services Manager
   626.333.2211

4. **Project Location:** The proposed project is located at 19465 East Walnut Drive North in the City of Industry, Los Angeles County, (APN: 8760-008-005). The closest major intersection is Fairway Drive and East Walnut Drive North, approximately 1,745feet to the northeast

5. **Project Sponsor's Name and Address:**
   Peter Raulli, POP! Outdoor Media
   970 North Broadway, Suite 201
   Los Angeles, CA, 90012

6. **General Plan Designation:**
   Employment

7. **Zoning:**
   Industrial

8. **Description of Project:**
   The proposed project involves the conversion of an existing static double-sided billboard that is 67'-1.5" in height with 14-feet high by 48-feet wide sign faces into a new double-sided electronic billboard that is the same height and width and the static billboard.

9. **Surrounding Land Uses and Setting:**
   The uses surrounding the proposed billboard consist of a mix industrial uses west, north, and east and some proximate commercial and residential uses to the south.

10. **Other Public Agencies Whose Approval Is Required (e.g., permits, financing approval, or participating agreement):**
    California Department of Transportation (Caltrans) for Outdoor Advertising Permit

2. Environmental Checklist

11. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?

Note: Conducting consultation early in the CEQA process allows tribal governments, lead agencies, and project proponents to discuss the level of environmental review, identify and address potential adverse impacts to tribal cultural resources, and reduce the potential for delay and conflict in the environmental review process. (See Public Resources Code section 21080.3.2.) Information may also be available from the California Native American Heritage Commission's Sacred Lands File per Public Resources Code section 5097.94 and the California Historical Resources Information System administered by the California Office of Historic Preservation. Please also note that Public Resources Code section 21082.3(c) contains provisions specific to confidentiality.

The Soboba Band of Luiseno Indians and the Gabrieleño Band of Mission Indians – Kizh Nation are on the City of Industry's notification list pursuant to AB 52. The City prepared notification letters and distributed them to the identified tribal representatives on May 26, 2020. Only the Gabrieleño Band of Mission Indians – Kizh Nation requested consultation and the City is currently engaged in consultation with the tribe. The outcome of this consultation has been reported in this Mitigated Negative Declaration.

2.2 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact," as indicated by the checklist on the following pages.

- ☐ Aesthetics
- ☐ Biological Resources
- ☐ Geology/Soils
- ☐ Hydrology/Water Quality
- ☐ Noise
- ☐ Recreation
- ☐ Utilities / Service Systems
- ☐ Agriculture / Forestry Resources
- ☐ Cultural Resources
- ☐ Greenhouse Gas Emissions
- ☐ Land Use / Planning
- ☐ Population / Housing
- ☐ Transportation
- ☐ Wildfire
- ☐ Air Quality
- ☐ Energy
- ☐ Hazards and Hazardous Materials
- ☐ Mineral Resources
- ☐ Public Services
- ☒ Tribal Cultural Resources
- ☐ Mandatory Findings of Significance

2.3 DETERMINATION (TO BE COMPLETED BY THE LEAD AGENCY)

On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

_____ _____
Signature *Date*

_____ _____

2.4 EVALUATION OF ENVIRONMENTAL IMPACTS

1. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors, as well as general standards (e.g., the project would not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

2. All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

4. "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level.

5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:

   a) **Earlier Analyses Used.** Identify and state where they are available for review.

   b) **Impacts Adequately Addressed.** Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.

   c) **Mitigation Measures.** For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

7. Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

8. This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.

9. The explanation of each issue should identify:

   a) the significance criteria or threshold, if any, used to evaluate each question; and
   b) the mitigation measure identified, if any, to reduce the impact to less than significance.

2. Environmental Checklist

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3. Environmental Analysis

Section 2.4 provided a checklist of environmental impacts. This section provides an evaluation of the impact categories and questions contained in the checklist and identifies mitigation measures, if applicable.

3.1 AESTHETICS

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
I. AESTHETICS. Except as provided in Public Resources Code Section 21099, would the project:				
a) Have a substantial adverse effect on a scenic vista?				X
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				X
c) In nonurbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?			X	
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?			X	

Except as provided in Public Resources Code Section 21099, would the project:

a) Have a substantial adverse effect on a scenic vista?

No Impact. The proposed project would allow for the replacement of a 67'-1.5" tall static billboard with an electronic billboard that is the same height and width in the same location of a highly urbanized area of the City of Industry. The display area of the proposed electronic billboard would be 14-feet high by 48-foot wide sign face, the same dimensions as the existing static billboard. The proposed billboard would be approximately 30 feet taller than the adjacent industrial buildings, the same as existing conditions. The billboard would be located along the southern perimeter of the property, and would not obstruct any views of the windowless industrial buildings.

The closest major intersection is Fairway Drive and East Walnut Drive North, approximately 1,745 feet to the northeast. There are no scenic vistas in the project area. The sign installation would occur adjacent to a roadway surrounded by industrial uses to the west, north, and east, and SR-60 located approximately 125 feet to the south. Views along these roadways consist entirely of buildings and ornamental landscaping. Replacement of the static billboard with an electronic billboard would not interrupt any scenic vista; therefore, no impact would occur.

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

No Impact. There are no trees, historic buildings or rock outcroppings onsite. The project site is not in a state scenic highway, as the nearest such highway to the site is SR-91 approximately 11 miles to the south (Caltrans 2020). As there are no resources near, or affected by the proposed project, no impact would occur.

c) In nonurbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

Less Than Significant Impact. Industrial uses exist in the immediate vicinity of the project site to the west, north, and east. The Union Pacific railroad runs proximate to the northern boundary of the project site. Directly south of the project site is SR-60 with auto-oriented commercial uses south of SR-60. The proposed project would allow for the construction of a double-sided electronic billboard, which replaces an existing static billboard. The new billboard would be internally lit and could display different images, unlike the existing non-electronic sign, but the installation of the billboard would occur in highly urbanized and lit environments.

The proposed project would be required to comply with the provisions of the City of Industry's Municipal Code (Code), Section 15.32.050.I regarding Off-site signs. Per Section 15.32.050.I.4.c. v. the display would be visible for a minimum of 8-seconds before changing, and the image projected would appear static. According to Section 15.32.050.I.4.c.vi. of the Code, the existing support pole may be replaced if necessary in order to support the new electronic message board sign; however, the new support must be the same height as the existing pole and must be located in the same location or up to five feet from the existing foundation. The proposed project would be located five feet to the north of the existing static billboard, and would have a total height of 67'-1.5", same as the existing billboard. As with the existing billboard, the face display would be oriented to face the travel lanes of SR-60, and would not be located within 1,000 feet of another electronic billboard along the westbound lanes of SR-60, or within 200 feet of residential uses. Therefore, the project would not conflict with zoning or other regulations and impacts to scenic quality would be less than significant.

d) Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?

Less Than Significant Impact. The proposed billboard would create a new source of light and glare during daylight and evening hours as it would operate 24 hours per day. The new electronic billboard will be 67'-1.5" in height (same as the existing billboard) with a double sided display face that would be 14-feet high by 48-feet wide, for with an area of 672 square feet per display face — the exact same display face dimensions as the existing billboard. The new electronic billboard would consist of a 36-foot pipe column fixed to the ground, five feet north of the original footing – as allowed by Section 15.32050.I.4.c.vi. – and would run vertically toward a 30-foot horizontal pipe column supporting the east and west facing electronic signs. A center catwalk would run above the horizontal pipe column and between the two signs. Approximately half of the billboard will be suspended over the existing paved parking lot with the other portion suspended over landscaping. The billboard will include a series of lights—light-emitting diodes (LED) with a changing display. Per Section

15.32.05.I.4.c.iv. the display would be visible for a minimum of 8-seconds before changing, and the image projected would appear static, and at no time may the image project the appearance of motion or any effect that gives the appearance of movement.

Light and glare impacts are determined through a comparison of the existing light sources with the proposed lighting plan or policies. In some cases, excessive light and glare can be annoying to residents or other sensitive land uses; be disorienting or dangerous to drivers; impair the character of rural communities; and/or adversely affect wildlife.

The nighttime illumination and glare analysis addresses the effects of a project's nighttime lighting on adjoining uses and areas. Light and glare impacts are determined through a comparison of the existing light sources with the proposed lighting plan or policies. If the project has the potential to generate spill light on adjacent sensitive receptors or generate glare at receptors in the vicinity of the site, mitigation measures can be provided to reduce potential impacts, as necessary. The following provides relevant lighting assessment terminology used in this analysis.

Foot-candle. The unit of measure expressing the quantity of light on a surface. One foot-candle is the illuminance produced by a candle on a surface of one square foot from a distance of one foot. The general benchmarks for light levels are shown in Table 1.

Table 1 General Light Levels Benchmark

Outdoor Light	Foot-candles
Direct Sunlight	10,000
Full Daylight	1,000
Overcast Day	100
Dusk	10
Twilight	1
Deep Twilight	0.1
Full Moon	0.01
Quarter Moon	0.001
Moonless Night	0.0001
Overcast Night	0.00001
Gas station canopies	25–30
Typical neighborhood streetlight	1.0–5.0

Source: NOAO 2016.

Per Section 15.32.05.I.4.c.iii, the billboard must be installed with automatic dimming technology to adjust the brightness of the sign relative to ambient light so that light levels of the proposed project do not exceed ambient daytime or nighttime lighting by 0.3 foot candles. In order to determine the level of illumination and glare that can be generated from the electronic message sign, and in accordance with Section 15.32.050.I.4.c.iii. of the City's Code, a light level survey was prepared by a City-approved lighting engineer to determine if the proposed

project would adversely impact surrounding light sensitive uses such as the residential uses located approximately 750 feet to the south of the project site, included as Appendix A to this Initial Study. Light levels were calculated for distances of up to 500 feet from the project site. Table 2, Maximum Light Levels, shows the results of the lighting study:

Table 2 Maximum Light Levels

Distance	Degrees				
	0	20	40	60	75
100	0.6814	0.56214	0.3795	0.1717	0.0341
200	0.1703	0.1405	0.0949	0.0429	0.0085
300	0.0757	0.0625	0.0422	0.0191	0.0038
400	0.0426	0.0351	0.0237	0.0107	0.0021
500	0.0273	0.0225	0.0152	0.0069	0.0014

Source: Watchfire Signs, 2019

The results of the study show that light levels would not exceed one-foot candle at any location.[1] Further, with an assumed daytime ambient light level of 1,000 foot candles, and an evening ambient light level presumed to be above 1.0 foot candles due to the presence of street lighting, SR-60 lighting and security lighting for the existing billboards, the proposed project would not increase ambient lighting above 0.3 foot candles during either day time or nighttime conditions. With installation of the automatic dimmer as required by Section 15.32.05.I.4.c.iii, implementation of the proposed project would not be a substantial source of light or glare and impacts would be less than significant.

3.2 AGRICULTURE AND FORESTRY RESOURCES

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
II. AGRICULTURE AND FORESTRY RESOURCES. In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				X
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				X

[1] A foot-candle is the amount of light produced by a single candle when measured from 1 foot away. For reference, a 100-watt light bulb produces 137 foot-candles at 1 foot away, .0548 foot-candles at 50 feet and .0137 foot-candles at 100 feet.

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?				X
d) Result in the loss of forest land or conversion of forest land to non-forest use?				X
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?				X

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:

a) **Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?**

b) **Conflict with existing zoning for agricultural use, or a Williamson Act contract?**

c) **Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?**

d) **Result in the loss of forest land or conversion of forest land to non-forest use?**

e) **Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?**

a-e) No Impact. The following analysis addresses environmental checklist questions a) through e) for Agriculture and Forestry Resources. The California Department of Conservation manages the Farmland Mapping and Monitoring Program (FMMP), which identifies and maps significant farmland. Farmland is classified using a system of five categories including Prime Farmland, Farmland of Statewide Importance, Unique Farmland, Farmland of Local Importance, and Grazing Land. The classification of farmland as Prime Farmland, Unique Farmland, and Farmland of Statewide Importance is based on the suitability of soils for

agricultural production, as determined by a soil survey conducted by the Natural Resources Conservation Service (NRCS). The California Department of Conservation manages an interactive website, the California Important Farmland Finder. This website program identifies the project site as being outside of the survey area, and it is therefore not considered agriculturally important land (CIFF 2014).

The proposed billboard site is in an urbanized area of the City; neither the site or surrounding areas contain agricultural resources or are used for agricultural purposes. The proposed billboard is located on the southeastern corner of a parcel which is zoned Industrial and contains two warehouses, surface parking, and ornamental landscaping. The project site is not used, zoned, or designated for agriculture. No designated forest land exists on or near the project site, or within the City of Industry. Therefore, project development would not convert mapped important farmland to non-agricultural uses, and no impact to agriculture or forestry resources would occur.

3.3 AIR QUALITY

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
III. AIR QUALITY. Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?			X	
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?			X	
c) Expose sensitive receptors to substantial pollutant concentrations?			X	
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?			X	

The Air Quality section addresses the impacts of the proposed project on ambient air quality and the exposure of people, especially sensitive individuals, to unhealthful pollutant concentrations. A background discussion on the air quality regulatory setting, meteorological conditions, existing ambient air quality in the vicinity of the project site, and air quality modeling can be found in Appendix B.

The primary air pollutants of concern for which ambient air quality standards (AAQS) have been established are ozone (O_3), carbon monoxide (CO), coarse inhalable particulate matter (PM_{10}), fine inhalable particulate matter ($PM_{2.5}$), sulfur dioxide (SO_2), nitrogen dioxide (NO_2), and lead (Pb). Areas are classified under the federal and California Clean Air Act as either in attainment or nonattainment for each criteria pollutant based on whether the AAQS have been achieved. The South Coast Air Basin (SoCAB), which is managed by the South Coast Air Quality Management District (South Coast AQMD), is designated nonattainment for O_3, and $PM_{2.5}$ under the California and National AAQS, nonattainment for PM_{10} under the California AAQS, and nonattainment for lead (Los Angeles County only) under the National AAQS (CARB 2017b).

Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:

a) Conflict with or obstruct implementation of the applicable air quality plan?

Less Than Significant Impact. South Coast AQMD adopted the 2016 Air Quality Management Plan on March 3, 2017. Regional growth projections are used by South Coast AQMD to forecast future emission levels in the SoCAB. For southern California, these regional growth projections are provided by the Southern California Association of Governments (SCAG) and are partially based on land use designations included in city/county general plans. Typically, only large, regionally significant projects have the potential to affect the regional growth projections. In addition, the consistency analysis is generally only required in connection with the adoption of General Plans, specific plans, and significant projects.

The proposed project is not considered a regionally significant project that would warrant Intergovernmental Review by SCAG under CEQA Guidelines section 15206. Additionally, the proposed project would not affect the regional growth projections as it would only consist of the installation of two-sided digital billboard, which is a non-habitable structure.

Additionally, as demonstrated in Section 3.3. b, the regional emissions that would be generated by the construction and operational phases of the proposed project would be less than the South Coast AQMD emissions thresholds and would therefore not be considered by South Coast AQMD to be a substantial source of air pollutant emissions that would have the potential to affect the attainment designations in the SoCAB. Therefore, the proposed project would not affect the regional emissions inventory or conflict with strategies in the AQMP. Impacts would be less than significant and no mitigation measures are necessary.

b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard?

Less Than Significant Impact. The following describes project-related impacts from regional short-term construction activities and regional long-term operation of the proposed project.

Regional Short-Term Construction Impacts

The proposed project would result in the installation of a billboard sign that would take approximately seven days. Construction of the proposed digital billboard display would generate air pollutants associated with construction equipment exhaust and fugitive dust from demolition, grading, and billboard installation. Due to the SCAB being in non-compliance for ozone standards, the construction activities would be required to control fugitive dust and particulate matter in compliance with South Coast AQMD's Rule 403. The proposed project construction-related emissions shown in Table 2, *Maximum Daily Regional Construction Emissions*, are quantified using California Emissions Estimator Model, Version 2016.3.2.25 (CalEEMod), and are based on the construction duration and equipment mix for the project provided by the Applicant. As shown in the table, air pollutant emissions from construction-related activities would be less than their respective South Coast AQMD regional significance threshold values. Therefore, air quality impacts from project-related construction activities would be less than significant.

Table 2 Maximum Daily Regional Construction Emissions

Construction Phase	Criteria Air Pollutant Emissions (lbs/day)[1,2]					
	VOC	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Demolition	1	9	5	<1	<1	<1
Grading	<1	4	2	<1	<1	<1
Billboard Installation	1	9	4	<1	<1	<1
Maximum Daily Construction Emissions						
Maximum Daily Emissions	1	9	5	<1	<1	<1
South Coast AQMD Regional Significance Threshold	**75**	**100**	**550**	**150**	**150**	**55**
Exceeds Threshold?	No	No	No	No	No	No

Source: CalEEMod Version 2016.3.2.25
Notes: Totals may not total to 100 percent due to rounding.
1 Construction phasing and equipment is based on the preliminary information for the project provided by the Applicant. Where specific information regarding proposed project-related construction activities was not available, construction assumptions were based on CalEEMod defaults, which are based on construction surveys conducted by South Coast AQMD of construction equipment and phasing for comparable projects.
2 Includes implementation of fugitive dust control measures under South Coast AQMD Rule 403, including watering disturbed areas a minimum of two times per day, reducing speed limit to 15 miles per hour on unpaved surfaces, replacing ground cover quickly, and street sweeping with Rule 1186-compliant sweepers.

Regional Long-Term Operation-Phase Impacts

Due to its small-scale nature, the proposed project would not have any direct operational impacts that would affect air quality. The proposed digital LED billboard would use a nominal amount of electricity for illumination purposes, and it is assumed that over time the portion of the sign column without aluminum cladding would require repainting, resulting in emissions from the evaporation of solvents contained in paints, varnishes, primers, and other surface coatings as part of maintenance. It is also assumed that due to the multitude of LED lights inherent to digital billboard signs, the electricity consumption from digital LED billboards would be greater than the electricity consumption of static signs. However, these impacts are expected to be minimal.

It is assumed that the proposed sign would employ the current generation of high quality, energy efficient LEDs. Moreover, the incorporated Aesthetics Mitigation Measures would control for brightness during both the day and night. Therefore, given the annual reduction in energy that can be expected from high quality LEDs and brightness control, it can be estimated that the proposed sign would use between 29,000- and 94,000-kilowatt hours per year. Furthermore, operation of the proposed digital LED billboard would not generate customer trips and would only require periodic maintenance visits.

The proposed project would not impact traffic levels on SR-22 Freeway, and as such no other mobile-source emissions impacts would occur, including carbon monoxide impacts. As there are no mobile sources or direct emissions associated with operation of the proposed billboard, the proposed project's operational emissions are anticipated to be nominal and less than significant.

The Basin is currently in non-attainment standards for State, Federal criteria pollutants ozone, nitrogen dioxide, and fine particulate matter (PM2.5 and PM10) 8 . Short-term, construction-related emissions and long-term, operational emissions from the proposed digital LED billboard project would not contribute considerably to any potential cumulative air quality impact. The project would contribute a minimal amount of criteria

pollutants to the area during the short-term project construction and operation, and impacts would be less than significant.

c) Expose sensitive receptors to substantial pollutant concentrations?

Less Than Significant Impact. The following describes changes in localized impacts from short-term construction activities and long-term operation of the proposed project.

Construction

Localized Construction Impacts

A project could expose sensitive receptors, such as the elderly, those with respiratory conditions and young children, to elevated pollutant concentrations during construction activities if it would cause or contribute significantly to elevated levels. Unlike the mass of construction emissions shown in the regional emissions analysis in Table 1 which is described in pounds per day, localized concentrations refer to an amount of pollutant in a volume of air (ppm or $\mu g/m^3$) and can be correlated to potential health effects. The screening-level localized significance thresholds (LSTs) are the amount of project-related emissions at which localized concentrations (ppm or $\mu g/m^3$) could exceed the California AAQSs for criteria air pollutants for which the SoCAB is designated nonattainment and are based on the proposed project site size and distance to the nearest sensitive receptor. The California AAQS, which are the most stringent AAQS, were established to provide a margin of safety in the protection of the public health and welfare. The screening-level LSTs are designed to protect sensitive receptor areas most susceptible to further respiratory distress, such as asthmatics, the elderly, very young children, people already weakened by other disease or illness, and persons engaged in strenuous work or exercise. The closest sensitive receptors to the proposed project site are located approximately 550 feet to the south, across the SR-60.

Air pollutant emissions generated by construction activities are anticipated to cause temporary increases in air pollutant concentrations, even with implementation of South Coast AQMD's Rule 403. Table 3, *Maximum Daily Onsite Localized Construction Emissions*, shows the maximum daily construction emissions (pounds per day) generated during onsite construction activities compared with the South Coast AQMD's screening-level construction LSTs. As shown in the table, the construction of the proposed project would not generate construction-related onsite emissions that would exceed the screening-level LSTs. Thus, project-related construction activities would not have the potential to expose sensitive receptors to substantial pollutant concentrations. Therefore, localized air quality impacts from construction activities would be less than significant and no mitigation measures are necessary.

Table 3 Maximum Daily Onsite Localized Construction Emissions

Construction Activity	Pollutants (lbs/day)[1]			
	NO_X	CO	PM_{10}[2]	$PM_{2.5}$[2]
South Coast AQMD ≤1.00 -acre LST	225	2,709	66	23
Demolition	9	4	<1	<1
Grading	4	2	<1	<1
Billboard Installation	9	4	<1	<1

Table 3 Maximum Daily Onsite Localized Construction Emissions

Exceeds Screening-Level LST?	No	No	No	No

Source: CalEEMod Version 2016.3.2., and South Coast AQMD 2008 and 2011.

Notes: In accordance with South Coast AQMD methodology, only onsite stationary sources and mobile equipment occurring on the project site are included in the analysis. For the project site in SRA 10, NO_x and CO screening-level LSTs are based on a 450 ft receptor (employees), while PM_{10} and $PM_{2.5}$ screening-level LSTs are based on a 750 ft receptor (residences) as employees would not be in office 24 hours per day.

[1] Based on information provided by the Applicant. Where specific information regarding project-related construction activities or processes was not available, construction assumptions were based on CalEEMod defaults, which are based on construction surveys conducted by the South Coast AQMD.

[2] Includes implementation of fugitive dust control measures required by South Coast AQMD under Rule 403, including watering disturbed areas a minimum of two times per day, reducing speed limit to 15 miles per hour on unpaved surfaces, replacing ground cover quickly, and street sweeping with Rule 1186–compliant sweepers.

Health Risk

South Coast AQMD currently does not require health risk assessments to be conducted for short-term emissions from construction equipment. Emissions from construction equipment primarily consist of diesel particulate matter (DPM). The OEHHA adopted new guidance for the preparation of health risk assessments in March 2015 (OEHHA 2015). OEHHA has developed a cancer risk factor and noncancer chronic reference exposure level for DPM, but these factors are based on continuous exposure over a 30-year time frame. No short-term acute exposure levels have been developed for DPM. South Coast AQMD currently does not require the evaluation of long-term excess cancer risk or chronic health impacts for a short-term project. The proposed project is anticipated to be developed over 7 days. The relatively short duration when compared to a 30-year time frame would limit exposures to on-site and off-site receptors. In addition, exhaust emissions from off-road vehicles associated with overall project-related construction activities would not exceed the screening-level LSTs. For these reasons, it is anticipated that construction emissions would not pose a threat to off-site receptors near the proposed project, and project-related construction health impacts would be less than significant.

Operation

As discussed in Section 3.2.b), the proposed project does not include components that would result in stationary-source emissions of criteria air pollutants. Furthermore, the project would not generate an increase in vehicle trips and associated mobile-source emissions. Due to the nature of the proposed project, its long-term operation would not generate an increase in criteria pollutants on- or off-site and therefore no localized air pollutant impacts or CO hotspots would occur, and impacts would be less than significant.

d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Less Than Significant Impact. The threshold for odor is if a project creates an odor nuisance pursuant to South Coast AQMD Rule 402, Nuisance, which states:

> A person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.

> The provisions of this rule shall not apply to odors emanating from agricultural operations necessary for the growing of crops or the raising of fowl or animals.

The type of facilities that are considered to have objectionable odors include wastewater treatments plants, compost facilities, landfills, solid waste transfer stations, fiberglass manufacturing facilities, paint/coating operations (e.g., auto body shops), dairy farms, petroleum refineries, asphalt batch plants, chemical manufacturing, and food manufacturing facilities. The proposed digital billboard display does not fall within the aforementioned land uses; no operational odors are anticipated.

During installation of the proposed two-sided digital billboard, emissions from construction equipment, such as diesel exhaust, may generate odors. However, these odors would be low in concentration, temporary, disperse rapidly, and are not expected to affect a substantial number of people. Any odors produced during the installation phase are not expected to be significant or highly objectionable and would be in compliance with South Coast AQMD Rule 402. Therefore, impacts would be less than significant.

3.4 BIOLOGICAL RESOURCES

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
IV. BIOLOGICAL RESOURCES. Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?				X
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?				X
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?				X
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?				X
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				X
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?				X

Would the project:

a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

No Impact. Sensitive biological resources are habitats or species that have been recognized by federal, state, and/or local agencies as being endangered, threatened, rare, or in decline throughout all or part of their historical distribution. The project site is an in urbanized area of the City and contains no native vegetation. Approximately half of the billboard will be suspended over an existing paved parking lot with the other portion suspended over landscaping. The billboard column will be fixed to the ground and surrounded by landscaped grass. As a result, no suitable habitat for sensitive species on the site, and no natural biological resources or communities exist on, adjacent to, or near the site. Therefore, the proposed project would have no impact on or interfere with any species, habitat, natural community, riparian area, migratory fish or wildlife, or migratory wildlife corridor identified by any local, regional, state, or federal agency. No mitigation measures are necessary.

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

No Impact. See responses to Sections 3.4(a), above, and 3.4(c), below. Riparian habitats are those occurring along the banks of rivers and streams; and are jurisdictional to the California Department of Fish and Wildlife. There are no riparian habitats or other sensitive natural communities located on the proposed billboard project site or the surrounding areas (USFW 2018). Therefore, the proposed project would not have a substantial adverse effect on any riparian habitat or other sensitive natural community. No impact would occur, and no mitigation measures are necessary.

c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

No Impact. Wetlands are defined under the federal Clean Water Act as land that is flooded or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that normally does support, a prevalence of vegetation adapted to life in saturated soils. Wetlands include areas such as swamps, marshes, and bogs. The National Wetlands Mapper, which is operated and maintained by the U.S. Fish and Wildlife Service (USFWS), does not show any federally-protected streams, wetlands, or other water bodies or any riparian habitat onsite, adjacent to, or within proximity of any of the proposed billboard sites (USFWS 2020). Therefore, no impact to wetlands would occur and no mitigation measures are necessary.

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

No Impact. See responses to Sections 3.4(a) and 3.4(c), above. No surface water bodies, streams or waterways occur on the proposed billboard site. The proposed project does not provide nursery sites for wildlife, nor are they conducive to function as corridors for migratory wildlife. Installation of the billboard would not result in

the removal of trees. Therefore, the proposed project would not interfere with the movement of any native resident or migratory species or impede the use of native wildlife nursery sites. No impact would occur and no mitigation measures are necessary.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

No Impact. The City of Industry has no ordinances protecting biological resources. No impact would occur.

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

No Impact. There are no adopted habitat conservation plans, natural community conservation plans, or other approved local, regional, or state habitat conservation plans that govern the project site (CDFW 2019). No impact would occur.

3.5 CULTURAL RESOURCES

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
V. CULTURAL RESOURCES. Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5?				X
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?			X	
c) Disturb any human remains, including those interred outside of dedicated cemeteries?				X

Would the project:

a) Cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5?

No Impact. Section 15064.5 defines historic resources as resources listed or determined to be eligible for listing by the State Historical Resources Commission, a local register of historical resources, or the lead agency. Generally, a resource is considered "historically significant" if it meets one of the following criteria:

i) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;

ii) Is associated with the lives of persons important in our past;

iii) Embodies the distinctive characteristics of a type, period, region or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or

iv) Has yielded, or may be likely to yield, information important in prehistory or history.

The proposed project is located in in urbanized area of the City. The project site contains two warehouses constructed in 1979, associated parking lot, and hardscape (LA County Assessor). Pursuant to CCR § 4852, in order for a resource to be considered eligible for listing, the resource generally needs to be a least 50-years old and so the warehouses do not meet this eligibility criteria. Furthermore, the proposed project would not result in the alteration or removal of the warehouse or associated structures. Therefore, no impacts to historic resources would occur at the site and no mitigation measures are necessary .

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?

Less Than Significant Impact. The project site is in an urbanized area of the City and has already been previously disturbed. Any archaeological resources would have likely been discovered or disturbed during the original grading activities that occurred at the proposed billboard site. Additionally, the proposed project would result in only minor localized grading activities (e.g., minimal soil disturbance) for installation of the pylon bases for the proposed two-sided digital billboard. Therefore, the discovery of archaeological resources is a remote possibility during any project-related ground disturbance; there is also no evidence that there are any resources that could be impacted. Therefore, impacts to cultural resources would be less than significant.

c) Disturb any human remains, including those interred outside of dedicated cemeteries?

No Impact. There are no known human remains on the proposed billboard site, and there are no cemeteries within the vicinity of the site. Additionally, the proposed billboard site is in an urbanized area of the City and has already been previously disturbed and developed; the site has already been subject to similar construction and ground-disturbing activities that would be associated with installation of the digital billboard. In addition, the proposed project would result in only minor localized grading activities (e.g., minimal soil disturbance) for installation of the pylon bases for the digital billboard. Therefore, the likelihood that human remains may be discovered during site clearing and grading activities is considered extremely low.

In the unlikely event of discovery of human remains onsite, the project applicant would be responsible for compliance with California Health and Safety Code Section 7050.5 and CEQA Guidelines Section 15064.5. California Health and Safety Code Section 7050.5 requires that in the event that human remains are discovered within the project site, disturbance of the site shall halt and remain halted until the coroner has conducted an investigation into the circumstances, manner, and cause of any death, and the recommendations concerning the treatment and disposition of the human remains have been made to the person responsible for the excavation, or to his or her authorized representative. If the coroner determines that the remains are not subject to his or her authority and if the coroner recognizes or has reason to believe the human remains to be those of a Native American, he or she shall contact, by telephone within 24 hours, the Native American Heritage Commission. The proposed project would comply with existing law, and there would be no potential impacts to human remains.

3.6 ENERGY

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
VI. ENERGY. Would the project:				
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?			X	
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?				X

Would the project:

a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Less Than Significant Impact.

The following discusses the potential energy demands from construction activities associated with installation of the proposed digital billboard and its operation.

Short-Term Construction

Construction of the proposed project would create temporary increased demands for electricity and vehicle fuels. Transportation energy use depends on the type and number of trips, vehicle miles traveled, fuel efficiency of vehicles, and travel mode. Transportation energy use during construction would come from the transport and use of construction equipment, delivery vehicles, and construction employee vehicles that would use diesels fuel and/or gasoline. The use of energy resources by these vehicles would fluctuate according to the phase of construction and would be temporary. Upon completion of project construction, all construction-equipment would cease. Furthermore, the construction contractors are anticipated to minimize non-essential idling of construction equipment during construction in accordance with Section 2449 of the California Code of Regulations, Title 13, Article 4.8, Chapter 9 (SCAQMD 2014). Such required practices would limit wasteful and unnecessary energy consumption.

While electric-powered construction equipment could be used, it is anticipated that the equipment would be limited to hand tools (e.g., power drills) and lighting, which would result in minimal electricity demands. Furthermore, it is not anticipated construction activities would require use of natural gas-powered equipment. Therefore, overall, it is expected that construction fuel associated with the proposed project would not be any more inefficient, wasteful, or unnecessary than similar projects and impacts would be less than significant with respect to construction-related energy demands.

