



August 5, 2021

ADDENDUM NO. 1
to
THE CONTRACT DOCUMENTS, SPECIFICATIONS AND PLANS
for
WATER MAIN IMPROVEMENTS ON GRAND AVENUE
PROJECT NO.: PW 21-05

ATTENTION BIDDERS:

The following additions, modifications, and clarifications to the specifications shall be included in, and become a part of, any contract which may be executed for the above project in the City of El Segundo:

- 30 The bid due date and time has changed to Tuesday, August 24, at 11:00 am**
- 40 Please use the attached revised bid pages when bidding.**
- 50 Please see this project's attached Supplement to Addendum 1 for bid opening" instructions, bid-related questions and the responses to them, as well as additional" specifications for project clarification.**

As evidence that the BIDDER has read this Addendum, the BIDDER must acknowledge same in the space provided below and **submit this Addendum with the Bid Proposal**. Failure to provide such acknowledgement shall render the bid as non-responsive and subject to rejection.

Signature: _____ Date: _____

Print Company Name: _____

BID SCHEDULE (Revised 08/05/21)

**WATER MAIN IMPROVEMENTS
ON GRAND AVENUE
PROJECT NO.: PW 21-05**

Company Name: _____

BASE BID ITEMS, TABLE 1

ITEM NO.	DESCRIPTION	UNIT	QTY	UNIT PRICE IN FIGURES (\$)	AMOUNT (\$)
1	Mobilization/Demobilization	LS	1		
2	Traffic Control Plans, Traffic Control, Public Safety and Convenience	LS	1		
3	Utility Potholing	LS	1		
4	Bracing and Shoring	LS	1		
5	Construct 8-inch Ductile Iron Water Main including all Fittings and Appurtenances, Trench Excavation, Pipe Bedding, Trench Backfill, Trench Resurfacing, and Temporary and Permanent Traffic Striping and Markings	LF	125		
6	Construct 10-inch Ductile Iron Water Main including all Fittings and Appurtenances, Trench Excavation, Pipe Bedding, Trench Backfill, Trench Resurfacing, and Temporary and Permanent Traffic Striping and Markings	LF	2700		
7	Install 8-inch Main Line Gate Valve and Adjustable Valve Box	EA	2		
8	Install 10-inch Main Line Gate Valve and Adjustable Valve Box	EA	20		
9	Construct 20-inch Diameter Steel Casing in State R/W and Install New 10-inch Water Main Inside New Steel Casing	LF	75		

BASE BID ITEMS CONTINUED, TABLE 2

ITEM NO.	DESCRIPTION	UNIT	QTY	UNIT PRICE IN FIGURES (\$)	AMOUNT (\$)
10	Connect New Water Main to Existing Water Main including all Pipe, Fittings and Appurtenances, Trench Excavation, Pipe Bedding, Trench Backfill, Trench Resurfacing, and Temporary and Permanent Traffic Striping and Markings, Removal of Interfering Portions of Existing Pipe and Valves, and Cut and Abandon Existing Water Main(s) and Valve(s) and Removal of Abandoned Water Valve Covers	LF	13		
11	Construct Fire Hydrant Connection complete including Hydrant Lateral, all Fittings and Appurtenances, Hydrant, Gate Valve, Trench Excavation, Pipe Bedding, Trench Backfill, Trench Resurfacing, and Temporary and Permanent Traffic Striping and Markings	EA	5		
12	Construct 1-inch Water Service Connection and Connect to Existing Water Meter in Existing Water Meter Box, including all Fittings and Appurtenances, Trench Excavation, Pipe Bedding, Trench Backfill, Trench Resurfacing, and Temporary and Permanent Traffic Striping and Markings	EA	5		
13	Construct 2-inch Water Service Connection and Connect to Existing Water Meter in Existing Water Meter Box, including all Fittings and Appurtenances, Trench Excavation, Pipe Bedding, Trench Backfill, Trench Resurfacing, and Temporary and Permanent Traffic Striping and Marking	EA	5		

BASE BID ITEMS CONTINUED, TABLE 3

ITEM NO.	DESCRIPTION	UNIT	QTY	UNIT PRICE IN FIGURES (\$)	AMOUNT (\$)
14	Construct 1-inch Water Service Connection and Connect to Existing Water Meter in New Water Meter Box, Relocate Water Meter to New Water Meter Box and Connect to Existing Private Service including all Fittings and Appurtenances, Trench Excavation, Pipe Bedding, Trench Backfill, Trench Resurfacing, and Temporary and Permanent Traffic Striping and Markings	EA	3		
15	Construct 2-inch Water Service Connection and Connect to Existing Water Meter in New Water Meter Box, Relocate Water Meter to New Water Meter Box and Connect to Existing Private Service including all Fittings and Appurtenances, Trench Excavation, Pipe Bedding, Trench Backfill, Trench Resurfacing, and Temporary and Permanent Traffic Striping and Markings	EA	5		
16	Construct 4-inch Water Service Lateral and Connect to Existing Service (with Flange x Flange Connection) including 10-inch x 4-inch Tee in New Water Main, New 4-inch Gate Valve, New 4-inch Ductile Iron Pipe, all Fittings and Appurtenances, Trench Excavation, Pipe Bedding, Trench Backfill, Trench Resurfacing, and Temporary and Permanent Traffic Striping and Markings	EA	1		

BASE BID ITEMS CONTINUED, TABLE 4

ITEM NO.	DESCRIPTION	UNIT	QTY	UNIT PRICE IN FIGURES (\$)	AMOUNT (\$)
17	Construct 6-inch Water Service Lateral and Connect to Existing Service (with Flange x Flange Connection) including 10-inch x 6-inch Tee in New Water Main, New 6-inch Gate Valve, New 4-inch Ductile Iron Pipe, all Fittings and Appurtenances, Trench Excavation, Pipe Bedding, Trench Backfill, Trench Resurfacing, and Temporary and Permanent Traffic Striping and Markings	EA	7		
18	Construct 8-inch Water Service Lateral and Connect to Existing Service (with Flange x Flange Connection) including 10-inch x 8-inch Tee in New Water Main, New 4-inch Gate Valve, New 8-inch Ductile Iron Pipe, all Fittings and Appurtenances, Trench Excavation, Pipe Bedding, Trench Backfill, Trench Resurfacing, and Temporary and Permanent Traffic Striping and Markings	EA	2		
19	Construct 1-inch Air Relief Valve Connection Complete including, all Fittings and Appurtenances, Trench Excavation, Pipe Bedding, Trench Backfill, Trench Resurfacing, and Temporary and Permanent Traffic Striping and Markings	EA	1		
20	Remove and Reconstruct 4-inch Thick Concrete Sidewalk	SF	450		
21	Remove and Reconstruct 6-inch Thick Concrete Driveway Approach	SF	150		

