

ORANGE COUNTY  
PUBLIC FACILITIES & RESOURCES DEPARTMENT

SANTA ANA, CALIFORNIA

JOHN W. SIBLEY, DIRECTOR

# PLANS FOR CONSTRUCTION OF A TRAFFIC SIGNAL AT

# OSO PARKWAY

AND

# BRIDLE PATH

DECEMBER 1997

FUNDED BY: COUNTY OF ORANGE & DEVELOPER  
(LENNAR HOMES OF CALIFORNIA)

ENCROACHMENT PERMIT No. :



RECOMMENDED:

TRAFFIC ENGINEER  
I. G. OCHOA

RCE 35217 (12-30-99)  
RTE 1183 (12-31-99)

 $12/n|9$ 

DATE \_\_\_\_\_

APPROVED:

DEPUTY DIRECTOR /CHIEF ENGINEER  
W. L. ZAUN

DATE \_\_\_\_\_

<u>INDEX OF SHEETS</u>	
SHEET	DESCRIPTION
1	TITLE SHEET
2	SIGNAL PLAN
3	DETOUR PLAN
4	DETAIL SHEET

UTILITY	OWNER	CONTACT	PHONE NO.
COX COMMUNICATIONS		MICKEY MILLER	(714)240-8828
PACIFIC BELL		JACKIE SHELLEY	(714)666-5749
THE GAS CO.		BOB WARTH	(714)634-3119
S.D.G.&E.		PATTI GOOD	(714)361-8047
SANTA MARGARITA WATER DISTRICT		DIA BADIR	(714)459-6514
USA			1-800-422-4133

[illegible]

W. O. NO. ER03088

SHEET 1 OF 4

CONSTRUCTION NOTES:

- CONSTRUCT P.C. CONCRETE TYPE "P"(38" OUTSIDE FLANGE) CONTROLLER CABINET FOUNDATION WITH NEW ANCHOR BOLTS.
- INSTALL COUNTY PROVIDED TRAFFIC CONTROLLER ASSEMBLY. FACE CABINET DOOR TOWARDS OSO PARKWAY.
- FURNISH & INSTALL A TYPE III-B ELECTRICAL SERVICE AND FOUNDATION.
- FURNISH & INSTALL 2" CONDUIT, AND PULL ROPE TO ELECTRICAL SERVICE POINT.
- FURNISH & INSTALL EVP CABLE FROM END OF MASTARM TO CONTROLLER CABINET AND COIL 10' OF CABLE INSIDE CONTROLLER CABINET.
- FURNISH & INSTALL 2" CONDUIT AND/OR #5 PULL BOX (UNLESS OTHERWISE NOTED).
- FURNISH AND INSTALL DETECTOR LOOPS AS SHOWN PER GENERAL NOTES SHEET 3.
- INSTALL COUNTY PROVIDED SIGN AS INDICATED. CONTRACTOR TO PROVIDE NEW MOUNTING HARDWARE.
- REMOVE & SALVAGE THE EXISTING SIGN AS INDICATED.
- FURNISH & INSTALL CONDUCTORS AS INDICATED.
- SANDBLAST & REMOVE CONFLICTING STRIPING, STENCIL (IN BLOCK FORM) AND MARKERS AS SHOWN.
- PAINT 4" SOLID WHITE (PER DETAIL 9).
- PAINT 12" SOLID YELLOW.
- PAINT 4" DOUBLE YELLOW (PER DETAIL 22 OR 29).
- CONSTRUCT CURB RAMP CASE "C" PER APWA STD. PLAN 111-1 (W=8').
- FURNISH & INSTALL LUMINAIRE AND LAMP.
- FURNISH & INSTALL CANTILEVER ARM FOR REFLECTORIZED STREET NAME SIGN, MOUNT @ 18'.
- STENCIL AS SHOWN.
- FURNISH & INSTALL PEDESTRIAN PUSH BUTTONS AND PLATES PER JULY 1995 CALTRANS SPECIFICATIONS