Long-Term Operation

Due to the nature of the proposed project, its operation would not generate demand for natural gas and transportation energy. However, operation of the proposed project would create additional demands for electricity to account for lighting of the digital signs. Southern California Edison (SCE) provides electric service to the City of Industry, including the project site. As mentioned in Section 3.7 Greenhouse Gas Emissions, the digital signs would be in use for 24 hours per day, totaling 30 kWh daily per sign and 113,150 kWh annually per sign. While the billboard would contribute to energy use throughout the City, due to the requirements that the lighting levels of the proposed billboard would not exceed 0.3 foot candles of the ambient light levels during daytime and evening hours (refer to Section 3.1 for an analysis of the proposed project's light level impacts), operation of the billboard would use less energy than electronic billboards without the illumination controls. Additionally, with increases in energy efficient lighting, the billboard would be more efficient and produce higher quality lighting than similar billboards designed even a few years previous. Furthermore, operation of the billboard would comply with the California Code of Regulations (CCR) Title 24, Part 6, Section 148a and 148b, the Federal Code of Regulation FCC Part 15 regulations for Class A devices, the Underwriters Laboratories, Inc. Standards for Electric Signs (UL 48), and UL Energy Efficiency Verified (Green Leaf Certification). Compliance with these regulations indicates the sign meets the safety and energy efficiency requirements from the National Electric Code and requirements from Underwriters Laboratories, Inc. Furthermore, as required by the City of Industry Municipal Code 15.32.050.I., the light levels would not exceed 0.3-foot candle above ambient day or night conditions. As the LED lights would not be operating at full output, the billboard energy use is not excessive. Thus, operation of the billboard would not result in inefficient, wasteful, or unnecessary consumption of energy during operation.

b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

No Impact. The state's electricity grid is transitioning to renewable energy under California's Renewable Energy Program. Renewable sources of electricity include wind, small hydropower, solar, geothermal, biomass, and biogas. Electricity production from renewable sources is generally considered carbon neutral. Executive Order S-14-08, signed in November 2008, expanded the state's renewable portfolios standard (RPS) to 33 percent renewable power by 2020. This standard was adopted by the legislature in 2011 (SB X1-2). Senate Bill 350 (de Leon) was signed into law September 2015 and establishes tiered increases to the RPS—40 percent by 2024, 45 percent by 2027, and 50 percent by 2030. Senate Bill 350 also set a new goal to double the energy-efficiency savings in electricity and natural gas through energy efficiency and conservation measures. On September 10, 2018, Senate Bill 100 (SB 100) was signed and raised California's RPS requirements to 60 percent by 2030, with interim targets, and 100 percent by 2045. The bill also established a state policy that eligible renewable energy resources and zero-carbon resources supply 100 percent of all retail sales of electricity to California end-use customers and 100 percent of electricity procured to serve all state agencies by December 31, 2045. Under SB 100 the state cannot increase carbon emissions elsewhere in the western grid or allow resource shuffling to achieve the 100 percent carbon-free electricity target. The new digital signs would not conflict with any state or local plans for renewable energy or energy efficiency. No impacts would occur

3.7 GEOLOGY AND SOILS

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
VII. GEOLOGY AND SOILS. Would the project:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map, issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.				X
ii) Strong seismic ground shaking?			X	
iii) Seismic-related ground failure, including liquefaction?			X	
iv) Landslides?				X
b) Result in substantial soil erosion or the loss of topsoil?				X
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?				X
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?				X
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?				X
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?				X

Would the project:

a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning map, issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

No Impact. The Alquist-Priolo Earthquake Fault Zoning Act was passed to prevent construction of buildings used for human occupancy on the surface of active faults. Before cities and counties can permit development within Alquist-Priolo Earthquake Fault Zones, geologic investigations are required to show that sites are not threatened by surface rupture from future earthquakes. An active fault is a fault that has had surface displacement within the last 11,000 years. The project site is not within or near an established Alquist-Priolo Earthquake Fault Zone and the nearest mapped active faults—that is, a fault that has

ruptured during Holocene time (the last 11,700 years)—is the Whittier Fault approximately 4.3 miles to the south (CGS 1999, CGS 2010). Due to the distance to the active fault, the potential for surface rupture of a fault onsite is considered very low. Additionally, the proposed project would not introduce any habitable buildings or structures; the project consists of the installation of an unmanned and non-habitable digital billboard. Therefore, no impacts from a fault rupture would occur and no mitigation measures are necessary.

ii) Strong seismic ground shaking?

Less Than Significant Impact. The most significant geologic hazard to the design life of the proposed project is the potential for moderate to strong ground shaking resulting from earthquakes generated on the faults in seismically active southern California. It is anticipated that the proposed billboard site will periodically experience ground shaking as the result of earthquakes. The closest known active fault, the Whitter Fault, is located approximately three miles south. This fault, as well as others in the region, is considered capable of producing earthquakes that would cause strong shaking at sites. A moderate to large magnitude earthquake on the Whitter Fault or regional faults could cause moderate to severe seismic shaking in the City, exposing the structures of the proposed digital billboard to potential adverse effects. The intensity of ground shaking on the proposed billboard site would depend on the magnitude of the earthquake, distance to the epicenter, and the geology of the area between the epicenter and the site.

However, the proposed billboard site is not at greater risk of seismic activity or impacts than other sites in southern California. Additionally, the state and local jurisdictions regulate development in California through a variety of tools that reduce hazards from earthquakes and other geologic hazards. The California Building Code (CBC) comprises California Code of Regulations Title 24 Part 2, and the City's Building Code as set forth in Section 15.04 of the City's Code, contain provisions to safeguard against major structural failures or loss of life caused by earthquakes or other geologic hazards. The design and construction of the proposed billboard would be required to adhere to the provisions of the CBC, and the City's Code, which are imposed on development projects by the City's Building Division during the development review and building plan check process. Compliance with the requirements of the CBC and City's Code for structural safety during a seismic event would reduce hazards from strong seismic ground shaking. Therefore, impacts resulting from strong seismic ground shaking would be less than significant and no mitigation measures are necessary.

iii) Seismic-related ground failure, including liquefaction?

Less Than Significant. When soil liquefies, it loses strength needed for supporting overlying structures. The factors known to influence liquefaction potential include soil type and grain size, relative density, groundwater level, confining pressures, and intensity and duration of ground shaking. In general, materials that are susceptible to liquefaction are loose, saturated granular soils. Common effects of liquefaction include settlement of soil and of structures on or in soil, and horizontal landslides known as lateral spreading.

According to the Seismic Hazard Zone map for the La Habra 7.5-minute quadrangle (CDMG, 1998), the subject site lies within an area that has been mapped as being potentially susceptible to earthquake-induced

liquefaction. However, construction would comply with all CBC standards and City's Code, which would ensure adequate mitigation of the risks associated with liquefaction on or proximate to the project site. Therefore, impacts would be less than significant as a result of seismic-related ground failure, including liquefaction.

iv) Landslides?

No Impact. Landslides are the downslope movement of geologic materials. Landslides are not expected to occur on the proposed billboard site, because the site and surrounding areas are generally flat with gradual changes in elevation; there are no major slopes or bluffs on or adjacent to the site. Additionally, according to the California Geologic Survey's Seismic Hazards Zone map for the La Habra Quadrangle, the proposed billboard site is not mapped within a zone of required investigation for landslides (CGS 1998). Therefore, no impacts resulting from landslides would occur and no mitigation measures are necessary.

b) Result in substantial soil erosion or the loss of topsoil?

No Impact. Erosion is the movement of rock and soil from place to place and is a natural process. Erosion occurs naturally by agents such as wind and flowing water; however, grading and construction activities can greatly increase erosion if effective erosion control measures are not used. Common agents of erosion in the project region include wind and flowing water. Significant erosion typically occurs on steep slopes where stormwater and high winds can carry topsoil down hillsides. Erosion can be increased greatly by earthmoving activities if erosion-control measures are not used.

Erosion is not expected to occur at the proposed billboard site, because the site and surrounding areas are generally flat with minimal changes in elevation; there are no major slopes or bluffs on or adjacent to the site. Additionally, the proposed digital billboard would be located in an area that is primarily paved with exposed soils limited to landscaping and turf areas adjacent the existing buildings. The proposed project would require a minimal amount of grading; therefore, no soil erosion or loss of topsoil is anticipated during grading activities. Soil erosion impacts from project-related grading and operational activities would have no impact.

c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?

No Impact. See responses to Sections 3.7(a)(iii) and 3.6(a)(iv), above, and Section 3.7(d), below.

d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?

No Impact. Expansive soils are fine-grained silts and clays that are subject to swelling and contracting. The amount of swelling and contracting is subject to the amount of fine-grained clay materials present in the soils and the amount of moisture either introduced or extracted from the soils. Installation of the proposed digital billboard would not create a risk to life or property, as the billboard is an unmanned and non-habitable structure,

and construction will comply with the CBC and City's building codes. Therefore, no impact from expansive soils would occur and no mitigation measures are necessary.

e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?

No Impact. The proposed project includes the installation of a digital billboard display and does not include the use of septic tanks or any form of alternative wastewater disposal systems. Therefore, no impact would occur, and no mitigation measures are necessary.

f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less Than Significant. The proposed billboard site is in an urbanized area that have been previously disturbed. Any paleontological or unique geologic features would have likely been discovered or disturbed during the original grading activities that occurred at the proposed billboard site. Additionally, the proposed requires only minor localized grading activities (e.g., minimal soil disturbance) for installation of the pylon bases for the proposed digital billboard. Therefore, the discovery of paleontological resources is a remote possibility during any project-related ground disturbance; there is also no evidence that there are any resources that could be impacted. Impacts to paleontological resources would be less than significant.

3.8 GREENHOUSE GAS EMISSIONS

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
VIII. GREENHOUSE GAS EMISSIONS. Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			X	
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?				X

Scientists have concluded that human activities are contributing to global climate change by adding large amounts of heat-trapping gases, known as greenhouse gases (GHGs), into the atmosphere. The primary source of these GHG is fossil fuel use. The Intergovernmental Panel on Climate Change (IPCC) has identified four major GHGs—water vapor, carbon dioxide (CO_2), methane (CH_4), and ozone (O_3)—that are the likely cause of an increase in global average temperatures observed within the 20th and 21st centuries. Other GHG

identified by the IPCC that contribute to global warming to a lesser extent include nitrous oxide (N_2O), sulfur hexafluoride (SF_6), hydrofluorocarbons, perfluorocarbons, and chlorofluorocarbons.[2, 3]

This section analyzes the project's contribution to global climate change impacts in California through an analysis of project-related GHG emissions. Information on manufacture of cement, steel, and other "life cycle" emissions that would occur as a result of the project are not applicable and are not included in this analysis.[4] A background discussion on the GHG regulatory setting and GHG modeling can be found in Appendix B to this Initial Study.

Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations.

Would the proposed project:

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Less Than Significant Impact. Global climate change is not confined to a particular project area and is generally accepted as the consequence of global industrialization over the last 200 years. A typical project, even a very large one, does not generate enough greenhouse gas emissions on its own to influence global climate change significantly; hence, the issue of global climate change is by definition a cumulative environmental impact.

Electricity required for operation of the proposed digital billboard display would result in an indirect increase in GHG emissions. Annual average construction emissions were amortized over 30 years and included in the emissions inventory to account for one-time GHG emissions from the construction phase of the project. The project long-term emissions along with construction-related emissions are quantified and shown in Table 4, *Project-Related GHG Emissions*. As shown in the table, the proposed project would not result in GHG emissions that would exceed South Coast AQMD's bright-line significance threshold. Therefore, GHG emissions impacts are less than significant and no mitigation measures are necessary.

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[2] Water vapor (H_2O) is the strongest GHG and the most variable in its phases (vapor, cloud droplets, ice crystals). However, water vapor is not considered a pollutant, but part of the feedback loop rather than a primary cause of change.

[3] Black carbon contributes to climate change both directly, by absorbing sunlight, and indirectly, by depositing on snow (making it melt faster) and by interacting with clouds and affecting cloud formation. Black carbon is the most strongly light-absorbing component of PM emitted from burning fuels. Reducing black carbon emissions globally can have immediate economic, climate, and public health benefits. California has been an international leader in reducing emissions of black carbon, with close to 95 percent control expected by 2020 due to existing programs that target reducing PM from diesel engines and burning activities (CARB 2017c). However, state and national GHG inventories do not yet include black carbon due to ongoing work resolving the precise global warming potential of black carbon. Guidance for CEQA documents does not yet include black carbon.

[4] Life cycle emissions include indirect emissions associated with materials manufacture. However, these indirect emissions involve numerous parties, each of which is responsible for GHG emissions of their particular activity. The California Resources Agency, in adopting the CEQA Guidelines Amendments on GHG emissions found that lifecycle analyses was not warranted for project-specific CEQA analysis in most situations, for a variety of reasons, including lack of control over some sources, and the possibility of double-counting emissions (see Final Statement of Reasons for Regulatory Action, December 2009). Because the amount of materials consumed during the operation or construction of the proposed project is not known, the origin of the raw materials purchased is not known, and manufacturing information for those raw materials are also not known, calculation of life cycle emissions would be speculative. A life-cycle analysis is not warranted (OPR 2008).

Table 4 Project-Related GHG Emissions

Source	$MTCO_2e$ per Year	Percent of Project Total
Energy[1]	60	99%
Amortized Construction Emissions[2]	<1	<1%
Total Emissions	30	100%
South Coast AQMD Bright Line Threshold	3,000 $MTCO_2e$	NA
Exceeds South Coast AQMD Bright Line Threshold	No	NA

Sources: CalEEMod Version 2016.3.2.
Note: Totals may not total to 100 percent due to rounding. NA: not applicable.
[1] The proposed sign would require 30 kW electricity per day, which equates to 131,400 kWh of electricity per year. Energy use is based on Southern California Edison's (SCE) carbon intensity (SCE 2019)
[2] Construction emissions/sequestration are amortized over a 30-year period.

b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

No Impact. Applicable plans adopted for the purpose of reducing GHG emissions include the California Air Resources Board's (CARB) Scoping Plan and the Southern California Association of Governments' (SCAG) Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). A consistency analysis with these plans is presented below.

CARB Scoping Plan

CARB's Scoping Plan is California's GHG reduction strategy to achieve the state's GHG emissions reduction target established by AB 32, which is to return to 1990 emission levels by year 2020, and SB 32, which is to reduce emissions 40 percent below 1990 levels by 2030 (CARB 2017a). The CARB Scoping Plan is applicable to state agencies and is not directly applicable to cities/counties and individual projects. Nonetheless, the Scoping Plan has been the primary tool that is used to develop performance-based and efficiency-based CEQA criteria and GHG reduction targets for climate action planning efforts.

Since adoption of the Scoping Plan, state agencies have adopted programs identified in the plan, and the legislature has passed additional legislation to achieve the GHG reduction targets. Statewide strategies to reduce GHG emissions include the Low Carbon Fuel Standard, California Appliance Energy Efficiency regulations, California Renewable Energy Portfolio standard, changes in the Corporate Average Fuel Economy standards, and other early action measures as necessary to ensure the state is on target to achieve the GHG emissions reduction goals of AB 32 and SB 32. Also, new buildings are required to comply with the current Building Energy Efficiency Standards and California Green Building Code. While measures in the Scoping Plan apply to state agencies and not the proposed project, the project's GHG emissions would be reduced from compliance with statewide measures that have been adopted since AB 32 and SB 32 were adopted. Therefore, as with the approved project, the proposed project would not obstruct implementation of the CARB Scoping Plan.

SCAG's Regional Transportation Plan/Sustainable Communities Strategy

SCAG's 2016-2040 RTP/SCS was adopted April 7, 2016. The RTP/SCS identifies multimodal transportation investments, including bus rapid transit, light rail transit, heavy rail transit, commuter rail, high-speed rail, active transportation strategies (e.g., bike ways and sidewalks), transportation demand management strategies,

transportation systems management, highway improvements (interchange improvements, high-occupancy vehicle lanes, high-occupancy toll lanes), arterial improvements, goods movement strategies, aviation and airport ground access improvements, and operations and maintenance to the existing multimodal transportation system.

The RTP/SCS identifies that land use strategies that focus on new housing and job growth in areas served by high quality transit and other opportunity areas would be consistent with a land use development pattern that supports and complements the proposed transportation network. The overarching strategy in the 2016-2040 RTP/SCS is to provide for a plan that allows the southern California region to grow in more compact communities in existing urban areas; provides neighborhoods with efficient and plentiful public transit and abundant and safe opportunities to walk, bike, and pursue other forms of active transportation; and preserves more of the region's remaining natural lands (SCAG 2016). The 2016-2040 RTP/SCS contains transportation projects to help more efficiently distribute population, housing, and employment growth as well as forecast development that is generally consistent with regional-level general plan data. The projected regional development pattern, when integrated with the proposed regional transportation network identified in the RTP/SCS, would reduce per capita vehicular travel-related GHG emissions and achieve the GHG reduction per capita targets for the SCAG region.

The RTP/SCS does not require that local general plans, specific plans, or zoning be consistent with the SCS, but provides incentives for consistency for governments and developers. The proposed project would only provide billboard displays proximate to a major transportation corridor. Therefore, implementation of the proposed project would not interfere with SCAG's ability to implement the regional strategies outlined in the RTP/SCS.

Based on the foregoing, no impacts would occur as a result of the project.

3.9 HAZARDS AND HAZARDOUS MATERIALS

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
IX. HAZARDS AND HAZARDOUS MATERIALS. Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?				X
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?				X
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				X
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code § 65962.5 and, as a result, would it create a significant hazard to the public or the environment?				X

3. Environmental Analysis

	Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
e)	For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?				X
f)	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				X
g)	Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?				X

Would the project:

a) Create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials?

No Impact. The term "hazardous material" can be defined in different ways. For purposes of this environmental document, the definition of "hazardous material" is the one outlined in the California Health and Safety Code, Section 25501:

> Hazardous materials that, because of their quantity, concentration, or physical or chemical characteristics, pose a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment. Hazardous materials include, but are not limited to, hazardous substances, hazardous waste, and any material that a handler or the unified program agency has a reasonable basis for believing that it would be injurious to the health and safety of persons or harmful to the environment if released into the workplace or the environment.

"Hazardous waste" is a subset of hazardous materials, and the definition is essentially the same as in the California Health and Safety Code, Section 25117, and in the California Code of Regulations, Title 22, Section 66261.2:

> Hazardous wastes are those that, because of their quantity, concentration, or physical, chemical, or infectious characteristics, may either cause, or significantly contribute to an increase in mortality or an increase in serious illness, or pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, disposed of, or otherwise managed.

Hazardous materials can be categorized as hazardous nonradioactive chemical materials, radioactive materials, and biohazardous materials (infectious agents such as microorganisms, bacteria, molds, parasites, viruses, and medical waste).

Exposure of the public or the environment to hazardous materials could occur through the following: improper handling or use of hazardous materials or hazardous wastes, particularly by untrained personnel; transportation accident; environmentally unsound disposal methods; and/or fire, explosion, or other emergencies. The severity

of potential effects varies with the activity conducted, the concentration and type of hazardous material or wastes present, and the proximity of sensitive receptors.

Following is a discussion of the proposed project's potential to create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials during the construction and operational phases.

Project Construction

Construction activities of the proposed project would involve the use of small amounts of hazardous materials, such as fuels, lubricants, and greases in construction equipment. However, the materials used would not be in such quantities or stored in such a manner as to pose a significant safety hazard. These activities would also be short term or one time in nature, and construction workers would be trained in safe handling and hazardous materials use. Additionally, the use, storage, transport, and disposal of construction-related hazardous materials and waste would be required to conform to existing laws and regulations of the federal, state, and local agencies. Compliance with applicable laws and regulations would ensure that all potentially hazardous materials are used and handled in an appropriate manner and would minimize the potential for safety impacts to occur. Therefore, hazards to the public or the environment arising from the routine use of hazardous materials during project construction would not occur and no mitigation measures are necessary.

Project Operation

The proposed project includes the installation of a two-sided digital billboard, which are unmanned and non-habitable structures. Due to the nature of the proposed project, operation of the billboard would not involve the use, storage, transport, or disposal of hazardous materials. Therefore, hazards to the public or the environment arising during project operation would not occur. No impact would occur and no mitigation measures are necessary.

b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

No Impact. See response to Section 3.9(a), above.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

No Impact. There are no schools within a quarter mile of the proposed project. The closest school is Ybarra Academy of Arts and Technology approximately 0.5 miles to the southwest. As discussed above in Section 3.9(a), hazards to the public or the environment, which would include nearby schools, arising from the routine use, storage, transportation, and disposal of hazardous materials during project construction and operation phases would not occur. Additionally, the transport of any hazardous materials during the proposed project's construction phase would generally occur along SR-60, and East Walnut Road. The transport of such materials would not occur along or around the streets that surround the school sites. Furthermore, the proposed project consists of the installation of a two-sided digital billboard, which would not generate air toxins that would

require a permit by SCAMQD. Therefore, no significant impacts to nearby schools would occur and no mitigation measures are necessary.

d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

No Impact. The project site does not appear on any regulatory agency database, including GeoTracker, EJSCREEN, EnviroMapper, EnviroStor, or the SWIS facility database. Adherence to existing laws and regulations would ensure that the no impact associated with exposure to hazardous materials from the development of the proposed project would occur.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles or a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?

No Impact. The proposed project site is approximately 10 miles southeast of the San Gabriel Airport. According to the San Gabriel Airport Influence Area Map, the proposed project site is not in an airport land use plan area (Los Angeles 2019). The project site is approximately 2 miles southeast of the Los Angeles Sheriff's Department private heliport. The proposed project would replace an existing static billboard that is 67'-1.5" in height with 14-feet high by 48-feet wide sign faces with an electronic billboard that is the same height and width as the existing billboard. As the proposed project would result in the same height, the proposed project would not result in safety hazards or excessive noise for people residing or working in the area from either the public airport or private heliport, and no impact would occur.

f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

No Impact. The emergency response plan in effect in Los Angeles County is the Los Angeles County Operational Area Emergency Response Plan (OAERP) maintained by the County Office of Emergency Management, and approved by the County Board of Supervisors in 2012. Project construction and operation of the project as a double-sided electronic billboard would not block access to the project site or to surrounding properties and would not impede the evacuation program. Notification of emergency personnel of impending blockages, detour signs, and a construction plan for traffic would ensure that there would be no impact in the case of emergency evacuation. Project development would be conducted in accordance with regulatory standards and would not interfere with implementation of the OAERP. Therefore, implementation of the proposed project would have no impact on emergency response or evacuation plans. Refer also to Response 3.20(a).

g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

No Impact. The proposed project site and surrounding area are characterized by features typical of an urban landscape. The proposed project is surrounded by commercial development and is not located within a state

responsibility area or land classified as a very high fire hazard severity zone, as identified in the Los Angeles County Fire Hazard Severity Zone Map (CAL FIRE 2007). The nearest FHSZ in the SRA and the LRA is a VHFHSZ approximately 1.5 miles south of the project site where open space interfaces with the urban edge, south of Colima Road. Land between the edge of the FHSZ and the project site is dense urban development and includes SR-60. Consequently, due to intervening development and infrastructural barriers, development of the proposed project would not result in the direct or indirect exposure of people or structures to hazards associated with wildland fires, and impacts would be less than significant.

3.10 HYDROLOGY AND WATER QUALITY

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
X. HYDROLOGY AND WATER QUALITY. Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?				X
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?				X
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				X
i) result in a substantial erosion or siltation on- or off-site;				X
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;				X
iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or				X
iv) impede or redirect flood flows?				X
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?				X
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?			X	

Would the project:

a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

No Impact. The proposed project includes the installation of a double-sided electronic billboard, which is an unmanned and non-habitable structure. No aspects of the proposed project would result in a change in water

quality or increase in water or wastewater discharges. Therefore, no impact would occur, and no mitigation measures are necessary.

b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

No Impact. Installation of the billboard would not change the amount of pervious surface on the proposed billboard site. Additionally, operation of the billboard would not require the use of water nor require any connections to municipal water supplies. Therefore, no impact to groundwater supplies would occur and no mitigation measures are necessary.

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

i) Result in a substantial erosion or siltation on- or off-site?

No Impact. Installation of the billboard would not change the amount of pervious surface at the project site nor alter the existing drainage pattern of the site or areas surrounding the site in a manner that would cause erosion or siltation impacts on- or offsite. Installation of the proposed billboard would involve minimal soil disturbance for installation of the column base for the billboard and would not result in substantial erosion or siltation off-site. Therefore, impacts would be less than significant, and no mitigation measures are necessary.

ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite?

No Impact. There are no streams or rivers located in the project vicinity. During operation of the project, storm water or any runoff irrigation waters would be directed into existing storm drains that are currently receiving surface water runoff under existing conditions. Installation of the billboard would not change the amount of pervious surface at the project site, change the rate or volume of runoff from the site, or alter the existing drainage pattern of the site or areas surrounding the sites in a manner that would cause flooding impacts on- or offsite. Therefore, no impact would occur, and no mitigation measures are necessary.

iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

No Impact. The proposed project includes the installation of a digital billboard, which is an unmanned and non-habitable structure. No aspects of the proposed project would result in the creation or contribution of runoff water into existing or planned storm water drainage systems. Therefore, no impact would occur, and no mitigation measures are necessary.

iv) Impede or redirect flood flows?

No Impact. Flood hazard areas identified on the Federal Emergency Management Agency's (FEMA) Flood Insurance Rate Map (FIRM) are identified as a Special Flood Hazard Area (SFHA). An SFHA is an area that will be inundated by a flood event that has a 1 percent chance of being equaled or exceeded in any given year. The 1 percent annual chance flood zone is also referred to as the base flood zone or 100-year flood zone.

The proposed billboard site is not in a 100-year flood zone (or SFHA), as indicated on FIRM Map Number 06037C1875F (effective September 26, 2008). The proposed billboard site is in Zone X, indicating that the project site is outside of 100- and 500-year flood zones. Therefore, no impacts would occur and no mitigation measures are necessary.

d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

No Impact. As stated in Response 3.10(c)(iv), the proposed project site is not within a flood hazard area. A seiche is a surface wave created when a body of water is shaken, usually by earthquake activity. Seiches are of concern relative to water storage facilities because inundation from a seiche can occur if the wave overflows a containment wall, such as the wall of a reservoir, water storage tank, dam or other artificial body of water.

However, there are no large water tanks in the area that could impact the proposed project site. Additionally, the project site is about 20 miles inland from the Pacific Ocean and at an elevation of approximately 400 feet above mean sea level; therefore, there is no tsunami flood risk at the site. In sum, the proposed project is not subject to inundation by tsunami, seiche, or flood, and no impacts would occur.

e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Less Than Significant Impact. As stated in Responses 3.10(a) and 3.10(b), above, compliance with existing laws and regulations would ensure that the proposed project would result in a less than significant impact regarding conflicting with or obstructing implementation of a water quality control plan or sustainable groundwater management plan.

3.11 LAND USE AND PLANNING

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
XI. LAND USE AND PLANNING. Would the project:				
a) Physically divide an established community?				X
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?				X

Would the project:

a) Physically divide an established community?

No Impact. The physical division of an established community typically refers to the construction of a large project or project feature that eliminates a way of accessing a site or neighborhood, or otherwise reduces mobility within an existing neighborhood or community.

The proposed project includes the installation of a digital billboard; the billboard would be placed on private property. Installation of the billboard would not result in the physical division of an established community. The proposed digital billboard would be installed within the confines of the individual site and would not introduce roadways or other infrastructure improvements that would bisect or transect the site or surrounding uses or communities. Access to the surrounding uses and communities would not be interrupted as a result of the project development. Therefore, no impact would occur, and no mitigation measures are necessary.

b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

No Impact. The land use for the site is zoned as Industrial ("I") and designated as Employment in the General Plan. Construction and operation of the two-sided digital billboard would be allowed under existing zoning and General Plan designations. The proposed project would conform with all of the provision of the City of Industry's Municipal Code (Code), Section 15.32.050.I regarding Off-site signs. Per Section 15.32.050.I.4.c.v. the display would be visible for a minimum of 8-seconds before changing, and the image projected would appear static. Additionally, the applicant would be required to demonstrate that the lighting levels of the proposed billboard would not exceed 0.3 foot candles of the ambient light levels during daytime and evening hours (refer to Section 3.1.d) for an analysis of the proposed project's light level impacts).Additional approvals required from the City currently in process include approval of a Development Plan Application. As such, the proposed project would not conflict with the City's General Plan and Zoning, and no impact would occur.

3.12 MINERAL RESOURCES

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
XII. MINERAL RESOURCES. Would the project:				
a) Result in the loss of availability of a known mineral resource that would be a value to the region and the residents of the state?				X
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?				X

Would the project:

a) Result in the loss of availability of a known mineral resource that would be a value to the region and the residents of the state?

No Impact. The proposed billboard site is in urbanized area of the City; surrounding land uses include industrial uses and major roadways. No locally or regionally important mineral resource recovery sites are on or near the proposed billboard site. Additionally, neither the site nor surrounding areas support mineral extraction operations. Furthermore, mining would be incompatible with the urban uses surrounding the site; mining is also not a permitted use under the zoning designations of the site. Therefore, no impact on mineral resources would occur and no mitigation measures are necessary.

b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

No Impact. See response to Section 3.12(a), above. No mineral resource recovery sites are identified on or in the immediate vicinity of the proposed billboard site. There would be no loss of availability of locally important mineral resources. No impact would occur and no mitigation measures are necessary.

3.13 NOISE

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
XIII. NOISE. Would the project result in:				
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?			X	
b) Generation of excessive groundborne vibration or groundborne noise levels?				X
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?				X

Noise Fundamentals

Noise is defined as unwanted sound and is known to have several adverse effects on people, including hearing loss, speech and sleep interference, physiological responses, and annoyance. Based on these known adverse effects of noise, the federal, state, and city governments have established criteria to protect public health and safety and to prevent the disruption of certain human activities, such as classroom instruction, communication, or sleep. The City of Industry General Plan identifies land uses particularly sensitive to noise to include residential, school, and open space recreation areas where quiet environments are necessary for enjoyment, public health, and safety. Fundamentals of noise and vibration and additional regulatory background information, including local regulations, are included in Appendix E.

3. Environmental Analysis

EXISTING NOISE ENVIRONMENT AND SENSITIVE RECEPTORS

The project site is fully developed with two warehouse buildings, surface parking, and ornamental landscaping. The project site is located at 19465 East Walnut Drive North in the City of Industry, Los Angeles County. The closest major intersection is Fairway Drive and East Walnut Drive North, approximately 1,745 feet to the northeast

The site is surrounded by commercial and industrial uses. A Union Pacific Railroad line lies directly north of the project site. According to the City of Industry General Plan EIR (Industry 2014), the ambient noise environment for the project site area is at least 70 dBA CNEL. The nearest noise-sensitive receptors are single family density residential uses, approximately 800 feet to the south, in the unincorporated community of Rowland Heights. SR-60 separates the from the project site from the sensitive uses of the single-family residential neighborhoods. Boundaries of the Community of Rowland Heights are exposed to noise from the surrounding commercial, industrial, and residential uses, nearby traffic along major arterials, and train pass-bys along the Union Pacific Railroad line.

Regulatory Setting

County of Los Angeles Noise Standards Municipal Code

The City's Code only contains exterior noise standards only as it pertains to entertainment uses (Chapter 17.12). Therefore, for the purposes of this analysis, County of Los Angeles Noise Ordinances were used to assess project impacts. County of Los Angeles Noise Ordinance (Section 12.08) establishes that the impact would be significant if project-related stationary noise exceeded the exterior noise standards included listed in Table 1, *County of Los Angeles Exterior Noise Standards*, below:

Table 5 County of Los Angeles Exterior Noise Standards

		Maximum Permissible Noise Level (dBA)[1,2]				
Noise Zone	Time Period	Standard 1 (L_{50})	Standard 2 (L_{25})	Standard 3 (L_8)	Standard 4 (L_2)	Standard 5 (L_{max})
Noise-Sensitive Area	Anytime	45	50	55	60	65
Residential Properties	10 PM to 7 AM	45	50	55	60	65
	7 AM to 10 PM	50	55	60	65	70
Commercial Properties	10 PM to 7 AM	55	60	65	70	75
	7 AM to 10 PM	60	65	70	75	80
Industrial Properties	Anytime	70	75	80	85	90

Source: County of Los Angeles Municipal Code, Section 12.08.390.
Notes:
[1] According to Section 12.08.390, if the ambient noise levels exceed the exterior noise standards above, then the ambient noise level becomes the noise standard. If the source of noise emits a pure tone or impulsive noise, the exterior noise levels limits shall be reduced by five decibels.
[2] If the measurement location is on a boundary property between two different zones, the noise limit shall be the arithmetic mean of the maximum permissible noise level limits of the subject zones; except when an intruding noise source originates on an industrial property and is impacting another noise zone, the applicable exterior noise level shall be the daytime exterior noise level for the subject receptor property.

City of Industry General Plan

The City's General Plan includes the following goals and policies that relate to noise:

- **Goal S6:** An environment where noise does not adversely affect sensitive land uses.
- **Policy S6-1**: Coordinate with Caltrans, San Gabriel Valley Council of Governments, Southern California Association of Governments, neighboring jurisdictions, and other transportation providers in the preparation and maintenance of transportation and land use plans to minimize noise impacts and provide appropriate mitigation measures.
- **Policy S6-2**: Address noise impacts through the effective enforcement of the noise ordinance, project and environmental review, and compliance with state and federal noise standards.
- **Policy S6-3**: Consider the noise levels likely to be produced by any new businesses or substantially expanded business activities locating near existing noise-sensitive uses such as schools, community facilities, and residences, as well as adjacent to established businesses involving vibration-sensitive activities.

NOISE IMPACT ASSESSMENT

The generation of noise and vibration associated with the proposed project would occur over the short-term for site construction activities. In addition, noise would result from the long-term operation of the project. Both short-term and long-term noise impacts associated with the project are examined in the following analyses that correspond to the CEQA Guidelines.

Would the project result in:

a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Less Than Significant Impact.

Construction Noise

The total duration for project construction is approximately seven days. Construction equipment for the proposed project could include equipment such as an auger and a crane. Two types of short-term noise impacts could occur during construction: (1) mobile-source noise from transport of workers, material deliveries, and debris haul and (2) stationary-source noise from use of construction equipment.

Construction Vehicles

The transport of workers and materials to and from the construction site would incrementally increase noise levels along site access roadways. Individual construction vehicle pass-bys may create momentary noise levels of up to approximately 85 dBA L_{max} at 50 feet from the worker and vendor vehicles and haul trucks. Haul trips would be limited to removal of the existing static billboard, soils removed during grading and construction related refuse. However, these occurrences would generally be infrequent and short lived. Therefore, noise impacts from construction haul trips would be less than significant.

Construction Equipment

Noise generated by on-site construction equipment is based on the type of equipment used, its location relative to sensitive receptors, and the timing and duration of noise-generating activities. Each phase of construction

involves different kinds of equipment and has distinct noise characteristics. Noise levels from construction activities are typically dominated by the loudest piece or pieces of equipment. The dominant equipment noise source is typically the engine, although work-piece noise (such as dropping of materials) can also be noticeable. The nearest residential property line is approximately 800 feet south. Due to distance, traffic noise on SR-60, and compliance with pertinent local noise regulations, noise levels from project mechanical equipment would be less than significant.

