



ALONG ANTONIO PARKWAY CORRIDOR  
FROM ORTEGA HIGHWAY (SR-74)  
TO CROWN VALLEY PARKWAY  
JOB CODE NUMBER: ER 10177

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3	-	TRAFFIC SIGNAL COMMUNICATION PLAN ANTONIO PARKWAY - AVENDALE BOULEVARD, TERRACE ROAD, WINDMILL AVENUE, AND CROWN VALLEY PARKWAY
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6	-	FIBER ASSIGNMENTS ANTONIO PARKWAY - ORTEGA HIGHWAY (SR-74) TO CROWN VALLEY PARKWAY

<u>UTILITY OWNER</u>	<u>PHONE NUMBER/E-MAIL</u>	<u>CONTACT</u>
Santa Margarita Water District	(949) 459-6585/pilary@smwd.com	Pilar Yager
So Cal Gas Transmission	(818) 701-4546/RSquires@semprautilities.com	Rosalyn Squire
SDG & E - TELE COMM	EGISMaps@Semprautilities.com	Dean Tateyam
Cox Communications	(949) 546-2754/coxfacilityinquires@cox.com	Thomas Eldred
At&T Distribution	(510) 645-2929	Substructure Records
OC Public Works	(714) 647-3916/elsa.ramirez@ocpw.ocgov.com	Elsa Ramirez

NOTE: THESE PLANS ARE ACCURATE FOR  
SIGNAL COMMUNICATIONS WORK ONLY



THE EXISTENCE AND APPROXIMATE LOCATION OF ANY UNDERGROUND UTILITIES OR STRUCTURES SHOWN ON THESE PLANS WERE OBTAINED BY A SEARCH OF AVAILABLE RECORDS. THESE LOCATIONS ARE APPROXIMATE AND SHALL BE CONFIRMED IN THE FIELD BY THE CONTRACTOR SO THAT ANY NECESSARY ADJUSTMENT CAN BE MADE TO THE PROPOSED IMPROVEMENTS. TO THE BEST OF OUR KNOWLEDGE, AT THE LOCATIONS ON THE PLANS THAT SHOW UTILITIES, THERE ARE NO OTHER EXISTING UTILITIES OR STRUCTURES EXCEPT AS SHOWN ON THOSE PLANS. THE ENGINEER ASSUMES NO LIABILITY AS TO THE EXACT LOCATION OF SAID LINES NOR FOR UTILITIES OR IRRIGATION LINES WHOSE LOCATIONS ARE NOT SHOWN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING ALL UTILITY AND IRRIGATION COMPANIES PRIOR TO WORK ON EXCAVATION TO DETERMINE EXACT LOCATION OF ALL LINES AFFECTING THIS WORK, WHETHER OR NOT SHOWN HEREON, AND FOR ANY DAMAGE OR PROTECTION OF THESE LINES.

THE CONTRACTOR SHALL CALL IN A LOCATION REQUEST TO UNDERGROUND SERVICE ALERT (U.S.A.) PHONE 811 TWO WORKING DAYS PRIOR TO DIGGING. NO CONSTRUCTION PERMIT, ISSUED BY ANY OF THE VARIOUS PUBLIC WORKS DEPARTMENTS, SHALL BE VALID INVOLVING UNDERGROUND FACILITIES, UNLESS THE APPLICANT AS AN INQUIRY IDENTIFICATION NUMBER ISSUED BY U.S.A.