POLE SCHEDULE

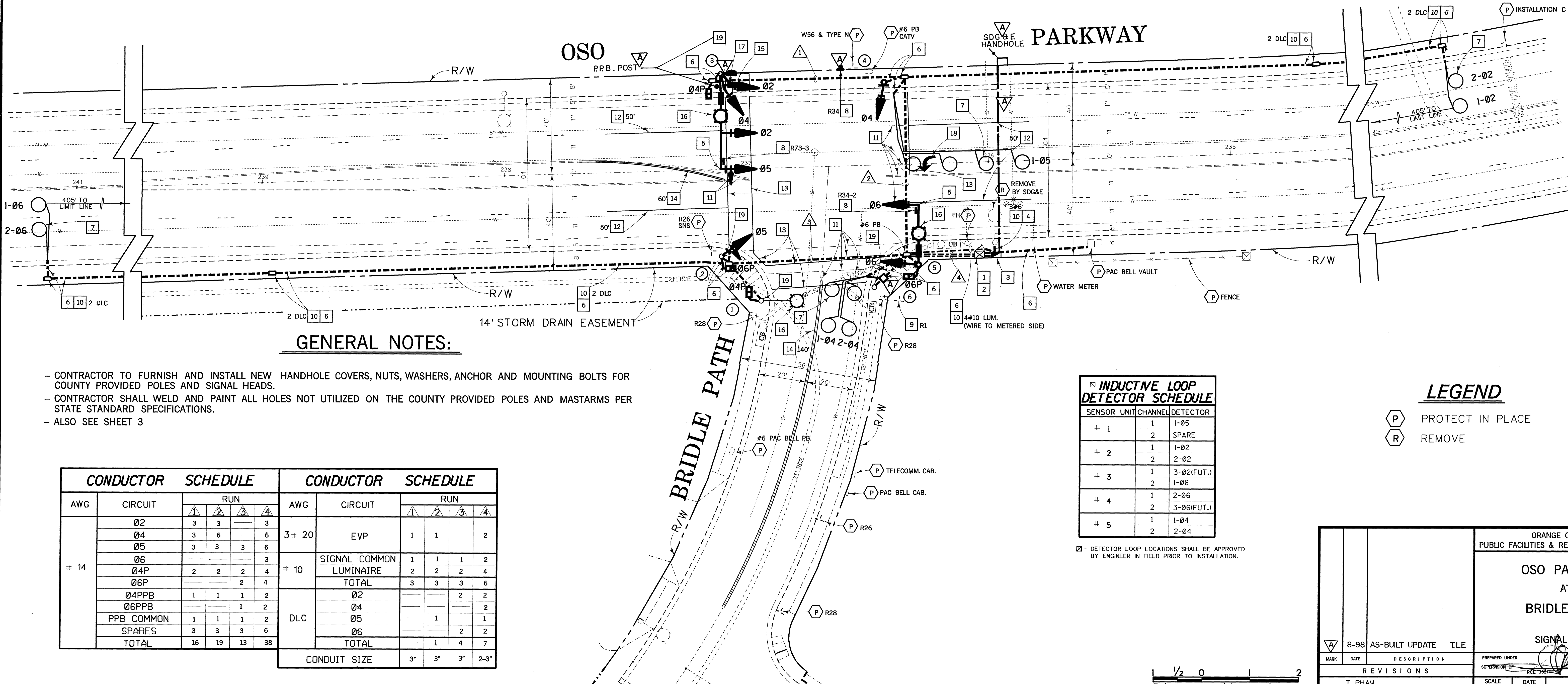
POLE DATA			SIGNAL		H.P.S.V. LUMINAIRE		SIGNAL MOUNTING		PED. PUSH BUTTON		FOUNDATION		REFLECTORIZED STREET NAME SIGN (DOUBLE FACE)
NO.	TYPE	HEIGHT	M.A.	M.A.	WATTS	VEH.	M.A.	PED.	PHASE	POLE QUAD	TYPE	SIZE	
1	TYPE 15	30'		12'	200			SP-1-T	2	W	C	2'-6" x 5'-0"	Oso Pkwy.
2	1A	10'				TV-1		SP-1-T	4	N	S	2'-0" x 3'-0"	
3	24-4-70	30'	35'	15'	200	SV-2-TA	2 MAS	SP-1-T	4	N	C	2'-6" x 8'-0"	Bridle Path
4	1A	10'				TV-1					S	2'-0" x 3'-0"	
5	19-2-70	30'	25'	15'	200	SV-1-T	1 MAS	SP-1-T			C	2'-6" x 6'-0"	Bridle Path
6	PPB POLE	4'-6"							2	W	S	1'-6" x 1'-6"	

- EXACT POLE LOCATIONS DETERMINED BY ENGINEER IN THE FIELD.    • = PROVIDED BY COUNTY    C = C.I.D.H.  
- CONTRACTOR TO POTHOLE ALL POLE FOUNDATION LOCATIONS.  
- CONTRACTOR TO VERIFY ALL POLE AND CABINET BOLT PATTERNS PRIOR TO FORMING FOUNDATIONS.    S = SQUARE.  
- SEE GENERAL NOTES SHEET 3.

PHASE

DIAGRAM

VEHICULAR & PEDESTRIAN MOVEMENTS	←	↑	↶	→
NEMA PHASE	02	04	05	06
COORDINATION FUNCTION	x	x	x	
* DETERMINED BY MASTER COMPUTER DURING COORDINATED OPERATION.				
SEQUENCE WITH CALLS ON ALL PHASES.				



GENERAL NOTES:

- CONTRACTOR TO FURNISH AND INSTALL NEW HANDHOLE COVERS, NUTS, WASHERS, ANCHOR AND MOUNTING BOLTS FOR COUNTY PROVIDED POLES AND SIGNAL HEADS.
- CONTRACTOR SHALL WELD AND PAINT ALL HOLES NOT UTILIZED ON THE COUNTY PROVIDED POLES AND MASTARMS PER STATE STANDARD SPECIFICATIONS.
- ALSO SEE SHEET 3

CONDUCTOR		SCHEDULE				CONDUCTOR		SCHEDULE				
AWG	CIRCUIT	RUN				AWG	CIRCUIT	RUN				
		1	2	3	4			1	2	3	4	
# 14	02	3	3	—	3	3# 20	EVP	1	1	—	2	
	04	3	6	—	6							
	05	3	3	3	6							
	06	—	—	—	3	# 10	SIGNAL COMMON LUMINAIRE	1	1	1	2	
	04P	2	2	2	4				2	2	2	4
	06P	—	—	2	4				3	3	3	6
	04PPB	1	1	1	2		DLC	02	—	—	2	2
	06PPB	—	—	1	2			04	—	—	—	2
	PPB COMMON	1	1	1	2			05	—	1	—	1
	SPARES	3	3	3	6	06		—	—	2	2	
TOTAL	16	19	13	38		TOTAL	—	1	4	7		
						CONDUIT SIZE		3"	3"	3"	2-3"	

INDUCTIVE LOOP DETECTOR SCHEDULE		
SENSOR UNIT	CHANNEL	DETECTOR
# 1	1	1-05
	2	SPARE
# 2	1	1-02
	2	2-02
# 3	1	3-02(FUT.)
	2	1-06
# 4	1	2-06
	2	3-06(FUT.)
# 5	1	1-04
	2	2-04

☒ - DETECTOR LOOP LOCATIONS SHALL BE APPROVED BY ENGINEER IN FIELD PRIOR TO INSTALLATION.