Operational Noise

Mobile Noise

The proposed project includes the installation of a digital billboard, which is unmanned and non-habitable. Vehicle noise associated with the proposed project would be limited to routine maintenance visits, similar to existing conditions for the static billboard. Implementation of the proposed project would not generate new vehicle trips and, therefore, no mobile-source noise impact would occur.

Stationary-Source Noise

Operation of the proposed digital billboard display may generate noise from the LED components and associated equipment (such as cooling systems). However, any noise generated from the billboard would not be substantial in comparison to the traffic along adjacent roadways and other existing conditions. The proposed digital billboard's operational noise would not expose people to noise levels in excess of established standards. Therefore, impacts would be less than significant, and no mitigation measures are necessary.

b) Generation of excessive groundborne vibration or groundborne noise levels?

No Impact.

Construction Induced Vibration

Installation of the proposed digital billboard would require minimal construction activity. Equipment potentially used for construction includes drill rig, loader, concrete pump, crane, mobile, and man-lift. This equipment has little to no ground borne vibration (concrete pump, crane, man-lift). Vibration levels at a reference distance of 25 feet are 0.089 in/sec PPV for drilling and 0.003 in/sec PPV for a small bulldozer or loader. At a distance of 25 feet, both pieces of equipment would be below the 0.2 in/sec PPV criterion. The drill hole for the billboard is approximately 800 feet to the nearest sensitive receptor structure and, therefore, vibration impacts would not exceed 0.20 in/sec PPV and would be less than significant.

Operational Groundborne Noise

Following installation, the on-going operations of the proposed digital billboard would not generate substantial levels of vibration since there are no significant vibration-generating sources associated with the billboard. Therefore, vibration impacts from the operation of the proposed project, would not occur and no mitigation measures are necessary.

c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

No Impact. The project site is not located within an area covered by an airport land use plan or within two miles of a public airport or public-use airport. The nearest public airports are El Monte Airport, approximately 8.3 miles northwest of the site, and Fullerton Municipal Airport, approximately 10 miles south of the site (Airnav, Google Earth Pro, 2017). While light plane and other aircraft noise is occasionally noticeable in the project area, the project is well beyond any airport's 60 dBA CNEL zone.

Additionally, there are no private airstrips near the project site. The closest heliports to the site are the LA County Sheriff's Department Helicopter, approximately one mile to the northwest (Airnav.com, Google Earth Pro, 2017). This facility has infrequent and sporadic use, which would result in negligible amounts of noise at the project site. As above, these limited helicopter operations may, occasionally, be noticeable in the project area, but the project site would not be exposed to private aircraft-generated noise levels anywhere near 60 dBA CNEL. Therefore, no impacts would occur due to excessive aircraft noise levels or private airports and heliports and no mitigation measures are necessary.

3.14 POPULATION AND HOUSING

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
XIV. POPULATION AND HOUSING. Would the project:				
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?				X
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?				X

Would the project:

a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

No Impact. No residential development is proposed under the project; therefore, the proposed project would not directly induce population growth in the area. Additionally, the proposed project would not require or result in the extension of utilities or roadways. The proposed project would generate a small number of short-term construction jobs; however, construction employment would be absorbed from the local labor force rather than attract new workers to the region. Therefore, no impact would occur, and no mitigation measures are necessary.

b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

No Impact. No housing exists on the proposed billboard site. Implementation of the proposed project would not result (either directly or indirectly) in the displacement of housing or people. No impacts would occur, and no mitigation measures are necessary.

3.15 PUBLIC SERVICES

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
XV. PUBLIC SERVICES. Would the project:				
a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:				
Fire protection?				X
Police protection?				X
Schools?				X
Parks?				X
Other public facilities?				X

Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

a) Fire protection?

No Impact. The Los Angeles County Fire Department (LACoFD) provides fire protection and emergency medical services to the City of Industry. The proposed project includes the installation of a digital billboard, which is an unmanned and non-habitable structure. The proposed project would not increase demands for fire protection and emergency medical services nor require the need for new or physically altered fire facilities. No impact would occur, and no mitigation measures are necessary.

b) Police protection?

No Impact. The Los Angeles County Sheriff's Department (LASD) provides police protection to the City of Industry. The nearest LASD station to the project site is the Industry Station at 150 North Hudson Avenue in the City of Industry, approximately three miles to the northwest. The proposed project includes the installation of a digital billboard, which is an unmanned and non-habitable structure, and which would not increase

demands for police protection services nor require the need for new or physically altered police facilities. No impact would occur, and no mitigation measures are necessary.

c) Schools?

No Impact. The increase in the student generation and the need for new or the expansion of existing school facilities is tied to population growth. The project would not generate an increase in the student population in the area nor require the need for new or physically altered school facilities. Therefore, no impact would occur, and no mitigation measures are necessary.

d) Parks?

No Impact. See response to Section 3.16(a), below.

e) Other public facilities?

No Impact. The need for new or the expansion of existing library services and facilities is tied to population growth. No residential development is proposed under the project; installation of the proposed two-sided digital billboard would not generate a need for new or physically altered library facilities. Therefore, no impact would occur, and no mitigation measures are necessary.

3.16 RECREATION

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
XVI. RECREATION.				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?				X
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?				X

a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities, such that substantial physical deterioration of the facility would occur or be accelerated?

No Impact. The increase in the use of existing parks and recreational facilities and the need for new or the construction or expansion of existing recreational facilities is tied to population growth. No residential development is proposed under the project; therefore, no population growth or increase in the use of existing parks or other recreational facilities would occur. Additionally, the proposed project would not include recreational facilities or require the construction or expansion of recreational facilities. No impact would occur and no mitigation measures are necessary.

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?

No Impact. See response to Section 3.16(a), above

3.17 TRANSPORTATION

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
XVII. TRANSPORTATION. Would the project:				
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?				X
b) Conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b)?				X
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?				X
d) Result in inadequate emergency access?				X

Would the project:

a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

No Impact. The proposed project includes the installation of a digital billboard. With the exception of the installation of the proposed digital billboard, no aspects of the proposed project's operation phase would result in the generation of any traffic or increase in vehicle miles traveled (VMT). Construction activities associated with installation of the proposed digital billboard would generate small numbers of worker commute trips and heavy truck trips. However, the traffic generated during the construction phase would be minimal and would cease upon installation of each billboard.

The proposed project would also not result in the need for new or expanded pedestrian, bicycle, or public transit services or facilities. Installation of the billboard would not interrupt or block public sidewalks or bicycle lanes adjacent to or surrounding the proposed billboard site. Installation of the billboard would also not result in the interruption of or block access to public transit.

Based on the preceding, the proposed project would not create new demand on or result in an impact to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit. Therefore, no transportation impacts would occur, and no mitigation measures are necessary.

b) Conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b)?

No Impact. As noted above in Section 3.16(a), with the exception of the installation of the proposed billboard, no aspects of the proposed project's operation phase would result in the generation of any traffic or increase

in VMT. The traffic generated during the construction phase would be minimal and would cease upon installation of the billboard. Therefore, the proposed project would not conflict with any CMP intersections or facilities. No impacts would occur and not mitigation measures are necessary.

c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

No Impact. The proposed project includes the installation of a digital billboard; the pylon bases for the proposed two-sided digital billboard would be placed on private property, installation of the proposed digital billboard display would not involve any major changes to existing on-site circulation patterns, building footprints, or landscaping.

The California Department of Transportation (Caltrans) is involved in the control of offsite displays along state highways. Such displays advertise products or services of businesses located on properties other than that which the display is located. Caltrans does not regulate on-site displays. The California Outdoor Advertising act contains a number of provisions relating to the construction and operation of billboards:

- The sign must be constructed to withstand a wind pressure of 20 pounds per square feet of exposed surface (§5401).
- No sign shall display any statements or words of an obscene, indecent, or immoral character (§5402).
- No sign shall display flashing, intermittent or moving light or lights (§5403[h]).
- Signs are restricted from areas within 300 feet of an intersection of highways or of highway and railroad rights-of-way, but a sign may be located at the point of interception, as long as a clear view is allowed for 300 feet, and no sign shall be installed that would prevent a traveler from obtaining a clear view of approaching vehicles for a distance of 500 feet along the highway (§5404).
- Message center signs may not include any illumination or message change that is in motion or appears to be in motion or that changes or exposes a message for less than four seconds. No message center sign may be located within 500 feet of an existing billboard, or 1,000 feet of another message center display, on the same side of the highway (§5405).

The proposed digital LED billboard would require a Department of Transportation Outdoor Advertising Act Permit from Caltrans. As a condition of that permit, digital LED billboard signs are required to comply with the brightness requirements outlined in the Outdoor Advertising Act in that the illumination shall not be of such brilliance or so positioned as to cause a hazardous condition on adjacent highways. The standard used by Caltrans for enforcing sign brightness is as follows:

> "The brightness reading of an objectionable light source shall be measured with a 1½ degree photoelectric brightness meter placed at the driver's point of view. The maximum measured brightness of the light source within 10 degrees from the driver's normal line of sight shall not be more than 1,000 times the minimum measured brightness in the driver's field of view, except that when the minimum measured brightness in the field of view is 10 foot-lamberts or less, the measured brightness of the light source in foot-lamberts shall not exceed 500 plus 100 times the angle, in degrees, between the driver's line of sight and the light source."

With compliance of Caltrans Outdoor Advertising Act Permit, and the provisions of the City's Municipal Code, Section 15.32.050.I regarding off-site signs, which would ensure that the display would be visible for a minimum of 8-seconds before changing, and that the lighting levels of the proposed billboard would not exceed 0.3 foot candles of the ambient light levels during daytime and evening hours, no hazardous design features or incompatible uses would result from the proposed project, and impacts would be less than significant.

d) Result in inadequate emergency access?

No Impact. Emergency access points and roadways (including SR-60) adjacent to and surrounding the proposed billboard site would remain unchanged from the existing conditions. Furthermore, installation of the proposed billboard display would not require road closures or otherwise impact the functionality of surrounding roadways, which serves as a public safety access route. Therefore, the proposed project would not result in impact to emergency access and no mitigation measures are necessary.

3.18 TRIBAL CULTURAL RESOURCES

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
XVIII. TRIBAL CULTURAL RESOURCES.				
a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code § 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or				X
ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code § 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code § 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.		X		

a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural

landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or

No Impact. As shown in Figure 3, *Aerial Photograph*, the project site is currently developed with two industrial buildings that were developed in 1979, surface parking, and ornamental landscaping. The existing billboard sign is located along the southeastern perimeter of the proposed project site, approximately 30 feet higher than the adjacent industrial buildings. Project development involves the conversion of an existing static double-sided billboard into a new double-sided electronic billboard. The proposed project would not result in the alteration or removal of the warehouse or associated structures. The project site is not identified on any federal or state historic registers or sources, including the National Register of Historic Places and California State Historical Landmarks and Points of Historical Interest (NPS 2020, OHP 2020). Therefore, no impact to historical resources would occur and no mitigation measures are necessary.

ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Less Than Significant Impact with Mitigation Incorporated. Tribal cultural resources are sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that is either eligible or listed in the California Register of Historical Resources or local register of historical resources (Public Resources Code § 21074). In order to determine whether there are any tribal cultural resources that could be impacted by implementation of the proposed project, California Native American tribes that are traditionally and culturally affiliated with the project site will be contacted (Public Resources Code § 21080.3.1).

In accordance with Public Resources Code Section 21080.1(d), a lead agency is required to provide formal notification of intended development projects to Native American tribes that have requested to be on the lead agency's list for receiving such notification. The formal notification is required to include a brief description of the proposed project and its location, lead agency contact information, and a notification that the California Native American tribe has 30 days to request consultation for tribal cultural resources. The Gabrieleno Band of Mission Indians – Kizh Nation and the Soboba Band of Luiseno Indians are on the City of Industry's notification list pursuant to AB 52. The City notified both tribes on May 26, 2020. Only the Gabrieleño Band of Mission Indians – Kizh Nation requested consultation and the City of Industry is currently engaged in consultation with the tribe. The Gabrieleño Band of Mission Indians – Kizh Nation indicated that the project site is located within and around a sacred village (Pimokangna), adjacent to sacred water courses and major traditional trade routes. Therefore, there is a potentially significant impact to tribal cultural resources being present within the soil from prehistoric activities that

occurred within and around these areas. Mitigation measure TCR-1 has been identified to ensure impacts to tribal cultural resources would be less than significant.

Mitigation Measure

TCR-1 **Retain a Native American Monitor/Consultant:** Prior to the commencement of any ground disturbing activity at the project site, the project applicant shall retain a Native American Monitor approved by the Gabrieleno Band of Mission Indians-Kizh Nation – the tribe that consulted on this project pursuant to Assembly Bill A52 - SB18 (the "Tribe" or the "Consulting Tribe"). A copy of the executed contract shall be submitted to the Lead Agency prior to the issuance of any permit necessary to commence a ground-disturbing activity. The Tribal monitor will only be present on-site during the construction phases that involve ground-disturbing activities. Ground disturbing activities are defined by the Tribe as activities that may include, but are not limited to, pavement removal, potholing or auguring, grubbing, tree removals, boring, grading, excavation, drilling, and trenching, within the project area. The Tribal Monitor will complete daily monitoring logs that will provide descriptions of the day's activities, including construction activities, locations, soil, and any cultural materials identified. The on-site monitoring shall end when all ground-disturbing activities on the Project Site are completed, or when the Tribal Representatives and Tribal Monitor have indicated that all upcoming ground-disturbing activities at the Project Site have little to no potential for impacting Tribal Cultural Resources.

Upon discovery of any Tribal Cultural Resources, construction activities shall cease in the immediate vicinity of the find (not less than the surrounding 50 feet) until the find can be assessed. All Tribal Cultural Resources unearthed by project activities shall be evaluated by the Tribal monitor approved by the Consulting Tribe and a qualified archaeologist if one is present. If the resources are Native American in origin, the Consulting Tribe will retain it/them in the form and/or manner the Tribe deems appropriate, for educational, cultural and/or historic purposes.

If human remains and/or grave goods are discovered or recognized at the Project Site, all ground disturbance shall immediately cease, and the county coroner shall be notified per Public Resources Code Section 5097.98, and Health & Safety Code Section 7050.5. Human remains and grave/burial goods shall be treated alike per California Public Resources Code section 5097.98(d)(1) and (2). Work may continue in other parts of the Project site while evaluation and, if necessary, mitigation takes place (CEQA Guidelines Section 15064.5[f]). Preservation in place (i.e., avoidance) is the preferred manner of treatment. If preservation in place is not feasible, treatment may include implementation of archaeological data recovery excavations to remove the resource along with subsequent laboratory processing and analysis. Any historic archaeological material that is not Native American in origin (non-TCR) shall be curated at a public, non-profit institution with a research interest in the materials, such as the Natural History Museum of Los Angeles County or the Fowler Museum, if such an institution

agrees to accept the material. If no institution accepts the archaeological material, it shall be offered to a local school or historical society in the area for educational purposes.

In addition, the project applicant shall follow/implement the following measures during the project's construction phases that involve ground-disturbing activities.

- **Unanticipated Discovery of Human Remains and Associated Funerary Objects:** Native American human remains are defined in PRC 5097.98 (d)(1) as an inhumation or cremation, and in any state of decomposition or skeletal completeness. Funerary objects, called associated grave goods in PRC 5097.98, are also to be treated according to this statute. Health and Safety Code 7050.5 dictates that any discoveries of human skeletal material shall be immediately reported to the County Coroner and excavation halted until the coroner has determined the nature of the remains. If the coroner recognizes the human remains to be those of a Native American or has reason to believe that they are those of a Native American, he or she shall contact, by telephone within 24 hours, the NAHC and PRC 5097.98 shall be followed.
- **Resource Assessment & Continuation of Work Protocol:** Upon discovery of human remains, the tribal and/or archaeological monitor/consultant/consultant will immediately divert work at minimum of 100 feet and place an exclusion zone around the discovery location. The monitor/consultant(s) will then notify the Tribe, the qualified lead archaeologist, and the construction manager who will call the coroner. Work will continue to be diverted while the coroner determines whether the remains are human and subsequently Native American. The discovery is to be kept confidential and secure to prevent any further disturbance. If the finds are determined to be Native American, the coroner will notify the NAHC as mandated by state law who will then appoint a Most Likely Descendent (MLD).
- **Kizh-Gabrieleño Procedures for Burials and Funerary Remains:** If the Gabrieleno Band of Mission Indians – Kizh Nation is designated MLD, the Koo-nas-gna Burial Policy shall be implemented. To the Tribe, the term "human remains" encompasses more than human bones. In ancient as well as historic times, Tribal Traditions included, but were not limited to, the preparation of the soil for burial, the burial of funerary objects with the deceased, and the ceremonial burning of human remains. The prepared soil and cremation soils are to be treated in the same manner as bone fragments that remain intact. Associated funerary objects are objects that, as part of the death rite or ceremony of a culture, are reasonably believed to have been placed with individual human remains either at the time of death or later; other items made exclusively for burial purposes or to contain human remains can also be considered as associated funerary objects.
    - *Treatment Measures:* Prior to the continuation of ground disturbing activities, the landowner shall arrange a designated site location within the footprint of the project for the respectful reburial of the human remains and/or ceremonial objects. In the case where discovered human remains cannot be fully documented and recovered on

the same day, the remains will be covered with muslin cloth and a steel plate that can be moved by heavy equipment placed over the excavation opening to protect the remains. If this type of steel plate is not available, a 24-hour guard should be posted outside of working hours. The Tribe will make every effort to recommend diverting the project and keeping the remains in situ and protected. If the project cannot be diverted, it may be determined that burials will be removed. The Tribe will work closely with the qualified archaeologist to ensure that the excavation is treated carefully, ethically and respectfully. If data recovery is approved by the Tribe, documentation shall be taken which includes at a minimum detailed descriptive notes and sketches. Additional types of documentation shall be approved by the Tribe for data recovery purposes. Cremations will either be removed in bulk or by means as necessary to ensure completely recovery of all material. If the discovery of human remains includes four or more burials, the location is considered a cemetery and a separate treatment plan shall be created. Once complete, a final report of all activities is to be submitted to the Tribe and the NAHC. The Tribe does NOT authorize any scientific study or the utilization of any invasive and/or destructive diagnostics on human remains. Each occurrence of human remains and associated funerary objects will be stored using opaque cloth bags. All human remains, funerary objects, sacred objects and objects of cultural patrimony will be removed to a secure container on site if possible. These items should be retained and reburied within six months of recovery. The site of reburial/repatriation shall be on the project site but at a location agreed upon between the Tribe and the landowner at a site to be protected in perpetuity. There shall be no publicity regarding any cultural materials recovered.

- *Professional Standards:* Native American and Archaeological monitoring during construction projects will be consistent with current professional standards. All feasible care to avoid any unnecessary disturbance, physical modification, or separation of TCR's shall be taken. The Native American monitor must be approved by the Gabrieleno Band of Mission Indians-Kizh Nation. Principal personnel for Archaeology must meet the Secretary of Interior standards for archaeology and have a minimum of 10 years of experience as a principal investigator working with Native American archaeological sites in southern California.

3.19 UTILITIES AND SERVICE SYSTEMS

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
XIX. UTILITIES AND SERVICE SYSTEMS. Would the project:				
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?				X

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?				X
c) Result in a determination by the waste water treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?				X
d) Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?				X
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?				X

Would the project:

a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

No Impact. No aspects of the proposed project would result in a change of or increase in water or wastewater discharges; therefore, the proposed project would not require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities. No impact would occur, and no mitigation measures are necessary.

No aspects of the proposed project would result in the creation or contribution of runoff water into existing or planned storm water drainage systems. Therefore, the proposed project would not require or result in the construction of new storm water drainage facilities or expansion of existing facilities. No impact would occur and no mitigation measures are necessary.

b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

No Impact. Operation of the billboard would not require the use of water or require any connections to municipal water supplies. Therefore, no impact to water supplies would occur and no mitigation measures are necessary.

c) Result in a determination by the waste water treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

No Impact. See response to Section 3.19(a) and (b), above.

d) Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

No Impact. With the exception of the installation of the proposed digital billboard, no aspects of the proposed project's operation phase would result in the generation of solid waste. Installation of the billboard may briefly generate a small amount of solid waste during construction. However, solid waste generated during the construction phase would be minimal and would cease upon installation the billboard. Therefore, no new or expanded landfill capacity would be needed to serve the proposed project. No impact would occur, and no mitigation measures are necessary.

e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

No Impact. As noted above in Section 3.19(d), the proposed project's operation phase would not generate solid waste; installation of the proposed digital billboard would briefly generate a small amount of solid waste during the construction phase. A significant impact would occur if the proposed project were to generate solid waste that is not disposed of in accordance with applicable regulations. As stated above, the proposed project would not result in a significant increase in the demand for solid waste services. Solid waste generated on the project site would be disposed of in accordance with all applicable federal, state, and local regulations related to solid waste. In addition, because the proposed project site is in California, it would be required to comply with the California Integrated Waste Management Act of 1989 (AB 939), which was enacted to reduce, recycle, and reuse solid waste generated in the state to the maximum amount feasible. Project implementation would not interfere with applicable statutes and regulations. Therefore, impacts would be less than significant.

3.20 WILDFIRE

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
XX. WILDFIRE. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?				X
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?				X
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?				X
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?				X

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:

a) Substantially impair an adopted emergency response plan or emergency evacuation plan?

No Impact. Wildland fire protection in California is the responsibility of either the State, local government, or the federal government. State Responsibility Areas (SRA) are the areas in the State where the State of California has the primary financial responsibility for the prevention and suppression of wildland fires. The SRA forms one large area over 31 million acres to which the State Department of Forestry and Fire Protection (CAL FIRE) provides a basic level of wildland fire prevention and protection services. Local Responsibility Areas (LRA) include incorporated cities, cultivated agriculture lands, and portions of the desert. LRA fire protection is typically provided by city fire departments, fire protection districts, counties, and by CAL FIRE under contract to local government. CAL FIRE uses an extension of the SRA Fire Hazard Severity Zone model as the basis for evaluating fire hazard in LRA. The LRA hazard rating reflects flame and ember intrusion from adjacent wildlands and from flammable vegetation in the urban area. The Los Angeles County Fire Department currently provides fire protection and emergency medical services to the City.

Fire Hazard Severity Zones (FHSZ) are identified by Moderate, High and Very High in an SRA, and Very High in an LRA. The proposed project is not located within a state responsibility area or land classified as a very high fire hazard severity zone, as identified in the Los Angeles County Fire Hazard Severity Zone Map (CAL FIRE 2007). The nearest FHSZ in the SRA and the LRA is a VHFHSZ 1.5 miles south of the project site where open space interfaces with the urban edge, south of Colima Road. Land between the edge of the FHSZ and the project site is dense urban development and includes SR-60. The emergency response plan in effect in Los Angeles County is the Los Angeles County Operational Area Emergency Response Plan (OAERP) maintained by the County Office of Emergency Management and approved by the County Board of Supervisors in 2012. Installing a two-sided digital billboard in the same location as an existing static billboard would not block access to the project site or to surrounding properties and would not impede the evacuation program. There would be no impact in the case of emergency evacuation.

b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

No Impact. The project is in a relatively flat area, and there are no steep slopes immediately adjacent to the site where high winds can exacerbate wildfire risks. The proposed project site and surrounding area are characterized by features typical of an urban landscape with prevailing winds moving to the northeast. The California Department of Forestry and Fire Prevention (CAL FIRE) classifies the wildland urban interface approximately 1.5 miles to the south as a Very High Fire Hazard Severity Zone (VHFHSZ). Despite this proximity to the project site, no wildlands exist within the immediate vicinity of the site and SR-60 runs east to west in between the project site and the VHFHSZ. The project site is at approximately 400 feet above sea level while the edge of the VHFHSZ is at approximately 470 feet above sea level and continues to gain in elevation further south. Although prevailing wind patterns flow in the direction of the project suite, due to intervening

development and the relatively level topography north of the VHFHSZ, project development is not anticipated to exacerbate wildfire risk. Impacts would be less than significant.

c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

No Impact. The proposed project does not require the installation or maintenance of associated infrastructure because the project consists of the installation of an unmanned and non-habitable digital billboard. Therefore, the proposed project would not result in or exacerbate fire risk that may result in temporary or ongoing impacts to the environment. No impact would occur.

d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

No Impact. Refer to Responses 3.7(a)(iv), 3.10(c)(i) and 3.10(c)(ii). The topography of the proposed project site is relatively flat, and the soils on the proposed project site are not susceptible to landslides. Additionally, implementation of the proposed project would not alter the existing drainage patterns or substantially increase the amount of runoff because stormwater would be retained onsite using the existing garden area and additional turf areas for drainage and groundwater recharge. Therefore, the proposed project would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, and no impact would occur.

3.21 MANDATORY FINDINGS OF SIGNIFICANCE

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
XXI. MANDATORY FINDINGS OF SIGNIFICANCE.				
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?		X		
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)			X	
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?			X	

a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

Less than Significant with Mitigation Incorporated. The proposed billboard is in an urbanized area of the City and consists of a 36-foot pipe column fixed to the ground, surrounded by landscaping, and would run vertically toward a 30-foot horizontal pipe column supporting the east and west facing electronic signs. The uses surrounding the proposed billboard site include major roadways, and commercial and industrial. The site does not contain, abut or is in proximity of any sensitive natural resources that could be disturbed as a result of project implementation. As demonstrated in Section 3.4, *Biological Resources*, the proposed project would not result in the reduction of the habitat of fish or wildlife species; cause a fish or wildlife population to drop below self-sustaining levels; result in an impact to migratory birds; threaten to eliminate a plant or animal community; or reduce the number or restrict the range of a rare or endangered plant or animal. Additionally, as demonstrated in Section 3.5, *Cultural Resources*, no historic resources occur on the project site; therefore, the proposed project does not have the potential to eliminate important examples of California history or prehistory. As demonstrated in Section 3.18, *Tribal Cultural Resources*, there is a potential impact to tribal cultural resources due to the project site being located within and around a sacred village, adjacent to sacred water courses and major traditional trade routes. Impacts to tribal cultural resources would be reduced to a level of less than significant with implementation of Mitigation Measure TCR-1.

b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)

Less than Significant Impact. Implementation of the proposed project, in conjunction with other approved or pending projects in the region, has the potential to result in cumulatively considerable impacts to the physical environment. However, implementation of the proposed project would not result in cumulatively considerable impacts. Where appropriate, the environmental checklist questions above include a cumulative construction impact discussion to address the cumulative impacts of the proposed project when developed in conjunction with related projects. As concluded throughout the analysis, the proposed project would include both operation- and construction-related mitigation measures to ensure the proposed project's incremental contribution would be less than cumulatively considerable. Further, the proposed project would not achieve short-term environmental goals to the disadvantage of long-term goals. Therefore, impacts would be considered less than significant.

3. Environmental Analysis

c) Does the project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?

Less Than Significant. The analysis in this Initial Study has not identified any substantial adverse impacts that the proposed project would have on human beings, either directly or indirectly. Impacts would be less than significant, and no mitigation measures are required.

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4. References

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Appendix A Billboard Lighting Study

Appendix

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September 23, 2019

Background on Optical Measurements and Calculations

Watchfire Signs has manufactured outdoor electric signs since 1932 and led signs since 1996. We have more than 60,000 led signs in operation worldwide.

Incandescent signs were commonly measured using illuminance measurements, partly because the light bulb is ideally a point source of light, illuminating equally in all directions, and illuminance meters are commonly available and inexpensive. Foot-candle measurements are made at a defined distance from the sign and the magnitude depends on the physical size of the sign.

LED signs are highly directional however, which is an advantage in an urban setting since the light can be directed more precisely to the intended audience. Luminance measurements have been used to specify LED signs by the industry. The candela per square meter (NITs) unit allows a specification that does not depend on size or viewing distance.

The study done on the sign adjacent to a residential area used actual lab measurements made on modules using an illuminance meter. These measurements and extrapolations are then scaled up to the size of the sign and the distance corrections are made using the inverse square law.

Watchfire adopted brightness standards set forth by both the ISA (International sign Association) and OAAA (Outdoor Advertising Association of America). The standards used are based on the studies of Dr. Lewin and the IESNA (Illuminating Engineering Society of North America).

Below is a list of some of the measurement equipment used by Watchfire engineers.

Equipment used by Watchfire engineers to make lighting measurements:
Foot-candles/Lux - Minolta Illuminance Meter T-10
NITs/candela/sq. m – Minolta Luminance Meter LS-100
Sign Calibration – Minolta CS-1000 Spectra radiometer

SIGN LIGHTING STUDY

Sign Details

Size: 14x48 Digital Billboard Display

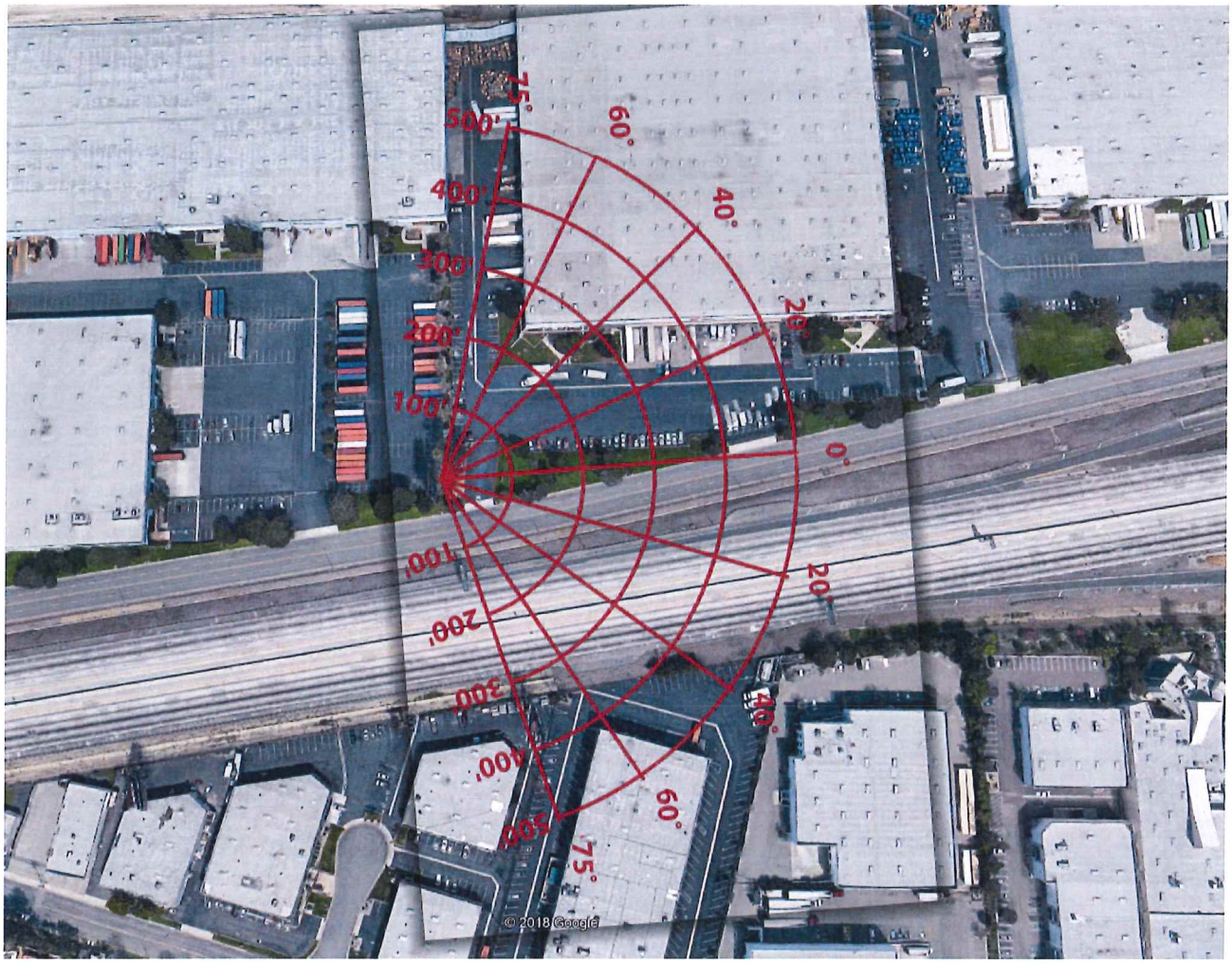
Location: *City of Industry, 33.995881, -117.876252*

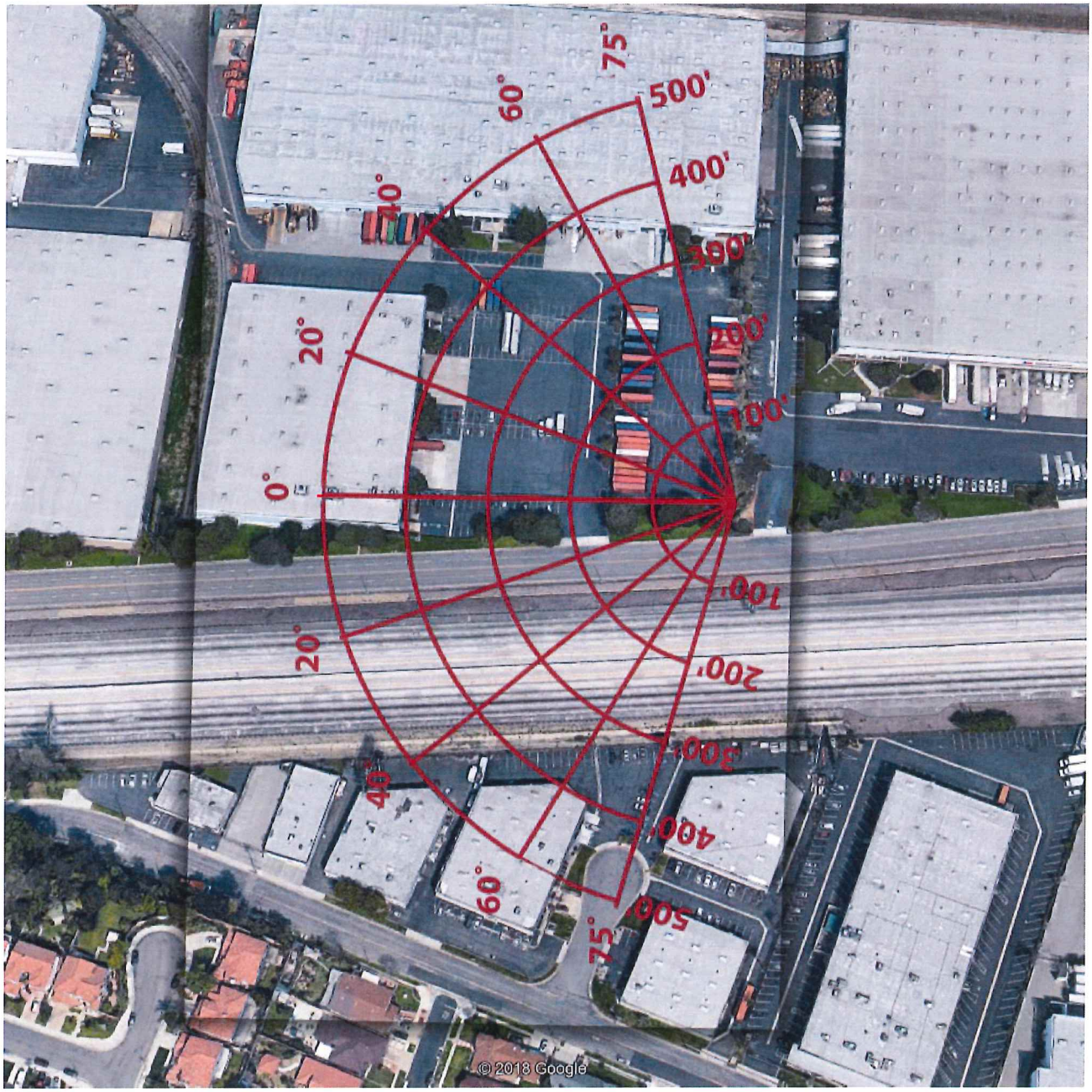
Light measurements are completed in foot-candles. A foot-candle is the amount of light produced by a single candle when measured from 1 foot away. For reference, a 100-watt light bulb produces 137 foot-candles at 1 foot away, .0548 foot-candles at 50 feet and .0137 foot-candles at 100 feet.

