

**TRAFFIC ENGINEERING STAFF REPORT**

**Agenda Item 4.a. Red Curb – West Street at Wilken Way, March 2, 2010**

OBJECTIVE

To consider staff's proposal to paint red curb on West Street at Wilken Way to facilitate the installation of a traffic signal.

BACKGROUND

The City of Garden Grove has received a Safe Routes To School grant of \$254,000 from the State of California to design and install a traffic signal at West Street and Wilken Way. This intersection is rated number one on the City's Traffic Signal Priority List.

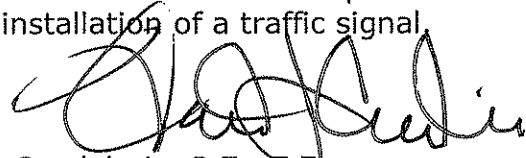
DISCUSSION

The proposed traffic signal design will incorporate left turn lanes on West Street at the intersection. This will allow for protected-permissive left turn phasing that will improve traffic safety and reduce delay.

To facilitate the left turn lanes, the through lanes on West Street need to be pushed closer to the street curbs necessitating the removal of on-street parking. The attached striping plan calls for red curb to be painted alongside eleven residential properties. Six of the eleven properties, however, abut side streets that intersect West Street and have available on-street parking. The remaining five properties have driveways that can accommodate two or more parked vehicles.

RECOMMENDATION

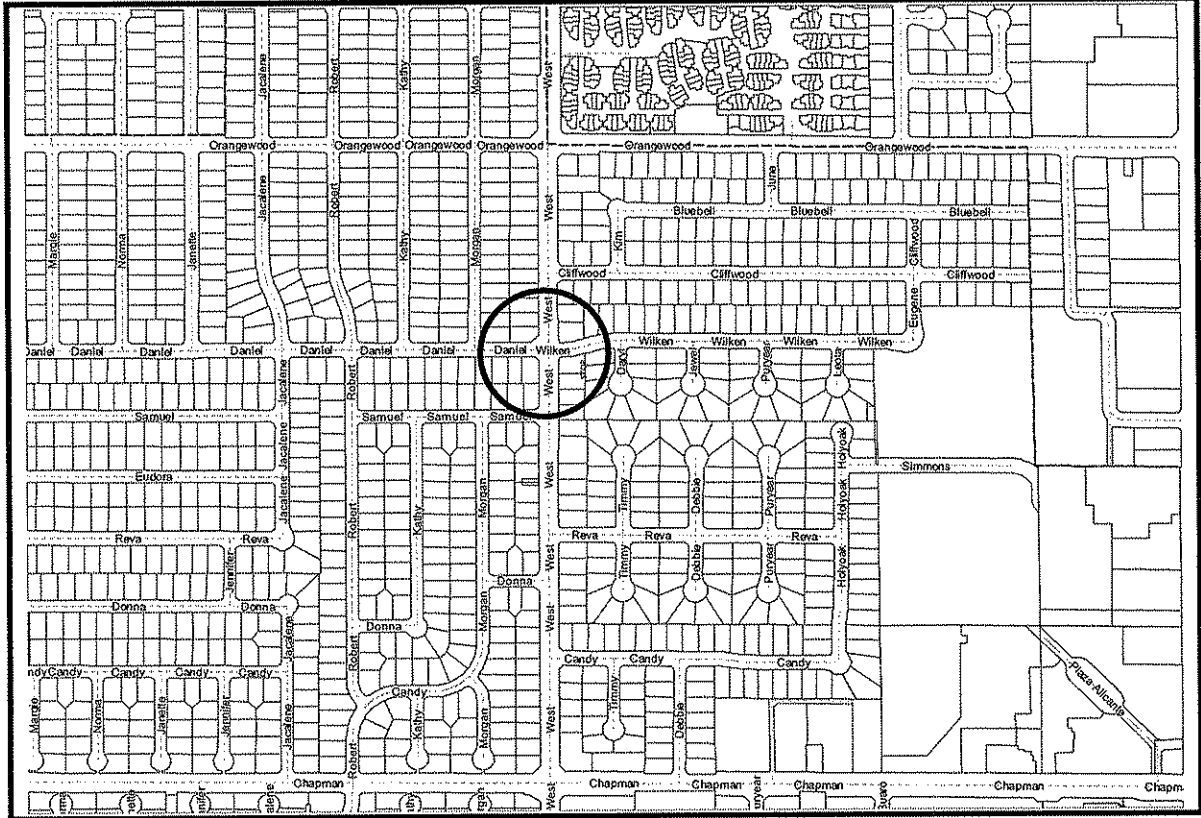
It is recommended that the Traffic Commission receive public input and approve staff's recommendation to paint red curb on West Street at Wilken Way to facilitate the installation of a traffic signal.



