

GENERAL NOTES:

- 1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION", (SSPWC) CURRENT
- 2. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO KEEP ADJACENT STREETS CLEAN AT ALL TIMES. TRUCKS AND EQUIPMENT USING THE STREET SHALL NOT TRACK DIRT OR DEBRIS THEREON. STREET CLEANING SHALL BE BY STREET SWEEPER ONLY AS NEEDED DURING THE WORK DAY AND AT THE END OF EACH WORK DAY.

- 5. ANY CHANGES FROM THE PLAN, STANDARD NOTES OR STANDARD DESIGN AND SPECIFICATIONS SHALL BE APPROVED BY THE WATER MANAGER IN
- 6. CONTRACTOR SHALL OBTAIN AN ENCROACHMENT PERMIT FROM THE CITY OF UPLAND PUBLIC WORKS/LAND DEVELOPMENT AND TRANSPORTATION DIVISION FOR ALL EXCAVATION WITHIN CITY OF UPLAND STREETS.
- 7. CONTACT UTILITIES USING UNDERGROUND SERVICE ALERT U.S.A. (811) 72 HOURS PRIOR TO COMMENCING EXCAVATION.
- 7. ANY CONNECTION(S) TO EXISTING WATER MAINS SHALL BE MADE ONLY WITH THE SPECIFIC APPROVAL OF THE SAN ANTONIO WATER COMPANY INSPECTOR.
- 9. CONTRACTOR SHALL EMPLOY BEST MANAGEMENT PRACTICES (BMP'S) AND ALL WORK SHALL COMPLY WITH THE REQUIREMENTS OF NPDES.
- 10. WHEN CROSSING EXISTING UTILITY LINES, CONTRACTOR SHALL USE SUPPORT FOR CONDUIT ACROSS TRENCHES PER APWA STD. PLAN 224-2.
- 11. CONTRACTOR TO REMOVE ALL UNDERGROUND SERVICE ALERT (USA) MARKINGS/GRAFFITI BEFORE THE FINAL APPROVAL OF THE PROJECT BY THE
- 12. ALL WORK AND MATERIAL SHALL CONFORM TO THE HIGHER STANDARD IN EITHER "STANDARD SPECIFICATIONS FOR THE CONSTRUCTION OF WATER MAINS AND APPURTENANCES, LATEST EDITION " ON FILE AT THE SAN ANTONIO WATER COMPANY, OR "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION." LATEST ISSUE AND AMENDMENTS. KNOWN AS THE "GREEN BOOK."
- 13. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR LOCATING AND PROTECTING FROM DAMAGE ALL EXISTING FACILITIES AND IMPROVEMENTS WETHER OR NOT SHOWN ON THE PLANS. THE FACILITIES AND IMPROVEMENTS ARE BELIEVED TO BE CORRECTLY SHOWN BUT THE CONTRACTOR IS REQUIRED TO SATISFY HIMSELF AS TO THE COMPLETENESS AND ACCURACY OF THE LOCATIONS.
- 14. CITY OF UPLAND MAY HAVE WATER LINES AND SEWER LINES IN THIS AREA. CONTACT THEM FOR LOCATION, SIZE, AND DEPTH OF LINES, AND OTHER PERTINENT INFORMATION.
- 15. QUANTITIES SHOWN ON THE PLANS ARE ESTIMATED. THE CONTRACTOR SHALL SATISFY HIMSELF AS TO THE ACCURACY OF THE QUANTITIES BEFORE BIDDING ON ANY ITEM.
- 16. THE CONTRACTOR SHALL OBTAIN A PERMIT FROM THE STATE OF CALIFORNIA, DEPARTMENT OF INDUSTRIAL RELATIONS, DIVISION OF INDUSTRIAL SAFETY, BEFORE STARTING THE EXCAVATION OF ANY TRENCH FIVE FEET OR MORE IN DEPTH. SHORING BRACING, SLOPING AND ALL OTHER PROVISIONS FOR WORKER PROTECTION SHALL CONFORM TO THE PROVISIONS CONTAINED IN ARTICLE 6 OF THE STATE OF CALIFORNIA, DEPARTMENT OF INDUSTRIAL RELATIONS CONSTRUCTION SAFETY ORDERS, EFFECTIVE AUGUST 8, 1965, AND AS AMENDED JULY 27, 1973. IF VARIATION THESE STANDARDS IS DESIRED, A DETAILED PLAN SHALL BE PREPARED BY A REGISTERED CIVIL ENGINEER AND SUBMITTED TO THE PUBLIC WORKS DIRECTOR FOR APPROVAL.
- 17. ALL WATER AND SEWER MAINS SHALL MEET THE STATE OF CALIFORNIA, DEPARTMENT OF HEALTH REQUIREMENTS FOR THE SEPARATION BETWEEN WATER MAINS AND SANITARY SEWER.
- 18. THE CONTRACTOR IS REQUIRED TO REPAIR THE EXISTING PAVEMENT WHICH IS REMOVED OR DAMAGED BY HIS OPERATIONS IN ACCORDANCE WITH STANDARD DRAWING CU-Z-3A UNLESS ARRANGEMENTS ARE MADE WHICH COORDINATE STREET PAVING IN A MANNER ACCEPTABLE TO AND APPROVED BY THE PUBLIC WORKS DIRECTOR.
- 19. ACCESS TO WATER VALVES SHALL BE MAINTAINED DURING ALL PHASES OF THE PROJECT. VALVE BOXES TO REMAIN FREE AND CLEAR OF DEBRIS.
- 20. SEPARATION BETWEEN WATER INSTALLATIONS AND OTHER UTILITIES SHALL BE MAINTAINED (PER WATER DIVISION STD. W.25).
- 21. MINIMUM COVER OF WATER LINES SHALL BE 36 INCH MIN. COVER.

PRIVATE ENGINEERING NOTE

CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CON-TRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPON-SIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUC- TION OF THE PROJECT INCLUDING SAFETY OF ALL PERSONS AND PROPERTY. THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND CONSTRUCTION CON- TRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD DESIGN PROFESSIONAL HARMLESS FROM ANY AND ALL LIABILITY REAL OR ALLEGED IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF DESIGN PROFESSIONAL.