The table represents the total increase in ambient light produced by the sign under normal or typical operation at night. The ambient light increases will be less than shown in the chart since they fail to consider any objects blocking the line of site to the sign. Obstructions such as trees would further reduce real world overall ambient light increases. In addition to obstructions any existing light within the viewing cone will further diminish any light increase.

	0 degrees	*20 degrees*	*40 degrees*	*60 degrees*	*75 degrees*
100'	0.6814	*0.5621*	*0.3795*	*0.1717*	0.0341
200'	*0.1703*	*0.1405*	*0.0949*	*0.0429*	*0.0085*
300'	*0.0757*	*0.0625*	*0.0422*	*0.0191*	*0.0038*
400'	*0.0426*	*0.0351*	*0.0237*	*0.0107*	*0.0021*
500'	0.0273	0.0225	0.0152	0.0069	0.0014

Light values in foot-candles at night under typical operation


75°
60°
40°
20°
0°
20°
40°
60°
75°
100'
200'
300'
400'
500'
© 2018 Google



Conclusion

Given the above comparisons and measurements, the area will see an almost undetectable difference in ambient light after installation of the digital led displays. Ambient light levels are more heavily impacted by street, building, and landscape lights than the increases produced by a digital billboard display.

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Appendix B. Air Quality and Green Gas Background and Modeling Data

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Air Quality and Greenhouse Gas Background and Modeling Data

AIR QUALITY

Climate/Meteorology

SOUTH COAST AIR BASIN

The project site lies in the South Coast Air Basin (SoCAB), which includes all of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties. The SoCAB is in a coastal plain with connecting broad valleys and low hills and is bounded by the Pacific Ocean in the southwest quadrant, with high mountains forming the remainder of the perimeter. The general region lies in the semi-permanent high-pressure zone of the eastern Pacific. As a result, the climate is mild, tempered by cool sea breezes. This usually mild weather pattern is interrupted infrequently by periods of extremely hot weather, winter storms, and Santa Ana winds (South Coast AQMD 2005).

Temperature and Precipitation

The annual average temperature varies little throughout the SoCAB, ranging from the low to middle 60s, measured in degrees Fahrenheit (°F). With a more pronounced oceanic influence, coastal areas show less variability in annual minimum and maximum temperatures than inland areas. The climatological station nearest to the project site with temperature data is the Montebello, California Monitoring Station (ID No. 045790). The lowest average temperature is reported at 47.2°F in December, and the highest average temperature is 89.7°F in August (WRCC 2020).

In contrast to a very steady pattern of temperature, rainfall is seasonally and annually highly variable. Almost all rain falls from October through April. Summer rainfall is normally restricted to widely scattered thundershowers near the coast, with slightly heavier shower activity in the east and over the mountains. Rainfall historically averages 14.78 inches per year in the project area (WRCC 2020).

Humidity

Although the SoCAB has a semiarid climate, the air near the earth's surface is typically moist because of the presence of a shallow marine layer. Except for infrequent periods when dry, continental air is brought into the SoCAB by offshore winds, the "ocean effect" is dominant. Periods of heavy fog, especially along the coast, are frequent. Low clouds, often referred to as high fog, are a characteristic climatic feature. Annual average humidity is 70 percent at the coast and 57 percent in the eastern portions of the SoCAB (South Coast AQMD 2005).

Wind

Wind patterns across the south coastal region are characterized by westerly or southwesterly onshore winds during the day and by easterly or northeasterly breezes at night. Wind speed is somewhat greater during the dry summer months than during the rainy winter season.

Between periods of wind, periods of air stagnation may occur, both in the morning and evening hours. Air stagnation is one of the critical determinants of air quality conditions on any given day. During the winter and fall months, surface high-pressure systems over the SoCAB, combined with other meteorological conditions, can result in very strong, downslope Santa Ana winds. These winds normally continue a few days before predominant meteorological conditions are reestablished.

The mountain ranges to the east affect the transport and diffusion of pollutants by inhibiting their eastward transport. Air quality in the SoCAB generally ranges from fair to poor and is similar to air quality in most of coastal southern California. The entire region experiences heavy concentrations of air pollutants during prolonged periods of stable atmospheric conditions (South Coast AQMD 2005).

Inversions

In conjunction with the two characteristic wind patterns that affect the rate and orientation of horizontal pollutant transport, there are two similarly distinct types of temperature inversions that control the vertical depth through which pollutants are mixed. These are the marine/subsidence inversion and the radiation inversion. The combination of winds and inversions are critical determinants in leading to the highly degraded air quality in summer and the generally good air quality in the winter in the project area (South Coast AQMD 2005).

Air Quality Regulations

The proposed project has the potential to release gaseous emissions of criteria pollutants and dust into the ambient air; therefore, it falls under the ambient air quality standards promulgated at the local, state, and federal levels. The project site is in the SoCAB and is subject to the rules and regulations imposed by the South Coast Air Quality Management District (South Coast AQMD). However, South Coast AQMD reports to California Air Resources board (CARB), and all criteria emissions are also governed by the California and national Ambient Air Quality Standards (AAQS). Federal, state, regional, and local laws, regulations, plans, or guidelines that are potentially applicable to the proposed project are summarized below.

AMBIENT AIR QUALITY STANDARDS

The Clean Air Act (CAA) was passed in 1963 by the US Congress and has been amended several times. The 1970 Clean Air Act amendments strengthened previous legislation and laid the foundation for the regulatory scheme of the 1970s and 1980s. In 1977, Congress again added several provisions, including nonattainment requirements for areas not meeting National AAQS and the Prevention of Significant Deterioration program. The 1990 amendments represent the latest in a series of federal efforts to regulate the protection of air quality in the United States. The CAA allows states to adopt more stringent standards or to include other pollution species. The California Clean Air Act (CCAA), signed into law in 1988, requires all areas of the state to achieve

and maintain the California AAQS by the earliest practical date. The California AAQS tend to be more restrictive than the National AAQS, based on even greater health and welfare concerns.

These National AAQS and California AAQS are the levels of air quality considered to provide a margin of safety in the protection of the public health and welfare. They are designed to protect "sensitive receptors" most susceptible to further respiratory distress, such as asthmatics, the elderly, very young children, people already weakened by other disease or illness, and persons engaged in strenuous work or exercise. Healthy adults can tolerate occasional exposure to air pollutant concentrations considerably above these minimum standards before adverse effects are observed.

Both California and the federal government have established health based AAQS for seven air pollutants. As shown in Table 1, *Ambient Air Quality Standards for Criteria Pollutants*, these pollutants include ozone (O_3), nitrogen dioxide (NO_2), carbon monoxide (CO), sulfur dioxide (SO_2), coarse inhalable particulate matter (PM_{10}), fine inhalable particulate matter ($PM_{2.5}$), and lead (Pb). In addition, the state has set standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles. These standards are designed to protect the health and welfare of the populace with a reasonable margin of safety.

Table 1 Ambient Air Quality Standards for Criteria Pollutants

Pollutant	Averaging Time	California Standard[1]	Federal Primary Standard[2]	Major Pollutant Sources
Ozone (O_3)[3]	1 hour	0.09 ppm	*	Motor vehicles, paints, coatings, and solvents.
	8 hours	0.070 ppm	0.070 ppm	
Carbon Monoxide (CO)	1 hour	20 ppm	35 ppm	Internal combustion engines, primarily gasoline-powered motor vehicles.
	8 hours	9.0 ppm	9 ppm	
Nitrogen Dioxide (NO_2)	Annual Arithmetic Mean	0.030 ppm	0.053 ppm	Motor vehicles, petroleum-refining operations, industrial sources, aircraft, ships, and railroads.
	1 hour	0.18 ppm	0.100 ppm	
Sulfur Dioxide (SO_2)	Annual Arithmetic Mean	*	0.030 ppm	Fuel combustion, chemical plants, sulfur recovery plants, and metal processing.
	1 hour	0.25 ppm	0.075 ppm	
	24 hours	0.04 ppm	0.14 ppm	
Respirable Coarse Particulate Matter (PM_{10})	Annual Arithmetic Mean	20 μg/m³	*	Dust and fume-producing construction, industrial, and agricultural operations, combustion, atmospheric photochemical reactions, and natural activities (e.g., wind-raised dust and ocean sprays).
	24 hours	50 μg/m³	150 μg/m³	
	Annual Arithmetic Mean	12 μg/m³	12 μg/m³	Dust and fume-producing construction, industrial, and agricultural operations, combustion, atmospheric

Table 1 Ambient Air Quality Standards for Criteria Pollutants

Pollutant	Averaging Time	California Standard[1]	Federal Primary Standard[2]	Major Pollutant Sources
Respirable Fine Particulate Matter ($PM_{2.5}$)[4]	24 hours	*	35 µg/m³	photochemical reactions, and natural activities (e.g., wind-raised dust and ocean sprays).
Lead (Pb)	30-Day Average	1.5 µg/m³	*	Present source: lead smelters, battery manufacturing & recycling facilities. Past source: combustion of leaded gasoline.
	Calendar Quarter	*	1.5 µg/m³	
	Rolling 3-Month Average	*	0.15 µg/m³	
Sulfates (SO_4)[5]	24 hours	25 µg/m³	*	Industrial processes.
Visibility Reducing Particles	8 hours	ExCo =0.23/km visibility of 10≥ miles	No Federal Standard	Visibility-reducing particles consist of suspended particulate matter, which is a complex mixture of tiny particles that consists of dry solid fragments, solid cores with liquid coatings, and small droplets of liquid. These particles vary greatly in shape, size and chemical composition, and can be made up of many different materials such as metals, soot, soil, dust, and salt.
Hydrogen Sulfide	1 hour	0.03 ppm	No Federal Standard	Hydrogen sulfide (H_2S) is a colorless gas with the odor of rotten eggs. It is formed during bacterial decomposition of sulfur-containing organic substances. Also, it can be present in sewer gas and some natural gas and can be emitted as the result of geothermal energy exploitation.
Vinyl Chloride	24 hours	0.01 ppm	No Federal Standard	Vinyl chloride (chloroethene), a chlorinated hydrocarbon, is a colorless gas with a mild, sweet odor. Most vinyl chloride is used to make polyvinyl chloride (PVC) plastic and vinyl products. Vinyl chloride has been detected near landfills, sewage plants, and hazardous waste sites, due to microbial breakdown of chlorinated solvents.

Source: CARB 2016.
Notes: ppm: parts per million; µg/m³: micrograms per cubic meter
* Standard has not been established for this pollutant/duration by this entity.
1 California standards for O_3, CO (except 8-hour Lake Tahoe), SO_2 (1 and 24 hour), NO_2, and particulate matter (PM_{10}, $PM_{2.5}$, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.
2 National standards (other than O_3, PM, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The O_3 standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM_{10}, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m³ is equal to or less than one. For $PM_{2.5}$, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard.
3 On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.
4 On December 14, 2012, the national annual $PM_{2.5}$ primary standard was lowered from 15 µg/m³ to 12.0 µg/m³. The existing national 24-hour $PM_{2.5}$ standards (primary and secondary) were retained at 35 µg/m³, as was the annual secondary standard of 15 µg/m³. The existing 24-hour PM_{10} standards (primary and secondary) of 150 µg/m³ also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.
5 On June 2, 2010, a new 1-hour SO_2 standard was established and the existing 24-hour and annual primary standards were revoked. The 1-hour national standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.

California has also adopted a host of other regulations that reduce criteria pollutant emissions, including:

- AB 1493: Pavley Fuel Efficiency Standards
- Title 20 California Code of Regulations (CCR): Appliance Energy Efficiency Standards
- Title 24, Part 6, CCR: Building and Energy Efficiency Standards
- Title 24, Part 11, CCR: Green Building Standards Code

CRITERIA AIR POLLUTANTS

The air pollutants emitted into the ambient air by stationary and mobile sources are regulated by federal and state law. Air pollutants are categorized as primary or secondary pollutants. Primary air pollutants are those that are emitted directly from sources. Carbon monoxide (CO), volatile organic compounds (VOC), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), coarse inhalable particulate matter (PM_{10}), fine inhalable particulate matter ($PM_{2.5}$), and lead (Pb) are primary air pollutants. Of these, CO, SO_2, NO_2, PM_{10}, and $PM_{2.5}$ are "criteria air pollutants," which means that ambient air quality standards (AAQS) have been established for them. VOC and oxides of nitrogen (NO_x) are air pollutant precursors that form secondary criteria pollutants through chemical and photochemical reactions in the atmosphere. Ozone (O_3) and NO_2 are the principal secondary pollutants. A description of each of the primary and secondary criteria air pollutants and their known health effects is presented below.

Carbon Monoxide (CO) is a colorless, odorless, toxic gas produced by incomplete combustion of carbon substances, such as gasoline or diesel fuel. CO is a primary criteria air pollutant. CO concentrations tend to be the highest during winter mornings with little to no wind, when surface-based inversions trap the pollutant at ground levels. Because CO is emitted directly from internal combustion, engines and motor vehicles operating at slow speeds are the primary source of CO in the SoCAB. The highest ambient CO concentrations are generally found near traffic-congested corridors and intersections. The primary adverse health effect associated with CO is interference with normal oxygen transfer to the blood, which may result in tissue oxygen deprivation (South Coast AQMD 2005; USEPA 2019a). The SoCAB is designated under the California and National AAQS as being in attainment of CO criteria levels (CARB 2017a).

Volatile Organic Compounds (VOC) are compounds composed primarily of atoms of hydrogen and carbon. Internal combustion associated with motor vehicle usage is the major source of hydrocarbons. Other sources of VOCs include evaporative emissions associated with the use of paints and solvents, the application of asphalt paving, and the use of household consumer products such as aerosols. There are no ambient air quality standards established for VOCs. However, because they contribute to the formation of ozone (O_3), South Coast AQMD has established a significance threshold for this pollutant (South Coast AQMD 2005).

Nitrogen Oxides (NO_x) are a byproduct of fuel combustion and contribute to the formation of O_3, PM_{10}, and $PM_{2.5}$. The two major forms of NO_x are nitric oxide (NO) and nitrogen dioxide (NO_2). The principal form of NO_2 produced by combustion is NO, but NO reacts with oxygen to form NO_2, creating the mixture of NO and NO_2 commonly called NO_x. NO_2 acts as an acute irritant and, in equal concentrations, is more injurious than NO. At atmospheric concentrations, however, NO_2 is only potentially irritating. There is some indication of a relationship between NO_2 and chronic pulmonary fibrosis. Some increase in bronchitis in children (two and three years old) has also been observed at concentrations below 0.3 part per million (ppm).

NO_2 absorbs blue light; the result is a brownish-red cast to the atmosphere and reduced visibility. NO is a colorless, odorless gas formed from atmospheric nitrogen and oxygen when combustion takes place under high temperature and/or high pressure (South Coast AQMD 2005; USEPA 2019a). The SoCAB is designated as an attainment area for NO_2 under the National AAQS California AAQS (CARB 2017a).

Sulfur Dioxide (SO_2) is a colorless, pungent, irritating gas formed by the combustion of sulfurous fossil fuels. It enters the atmosphere as a result of burning high-sulfur-content fuel oils and coal and from chemical processes at chemical plants and refineries. Gasoline and natural gas have very low sulfur content and do not release significant quantities of SO_2 (South Coast AQMD 2005; USEPA 2019a). When sulfur dioxide forms sulfates (SO_4) in the atmosphere, together these pollutants are referred to as sulfur oxides (SO_X). Thus, SO_2 is both a primary and secondary criteria air pollutant. At sufficiently high concentrations, SO_2 may irritate the upper respiratory tract. At lower concentrations and when combined with particulates, SO_2 may do greater harm by injuring lung tissue. The SoCAB is designated as attainment under the California and National AAQS (CARB 2017a).

Suspended Particulate Matter (PM_{10} and $PM_{2.5}$) consists of finely divided solids or liquids such as soot, dust, aerosols, fumes, and mists. Two forms of fine particulates are now recognized and regulated. Inhalable coarse particles, or PM_{10}, include the particulate matter with an aerodynamic diameter of 10 microns (i.e., 10 millionths of a meter or 0.0004 inch) or less. Inhalable fine particles, or $PM_{2.5}$, have an aerodynamic diameter of 2.5 microns (i.e., 2.5 millionths of a meter or 0.0001 inch) or less. Particulate discharge into the atmosphere results primarily from industrial, agricultural, construction, and transportation activities. However, wind action on arid landscapes also contributes substantially to local particulate loading (i.e., fugitive dust). Both PM_{10} and $PM_{2.5}$ may adversely affect the human respiratory system, especially in people who are naturally sensitive or susceptible to breathing problems (South Coast AQMD 2005).

The US Environmental Protection Agency's (EPA) scientific review concluded that $PM_{2.5}$, which penetrates deeply into the lungs, is more likely than PM_{10} to contribute to health effects and at concentrations that extend well below those allowed by the current PM_{10} standards. These health effects include premature death and increased hospital admissions and emergency room visits (primarily the elderly and individuals with cardiopulmonary disease); increased respiratory symptoms and disease (children and individuals with cardiopulmonary disease such as asthma); decreased lung functions (particularly in children and individuals with asthma); and alterations in lung tissue and structure and in respiratory tract defense mechanisms (South Coast AQMD 2005). There has been emerging evidence that even smaller particulates with an aerodynamic diameter of <0.1 microns or less (i.e., ≤0.1 millionths of a meter or <0.000004 inch), known as ultrafine particulates (UFPs), have human health implications, because UFPs toxic components may initiate or facilitate biological processes that may lead to adverse effects to the heart, lungs, and other organs (South Coast AQMD 2013). However, the EPA or CARB have yet to adopt AAQS to regulate these particulates. Diesel particulate matter (DPM) is classified by the CARB as a carcinogen (CARB 1998). Particulate matter can also cause environmental

effects such as visibility impairment,[1] environmental damage,[2] and aesthetic damage[3] (South Coast AQMD 2005; USEPA 2019a). The SoCAB is a nonattainment area for $PM_{2.5}$ under California and National AAQS and a nonattainment area for PM_{10} under the California AAQS (CARB 2017a).[4]

Ozone (O_3) is commonly referred to as "smog" and is a gas that is formed when VOCs and NO_x, both by-products of internal combustion engine exhaust, undergo photochemical reactions in the presence of sunlight. O_3 is a secondary criteria air pollutant. O_3 concentrations are generally highest during the summer months when direct sunlight, light winds, and warm temperatures create favorable conditions for the formation of this pollutant. O_3 poses a health threat to those who already suffer from respiratory diseases as well as to healthy people. Breathing O_3 can trigger a variety of health problems, including chest pain, coughing, throat irritation, and congestion. It can worsen bronchitis, emphysema, and asthma. Ground-level O_3 also can reduce lung function and inflame the linings of the lungs. Repeated exposure may permanently scar lung tissue. O_3 also affects sensitive vegetation and ecosystems, including forests, parks, wildlife refuges, and wilderness areas. In particular, O_3 harms sensitive vegetation during the growing season (South Coast AQMD 2005; USEPA 2019a). The SoCAB is designated as extreme nonattainment under the California AAQS (1-hour and 8-hour) and National AAQS (8-hour) (CARB 2017a).

Lead (Pb) is a metal found naturally in the environment as well as in manufactured products. Once taken into the body, lead distributes throughout the body in the blood and accumulates in the bones. Depending on the level of exposure, lead can adversely affect the nervous system, kidney function, immune system, reproductive and developmental systems, and the cardiovascular system. Lead exposure also affects the oxygen-carrying capacity of the blood. The effects of lead most commonly encountered in current populations are neurological effects in children and cardiovascular effects in adults (e.g., high blood pressure and heart disease). Infants and young children are especially sensitive to even low levels of lead, which may contribute to behavioral problems, learning deficits, and lowered IQ (South Coast AQMD 2005; USEPA 2019a). The major sources of lead emissions have historically been mobile and industrial sources. As a result of the EPA's regulatory efforts to remove lead from gasoline, emissions of lead from the transportation sector dramatically declined by 95 percent between 1980 and 1999, and levels of lead in the air decreased by 94 percent between 1980 and 1999. Today, the highest levels of lead in air are usually found near lead smelters. The major sources of lead emissions today are ore and metals processing and piston-engine aircraft operating on leaded aviation gasoline. However, in 2008 the EPA and CARB adopted stricter lead standards, and special monitoring sites immediately downwind of lead sources recorded very localized violations of the new state and federal standards.[5] As a result of these

1 $PM_{2.5}$ is the main cause of reduced visibility (haze) in parts of the United States.

2 Particulate matter can be carried over long distances by wind and then settle on ground or water, making lakes and streams acidic; changing the nutrient balance in coastal waters and large river basins; depleting the nutrients in soil; damaging sensitive forests and farm crops; and affecting the diversity of ecosystems.

3 Particulate matter can stain and damage stone and other materials, including culturally important objects such as statues and monuments.

4 CARB approved the SCAQMD's request to redesignate the SoCAB from serious nonattainment for PM_{10} to attainment for PM_{10} under the National AAQS on March 25, 2010, because the SoCAB has not violated federal 24-hour PM_{10} standards during the period from 2004 to 2007. In June 2013, the EPA approved the State of California's request to redesignate the PM_{10} nonattainment area to attainment of the PM_{10} National AAQS, effective on July 26, 2013.

5 Source-oriented monitors record concentrations of lead at lead-related industrial facilities in the SoCAB, which include Exide Technologies in the City of Commerce; Quemetco, Inc., in the City of Industry; Trojan Battery Company in Santa Fe Springs; and Exide Technologies in Vernon. Monitoring conducted between 2004 through 2007 showed that the Trojan Battery Company and Exide Technologies exceed the federal standards (SCAQMD 2012).

violations, the Los Angeles County portion of the SoCAB is designated nonattainment under the National AAQS for lead (South Coast AQMD 2012; CARB 2017a). Because emissions of lead are found only in projects that are permitted by South Coast AQMD, lead is not a pollutant of concern for the project.

TOXIC AIR CONTAMINANTS

The public's exposure to air pollutants classified as toxic air contaminants (TACs) is a significant environmental health issue in California. In 1983, the California Legislature enacted a program to identify the health effects of TACs and to reduce exposure to these contaminants to protect the public health. The California Health and Safety Code defines a TAC as "an air pollutant which may cause or contribute to an increase in mortality or in serious illness, or which may pose a present or potential hazard to human health." A substance that is listed as a hazardous air pollutant (HAP) pursuant to Section 112(b) of the federal Clean Air Act (42 United States Code §7412[b]) is a toxic air contaminant. Under state law, the California Environmental Protection Agency (Cal/EPA), acting through CARB, is authorized to identify a substance as a TAC if it determines that the substance is an air pollutant that may cause or contribute to an increase in mortality or to an increase in serious illness, or may pose a present or potential hazard to human health.

California regulates TACs primarily through Assembly Bill (AB) 1807 (Tanner Air Toxics Act) and AB 2588 (Air Toxics "Hot Spot" Information and Assessment Act of 1987). The Tanner Air Toxics Act sets forth a formal procedure for CARB to designate substances as TACs. Once a TAC is identified, CARB adopts an "airborne toxics control measure" for sources that emit designated TACs. If there is a safe threshold for a substance (i.e., a point below which there is no toxic effect), the control measure must reduce exposure to below that threshold. If there is no safe threshold, the measure must incorporate toxics best available control technology to minimize emissions. To date, CARB has established formal control measures for 11 TACs, all of which are identified as having no safe threshold.

Air toxics from stationary sources are also regulated in California under the Air Toxics "Hot Spot" Information and Assessment Act of 1987. Under AB 2588, toxic air contaminant emissions from individual facilities are quantified and prioritized by the air quality management district or air pollution control district. High priority facilities are required to perform a health risk assessment and, if specific thresholds are exceeded, are required to communicate the results to the public in the form of notices and public meetings.

By the last update to the TAC list in December 1999, CARB had designated 244 compounds as TACs (CARB 1999). Additionally, CARB has implemented control measures for a number of compounds that pose high risks and show potential for effective control. The majority of the estimated health risks from TACs can be attributed to relatively few compounds, the most important being particulate matter from diesel-fueled engines.

Diesel Particulate Matter

In 1998, CARB identified particulate emissions from diesel-fueled engines (diesel PM) as a TAC. Previously, the individual chemical compounds in diesel exhaust were considered TACs. Almost all diesel exhaust particle mass is 10 microns or less in diameter. Because of their extremely small size, these particles can be inhaled and eventually trapped in the bronchial and alveolar regions of the lung.

CARB has promulgated the following specific rules to limit TAC emissions:

- 13 CCR Chapter 10, Section 2485, Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling
- 13 CCR Chapter 10, Section 2480, Airborne Toxic Control Measure to Limit School Bus Idling and Idling at Schools
- 13 CCR Section 2477 and Article 8, Airborne Toxic Control Measure for In-Use Diesel-Fueled Transport Refrigeration Units (TRU) and TRU Generator Sets and Facilities Where TRUs Operate

Community Risk

In addition, to reduce exposure to TACs, CARB developed and approved the *Air Quality and Land Use Handbook: A Community Health Perspective* (2005) to provide guidance regarding the siting of sensitive land uses in the vicinity of freeways, distribution centers, rail yards, ports, refineries, chrome-plating facilities, dry cleaners, and gasoline-dispensing facilities. This guidance document was developed to assess compatibility and associated health risks when placing sensitive receptors near existing pollution sources. CARB's recommendations on the siting of new sensitive land uses were based on a compilation of recent studies that evaluated data on the adverse health effects from proximity to air pollution sources. The key observation in these studies is that proximity to air pollution sources substantially increases exposure and the potential for adverse health effects. There are three carcinogenic toxic air contaminants that constitute the majority of the known health risks from motor vehicle traffic, DPM from trucks, and benzene and 1,3-butadiene from passenger vehicles. CARB recommendations are based on data that show that localized air pollution exposures can be reduced by as much as 80 percent by following CARB minimum distance separations.

Multiple Airborne Toxics Exposure Study (MATES)

The Multiple Air Toxics Exposure Study (MATES) is a monitoring and evaluation study on ambient concentrations of TACs and estimated the potential health risks from air toxics in the SoCAB. In 2008, South Coast AQMD conducted its third update to the MATES study (MATES III). The results showed that the overall risk for excess cancer from a lifetime exposure to ambient levels of air toxics was about 1,200 in a million. The largest contributor to this risk was diesel exhaust, accounting for 84 percent of the cancer risk (South Coast AQMD 2008b).

South Coast AQMD recently released the fourth update (MATES IV). The results showed that the overall monitored risk for excess cancer from a lifetime exposure to ambient levels of air toxics decreased to approximately 418 in one million. Compared to the 2008 MATES III, monitored excess cancer risks decreased by approximately 65 percent. Approximately 90 percent of the risk is attributed to mobile sources while 10 percent is attributed to TACs from stationary sources, such as refineries, metal processing facilities, gas stations, and chrome plating facilities. The largest contributor to this risk was diesel exhaust, accounting for approximately 68 percent of the air toxics risk. Compared to MATES III, MATES IV found substantial improvement in air quality and associated decrease in air toxics exposure. As a result, the estimated basin-wide population-weighted risk decreased by approximately 57 percent compared to the analysis done for the MATES III time period (South Coast AQMD 2015a).

The Office of Environmental Health Hazard Assessment (OEHHA) updated the guidelines for estimating cancer risks on March 6, 2015. The new method utilizes higher estimates of cancer potency during early life exposures, which result in a higher calculation of risk. There are also differences in the assumptions on breathing rates and length of residential exposures. When combined together, South Coast AQMD estimates that risks for a given inhalation exposure level will be about 2.7 times higher using the proposed updated methods identified in MATES IV (e.g., 2.7 times higher than 418 in one million overall excess cancer risk) (South Coast AQMD 2015a).

Air Quality Management Planning

South Coast AQMD is the agency responsible for preparing the air quality management plan (AQMP) for the SoCAB in coordination with the Southern California Association of Governments (SCAG). Since 1979, a number of AQMPs have been prepared.

2016 AQMP

On March 3, 2017, South Coast AQMD adopted the 2016 AQMP as an update to the 2012 AQMP. The 2016 AQMP addresses strategies and measures to attain the following National AAQS:

- 2008 National 8-hour ozone standard by 2031,
- 2012 National annual $PM_{2.5}$ standard by 2025[6],
- 2006 National 24-hour $PM_{2.5}$ standard by 2019,
- 1997 National 8-hour ozone standard by 2023, and the
- 1979 National 1-hour ozone standard by year 2022.

It is projected that total NO_X emissions in the SoCAB would need to be reduced to 150 tons per day (tpd) by year 2023 and to 100 tpd in year 2031 to meet the 1997 and 2008 federal 8-hour ozone standards. The strategy to meet the 1997 federal 8-hour ozone standard would also lead to attaining the 1979 federal 1-hour ozone standard by year 2022 (South Coast AQMD 2017), which requires reducing NO_X emissions in the SoCAB to 250 tpd. This is approximately 45 percent additional reductions above existing regulations for the 2023 ozone standard and 55 percent additional reductions above existing regulations to meet the 2031 ozone standard.

Reducing NO_X emissions would also reduce $PM_{2.5}$ concentrations in the SoCAB. However, as the goal is to meet the 2012 federal annual $PM_{2.5}$ standard no later than year 2025, South Coast AQMD is seeking to reclassify the SoCAB from "moderate" to "serious" nonattainment under this federal standard. A "moderate" non-attainment would require meeting the 2012 federal standard by no later than 2021.

Overall, the 2016 AQMP is composed of stationary and mobile-source emission reductions from regulatory control measures, incentive-based programs, co-benefits from climate programs, mobile-source strategies, and reductions from federal sources such as aircrafts, locomotives, and ocean-going vessels. Strategies outlined in

[6] The 2016 AQMP requests a reclassification from moderate to serious non-attainment for the 2012 National $PM_{2.5}$ standard.

the 2016 AQMP would be implemented in collaboration between CARB and the EPA (South Coast AQMD 2017).

LEAD STATE IMPLEMENTATION PLAN

In 2008 EPA designated the Los Angeles County portion of the SoCAB nonattainment under the federal lead (Pb) classification due to the addition of source-specific monitoring under the new federal regulation. This designation was based on two source-specific monitors in Vernon and the City of Industry exceeding the new standard. The rest of the SoCAB, outside the Los Angeles County nonattainment area remains in attainment of the new standard. On May 24, 2012, CARB approved the SIP revision for the federal lead standard, which the EPA revised in 2008. Lead concentrations in this nonattainment area have been below the level of the federal standard since December 2011. The SIP revision was submitted to EPA for approval.