## GENERAL NOTES (ALL SHEETS):

1. ALL WORK SHALL CONFORM TO THE LATEST STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION STANDARD PLANS AND STANDARD SPECIFICATIONS, CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, COUNTY OF ORANGE SPECIAL PROVISIONS, STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (GREENBOOK) AND AS DIRECTED BY THE COUNTY'S REPRESENTATIVE.
2. LOCATION OF UTILITIES AND SUBSTRUCTURES HAVE BEEN SHOWN FROM A SEARCH OF THE AVAILABLE RECORDS. THE CONTRACTOR SHALL CALL UNDERGROUND SERVICE ALERT AT 811, AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION. THE CONTRACTOR SHALL EXERCISE EXTREME CARE TO AVOID DAMAGING EXISTING UTILITIES.
3. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND NOTIFY ALL AFFECTED AGENCIES AND UTILITY COMPANIES A MINIMUM OF 48 HOURS PRIOR TO START OF CONSTRUCTION.
4. WHERE DAMAGE IS CAUSED BY THE CONTRACTOR'S OPERATIONS, THE CONTRACTOR SHALL AT HIS EXPENSE REPAIR OR REPLACE DAMAGED FACILITIES PROMPTLY IN ACCORDANCE WITH CALTRANS SPECIFICATIONS, TO THE SATISFACTION OF THE AFFECTED UTILITY OWNERS, AND THE ENGINEER IN THE FIELD. WHERE SIDEWALK CURBS OR GUTTERS ARE TO BE REPAIRED, THE REPAIRS SHALL BE MADE BY REMOVING AND REPLACING THE ENTIRE SECTION BACK TO THE NEAREST JOINTS AND NOT BY REFINISHING THE DAMAGED PORTION.
5. ALL EXISTING EQUIPMENT AND MATERIALS REMOVED AS PART OF THE UPGRADE SHALL BE PROPERLY DISPOSED OF BY THE CONTRACTOR.
6. EACH FIBER OPTIC CABLE SHALL BE PERMANENTLY IDENTIFIED BY DIRECT LABELING.
7. NEW PULL BOXES SHALL BE NUMBER 6E PER CALTRANS 2012 UPDATE UNLESS OTHERWISE NOTED.
8. NEW CONDUIT SHALL BE PULLED THROUGH OPPOSITE ENDS OF PULL BOXES USING 45° U.L. APPROVED ELBOWS, UNLESS OTHERWISE INDICATED ON THE PLANS.
9. THE CONTRACTOR SHALL VERIFY WITH THE ENGINEER THE PRECISE FIELD LOCATIONS OF ALL COMMUNICATION EQUIPMENT PRIOR TO INSTALLATION OF EQUIPMENT OR WIRING.
10. NO LANES MAY BE CLOSED OR OBSTRUCTED AT ANY TIME UNLESS SPECIFICALLY ALLOWED AND AS DIRECTED BY THE ENGINEER.
11. THE CONTRACTOR SHALL ARRANGE TO HAVE A FIBER OPTIC COMMUNICATION TECHNICIAN QUALIFIED TO WORK ON THE COMMUNICATION SYSTEM AND EMPLOYED BY THE MANUFACTURER OR THE MANUFACTURER REPRESENTATIVE, PRESENT AT THE TIME OF THE SYSTEM TURN ON.
12. THE CONTRACTOR SHALL PROVIDE ALL PATCH CORDS AND CABLING WITH APPROPRIATE CONNECTORS TO CONNECT ALL THE EXISTING/PROPOSED EQUIPMENT TO HAVE THE SYSTEM FULLY OPERATIONAL.
13. THE CONTRACTOR SHALL PROVIDE SYSTEM INTEGRATION AT COUNTY'S TRAFFIC MANAGEMENT CENTER (TMC) WITH THE PROPOSED EQUIPMENT. THE CONTRACTOR SHALL INSTALL THE REQUIRED COMMUNICATION EQUIPMENT TO PROVIDE A COMPLETE OPERATIONAL SYSTEM WITH MINIMUM DISRUPTION TO THE EXISTING COMMUNICATION SYSTEM. THE CONTRACTOR SHALL COORDINATE WITH THE COUNTY OF ORANGE PUBLIC WORKS DEPARTMENT FOR EQUIPMENT AND INSTALLATION REQUIREMENTS.