BASE BID ITEMS CONTINUED, TABLE 5

ITEM NO.	DESCRIPTION	UNIT	QTY	UNIT PRICE IN FIGURES (\$)	AMOUNT (\$)
22	Remove Existing Concrete Sidewalk and Curb Drain and Construct New Curb Ramp at Southwest Corner of Grand Avenue and Nevada Street	LS	1		
23	Remove and Reconstruct 6-inch Concrete Curb including 2-foot Wide Asphalt Concrete Patch Adjacent to New Curb	LF	35		
24	Remove Existing Fire Hydrant Complete and Cap Hydrant Lateral including Trench Backfill, Trench Resurfacing	EA	5		
25	Remove and Dispose of Conflicting Water Main (including Water Main in State R/W)	LS	1		
26	Replace Traffic Loop Detectors	EA	10		

ALTERNATIVE BID ITEMS, TABLE 1 (Determined by the City on as-needed basis)

ITEM NO.	DESCRIPTION	UNIT	QTY	UNIT PRICE IN FIGURES (\$)	AMOUNT (\$)
27	Misc. Concrete Improvements	LS	1		15000
28	Misc. Water Improvements	LS	1		40000
29	Additional trench excavation below 66"	CF	1000		
30	Additional backfill if trench depth exceeds 66"	CF	1000		
31	Cold mill and overlay top 2" asphalt concrete per specs for full width of the project street to join final grade of resurfaced trenches including adjustment of valve and manhole covers.	SF	154,416		
32	Correct ponding issues with additional grinding and paving	LS	1		
33	Additional PG-64-10 1" hot mix asphalt overlay	SF	4000		
34	Manhole cover adjustment to grade	EA	11		
35	Valve cover adjustment to grade. See Appendix 5	EA	42		
36	Misc. utility cover adjustment to grade. See Appendix 5, Items 3 and 4.	LS	1		
37	Type II Slurry Seal for full width of the project streets. Activities will include traffic control, mechanical removal of existing striping, crack sealing, vegetation removal, and re-striping information.	SF	154,416		

ALTERNATIVE BID ITEMS, TABLE 2 (Determined by the City on as-needed basis)

ITEM NO.	DESCRIPTION	UNIT	QTY	UNIT PRICE IN FIGURES (\$)	AMOUNT (\$)
38	Remove and replace all traffic striping, pavement markings, and pavement markers. See Appendices for re-striping information.	LS	1		
39	Night work lighting or specialized equipment	LS	1		15000
40	Caltrans State Right-of-way permit requirements	LS	1		15000

TOTAL BID ITEMS 1 THROUGH 40

= \$ _____

TOTAL BID WRITTEN IN WORDS: _____

All work shall be per these specifications and attachments. Prevailing wage rates apply. The City of El Segundo reserves the right to reject any or all bids, to waive any irregularity, and to take all bids under advisement for a period of **ninety (90) calendar days**.

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**CITY OF EL SEGUNDO
WATER MAIN IMPROVEMENTS ON GRAND AVENUE
PROJECT NO.: PW 21-05**

ADDENDUM NO. 1 SUPPLEMENT

DATE: August 5, 2021

TO: All Prospective Bidders

The following clarifying information and answers to bid questions have been provided below. The information provided in this Addendum has been made available to all prospective bidders and shall be considered as incorporated into the specifications for the above-referenced project. All other portions of Contract Documents and previous Addenda not specifically mentioned in this Addendum remain in force.

A. CHANGES TO THE BID OPENING PROCEDURE:

City Hall is located at 350 Main Street, El Segundo, CA 90245. Please follow the procedure below for the Tuesday, August 10, 11:00 am bid opening:

1. Each bidder's representative is required to wear a mask and maintain a 6-foot distance when interacting with City staff and others, and when they are inside the building.
2. Instead of the City Clerk's Office, the bid opening will be held either in the City Hall Council Chambers or in the foyer in front of the Council Chambers. These areas are accessible through the double automatic doors on the Main Street side of the City Hall Building. The double doors will be unlocked and opened 15 minutes prior to the bid opening.
3. Bidders are more than welcome to submit their bid by the US postal service or other carrier service. However, the bidder is responsible for verifying their bid has been received in the City Clerk's Office prior to the bid opening. The City Hall number is 310-524-2300.
4. Bidders can also choose to submit bids in person. The City Clerk's Office will open the doors 15 minutes before the bid opening and will accept bids at that time. Please plan to be there early enough so that your bid may be received well before 11:00 am, in case there are multiple bidders there to do the same thing.
5. The City Clerk's Office will collect bid packages and record them on a log sheet. Having submitted their bid, bidders will wait outside the double doors in the quad until the bid opening.
6. Bid packages will either be opened in the Council Chambers or in the foyer. Bid amounts will be recorded on the log sheet and the log sheet will be signed by representatives from the City Clerk's Office and the Public Works Department.
7. The Public Works Department will email the bid log sheet to all planholders shortly after the bid opening.

B. BID QUESTIONS AND ANSWERS

Question 1: How much is the project cost estimate?

Answer: Base Bid estimate is \$1,077,625.

Question 2: Please explain Alternative Bid Items 26, 27, and 38.

Answer: These items are placeholders for miscellaneous concrete improvements, water improvements, or necessary night-work equipment or lighting, respectively, in or near the project area on the surrounding streets, if needed, on a time and materials basis. The specific items and costs will be discussed and agreed upon by the Contractor, City staff, and the Inspector before construction. Backup documentation needed for change orders will be required. The lump sum amount listed is a placeholder and will not necessarily be entirely used for one miscellaneous improvement or by the end of the project.

Question 3: Should the alternative items be considered in the total bid?

Answer: Yes, the costs for all alternative items should be considered in the total bid amount.

Question 4: What if we want to use other manufacturers' products for the installations?

