

O'NEILL DRIVE & CECIL PASTURE ROAD

ENCROACHMENT PERMIT NO. 2004-01427

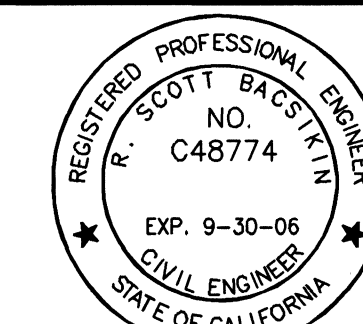
RDMC APPROVED PLANS DO NOT RELIEVE CONTRACTOR/DEVELOPER FROM RESPONSIBILITY TO OBTAIN PUBLIC PROPERTY PERMIT WHICH SHALL BE AVAILABLE ON THE JOB AT ALL TIMES WORK IS BEING ACCOMPLISHED IN PUBLIC RIGHT OF WAY.

BLOCK: _____

MODULE: _____

APPROVED: _____ 1/13/05
DATE _____

THIS PLAN IS SIGNED BY R.D.M.D./T.E. FOR CONCEPT AND ADHERENCE TO COUNTY TRAFFIC SIGNAL, SIGNING AND STRIPING AND REQUIREMENTS ONLY. R.D.M.D./T.E. IS NOT RESPONSIBLE FOR DESIGN ASSUMPTIONS OR ACCURACY.



PREPARED BY: *R. Scott Sproull*

 **WILLDAN** 27042 Towne Centre Drive, Suite 27
Foothill Ranch, California 92610
949/470-8840 fax 949/770-9041

<u>INDEX OF SHEETS</u>	
SHEET	DESCRIPTION
1.	TITLE SHEET
2.	TRAFFIC SIGNAL PLAN O'NEILL DRIVE & CECIL PASTURE ROAD
3.	TRAFFIC SIGNAL DETAIL SHEET

UTILITY	PHONE	CONTACT
1. SO. CAL. EDISON	458-4447	BRIAN SMITH
2. PACIFIC BELL	259-4459	JOHN ESTY
3. M.N. WATER DIST.	831-1773	
4. U.S.ALERT	1-800-422-4133	
5. SO. CAL. GAS CO.	634-3115	DON JONES
6. COX COMMUNICATION	240-8828	LINDA TESSIER
7. S.D.G. & E.	361-8047	PATTI GOOD

BENCH MARK:

BASIS OF BEARING:

NO.	DESCRIPTION	SHT.	APPROVED	DATE

REVISIONS

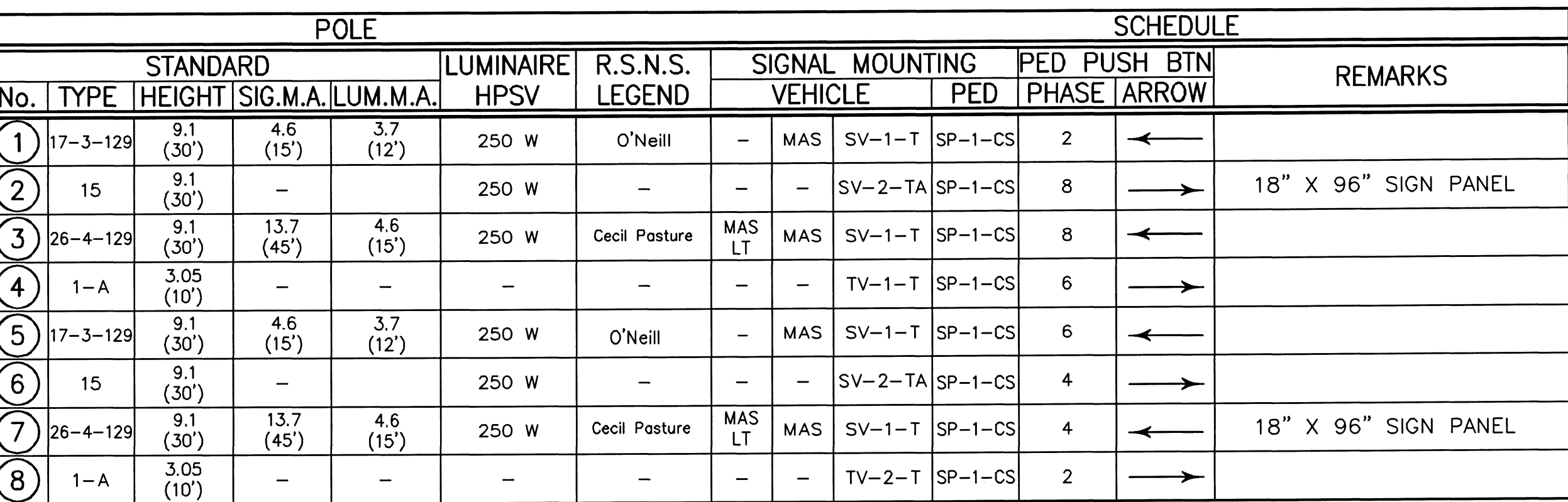
W.O. NO. _____
DWG. NO. _____

SHEET 1 OF 3

DR. 17 (16853)

ALL CONDUITS AND CONDUCTORS ARE NEW.

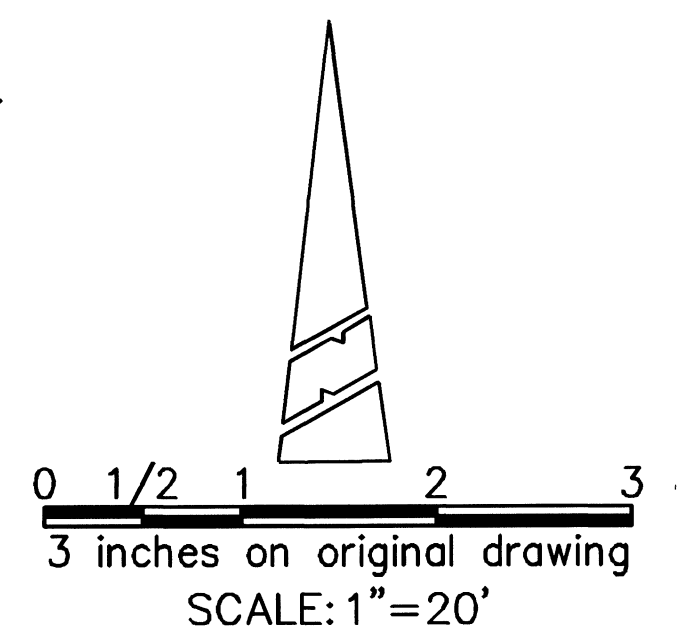
* = DETECTOR LOOP LOCATIONS SHALL BE APPROVED BY ENGINEER IN FIELD PRIOR TO INSTALLATION. ALL DETECTOR UNITS SHALL BE RACK MOUNTED, AND DUAL CHANNEL.



1. ALL EQUIPMENT IS NEW.
2. R.S.N.S.=REFLECTORIZED STREET NAME SIGN - SEE SPECIAL PROVISIONS.
3. ALL NEW POLES ARE PER CALTRANS PLANS DATED JULY, 1999.

1. REFER TO DETAIL SHEET FOR GENERAL NOTES.
2. FURNISH AND INSTALL A 12 PHASE ECONOLITE ASC/2S-2100 TYPE 90 CONTROLLER AND ECONOLITE UPS SYSTEM IN A FULLY WIRED NEMA TS2 TYPE 1 SIZE 6 ALUMINUM CABINET AND FOUNDATION. EXTEND FOUNDATION TO SUPPORT UPS CABINET. PLACE CONTROLLER ON TOP SHELF. DOOR TO OPEN TOWARD STREET. CONTROLLER ASSEMBLY AND CABINET SHALL HAVE EMERGENCY VEHICLE PRE-EMPTION (EVP), 3M CO., WITH OPTICOM 752 DETECTOR MODULE(S).
3. FURNISH AND INSTALL A TYPE III-BF SERVICE WITH 30A LIGHTING BREAKER, 50A SIGNAL BREAKER AND TYPE V PHOTOELECTRIC CIRCUIT WITH DELAY TYPE PHOTOCELL FOR STREET LIGHTS.
4. FURNISH AND INSTALL A ALUMINUM UPS CABINET AND ECONOLITE BATTERY BACKUP SYSTEM. MOUNT CABINET ON RIGHT SIDE OF CONTROLLER CABINET.
5. INSTALL EVP OPTICAL DETECTOR.
6. INSTALL EVP CABLE FROM OPTICAL DETECTOR TO CONTROLLER CABINET.
7. STREET PAINTING INSTALLATION AND REMOVALS SHALL BE COMPLETED BY THE CONTRACTOR.
8. STRIPING SHOWN (---) IS EXISTING. PROPOSED STRIPING AND PAVEMENT MARKINGS ARE SHOWN WITH SOLID LINES.
9. PROVIDE PHONE DROP AND INSTALL NEMA TYPE 3R TELEPHONE BOX ON NORTH SIDE OF CONTROL CABINET PER DETAIL D ON SHEET 3 OF 3. INSTALL 2" C W/12 PR #19 BETWEEN TELEPHONE SERVICE POINT AND TELEPHONE DEMARCATION CABINET.
10. CONSTRUCT 7' x 18' x 4"-THICK PCC LANDING.
11. EASEMENT TO CONSTRUCT AND MAINTAIN TRAFFIC SIGNAL SYSTEM, STRIPING, MARKINGS, SIGNS AND APPURTENANCES.
12. SERVICE POINT - SDG&E EXISTING TRANSFORMER D154482. COORDINATE INSTALLATION OF SERVICE CONDUCTORS WITH SDG&E, CONTACT SUE BUTTON AT (858)654-1218.