Dan Candelaria, P.E., T.E.  
Executive Secretary

Attachments: Vicinity Map  
Striping Plan  
Traffic Signal Plan

# LOCATION MAP

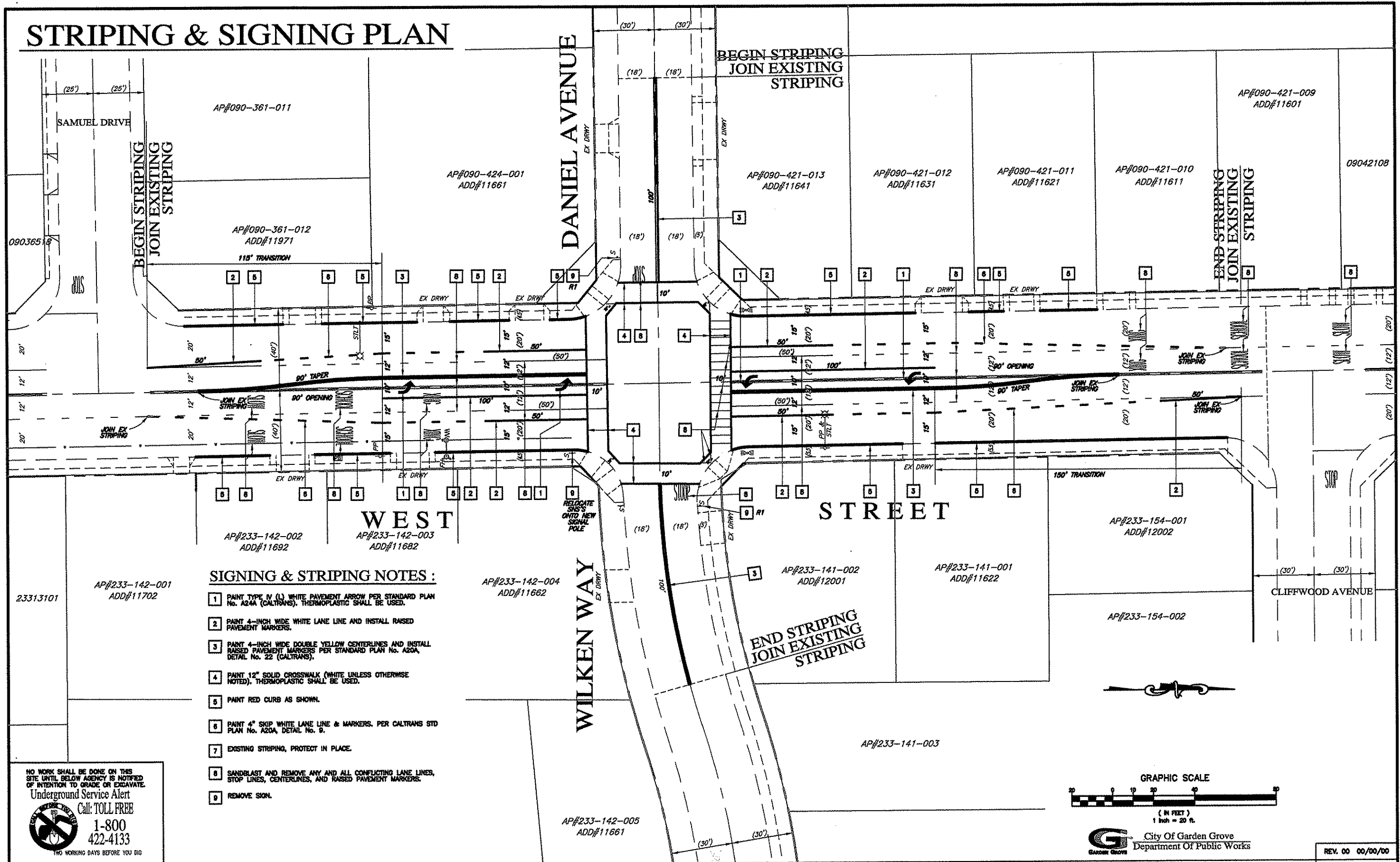


## Agenda Item 4.a



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# STRIPING & SIGNING PLAN

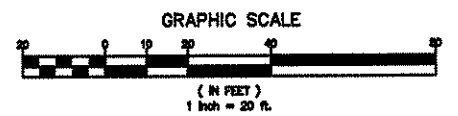


### SIGNING & STRIPING NOTES :

- 1 PAINT TYPE IV (L) WHITE PAVEMENT ARROW PER STANDARD PLAN No. A24A (CALTRANS), THERMOPLASTIC SHALL BE USED.
- 2 PAINT 4-INCH WIDE WHITE LANE LINE AND INSTALL RAISED PAVEMENT MARKERS.
- 3 PAINT 4-INCH WIDE DOUBLE YELLOW CENTERLINES AND INSTALL RAISED PAVEMENT MARKERS PER STANDARD PLAN No. A20A, DETAIL No. 22 (CALTRANS).
- 4 PAINT 12" SOLID CROSSWALK (WHITE UNLESS OTHERWISE NOTED). THERMOPLASTIC SHALL BE USED.
- 5 PAINT RED CURB AS SHOWN.
- 6 PAINT 4" SKIP WHITE LANE LINE & MARKERS. PER CALTRANS STD PLAN No. A20A, DETAIL No. 9.