AREA DESIGNATIONS

The AQMP provides the framework for air quality basins to achieve attainment of the state and federal ambient air quality standards through the State Implementation Plan (SIP). Areas are classified as attainment or nonattainment areas for particular pollutants, depending on whether they meet ambient air quality standards. Severity classifications for ozone nonattainment range in magnitude from marginal, moderate, and serious to severe and extreme.

- **Unclassified:** a pollutant is designated unclassified if the data are incomplete and do not support a designation of attainment or nonattainment.
- **Attainment:** a pollutant is in attainment if the CAAQS for that pollutant was not violated at any site in the area during a three-year period.
- **Nonattainment:** a pollutant is in nonattainment if there was at least one violation of a state AAQS for that pollutant in the area.
- **Nonattainment/Transitional:** a subcategory of the nonattainment designation. An area is designated nonattainment/transitional to signify that the area is close to attaining the AAQS for that pollutant.

The attainment status for the SoCAB is shown in Table 2, *Attainment Status of Criteria Pollutants in the South Coast Air Basin*. The SoCAB is designated in attainment of the California AAQS for sulfates. The SoCAB is designated as nonattainment for lead (Los Angeles County only) under the National AAQS.

Table 2 Attainment Status of Criteria Pollutants in the South Coast Air Basin

Pollutant	State	Federal
Ozone – 1-hour	Extreme Nonattainment	No Federal Standard
Ozone – 8-hour	Extreme Nonattainment	Extreme Nonattainment
PM_{10}	Serious Nonattainment	Attainment/Maintenance
$PM_{2.5}$	Nonattainment	Nonattainment[1]
CO	Attainment	Attainment
NO_2	Attainment	Attainment/Maintenance
SO_2	Attainment	Attainment
Lead	Attainment	Nonattainment (Los Angeles County only)[2]
All others	Attainment/Unclassified	Attainment/Unclassified

Source: CARB 2017b.
[1] South Coast AQMD is seeking to reclassify the SoCAB from "moderate" to "serious" nonattainment under federal $PM_{2.5}$ standard.
[2] In 2010, the Los Angeles portion of the SoCAB was designated nonattainment for lead under the new federal and existing state AAQS as a result of large industrial emitters. Remaining areas in the SoCAB are unclassified.

Existing Ambient Air Quality

Existing levels of ambient air quality and historical trends and projections in the vicinity of the project site are best documented by measurements taken by the South Coast AQMD. The project site is located within Source Receptor Area (SRA) 10 – Pomona/Walnut Valley. The air quality monitoring station within SRA 10 closest to the project site is the Pomona Monitoring Station. This station monitors O_3 and NO_2. Data for PM_{10} and $PM_{2.5}$ is supplemented by the Azusa Monitoring Station. The most current five years of data from these monitoring stations are included in Table 3, *Ambient Air Quality Monitoring Summary*. The data show regular violations of the state and federal O_3, the state PM_{10}, and federal $PM_{2.5}$ standards in the last five years.

Table 3 Ambient Air Quality Monitoring Summary

Pollutant/Standard	Number of Days Threshold Were Exceeded and Maximum Levels during Such Violations				
	2014	2015	2016	2017	2018
Ozone (O_3)[1]					
State 1-Hour ≥ 0.09 ppm (days exceed threshold)	22	30	20	18	7
State 8-hour ≥ 0.07 ppm (days exceed threshold)	56	55	29	38	11
Federal 8-Hour > 0.075 ppm (days exceed threshold)	33	36	14	20	8
Max. 1-Hour Conc. (ppm)	0.123	0.136	0.127	0.147	0.112
Max. 8-Hour Conc. (ppm)	0.099	0.098	0.092	0.114	0.092
Nitrogen Dioxide (NO_2)[1]					
State 1-Hour ≥ 0.18 ppm (days exceed threshold)	0	0	0	0	0
Federal 1-Hour ≥ 0.100 ppm (days exceed threshold)	0	0	0	0	0
Max. 1-Hour Conc. (ppb)	0.0889	0.0723	0.0693	0.0812	0.0679
Coarse Particulates (PM_{10})[2]					
State 24-Hour > 50 μg/m³ (days exceed threshold)	21	12	12	7	10
Federal 24-Hour > 150 μg/m³ (days exceed threshold)	0	0	0	0	0
Max. 24-Hour Conc. (μg/m³)	96.0	101.0	74.0	83.9	78.3
Fine Particulates ($PM_{2.5}$)[1]					
Federal 24-Hour > 35 μg/m³ (days exceed threshold)	0	2	0	0	1
Max. 24-Hour Conc. (μg/m³)	32.4	70.3	32.1	24.9	41.8

Source: CARB 2020.
ppm: parts per million; parts per billion, μg/m³: micrograms per cubic meter
Notes: * Data not available.
[1] Data obtained from the Pomona Monitoring Station.
[2] Data obtained from the Azusa Monitoring Station.

Sensitive Receptors

Some land uses are considered more sensitive to air pollution than others due to the types of population groups or activities involved. Sensitive population groups include children, the elderly, the acutely ill, and the chronically ill, especially those with cardio-respiratory diseases.

Residential areas are also considered to be sensitive receptors to air pollution because residents (including children and the elderly) tend to be at home for extended periods of time, resulting in sustained exposure to any pollutants present. Schools are also considered sensitive receptors, as children are present for extended durations and engage in regular outdoor activities. Recreational land uses are considered moderately sensitive to air pollution. Although exposure periods are generally short, exercise places a high demand on respiratory functions, which can be impaired by air pollution. In addition, noticeable air pollution can detract from the enjoyment of recreation. Industrial and commercial areas are considered the least sensitive to air pollution. Exposure periods are relatively short and intermittent, as the majority of the workers tend to stay indoors most of the time. In addition, the working population is generally the healthiest segment of the public. The nearest sensitive receptors to the proposed project site are the employees of the Furniture of America, Frank and Son Trucking Company, and Legend Footwear to the northeast, north, and west of the project site, respectively. The nearest residential receptors are about 750 feet to the south of the project site.

Methodology

Projected construction-related air pollutant emissions are calculated using the California Emissions Estimator Model (CalEEMod), Version 2016.3.2.25. CalEEMod compiles an emissions inventory of construction (fugitive dust, off-gas emissions, on-road emissions, and off-road emissions), area sources, indirect emissions from energy use, mobile sources, indirect emissions from waste disposal (annual only), and indirect emissions from water/wastewater (annual only) use. The calculated emissions of the project are compared to thresholds of significance for individual projects using the South Coast AQMD's CEQA Air Quality Analysis Guidance Handbook.

Thresholds of Significance

The analysis of the proposed project's air quality impacts follows the guidance and methodologies recommended in South Coast AQMD's *CEQA Air Quality Handbook* and the significance thresholds on South Coast AQMD's website (South Coast AQMD 1993).[7] CEQA allows the significance criteria established by the applicable air quality management or air pollution control district to be used to assess impacts of a project on air quality. South Coast AQMD has established thresholds of significance for regional air quality emissions for construction activities and project operation. In addition to the daily thresholds listed above, projects are also subject to the AAQS. These are addressed though an analysis of localized CO impacts and localized significance thresholds (LSTs).

REGIONAL SIGNIFICANCE THRESHOLDS

South Coast AQMD has adopted regional construction and operational emissions thresholds to determine a project's cumulative impact on air quality in the SoCAB. Table 4, *South Coast AQMD Significance Thresholds*, lists South Coast AQMD's regional significance thresholds that are applicable for all projects uniformly regardless of size or scope. There is growing evidence that although ultrafine particulates contribute a very small portion of the overall atmospheric mass concentration, they represent a greater proportion of the health risk from PM. However, the EPA or CARB have not yet adopted AAQS to regulate ultrafine particulates; therefore, South Coast AQMD has not developed thresholds for them.

Table 4 South Coast AQMD Significance Thresholds

Air Pollutant	Construction Phase	Operational Phase
Reactive Organic Gases (ROGs)/ Volatile Organic Compounds (VOCs)	75 lbs/day	55 lbs/day
Nitrogen Oxides (NO_x)	100 lbs/day	55 lbs/day
Carbon Monoxide (CO)	550 lbs/day	550 lbs/day
Sulfur Oxides (SO_x)	150 lbs/day	150 lbs/day
Particulates (PM_{10})	150 lbs/day	150 lbs/day
Particulates ($PM_{2.5}$)	55 lbs/day	55 lbs/day

Source: South Coast AQMD 2019.

[7] SCAQMD's Air Quality Significance Thresholds are current as of March 2015 and can be found here: http://www.aqmd.gov/ceqa/hdbk.html.

Projects that exceed the regional significance threshold contribute to the nonattainment designation of the SoCAB. The attainment designations are based on the AAQS, which are set at levels of exposure that are determined to not result in adverse health. Exposure to fine particulate pollution and ozone causes myriad health impacts, particularly to the respiratory and cardiovascular systems:

- Linked to increased cancer risk ($PM_{2.5}$, TACs)
- Aggravates respiratory disease (O_3, $PM_{2.5}$)
- Increases bronchitis (O_3, $PM_{2.5}$)
- Causes chest discomfort, throat irritation, and increased effort to take a deep breath (O_3)
- Reduces resistance to infections and increases fatigue (O_3)
- Reduces lung growth in children ($PM_{2.5}$)
- Contributes to heart disease and heart attacks ($PM_{2.5}$)
- Contributes to premature death (O_3, $PM_{2.5}$)
- Linked to lower birth weight in newborns ($PM_{2.5}$) (South Coast AQMD 2015b)

Exposure to fine particulates and ozone aggravates asthma attacks and can amplify other lung ailments such as emphysema and chronic obstructive pulmonary disease. Exposure to current levels of $PM_{2.5}$ is responsible for an estimated 4,300 cardiopulmonary-related deaths per year in the SoCAB. In addition, University of Southern California scientists responsible for a landmark children's health study found that lung growth improved as air pollution declined for children aged 11 to 15 in five communities in the SoCAB (South Coast AQMD 2015c).

Mass emissions in Table 4 are not correlated with concentrations of air pollutants but contribute to the cumulative air quality impacts in the SoCAB. Therefore, regional emissions from a single project do not single-handedly trigger a regional health impact. South Coast AQMD is the primary agency responsible for ensuring the health and welfare of sensitive individuals to elevated concentrations of air quality in the SoCAB. To achieve the health-based standards established by the EPA, South Coast AQMD prepares an AQMP that details regional programs to attain the AAQS.

CO HOTSPOTS

Areas of vehicle congestion have the potential to create pockets of CO called hot spots. These pockets have the potential to exceed the state one-hour standard of 20 ppm or the eight-hour standard of 9 ppm. Because CO is produced in greatest quantities from vehicle combustion and does not readily disperse into the atmosphere, adherence to ambient air quality standards is typically demonstrated through an analysis of localized CO concentrations. Hot spots are typically produced at intersections, where traffic congestion is highest because vehicles queue for longer periods and are subject to reduced speeds. With the turnover of older vehicles, introduction of cleaner fuels, and implementation of control technology on industrial facilities, CO concentrations in the SoCAB and in the state have steadily declined.

In 2007, the SoCAB was designated in attainment for CO under both the California AAQS and National AAQS. The CO hot spot analysis conducted for the attainment by South Coast AQMD for busiest intersections in Los

Angeles during the peak morning and afternoon periods plan did not predict a violation of CO standards. [8] As identified in South Coast AQMD's 2003 AQMP and the 1992 Federal Attainment Plan for Carbon Monoxide (1992 CO Plan), peak carbon monoxide concentrations in the SoCAB in previous years, prior to redesignation, were a result of unusual meteorological and topographical conditions and not a result of congestion at a particular intersection. Under existing and future vehicle emission rates, a project would have to increase traffic volumes at a single intersection by more than 44,000 vehicles per hour—or 24,000 vehicles per hour where vertical and/or horizontal air does not mix—in order to generate a significant CO impact (BAAQMD 2017).

LOCALIZED SIGNIFICANCE THRESHOLDS

South Coast AQMD developed LSTs for emissions of NO_2, CO, PM_{10}, and $PM_{2.5}$ generated at the project site (offsite mobile-source emissions are not included in the LST analysis). LSTs represent the maximum emissions at a project site that are not expected to cause or contribute to an exceedance of the most stringent federal or state AAQS and are shown in Table 5, *South Coast AQMD Localized Significance Thresholds.*

Table 5 South Coast AQMD Localized Significance Thresholds

Air Pollutant (Relevant AAQS)	Concentration
1-Hour CO Standard (CAAQS)	20 ppm
8-Hour CO Standard (CAAQS)	9.0 ppm
1-Hour NO_2 Standard (CAAQS)	0.18 ppm
Annual NO_2 Standard (CAAQS)	0.03 ppm
24-Hour PM_{10} Standard – Construction (South Coast AQMD)[1]	10.4 µg/m³
24-Hour $PM_{2.5}$ Standard – Construction (South Coast AQMD)[1]	10.4 µg/m³
24-Hour PM_{10} Standard – Operation (South Coast AQMD)[1]	2.5 µg/m³
24-Hour $PM_{2.5}$ Standard – Operation (South Coast AQMD)[1]	2.5 µg/m³

Source: South Coast AQMD 2019.
ppm – parts per million; µg/m³ – micrograms per cubic meter
1 Threshold is based on South Coast AQMD Rule 403. Since the SoCAB is in nonattainment for PM_{10} and $PM_{2.5}$, the threshold is established as an allowable change in concentration. Therefore, background concentration is irrelevant.

To assist lead agencies, South Coast AQMD developed screening-level LSTs to back-calculate the mass amount (lbs. per day) of emissions generated onsite that would trigger the levels shown in Table 5 for projects under 5-acres. These "screening-level" LSTs tables are the localized significance thresholds for all projects of five acres and less; however, it can be used as screening criteria for larger projects to determine whether or not dispersion modeling may be required to compare concentrations of air pollutants generated by the project to the localized concentrations shown in Table 5.

In accordance with South Coast AQMD's LST methodology, construction LSTs are based on the acreage disturbed per day based on equipment use. The construction LSTs for the project site in SRA 10 are shown in Table 6, *South Coast AQMD Screening-Level Construction Localized Significance Thresholds,* sensitive receptors within 450 feet (137 meters) for NO_x and CO and 750 feet (229 meters) for PM_{10} and $PM_{2.5}$. These two distances

[8] The four intersections were: Long Beach Boulevard and Imperial Highway; Wilshire Boulevard and Veteran Avenue; Sunset Boulevard and Highland Avenue; and La Cienega Boulevard and Century Boulevard. The busiest intersection evaluated (Wilshire and Veteran) had a daily traffic volume of approximately 100,000 vehicles per day with LOS E in the morning peak hour and LOS F in the evening peak hour.

represent residences at 750 feet, which are assumed to be exposed to construction emissions 24 hours a day, and the worker population at 450 feet, who would not be exposed to construction emissions for most of the day.

Table 6 South Coast AQMD Screening-Level Construction Localized Significance Thresholds

	Threshold (lbs/day)			
Acreage Disturbed	Nitrogen Oxides (NO_X)[1]	Carbon Monoxide (CO)[1]	Coarse Particulates (PM_{10})[2]	Fine Particulates ($PM_{2.5}$)[2]
≤1.00 Acre Disturbed Per Day	225	2,709	66	23

Source: South Coast AQMD 2008a and 2011.
[1] LSTs are based on receptors within 450 feet (137 meters) in SRA 10.
[2] LSTs are based on receptors within 750 feet (229 meters) in SRA 10.

Because the project is not an industrial project that has the potential to emit substantial sources of stationary emissions, operational LSTs are not an air quality impact of concern associated with the project.

Whenever a project would require use of chemical compounds that have been identified in South Coast AQMD Rule 1401, placed on CARB's air toxics list pursuant to AB 1807, or placed on the EPA's National Emissions Standards for Hazardous Air Pollutants, a health risk assessment is required by the South Coast AQMD. Table 7, *Toxic Air Contaminants Incremental Risk Thresholds*, lists the TAC incremental risk thresholds for operation of a project. The purpose of this environmental evaluation is to identify the significant effects of the proposed project on the environment, not the significant effects of the environment on the proposed project. (*California Building Industry Association v. Bay Area Air Quality Management District (2015) 62 Cal.4th 369 (Case No. S213478)*). CEQA does not require CEQA-level environmental document to analyze the environmental effects of attracting development and people to an area. However, the environmental document must analyze the impacts of environmental hazards on future users, when a proposed project exacerbates an existing environmental hazard or condition. Residential, commercial, and office uses do not use substantial quantities of TACs and typically do not exacerbate existing hazards, so these thresholds are typically applied to new industrial projects.

Table 7 South Coast AQMD Toxic Air Contaminants Incremental Risk Thresholds

Maximum Incremental Cancer Risk	≥ 10 in 1 million
Hazard Index (project increment)	≥ 1.0
Cancer Burden in areas ≥ 1 in 1 million	> 0.5 excess cancer cases

Source: South Coast AQMD 2019.

GREENHOUSE GAS EMISSIONS

Scientists have concluded that human activities are contributing to global climate change by adding large amounts of heat-trapping gases, known as GHG, to the atmosphere. Climate change is the variation of Earth's climate over time, whether due to natural variability or as a result of human activities. The primary source of these GHG is fossil fuel use. The Intergovernmental Panel on Climate Change (IPCC) has identified four major GHG—water vapor,[9] carbon (CO_2), methane (CH_4), and ozone (O_3)—that are the likely cause of an increase in global average temperatures observed within the 20th and 21st centuries. Other GHG identified by the IPCC that contribute to global warming to a lesser extent include nitrous oxide (N_2O), sulfur hexafluoride (SF_6), hydrofluorocarbons, perfluorocarbons, and chlorofluorocarbons (IPCC 2001).[10] The major GHG are briefly described below.

- **Carbon dioxide (CO_2)** enters the atmosphere through the burning of fossil fuels (oil, natural gas, and coal), solid waste, trees and wood products, and respiration, and also as a result of other chemical reactions (e.g. manufacture of cement). Carbon dioxide is removed from the atmosphere (sequestered) when it is absorbed by plants as part of the biological carbon cycle.

- **Methane (CH_4)** is emitted during the production and transport of coal, natural gas, and oil. Methane emissions also result from livestock and other agricultural practices and from the decay of organic waste in municipal landfills and water treatment facilities.

- **Nitrous oxide (N_2O)** is emitted during agricultural and industrial activities as well as during combustion of fossil fuels and solid waste.

- **Fluorinated gases** are synthetic, strong GHGs that are emitted from a variety of industrial processes. Fluorinated gases are sometimes used as substitutes for ozone-depleting substances. These gases are typically emitted in smaller quantities, but because they are potent GHGs, they are sometimes referred to as high global-warming-potential (GWP) gases.

    - ***Chlorofluorocarbons (CFCs)*** are GHGs covered under the 1987 Montreal Protocol and used for refrigeration, air conditioning, packaging, insulation, solvents, or aerosol propellants. Since they are not destroyed in the lower atmosphere (troposphere, stratosphere), CFCs drift into the upper atmosphere where, given suitable conditions, they break down ozone. These gases are also ozone-depleting gases

[9] Water vapor (H_2O) is the strongest GHG and the most variable in its phases (vapor, cloud droplets, ice crystals). However, water vapor is not considered a pollutant, but part of the feedback loop rather than a primary cause of change.

[10] Black carbon contributes to climate change both directly, by absorbing sunlight, and indirectly, by depositing on snow (making it melt faster) and by interacting with clouds and affecting cloud formation. Black carbon is the most strongly light-absorbing component of particulate matter (PM) emitted from burning fuels such as coal, diesel, and biomass. Reducing black carbon emissions globally can have immediate economic, climate, and public health benefits. California has been an international leader in reducing emissions of black carbon, with close to 95 percent control expected by 2020 due to existing programs that target reducing PM from diesel engines and burning activities (CARB 2017a). However, state and national GHG inventories do not yet include black carbon due to ongoing work resolving the precise global warming potential of black carbon. Guidance for CEQA documents does not yet include black carbon.

and are therefore being replaced by other compounds that are GHGs covered under the Kyoto Protocol.

- ***Perfluorocarbons (PFCs)*** are a group of human-made chemicals composed of carbon and fluorine only. These chemicals (predominantly perfluoromethane [CF_4] and perfluoroethane [C_2F_6]) were introduced as alternatives, along with HFCs, to the ozone-depleting substances. In addition, PFCs are emitted as by-products of industrial processes and are used in manufacturing. PFCs do not harm the stratospheric ozone layer, but they have a high global warming potential.

- ***Sulfur Hexafluoride (SF_6)*** is a colorless gas soluble in alcohol and ether, slightly soluble in water. SF_6 is a strong GHG used primarily in electrical transmission and distribution systems as an insulator.

- ***Hydrochlorofluorocarbons (HCFCs)*** contain hydrogen, fluorine, chlorine, and carbon atoms. Although ozone-depleting substances, they are less potent at destroying stratospheric ozone than CFCs. They have been introduced as temporary replacements for CFCs and are also GHGs.

- ***Hydrofluorocarbons (HFCs)*** contain only hydrogen, fluorine, and carbon atoms. They were introduced as alternatives to ozone-depleting substances to serve many industrial, commercial, and personal needs. HFCs are emitted as by-products of industrial processes and are also used in manufacturing. They do not significantly deplete the stratospheric ozone layer, but they are strong GHGs (IPCC 2001; USEPA 2019b).

GHGs are dependent on the lifetime or persistence of the gas molecule in the atmosphere. Some GHGs have stronger greenhouse effects than others. These are referred to as high GWP gases. The GWP of GHG emissions are shown in Table 8, *GHG Emissions and Their Relative Global Warming Potential Compared to CO_2*. The GWP is used to convert GHGs to CO_2-equivalence (CO_2e) to show the relative potential that different GHGs have to retain infrared radiation in the atmosphere and contribute to the greenhouse effect. For example, under IPCC's Fourth Assessment Report (AR4) GWP values for CH_4, a project that generates 10 metric tons (MT) of CH_4 would be equivalent to 250 MT of CO_2.[11]

Table 8 GHG Emissions and Their Relative Global Warming Potential Compared to CO_2

GHGs	Second Assessment Report Atmospheric Lifetime (Years)	Fourth Assessment Report Atmospheric Lifetime (Years)	Second Assessment Report Global Warming Potential Relative to CO_2[1]	Fourth Assessment Report Global Warming Potential Relative to CO_2[1]
Carbon Dioxide (CO_2)	50 to 200	50 to 200	1	1
Methane[2] (CH_4)	12 (±3)	12	21	25
Nitrous Oxide (N_2O)	120	114	310	298
Hydrofluorocarbons:				
HFC-23	264	270	11,700	14,800
HFC-32	5.6	4.9	650	675
HFC-125	32.6	29	2,800	3,500
HFC-134a	14.6	14	1,300	1,430
HFC-143a	48.3	52	3,800	4,470
HFC-152a	1.5	1.4	140	124
HFC-227ea	36.5	34.2	2,900	3,220
HFC-236fa	209	240	6,300	9,810
HFC-4310mee	17.1	15.9	1,300	1,030
Perfluoromethane: CF_4	50,000	50,000	6,500	7,390
Perfluoroethane: C_2F_6	10,000	10,000	9,200	12,200
Perfluorobutane: C_4F_{10}	2,600	NA	7,000	8,860
Perfluoro-2-methylpentane: C_6F_{14}	3,200	NA	7,400	9,300
Sulfur Hexafluoride (SF_6)	3,200	NA	23,900	22,800

Source: IPCC 1995; IPCC 2007.
Notes: The GWP values in the IPCC's Fifth Assessment Report (2013) reflect new information on atmospheric lifetimes of GHGs and an improved calculation of the radiative forcing of CO_2. However, South Coast AQMD uses the AR4 GWP values to maintain consistency in statewide GHG emissions modeling. In addition, the 2017 Scoping Plan Update was based on the AR4 GWP values.
1 Based on 100-year time horizon of the GWP of the air pollutant relative to CO_2.
2 The methane GWP includes direct effects and indirect effects due to the production of tropospheric ozone and stratospheric water vapor. The indirect effect due to the production of CO_2 is not included.

California's Greenhouse Gas Sources and Relative Contribution

In 2019, the statewide GHG emissions inventory was updated for 2000 to 2017 emissions using the GWPs in IPCC's AR4.[12] Based on these GWPs, California produced 424.10 $MMTCO_2e$ GHG emissions in 2017. California's transportation sector was the single largest generator of GHG emissions, producing 40.1 percent of the state's total emissions. Industrial sector emissions made up 21.1 percent, and electric power generation made up 14.7 percent of the state's emissions inventory. Other major sectors of GHG emissions include commercial and residential (9.7 percent), agriculture and forestry (7.6 percent) high GWP (4.7 percent), and recycling and waste (2.1 percent) (CARB 2019a).

California's GHG emissions have followed a declining trend since 2007. In 2017, emissions from routine GHG emitting activities statewide were 424 $MMTCO_2e$, 5 $MMTCO_2e$ lower than 2016 levels. This represents an overall decrease of 14 percent since peak levels in 2004 and 7 $MMTCO_2e$ below the 1990 level and the state's

[12] Methodology for determining the statewide GHG inventory is not the same as the methodology used to determine statewide GHG emissions under Assembly Bill 32 (2006).

2020 GHG target. During the 2000 to 2017 period, per capita GHG emissions in California have continued to drop from a peak in 2001 of 14.0 $MTCO_2e$ per capita to 10.7 $MTCO_2e$ per capita in 2017, a 24 percent decrease. Overall trends in the inventory also demonstrate that the carbon intensity of California's economy (the amount of carbon pollution per million dollars of gross domestic product (GDP)) is declining, representing a 41 percent decline since the 2001 peak, while the state's GDP has grown 52 percent during this period. For the first time since California started to track GHG emissions, California uses more electricity from zero-GHG sources (hydro, solar, wind, and nuclear energy) (CARB 2019b).

Regulatory Settings

REGULATION OF GHG EMISSIONS ON A NATIONAL LEVEL

The EPA announced on December 7, 2009, that GHG emissions threaten the public health and welfare of the American people and that GHG emissions from on-road vehicles contribute to that threat. The EPA's final findings respond to the 2007 U.S. Supreme Court decision that GHG emissions fit within the Clean Air Act definition of air pollutants. The findings do not in and of themselves impose any emission reduction requirements but allow the EPA to finalize the GHG standards proposed in 2009 for new light-duty vehicles as part of the joint rulemaking with the Department of Transportation (USEPA 2009).

To regulate GHGs from passenger vehicles, EPA was required to issue an endangerment finding. The finding identifies emissions of six key GHGs—CO_2, CH_4, N_2O, hydrofluorocarbons, perfluorocarbons, and SF_6—that have been the subject of scrutiny and intense analysis for decades by scientists in the United States and around the world. The first three are applicable to the project's GHG emissions inventory because they constitute the majority of GHG emissions and, per South Coast AQMD guidance, are the GHG emissions that should be evaluated as part of a project's GHG emissions inventory.

US Mandatory Report Rule for GHGs (2009)

In response to the endangerment finding, the EPA issued the Mandatory Reporting of GHG Rule that requires substantial emitters of GHG emissions (large stationary sources, etc.) to report GHG emissions data. Facilities that emit 25,000 MT or more of CO_2 per year are required to submit an annual report.

Update to Corporate Average Fuel Economy Standards (2010/2012)

The current Corporate Average Fuel Economy standards (for model years 2011 to 2016) incorporate stricter fuel economy requirements promulgated by the federal government and California into one uniform standard. Additionally, automakers are required to cut GHG emissions in new vehicles by roughly 25 percent by 2016 (resulting in a fleet average of 35.5 miles per gallon by 2016). Rulemaking to adopt these new standards was completed in 2010. California agreed to allow automakers who show compliance with the national program to also be deemed in compliance with state requirements. The federal government issued new standards in 2012 for model years 2017–2025 that will require a fleet average of 54.5 miles per gallon in 2025.

While the EPA is reexamining the 2017–2025 emissions and CAFE standards, a consortium of automakers and California have agreed on a voluntary framework to reduce emissions that can serve as an alternative path forward for clean vehicle standards nationwide. Automakers who agreed to the framework are Ford, Honda,

BMW of North America and Volkswagen Group of America. The framework supports continued annual reductions of vehicle greenhouse gas emissions through the 2026 model year, encourages innovation to accelerate the transition to electric vehicles, and provides industry the certainty needed to make investments and create jobs. This commitment means that the auto companies party to the voluntary agreement will only sell cars in the United States that meet these standards (CARB 2019c).

EPA Regulation of Stationary Sources under the Clean Air Act (Ongoing)

Pursuant to its authority under the Clean Air Act, the EPA has been developing regulations for new, large, stationary sources of emissions, such as power plants and refineries. Under former President Obama's 2013 Climate Action Plan, the EPA was directed to develop regulations for existing stationary sources as well. On June 19, 2019, the EPA issued the final Affordable Clean Energy (ACE) rule which became effective on August 19,2019. The ACE rule was crafted under the direction of President Trump's Energy Independence Executive Order. It officially rescinds the Clean Power Plan rule issued during the Obama Administration and sets emissions guidelines for states in developing plans to limit CO2 emissions from coal-fired power plants.

REGULATION OF GHG EMISSIONS ON A STATE LEVEL

Current State of California guidance and goals for reductions in GHG emissions are generally embodied in Executive Order S-3-05, Executive Order B-30-15, Assembly Bill 32 (AB 32), Senate Bill 32 (SB 32) and Senate Bill 375 (SB 375).

Executive Order S-3-05

Executive Order S-3-05, signed June 1, 2005. Executive Order S-3-05 set the following GHG reduction targets for the State:

- 2000 levels by 2010
- 1990 levels by 2020
- 80 percent below 1990 levels by 2050

Assembly Bill 32, the Global Warming Solutions Act (2006)

Current State of California guidance and goals for reductions in GHG emissions are generally embodied in AB 32. AB 32 was passed by the California state legislature on August 31, 2006, to place the state on a course toward reducing its contribution of GHG emissions. AB 32 follows the 2020 tier of emissions reduction targets established in Executive Order S-03-05.

CARB 2008 Scoping Plan

The final Scoping Plan was adopted by CARB on December 11, 2008. The *2008 Scoping Plan* identified that GHG emissions in California are anticipated to be approximately 596 $MMTCO_2e$ in 2020. In December 2007, CARB approved a 2020 emissions limit of 427 $MMTCO_2e$ (471 million tons) for the state (CARB 2008). In order to effectively implement the emissions cap, AB 32 directed CARB to establish a mandatory reporting system to track and monitor GHG emissions levels for large stationary sources that generate more than

25,000 $MTCO_2e$ per year, prepare a plan demonstrating how the 2020 deadline can be met, and develop appropriate regulations and programs to implement the plan by 2012.

First Update to the Scoping Plan

CARB completed a five-year update to the 2008 Scoping Plan, as required by AB 32. The First Update to the Scoping Plan was adopted at the May 22, 2014, board hearing. The update highlights California's progress toward meeting the near-term 2020 GHG emission reduction goals defined in the original 2008 Scoping Plan. As part of the update, CARB recalculated the 1990 GHG emission levels with the updated AR4 GWPs, and the 427 $MMTCO_2e$ 1990 emissions level and 2020 GHG emissions limit, established in response to AB 32, is slightly higher at 431 $MMTCO_2e$ (CARB 2014).

As identified in the Update to the Scoping Plan, California is on track to meeting the goals of AB 32. However, the update also addresses the state's longer-term GHG goals within a post-2020 element. The post-2020 element provides a high-level view of a long-term strategy for meeting the 2050 GHG goals, including a recommendation for the state to adopt a midterm target. According to the Update to the Scoping Plan, local government reduction targets should chart a reduction trajectory that is consistent with or exceeds the trajectory created by statewide goals (CARB 2014). CARB identified that reducing emissions to 80 percent below 1990 levels will require a fundamental shift to efficient, clean energy in every sector of the economy. Progressing toward California's 2050 climate targets will require significant acceleration of GHG reduction rates. Emissions from 2020 to 2050 will have to decline several times faster than the rate needed to reach the 2020 emissions limit (CARB 2014).

Executive Order B-30-15

Executive Order B-30-15, signed April 29, 2015, sets a goal of reducing GHG emissions in the state to 40 percent of 1990 levels by year 2030. Executive Order B-30-15 also directs CARB to update the Scoping Plan to quantify the 2030 GHG reduction goal for the state and requires state agencies to implement measures to meet the interim 2030 goal as well as the long-term goal for 2050 in Executive Order S-03-05. It also requires the Natural Resources Agency to conduct triennial updates of the California adaption strategy, Safeguarding California, in order to ensure climate change is accounted for in state planning and investment decisions.

Senate Bill 32 and Assembly Bill 197

In September 2016, Governor Brown signed SB 32 and AB 197 into law, making the Executive Order goal for year 2030 into a statewide mandated legislative target. AB 197 established a joint legislative committee on climate change policies and requires the CARB to prioritize direction emissions reductions rather than the market-based cap-and-trade program for large stationary, mobile, and other sources.

2017 Climate Change Scoping Plan Update

Executive Order B-30-15 and SB 32 required CARB to prepare another update to the Scoping Plan to address the 2030 target for the state. On December 24, 2017, CARB adopted the 2017 Climate Change Scoping Plan Update, which outlines potential regulations and programs, including strategies consistent with AB 197

requirements, to achieve the 2030 target. The 2017 Scoping Plan establishes a new emissions limit of 260 $MMTCO_2e$ for the year 2030, which corresponds to a 40 percent decrease in 1990 levels by 2030 (CARB 2017c).