14. THE TRAFFIC SIGNALS SHALL REMAIN IN OPERATION AT ALL TIMES UNLESS OTHERWISE APPROVED BY THE COUNTY'S REPRESENTATIVE.
15. THE LOCATIONS OF PROPOSED FIBER OPTIC SPLICE BOXES AND PULL BOXES ARE APPROXIMATE.
16. THE CONTRACTOR SHALL REVIEW THE EXISTING COMMUNICATION SYSTEM IN THE FIELD AND AT THE COUNTY TMC PRIOR TO ORDERING AND INSTALLING THE PROPOSED EQUIPMENT.
17. POTHOLING REQUIRED FOR UTILITIES SHOWN OR NOT SHOWN SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE COST FOR THE POTHOLING REQUIRED SHALL BE INCLUDED IN THE CONTRACT BID PRICE.
18. THE CONTRACTOR SHALL NOTIFY THE ENGINEER 72 HOURS PRIOR TO CONSTRUCTION FOR SCHEDULING ALL INSPECTIONS.
19. CONTRACTOR SHALL PROVIDE MINIMUM 15' OF FIBER OPTIC DROP CABLE SLACK IN ALL PULL BOXES AND MINIMUM 50' SLACK IN PULL BOXES ADJACENT TO CONTROLLER CABINETS AND/OR ADJACENT TO SPLICE ENCLOSURE CABINETS.
20. HARDWARE INTERCONNECT BEING REMOVED AND REINSTALLED AS PART OF THE PROJECT SHALL BE RECONNECTED.
21. CONTRACTOR SHALL REMOVE ALL EXISTING WIRING AND CONDUCTORS NOT REUSED.
22. THE CONTRACTOR SHALL VISIT THE JOB SITE PRIOR TO BIDDING.
23. WIRELESS RADIO COMMUNICATIONS EQUIPMENT WILL BE INSTALLED BY OTHERS.
24. ALL WORK, MATERIALS, AND EQUIPMENT SHALL CONFORM TO CALTRANS STANDARD PLANS AND STANDARD SPECIFICATIONS 2010 AND 2012 UPDATES AS SHOWN HEREON, AND IN THE SPECIAL PROVISIONS.
25. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING THE REQUIRED CALTRANS ENCROACHMENT PERMITS PRIOR TO ANY WORK WITHIN CALTRANS RIGHT-OF-WAY.
26. WORK HOURS SHALL BE FROM 7:00 A.M. TO 4:00 P.M. LANE CLOSURES PROHIBITED FROM 6:00 A.M. TO 9:00 A.M. AND 3:00 P.M. TO 6:00 P.M. MONDAY TO FRIDAY.

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W. O. NO. \_\_\_\_\_  
DWG. NO. \_\_\_\_\_