Answer: Any change from the Appendix 4 list for the brands and models to be used shall be brought to the City's attention prior to the bid opening date for review as an approved equal, per Section II -4-1.6, page II-B-10. Unapproved products shall not be used during construction and the Contractor may be asked to remove and replace any such items at the Contractor's expense.

Question 5: How should the unusual utility covers on Illinois St. be counted? There are two rectangular covers and one circular one.

Answer: Please use the revised schedule of values blank sheet for traffic loops and utility covers. The schedule of values shall be submitted to the City at the pre-construction meeting.

Question 6: How should the odd striping on Indiana and Washington be costed out if they're not on the list?

Answer: Please use the revised blank schedule of values sheet for traffic striping. The schedule of values shall be submitted to the City at the pre-construction meeting.

Question 7: Where are the ponding areas for Alternative Bid Item 32?

Answer: See "Additional grinding and paving to resolve ponding issues" in Section III-6-2, on page III-A-28

Question 8: Where is the Hughes Way staging area?

Answer: Please see attached map. The curbside lane east of Allied Way in front of City property can be used as a staging area.

Question 9 What are the project construction hours?

Answer: On Grand Ave. the working hours shall be 9 am to 3 pm. This shall also be the case for Pacific Coast Hwy unless stated otherwise by Caltrans for their right-of-way. The Contractor shall be prepared for Caltrans and its Inspector to potentially require night work to occur on Pacific Coast Highway.

Please note, on page III-A-7, Section III-1-18, Item 3 requires lighted signboards stating construction dates and times be placed for both directions on Pacific Coast Highway and on Grand Avenue (a total of four signboards) at least two weeks prior to the Notice to Proceed date and until construction is entirely completed. The Contractor shall coordinate the locations with the Street Maintenance Supervisor, Beto Moreno, who can be reached at 310-877-0091.

Question 10: Will Caltrans-approved loops be used for the advanced loops on Kansas St.?

Answer: No. Please see attached Appendix 9, with information regarding the LACDPW traffic loops to be installed.

Question 11: Will project meetings be held in the field?

Answer: Yes. Weekly project meetings will be held in the field at location(s), days and times to be determined at the pre-construction meeting. Each week the Contractor shall provide copies of two-week look-ahead schedules for all meeting attendees.

Question 12: How much time will we have to pothole?

Answer: Potholing is to occur a minimum of three weeks prior the start of construction, so that any unforeseen pipe depths can be addressed by the designer and to allow time for additional potholing if needed.

C. SPECIFICATION ADDITION TO SECTION III-1-6, MOBILIZATION, ITEM 1

Item 1 shall be modified to add the information below:

1A. CALTRANS Permit

- Contractor shall obtain a Caltrans double permit for work in the State right-of-way
- Alternative Bid Item 40 shall be used for costs to fulfill Caltrans requirements to obtain the double permit. Please see the revised bid schedule.
- El Segundo's utility maintenance permit number is 07-20-N-UE-2897
- District 7 Permit Office Phone: 213-897-3631 and E-mail: D7.Permits@dot.ca.gov
- The Contractor shall be prepared for Caltrans to potentially require night work
- The Contractor shall encase the new water main in the State right-of-way per Caltrans requirements
- The Contractor shall follow all other requirements set by Caltrans representatives for work in the State right-of-way

1B. Public Works Encroachment Permits

- A no-fee Encroachment Permit for work in the public right-of-way shall be obtained after all other permits are obtained.
- An online Encroachment Permit application is available here: <https://www.elsegundo.org/Home/Components/FormBuilder/FormBuilder/f4aff74a23b14c1ab8e44089b845002e/268819> Please enter "PW 21-05: Water Main Improvements on Grand Ave between Center St. and Pacific Coast Hwy" in the Job Location box.
- Proof of the approved Caltrans permit, any Building permits, and any other required documents may be requested before the Encroachment Permit is issued.
- Nick Petrevski can be contacted at 310-524-2360 or npetrevski@elsegundo.org for any questions regarding the permit.

D. SPECIFICATION ADDITION TO SECTION III-1-18, TRAFFIC CONTROL, PUBLIC SAFETY AND CONVENIENCE.

Section III-1-18 shall be modified to add Items 5 and 6 and their description below:

5. LOADING AREAS

The following addresses will frequently have long trucks and other vehicles delivering to their loading areas off Grand Ave. The Contractor shall coordinate with the business owners and the school to ensure that loading access for vehicles shall remain available when needed.

- a. S & S Hardware: 1111 E. Grand Ave. (310) 322-9404
Loading is through Nevada St. north of Grand Ave.
- b. Lee Fish USA: 1310 E. Grand Ave. (310) 642-0680
Loading area is on the southwest corner of Grand Ave. at Oregon St.

- c. International Garden and Floral Design Center: 155 Pacific Coast Highway. (310) 615-0353
Loading is on south side of Grand Ave. between Illinois St. and Indiana St.
- d. El Segundo Middle School: 332 Center St. (310) 615-2690
Loading is through Nevada St. north of Grand Ave.

Any other property owners affected by the construction, even if not based on Grand Ave., shall be included in all the contractor notifications to the public.

6. PRIVATE STREET AND PROPERTY WORK

The Contractor shall recognize the west side of Washington St. north of Grand Ave., from the building wall to the street centerline is private property for 1521 Grand Ave. The Contractor shall coordinate with the property owner for any work to occur on private property.

The Contractor shall note that 1601 Grand Ave. parking along the east side of the street is perpendicular to the building. It is highly recommended that on Washington Street, No Parking notices be distributed more than 72 hours prior to construction.

The City will pursue right-of-entry agreements with the property owners which the Contractor must confirm are in place prior to any construction on private property. The Contractor shall coordinate with all property owners on whose private property they will be working, to adequately notify them beforehand and minimize inconveniences to the residents or business employees.

E. SPECIFICATION CHANGE TO SECTION III-6-1, PAGE III-A-26: CONSTRUCT WATER SERVICE CONNECTION, ETC. PER PLANS

Section III-6-1, Page III-A-26, Paragraph 2 shall be modified to read as shown below:

Construct Water Service Connection, etc. per plans

These items shall be paid at the unit price per each water meter and water meter box purchased, if applicable, and/or (re-)installed. Please note, existing water meters are to be re-installed. The contract bid price shall include compensation for furnishing all labor, materials, tools, equipment and incidental needed to pre-inspect, remove and deliver existing water meter to the City Water Yard until re-installation, provide documentation and progress reporting, re-install existing ~~new Metron~~ Water Meter and new DFW Meter Box, traffic control, testing, clean-up as described in the Special Provisions of these Specifications. Concrete improvements included in these items shall be installed from scoreline to scoreline (one sidewalk panel).