California's climate strategy will require contributions from all sectors of the economy, including enhanced focus on zero- and near-zero emission (ZE/NZE) vehicle technologies; continued investment in renewables, such as solar roofs, wind, and other types of distributed generation; greater use of low carbon fuels; integrated land conservation and development strategies; coordinated efforts to reduce emissions of short-lived climate pollutants (methane, black carbon, and fluorinated gases); and an increased focus on integrated land use planning, to support livable, transit-connected communities and conservation of agricultural and other lands. Requirements for GHG reductions at stationary sources complement local air pollution control efforts by the local air districts to tighten criteria air pollutants and TACs emissions limits on a broad spectrum of industrial sources. Major elements of the 2017 Scoping Plan framework include:

- Implementing and/or increasing the standards of the Mobile Source Strategy, which include increasing ZEV buses and trucks;
- Low Carbon Fuel Standard (LCFS), with an increased stringency (18 percent by 2030).
- Implementation of SB 350, which expands the Renewables Portfolio Standard (RPS) to 50 percent RPS and doubles energy efficiency savings by 2030.
- California Sustainable Freight Action Plan, which improves freight system efficiency, utilizes near-zero emissions technology, and deployment of ZEV trucks.
- Implementing the Short-Lived Climate Pollutant Strategy (SLPS), which focuses on reducing methane and hydrofluorocarbon emissions by 40 percent and anthropogenic black carbon emissions by 50 percent by year 2030.
- Post-2020 Cap-and-Trade Program that includes declining caps.
- Continued implementation of SB 375.
- Development of a Natural and Working Lands Action Plan to secure California's land base as a net carbon sink.

In addition to the statewide strategies listed above, the 2017 Climate Change Scoping Plan also identified local governments as essential partners in achieving the State's long-term GHG reduction goals and identified local actions to reduce GHG emissions. As part of the recommended actions, CARB recommends statewide targets of no more than 6 $MTCO_2e$ or less per capita by 2030 and 2 $MTCO_2e$ or less per capita by 2050. CARB recommends that local governments evaluate and adopt robust and quantitative locally-appropriate goals that align with the statewide per capita targets and the State's sustainable development objectives and develop plans to achieve the local goals. The statewide per capita goals were developed by applying the percent reductions necessary to reach the 2030 and 2050 climate goals (i.e., 40 percent and 80 percent, respectively) to the State's

1990 emissions limit established under AB 32. For CEQA projects, CARB states that lead agencies have discretion to develop evidenced-based numeric thresholds (mass emissions, per capita, or per service population)—consistent with the Scoping Plan and the state's long-term GHG goals. To the degree a project relies on GHG mitigation measures, CARB recommends that lead agencies prioritize on-site design features that reduce emissions, especially from VMT, and direct investments in GHG reductions within the project's region that contribute potential air quality, health, and economic co-benefits. Where further project design or regional investments are infeasible or not proven to be effective, CARB recommends mitigating potential GHG impacts through purchasing and retiring carbon credits.

The Scoping Plan scenario is set against what is called the business-as-usual (BAU) yardstick—that is, what would the GHG emissions look like if the State did nothing at all beyond the existing policies that are required and already in place to achieve the 2020 limit, as shown in Table 9, *2017 Climate Change Scoping Plan Emissions Reductions Gap*. It includes the existing renewables requirements, advanced clean cars, the "10 percent" Low Carbon Fuel Standard (LCFS), and the SB 375 program for more vibrant communities, among others. However, it does not include a range of new policies or measures that have been developed or put into statute over the past two years. Also shown in the table, the known commitments are expected to result in emissions that are 60 $MMTCO_2e$ above the target in 2030. If the estimated GHG reductions from the known commitments are not realized due to delays in implementation or technology deployment, the post-2020 Cap-and-Trade Program would deliver the additional GHG reductions in the sectors it covers to ensure the 2030 target is achieved.

Table 9 2017 Climate Change Scoping Plan Emissions Reductions Gap

Modeling Scenario	2030 GHG Emissions $MMTCO_2e$
Reference Scenario (Business-as-Usual)	389
With Known Commitments	320
2030 GHG Target	**260**
Gap to 2030 Target	**60**

Source: CARB 2017c.

Table 10, *2017 Climate Change Scoping Plan Emissions Change by Sector*, provides estimated GHG emissions by sector, compared to 1990 levels, and the range of GHG emissions for each sector estimated for 2030.

Table 10 2017 Climate Change Scoping Plan Emissions Change by Sector

Scoping Plan Sector	1990 $MMTCO_2e$	2030 Proposed Plan Ranges $MMTCO_2e$	% Change from 1990
Agricultural	26	24-25	-8% to -4%
Residential and Commercial	44	38-40	-14% to -9%
Electric Power	108	30-53	-72% to -51%
High GWP	3	8-11	267% to 367%
Industrial	98	83-90	-15% to -8%
Recycling and Waste	7	8-9	14% to 29%
Transportation (including TCU)	152	103-111	-32% to -27%
Net Sink[1]	-7	TBD	TBD
Sub Total	431	294-339	-32% to -21%
Cap-and-Trade Program	NA	24-79	NA
Total	**431**	**260**	**-40%**

Source: CARB 2017c.
Notes: TCU = Transportation, Communications, and Utilities; TBD: To Be Determined.
[1] Work is underway through 2017 to estimate the range of potential sequestration benefits from the natural and working lands sector.

Senate Bill 1383

On September 19, 2016, the Governor signed SB 1383 to supplement the GHG reduction strategies in the Scoping Plan to consider short-lived climate pollutants, including black carbon and CH_4. Black carbon is the light-absorbing component of fine particulate matter produced during incomplete combustion of fuels. SB 1383 requires the state board, no later than January 1, 2018, to approve and begin implementing that comprehensive strategy to reduce emissions of short-lived climate pollutants to achieve a reduction in methane by 40 percent, hydrofluorocarbon gases by 40 percent, and anthropogenic black carbon by 50 percent below 2013 levels by 2030, as specified. The bill also establishes targets for reducing organic waste in landfill. On March 14, 2017, CARB adopted the "Final Proposed Short-Lived Climate Pollutant Reduction Strategy," which identifies the state's approach to reducing anthropogenic and biogenic sources of short-lived climate pollutants. Anthropogenic sources of black carbon include on- and off-road transportation, residential wood burning, fuel combustion (charbroiling), and industrial processes. According to CARB, ambient levels of black carbon in California are 90 percent lower than in the early 1960s despite the tripling of diesel fuel use (CARB 2017b). In-use on-road rules are expected to reduce black carbon emissions from on-road sources by 80 percent between 2000 and 2020. South Coast AQMD is one of the air districts that requires air pollution control technologies for chain-driven broilers, which reduces particulate emissions from these charbroilers by over 80 percent (CARB 2017b). Additionally, South Coast AQMD Rule 445 limits installation of new fireplaces in the SoCAB.

Senate Bill 375

In 2008, SB 375, the Sustainable Communities and Climate Protection Act, was adopted to connect the GHG emissions reductions targets established in the 2008 Scoping Plan for the transportation sector to local land use decisions that affect travel behavior. Its intent is to reduce GHG emissions from light-duty trucks and automobiles (excludes emissions associated with goods movement) by aligning regional long-range transportation plans, investments, and housing allocations to local land use planning to reduce VMT and vehicle

trips. Specifically, SB 375 required CARB to establish GHG emissions reduction targets for each of the 18 metropolitan planning organizations (MPOs). The Southern California Association of Governments (SCAG) is the MPO for the Southern California region, which includes the counties of Los Angeles, Orange, San Bernardino, Riverside, Ventura, and Imperial.

Pursuant to the recommendations of the Regional Transportation Advisory Committee, CARB adopted per capita reduction targets for each of the MPOs rather than a total magnitude reduction target. SCAG's targets are an 8 percent per capita reduction from 2005 GHG emission levels by 2020 and a 13 percent per capita reduction from 2005 GHG emission levels by 2035 (CARB 2010). The 2020 targets are smaller than the 2035 targets because a significant portion of the built environment in 2020 has been defined by decisions that have already been made. In general, the 2020 scenarios reflect that more time is needed for large land use and transportation infrastructure changes. Most of the reductions in the interim are anticipated to come from improving the efficiency of the region's transportation network. The targets would result in 3 $MMTCO_2e$ of reductions by 2020 and 15 $MMTCO_2e$ of reductions by 2035. Based on these reductions, the passenger vehicle target in CARB's Scoping Plan (for AB 32) would be met (CARB 2010).

2017 Update to the SB 375 Targets

CARB is required to update the targets for the MPOs every eight years. In June 2017, CARB released updated targets and technical methodology and recently released another update in February 2018. The updated targets consider the need to further reduce VMT, as identified in the 2017 Scoping Plan Update, while balancing the need for additional and more flexible revenue sources to incentivize positive planning and action toward sustainable communities. Like the 2010 targets, the updated SB 375 targets are in units of percent per capita reduction in GHG emissions from automobiles and light trucks relative to 2005. This excludes reductions anticipated from implementation of state technology and fuels strategies and any potential future state strategies such as statewide road user pricing. The proposed targets call for greater per capita GHG emission reductions from SB 375 than are currently in place, which for 2035, translate into proposed targets that either match or exceed the emission reduction levels in the MPOs' currently adopted SCSs. As proposed, CARB staff's proposed targets would result in an additional reduction of over 8 $MMTCO_2e$ in 2035 compared to the current targets. For the next round of SCS updates, CARB's updated targets for the SCAG region are an 8 percent per capita GHG reduction in 2020 from 2005 levels (unchanged from the 2010 target) and a 19 percent per capita GHG reduction in 2035 from 2005 levels (compared to the 2010 target of 13 percent) (CARB 2018). CARB adopted the updated targets and methodology on March 22, 2018. All SCSs adopted after October 1, 2018 are subject to these new targets.

SCAG's 2016-2040 RTP/SCS

SB 375 requires each MPO to prepare an SCS in their regional transportation plan. For the SCAG region, the 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) was adopted on April 7, 2016, and is an update to the 2012 RTP/SCS (SCAG 2016). In general, the SCS outlines a development pattern for the region, which, when integrated with the transportation network and other transportation measures and policies, would reduce vehicle miles traveled from automobiles and light duty trucks and thereby reduce GHG emissions from these sources.

The 2016-2040 RTP/SCS projects that the SCAG region will meet or exceed the passenger per capita targets set in 2010 by CARB. It is projected that VMT per capita in the region for year 2040 would be reduced by 7.4 percent with implementation of the 2016-2040 RTP/SCS compared to a no-plan year 2040 scenario. Under the 2016-2040 RTP/SCS, SCAG anticipates lowering GHG emissions 8 percent below 2005 levels by 2020, 18 percent by 2035, and 21 percent by 2040. The 18 percent reduction by 2035 over 2005 levels represents a 2 percent increase in reduction compared to the 2012 RTP/SCS projection. Overall, the SCS is meant to provide growth strategies that will achieve the aforementioned regional GHG emissions reduction targets. Land use strategies to achieve the region's targets include planning for new growth around high quality transit areas and livable corridors and creating neighborhood mobility areas to integrate land use and transportation and plan for more active lifestyles (SCAG 2016). However, the SCS does not require that local general plans, specific plans, or zoning be consistent with the SCS; instead, it provides incentives to governments and developers for consistency.

Assembly Bill 1493

California vehicle GHG emission standards were enacted under AB 1493 (Pavley I). Pavley I is a clean-car standard that reduces GHG emissions from new passenger vehicles (light-duty auto to medium-duty vehicles) from 2009 through 2016 and was anticipated to reduce GHG emissions from new passenger vehicles by 30 percent in 2016. California implements the Pavley I standards through a waiver granted to California by the EPA. In 2012, the EPA issued a Final Rulemaking that sets even more stringent fuel economy and GHG emissions standards for model year 2017 through 2025 light-duty vehicles (see also the discussion on the update to the Corporate Average Fuel Economy standards under *Federal Laws*, above). In January 2012, CARB approved the Advanced Clean Cars program (formerly known as Pavley II) for model years 2017 through 2025. The program combines the control of smog, soot, and global warming gases and requirements for greater numbers of zero-emission vehicles into a single package of standards. Under California's Advanced Clean Car program, by 2025, new automobiles will emit 34 percent fewer global warming gases and 75 percent fewer smog-forming emissions.

Executive Order S-01-07

On January 18, 2007, the state set a new LCFS for transportation fuels sold in the state. Executive Order S-01-07 sets a declining standard for GHG emissions measured in carbon dioxide equivalent gram per unit of fuel energy sold in California. The LCFS requires a reduction of 2.5 percent in the carbon intensity of California's transportation fuels by 2015 and a reduction of at least 10 percent by 2020. The standard applies to refiners, blenders, producers, and importers of transportation fuels, and would use market-based mechanisms to allow these providers to choose how they reduce emissions during the "fuel cycle" using the most economically feasible methods.

Senate Bills 1078, 107, X1-2, and Executive Order S-14-08

A major component of California's Renewable Energy Program is the RPS established under Senate Bills 1078 (Sher) and 107 (Simitian). Under the RPS, certain retail sellers of electricity were required to increase the amount of renewable energy each year by at least 1 percent in order to reach at least 20 percent by December 30, 2010. Executive Order S-14-08 was signed in November 2008, which expanded the state's Renewable Energy Standard to 33 percent renewable power by 2020. This standard was adopted by the legislature in 2011 (SB X1-

2). Renewable sources of electricity include wind, small hydropower, solar, geothermal, biomass, and biogas. The increase in renewable sources for electricity production will decrease indirect GHG emissions from development projects, because electricity production from renewable sources is generally considered carbon neutral.

Senate Bill 350

Senate Bill 350 (de Leon), was signed into law in September 2015. SB 350 establishes tiered increases to the RPS of 40 percent by 2024, 45 percent by 2027, and 50 percent by 2030. SB 350 also set a new goal to double the energy efficiency savings in electricity and natural gas through energy efficiency and conservation measures.

Senate Bill 100

On September 10, 2018, Governor Brown signed SB 100, which replaces the SB 350 requirement of 45 percent renewable energy by 2027 with the requirement of 50 percent by 2026 and also raises California's RPS requirements for 2050 from 50 percent to 60 percent. SB 100 also establishes RPS requirements for publicly owned utilities that consist of 44 percent renewable energy by 2024, 52 percent by 2027, and 60 percent by 2030. Furthermore, the bill also establishes an overall state policy that eligible renewable energy resources and zero-carbon resources supply 100 percent of all retail sales of electricity to California end-use customers and 100 percent of electricity procured to serve all state agencies by December 31, 2045. Under the bill, the state cannot increase carbon emissions elsewhere in the western grid or allow resource shuffling to achieve the 100 percent carbon-free electricity target.

Executive Order B-55-18

Executive Order B-55-18, signed September 10, 2018, sets a goal "to achieve carbon neutrality as soon as possible, and no later than 2045, and achieve and maintain net negative emissions thereafter." Executive Order B-55-18 directs CARB to work with relevant state agencies to ensure future Scoping Plans identify and recommend measures to achieve the carbon neutrality goal. The goal of carbon neutrality by 2045 is in addition to other statewide goals, meaning not only should emissions be reduced to 80 percent below 1990 levels by 2050, but that, by no later than 2045, the remaining emissions be offset by equivalent net removals of CO_2e from the atmosphere, including through sequestration in forests, soils, and other natural landscapes.

Executive Order B-16-2012

On March 23, 2012, the state identified that CARB, the California Energy Commission (CEC), the Public Utilities Commission, and other relevant agencies worked with the Plug-in Electric Vehicle Collaborative and the California Fuel Cell Partnership to establish benchmarks to accommodate zero-emissions vehicles in major metropolitan areas, including infrastructure to support them (e.g., electric vehicle charging stations). The executive order also directs the number of zero-emission vehicles in California's state vehicle fleet to increase through the normal course of fleet replacement so that at least 10 percent of fleet purchases of light-duty vehicles are zero-emission by 2015 and at least 25 percent by 2020. The executive order also establishes a target for the transportation sector of reducing GHG emissions from the transportation sector 80 percent below 1990 levels.

California Building Code: Building Energy Efficiency Standards

Energy conservation standards for new residential and non-residential buildings were adopted by the California Energy Resources Conservation and Development Commission (now the CEC) in June 1977 and most recently revised in 2016 (Title 24, Part 6, of the California Code of Regulations [CCR]). Title 24 requires the design of building shells and building components to conserve energy. The standards are updated periodically to allow for consideration and possible incorporation of new energy efficiency technologies and methods. On June 10, 2015, the CEC adopted the 2016 Building Energy Efficiency Standards, which went into effect on January 1, 2017.

The 2016 Standards continues to improve upon the previous 2013 Standards for new construction of, and additions and alterations to, residential and nonresidential buildings. Under the 2016 Standards, residential and nonresidential buildings are 28 and 5 percent more energy efficient than the 2013 Standards, respectively (CEC 2015a). Buildings that are constructed in accordance with the 2013 Building Energy Efficiency Standards are 25 percent (residential) to 30 percent (nonresidential) more energy efficient than the prior 2008 standards as a result of better windows, insulation, lighting, ventilation systems, and other features. While the 2016 standards do not achieve zero net energy, they do get very close to the state's goal and make important steps toward changing residential building practices in California. The 2019 standards will take the final step to achieve zero net energy for newly constructed residential buildings throughout California (CEC 2015b).

The 2019 standards move towards cutting energy use in new homes by more than 50 percent and will require installation of solar photovoltaic systems for single-family homes and multi-family buildings of 3 stories and less. Four key areas the 2019 standards will focus on include 1) smart residential photovoltaic systems; 2) updated thermal envelope standards (preventing heat transfer from the interior to exterior and vice versa); 3) residential and nonresidential ventilation requirements; 4) and nonresidential lighting requirements (CEC 2018a). Under the 2019 standards, nonresidential buildings will be 30 percent more energy efficient compared to the 2016 standards while single-family homes will be 7 percent more energy efficient (CEC 2018b). When accounting for the electricity generated by the solar photovoltaic system, single-family homes would use 53 percent less energy compared to homes built to the 2016 standards (CEC 2018b).

California Building Code: CALGreen

On July 17, 2008, the California Building Standards Commission adopted the nation's first green building standards. The California Green Building Standards Code (24 CCR, Part 11, known as "CALGreen") was adopted as part of the California Building Standards Code. CALGreen established planning and design standards for sustainable site development, energy efficiency (in excess of the California Energy Code requirements), water conservation, material conservation, and internal air contaminants.[13] The mandatory provisions of CALGreen became effective January 1, 2011, and were last updated in 2016. The 2016 CALGreen became effective on January 1, 2017.

[13] The green building standards became mandatory in the 2010 edition of the code.

2006 Appliance Efficiency Regulations

The 2006 Appliance Efficiency Regulations (20 CCR §§ 1601–1608) were adopted by the CEC on October 11, 2006, and approved by the California Office of Administrative Law on December 14, 2006. The regulations include standards for both federally regulated appliances and non–federally regulated appliances. Though these regulations are now often viewed as "business as usual," they exceed the standards imposed by all other states, and they reduce GHG emissions by reducing energy demand.

Solid Waste Regulations

California's Integrated Waste Management Act of 1989 (AB 939; Public Resources Code §§ 40050 et seq.) set a requirement for cities and counties throughout the state to divert 50 percent of all solid waste from landfills by January 1, 2000, through source reduction, recycling, and composting. In 2008, the requirements were modified to reflect a per capita requirement rather than tonnage. To help achieve this, the act requires that each city and county prepare and submit a source reduction and recycling element. AB 939 also established the goal for all California counties to provide at least 15 years of ongoing landfill capacity.

AB 341 (Chapter 476, Statutes of 2011) increased the statewide goal for waste diversion to 75 percent by 2020 and requires recycling of waste from commercial and multifamily residential land uses.

The California Solid Waste Reuse and Recycling Access Act (AB 1327; Public Resources Code §§ 42900 et seq.) requires areas to be set aside for collecting and loading recyclable materials in development projects. The act required the California Integrated Waste Management Board to develop a model ordinance for adoption by any local agency requiring adequate areas for collection and loading of recyclable materials as part of development projects. Local agencies are required to adopt the model or an ordinance of their own.

Section 5.408 of the 2016 and 2019 CALGreen also requires that at least 65 percent of the nonhazardous construction and demolition waste from nonresidential construction operations be recycled and/or salvaged for reuse.

In October of 2014 Governor Brown signed AB 1826, requiring businesses to recycle their organic waste on and after April 1, 2016, depending on the amount of waste they generate per week. This law also requires that on and after January 1, 2016, local jurisdictions across the state implement an organic waste recycling program to divert organic waste generated by businesses, including multifamily residential dwellings that consist of five or more units. Organic waste means food waste, green waste, landscape and pruning waste, nonhazardous wood waste, and food-soiled paper waste that is mixed in with food waste.

Water Efficiency Regulations

The 20x2020 Water Conservation Plan was issued by the Department of Water Resources (DWR) in 2010 pursuant to Senate Bill 7, which was adopted during the 7th Extraordinary Session of 2009–2010 and therefore dubbed "SBX7-7." SBX7-7 mandated urban water conservation and authorized the DWR to prepare a plan implementing urban water conservation requirements (20x2020 Water Conservation Plan). In addition, it required agricultural water providers to prepare agricultural water management plans, measure water deliveries to customers, and implement other efficiency measures. SBX7-7 requires urban water providers to adopt a

water conservation target of 20 percent reduction in urban per capita water use by 2020 compared to 2005 baseline use.

The Water Conservation in Landscaping Act of 2006 (AB 1881) requires local agencies to adopt the updated DWR model ordinance or equivalent. AB 1881 also requires the CEC to consult with the DWR to adopt, by regulation, performance standards and labeling requirements for landscape irrigation equipment, including irrigation controllers, moisture sensors, emission devices, and valves to reduce the wasteful, uneconomic, inefficient, or unnecessary consumption of energy or water.

Thresholds of Significance

The CEQA Guidelines recommend that a lead agency consider the following when assessing the significance of impacts from GHG emissions on the environment:

1. The extent to which the project may increase (or reduce) GHG emissions as compared to the existing environmental setting;
2. Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project;
3. The extent to which the project complies with regulations or requirements adopted to implement an adopted statewide, regional, or local plan for the reduction or mitigation of GHG emissions.[14]

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

To provide guidance to local lead agencies on determining significance for GHG emissions in their CEQA documents, South Coast AQMD has convened a GHG CEQA Significance Threshold Working Group (Working Group). Based on the last Working Group meeting (Meeting No. 15) held in September 2010, South Coast AQMD is proposing to adopt a tiered approach for evaluating GHG emissions for development projects where South Coast AQMD is not the lead agency (South Coast AQMD 2010):

- **Tier 1.** If a project is exempt from CEQA, project-level and cumulative GHG emissions are less than significant.
- **Tier 2.** If the project complies with a GHG emissions reduction plan or mitigation program that avoids or substantially reduces GHG emissions in the project's geographic area (i.e., city or county), project-level and cumulative GHG emissions are less than significant.

[14] The Governor's Office of Planning and Research recommendations include a requirement that such a plan must be adopted through a public review process and include specific requirements that reduce or mitigate the project's incremental contribution of GHG emissions. If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable, notwithstanding compliance with the adopted regulations or requirements, an EIR must be prepared for the project.

- **Tier 3.** If GHG emissions are less than the screening-level threshold, project-level and cumulative GHG emissions are less than significant.

  For projects that are not exempt or where no qualifying GHG reduction plans are directly applicable, South Coast AQMD requires an assessment of GHG emissions. South Coast AQMD is proposing a screening-level threshold of 3,000 $MTCO_2e$ annually for all land use types or the following land-use-specific thresholds: 1,400 $MTCO_2e$ for commercial projects, 3,500 $MTCO_2e$ for residential projects, or 3,000 $MTCO_2e$ for mixed-use projects. These bright-line thresholds are based on a review of the Governor's Office of Planning and Research database of CEQA projects. Based on their review of 711 CEQA projects, 90 percent of CEQA projects would exceed the bright-line thresholds identified above. Therefore, projects that do not exceed the bright-line threshold would have a nominal, and therefore, less than cumulatively considerable impact on GHG emissions:

- **Tier 4.** If emissions exceed the screening threshold, a more detailed review of the project's GHG emissions is warranted.

  The South Coast AQMD Working Group has identified an efficiency target for projects that exceed the screening threshold of 4.8 $MTCO_2e$ per year per service population ($MTCO_2e$/year/SP) for project-level analyses and 6.6 $MTCO_2e$/year/SP for plan level projects (e.g., program-level projects such as general plans) for the year 2020.[15] The per capita efficiency targets are based on the AB 32 GHG reduction target and 2020 GHG emissions inventory prepared for CARB's 2008 Scoping Plan.

For purposes of this analysis, because the proposed project has an anticipated opening year post-2020 (year 2021), the bright-line screening-level criterion of 3,000 $MTCO_2e$/yr is used as the significance threshold for this project. Therefore, if the project operation-phase emissions exceed the 3,000 $MTCO_2e$/yr threshold, GHG emissions would be considered potentially significant in the absence of mitigation measures.

[15] It should be noted that the Working Group also considered efficiency targets for 2035 for the first time in this Working Group meeting.

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Regional Construction Emissions Worksheet:

Demolition		ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Onsite	**2020** Summer						
	Fugitive Dust					0.09	0.01
	Off-Road	0.73	8.91	4.20	0.02	0.32	0.30
	Total	**0.73**	**8.91**	**4.20**	**0.02**	**0.41**	**0.31**
Offsite							
	Hauling	0.01	0.29	0.06	0.00	0.02	0.01
	Vendor	0.01	0.21	0.06	0.00	0.01	0.00
	Worker	0.02	0.02	0.22	0.00	0.05	0.01
	Total	**0.04**	**0.52**	**0.34**	**0.00**	**0.08**	**0.02**
TOTAL		***0.77***	***9.43***	***4.53***	***0.02***	***0.49***	***0.34***
Onsite	**2020** Winter						
	Fugitive Dust					0.09	0.01
	Off-Road	0.73	8.91	4.20	0.02	0.32	0.30
	Total	**0.73**	**8.91**	**4.20**	**0.02**	**0.41**	**0.31**
Offsite							
	Hauling	0.01	0.29	0.07	0.00	0.02	0.01
	Vendor	0.01	0.21	0.06	0.00	0.01	0.00
	Worker	0.03	0.02	0.20	0.00	0.05	0.01
	Total	**0.04**	**0.52**	**0.33**	**0.00**	**0.08**	**0.02**
TOTAL		***0.77***	***9.44***	***4.53***	***0.02***	***0.49***	***0.34***
Onsite	**2020**						
	Fugitive Dust	0.00	0.00	0.00	0.00	0.09	0.01
	Off-Road	0.73	8.91	4.20	0.02	0.32	0.30
	Total	**0.73**	**8.91**	**4.20**	**0.02**	**0.41**	**0.31**
Offsite							
	Hauling	0.01	0.29	0.07	0.00	0.02	0.01
	Vendor	0.01	0.21	0.06	0.00	0.01	0.00
	Worker	0.03	0.02	0.22	0.00	0.05	0.01
	Total	**0.04**	**0.52**	**0.34**	**0.00**	**0.08**	**0.02**
TOTAL		***0.77***	***9.44***	***4.53***	***0.02***	***0.49***	***0.34***

Grading		ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Onsite	**2019** Summer						
	Fugitive Dust					0.00	0.00
	Off-Road	0.28	3.52	2.08	0.01	0.10	0.09
	Total	**0.28**	**3.52**	**2.08**	**0.01**	**0.10**	**0.09**
Offsite							
	Hauling	0.01	0.19	0.04	0.00	0.01	0.00
	Vendor	0.01	0.21	0.06	0.00	0.01	0.00
	Worker	0.01	0.01	0.13	0.00	0.03	0.01
	Total	**0.03**	**0.41**	**0.23**	**0.00**	**0.06**	**0.02**
TOTAL		***0.30***	***3.94***	***2.31***	***0.01***	***0.16***	***0.11***
Onsite	**2019** Winter						
	Fugitive Dust					0.00	0.00
	Off-Road	0.28	3.52	2.08	0.01	0.10	0.09
	Total	**0.28**	**3.52**	**2.08**	**0.01**	**0.10**	**0.09**
Offsite							
	Hauling	0.01	0.19	0.05	0.00	0.01	0.00
	Vendor	0.01	0.21	0.06	0.00	0.01	0.00
	Worker	0.02	0.01	0.12	0.00	0.03	0.01
	Total	**0.03**	**0.42**	**0.23**	**0.00**	**0.06**	**0.02**
TOTAL		***0.31***	***3.94***	***2.31***	***0.01***	***0.16***	***0.11***
Onsite	**2019**						
	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
	Off-Road	0.28	3.52	2.08	0.01	0.10	0.09
	Total	**0.28**	**3.52**	**2.08**	**0.01**	**0.10**	**0.09**
Offsite							
	Hauling	0.01	0.19	0.05	0.00	0.01	0.00
	Vendor	0.01	0.21	0.06	0.00	0.01	0.00
	Worker	0.02	0.01	0.13	0.00	0.03	0.01
	Total	**0.03**	**0.42**	**0.23**	**0.00**	**0.06**	**0.02**
TOTAL		***0.31***	***3.94***	***2.31***	***0.01***	***0.16***	***0.11***

Billboard Installation		ROG	NOx	CO	SO2	PM10 Total	PM2.5 Total
Onsite	**2020** Summer						
	Off-Road	0.73	8.93	4.21	0.02	0.32	0.30
	Total	**0.73**	**8.93**	**4.21**	**0.02**	**0.32**	**0.30**
Offsite							
	Hauling	0.01	0.29	0.06	0.00	0.02	0.01
	Vendor	0.00	0.00	0.00	0.00	0.00	0.00
	Worker	0.00	0.00	0.00	0.00	0.00	0.00
	Total	**0.01**	**0.29**	**0.06**	**0.00**	**0.02**	**0.01**
TOTAL		***0.74***	***9.22***	***4.27***	***0.02***	***0.34***	***0.30***
Onsite	**2020** Winter						
	Off-Road	0.73	8.93	4.21	0.02	0.32	0.30
	Total	**0.73**	**8.93**	**4.21**	**0.02**	**0.32**	**0.30**
Offsite							
	Hauling	0.01	0.29	0.07	0.00	0.02	0.01
	Vendor	0.00	0.00	0.00	0.00	0.00	0.00
	Worker	0.00	0.00	0.00	0.00	0.00	0.00
	Total	**0.01**	**0.29**	**0.07**	**0.00**	**0.02**	**0.01**
TOTAL		***0.74***	***9.22***	***4.27***	***0.02***	***0.34***	***0.30***
Onsite	**2020**						
	Off-Road	0.73	8.93	4.21	0.02	0.32	0.30
	Total	**0.73**	**8.93**	**4.21**	**0.02**	**0.32**	**0.30**
Offsite							
	Hauling	0.01	0.29	0.07	0.00	0.02	0.01
	Vendor	0.00	0.00	0.00	0.00	0.00	0.00
	Worker	0.00	0.00	0.00	0.00	0.00	0.00
	Total	**0.01**	**0.29**	**0.07**	**0.00**	**0.02**	**0.01**
TOTAL		***0.74***	***9.22***	***4.27***	***0.02***	***0.34***	***0.30***
Demolition		***0.77***	***9.44***	***4.53***	***0.02***	***0.49***	***0.34***
Grading		***0.31***	***3.94***	***2.31***	***0.01***	***0.16***	***0.11***
Billboard Installation		***0.74***	***9.22***	***4.27***	***0.02***	***0.34***	***0.30***
MAX DAILY		0.77	9.44	4.53	0.02	0.49	0.34
Regional Thresholds		**75**	**100**	**550**	**150**	**150**	**55**
Exceeds Thresholds?		No	No	No	No	No	No

Construction LSTs Worksheet:

Demolition			NOx	CO	PM10 Total	PM2.5 Total
Onsite		2020				
	Fugitive Dust				0.09	0.01
	Off-Road		8.91	4.20	0.32	0.30
	Total		**8.91**	**4.20**	**0.41**	**0.31**
Offsite						
	Hauling					
	Vendor					
	Worker					
	Total					
TOTAL			***8.91***	***4.20***	***0.41***	***0.31***
Onsite		2020				
	Fugitive Dust				0.09	0.01
	Off-Road		8.91	4.20	0.32	0.30
	Total		**8.91**	**4.20**	**0.41**	**0.31**
Offsite						
	Hauling					
	Vendor					
	Worker					
	Total					
TOTAL			***8.91***	***4.20***	***0.41***	***0.31***
Onsite		2020				
	Fugitive Dust		0.00	0.00	0.09	0.01
	Off-Road		8.91	4.20	0.32	0.30
	Total		**8.91**	**4.20**	**0.41**	**0.31**
Offsite						
	Hauling		0.00	0.00	0.00	0.00
	Vendor		0.00	0.00	0.00	0.00
	Worker		0.00	0.00	0.00	0.00
	Total		**0.00**	**0.00**	**0.00**	**0.00**
TOTAL			***8.91***	***4.20***	***0.41***	***0.31***

Grading			NOx	CO	PM10 Total	PM2.5 Total
Onsite		2019				
	Fugitive Dust				0.00	0.00
	Off-Road		3.52	2.08	0.10	0.09
	Total		**3.52**	**2.08**	**0.10**	**0.09**
Offsite						
	Hauling					
	Vendor					
	Worker					
	Total					
TOTAL			***3.52***	***2.08***	***0.10***	***0.09***
Onsite		2019				
	Fugitive Dust				0.00	0.00
	Off-Road		3.52	2.08	0.10	0.09
	Total		**3.52**	**2.08**	**0.10**	**0.09**
Offsite						
	Hauling					
	Vendor					
	Worker					
	Total					
TOTAL			***3.52***	***2.08***	***0.10***	***0.09***
Onsite		2019				
	Fugitive Dust		0.00	0.00	0.00	0.00
	Off-Road		3.52	2.08	0.10	0.09
	Total		**3.52**	**2.08**	**0.10**	**0.09**
Offsite						
	Hauling		0.00	0.00	0.00	0.00
	Vendor		0.00	0.00	0.00	0.00
	Worker		0.00	0.00	0.00	0.00
	Total		**0.00**	**0.00**	**0.00**	**0.00**
TOTAL			***3.52***	***2.08***	***0.10***	***0.09***

Billboard Installation			NOx	CO	PM10 Total	PM2.5 Total
Onsite		2020				
	Off-Road		8.93	4.21	0.32	0.30
	Total		**8.93**	**4.21**	**0.32**	**0.30**
Offsite						
	Hauling					
	Vendor					
	Worker					
	Total					
TOTAL			***8.93***	***4.21***	***0.32***	***0.30***
Onsite		2020				
	Off-Road		8.93	4.21	0.32	0.30
	Total		**8.93**	**4.21**	**0.32**	**0.30**
Offsite						
	Hauling					
	Vendor					
	Worker					
	Total					
TOTAL			***8.93***	***4.21***	***0.32***	***0.30***
Onsite		2020				
	Off-Road		8.93	4.21	0.32	0.30
	Total		**8.93**	**4.21**	**0.32**	**0.30**
Offsite						
	Hauling		0.00	0.00	0.00	0.00
	Vendor		0.00	0.00	0.00	0.00
	Worker		0.00	0.00	0.00	0.00
	Total		**0.00**	**0.00**	**0.00**	**0.00**
TOTAL			***8.93***	***4.21***	***0.32***	***0.30***
Demolition			***8.91***	***4.20***	***0.41***	***0.31***
	1.00 Acre LST		***225***	***2,709***	***66***	***23***
	Exceeds LST?		***no***	***no***	***no***	***no***
Grading			***3.52***	***2.08***	***0.10***	***0.09***
	1.00 Acre LST		***225***	***2,709***	***66***	***23***
	Exceeds LST?		***no***	***no***	***no***	***no***
Billboard Installation			***8.93***	***4.21***	***0.32***	***0.30***
	1.00 Acre LST		***225***	***2,709***	***66***	***23***
	Exceeds LST?		***no***	***no***	***no***	***no***

**NOx and CO LSTs based on 450 ft receptor (employees), PM10 and PM2.5 LSTs based on 750 ft receptor (residences) as employees would not be in office 24hrs/day

GHG Summary

Source	Annual GHG (MTons)
Digital Signage	60
TOTAL	**60**

Southern California Edison Emission Factors: Illuminated Signage

	Intensity factor[1]	
	lbs/MWH	lbs/KWH
CO_2	504.43634	0.50443634
CH4	0.029	0.000029
N2O	0.00617	0.00000617

Source: South Coast Air Quality Management District (SCAQMD). 2011. California Emissions Estimator Model (CalEEMod), Version 2011.1.1. Based on the California Air Resources Board (CARB) Local Government Operations Protocol (LGO) for CO2 and E-Grid values for CH4 and N2O. Appendix D, Default Data Tables. Table 1.2, Electrical Utility Emission Factors of GHGs.