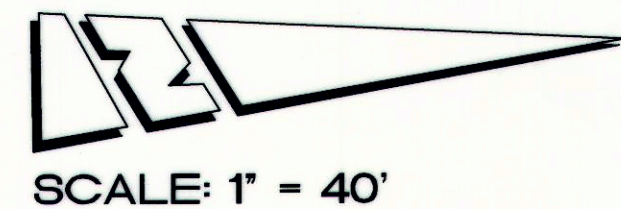
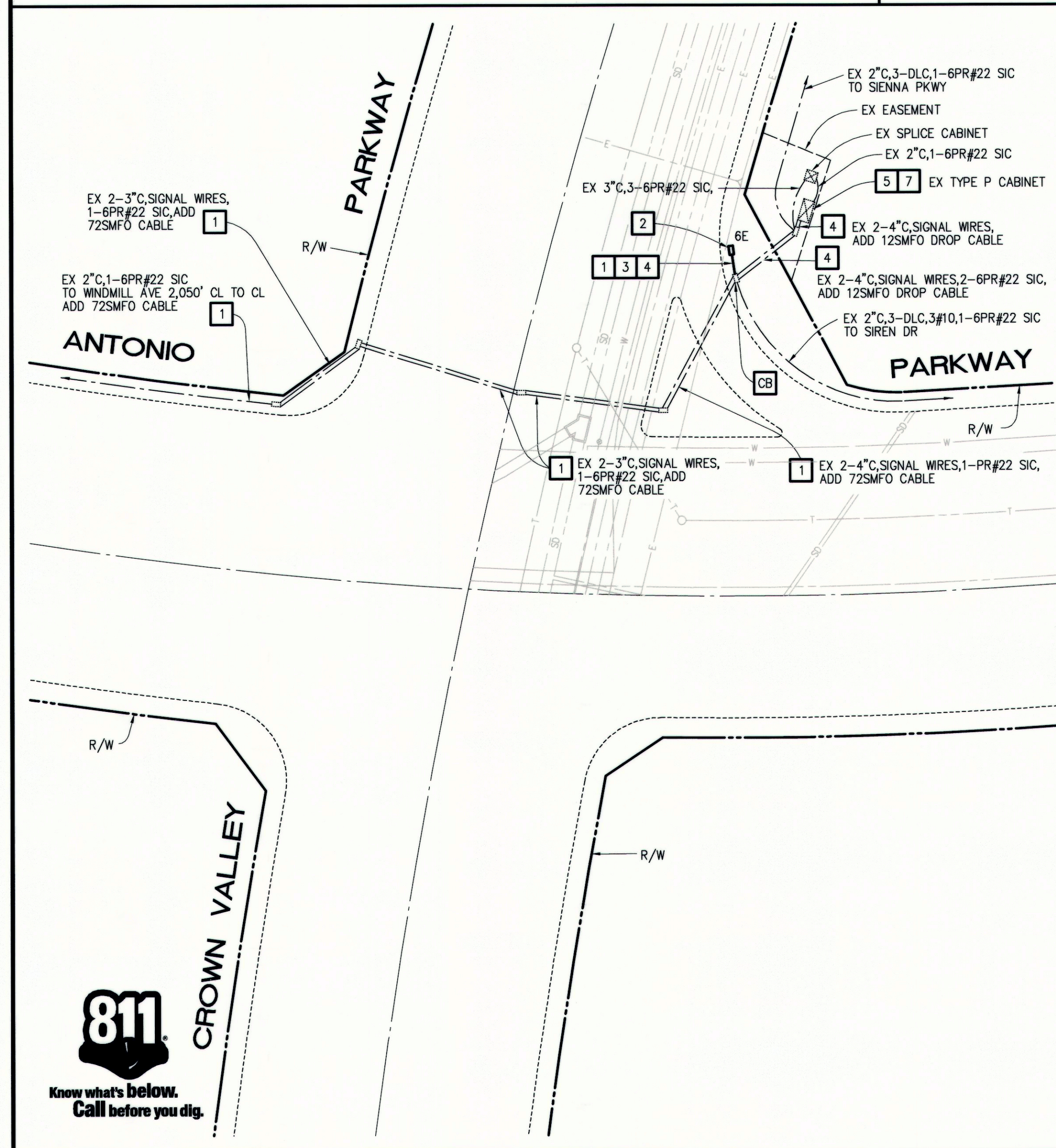