- ① INSTALL 12" WHITE CROSSWALK PER R.D.M.D. STD. 1416.
- ② PAINT 4" DOUBLE YELLOW, DETAIL 29 PER CALTRANS STD. PLAN A20B.
- ③ REMOVE EXISTING CONFLICTING STRIPING AND/OR DELINEATORS.
- ④ PAINT 8" WHITE, DETAIL 38 PER CALTRANS STD. PLAN A20B.
- ⑤ PAINT TYPE IV (RT) ARROW PER CALTRANS STD. PLAN A24A.
- ⑥ PAINT TYPE VII (LT) ARROW PER CALTRANS STD. PLAN A24A.
- ⑦ INSTALL MEDIAN NOSE TREATMENT PER DETAIL "H" ON SHEET 3.
- ⑧ PAINT TYPE IV (LT) ARROW PER CALTRANS STD. PLAN A24A.
- ⑨ PAINT 12" WHITE DIAGONAL PER CALTRANS STD. PLAN A24E.
- ⑩ PAINT 50' SOLID 4" WHITE WITH TYPE G RPM AT END POINTS.
- ⑪ PAINT WHITE PAVEMENT LEGEND AS SHOWN.



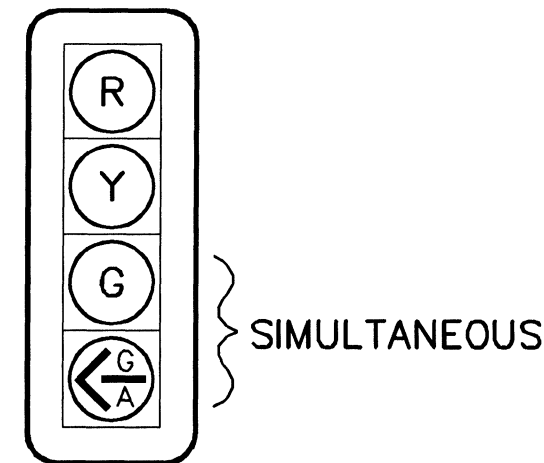
TRAFFIC SIGNAL
INSTALLATION PLAN
O'NEILL DRIVE
AND
CECIL PASTURE ROAD

DESIGNED: JDM		SHEET 2 OF 3
DRAWN: JDM	CHECKED: RSB	
SCALE 1"=20'	DATE 11/04	
DRAWING NO.		

DR. 17 (16858)