LEGEND

- (P) PROTECT IN PLACE  
(R) REMOVE

ORANGE COUNTY PUBLIC FACILITIES & RESOURCES DEPARTMENT	
OSO PARKWAY AT BRIDLE PATH	
SIGNAL PLAN	
6-98 AS-BUILT UPDATE TLE	PREPARED UNDER SUPERVISION OF DATE
MARK DATE DESCRIPTION	SCALE AS SHOWN
DESIGNED T. PHAM	DATE DEC. 97
DRAWN T. PHAM	CHECKED L. ABAD
W.O. NO. ER03088	SHEET 2 OF 4

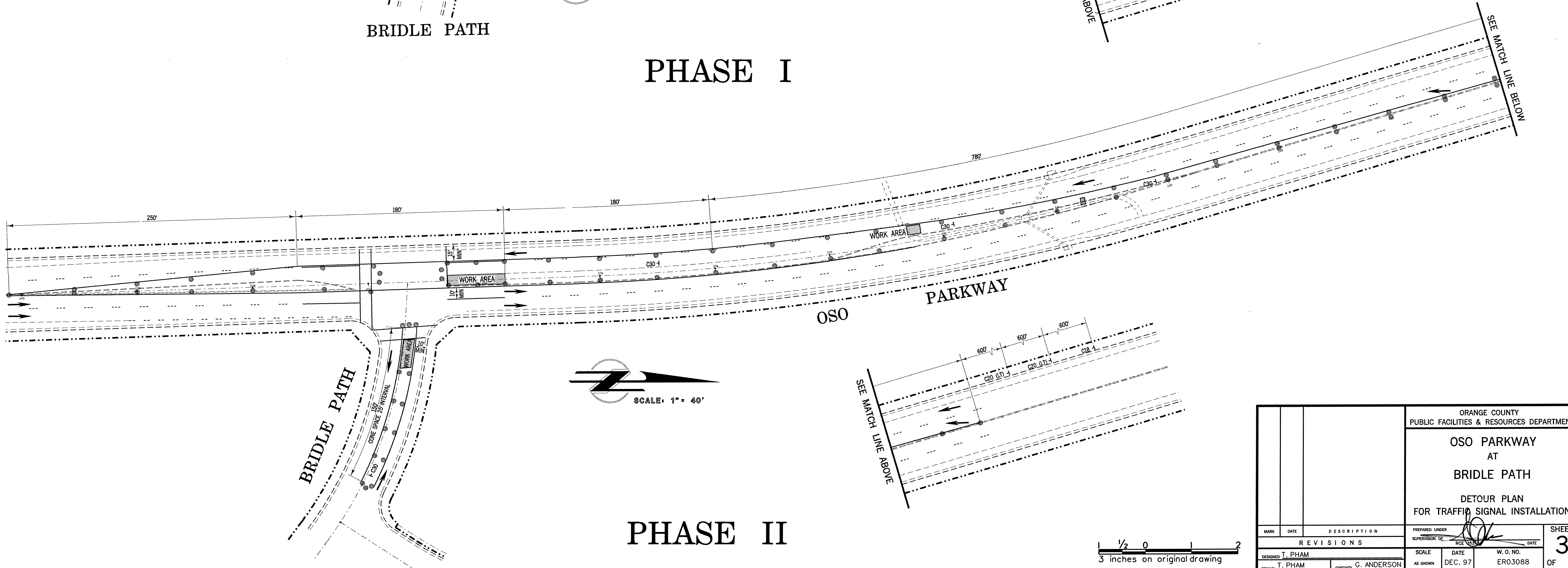
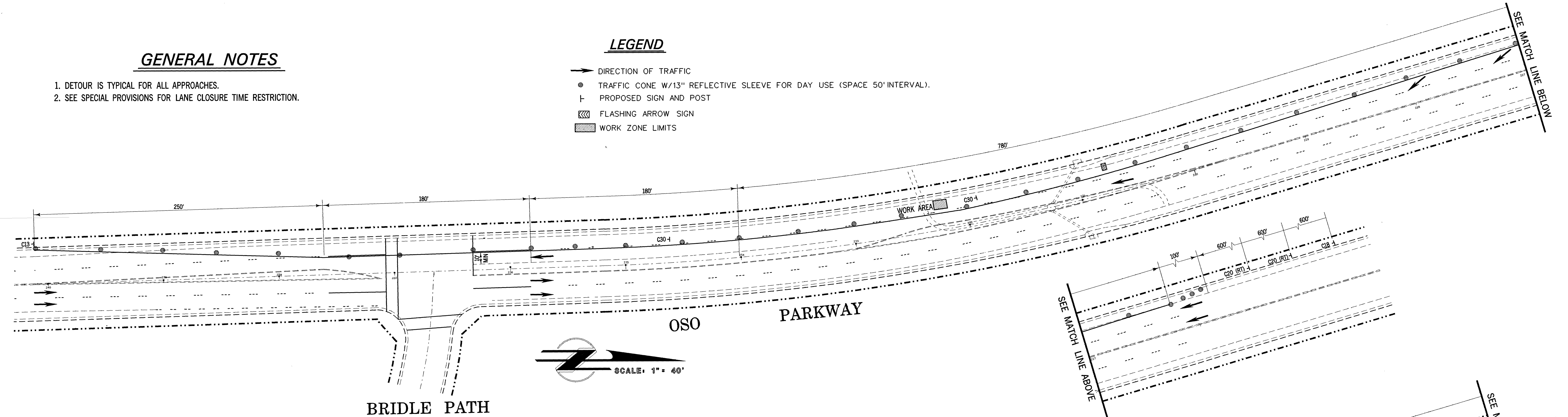


# GENERAL NOTES

1. DETOUR IS TYPICAL FOR ALL APPROACHES.
2. SEE SPECIAL PROVISIONS FOR LANE CLOSURE TIME RESTRICTION.

## LEGEND

- DIRECTION OF TRAFFIC
- TRAFFIC CONE W/13" REFLECTIVE SLEEVE FOR DAY USE (SPACE 50' INTERVAL).
- ⊥ PROPOSED SIGN AND POST
- ▨ FLASHING ARROW SIGN
- ▨ WORK ZONE LIMITS