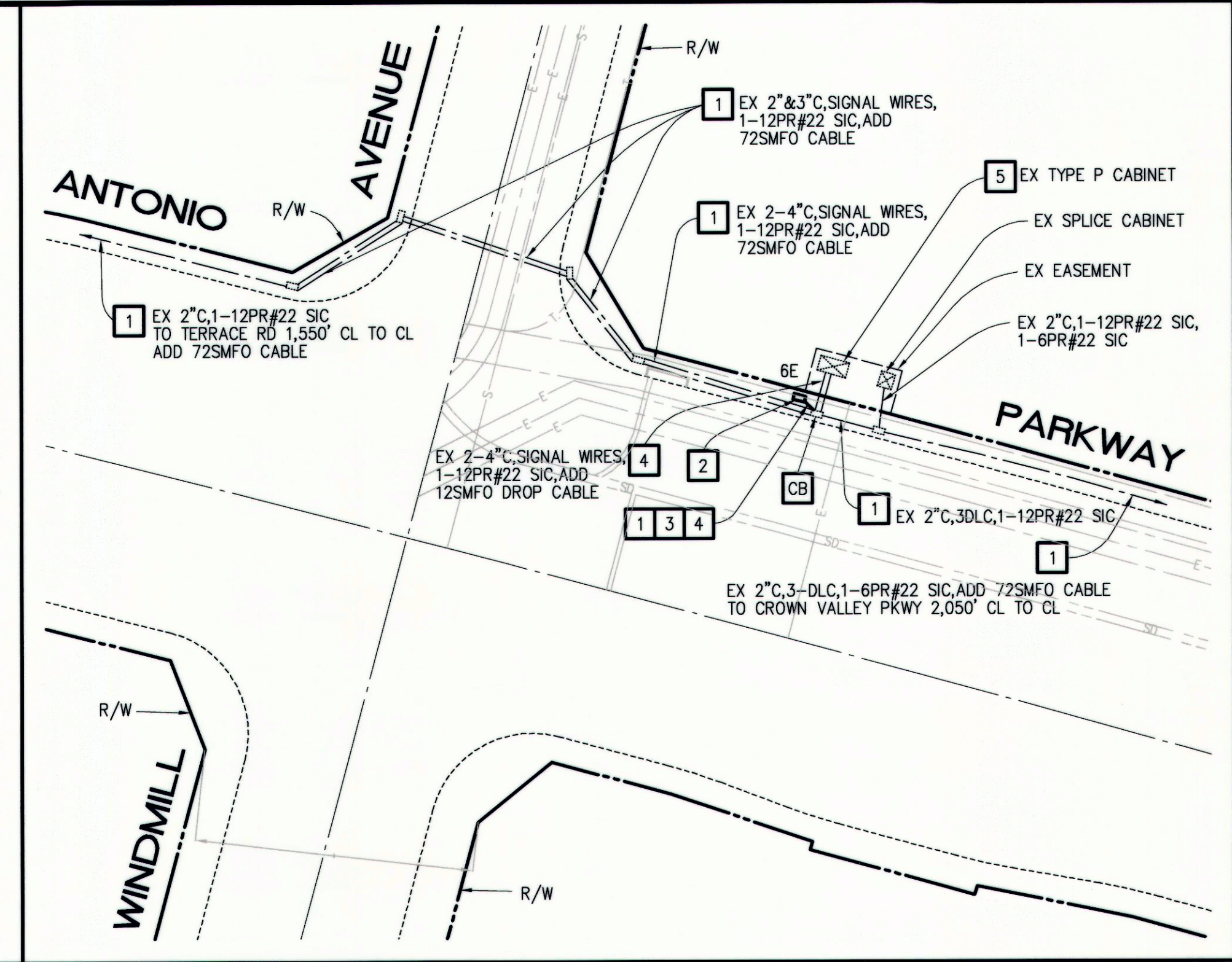
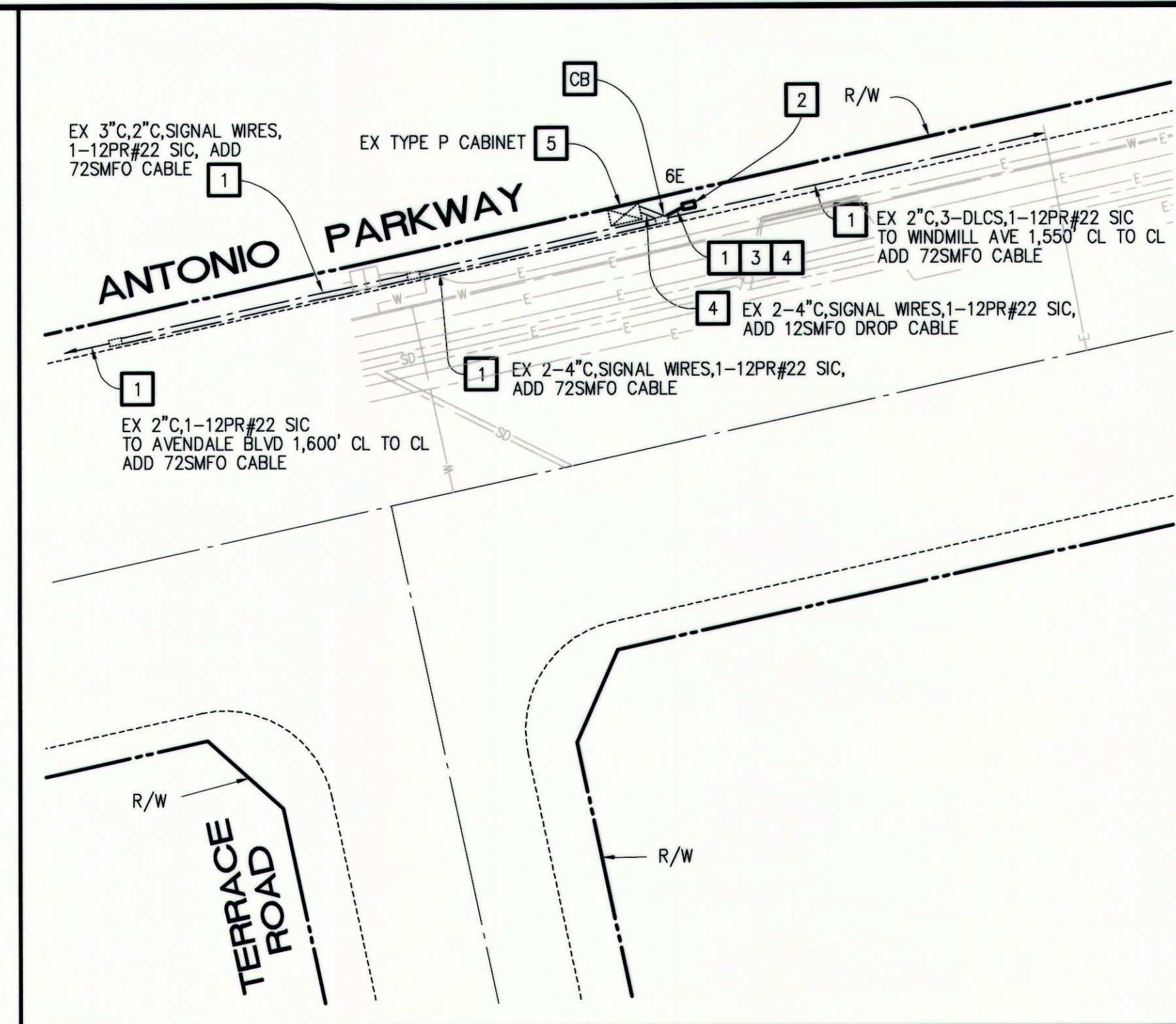