- 7 EXISTING STRIPING, PROTECT IN PLACE.
- 8 SANDBLAST AND REMOVE ANY AND ALL CONFLICTING LANE LINES, STOP LINES, CENTERLINES, AND RAISED PAVEMENT MARKERS.
- 9 REMOVE SIGN.

NO WORK SHALL BE DONE ON THIS SITE UNTIL BELOW AGENCY IS NOTIFIED OF INTENTION TO GRADE OR EXCAVATE.

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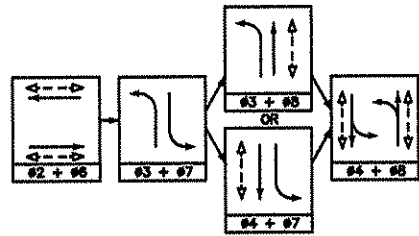
City Of Garden Grove  
Department Of Public Works

DESIGNED BY: DC	DRAWN BY: MCB	CHECKED BY: DC	TRAFFIC ENGR. RTE 1881	SUBMITTED	APPROVED
PLANS PREPARED UNDER SUPERVISION OF: DAN J. CANDELARIA DATE: RCE NO. 52125			STREET SERV. MGR.	BY: S.C.E. 00303 CITY ENGINEER	BY: PUBLIC WORKS DIRECTOR
REFERENCE PLANS FOR THESE IMPROVEMENTS			WATER SERV. MGR.	TRAFFIC SIGNAL INSTALLATION PLAN	
DATE BY DESCRIPTION APPD			R/W AGENT	WEST STREET & WILKEN WAY	
				DRAWING NUMBER T-891 S-XXX SHEET 2 OF 2	