F. SPECIFICATION ADDITION TO SECTION III-6-3, CHANGE ORDER REQUESTS

Section III-6-3 shall be modified to add the paragraph below:

Change order requests without complete and organized documentation will be returned to the Contractor for re-submittal. The date the work occurred and the nature of the work must clearly be stated in the request and show detailed line item descriptions, units, and costs for labor, equipment, and materials if applicable. Receipt entries where the product is not easily identified or does not match the change order request shall result in the return of a submittal. Requests will be verified against City inspection reports, daily logs verified by the City inspector, and certified payroll reports.

G. POTENTIAL RELOCATION OF METER BOXES AT STATION 18+60 AND 18+80

The City is trying to coordinate the relocation of the proposed meter boxes at Station 18+60 and 18+80 from within the driveway approach areas 1605 E. Grand Ave. to sidewalk areas instead. The Contractor shall meet with City staff prior to any demolition for these two locations.

FROM APPENDIX 5, PAGE 2 - Revised 8/5/21

The Contractor shall provide schedule of values for these items at the pre-construction meeting.

TRAFFIC LOOP LOCATIONS AND QUANTITIES

Notes: All traffic loops damaged during the course of construction shall be removed and replaced to the satisfaction of the agency maintaining them:

Caltrans Contact: Karem Alchokhachi, karem.alchokhachi@dot.ca.gov, 213-272-8517

LACDPW Contact: Paul Etner, petner@dpw.lacounty.gov, 626-458-1709

ITEM	DESCRIPTION	UNIT	QTY	UNIT COST	TOTAL COST
1	Caltrans Eastbound traffic loops on Grand Ave. at PCH	EA	6		
2	LACDPW eastbound advance loops on Grand Ave. west of Kansas St	EA	2		
3	LACDPW westbound advance loops on Grand Ave. east of Kansas St	EA	2		

TOTAL COMBINED COST _____

ALTERNATIVE BID MANHOLE AND VAULT COVER QUANTITIES

Notes: All utility covers in the resurfaced areas shall be adjusted to grade. Contractor to verify quantities prior to bidding.

ITEM	DESCRIPTION	UNIT	QTY	UNIT COST	TOTAL COST
1	Manhole adjustment to grade	EA	11		
2	Valve cover adjustment to grade	EA	42		
3	Circular utility cover on Illinois adjustment to grade	EA	1		
4	Rectangular utility cover on Illinois adjustment to grade	EA	2		

TOTAL COMBINED COST _____

ALTERNATIVE BID STRIPING QUANTITIES

Notes: All striping shall be thermoplastic unless otherwise stated. Contractor to verify quantities prior to bidding. The Contractor shall provide striping schedule of values at pre-construction meeting. Conflicting striping shall be mechanically removed prior to re-stripe. Traffic loops on Kansas Street shall be protected in place.

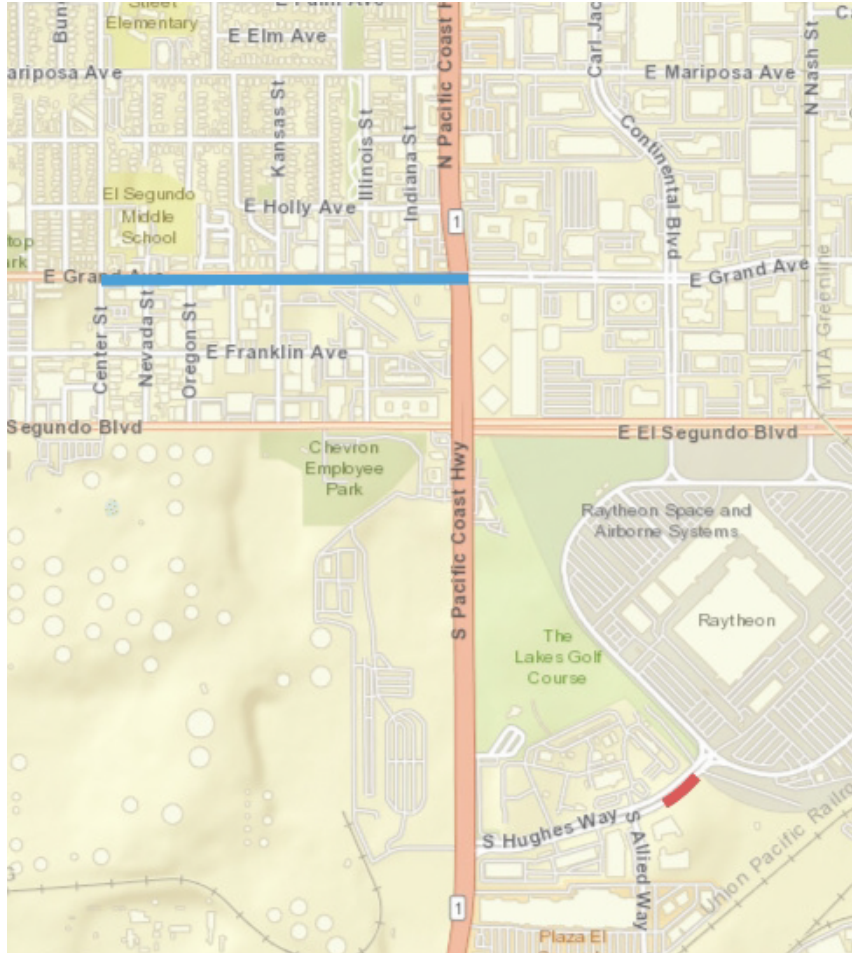
All striping listed below shall be thermoplastic striping unless otherwise stated