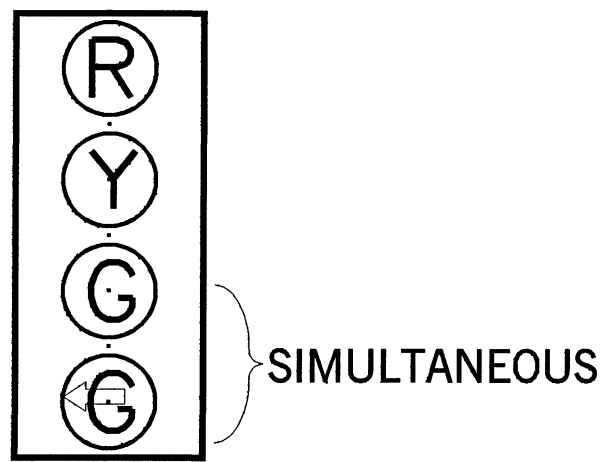


ORANGE COUNTY PUBLIC FACILITIES & RESOURCES DEPARTMENT		OSO PARKWAY AT BRIDLE PATH DETOUR PLAN FOR TRAFFIC SIGNAL INSTALLATION		PREPARED UNDER SUPERVISION OF RICE	DATE DEC. 97	W.O. NO. ERO3088	SHEET 3 OF 4
MARK	DATE	DESCRIPTION					
REVISIONS							
DESIGNED	T. PHAM	CHECKED	G. ANDERSON	SCALE	AS SHOWN		

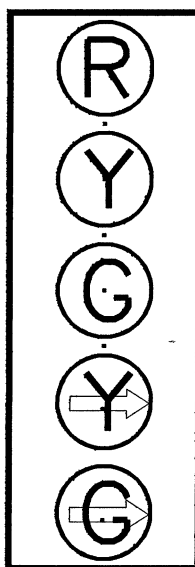
1 1/2 0 2  
3 inches on original drawing

EFH 24  
BASI FILE CORP. IRVINE, CA  
040.3

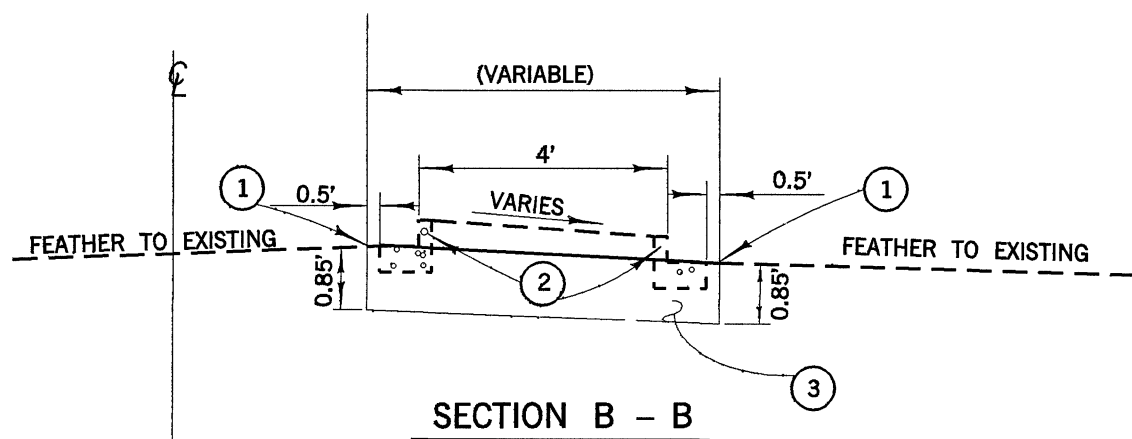
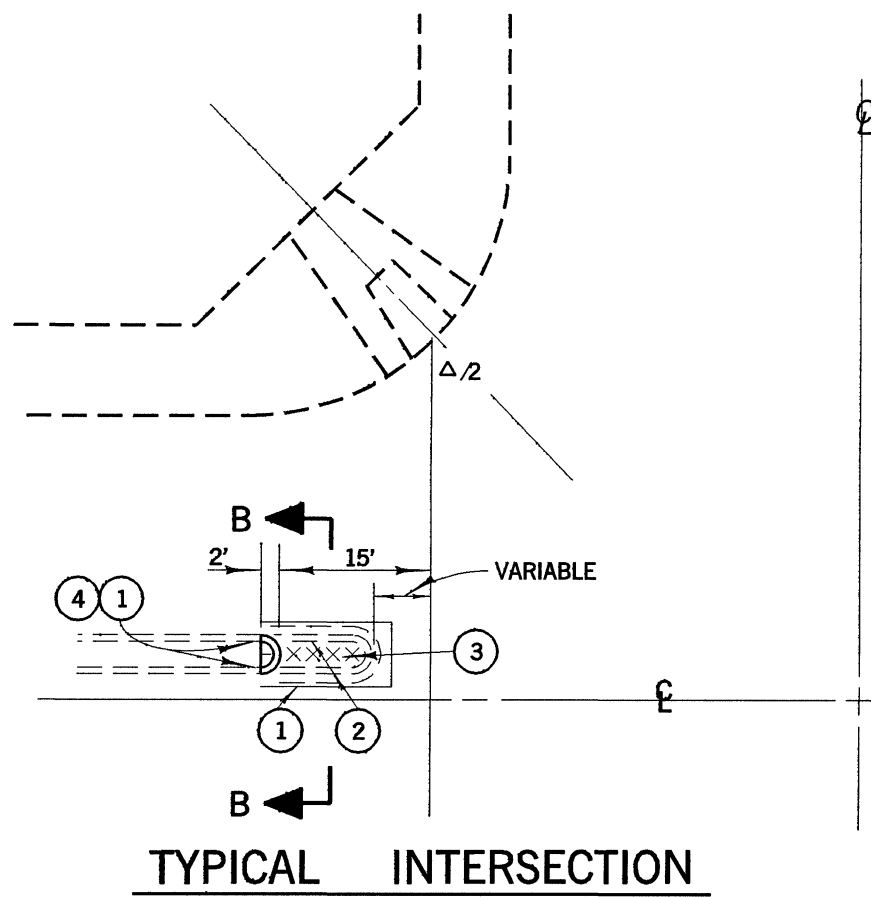
DETAIL A  
4-SECTION SIGNAL HEAD  
12" LENSES