**GENERAL NOTES**

- ALL WORK, MATERIAL AND EQUIPMENT SHALL CONFORM TO THE REQUIREMENTS OF THE STATE OF CALIF., DEPT. OF TRANSPORTATION STANDARD PLANS AND STANDARD SPECIFICATIONS, DATED MAY 2006 AND THE SPECIAL PROVISIONS FOR THE PROJECT.
- UTILITIES SHOWN ON THESE PLANS ARE CORRECT AND ACCURATE TO THE EXTENT OF AVAILABLE RECORDS AND KNOWLEDGE. THE CONTRACTOR, HOWEVER, IS REQUIRED TO ASCERTAIN THE EXACT LOCATION OF UNDERGROUND FACILITIES PRIOR TO DOING WORK THAT MAY DAMAGE SUCH FACILITIES OR INTERFERE WITH THEIR SERVICE.
- THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND NOTIFY ALL UTILITY COMPANIES A MINIMUM OF 48 HOURS PRIOR TO START OF CONSTRUCTION. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE ALL PHASES OF CONSTRUCTION WITH THE VARIOUS UTILITY COMPANIES INVOLVED.
- FLASHING INDICATION SHALL FLASH RED ON ALL PHASES.
- THE CONTRACTOR SHALL CONTACT THE CITY TRAFFIC ENGINEER AT (714) 741-8188, A MINIMUM OF 48 HOURS BEFORE COMMENCING WORK.
- ALL NEW VEHICLE HEADS SHALL HAVE 12" SECTIONS. ALL LEFT TURN INDICATIONS SHALL BE ARROWS, ALL RED, GREEN, AND YELLOW INDICATIONS INCLUDING ARROWS SHALL BE I.T.E. APPROVED L.E.D.
- ALL EXISTING EQUIPMENT TO BE PROTECTED IN PLACE UNLESS OTHERWISE NOTED.
- ALL NEW POLE LOCATIONS SHALL BE APPROVED BY THE ENGINEER.
- ANTI-SEIZE COMPOUND SHALL BE APPLIED TO ALL PUSH BUTTONS AND TERMINAL COMPARTMENT SCREWS.
- ALL EXISTING UNDERGROUND CONDUIT TO BE INCORPORATED INTO THE NEW SYSTEM SHALL BE CLEANED PER THE STANDARD SPECIFICATIONS AND NEW CABLES AND/OR CONDUCTORS SHALL BE SUPPLIED INTO THE EXISTING CONDUIT RUNS.
- NORMAL OPERATION OF THE TRAFFIC SIGNAL SHALL BE MAINTAINED AT ALL TIMES. PROVIDE TEMPORARY SIGNAL POLES AND OVERHEAD WIRING AS REQUIRED. TEMPORARY SHUTDOWN FOR REWIRING WILL BE REQUESTED 24 HOURS IN ADVANCE.

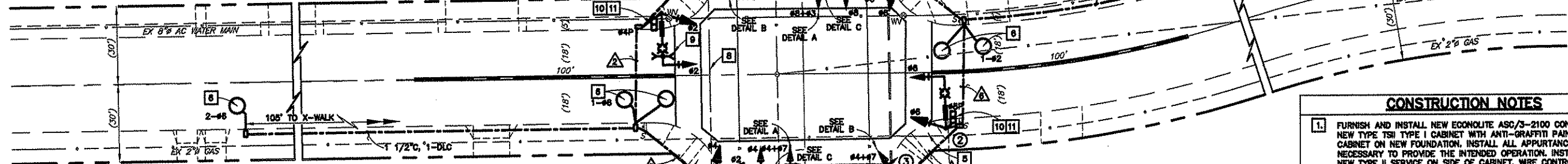
**PHASE-FUNCTION-SEQUENCE DIAGRAM**



NOTE: (#4 AND #8) MUST ALWAYS TERMINATE SIMULTANEOUSLY TO AVOID PERMISSIVE LEFT TURN TRAP SITUATION.