ITEM	DESCRIPTION	UNIT	QTY	UNIT COST	TOTAL COST
1	STOP and Limit Line	EA	12		
2	Limit Line Only	EA	4		
3	Double Solid Yellow (ft) with Yellow Pavement Markers	LF	2005		
4	Two-Way Yellow Left-Turn Lane with Yellow Pavement Markers*	LF	290		
5	Solid White Lane Line with White Pavement Markers	LF	1050		
6	Dashed White Lane Line with White Pavement Markers	LF	3460		
7	White Crosswalk	EA	3		
8	White Crosswalk w/ One Continental Stripe	EA	3		
9	Yellow Crosswalk	EA	2		
10	Yellow Diagonal Hatched Area - 4" Solid Lines on Washington St.	LS	1		
11	Left Arrow	EA	2		
12	Left/Straight Arrow	EA	2		
13	Right Arrow	EA	1		
14	Sharrow	EA	4		
15	STOP AHEAD Pavement Marking	EA	2		
16	PED XING Pavement Marking	EA	4		
17	35 Pavement Marking	EA	6		
18	Fire Hydrant Pavement Marker	EA	10		
19	Survey and re-stripe white aerial photography "X" at Grand/Illinois in same location. See Section II -4-1.6, page II-B-10.	EA	1		
20	White Diagonal Hatched Area - 4" Solid Lines on Indiana St.	LS	1		

TOTAL COMBINED COST



Hughes Way Potential Staging Area



Staging area location with reference to Project Location



Closeup of staging area location

Legend

- City Boundary
- Project Location
- Potential Staging Area, curbside lane only in front of City property



Notes

APPENDIX 9

Traffic Loop Specifications for
Grand Ave./Kansas St. Intersection

Good afternoon Floriza,

My name is Rodolfo Garduno from Los Angeles County Public Works. Hope this email finds you well and in good health!

Thank you for taking my call last Friday. To follow up with your request, attached are two plans regarding the intersection of TS1812 – Grand Ave & Kansas St. One of the attachments regards the advanced loops for the East and West approaches, while the second one is a set of clean plans for the intersection.

The County currently employs California Professional Engineering to restore the traffic signal loops across the County maintained intersections. They are familiar with the County standards. For more reference, please contact Diem Chu (diemc@cpengineeringinc.com).

Attached to this email is more information on the County standards for loop wiring and the spacing for the loops. In addition, please note that all front loops should be bicycle loops (loops with line going across). All bicycle loops should be placed six inches behind the crosswalk, regardless of traffic signal plan indication. In addition, the traffic signal loops should be connected in series and not in parallel.

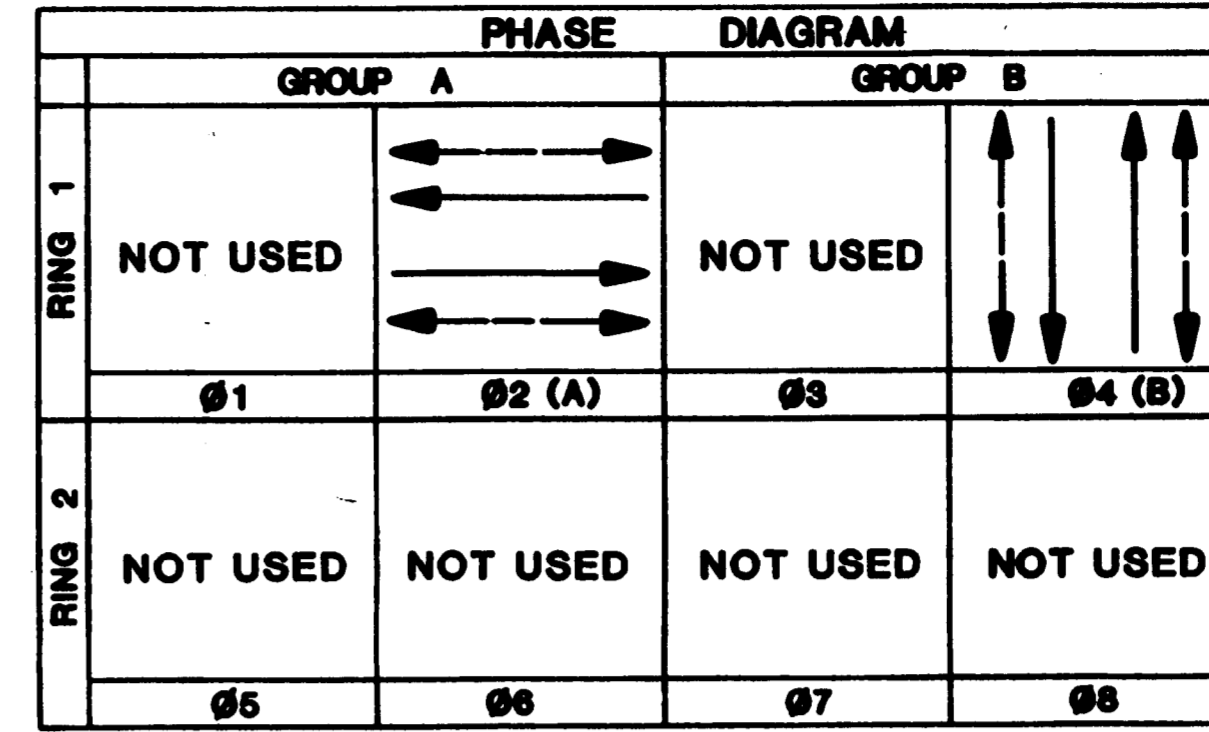
Please let me know if there are any concerns.

Thank you and be safe.

Rodolfo A. Gonzalez Garduno
Civil Engineering Assistant
Los Angeles County Public Works
(626) 458-1700, ext.1886

CONDUCTOR SCHEDULE		RUN NO.							
AWG	CIRCUIT	1	2	3	4	5	6	7	8
#14	(E) #2	3	3	3	6				
	(R) #4	3	3	3	6				
	(R) #2W	2	2	2	4				
	(R) #4W	2	2	2	4				
	#2 PPS	1	1	1	2				
	(R) #4 PPS	1	1	1	2				
	(R) #2 PPS	2	2	2	4				
(R) 1.5 LL'S	-	1	1	-					
TOTAL		14	13	13	28				
#10	(R) SIG. CONDUIT	1	1	1					
	(R) LUMINAIRE	2	2	2					
	TOTAL	3	3	3					
#8	(R) SIG. SERVICE	-	-	-	2				
	(R) #2	1	1	-	2				
TYPE C DLC	(E) #4	-	1	1	2				
CONDUIT SIZE		1/2"	1/2"	1/2"	1/2"				

* USE ONE EXISTING SPARE.
 (R) = EXISTING.
 (U) = USED.
 * PER MANUFACTURERS REQUIREMENTS.