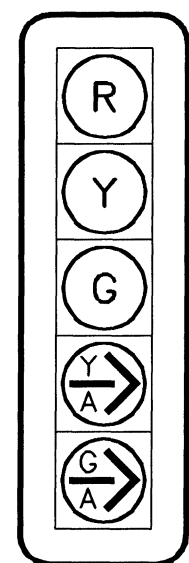
DETAIL A

4-SECTION SIGNAL HEAD
12" LENSES



DETAIL E

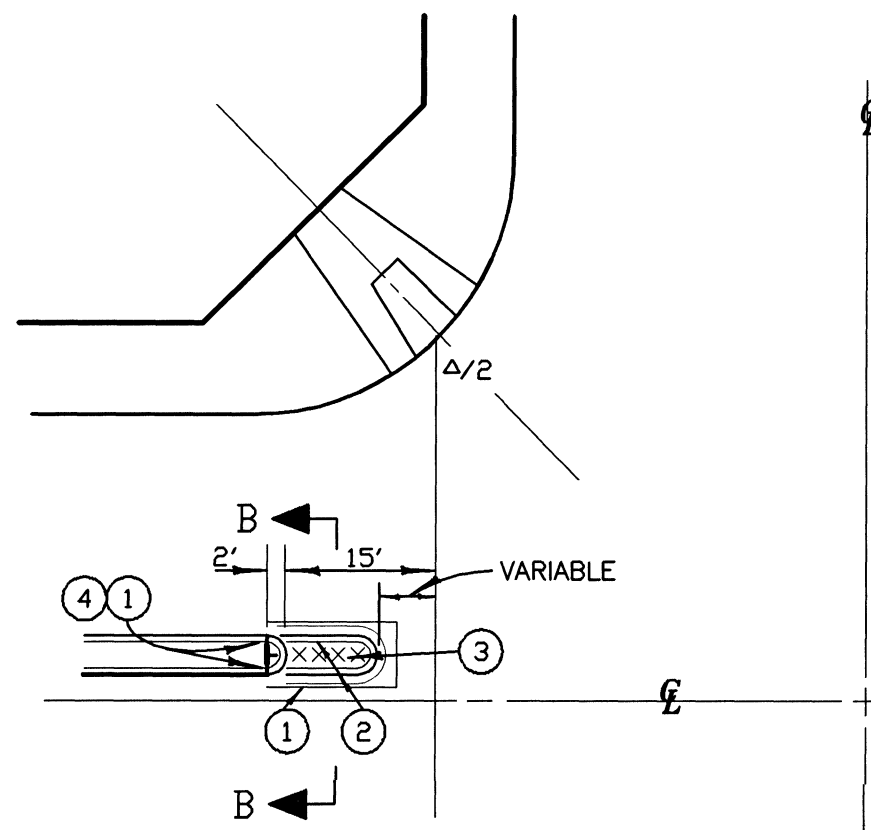
5-SECTION SIGNAL HEAD
12" LENSES



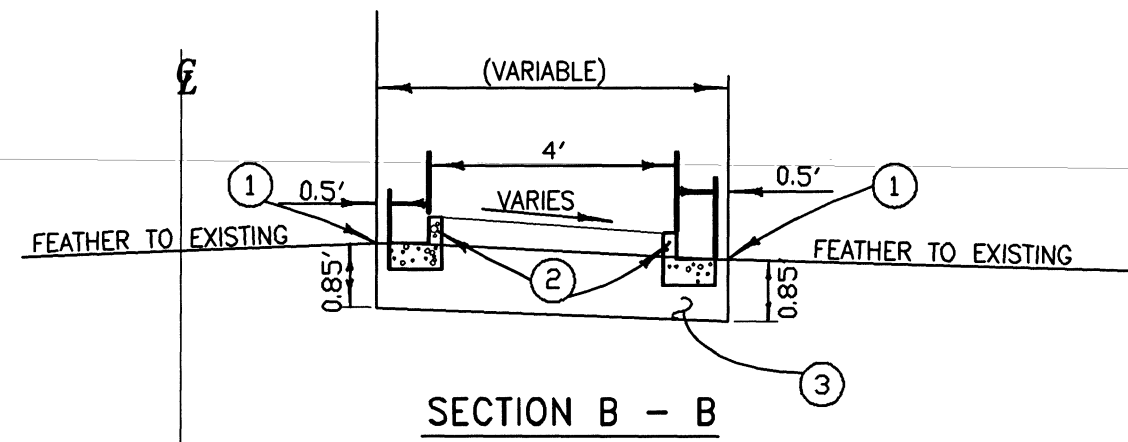
△ - BAND STRAP OR BOLT FRAME WORK AT TOP, TO SIGNAL POLE, AS DIRECTED BY ENGINEER.
△ - NO CAST ALUMINUM TERMINAL BLOCKS ALLOWED.