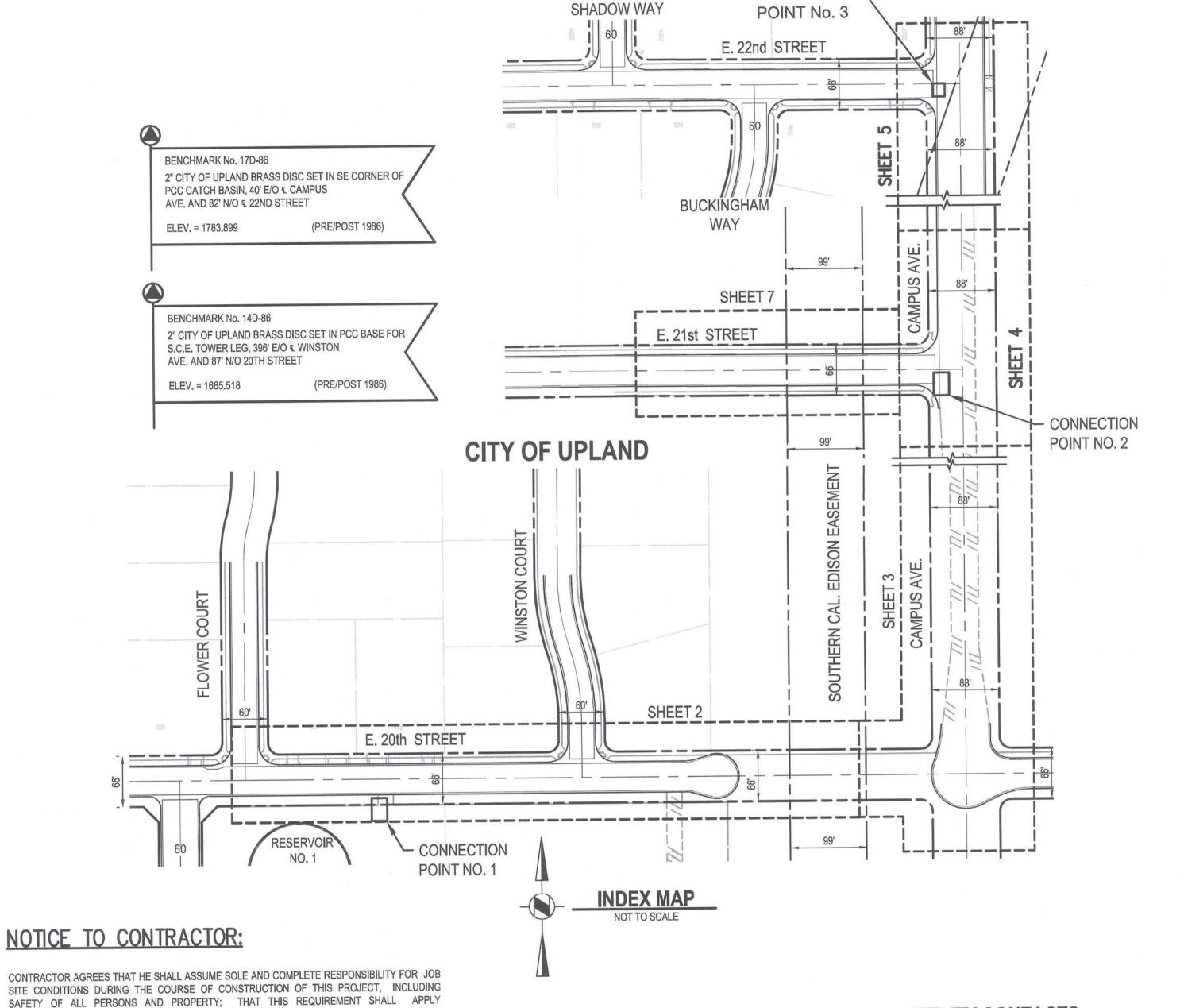
PRIVATE ENGINEERS NOTE:

. THESE DOCUMENTS HAVE BEEN PREPARED FOR A SPECIFIC PROJECT AND SHALL NEITHER BE ALTERED NOR REUSED FOR ANY OTHER PURPOSE. ALSO, THESE DOCUMENTS DO NOT UNINTENTIONALLY, OR REUSED WITHOUT THE DESIGN ENGINEER'S WRITTEN APPROVAL, IT ATTORNEY FEES. ARISING OUT OF SUCH ACT.

REPRESENT AS-BUILT CONDITIONS. IF THESE DOCUMENTS ARE ALTERED INTENTIONALLY OR WILL BE AT THE SOLE RISK AND RESPOND- SIBILITY OF THE USER. THE ACT OF ALTERING OR REUSING IS CONSTRUED AS INDEMNIFYING AND HOLDING THE DESIGN ENGINEERING FIRM AND ITS EMPLOYEES HARMLESS FROM ALL CLAIMS, DAMAGES, AND EXPENSES, INCLUDING

SAN ANTONIO WATER COMPANY

CAMPUS AVENUE PIPELINE **PROJECT**



CONNECTION -

SPECIAL NOTE:

ALL BEARINGS AND DISTANCES SHOWN ON THESE PLANS ARE BASED ON PROJECT SURVEY CONTROL POINTS AND ARE NOT TO BE USED TO LOCATE PROPERTY CORNERS.

LEGEND OF SYMBOLS AND **ABBREVIATIONS**

SEE SHEET NUMBER 7

BMP FOR DISCHARGE OF CONSTRUCTION WATER TO COMPLY WITH THE CONSTRUCTION GENERAL PERMIT REQUIREMENTS.

UTILITY CONTACTS

SAN ANTONIO WATER COMPANY 139 N. EUCLID AVE. UPLAND, CA. 91786 CONTACT: BRAIN LEE PHONE: (909) 982-4107

STANDARD DRAWINGS:

SUPPORT FOR CONDUITS ACROSS TRENCHES

UPLAND PUBLIC WORKS DEPARTMENT

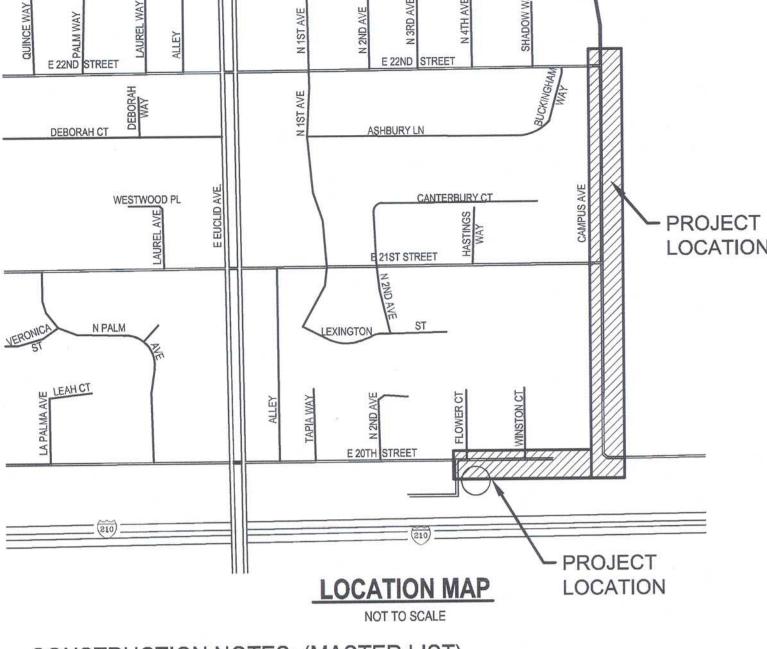
CITY STD, CU-Z-3A

TRENCH BEDDING AND PAVEMENT REPAIR DETAIL

DISTURBED SURFACE AREA

JANUARY 2019

TRENCH SURFACE: 5,604 SQ. FT.



