

X:\LDT\_TPTO\099598001 - Orange County Fiber Optic Design\Design\CADD\Working\1. 99598001-TS.dwg 5/6/2014 9:45 AM

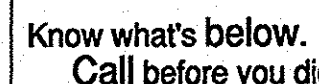
1. ALL WORK, UNLESS OTHERWISE SPECIFIED, SHALL CONFORM TO THE LATEST EDITION AND SUPPLEMENTS OF THE ORANGE COUNTY PUBLIC WORKS STANDARD PLANS, AND STANDARD PLANS AND STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION PER A.P.W.A., UNLESS OTHERWISE SHOWN. ALL TRAFFIC SIGNAL WORK SHALL CONFORM TO THE PROVISIONS OF THE 2015 STANDARD SPECIFICATIONS AND STANDARD PLANS OF THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION AND ALL ADOPTED REVISIONS, UNLESS OTHERWISE NOTED.
2. LOCATE ALL SUBSTRUCTURES PRIOR TO CONSTRUCTION, HAND DIG FOUNDATIONS UNTIL CLEAR OF OBSTRUCTIONS. CONTACT UNDERGROUND SERVICE ALERT AT 811 A MINIMUM 48 HOURS PRIOR TO CONSTRUCTION.
3. ALL DETECTOR LOOPS SHALL BE PROTECTED IN PLACE. ANY DAMAGED LOOPS SHALL BE REPAIRED WITHIN 3 WORKING DAYS.
4. INTERCONNECT CABLE SHALL BE CONTINUOUS FROM SPLICE VAULT TO SPLICE VAULT. NO SPLICES WILL BE ALLOWED.
5. UNLESS OTHERWISE INDICATED, PULL BOXES SHALL BE #6E FOR SIGNAL INTERCONNECT. PULL BOXES SHALL BE INSTALLED AT A MAXIMUM OF 800' INTERVALS. PULL BOXES SHALL NOT BE LOCATED WITHIN DRIVEWAYS OR WITHIN 1' OF WHEELCHAIR RAMPS.
6. EXISTING SIGNALS SHALL REMAIN OPERATIONAL AT ALL TIMES UNLESS OTHERWISE NOTED.
7. CONDUIT SHALL BE PVC SCHEDULE 80 AS SHOWN ON THE PLANS. CONDUIT UNDER ROADWAYS AND UNDER CONCRETE SIDEWALKS AND DRIVEWAYS SHALL BE BORED UNLESS OTHERWISE APPROVED BY THE COUNTY. CONDUIT SHALL BE INSTALLED BY THE TRENCHING METHOD ONLY WHERE NOTED ON THE PLANS OR AS ALLOWED BY THE PROJECT ENGINEER; NO ADDITIONAL MEASUREMENT OR PAYMENT WILL BE MADE FOR INSTALLATION OF CONDUIT BY TRENCHING METHOD.
8. WORK IN PUBLIC STREETS, ONCE BEGUN, SHALL BE PROSECUTED TO COMPLETION WITHOUT DELAY SO AS TO PROVIDE MINIMUM INCONVENIENCE TO ADJACENT PROPERTY OWNERS AND TO THE TRAVELING PUBLIC.
9. PVC CONDUIT INSTALLED BY TRENCHING IN PAVEMENT METHOD SHALL HAVE 36" REQUIRED COVER AND COMPLY WITH THE REQUIREMENTS OF ORANGE COUNTY PUBLIC WORKS STANDARD PLAN 133-C-CC.
10. CONTRACTOR SHALL USE COMPRESSED AIR TO CLEAN OUT EXISTING CONDUITS PRIOR TO INTERCONNECT CABLE INSTALLATION OR SIGNAL INTERCONNECT RELOCATION.
11. ALL DAMAGED OR REMOVED CONCRETE, SIDEWALK, LANDSCAPE, AND PAVEMENT SHALL BE REPLACED (JOINT TO JOINT) PER ORANGE COUNTY PUBLIC WORKS STANDARD PLAN 1205.
12. CONTRACTOR IS RESPONSIBLE FOR UPDATING THE CLOCK AT LEAST ONCE A WEEK ON ALL CONTROLLERS DISCONNECTED FROM THE INTERCONNECT NETWORK DUE TO WORK ON THIS PROJECT.
13. THE CONTRACTOR SHALL OBTAIN A PERMIT FROM CALTRANS DISTRICT 12 ENCROACHMENT PERMIT OFFICE, 3347 MICHELSON DRIVE, SUITE 100, IRVINE, CA 92612, TELEPHONE: (949) 724-2445, PRIOR TO CONSTRUCTION ON CALTRANS RIGHT-OF-WAY.
14. CONTRACTOR SHALL CLEAR ALL EXISTING PULL BOX INTERIORS FROM DEBRIS AND DIRT PRIOR TO THE INTERCONNECT CABLE(S) INSTALLATION.
15. ALL NEW AND EXISTING PULL BOXES SHALL BE GROUTED PRIOR TO INSTALLATION OF INTERCONNECT CABLE(S).
16. ALL NEW AND EXISTING CONDUITS SHALL BE DUCT SEALED, AND SHALL INCLUDE DETECTABLE PULL TAPE FURNISHED AND INSTALLED WITH ALL FIBER OPTIC CABLING.