DETAIL E  
5-SECTION SIGNAL HEAD  
12" LENSES



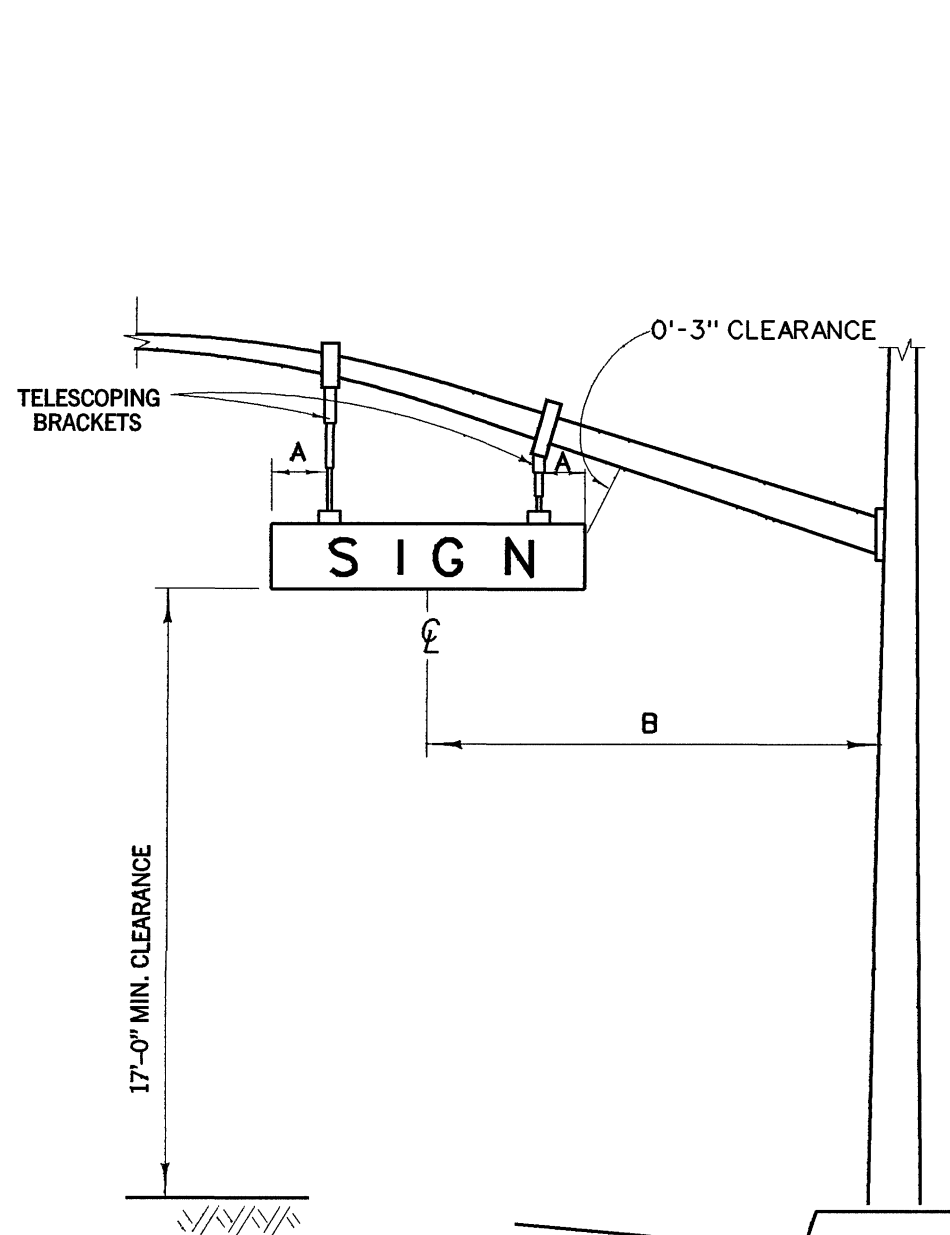
DETAIL B  
INTERSECTIONS RAISED MEDIAN



NOTES - DETAILS B

1. SAWCUT AND JOIN EXISTING
2. REMOVE CONCRETE
3. CONSTRUCT 0.85' AC OVER NATIVE SOIL
4. CONSTRUCT TYPE A1-8 CONCRETE CURB PER APWA STD. PLAN 120-0.