CONSTRUCTION NOTES: (MASTER LIST)

1) REMOVE EXISTING PIPING, BENDS,& FITTINGS AS REQUIRED TO COMPLETE INSTALL OF NEW PIPING. FURNISH AND INSTALL 6"x8" D.I. REDUCER, MJxMJ. 3) FURNISH AND INSTALL 8" PVC PIPE, C900 WITH TRACER WIRE DETAIL 4 SHEET 6.

(4) CUT AND CAP EXISTING STEEL WATER LINE PIPE.

5) REMOVE AND SALVAGE EXISTING VALVE.

FURNISH AND INSTALL 14" STEEL BLIND FLANGE.

SAWCUT, REMOVE AND REPLACE A.C. PAVEMENT PER CITY OF UPLAND STANDARD CU-Z-3A PER DETAIL 2 ON SHEET 7.

FURNISH AND INSTALL 12" STEEL BLIND FLANGE.

INSTALL 8"-45° DUCTILE IRON BEND, MJXMJ WITH THRUST BLOCK PER DETAIL NO. 5 ON SHEET 6.

INSTALL 8"-90° DUCTILE IRON BEND, MJXMJ WITH THRUST BLK, PER DETAIL NO. 5 ON SHT. 6.

FURNISH AND INSTALL 8"x8"x8" D.I. TEE, FLGxFLGxFLG, WITH THRUST BLOCK PER DETAIL 5 ON SHEET 6. FURNISH AND INSTALL 8" GATE VALVE, FLGxMJ WITH VALVE BOX AND COVER PER DETAIL 3 ON SHEET 6.

[13] FURNISH AND INSTALL 8" FLANGE COUPLING ADAPTOR, ROMAC FC501, OAE.

FURNISH AND INSTALL 8" TRANSITION COUPLING.

FURNISH AND INSTALL 4" PVC PIPE C900 WATER LINE WITH TRACER WIRE PER DETAIL 4 ON SHEET 6.

FURNISH AND INSTALL 4" GATE VALVE, FLGXMJ WITH VALVE BOX AND COVER PER DETAIL 3 ON SHEET 6.

(17) FURNISH AND INSTALL 8"x8"x4" D.I. TEE, FLGxFLGxFLG, WITH THRUST BLOCK PER DETAIL 5 ON SHEET 6.

(18) FURNISH AND INSTALL WATER SERVICE PER SAWCO STD. DWG. 12

(19) FURNISH AND INSTALL PLUG AND BLOW-OFF ASSY. PER SAWCO STANDARD DRAWINGS 8 AND 11.

(20) INSTALL 6"-45° DUCTILE IRON BEND, FLGXMJ WITH THRUST BLOCK PER DETAIL NO. 5 ON SHEET 6.

(21) FURNISH AND INSTALL 6" STEEL SLIP-ON WELDING FLANGE.

FURNISH AND INSTALL 6" PVC PIPE, C900 WITH TRACER WIRE.

(23) FURNISH AND INSTALL TEST STATION PER DETAIL 4 ON SHEET 6.

(24) FURNISH AND INSTALL 14" STEEL SLIP-ON WELDING FLANGE.

(25) FURNISH AND INSTALL 6" STEEL BLIND FLANGE.

(26) FURNISH AND INSTALL 6" FLANGE X MJ ADAPTER.

(27) FURNISH AND INSTALL 12" SLIP-ON WELDING FLANGE.

LIST OF DRAWINGS

SHEET 1: TITLE SHEET; VICINITY MAP, LOCATION MAP, MASTER CONSTRUCTION NOTES

SHEET 2: PLAN AND PROFILE SHEET

SHEET 3: PLAN AND PROFILE SHEET

SHEET 4: PLAN AND PROFILE SHEET

SHEET 5: PLAN AND PROFILE SHEET

SHEET 6: DETAILS AND TYPICAL SECTION SHEET

SHEET 7: PLAN, SECTIONS AND DETAIL SHEET

Water Company,

SAN ANTONIO WATER COMPANY CAMPUS AVENUE WATER LINE PROJECT

W.O.F.B. FILE NO. SAN ANTONIO WATER COMPANY

A Free Public Service Provided by

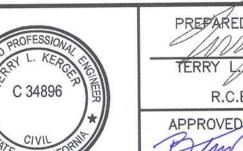
Underground Service Alert of Southern California

Know what's below.

Call before you dig.



APPR DATE



NEGLIGENCE OF THE OWNER OR THE ENGINEER.

RESURFACING NOTES:

PREPARED UNDER THE DIRECTION OF: DATE 1/22/19 MMX XMM TERRY LAKERGER, P.E. R.C.E. NO. 34896 APPROVED BY: SAN ANTONIO WATER COMPANY DATE 6/11/19

CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY, AND HOLD THE OWNER, AND THE ENGINEER

HARMLESS FROM ANY AND ALL LIABILITY REAL OR ALLEGED, IN CONNECTION WITH THE

PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE

THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITY PIPES OR STRUCTURES SHOWN

ON THESE PLANS ARE OBTAINED BY A SEARCH OF THE AVAILABLE RECORDS. TO THE BEST OF

OUR KNOWLEDGE THERE ARE NO EXISTING UTILITIES EXCEPT AS SHOWN ON THESE PLANS. THE

CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT THE UTILITY

LINES SHOWN AND ANY OTHER LINES NOT OF RECORD OR NOT SHOWN ON THESE PLANS. THE

CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING "UNDERGROUND SERVICE ALERT" AT 811

1. PAVEMENT REMOVALS FOR TRENCH RESURFACING SHALL BE AT RIGHT ANGLES TO OR PARALLEL

3. ANY PROPOSED STREET CLOSURES REQUIRE A STREET CLOSURE PERMIT FROM THE CITY OF

UPLAND AT LEAST 48 HOURS PRIOR TO THE START OF CONSTRUCTION.

BRIAN LEE - GM

WITH THE CENTERLINE OF THE STREET. NO CURVILINEAR TRENCH SURFACING WILL BE PERMITTED.

2. ALL PAVEMENT CUTS FOR TRENCH RESURFACING SHALL BE SAW CUT LEAVING A CLEAN STRAIGHT LINE.

4. A PRE-CONSTRUCTION MEETING SHALL BE SCHEDULED WITH THE PUBLIC WORKS DEPARTMENT AT

TWO WORKING DAYS PRIOR TO ANY EXCAVATION OR CONSTRUCTION.

LEAST 72 HOURS PRIOR TO START OF CONSTRUCTION.