## UTILITY COMPANY CONTACTS

## ABBREVIATION LIST

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660 South Figueroa Street, Suite 2050, Los Angeles, CA 90017  
Tel (213) 261-4040



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

**AT LEAST TWO DAYS  
BEFORE YOU DIG**

**UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA**



1	FURNISH AND INSTALL NEW 3" PVC SCHEDULE 80 CONDUIT BY BORING METHOD.
2	FURNISH AND INSTALL 24 SMFO CABLE IN CONDUIT.
3	FURNISH AND INSTALL 12 SMFO CABLE IN CONDUIT.
4	FURNISH AND INSTALL NEW #6E PULL BOX.
5	FURNISH AND INSTALL NEW #6E PULL BOX. REMOVE EXISTING PULL BOX.
6	FURNISH AND INSTALL NEW TRAFFIC RATED PULL BOX (H-20 LOADING) WITH 48" DEPTH AND MINIMUM TOP OPENING OF 18" BY 30". THE COVER SHALL BE STEEL WITH EMBOSSED NON-SKID PATTERN AND HOLD-DOWN BOLTS.
7	FURNISH AND INSTALL AGENCY APPROVED FIBER OPTIC SPLICE ENCLOSURE IN PULL BOX PER AGENCY SPECIAL PROVISIONS. FUSION SPLICE 12-STRAND SMFO CABLE(S) TO 24 SMFO CABLE(S) IN SPLICE ENCLOSURE FOR SPLICING, AS IDENTIFIED ON PLANS. COIL 25' OF SLACK FOR EACH FIBER OPTIC CABLE ENTERING THE SPLICE ENCLOSURE.
8	FURNISH AND INSTALL 12 FIBER DISTRIBUTION UNIT WITH SPLICE TRAY. FURNISH AND INSTALL 6 SC DUPLEX CABLES INSIDE THE FIBER DISTRIBUTION UNIT. TERMINATE 6 SC CABLES ON THE BACK OF THE PANELS. FUSION SPLICE 6 SMFO CABLE(S) TO DUPLEX CABLE IN SPLICE TRAY. FURNISH AND INSTALL 2 FIBER OPTIC DUPLEX JUMPER CABLES WITH SC CONNECTORS PER AGENCY STANDARD, CONNECT THESE CABLES TO FIBER SWITCH.
9	FURNISH AND INSTALL 12 FIBER DISTRIBUTION UNIT WITH SPLICE TRAY. FURNISH AND INSTALL 6 SC DUPLEX CABLES INSIDE THE FIBER DISTRIBUTION UNIT. TERMINATE 6 SC CABLES ON THE BACK OF THE PANELS. FUSION SPLICE 6 SMFO CABLE(S) TO DUPLEX CABLE IN SPLICE TRAY. FURNISH AND INSTALL 3 FIBER OPTIC DUPLEX JUMPER CABLES WITH SC CONNECTORS PER AGENCY STANDARD, CONNECT THESE CABLES TO FIBER SWITCH.
10	COIL 50' OF FIBER OPTIC CABLE SLACK IN PULL BOX.
11	FURNISH AND INSTALL NEW 2" PVC SCHEDULE 80 CONDUIT.
12	FURNISH AND INSTALL CA280S CABLE FOR CCTV POWER, VIDEO, AND CONTROL.