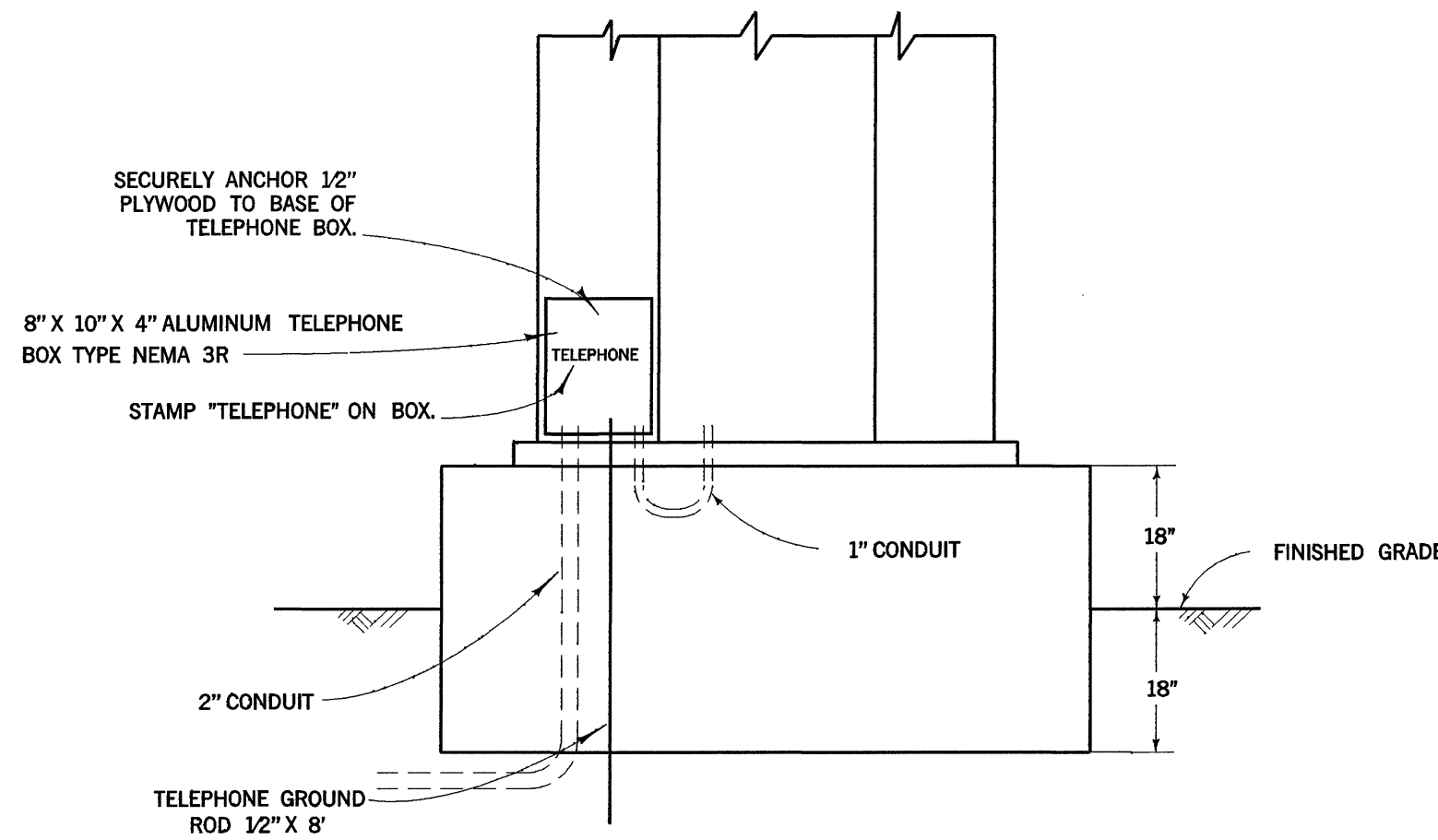
DETAIL C  
REFLECTORIZED STREET NAME SIGN COMPONENTS