[1] Southern California Edison. 2019. 2018 Sustainability Report. https://www.edison.com/content/dam/eix/documents/sustainability/eix-2018-sustainability-report.pdf.

	Global Warming Potentials (GWP)	SCE (lbs/KWH)
CO2	1	0.50443634
CH4	25	0.00073
N2O	298	0.00183866
Total CO2e		0.507

Souce: Intergovernmental Panel on Climate Change (IPCC). 2007. Fourth Assessment Report: Climate Change 2007.

lbs to Tons	2000
Tons to Mton	0.9071847

Source: California Air Resources Board (CARB). 2008. Local Government Operations Protocol. Appendix F, Standard Conversion Factors

Backlit Signage Energy Use Estimates

Number of Signs	1 units
Energy Use Per Sign Per Day	720 kWh
Average Annual Per Unit*	262,800 kWh - Annual

* The energy use for the double faced sign would be 30,000 W. Provided by the Applicant.

GHG Emissions from Electricity Use

	lbs CO2e	MTons
Average Annual	133,240	60

CalEEMod Inputs - 19465 Walnut Drive Billboard Project

Name:	19465 Walnut Drive Billboard Project
Project Number:	IND-22
Project Location:	19465 East Walnut Drive North, City of Industry
County/Air Basin:	Los Angeles County, South Coast Air Basin (SoCAB)
Climate Zone:	9
Land Use Setting:	Urban
Operational Year:	2021
Utility Company:	Southern California Edison
Air Basin:	SoCAB
Air District:	SCAQMD
SRA:	10

Project Acreage <1

Land Use *

Land Use Type	Land Use Subtype	Unit Amount	Size Metric	Lot Acreage	Land Use Square Feet
Commercial	User Defined Commercial	1.00	User Defined Unit	0.0	0
					0.0

Demolition None

Component	Amount to be Demolished (Tons)	Haul Truck Capacity (tons)	Haul Distance (miles)	Total Trip Ends	Trip Ends/ day	Total Days
Billboard	19.1	20	20	2	1	2
Total	19.1			2		

Soil Haul [1]

Construction Activities	Haul Truck Capacity (cy)	Import Volume (CY)	No. of total one-way import haul (trip ends)	No. of total one-way haul (trip ends/day)	Export Volume (CY)	No. of total one-way export haul (trip ends)	No. of total one-way haul (trip ends/day)	Total Days
Grading	16	0	0	0	14	2	1	3
		0	0					

Export Haul Travel Distance (1-Way): 20

Southern California Edison Carbon Intensity Factors

CO_2:[1,2]	504.43634	pounds per megawatt hour
CH_4:[3]	0.029	pound per megawatt hour
N_2O:[3]	0.00617	pound per megawatt hour

[1] Based on CO2e intensity factor of 507 pounds per megawatt hour; Southern California Edison. 2019, May. 2018 Sustainability Report. https://www.edison.com/content/dam/eix/documents/sustainability/eix-2018-sustainability-report.pdf.

[2] Based on Intergovernmental Panel on Climate Change Fourth Assessment Report global warming potentials for CH4 and N2O; Intergovernmental Panel on Climate Change (IPCC). 2007. Fourth Assessment Report: Climate

[3] CalEEMod default values.

Construction Mitigation

SCAQMD Rule 403

Replace Ground Cover	PM10:	5	% Reduction
Replace Ground Cover	PM2.5:	5	% Reduction
Water Exposed Area	Frequency:	2	per day
	PM10:	55	% Reduction
	PM25:	55	% Reduction
Unpaved Roads	Vehicle Speed:	15	mph

SCAQMD Rule 1186

	Clean Paved Road	9	% PM Reduction

Construction Activities and Schedule Assumptions:

Project Site

Construction Activities		Construction Schedule		
	Phase Type	Start Date	End Date	CalEEMod Duration (Workday)
Demolition	Grading	5/4/2020	5/5/2020	2
Grading	Grading	5/6/2020	5/8/2020	3
Billboard Installation	Building Construction	5/11/2020	5/12/2020	2

CalEEMod Construction Off-Road Equipment Inputs

Equipment details provided by Applicant.

General Construction Hours: 8 hours btwn 7:00 AM to 4:00 PM (with 1 hr break), Mon-Fri

Construction Equipment Details						
Equipment		# of Equipment	hr/day	hp *	load factor *	total trips
Demolition						
Auger		1	8	221	0.5025	
Crane		1	8	231	0.2881	
Worker Trips						5
Vendor Trips						2
Hauling Trips						2
Grading						
Auger		1	8	221	0.5025	
Crane		1	8	231	0.2881	
Worker Trips						3
Vendor Trips						2
Hauling Trips						2
Billboard Installation						
Auger		1	8	221	0.5025	
Crane		1	8	231	0.2881	
Worker Trips						0
Vendor Trips						0
Hauling Trips*						2

** Assumes old billboard and new billboard would require the same number of trips*

Construction Trips Worksheet

	Worker Trip Ends Per Day	Vendor Trip Ends Per Day	Haul Truck Trip Ends Per Day	Total Trip Ends Per Day	Workdays
Demolition	5	2	1	8	2
Grading	3	2	1	2	3
Billboard Installation	0	0	1	2	2
Maximum Daily Trips	**8**	**4**	**3**	**12**	

19465 Walnut Drive Billboard Construction Run

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Commercial	1.00	User Defined Unit	0.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2020
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	504.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - 2018 Sustainability Report

Land Use -

Construction Phase - billboard installation

Off-road Equipment - using bore/drill rig as proxy for auger

Off-road Equipment - using bore/drill rig as proxy for auger

Off-road Equipment - using bore/drill rig as proxy for auger

Grading -

Demolition -

Trips and VMT - 2 VT/water truck/day, assuming old and new billboard would require same number of trips

Construction Off-road Equipment Mitigation - SCAQMD Rule 1186

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	9
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	0.00	2.00
tblConstructionPhase	NumDays	0.00	2.00
tblConstructionPhase	NumDays	0.00	3.00
tblConstructionPhase	PhaseEndDate	5/3/2020	5/12/2020
tblConstructionPhase	PhaseEndDate	5/3/2020	5/5/2020
tblConstructionPhase	PhaseEndDate	5/3/2020	5/8/2020
tblConstructionPhase	PhaseStartDate	5/4/2020	5/11/2020
tblConstructionPhase	PhaseStartDate	5/4/2020	5/6/2020
tblGrading	MaterialExported	0.00	14.00
tblOffRoadEquipment	LoadFactor	0.50	0.50
tblOffRoadEquipment	OffRoadEquipmentType		Bore/Drill Rigs
tblOffRoadEquipment	OffRoadEquipmentType		Cranes
tblOffRoadEquipment	OffRoadEquipmentType		Bore/Drill Rigs
tblOffRoadEquipment	OffRoadEquipmentType		Bore/Drill Rigs
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	UsageHours	4.00	8.00
tblProjectCharacteristics	CO2IntensityFactor	702.44	504.44
tblTripsAndVMT	HaulingTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	0.7698	9.4304	4.5345	0.0171	0.2905	0.3261	0.6167	0.0542	0.3001	0.3544	0.0000	1,668.3903	1,668.3903	0.4860	0.0000	1,680.5411
Maximum	**0.7698**	**9.4304**	**4.5345**	**0.0171**	**0.2905**	**0.3261**	**0.6167**	**0.0542**	**0.3001**	**0.3544**	**0.0000**	**1,668.3903**	**1,668.3903**	**0.4860**	**0.0000**	**1,680.5411**

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					
2020	0.7698	9.4304	4.5345	0.0171	0.1672	0.3261	0.4933	0.0350	0.3001	0.3351	0.0000	1,668.3903	1,668.3903	0.4860	0.0000	1,680.5411
Maximum	**0.7698**	**9.4304**	**4.5345**	**0.0171**	**0.1672**	**0.3261**	**0.4933**	**0.0350**	**0.3001**	**0.3351**	**0.0000**	**1,668.3903**	**1,668.3903**	**0.4860**	**0.0000**	**1,680.5411**

	ROG	NOx	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	42.47	0.00	20.01	35.55	0.00	5.44	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	5/4/2020	5/5/2020	5	2	
2	Grading	Grading	5/6/2020	5/8/2020	5	3	
3	Building Construction	Building Construction	5/11/2020	5/12/2020	5	2	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Bore/Drill Rigs	1	8.00	221	0.50
Demolition	Cranes	1	8.00	231	0.29
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Grading	Concrete/Industrial Saws	0	8.00	81	0.73
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	0	6.00	89	0.20
Grading	Bore/Drill Rigs	1	8.00	221	0.50
Building Construction	Bore/Drill Rigs	1	8.00	221	0.50
Demolition	Rubber Tired Dozers	0	1.00	247	0.40
Grading	Rubber Tired Dozers	0	1.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	0	6.00	97	0.37
Grading	Tractors/Loaders/Backhoes	0	6.00	97	0.37

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	2	5.00	2.00	2.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	1	3.00	2.00	2.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	2	0.00	0.00	2.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Demolition - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2044	0.0000	0.2044	0.0309	0.0000	0.0309			0.0000			0.0000
Off-Road	0.7309	8.9138	4.1961	0.0152		0.3238	0.3238		0.2979	0.2979		1,468.5965	1,468.5965	0.4750		1,480.4709
Total	**0.7309**	**8.9138**	**4.1961**	**0.0152**	**0.2044**	**0.3238**	**0.5281**	**0.0309**	**0.2979**	**0.3288**		**1,468.5965**	**1,468.5965**	**0.4750**		**1,480.4709**

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	8.7300e-003	0.2875	0.0637	7.9000e-004	0.0175	9.2000e-004	0.0184	4.7900e-003	8.8000e-004	5.6700e-003		85.5832	85.5832	5.8300e-003		85.7288
Vendor	7.1100e-003	0.2127	0.0557	5.2000e-004	0.0128	1.0000e-003	0.0138	3.6900e-003	9.6000e-004	4.6400e-003		55.4049	55.4049	3.3800e-003		55.4895
Worker	0.0230	0.0164	0.2189	5.9000e-004	0.0559	4.7000e-004	0.0564	0.0148	4.3000e-004	0.0153		58.8056	58.8056	1.8500e-003		58.8520
Total	**0.0389**	**0.5167**	**0.3384**	**1.9000e-003**	**0.0862**	**2.3900e-003**	**0.0886**	**0.0233**	**2.2700e-003**	**0.0256**		**199.7938**	**199.7938**	**0.0111**		**200.0703**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0874	0.0000	0.0874	0.0132	0.0000	0.0132			0.0000			0.0000
Off-Road	0.7309	8.9138	4.1961	0.0152		0.3238	0.3238		0.2979	0.2979	0.0000	1,468.5965	1,468.5965	0.4750		1,480.4709
Total	**0.7309**	**8.9138**	**4.1961**	**0.0152**	**0.0874**	**0.3238**	**0.4111**	**0.0132**	**0.2979**	**0.3111**	**0.0000**	**1,468.5965**	**1,468.5965**	**0.4750**		**1,480.4709**

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	8.7300e-003	0.2875	0.0637	7.9000e-004	0.0163	9.2000e-004	0.0172	4.5000e-003	8.8000e-004	5.3800e-003		85.5832	85.5832	5.8300e-003		85.7288
Vendor	7.1100e-003	0.2127	0.0557	5.2000e-004	0.0120	1.0000e-003	0.0130	3.4800e-003	9.6000e-004	4.4400e-003		55.4049	55.4049	3.3800e-003		55.4895
Worker	0.0230	0.0164	0.2189	5.9000e-004	0.0515	4.7000e-004	0.0520	0.0138	4.3000e-004	0.0142		58.8056	58.8056	1.8500e-003		58.8520
Total	**0.0389**	**0.5167**	**0.3384**	**1.9000e-003**	**0.0798**	**2.3900e-003**	**0.0822**	**0.0217**	**2.2700e-003**	**0.0240**		**199.7938**	**199.7938**	**0.0111**		**200.0703**

3.3 Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.3000e-004	0.0000	5.3000e-004	8.0000e-005	0.0000	8.0000e-005			0.0000			0.0000
Off-Road	0.2775	3.5223	2.0808	9.4000e-003		0.1015	0.1015		0.0934	0.0934		909.8069	909.8069	0.2943		917.1631
Total	**0.2775**	**3.5223**	**2.0808**	**9.4000e-003**	**5.3000e-004**	**0.1015**	**0.1020**	**8.0000e-005**	**0.0934**	**0.0934**		**909.8069**	**909.8069**	**0.2943**		**917.1631**

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	5.8200e-003	0.1917	0.0425	5.3000e-004	0.0117	6.1000e-004	0.0123	3.2000e-003	5.9000e-004	3.7800e-003		57.0555	57.0555	3.8800e-003		57.1525
Vendor	7.1100e-003	0.2127	0.0557	5.2000e-004	0.0128	1.0000e-003	0.0138	3.6900e-003	9.6000e-004	4.6400e-003		55.4049	55.4049	3.3800e-003		55.4895
Worker	0.0138	9.8200e-003	0.1314	3.5000e-004	0.0335	2.8000e-004	0.0338	8.8900e-003	2.6000e-004	9.1500e-003		35.2834	35.2834	1.1100e-003		35.3112
Total	**0.0267**	**0.4143**	**0.2296**	**1.4000e-003**	**0.0580**	**1.8900e-003**	**0.0599**	**0.0158**	**1.8100e-003**	**0.0176**		**147.7438**	**147.7438**	**8.3700e-003**		**147.9532**

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					2.3000e-004	0.0000	2.3000e-004	3.0000e-005	0.0000	3.0000e-005			0.0000			0.0000
Off-Road	0.2775	3.5223	2.0808	9.4000e-003		0.1015	0.1015		0.0934	0.0934	0.0000	909.8069	909.8069	0.2943		917.1631
Total	**0.2775**	**3.5223**	**2.0808**	**9.4000e-003**	**2.3000e-004**	**0.1015**	**0.1017**	**3.0000e-005**	**0.0934**	**0.0934**	**0.0000**	**909.8069**	**909.8069**	**0.2943**		**917.1631**

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	5.8200e-003	0.1917	0.0425	5.3000e-004	0.0109	6.1000e-004	0.0115	3.0000e-003	5.9000e-004	3.5900e-003		57.0555	57.0555	3.8800e-003		57.1525
Vendor	7.1100e-003	0.2127	0.0557	5.2000e-004	0.0120	1.0000e-003	0.0130	3.4800e-003	9.6000e-004	4.4400e-003		55.4049	55.4049	3.3800e-003		55.4895
Worker	0.0138	9.8200e-003	0.1314	3.5000e-004	0.0309	2.8000e-004	0.0312	8.2500e-003	2.6000e-004	8.5100e-003		35.2834	35.2834	1.1100e-003		35.3112
Total	**0.0267**	**0.4143**	**0.2296**	**1.4000e-003**	**0.0538**	**1.8900e-003**	**0.0556**	**0.0147**	**1.8100e-003**	**0.0165**		**147.7438**	**147.7438**	**8.3700e-003**		**147.9532**

3.4 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7323	8.9314	4.2065	0.0152		0.3243	0.3243		0.2983	0.2983		1,473.1455	1,473.1455	0.4765		1,485.0567
Total	**0.7323**	**8.9314**	**4.2065**	**0.0152**		**0.3243**	**0.3243**		**0.2983**	**0.2983**		**1,473.1455**	**1,473.1455**	**0.4765**		**1,485.0567**

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	8.7300e-003	0.2875	0.0637	7.9000e-004	0.0175	9.2000e-004	0.0184	4.7900e-003	8.8000e-004	5.6700e-003		85.5832	85.5832	5.8300e-003		85.7288
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**8.7300e-003**	**0.2875**	**0.0637**	**7.9000e-004**	**0.0175**	**9.2000e-004**	**0.0184**	**4.7900e-003**	**8.8000e-004**	**5.6700e-003**		**85.5832**	**85.5832**	**5.8300e-003**		**85.7288**

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	0.7323	8.9314	4.2065	0.0152		0.3243	0.3243		0.2983	0.2983	0.0000	1,473.1455	1,473.1455	0.4765		1,485.0567
Total	**0.7323**	**8.9314**	**4.2065**	**0.0152**		**0.3243**	**0.3243**		**0.2983**	**0.2983**	**0.0000**	**1,473.1455**	**1,473.1455**	**0.4765**		**1,485.0567**

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	8.7300e-003	0.2875	0.0637	7.9000e-004	0.0163	9.2000e-004	0.0172	4.5000e-003	8.8000e-004	5.3800e-003		85.5832	85.5832	5.8300e-003		85.7288
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**8.7300e-003**	**0.2875**	**0.0637**	**7.9000e-004**	**0.0163**	**9.2000e-004**	**0.0172**	**4.5000e-003**	**8.8000e-004**	**5.3800e-003**		**85.5832**	**85.5832**	**5.8300e-003**		**85.7288**

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

19465 Walnut Drive Billboard Construction Run

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Commercial	1.00	User Defined Unit	0.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2020
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	504.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - 2018 Sustainability Report

Land Use -

Construction Phase - billboard installation

Off-road Equipment - using bore/drill rig as proxy for auger

Off-road Equipment - using bore/drill rig as proxy for auger

Off-road Equipment - using bore/drill rig as proxy for auger

Grading -

Demolition -

Trips and VMT - 2 VT/water truck/day, assuming old and new billboard would require same number of trips

Construction Off-road Equipment Mitigation - SCAQMD Rule 1186

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	9
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	0.00	2.00
tblConstructionPhase	NumDays	0.00	2.00
tblConstructionPhase	NumDays	0.00	3.00
tblConstructionPhase	PhaseEndDate	5/3/2020	5/12/2020
tblConstructionPhase	PhaseEndDate	5/3/2020	5/5/2020
tblConstructionPhase	PhaseEndDate	5/3/2020	5/8/2020
tblConstructionPhase	PhaseStartDate	5/4/2020	5/11/2020
tblConstructionPhase	PhaseStartDate	5/4/2020	5/6/2020
tblGrading	MaterialExported	0.00	14.00
tblOffRoadEquipment	LoadFactor	0.50	0.50
tblOffRoadEquipment	OffRoadEquipmentType		Bore/Drill Rigs
tblOffRoadEquipment	OffRoadEquipmentType		Cranes
tblOffRoadEquipment	OffRoadEquipmentType		Bore/Drill Rigs
tblOffRoadEquipment	OffRoadEquipmentType		Bore/Drill Rigs
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	UsageHours	4.00	8.00
tblProjectCharacteristics	CO2IntensityFactor	702.44	504.44
tblTripsAndVMT	HaulingTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	0.7729	9.4359	4.5258	0.0170	0.2905	0.3262	0.6167	0.0542	0.3002	0.3544	0.0000	1,661.9668	1,661.9668	0.4864	0.0000	1,674.1257
Maximum	**0.7729**	**9.4359**	**4.5258**	**0.0170**	**0.2905**	**0.3262**	**0.6167**	**0.0542**	**0.3002**	**0.3544**	**0.0000**	**1,661.9668**	**1,661.9668**	**0.4864**	**0.0000**	**1,674.1257**

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					
2020	0.7729	9.4359	4.5258	0.0170	0.1672	0.3262	0.4933	0.0350	0.3002	0.3351	0.0000	1,661.9668	1,661.9668	0.4864	0.0000	1,674.1257
Maximum	**0.7729**	**9.4359**	**4.5258**	**0.0170**	**0.1672**	**0.3262**	**0.4933**	**0.0350**	**0.3002**	**0.3351**	**0.0000**	**1,661.9668**	**1,661.9668**	**0.4864**	**0.0000**	**1,674.1257**

	ROG	NOx	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**	**42.47**	**0.00**	**20.01**	**35.55**	**0.00**	**5.44**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	5/4/2020	5/5/2020	5	2	
2	Grading	Grading	5/6/2020	5/8/2020	5	3	
3	Building Construction	Building Construction	5/11/2020	5/12/2020	5	2	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Bore/Drill Rigs	1	8.00	221	0.50
Demolition	Cranes	1	8.00	231	0.29
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Grading	Concrete/Industrial Saws	0	8.00	81	0.73
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	0	6.00	89	0.20
Grading	Bore/Drill Rigs	1	8.00	221	0.50
Building Construction	Bore/Drill Rigs	1	8.00	221	0.50
Demolition	Rubber Tired Dozers	0	1.00	247	0.40
Grading	Rubber Tired Dozers	0	1.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	0	6.00	97	0.37
Grading	Tractors/Loaders/Backhoes	0	6.00	97	0.37

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	2	5.00	2.00	2.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	1	3.00	2.00	2.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	2	0.00	0.00	2.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Demolition - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2044	0.0000	0.2044	0.0309	0.0000	0.0309			0.0000			0.0000
Off-Road	0.7309	8.9138	4.1961	0.0152		0.3238	0.3238		0.2979	0.2979		1,468.5965	1,468.5965	0.4750		1,480.4709
Total	**0.7309**	**8.9138**	**4.1961**	**0.0152**	**0.2044**	**0.3238**	**0.5281**	**0.0309**	**0.2979**	**0.3288**		**1,468.5965**	**1,468.5965**	**0.4750**		**1,480.4709**

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	8.9500e-003	0.2913	0.0677	7.8000e-004	0.0175	9.3000e-004	0.0184	4.7900e-003	8.9000e-004	5.6800e-003		84.1094	84.1094	6.0400e-003		84.2603
Vendor	7.4400e-003	0.2127	0.0615	5.0000e-004	0.0128	1.0200e-003	0.0138	3.6900e-003	9.7000e-004	4.6600e-003		53.8898	53.8898	3.6000e-003		53.9799
Worker	0.0256	0.0181	0.2005	5.6000e-004	0.0559	4.7000e-004	0.0564	0.0148	4.3000e-004	0.0153		55.3710	55.3710	1.7500e-003		55.4147
Total	**0.0419**	**0.5221**	**0.3297**	**1.8400e-003**	**0.0862**	**2.4200e-003**	**0.0886**	**0.0233**	**2.2900e-003**	**0.0256**		**193.3702**	**193.3702**	**0.0114**		**193.6549**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0874	0.0000	0.0874	0.0132	0.0000	0.0132			0.0000			0.0000
Off-Road	0.7309	8.9138	4.1961	0.0152		0.3238	0.3238		0.2979	0.2979	0.0000	1,468.5965	1,468.5965	0.4750		1,480.4709
Total	**0.7309**	**8.9138**	**4.1961**	**0.0152**	**0.0874**	**0.3238**	**0.4111**	**0.0132**	**0.2979**	**0.3111**	**0.0000**	**1,468.5965**	**1,468.5965**	**0.4750**		**1,480.4709**

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	8.9500e-003	0.2913	0.0677	7.8000e-004	0.0163	9.3000e-004	0.0172	4.5000e-003	8.9000e-004	5.3900e-003		84.1094	84.1094	6.0400e-003		84.2603
Vendor	7.4400e-003	0.2127	0.0615	5.0000e-004	0.0120	1.0200e-003	0.0130	3.4800e-003	9.7000e-004	4.4600e-003		53.8898	53.8898	3.6000e-003		53.9799
Worker	0.0256	0.0181	0.2005	5.6000e-004	0.0515	4.7000e-004	0.0520	0.0138	4.3000e-004	0.0142		55.3710	55.3710	1.7500e-003		55.4147
Total	**0.0419**	**0.5221**	**0.3297**	**1.8400e-003**	**0.0798**	**2.4200e-003**	**0.0822**	**0.0217**	**2.2900e-003**	**0.0240**		**193.3702**	**193.3702**	**0.0114**		**193.6549**

3.3 Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.3000e-004	0.0000	5.3000e-004	8.0000e-005	0.0000	8.0000e-005			0.0000			0.0000
Off-Road	0.2775	3.5223	2.0808	9.4000e-003		0.1015	0.1015		0.0934	0.0934		909.8069	909.8069	0.2943		917.1631
Total	**0.2775**	**3.5223**	**2.0808**	**9.4000e-003**	**5.3000e-004**	**0.1015**	**0.1020**	**8.0000e-005**	**0.0934**	**0.0934**		**909.8069**	**909.8069**	**0.2943**		**917.1631**

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	5.9600e-003	0.1942	0.0451	5.2000e-004	0.0117	6.2000e-004	0.0123	3.2000e-003	5.9000e-004	3.7900e-003		56.0729	56.0729	4.0200e-003		56.1736
Vendor	7.4400e-003	0.2127	0.0615	5.0000e-004	0.0128	1.0200e-003	0.0138	3.6900e-003	9.7000e-004	4.6600e-003		53.8898	53.8898	3.6000e-003		53.9799
Worker	0.0153	0.0109	0.1203	3.3000e-004	0.0335	2.8000e-004	0.0338	8.8900e-003	2.6000e-004	9.1500e-003		33.2226	33.2226	1.0500e-003		33.2488
Total	**0.0287**	**0.4178**	**0.2269**	**1.3500e-003**	**0.0580**	**1.9200e-003**	**0.0599**	**0.0158**	**1.8200e-003**	**0.0176**		**143.1854**	**143.1854**	**8.6700e-003**		**143.4023**

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					2.3000e-004	0.0000	2.3000e-004	3.0000e-005	0.0000	3.0000e-005			0.0000			0.0000
Off-Road	0.2775	3.5223	2.0808	9.4000e-003		0.1015	0.1015		0.0934	0.0934	0.0000	909.8069	909.8069	0.2943		917.1631
Total	**0.2775**	**3.5223**	**2.0808**	**9.4000e-003**	**2.3000e-004**	**0.1015**	**0.1017**	**3.0000e-005**	**0.0934**	**0.0934**	**0.0000**	**909.8069**	**909.8069**	**0.2943**		**917.1631**

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	5.9600e-003	0.1942	0.0451	5.2000e-004	0.0109	6.2000e-004	0.0115	3.0000e-003	5.9000e-004	3.5900e-003		56.0729	56.0729	4.0200e-003		56.1736
Vendor	7.4400e-003	0.2127	0.0615	5.0000e-004	0.0120	1.0200e-003	0.0130	3.4800e-003	9.7000e-004	4.4600e-003		53.8898	53.8898	3.6000e-003		53.9799
Worker	0.0153	0.0109	0.1203	3.3000e-004	0.0309	2.8000e-004	0.0312	8.2500e-003	2.6000e-004	8.5100e-003		33.2226	33.2226	1.0500e-003		33.2488
Total	**0.0287**	**0.4178**	**0.2269**	**1.3500e-003**	**0.0538**	**1.9200e-003**	**0.0557**	**0.0147**	**1.8200e-003**	**0.0166**		**143.1854**	**143.1854**	**8.6700e-003**		**143.4023**

3.4 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7323	8.9314	4.2065	0.0152		0.3243	0.3243		0.2983	0.2983		1,473.1455	1,473.1455	0.4765		1,485.0567
Total	**0.7323**	**8.9314**	**4.2065**	**0.0152**		**0.3243**	**0.3243**		**0.2983**	**0.2983**		**1,473.1455**	**1,473.1455**	**0.4765**		**1,485.0567**

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	8.9500e-003	0.2913	0.0677	7.8000e-004	0.0175	9.3000e-004	0.0184	4.7900e-003	8.9000e-004	5.6800e-003		84.1094	84.1094	6.0400e-003		84.2603
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**8.9500e-003**	**0.2913**	**0.0677**	**7.8000e-004**	**0.0175**	**9.3000e-004**	**0.0184**	**4.7900e-003**	**8.9000e-004**	**5.6800e-003**		**84.1094**	**84.1094**	**6.0400e-003**		**84.2603**

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	0.7323	8.9314	4.2065	0.0152		0.3243	0.3243		0.2983	0.2983	0.0000	1,473.1455	1,473.1455	0.4765		1,485.0567
Total	**0.7323**	**8.9314**	**4.2065**	**0.0152**		**0.3243**	**0.3243**		**0.2983**	**0.2983**	**0.0000**	**1,473.1455**	**1,473.1455**	**0.4765**		**1,485.0567**

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	8.9500e-003	0.2913	0.0677	7.8000e-004	0.0163	9.3000e-004	0.0172	4.5000e-003	8.9000e-004	5.3900e-003		84.1094	84.1094	6.0400e-003		84.2603
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	**8.9500e-003**	**0.2913**	**0.0677**	**7.8000e-004**	**0.0163**	**9.3000e-004**	**0.0172**	**4.5000e-003**	**8.9000e-004**	**5.3900e-003**		**84.1094**	**84.1094**	**6.0400e-003**		**84.2603**

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

19465 Walnut Drive Billboard Construction Run

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Commercial	1.00	User Defined Unit	0.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2020
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	504.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - 2018 Sustainability Report

Land Use -

Construction Phase - billboard installation

Off-road Equipment - using bore/drill rig as proxy for auger

Off-road Equipment - using bore/drill rig as proxy for auger

Off-road Equipment - using bore/drill rig as proxy for auger

Grading -

Demolition -

Trips and VMT - 2 VT/water truck/day, assuming old and new billboard would require same number of trips

Construction Off-road Equipment Mitigation - SCAQMD Rule 1186

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	9
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	0.00	2.00
tblConstructionPhase	NumDays	0.00	2.00
tblConstructionPhase	NumDays	0.00	3.00
tblConstructionPhase	PhaseEndDate	5/3/2020	5/12/2020
tblConstructionPhase	PhaseEndDate	5/3/2020	5/5/2020
tblConstructionPhase	PhaseEndDate	5/3/2020	5/8/2020
tblConstructionPhase	PhaseStartDate	5/4/2020	5/11/2020
tblConstructionPhase	PhaseStartDate	5/4/2020	5/6/2020
tblGrading	MaterialExported	0.00	14.00
tblOffRoadEquipment	LoadFactor	0.50	0.50
tblOffRoadEquipment	OffRoadEquipmentType		Bore/Drill Rigs
tblOffRoadEquipment	OffRoadEquipmentType		Cranes
tblOffRoadEquipment	OffRoadEquipmentType		Bore/Drill Rigs
tblOffRoadEquipment	OffRoadEquipmentType		Bore/Drill Rigs
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	UsageHours	4.00	8.00
tblProjectCharacteristics	CO2IntensityFactor	702.44	504.44
tblTripsAndVMT	HaulingTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	1.9700e-003	0.0246	0.0123	5.0000e-005	3.9000e-004	8.1000e-004	1.2000e-003	8.0000e-005	7.4000e-004	8.2000e-004	0.0000	4.3592	4.3592	1.2900e-003	0.0000	4.3915
Maximum	**1.9700e-003**	**0.0246**	**0.0123**	**5.0000e-005**	**3.9000e-004**	**8.1000e-004**	**1.2000e-003**	**8.0000e-005**	**7.4000e-004**	**8.2000e-004**	**0.0000**	**4.3592**	**4.3592**	**1.2900e-003**	**0.0000**	**4.3915**