DETAIL B

INTERSECTIONS RAISED MEDIAN



TYPICAL INTERSECTION

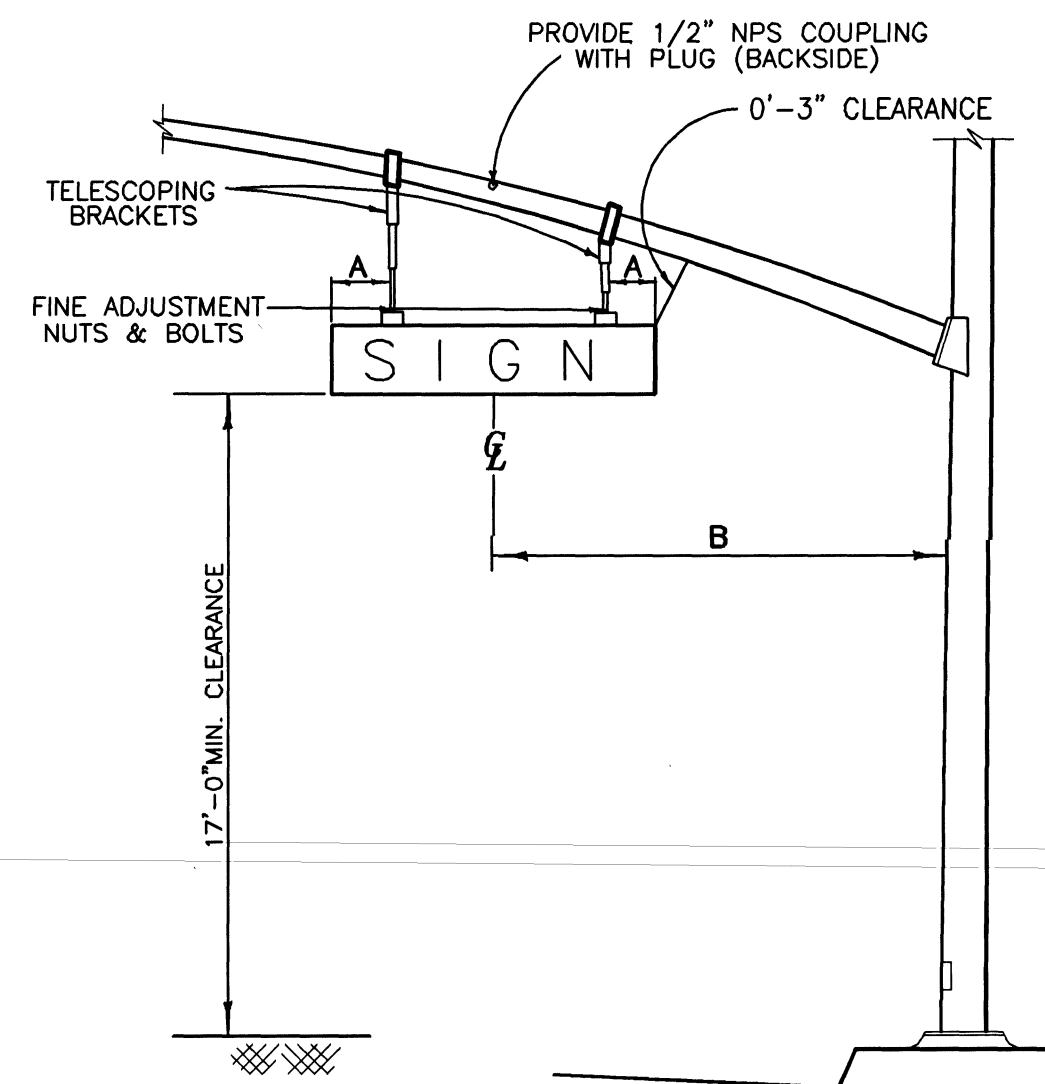


NOTES - DETAIL B

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

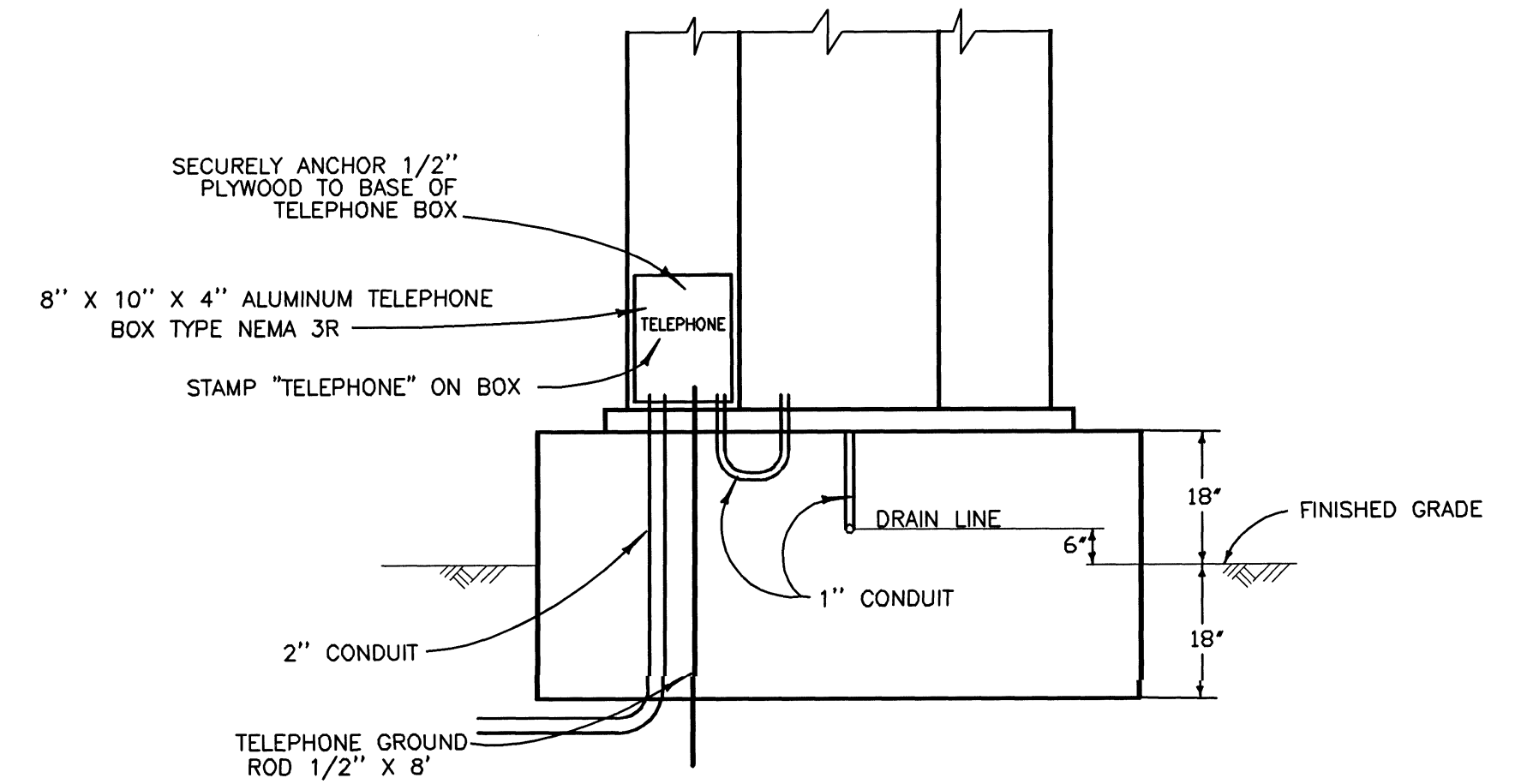


NOTES - DETAIL C

- 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

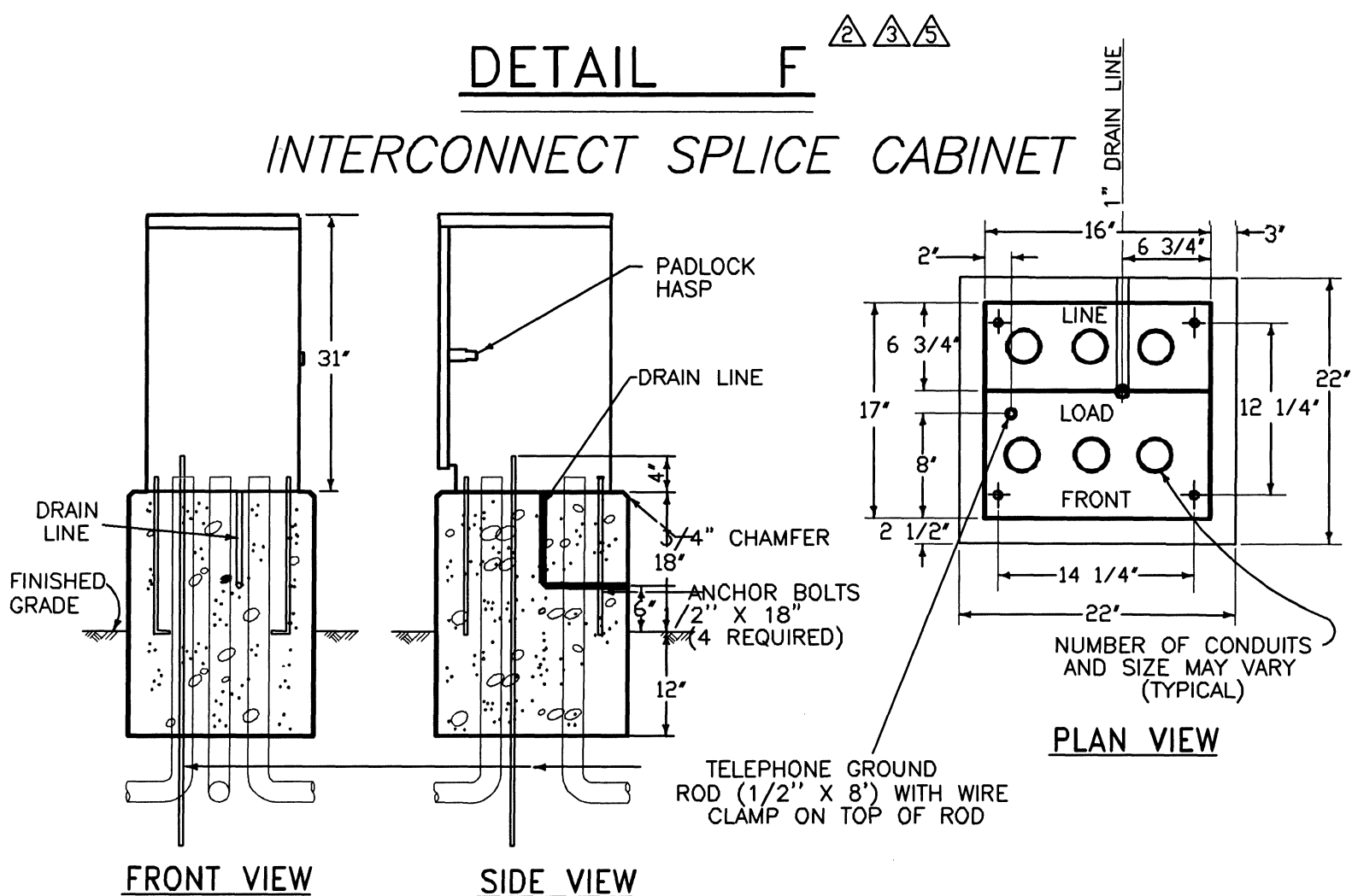


GENERAL NOTES :

1. ALL WORK, NEW MATERIALS AND NEW EQUIPMENT SHALL CONFORM TO THE REQUIREMENTS OF THE CALIFORNIA, DEPARTMENT OF TRANSPORTATION, STANDARD PLANS DATED JULY 1999 AND STANDARD SPECIFICATIONS DATED JULY 1999 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 R.D.M.D. FOR INSPECTION AT 567-7800.
4. THE ENGINEER SHALL APPROVE POLE AND LOOP DETECTION PLACEMENT IN THE FIELD PRIOR TO INSTALLATION.
5. ALL CONDUITS 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 L.E.D. TYPE.
10. PEDESTRIAN PUSH BUTTONS SHALL BE TYPE B WITH INTERNATIONAL SYMBOL PLATE.
11. ALL VEHICLE INDICATIONS SHALL BE 12" DIAMETER RED, YELLOW AND GREEN L.E.D. DISPLAYS WITH BACKPLATES.
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 HAVE 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 EXISTING.
21. MAINTAIN 36 INCHES OF CLEARANCE BETWEEN CABINETS.