POLE DATA STANDARD		HPVY LUMINAIRE		L.S.N.S. LEGEND		SERIAL MOUNTING		PULL BOX BOTTOM		REMARKS		
NO.	TYPE	HIGHT	NO. M.A.	LET. M.A.	LEGEND	VEHICLE	PED.	POLE QUAD	PHASE			
1	18-4-100	30'	30'	12'	200W	Wilson --	MAS-SA/MAS	SV-1-T	SP-1-T	S	2	ARROW TO BE REVERSED ON OTHER SIDE
2	17-2-100	30'	20'	12'	200W	West	MAS-SA	SV-1-T	SP-1-T	W	8	
3	1-A	10'	-	-	-	-	-	TV-1-T	SP-1-T	N	8	
4	18-4-100	30'	30'	12'	200W	Daniel --	MAS-SA/MAS	SV-1-T	SP-1-T	N	8	ARROW TO BE REVERSED ON OTHER SIDE
5	17-2-100	30'	20'	12'	200W	West	MAS-SA	SV-1-T	SP-1-T	E	4	
6	1-A	10'	-	-	-	-	-	TV-1-T	SP-1-T	S	2	

NOTE: ALL EQUIPMENT SHALL BE NEW. L.S.N.S. MUST BE DOUBLE-FACED WITH WHITE LETTERING ON BLUE BACKGROUND.



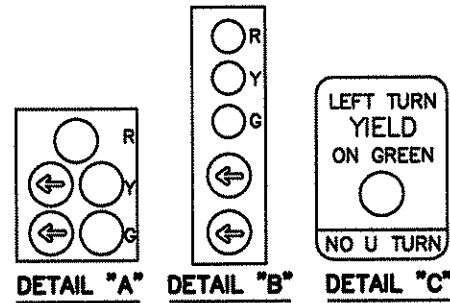
DANIEL AVENUE

WILKEN WAY

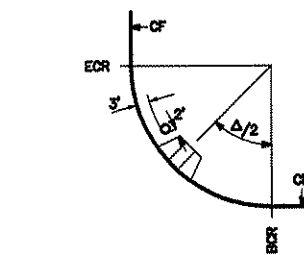
WEST STREET

CONDUCTOR SCHEDULE		RUN No.													
AWG	POLE	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1/2c	① #3/#8/#2P/2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1/2c	② #1/#6/#8P/8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1/2c	③ #4/#7/#6P/8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1/2c	④ #2/#5/#4P/4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1/2c	⑤ #3/#8/#2P/2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	TOTAL	1	1	1	1	1	1	1	1	1	1	1	1	1	1
#12	L.S.N.S.	2	2	2	2	2	2	2	2	2	2	2	2	2	2
#10	LUMINAIRE	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	#1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	#2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	#3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	#4	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	#5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	#6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	#7	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	#8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	TOTAL (DLC)	4	4	7	7	7	7	7	7	7	7	7	7	7	7
	EVP CABLES	-	1	1	1	1	1	1	1	1	1	1	1	1	1
	CONDUIT SIZE	2"	3"	3"	3"	2"	3"	3"	3"	2-3"	2-3"	2-3"	2-3"	2-3"	2-3"

ALL NEW CABLES/CONDUCTORS AND CONDUITS



INSTALL MODIFIED R10-12 SIGN 24" x 30"



**POLE LOCATION DETAIL**

\* NOTE POLE # 5 DOESN'T CONFORM TO THE DETAIL IN ORDER TO AVOID EXISTING WATER LINE.