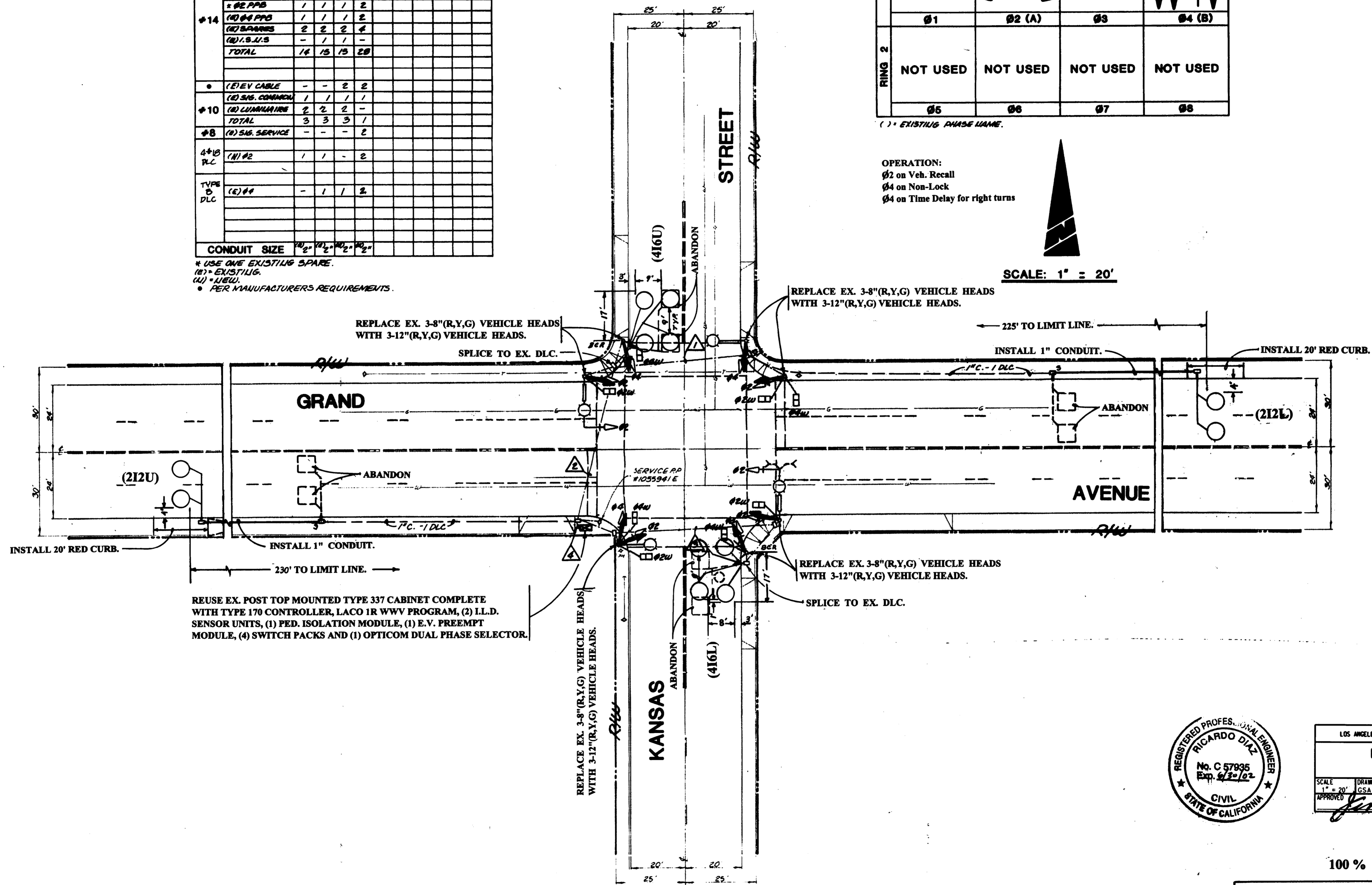


() = EXISTING PHASE NAME.

OPERATION:
 Ø2 on Veh. Recall
 Ø4 on Non-Lock
 Ø4 on Time Delay for right turns



SCALE: 1" = 20'



REUSE EX. POST TOP MOUNTED TYPE 337 CABINET COMPLETE WITH TYPE 170 CONTROLLER, LACO 1R WWV PROGRAM, (2) LL.D. SENSOR UNITS, (1) FED. ISOLATION MODULE, (1) E.V. PREEMPT MODULE, (4) SWITCH PACKS AND (1) OPTICOM DUAL PHASE SELECTOR.



LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS			
EXTRAORDINARY MAINTENANCE			
SCALE	DRAWN	REVISIONS	DATE
1" = 20'	GSA		5/17/01
APPROVED			DATE
<i>[Signature]</i>			5/17/01

100% CITY OF EL SEGUNDO

LOCATION F

LOS ANGELES COUNTY
 DEPARTMENT OF PUBLIC WORKS
 TRAFFIC AND LIGHTING DIVISION

TRAFFIC SIGNAL MODIFICATION PLAN
 GRAND AVENUE AT KANSAS STREET

REVISIONS		
NO.	DATE	BY
R1	4/24/01	GSA

Prepared By
OSI
 HENRYMAN & STEPHENSON INC.
 1115 EAST SPRINGFIELD STREET
 SANTA ANA, CALIFORNIA 92701
 714.241.1000

APPROVED: CITY OF EL SEGUNDO
 BY *[Signature]* DATE 5/17/01

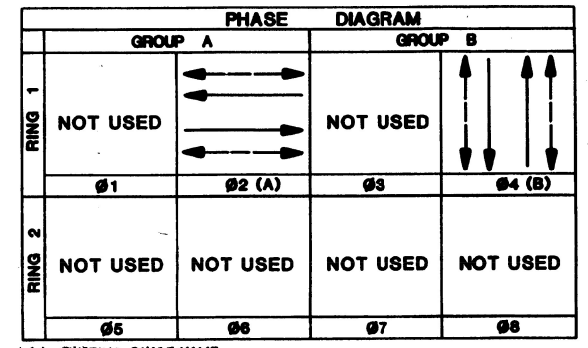
APPROVED: *[Signature]* DATE 5/17/01
 CITY ENGINEER L. S. DIAZ