PLANS PREPARED BY:



Construction Management . Surveying

California · Arizona

Monrovia, CA 91016 Phone: 626.357.0588 Fax: 626.303.7957 Web: www.civiltec.com

118 West Lime Avenue

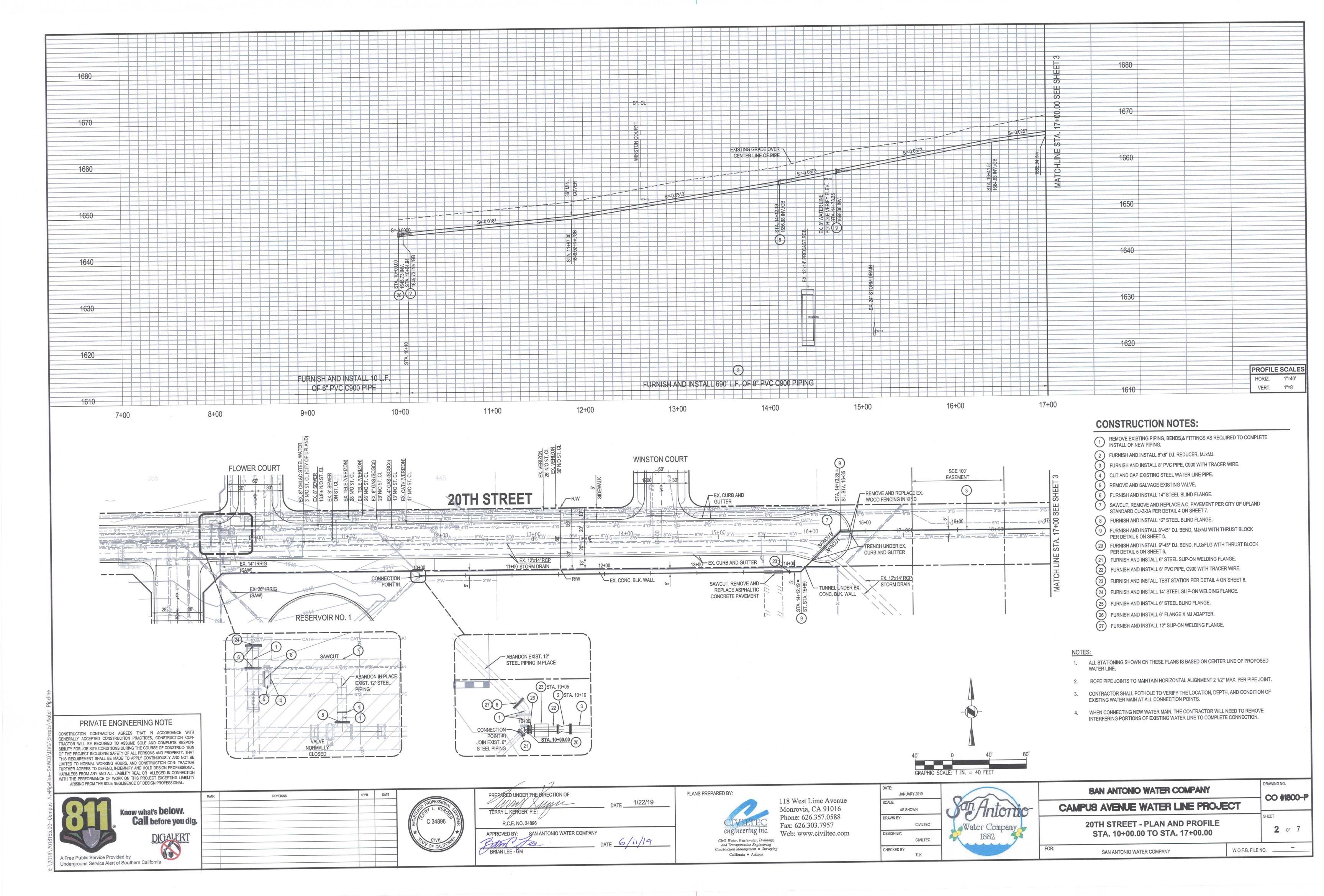
AS SHOWN **DESIGN BY:** CIVILTEC CHECKED BY:

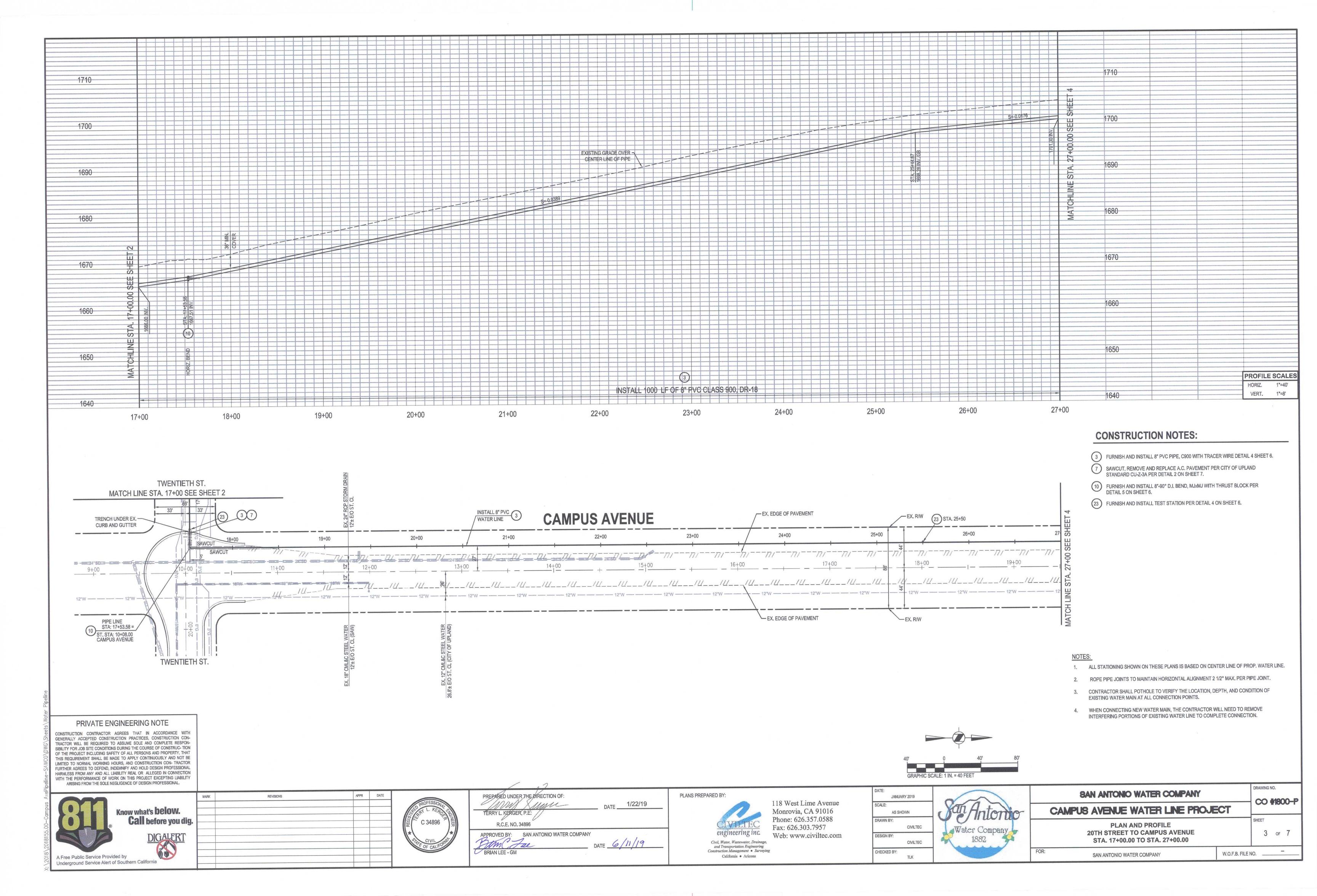
TITLE SHEET

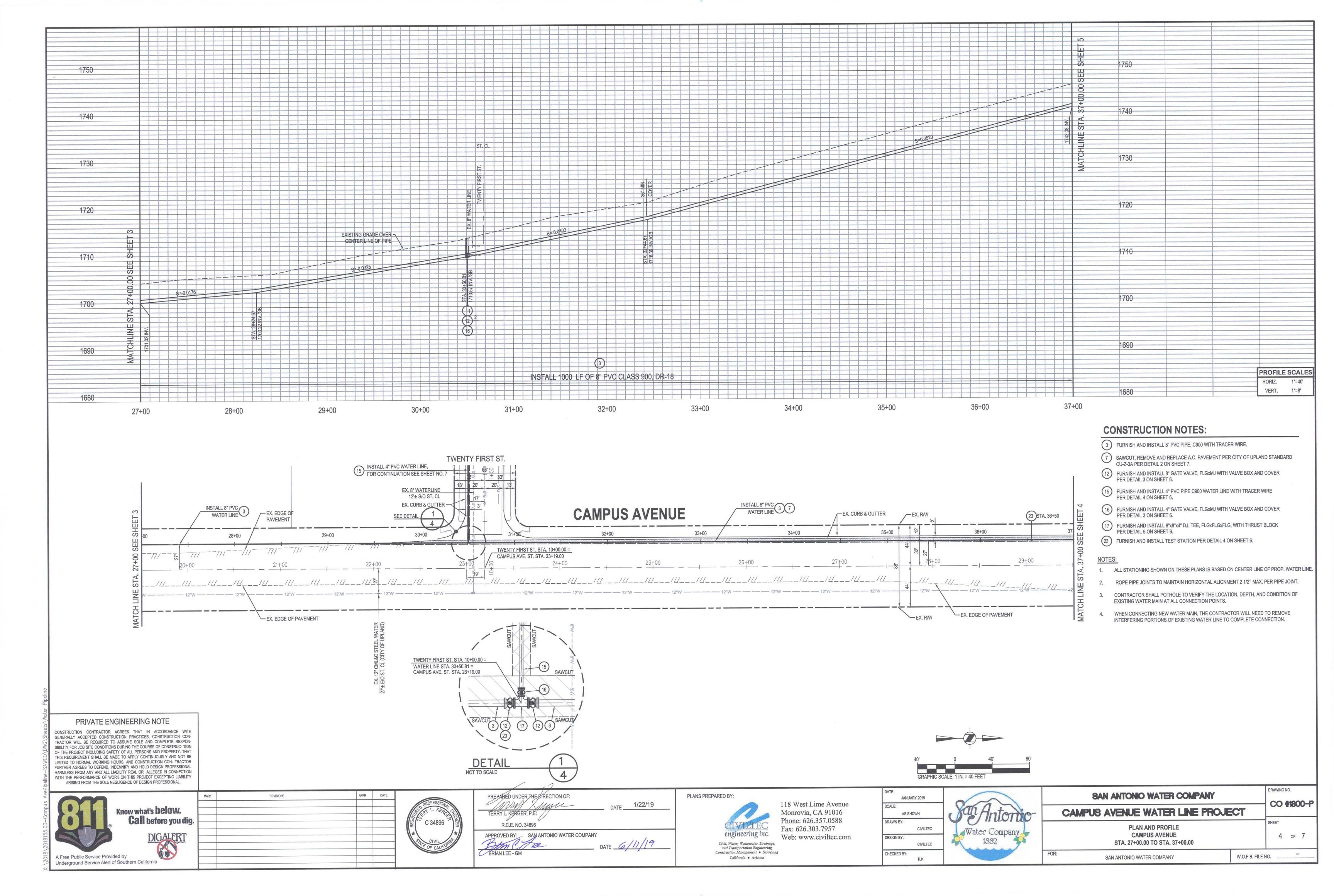
DRAWING NO.