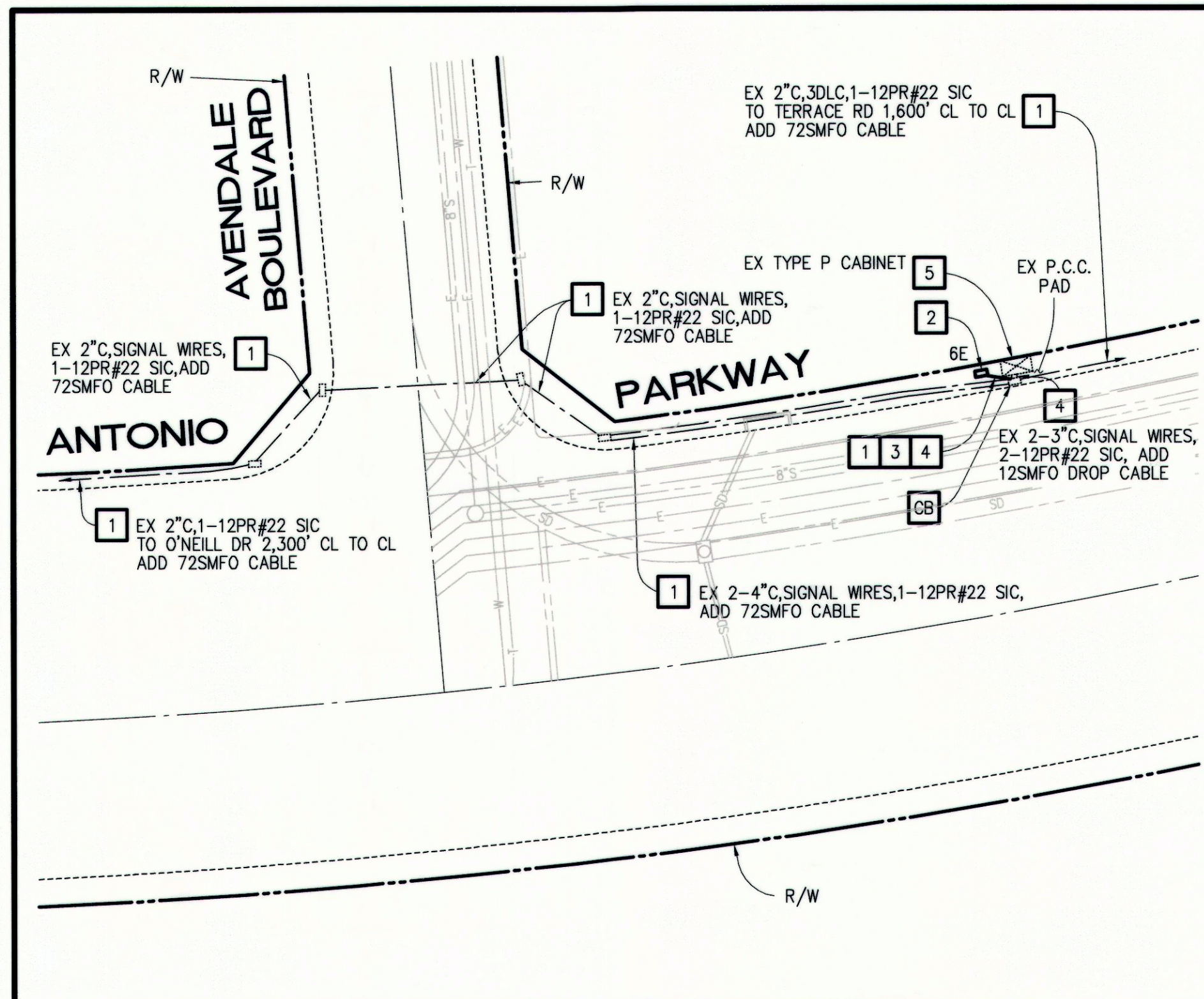
SHEET 1 OF 6