SHEET 1 OF 1
 T.S. 1012 R.1

AS BUILT	
NO.	DATE

CONDUCTOR SCHEDULE		RUN NO.									
AWG	CIRCUIT	1	2	3	4	5	6	7	8	9	10
#14	(1) #2	3	3	3	3						
	(1) #4	3	3	3	3						
	(1) #6	2	2	2	2						
	(1) #8	2	2	2	2						
	(1) #10	1	1	1	1						
#10	(1) #2	2	2	2	2						
	(1) #4	2	2	2	2						
	(1) #6	3	3	3	3						
#8	(1) #2	1	1	1	1						
	(1) #4	1	1	1	1						
TOTAL		14	15	15	15	20					
CONDUIT SIZE		1 1/2"	1 1/2"	1 1/2"	1 1/2"	2"	2"	2"	2"	2"	2"

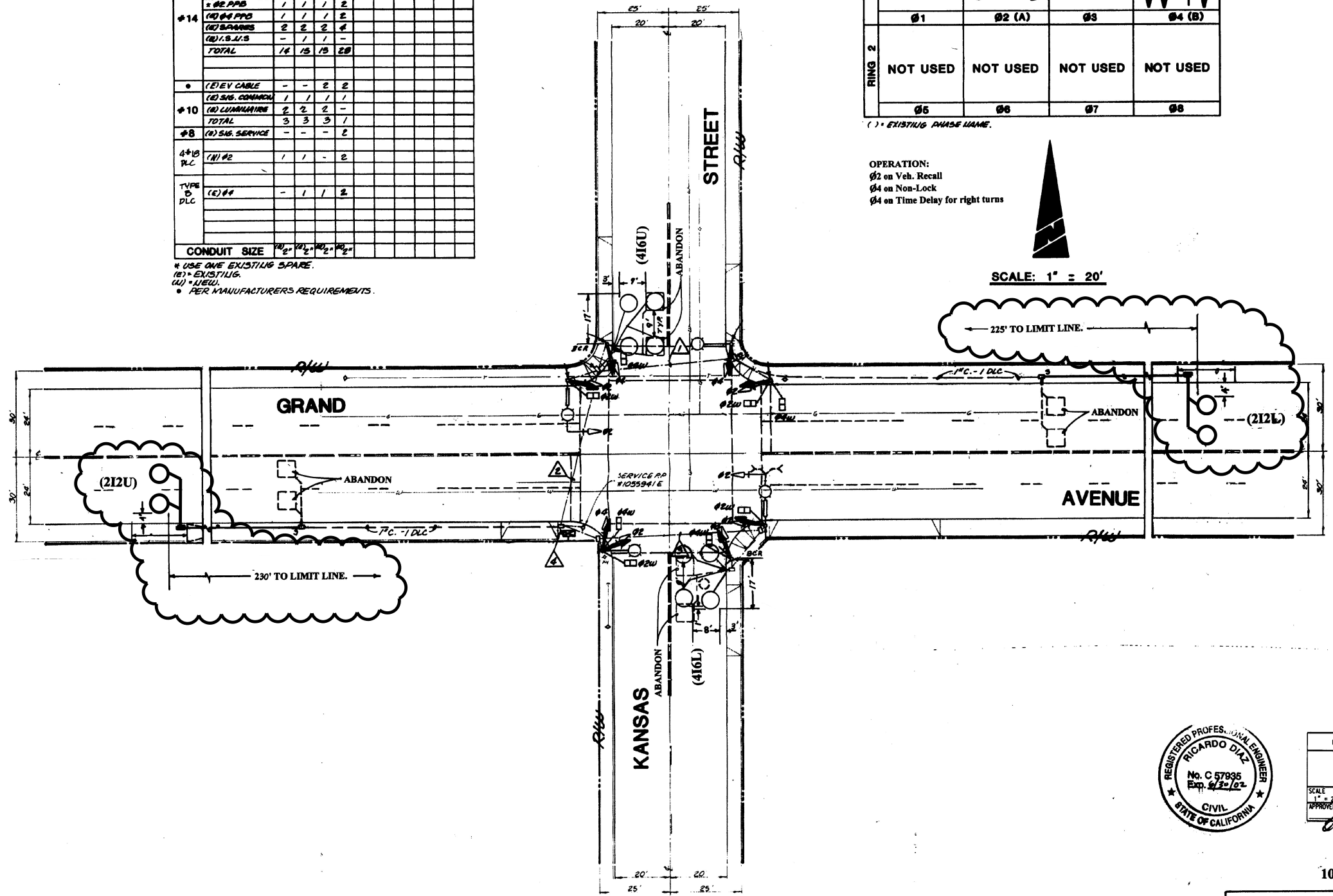
* USE ONE EXISTING SPARE.
 (1) = EXISTING
 (2) = NEW
 (3) = MANUFACTURERS REQUIREMENTS



() = EXISTING PHASE NAME

OPERATION:
 Ø2 on Veh. Recall
 Ø4 on Non-Lock
 Ø4 on Time Delay for right turns

SCALE: 1" = 20'



PROJECT NO.	AS BUILT	
	NAME	DATE
EDM R-1	CHANG	5/17/01

REVISIONS		
NO.	DATE	BY
R1	5/17/01	CSA



LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS
 EXTRAORDINARY MAINTENANCE
 SCALE: 1" = 20' DRAWN: [Signature] DATE: 5/17/01
 APPROVED: [Signature] DATE: 5/17/01

100% CITY OF EL SEGUNDO

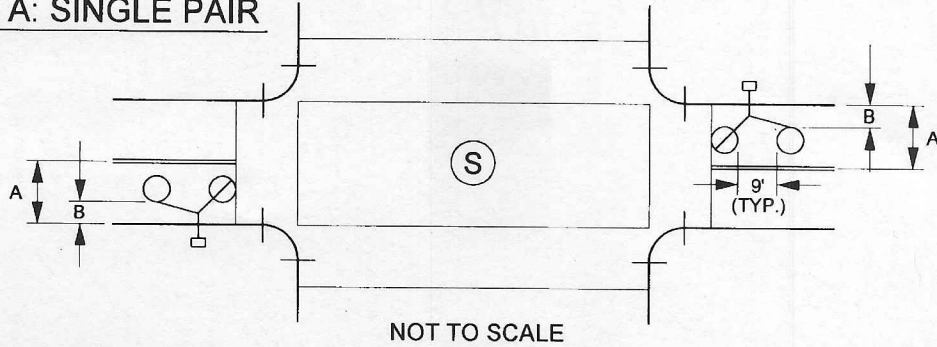
LOCATION F
 LOS ANGELES COUNTY
 DEPARTMENT OF PUBLIC WORKS
 TRAFFIC AND LIGHTING DIVISION
TRAFFIC SIGNAL MODIFICATION PLAN
GRAND AVENUE AT KANSAS STREET
 SHEET 1 OF 1
 T.S. 1812 R.1