13	FURNISH AND INSTALL COHU RISE 4222HD (OR APPROVED EQUAL) CCTV CAMERA.
14	FURNISH AND INSTALL POE INJECTOR AND SURGE PROTECTOR PER CCTV CAMERA MANUFACTURER REQUIREMENTS.
15	FURNISH AND INSTALL FIBER SWITCH PER AGENCY SPECIAL PROVISIONS.
16	REMOVE AND SALVAGE EXISTING WIRELESS RADIO EQUIPMENT INCLUDING RADIO, ANTENNA, AND EXISTING CAT5E CABLING.
17	EXISTING TRAFFIC SIGNAL CONDUCTORS TO REMAIN.
18	REMOVE AND SALVAGE TO THE COUNTY EXISTING 6 PAIR #22 SIGNAL INTERCONNECT CABLE. ALL OTHER EXISTING TRAFFIC SIGNAL CONDUCTORS TO REMAIN.
19	FUSION SPLICE 24-STRAND SMFO CABLE TO EXISTING SMFO CABLES IN EXISTING SPLICE ENCLOSURE PER SPLICE DETAIL, AS IDENTIFIED ON THE PLANS. CONTRACTOR SHALL RE-SEAL EXISTING SPLICE ENCLOSURE PER MANUFACTURER REQUIREMENTS.
20	FURNISH AND INSTALL 2" GRC CONDUIT BETWEEN PULL BOXES AND DOWN FACE OF RETAINING WALL. INSTALL CONDUIT IN ACCORDANCE WITH NEC REQUIREMENTS.
21	FURNISH AND INSTALL 2" GRC CONDUIT UNDER EXISTING SOUND WALL. CONTRACTOR TO LOCATE EXISTING PILES PRIOR TO CONDUIT ROUTING MARK-OUT.
22	FUSION SPLICE 12-STRAND SMFO CABLE TO EXISTING SMFO CABLES IN EXISTING SPLICE ENCLOSURE PER SPLICE DETAIL, AS IDENTIFIED ON THE PLANS. CONTRACTOR SHALL RE-SEAL EXISTING SPLICE ENCLOSURE PER MANUFACTURER REQUIREMENTS.
23	CONDUIT INSTALLED CROSSING CULVERT SHALL BE CONCRETE ENCASED AND INSTALLED BY TRENCHING PER FAIRHAVEN AVE CULVERT CROSSING DETAIL.
24	CONDUIT INSTALLED CROSSING CULVERT SHALL BE CONCRETE ENCASED AND INSTALLED BY TRENCHING PER FAIRHAVEN AVE CULVERT CROSSING DETAIL.
CB	INSTALL CONDUIT INTO EXISTING PULL BOX.

SHEET TITLE	SHEET NUMBER
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CCTV AND COMMUNICATIONS INSTALLATIONS	6-23
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# TITLE SHEET

DATE: 04/18/2017	SUBMITTED	<u>FIONA MAN</u> <sup>MANAGER</sup> <u>TRAFFIC DESIGN</u> NAME/SIGNATURE	SHEET NO.
SCALE: N/A	DATE	<u>[Signature]</u> 6/29/17	1 OF 25
DESIGN: JL	APPROVED	<u>HAUD BAZIM</u> <sup>ASSISTANT DIRECTOR</sup> <u>COUNTY ENGINEER</u> NAME/SIGNATURE	PROJECT NO.
DRAWN: RP/RC	DATE	<u>[Signature]</u> 6/29/17	098598001
CHECKED: MSW			