DETAIL F

INTERCONNECT SPLICE CABINET

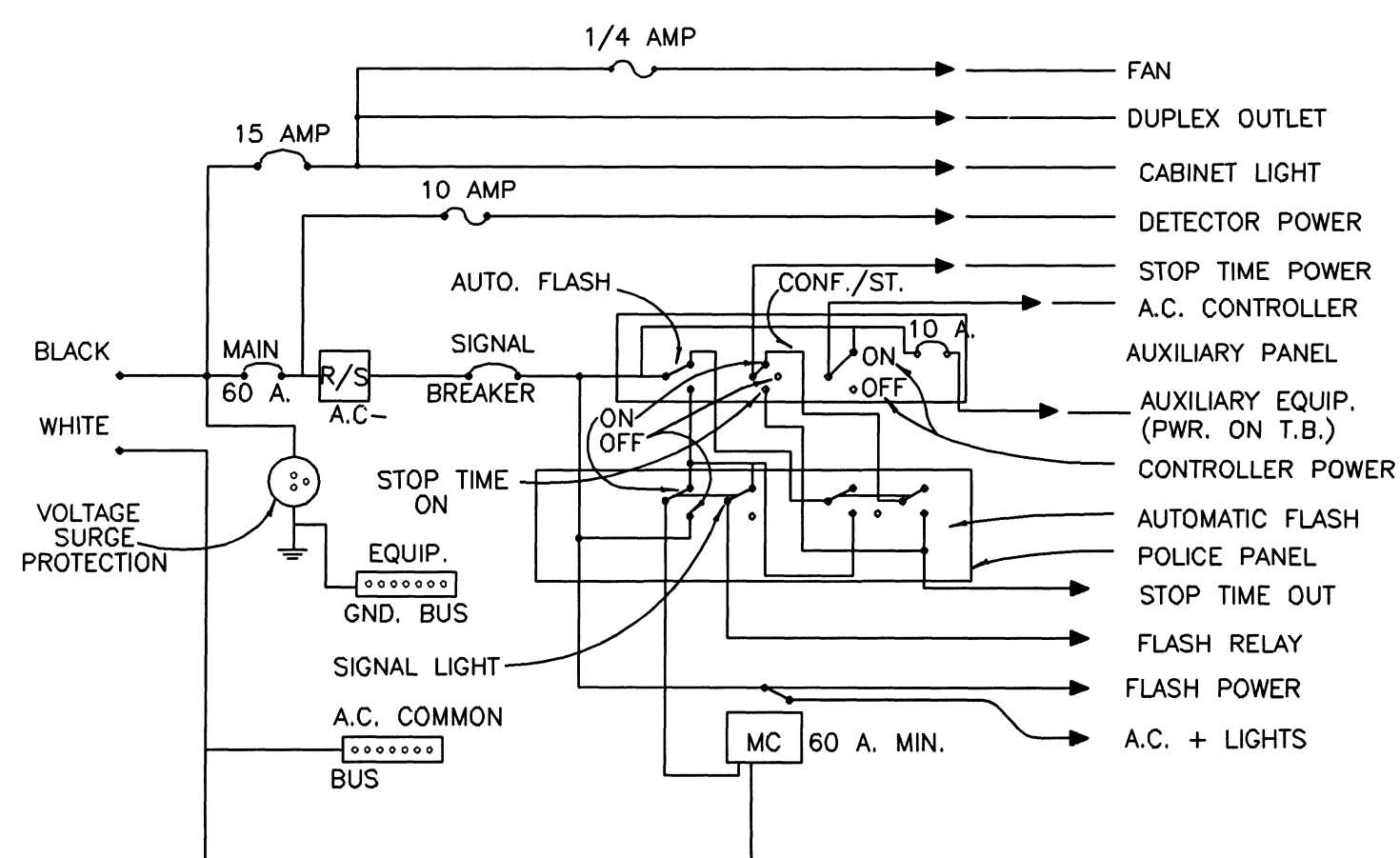


NOTES - DETAIL F

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-B41 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 SPLICE CABINET.

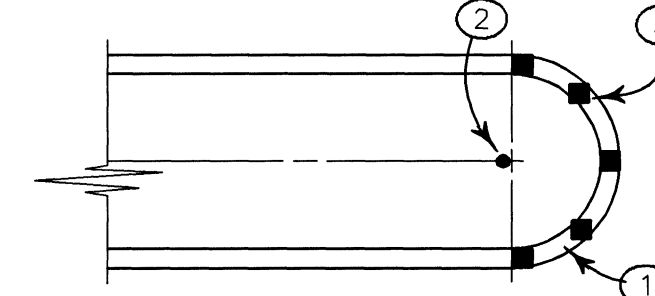
DETAIL G

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 TELSPAR POST AS INDICATED ON THE PLAN.
3. INSTALL YELLOW REFLECTIVE PAVEMENT MARKERS ON TOP SURFACE OF MEDIAN CURB NOSE AT 2' C.C. SPACING (MIN. 5 MARKERS). PLACE REFLECTIVE SURFACE OF MARKERS PERPENDICULAR TO $\frac{1}{2}$ OF ROADWAY.

ORANGE COUNTY Resources & Development Management Department			SHEET 3 OF 3	
SIGNAL DETAIL SHEET			PREPARED UNDER SUPERVISION OF _____ DATE _____	
REVISIONS			SCALE _____ DATE _____ W. O. NO. _____	
DRAWN _____ CHECKED _____			NOT TO SCALE	

DR. 17 (16853)