NOTES - DETAIL C

- A 1'-6" (18"x72" SIGN), 2'-0" (18"x96" SIGN)  
B 10'-6" CENTERLINE OF SIGN TO FACE OF POLE

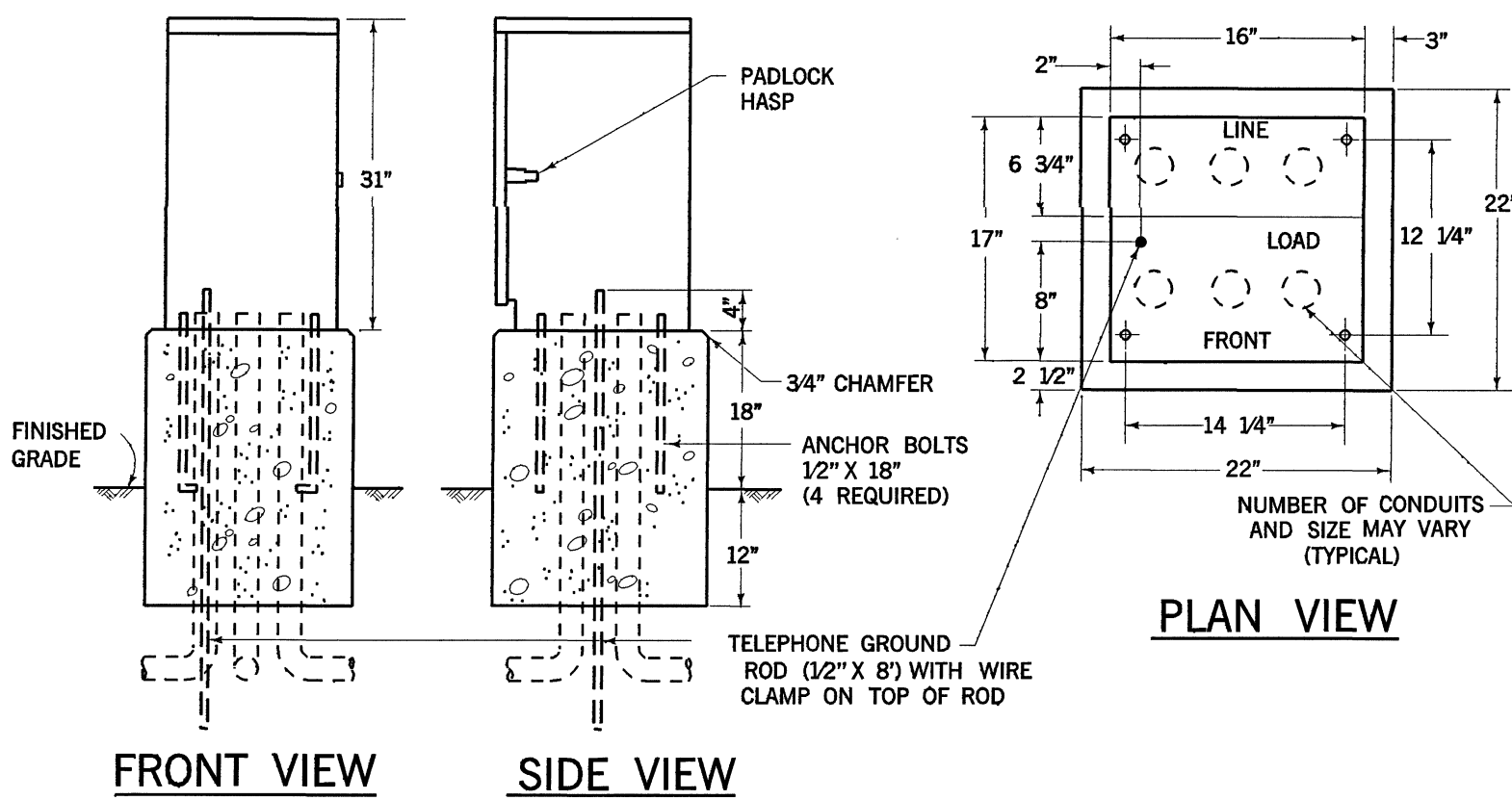
DETAIL D  
TELEPHONE SERVICE BOX



GENERAL NOTES :

1. ALL WORK, MATERIALS AND EQUIPMENT SHALL CONFORM TO THE REQUIREMENTS OF THE CALIFORNIA, DEPARTMENT OF TRANSPORTATION, STANDARD PLANS AND STANDARD SPECIFICATIONS DATED JULY 1992 AND THE SPECIAL PROVISIONS FOR THIS PROJECT.
2. 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.
3. 48 HOURS PRIOR TO BEGINNING OF CONSTRUCTION, THE CONTRACTOR SHALL CONTACT ORANGE COUNTY PUBLIC FACILITIES & RESOURCES DEPARTMENT FOR INSPECTION AT 567-7800.
4. THE ENGINEER SHALL APPROVE POLE AND LOOP DETECTION PLACEMENT IN THE FIELD PRIOR TO INSTALLATION.
5. ALL CONDUIT SHALL BE 2" UNLESS OTHERWISE NOTED.
6. ALL PULL BOXES SHALL BE #5 UNLESS OTHERWISE NOTED.
7. ALL SALVAGED EQUIPMENT SHALL BE DELIVERED UNDAMAGED, BY CONTRACTOR, TO THE ORANGE COUNTY YARD AT 1152 EAST FRUIT ST., SANTA ANA, CA. CONTRACTOR SHALL GIVE A 48-HOUR NOTICE TO THE COUNTY PRIOR TO THE DELIVERY DATE.
8. CONTRACTOR SHALL PROVIDE ALL NECESSARY TELEPHONE AND ELECTRICAL SERVICE LINES AND INTERCONNECT HOOK-UPS BETWEEN THE LOCAL CONTROLLER AND THE SYSTEM MASTER.
9. PEDESTRIAN INDICATIONS SHALL BE INTERNATIONAL SYMBOL.
10. PEDESTRIAN PUSH BUTTONS SHALL BE TYPE B WITH INTERNATIONAL SYMBOL PLATE.
11. ALL VEHICLE INDICATIONS SHALL BE 12" DIAMETER WITH BACKPLATES, GLASS REFLECTORS, AND GLASS LENSES, UNLESS SHOWN OTHERWISE.
12. CONTRACTOR SHALL POTHOLE CONFLICTING UTILITIES AS DIRECTED BY ENGINEER.
13. CONTRACTOR SHALL AVOID DAMAGING EXISTING UTILITIES. (SEE SPECIAL PROVISIONS).
14. DETECTOR LOOPS SHALL BE CIRCULAR 6' DIAMETER WITH 9' SPACING IN THE DIRECTION OF TRAVEL UNLESS OTHERWISE NOTED.
15. ALL DETECTOR CABLE HOMERUNS SHALL BE IN THE CROSSWALK AREA.
16. ALL DETECTOR LOOPS SHALL BE FOUR (4) TURNS.
17. ALL QUADRUPOLE DETECTOR LOOPS SHALL BE TWO (2-4-2) TURNS.
18. TRAFFIC CONTROLLER CABINET FOUNDATION SHALL BE 18" ABOVE AND BELOW FINISHED GRADE (SEE DETAIL D).
19. INSTALL "CABINET DOOR OPEN" CIRCUIT IN CONTROLLER CABINET PER MANUFACTURE'S SPECIFICATIONS.
20. CONCRETE REPLACEMENT TO MATCH EXISTINGS.