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					
2020	1.9700e-003	0.0246	0.0123	5.0000e-005	2.6000e-004	8.1000e-004	1.0700e-003	6.0000e-005	7.4000e-004	8.0000e-004	0.0000	4.3592	4.3592	1.2900e-003	0.0000	4.3915
Maximum	**1.9700e-003**	**0.0246**	**0.0123**	**5.0000e-005**	**2.6000e-004**	**8.1000e-004**	**1.0700e-003**	**6.0000e-005**	**7.4000e-004**	**8.0000e-004**	**0.0000**	**4.3592**	**4.3592**	**1.2900e-003**	**0.0000**	**4.3915**

	ROG	NOx	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	33.33	0.00	10.83	25.00	0.00	2.44	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)
1	5-4-2020	8-3-2020	0.0189	0.0189
		Highest	0.0189	0.0189

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	5/4/2020	5/5/2020	5	2	
2	Grading	Grading	5/6/2020	5/8/2020	5	3	
3	Building Construction	Building Construction	5/11/2020	5/12/2020	5	2	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Bore/Drill Rigs	1	8.00	221	0.50
Demolition	Cranes	1	8.00	231	0.29
Demolition	Concrete/Industrial Saws	0	8.00	81	0.73
Grading	Concrete/Industrial Saws	0	8.00	81	0.73
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	0	6.00	89	0.20
Grading	Bore/Drill Rigs	1	8.00	221	0.50
Building Construction	Bore/Drill Rigs	1	8.00	221	0.50
Demolition	Rubber Tired Dozers	0	1.00	247	0.40
Grading	Rubber Tired Dozers	0	1.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	0	6.00	97	0.37
Grading	Tractors/Loaders/Backhoes	0	6.00	97	0.37

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	2	5.00	2.00	2.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	1	3.00	2.00	2.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	2	0.00	0.00	2.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Demolition - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.0000e-004	0.0000	2.0000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.3000e-004	8.9100e-003	4.2000e-003	2.0000e-005		3.2000e-004	3.2000e-004		3.0000e-004	3.0000e-004	0.0000	1.3323	1.3323	4.3000e-004	0.0000	1.3431
Total	**7.3000e-004**	**8.9100e-003**	**4.2000e-003**	**2.0000e-005**	**2.0000e-004**	**3.2000e-004**	**5.2000e-004**	**3.0000e-005**	**3.0000e-004**	**3.3000e-004**	**0.0000**	**1.3323**	**1.3323**	**4.3000e-004**	**0.0000**	**1.3431**

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	1.0000e-005	3.0000e-004	7.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	1.0000e-005	0.0000	0.0771	0.0771	1.0000e-005	0.0000	0.0772
Vendor	1.0000e-005	2.2000e-004	6.0000e-005	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0497	0.0497	0.0000	0.0000	0.0498
Worker	2.0000e-005	2.0000e-005	2.1000e-004	0.0000	5.0000e-005	0.0000	6.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0511	0.0511	0.0000	0.0000	0.0511
Total	**4.0000e-005**	**5.4000e-004**	**3.4000e-004**	**0.0000**	**8.0000e-005**	**0.0000**	**9.0000e-005**	**1.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.1778**	**0.1778**	**1.0000e-005**	**0.0000**	**0.1781**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					9.0000e-005	0.0000	9.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.3000e-004	8.9100e-003	4.2000e-003	2.0000e-005		3.2000e-004	3.2000e-004		3.0000e-004	3.0000e-004	0.0000	1.3323	1.3323	4.3000e-004	0.0000	1.3431
Total	**7.3000e-004**	**8.9100e-003**	**4.2000e-003**	**2.0000e-005**	**9.0000e-005**	**3.2000e-004**	**4.1000e-004**	**1.0000e-005**	**3.0000e-004**	**3.1000e-004**	**0.0000**	**1.3323**	**1.3323**	**4.3000e-004**	**0.0000**	**1.3431**

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	1.0000e-005	3.0000e-004	7.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	1.0000e-005	0.0000	0.0771	0.0771	1.0000e-005	0.0000	0.0772
Vendor	1.0000e-005	2.2000e-004	6.0000e-005	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0497	0.0497	0.0000	0.0000	0.0498
Worker	2.0000e-005	2.0000e-005	2.1000e-004	0.0000	5.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0511	0.0511	0.0000	0.0000	0.0511
Total	**4.0000e-005**	**5.4000e-004**	**3.4000e-004**	**0.0000**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**1.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.1778**	**0.1778**	**1.0000e-005**	**0.0000**	**0.1781**

3.3 Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.2000e-004	5.2800e-003	3.1200e-003	1.0000e-005		1.5000e-004	1.5000e-004		1.4000e-004	1.4000e-004	0.0000	1.2380	1.2380	4.0000e-004	0.0000	1.2481
Total	**4.2000e-004**	**5.2800e-003**	**3.1200e-003**	**1.0000e-005**	**0.0000**	**1.5000e-004**	**1.5000e-004**	**0.0000**	**1.4000e-004**	**1.4000e-004**	**0.0000**	**1.2380**	**1.2380**	**4.0000e-004**	**0.0000**	**1.2481**

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	1.0000e-005	3.0000e-004	7.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	1.0000e-005	0.0000	0.0771	0.0771	1.0000e-005	0.0000	0.0772
Vendor	1.0000e-005	3.3000e-004	9.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0745	0.0745	0.0000	0.0000	0.0747
Worker	2.0000e-005	2.0000e-005	1.9000e-004	0.0000	5.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0460	0.0460	0.0000	0.0000	0.0460
Total	**4.0000e-005**	**6.5000e-004**	**3.5000e-004**	**0.0000**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**2.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.1976**	**0.1976**	**1.0000e-005**	**0.0000**	**0.1979**

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.2000e-004	5.2800e-003	3.1200e-003	1.0000e-005		1.5000e-004	1.5000e-004		1.4000e-004	1.4000e-004	0.0000	1.2380	1.2380	4.0000e-004	0.0000	1.2481
Total	**4.2000e-004**	**5.2800e-003**	**3.1200e-003**	**1.0000e-005**	**0.0000**	**1.5000e-004**	**1.5000e-004**	**0.0000**	**1.4000e-004**	**1.4000e-004**	**0.0000**	**1.2380**	**1.2380**	**4.0000e-004**	**0.0000**	**1.2481**

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	1.0000e-005	3.0000e-004	7.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	1.0000e-005	0.0000	0.0771	0.0771	1.0000e-005	0.0000	0.0772
Vendor	1.0000e-005	3.3000e-004	9.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0745	0.0745	0.0000	0.0000	0.0747
Worker	2.0000e-005	2.0000e-005	1.9000e-004	0.0000	5.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0460	0.0460	0.0000	0.0000	0.0460
Total	**4.0000e-005**	**6.5000e-004**	**3.5000e-004**	**0.0000**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**2.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.1976**	**0.1976**	**1.0000e-005**	**0.0000**	**0.1979**

3.4 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	7.3000e-004	8.9300e-003	4.2100e-003	2.0000e-005		3.2000e-004	3.2000e-004		3.0000e-004	3.0000e-004	0.0000	1.3364	1.3364	4.3000e-004	0.0000	1.3472
Total	**7.3000e-004**	**8.9300e-003**	**4.2100e-003**	**2.0000e-005**		**3.2000e-004**	**3.2000e-004**		**3.0000e-004**	**3.0000e-004**	**0.0000**	**1.3364**	**1.3364**	**4.3000e-004**	**0.0000**	**1.3472**

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	1.0000e-005	3.0000e-004	7.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	1.0000e-005	0.0000	0.0771	0.0771	1.0000e-005	0.0000	0.0772
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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**1.0000e-005**	**3.0000e-004**	**7.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0000**	**1.0000e-005**	**0.0000**	**0.0771**	**0.0771**	**1.0000e-005**	**0.0000**	**0.0772**

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	7.3000e-004	8.9300e-003	4.2100e-003	2.0000e-005		3.2000e-004	3.2000e-004		3.0000e-004	3.0000e-004	0.0000	1.3364	1.3364	4.3000e-004	0.0000	1.3472
Total	**7.3000e-004**	**8.9300e-003**	**4.2100e-003**	**2.0000e-005**		**3.2000e-004**	**3.2000e-004**		**3.0000e-004**	**3.0000e-004**	**0.0000**	**1.3364**	**1.3364**	**4.3000e-004**	**0.0000**	**1.3472**

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	1.0000e-005	3.0000e-004	7.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	1.0000e-005	0.0000	0.0771	0.0771	1.0000e-005	0.0000	0.0772
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	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	1.0000e-005	3.0000e-004	7.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	1.0000e-005	0.0000	0.0771	0.0771	1.0000e-005	0.0000	0.0772

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Construction Localized Significance Thresholds: Demolition

SRA No.	Acres	Source Receptor Distance (meters)	Source Receptor Distance (Feet)	Project site Acreage Disturbed
10	0.00	137	450	1

Source Receptor	Pomona/Walnut Valley	Equipment	Acres/8-hr Day		Daily hours	Equipment Used	Acres
Distance (meters)	137	Tractors	0.5	0.0625			0
NOx	**225**	Graders	0.5	0.0625			0
CO	**2,709**	Dozers	0.5	0.0625			0
PM10	**37.52**	Scrapers	1	0.125			0
PM2.5	**11.09**					**Acres**	0.00

	Acres	**25**	**50**	**100**	**200**	**500**
NOx	1	103	129	185	292	570
	1	103	129	185	292	570
		103	129	185	292	570
CO	1	612	911	1741	4345	18991
	1	612	911	1741	4345	18991
		612	911	1741	4345	18991
PM10	1	4	11	26	57	148
	1	4	11	26	57	148
		4	11	26	57	148
PM2.5	1	3	4	7	18	75
	1	3	4	7	18	75
		3	4	7	18	75

Pomona/Walnut Valley

0.00 Acres

	25	**50**	**100**	**200**	**500**
NOx	103	129	185	292	570
CO	612	911	1741	4345	18991
PM10	4	11	26	57	148
PM2.5	3	4	7	18	75

Acre Below		Acre Above	
SRA No.	Acres	SRA No.	Acres
10	1	10	1
Distance Increment Below			
100			
Distance Increment Above			
200			

Updated: 10/21/2009 - Table C-1. 2006 – 2008

Construction Localized Significance Thresholds: Grading

SRA No.	Acres	Source Receptor Distance (meters)	Source Receptor Distance (Feet)	Project site Acreage Disturbed
10	0.00	137	450	1

Source Receptor	Pomona/Walnut Valley	Equipment	Acres/8-hr Day		Daily hours	Equipment Used	Acres
Distance (meters)	137	Tractors	0.5	0.0625			0
NOx	**225**	Graders	0.5	0.0625			0
CO	**2,709**	Dozers	0.5	0.0625			0
PM10	**37.52**	Scrapers	1	0.125			0
PM2.5	**11.09**					**Acres**	0.00

	Acres	**25**	**50**	**100**	**200**	**500**
NOx	1	103	129	185	292	570
	1	103	129	185	292	570
		103	129	185	292	570
CO	1	612	911	1741	4345	18991
	1	612	911	1741	4345	18991
		612	911	1741	4345	18991
PM10	1	4	11	26	57	148
	1	4	11	26	57	148
		4	11	26	57	148
PM2.5	1	3	4	7	18	75
	1	3	4	7	18	75
		3	4	7	18	75

Pomona/Walnut Valley

0.00 Acres

	25	**50**	**100**	**200**	**500**
NOx	103	129	185	292	570
CO	612	911	1741	4345	18991
PM10	4	11	26	57	148
PM2.5	3	4	7	18	75

Acre Below		Acre Above	
SRA No.	Acres	SRA No.	Acres
10	1	10	1
Distance Increment Below			
100			
Distance Increment Above			
200			

Updated: 10/21/2009 - Table C-1. 2006 – 2008

Construction Localized Significance Thresholds: Billboard Installation

SRA No.	Acres	Source Receptor Distance (meters)	Source Receptor Distance (Feet)	Project site Acreage Disturbed
10	0.00	137	450	1

Source Receptor	Pomona/Walnut Valley	Equipment	Acres/8-hr Day		Daily hours	Equipment Used	Acres
Distance (meters)	137	Tractors	0.5	0.0625			0
NOx	**225**	Graders	0.5	0.0625			0
CO	**2,709**	Dozers	0.5	0.0625			0
PM10	**37.52**	Scrapers	1	0.125			0
PM2.5	**11.09**					**Acres**	0.00

	Acres	**25**	**50**	**100**	**200**	**500**
NOx	1	103	129	185	292	570
	1	103	129	185	292	570
		103	129	185	292	570
CO	1	612	911	1741	4345	18991
	1	612	911	1741	4345	18991
		612	911	1741	4345	18991
PM10	1	4	11	26	57	148
	1	4	11	26	57	148
		4	11	26	57	148
PM2.5	1	3	4	7	18	75
	1	3	4	7	18	75
		3	4	7	18	75

Pomona/Walnut Valley

0.00 Acres

	25	**50**	**100**	**200**	**500**
NOx	103	129	185	292	570
CO	612	911	1741	4345	18991
PM10	4	11	26	57	148
PM2.5	3	4	7	18	75

Acre Below		Acre Above	
SRA No.	Acres	SRA No.	Acres
10	1	10	1
Distance Increment Below			
100			
Distance Increment Above			
200			

Updated: 10/21/2009 - Table C-1. 2006 – 2008

Construction Localized Significance Thresholds: Demolition

SRA No.	Acres	Source Receptor Distance (meters)	Source Receptor Distance (Feet)	Project site Acreage Disturbed
10	0.00	229	750	1

Source Receptor	Pomona/Walnut Valley	Equipment	Acres/8-hr Day		Daily hours	Equipment Used	Acres
Distance (meters)	229	Tractors	0.5	0.0625			0
NOx	**319**	Graders	0.5	0.0625			0
CO	**5,741**	Dozers	0.5	0.0625			0
PM10	**65.68**	Scrapers	1	0.125			0
PM2.5	**23.43**					**Acres**	0.00

	Acres	**25**	**50**	**100**	**200**	**500**
NOx	1	103	129	185	292	570
	1	103	129	185	292	570
		103	129	185	292	570
CO	1	612	911	1741	4345	18991
	1	612	911	1741	4345	18991
		612	911	1741	4345	18991
PM10	1	4	11	26	57	148
	1	4	11	26	57	148
		4	11	26	57	148
PM2.5	1	3	4	7	18	75
	1	3	4	7	18	75
		3	4	7	18	75

Pomona/Walnut Valley

0.00 Acres

	25	**50**	**100**	**200**	**500**
NOx	103	129	185	292	570
CO	612	911	1741	4345	18991
PM10	4	11	26	57	148
PM2.5	3	4	7	18	75

Acre Below		Acre Above	
SRA No.	Acres	SRA No.	Acres
10	1	10	1
Distance Increment Below			
200			
Distance Increment Above			
500			

Updated: 10/21/2009 - Table C-1. 2006 – 2008

Construction Localized Significance Thresholds: Grading

SRA No.	Acres	Source Receptor Distance (meters)	Source Receptor Distance (Feet)	Project site Acreage Disturbed
10	0.00	229	750	1

Source Receptor	Pomona/Walnut Valley	Equipment	Acres/8-hr Day		Daily hours	Equipment Used	Acres
Distance (meters)	229	Tractors	0.5	0.0625			0
NOx	**319**	Graders	0.5	0.0625			0
CO	**5,741**	Dozers	0.5	0.0625			0
PM10	**65.68**	Scrapers	1	0.125			0
PM2.5	**23.43**					**Acres**	0.00

	Acres	**25**	**50**	**100**	**200**	**500**
NOx	1	103	129	185	292	570
	1	103	129	185	292	570
		103	129	185	292	570
CO	1	612	911	1741	4345	18991
	1	612	911	1741	4345	18991
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	1	4	11	26	57	148
		4	11	26	57	148
PM2.5	1	3	4	7	18	75
	1	3	4	7	18	75
		3	4	7	18	75

Pomona/Walnut Valley

0.00 Acres

	25	**50**	**100**	**200**	**500**
NOx	103	129	185	292	570
CO	612	911	1741	4345	18991
PM10	4	11	26	57	148
PM2.5	3	4	7	18	75

Acre Below		Acre Above	
SRA No.	Acres	SRA No.	Acres
10	1	10	1
Distance Increment Below			
200			
Distance Increment Above			
500			

Updated: 10/21/2009 - Table C-1. 2006 – 2008

Construction Localized Significance Thresholds: Billboard Installation

SRA No.	Acres	Source Receptor Distance (meters)	Source Receptor Distance (Feet)	Project site Acreage Disturbed
10	0.00	229	750	1

Source Receptor	Pomona/Walnut Valley	Equipment	Acres/8-hr Day		Daily hours	Equipment Used	Acres
Distance (meters)	229	Tractors	0.5	0.0625			0
NOx	**319**	Graders	0.5	0.0625			0
CO	**5,741**	Dozers	0.5	0.0625			0
PM10	**65.68**	Scrapers	1	0.125			0
PM2.5	**23.43**					**Acres**	0.00

	Acres	**25**	**50**	**100**	**200**	**500**
NOx	1	103	129	185	292	570
	1	103	129	185	292	570
		103	129	185	292	570
CO	1	612	911	1741	4345	18991
	1	612	911	1741	4345	18991
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	1	4	11	26	57	148
		4	11	26	57	148
PM2.5	1	3	4	7	18	75
	1	3	4	7	18	75
		3	4	7	18	75

Pomona/Walnut Valley

0.00 Acres

	25	**50**	**100**	**200**	**500**
NOx	103	129	185	292	570
CO	612	911	1741	4345	18991
PM10	4	11	26	57	148
PM2.5	3	4	7	18	75

Acre Below		Acre Above	
SRA No.	Acres	SRA No.	Acres
10	1	10	1
Distance Increment Below			
200			
Distance Increment Above			
500			

Updated: 10/21/2009 - Table C-1. 2006 – 2008

Attachment 2

Conditions of Approval - Resolution No. CC 2020-40

[Attached]

CITY OF INDUSTRY

Standard Requirements and Conditions of Approval

Application: **Development Plan 19-08**

Applicant: **Peter Raulli of POP! Outdoor Media**

Location: **19465 East Walnut Drive North (APN 8760-008-005)**

Conditions of Approval

Conditions of approval are unique provisions, beyond the requirements of law, the municipal code, or standard practices that are applied to a project by the City Council per Section 17.36.080 of the Zoning Code. Please note that if the design of your project or site conditions change, the conditions of approval may also change. If you have any questions regarding these requirements, please contact the City of Industry.

1. Any disturbed landscape must be replaced and relocated as necessary. The location of the existing billboard and any appurtenances shall be replaced with landscaping to match the adjacent landscape area.

2. The electronic billboard must contain a default mechanism that will cause the sign to revert immediately to a black screen if the message board face malfunctions.

3. The electronic billboard must utilize automatic dimming technology to adjust the brightness of the sign relative to ambient light so that at no time will the sign exceed a brightness level of 0.3 foot candles above ambient light for both the daytime and nighttime condition. In the event that after commencement of operation of the billboard, the City receives substantiated complaints about excessive brightness levels of the billboard, the city may, at the Applicant/Property Owner's expense, retain a lighting engineer to conduct follow-up testing and recommend any necessary corrective measures. If directed to take corrective measures by City Staff based on the lighting engineer's report, the Applicant/Property Owner shall, within 30 days, or in such time agreed to by the City and the Applicant/Property owner, in writing, implement such corrective measures at its sole expense.

4. The electronic billboard sign may display only a series of still or static images, each of which must be displayed for at least eight seconds. The images, including the transition between images, may not move or present the appearance of motion and may not use flashing, scintillating, blinking, scrolling, moving, fading, rolling, shading, dissolving, or any other effect or any other non-constant means of illumination that gives the appearance of movement.

5. Applicant/Property Owner shall operate and maintain the billboard in good working order and in accordance with all applicable laws, including without limitation, the California

Outdoor Advertising Act (California Business and Professions Code § 5200, *et seq.)* and California Department of Transpo1iation regulations and specifications adopted pursuant thereto (Title 4 California Code of Regulations, § 2240, *el. seq.).*

6. Applicant/Property Owner shall, at Applicant/Property Owner's sole cost and expense, maintain and repair or cause to be maintained and repaired the billboard and any and all security lighting in compliance with all applicable provisions of City's Municipal Code and any and all other applicable laws. The billboards shall be kept free from the accumulation of debris and waste materials. All exterior painted surfaces shall be maintained at all times in a clean and presentable manner, free from chipping, cracking, peeling and defacing marks. Anti-graffiti coating shall be applied to the vertical support structures of. All broken lights shall be immediately repaired in order to prevent hazardous conditions and/or invitation for trespassers and malicious mischief. Except during periods of construction, no lumber, trash, discarded equipment or other debris shall be stored in areas visible from the street.

7. Applicant shall comply with all mitigation measures set forth in the MMRP, including, but not limited to, Mitigation Measure TCR-1, and Retain a Native American Monitor/Consultant.

Code Requirements and Standards

The following is a list of code requirements and standards deemed applicable to the proposed project. The list is intended to assist the Applicant by identifying requirements that must be satisfied during the various stages of project permitting, implementation, and operation. It should be noted that this list is in addition to any "conditions of approval" adopted by the City Council and noted above. Please note that if the design of your project or site conditions change, the list may also change. If you have any questions regarding these requirements, please contact the City of Industry.

1. The approval expires twelve (12) months after the date of approval by the City Council if a building permit for each building and structure thereby approved has not been obtained within such period.

2. In conformance with Chapter 17.36.060.G, all mechanical equipment, towers, chimneys, roof structures, radio and television masts, and all other mechanical equipment external to the main or accessory structures shall be screened from public view, and such screening shall be of the same color as the main or accessory structure or, if screening is impracticable, as determined by the City Engineer, the Applicant must paint such roof structures and mechanical equipment so as to be nonreflective and compatible with the main or accessory structures

3. The Applicant shall construct adequate fire protection facilities to the satisfaction of the Los Angeles County Fire Department.

4. All exterior surfaces of buildings and appurtenant structures shall be painted in accordance with the approved development plan.

5. The Applicant shall provide building plans to be approved prior to the issuance of a

building permit. Such plans shall be in substantial conformity with the development plans. Building plans shall be submitted to and approved by the Los Angeles County Engineer's Office - Building and Safety Division prior to the issuance of a building permit. Development shall take place in substantial conformance with the approved development plans.

6. Demolition and construction operations shall be limited to the hours prescribed by the Los Angeles County Noise Ordinance (Los Angeles County Municipal Code, Section 12.08.390).

7. Should archeological resources be uncovered during site preparation, grading, or excavation, work shall be stopped for a period not to exceed 14 days. The find shall be immediately evaluated for significance by a county-certified archaeologist. If the archaeological resources are found to be significant, the archaeologist shall perform data recovery, professional identification, radiocarbon dates as applicable, and other special studies; submit resources to the California State University Fullerton; and provide a comprehensive final report including appropriate records for the California Department of Parks and Recreation (Building, Structure, and Object Record; Archaeological Site Record; or District Record, as applicable).

Interpretation and Enforcement

1. The Planning Department, Engineering Department, and contract agencies (Los Angeles County Fire Department, Los Angeles Department of Building and Safety) shall be responsible for ensuring compliance with all applicable code requirements and conditions of approval.

2. The Planning Department may interpret the implementation of each condition of approval and, with advanced notice, grant minor amendments to approved plans and/or conditions of approval based on changed circumstances, new information, and/or relevant factors as long as the spirit and intent of the approved condition of approval is satisfied. Permits shall not be issued until the proposed minor amendment has been reviewed and approved for conformance with the intent of the approved condition of approval. If the proposed changes are substantial in nature, an amendment to the original entitlement may be required pursuant to the provisions of Industry Municipal Code.

3. The Applicant and/or successor in interest, shall comply with all applicable federal, state, and local laws, rules, and regulations.

Indemnification and Hold Harmless Condition

1. The Applicant and Property Owner and each of their heirs, successors and assigns, shall defend, indemnify and hold harmless the City of Industry and its agents, officers, and employees from any claim, action or proceedings, liability cost, including attorney's fees and costs against the City or its agents, officers or employees, to attack, set aside, void or annul any approval of the City, including but not limited to any environmental review and/or approval granted by the City Council concerning this project. The City shall promptly notify the Applicant and Property Owner of any claim, action or proceeding and should cooperate fully in the defense thereof.

2. The Applicant and Property Owner shall submit to the City written consent to all the conditions referenced herein within 10 days of approval. The Applicant and Property Owner understand that Resolution No. CC- 2020-40 will be of no force or effect unless such written consent is submitted to the City.

Exhibit F

PowerPoint Presentation – DP 19-08

[Attached]

City Council

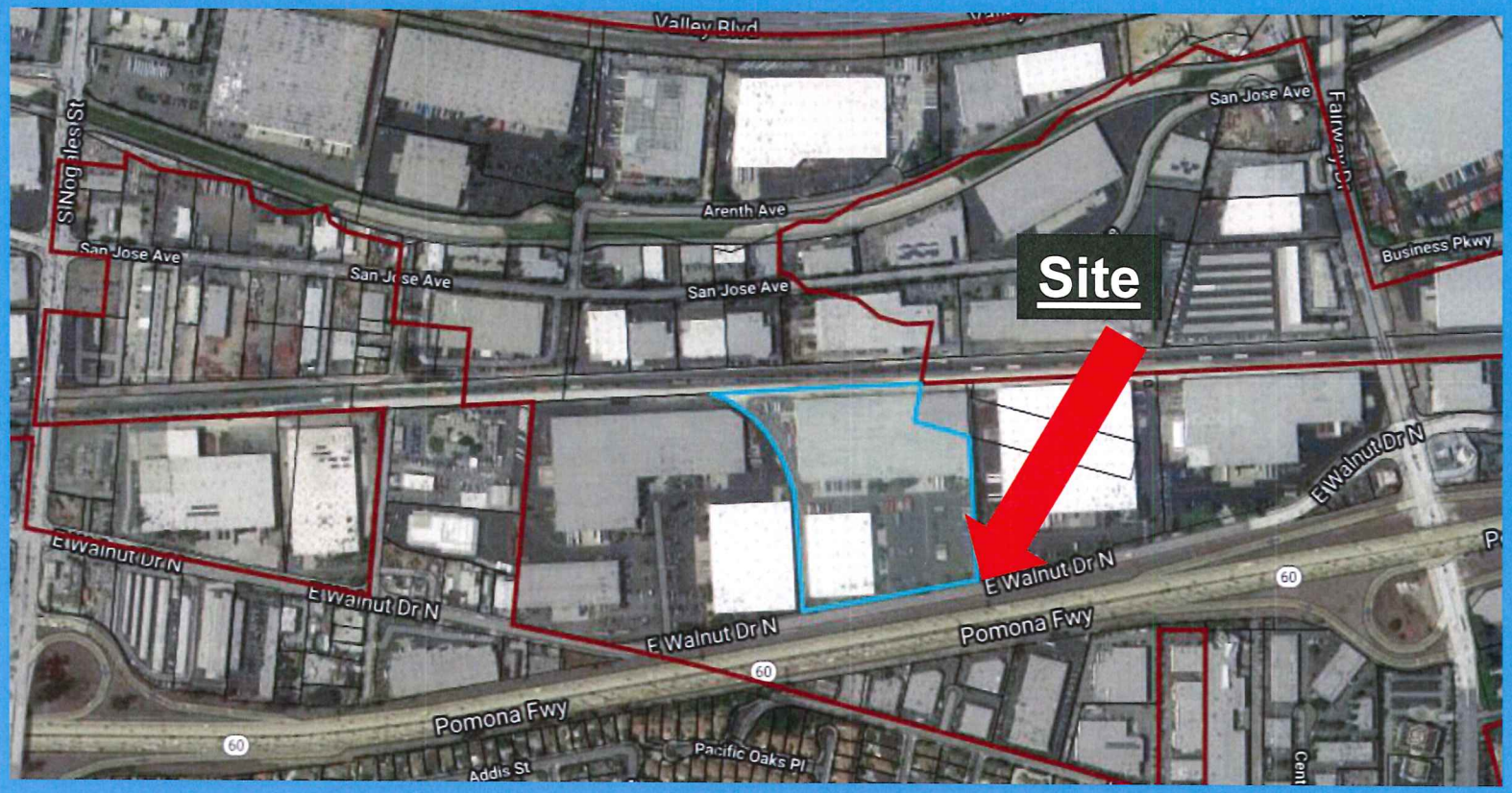
October 8, 2020

Development Plan 19-08

Peter Raulli of POP! Outdoor Media

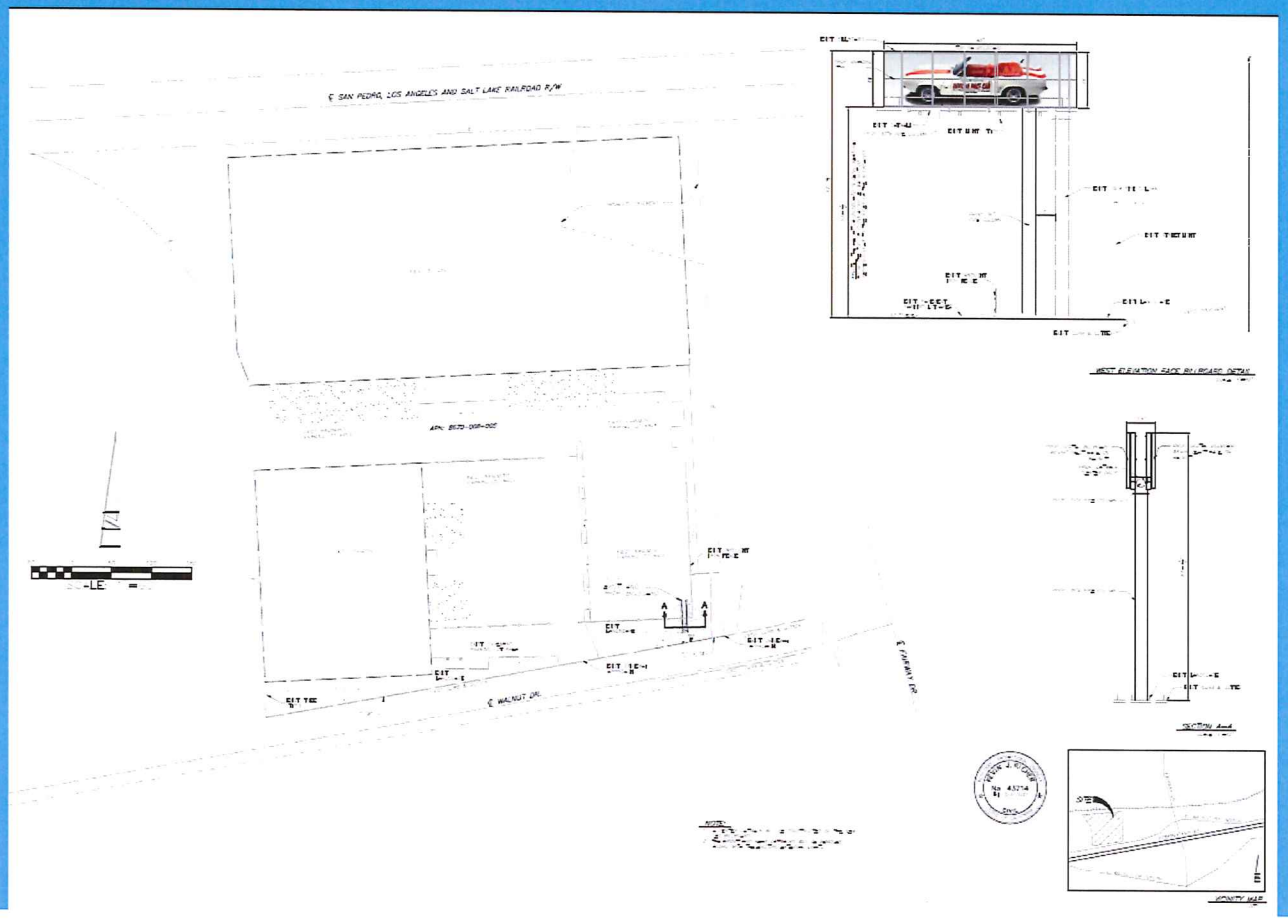
19465 East Walnut Drive North

Location Map



Current Site

Site Plan



℄ SAN PEDRO, LOS ANGELES AND SALT LAKE RAILROAD R/W
℄ WALNUT DR.
℄ FAIRWAY DR.
WEST ELEVATION FACE RAILROAD DETAIL
SECTION A-A
VICINITY MAP

Elevations

Final Staff Analysis:

Because the Development Plan proposes a project that complies with the development standards of the Municipal Code, does not pose a significant impact on the environment, and satisfies the above-mentioned findings, Staff recommends that the City Council

1) Adopt Resolution No. CC 2020-40 approving the Mitigated Negative Declaration, Mitigation Monitoring and Reporting Program, and approve Development Plan No. 19-08 with the Standard Requirements and Conditions of Approval contained in the Resolution.