FILE NAME: Antonio Co Title.dwg ACA Job No.: 689-019 Print Date: 11/05/2014 Last Revision: 11/05/2014









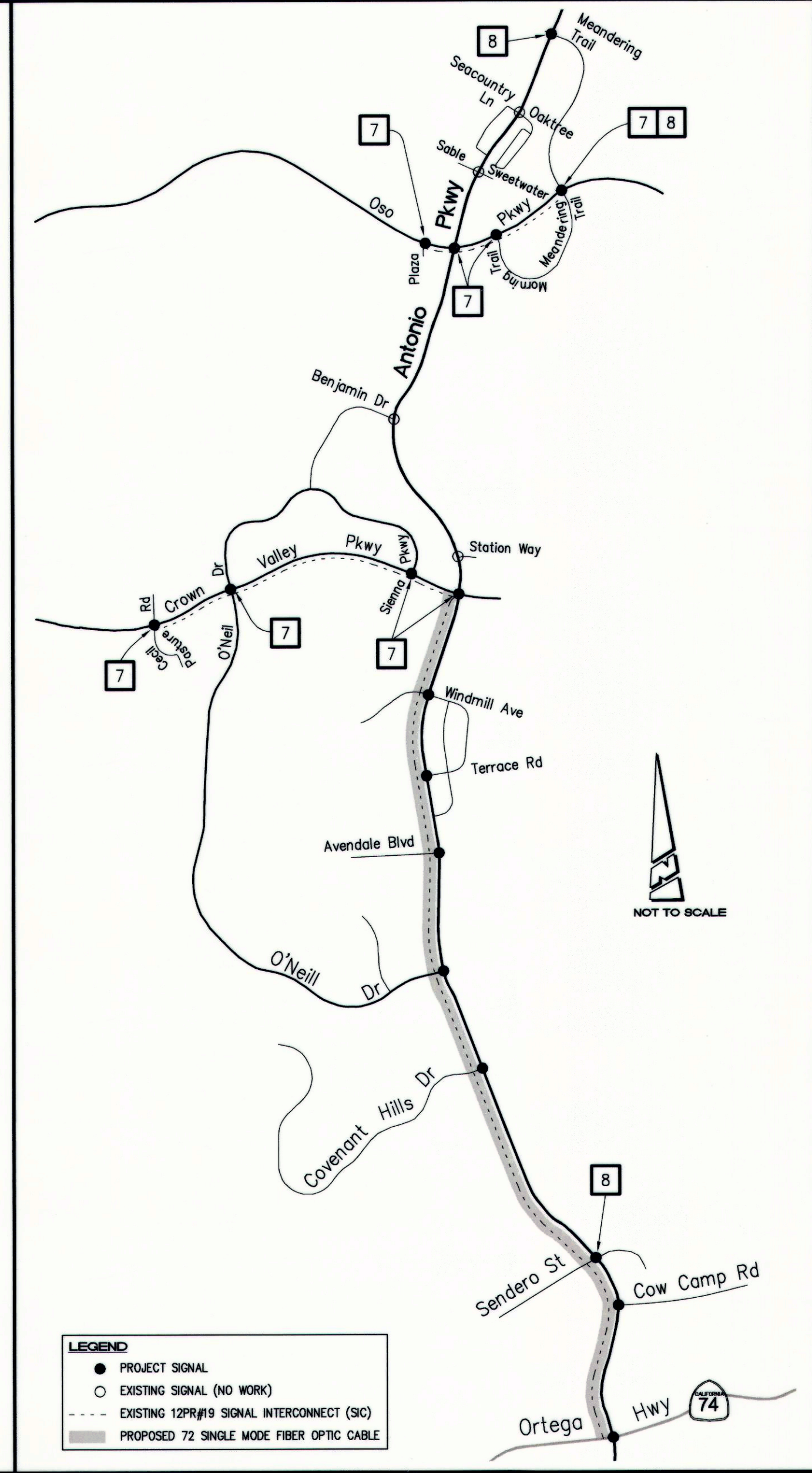
SCALE: 1" = 40'