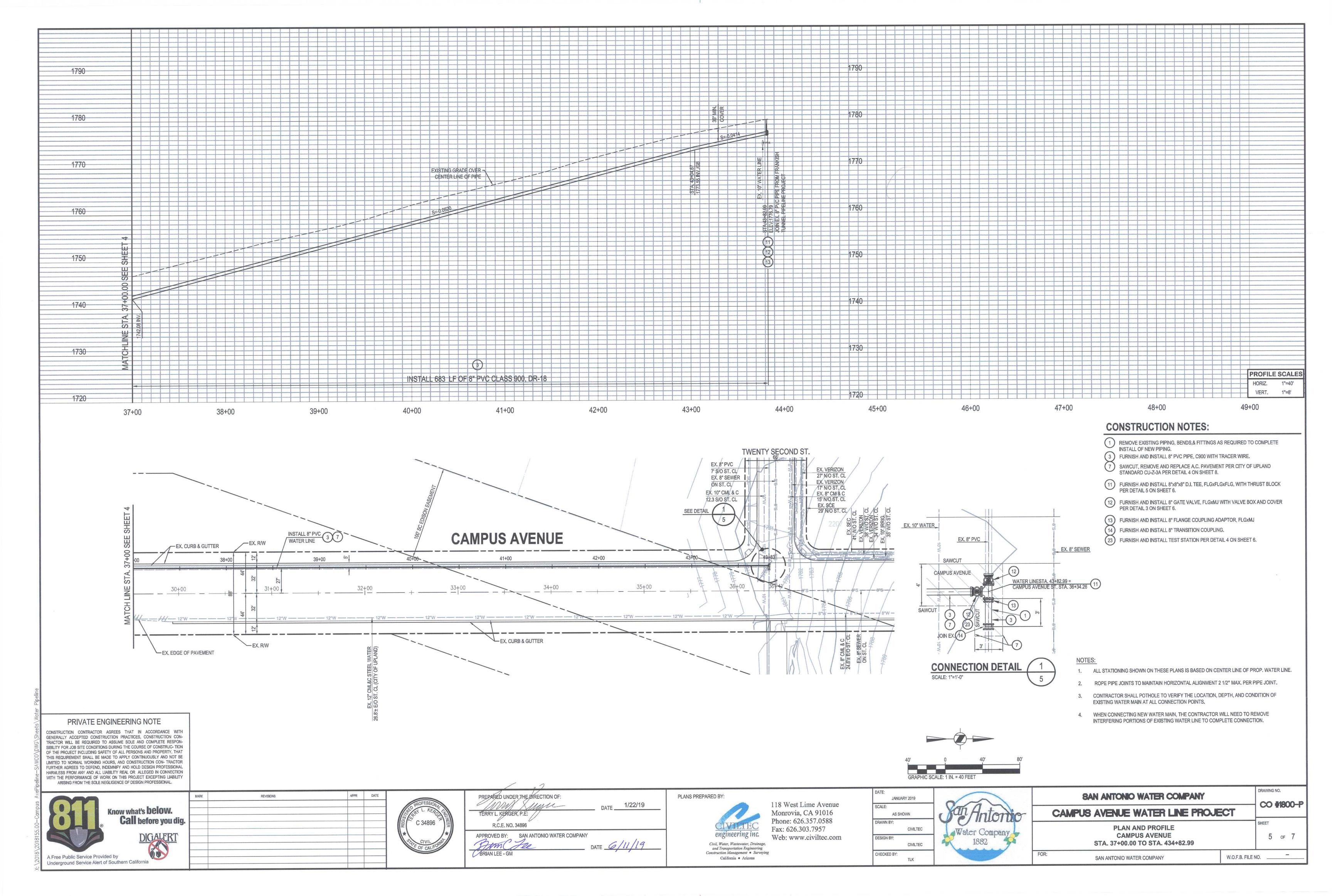
CO #1800-P

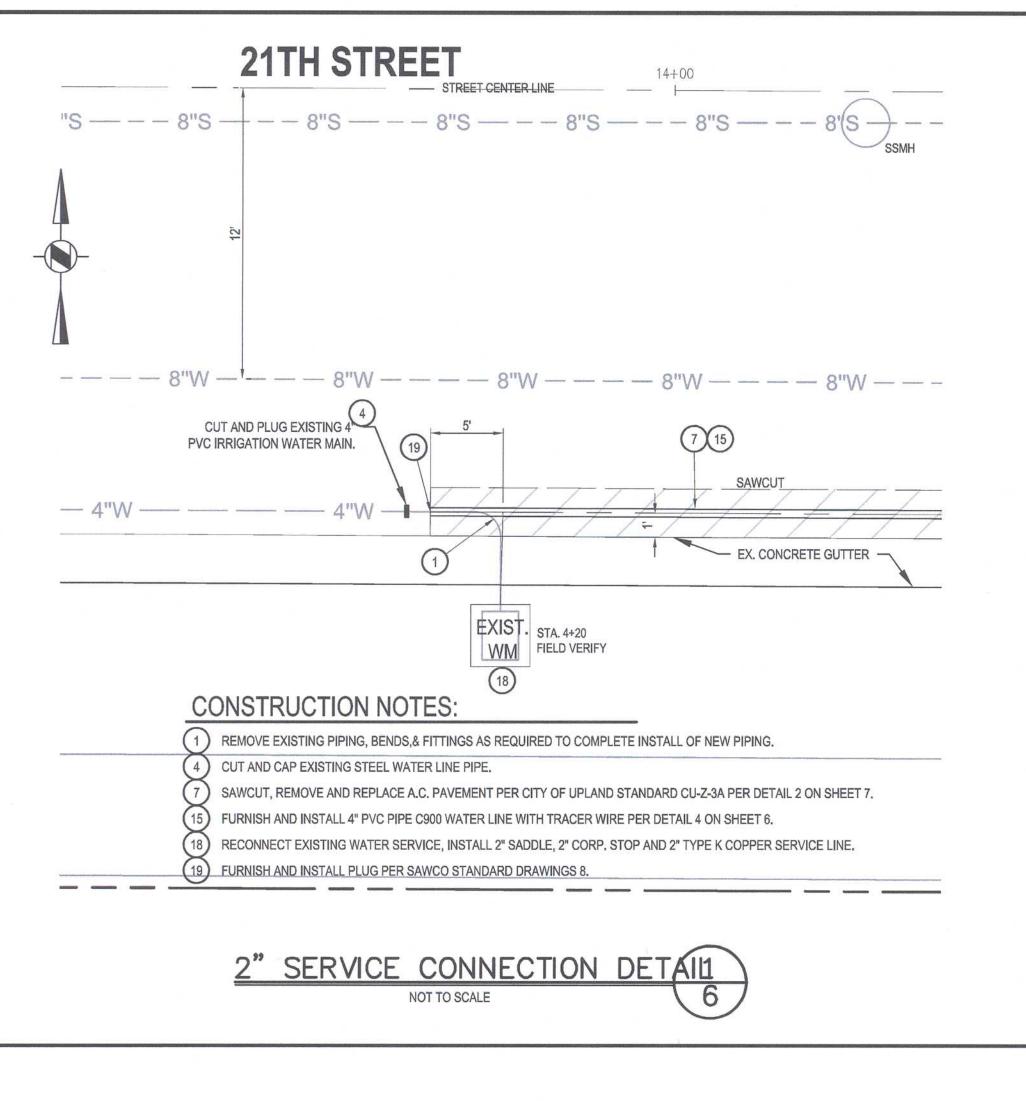
1 of 7

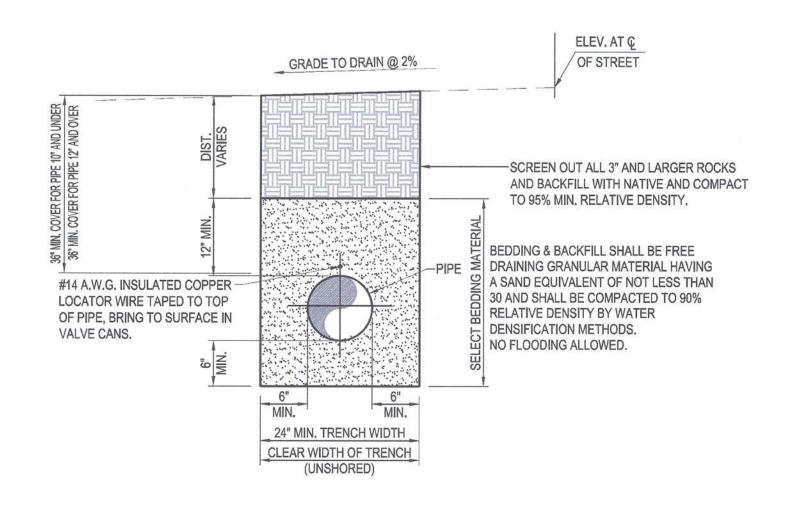






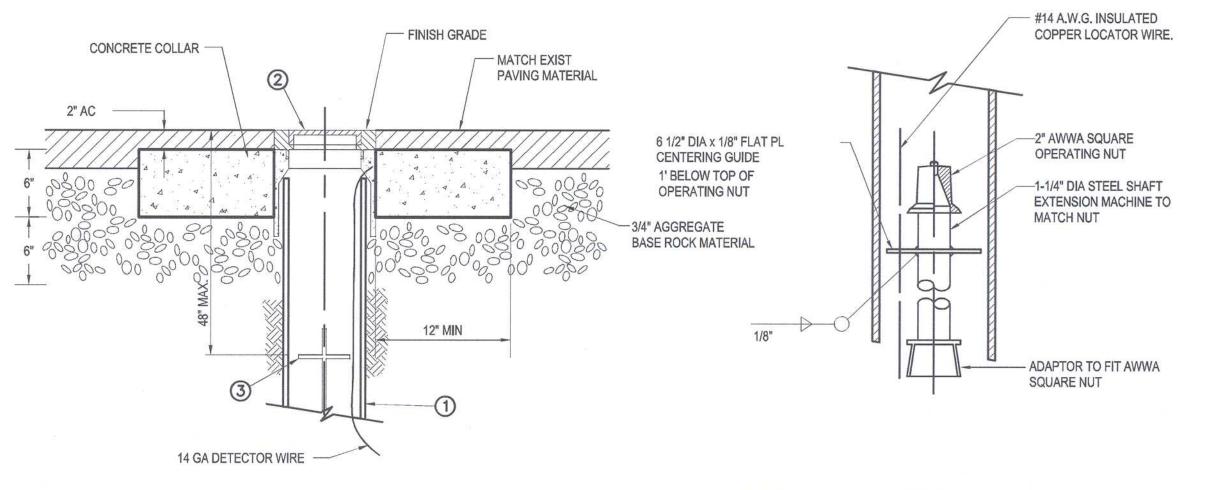






- 1. EXCAVATED MATERIAL IS CONSIDERED ROCKY IF THE LARGEST DIAMETER IN ANY DIRECTION IS 4"
- 2. IN DEDICATED RIGHT-OF-WAYS AND "PRIVATE AND FUTURE" STREETS SUBJECT TO PERMITS, COMPLY WITH PERMIT REQUIREMENTS, EXCEPT WHERE THEY ARE LESS THAN THAT OF SAWC.
- 3. THE REQUIREMENTS THAT MAY BE SET BY PERMITS, EASEMENTS, TECHNICAL SPECIFICATIONS, OR OTHER PERMISSIONS SHALL TAKE PRECEDENCE OVER THE VALUES SHOWN ON THE CHART. EXCEPT WHERE THEY ARE LESS THAN THAT OF SAWC. THE DEPTH