**CONSTRUCTION NOTES**

- FURNISH AND INSTALL NEW ECONOLITE ASD/3-2100 CONTROLLER IN NEW TYPE TSI TYPE I CABINET WITH ANTI-GRAFFITI PAINT ON CABINET ON NEW FOUNDATION. INSTALL ALL APPURTANCES NECESSARY TO PROVIDE THE INTENDED OPERATION. INSTALL NEW TYPE II SERVICE ON SIDE OF CABINET. WIRE CONTROLLER FOR B-PHASE OPERATION AND SERVICE POINT TO BE POWER POLE No. 1679565E.
- FURNISH AND INSTALL TYPE II SERVICE.
- INSTALL 3" C AND INTERCEPT EXISTING S.I.C. AND SPLICE IT AT CONTROLLER. A NEW CABLE MAY BE REQUIRED TO BE PULLED TO THE NEAREST INTERSECTION SHOULD EXISTING CABLE NOT HAVE ENOUGH LENGTH TO REACH THE INTERCONNECTED SIGNAL. S.I.C. SHALL NOT BE SPLICED AT PULLBOX.
- EXISTING TYPE SCE-1 SERVICE. INSTALL TYPE H RISER AND 3" C (CONDUCTORS BY SCE).
- EXISTING WHEELCHAIR RAMP. PROTECT IN PLACE.
- INSTALL 18 NEW TYPE "E" LOOPS.
- INSTALL 2 NEW 6' x 50' TYPE "C" QUADRAPOLE LOOPS.
- GAS LINE TO BE RELOCATED BY OTHERS.
- INSTALL EVP SYSTEM AS STATED IN THE SPECIAL PROVISIONS.
- ALL PEDESTRIAN SIGNALS SHALL BE I.T.E. APPROVED L.E.D. WITH SOLID FILLED INTERNATIONAL SYMBOL AND SHALL BE PEDESTRIAN COUNTDOWN SIGNAL PER SPECIAL PROVISIONS. THE PEDESTRIAN COUNTDOWN SIGNAL SHALL BE 16"x16" INCANDESCENT LOOK.
- ALL PEDESTRIAN PUSH BUTTONS SHALL BE FORTEL TYPE "BUMBLE BEE" ROUND C (SERIAL No. 10802118).
- ALL NEW PULL BOXES SHALL BE No. 8 UNLESS OTHERWISE NOTED.
- ALL NEW CONDUIT RUNS SHALL BE 3" RIGID METAL UNLESS OTHERWISE NOTED.
- ALL EXISTING CONDUITS NOT TO BE RE-USED.
- ALL EXISTING TRAFFIC SIGNAL PULLBOXES NOT TO BE RE-USED.
- REMOVE EXISTING POLE AND ALL EQUIPMENT COMPLETE AND DELIVER TO CITY YARD. REMOVE FOUNDATION COMPLETE AND REPAIR SIDEWALK TO THE SATISFACTION OF THE TRAFFIC ENGINEER.

NO WORK SHALL BE DONE ON THIS SITE UNTIL BELOW AGENCY IS NOTIFIED OF INTENTION TO GRADE OR EXCAVATE.

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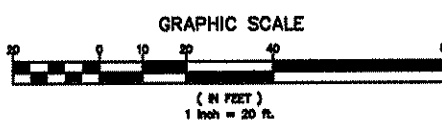
BENCH MARK:	DESIGNED BY: DC	DRAWN BY: MCB	CHECKED BY: DC
	PLANS PREPARED UNDER SUPERVISION OF: DAN J. CANDELARIA		
	DATE:	RCE NO. 52125	

TRAFFIC ENGR. RTE 1851	SUBMITTED	APPROVED
STREET SERV. MGR.	BY	BY
WATER SERV. MGR.	R.C.E. 0033	PUBLIC WORKS DIRECTOR
R/W AGENT	CITY ENGINEER	

REFERENCE PLANS FOR THESE IMPROVEMENTS	DATE BY	DESCRIPTION	APP'D

TRAFFIC ENGR. RTE 1851	SUBMITTED	APPROVED
STREET SERV. MGR.	BY	BY
WATER SERV. MGR.	R.C.E. 0033	PUBLIC WORKS DIRECTOR
R/W AGENT	CITY ENGINEER	

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R/W AGENT	CITY ENGINEER	



City Of Garden Grove  
Department Of Public Works

**TRAFFIC SIGNAL INSTALLATION PLAN**  
**WEST STREET & WILKEN WAY**

REV. 00 00/00/00

DRAWING NUMBER  
**T-891**  
SHEET 1 OF 1