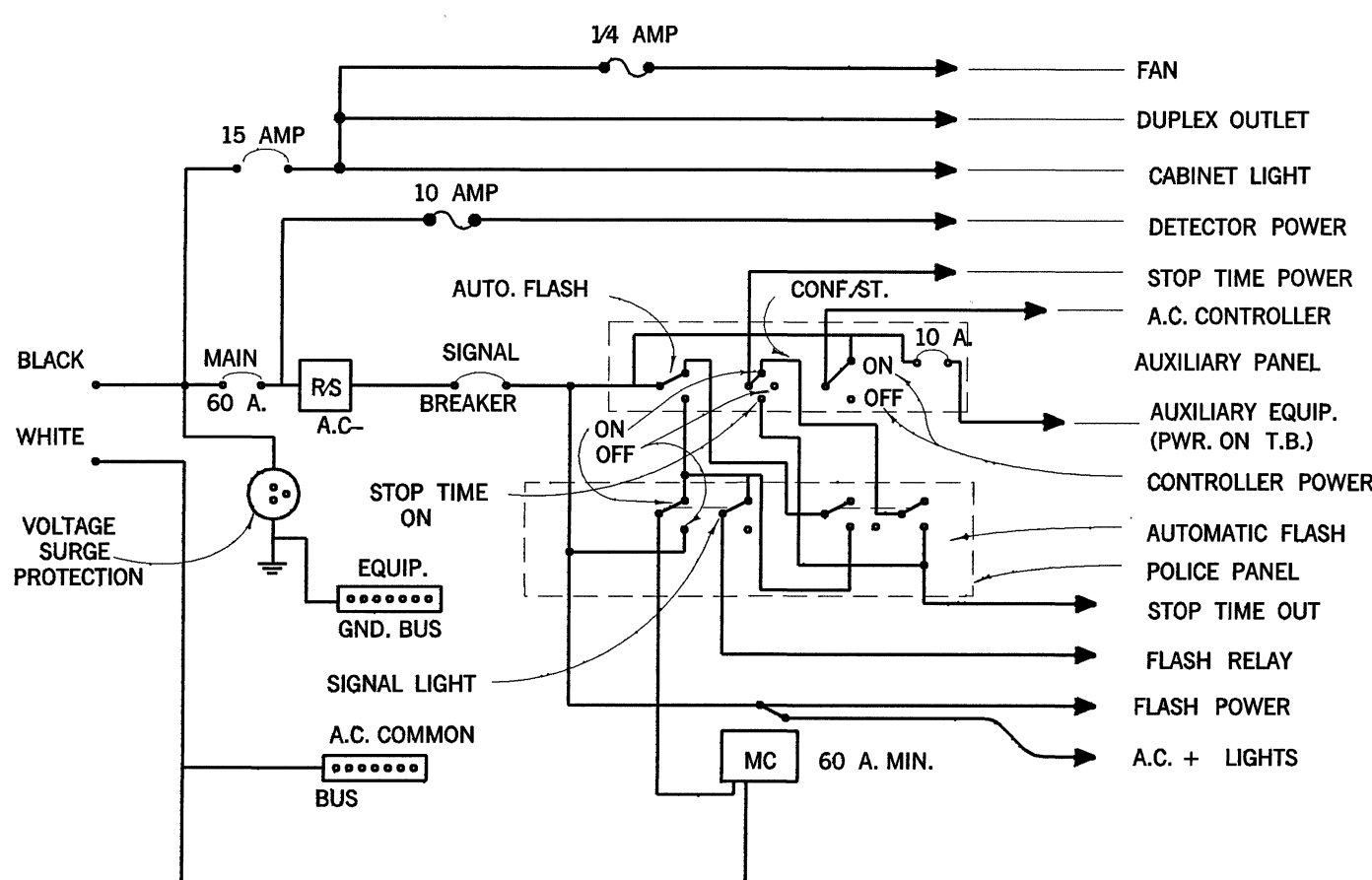
DETAIL F  
INTERCONNECT SPICE CABINET



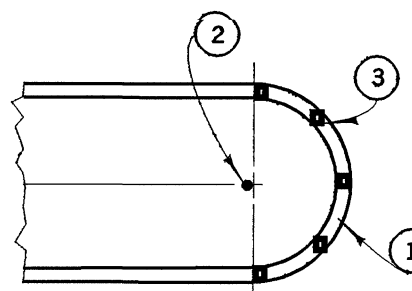
NOTES - DETAIL F

1. FOUNDATION TO BE 22" X 22", ANCHOR BOLT PLACEMENT PER CABINET MFG. TEMPLATE.
2. ENCLOSURE SHALL BE ALUMINUM AND FURNISHED WITH A DETACHABLE MOUNTING BASE.
3. ALL FACTORY INSTALLED COMPONENTS SHALL BE U.L. LISTED OR PER PUBLISHED N.E.C. STANDARDS.
4. A 3/4" CONSTRUCTION GRADE PLYWOOD PANEL SHALL BE FASTENED TO THE REAR WALL. PANEL SHALL BE 12" X 24" AND SHALL HAVE A No. M1-25 AND R-841 STANDOFF FASTENED IN THE CENTER OF THE PANEL.
5. ENCLOSURE FINISH SHALL CONFORM TO A.S.T.M. B-117. PAINT TO BE APPLIED TO EXTERNAL AND INTERNAL CABINET SURFACE SHALL BE WHITE ANTI-GRAFFITI CARDINAL'S 6409 G SERIES OR APPROVED EQUAL ANTI-GRAFFITI PAINT SHALL BE APPLIED TO CABINET AT THE TIME OF MANUFACTURE.
6. PROVIDE 1 1/2" CONDUIT FOR FUTURE 115 VAC SERVICE.
7. PROVIDE GROUND BUS INSIDE SPICE CABINET.

DETAIL G  
CONTROLLER CABINET WIRING



DETAIL H  
RAISED MEDIAN MARKING



NOTES - DETAIL H

1. PAINT MEDIAN NOSE WITH HIGHLY REFLECTIVE PREMIXED WHITE TRAFFIC PAINT WITH GLASS BEADS.
2. INSTALL FLEXIBLE VERTICAL TYPE K MARKER, R7, R10 OR TYPE N-1 ON TELESAR POST AS INDICATED ON PLAN.
3. INSTALL YELLOW REFLECTIVE PAVEMENT MARKERS ON TOP SURFACE OF MEDIAN CURB NOSE AT 2' C.C. SPACING (MINIMUM 5 MARKERS). PLACE REFLECTIVE SURFACE OF MARKERS PERPENDICULAR TO F.O. OF ROADWAY.

ORANGE COUNTY PUBLIC FACILITIES & RESOURCES DEPARTMENT			SIGNAL DETAIL SHEET	
3-29-88	4-4-88	12-8-88	11-18-93	6-7-93
1-1-97	3-4-97	REVISIONS		
MARK	DATE	DESCRIPTION		PREPARED UNDER
				SUPERVISION OF
				DATE
				SCALE
				DATE
				W.O. NO.
				NOT TO SCALE
				DEC. 97
				ERO3088
				OF 4