#### CONSTRUCTION NOTES (THIS SHEET):

NOTE 6 NOT USED IN THIS SHEET.

- 1 - FURNISH AND INSTALL 72SMFO CABLE TRUNK LINE WITH PULL ROPE THROUGH NEW OR EXISTING CONDUITS. PROTECT IN PLACE EXISTING SIGNAL CABLES AND SIGNAL INTERCONNECT CABLE (SIC).
- 2 - FURNISH AND INSTALL #6E PULL BOX ADJACENT TO EXISTING INTERCONNECT OR SIGNAL PULL BOX. INSTALL FIBER OPTIC SPLICE ENCLOSURE (CORNING SCF-6C22-01) IN NEW #6E PULL BOX. FUSION SPLICE NECESSARY FIBERS FOR INTENDED OPERATION. SEE FIBER ASSIGNMENTS ON SHEET 6 OF 6.
- 3 - INSTALL 3" CONDUIT BETWEEN NEW #6E PULL BOX AND EXISTING PULL BOX AS SHOWN ON PLAN.
- 4 - FURNISH AND INSTALL 12SMFO DROP CABLE WITH PULL ROPE THROUGH NEW OR EXISTING CONDUITS. PROTECT IN PLACE EXISTING SIGNAL CABLES AND SIGNAL INTERCONNECT CABLE (SIC).
- 5 - FURNISH AND INSTALL ETHERWAN EX71620-A0B FIBER SWITCH COMPLETE IN EXISTING CONTROLLER CABINET. FURNISH AND INSTALL FIBER TERMINATION UNIT (CORNING SPH-01P) COMPLETE WITH ONE 12-FIBER SC CONNECTOR PANEL (CCH-CP12-59) AND SC-SC DUPLEX FIBER JUMPERS. TERMINATE NECESSARY FIBERS FOR INTENDED OPERATION. SEE FIBER ASSIGNMENTS ON SHEET 6 OF 6.
- 7 - FURNISH AND INSTALL NEW ETHERWAN ED3175-82B DSL ETHERNET SWITCH IN EXISTING CONTROLLER CABINET.
- 8 - FURNISH AND INSTALL NEW WIFI SPEED DETECTION/TRAVEL TIME UNIT AND ANTENNA. EXACT LOCATION OF THE ANTENNA WILL BE DETERMINED IN THE FIELD BY THE MANUFACTURER REPRESENTATIVE.
- CB - INSTALL CONDUIT INTO EXISTING PULL BOX.

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LEGEND  
 ● PROJECT SIGNAL  
 ○ EXISTING SIGNAL (NO WORK)  
 --- EXISTING 12PR#19 SIGNAL INTERCONNECT (SIC)  
 — PROPOSED 72 SINGLE MODE FIBER OPTIC CABLE



MARK	DESCRIPTION	DATE	APPR.

PREPARED UNDER THE RESPONSIBLE CHARGE OF:

REGISTERED PROFESSIONAL ENGINEER  
 CHALAPATH K. SADAM  
 No. 74080  
 CIVIL & ELECTRICAL  
 STATE OF CALIFORNIA

DATE: 11/15/14

DESIGNED BY: IGNACIO SANCHEZ  
 DRAWN BY: IGNACIO SANCHEZ  
 CHECKED BY: CHALAPATH K. SADAM

COUNTY OF ORANGE  
 OC PUBLIC WORKS

PLANS PREPARED BY: ALBERT & ASSOCIATES  
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 FILE NAME: \_\_\_\_\_  
 PLOT DATE: \_\_\_\_\_  
 SCALE: AS NOTED

ANTONIO PARKWAY CORRIDOR  
 IMPROVEMENTS PROJECT

TRAFFIC SIGNAL  
 COMMUNICATIONS  
 PLAN

Sheet  
 Reference  
 Number

3

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## COMMUNICATION NETWORK SCHEMATIC