APPROVED: CITY OF EL SEGUNDO
 BY: [Signature] DATE: 5/17/01

Prepared By: [Signature]
 R.O.E. No. 10854 / R.T.2 No. 508

BASED ON THE DISTANCE BETWEEN THE DOUBLE YELLOW CENTER LINE (DYCL) AND THE CURB FACE, 6' DIAMETER CIRCULAR INDUCTIVE LOOP DETECTORS SHOULD BE INSTALLED AS SPECIFIED IN THE TABLES BELOW FOR SINGLE LANE APPROACHES.

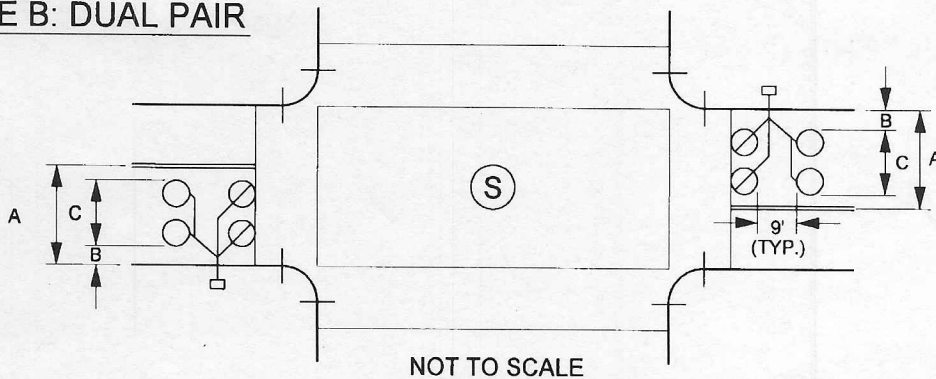
CASE A: SINGLE PAIR



DISTANCE BETWEEN DYCL AND CURB FACE (A)	NO. OF PAIRS OF LOOPS	DISTANCE BETWEEN LOOP AND CURB FACE (B)
10'	1	3'
11'	1	3'
12'	1	3'
13'	1	4'
14'	1	5'

DISTANCE BETWEEN DYCL AND CURB FACE (A)	NO. OF PAIRS OF LOOPS	DISTANCE BETWEEN LOOP AND CURB FACE (B)
15'	1	6'
16'	1	6'
17'	1	7'
18'	1	8'
19'	1	8'

CASE B: DUAL PAIR

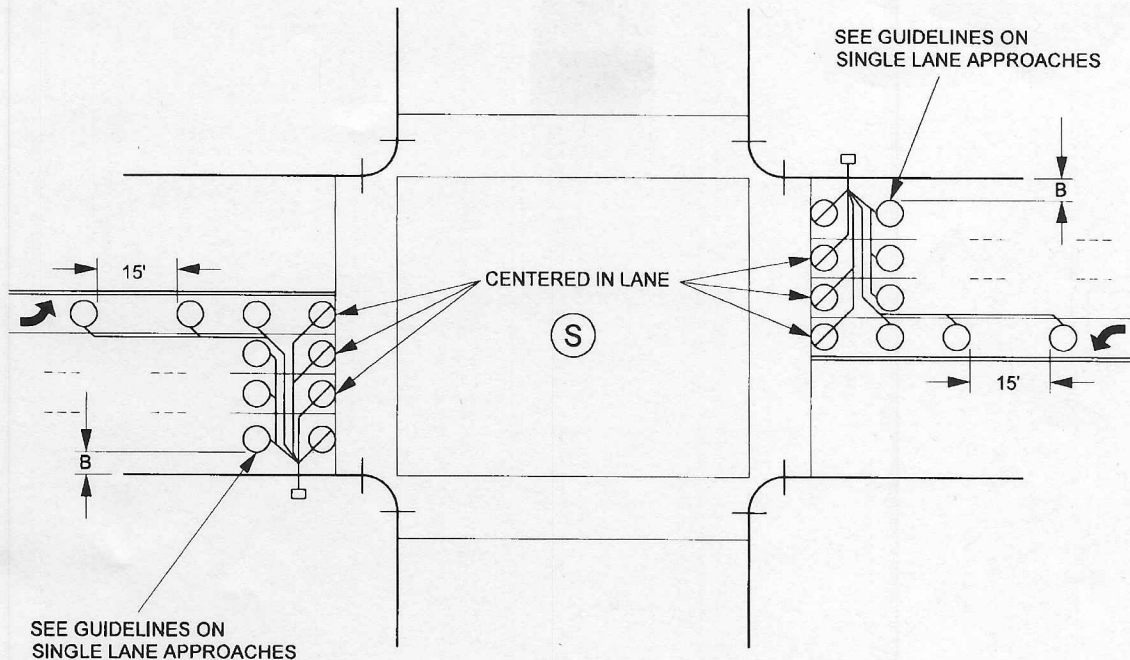


DISTANCE BETWEEN DYCL AND CURB FACE (A)	NO. OF PAIRS OF LOOPS	DISTANCE BETWEEN LOOP AND CURB FACE (B)	DISTANCE BETWEEN LOOPS (C)
20'	2	3'	15'
21'	2	3'	15'
22'	2	3'	16'
23'	2	3'	16'
24'	2	4'	16'
25'	2	5'	16'

SINGLE LANE APPROACHES

LIMIT LINE LOOP DETECTOR PLACEMENT

SINGLE LANE APPROACHES



MULTI-LANE APPROACHES
NOT TO SCALE

NOTES:

1. ALL LOOPS ARE 6' X 6' WITH 9' SEPARATION, UNLESS OTHERWISE NOTED.
2. THE LOOP DETECTORS ADJACENT TO THE LIMIT LINE SHALL BE BICYCLE DETECTORS

LIMIT LINE LOOP DETECTOR PLACEMENT

MULTI-LANE APPROACHES

SHEET 2 OF 2