OF COVER OVER THE PIPE SHALL BE MEASURED VERTICALLY FROM THE TOP OF THE PIPE WITH REFERENCE TO AN APPROVED, IMPROVED GUTTER SURFACE FLOWLINE. WHERE THERE IS NO APPROVED, IMPROVED GUTTER SURFACE FLOWLINE, USE THE ELEVATION AT THE CENTER OF THE STREET AS THE REFERENCE

TYPICAL TRENCH "UNPAVED ROAD" DETAND NOT TO SCALE



CONSTRUCTION NOTES

- 1) 8" DIAMETER SCHEDULE 35 SDR PIPE.
- (2) CAST IRON FRAMES AND COVERS SHALL BE CIRCULAR, BROOKS NO. 3RT, OR EQUAL, COVER CAST WITH WORD "WATER".
- 3 VALVE STEM EXTENSION. (SEE RIGHT)

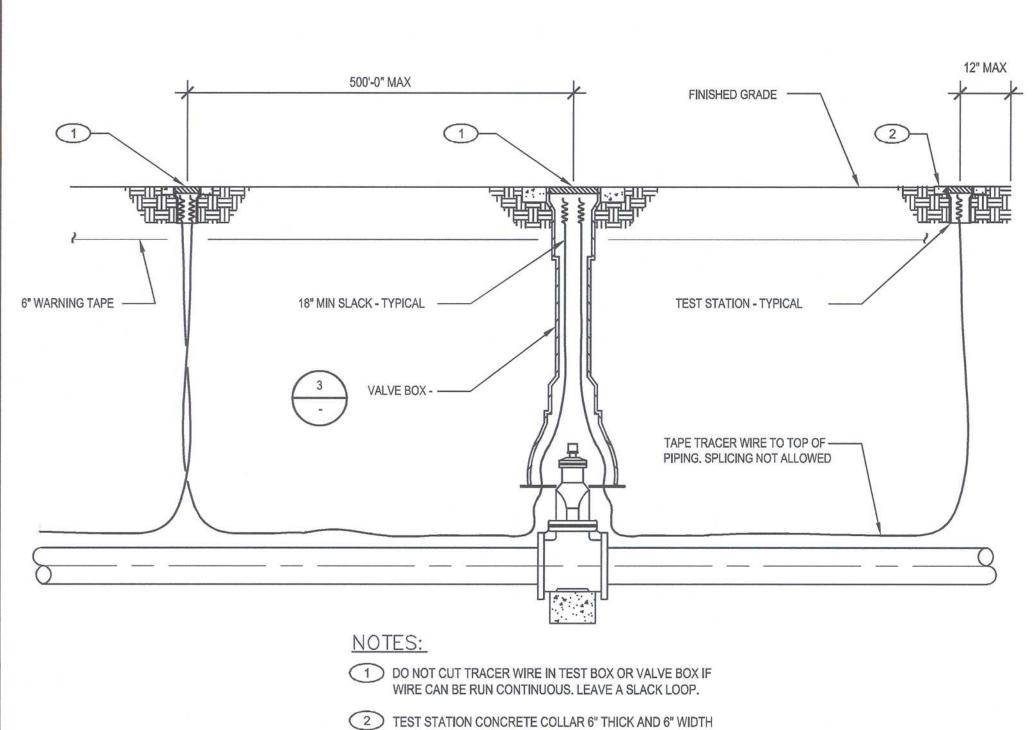
GENERAL NOTES:

1 CONCRETE SHALL BE 560-C-3250.

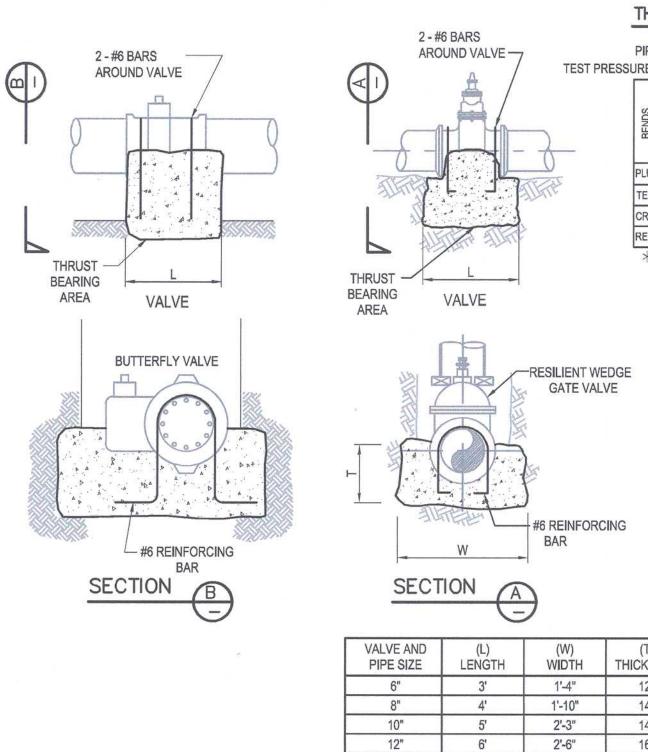
GENERAL NOTES:

- 1. PROVIDE VALVE STEM EXTENSION WHEN DEPTH TO OPERATING NUT EXCEEDS 48". FABRICATE EXTENSION TO FIELD MEASUREMENTS. PROVIDE ADDITIONAL SPACER PLATE WHEN DISTANCE TO BOTTOM SOCKET EXCEEDS 5 FEET.
- 2. VALVE EXTENSION SHALL BE OF SOLID DESIGN, PINNED COUPLER ARE UNACCEPTABLE.
- 3. 2" SQUARE OPERATING NUT SHALL BE AT LEAST 24" BELOW FINISHED

TYPICAL VALVE CAN & COVER DETAIL



AROUND TEST BOX, AS SHOWN ON PLANS.



14"

18" 20"

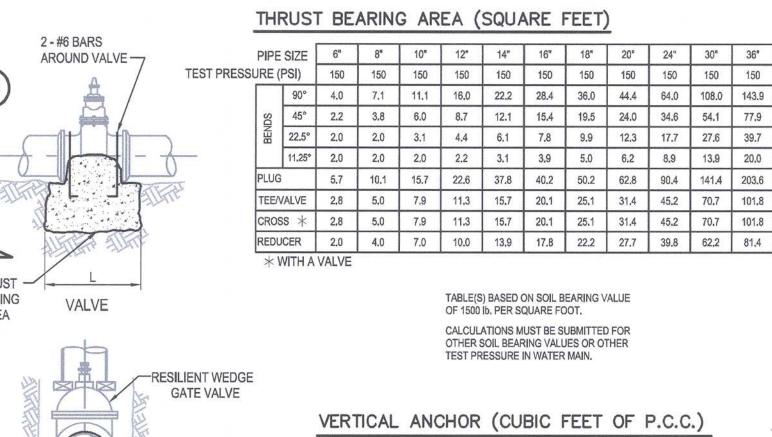
6.5

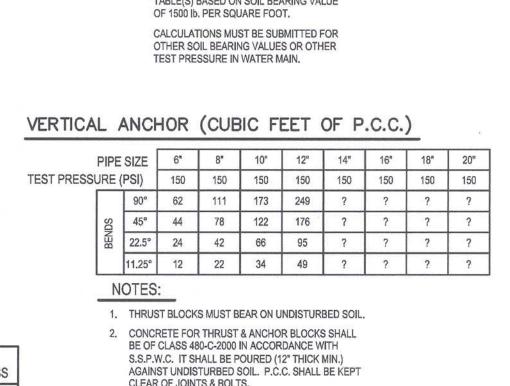
7.5'

3'-3"

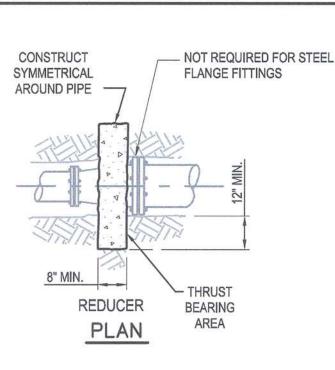
3'-6"

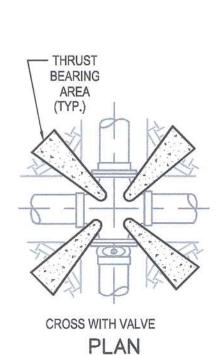
24"

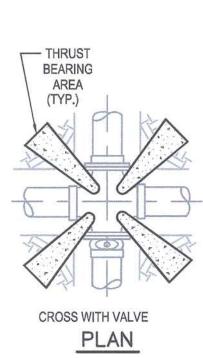


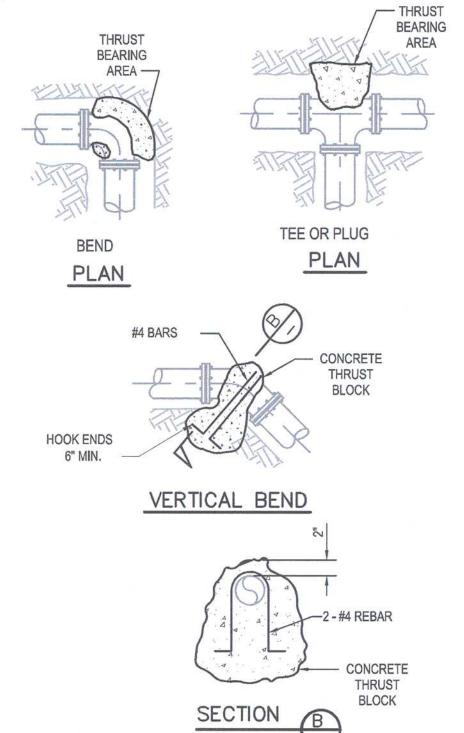


THICKNESS CLEAR OF JOINTS & BOLTS. 12" WHEN BOLTED JOINTS ARE UTILIZED, SET FORMS TO SEPARATE BOLTS FROM P.C.C. TO ASSURE ACCESS 14" TO BOLTS & JOINTS. 4. THRUST BLOCKS WILL BE INSPECTED BY CITY OF 2'-8" 18" UPLAND INSPECTOR. 2'-10" 3'-0"









CONCRETE THRUST BLOCK DETAILS NOT TO SCALE

JANUARY 2019

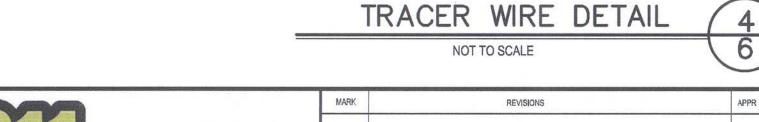
TLK

AS SHOWN

DRAWN BY:

DESIGN BY:

CHECKED BY:



APPR DATE Know what's **below**. Call before you dig. A Free Public Service Provided by Underground Service Alert of Southern California



BRIAN LEE - GM

PREPARED UNDER THE DIRECTION OF: DATE _____1/22/19 MM/ XMM TERRY L. KERGER, P.E. R.C.E. NO. 34896 APPROVED BY: SAN ANTONIO WATER COMPANY



California • Arizona

118 West Lime Avenue Monrovia, CA 91016 hone: 626.357.0588 Fax: 626.303.7957 Web: www.civiltec.com



_	0-0
-(Jan Intorno
	Water Company
	1882
- 0	1882

	SAN	
tio-	CAMPUS A	
y		

N ANTONIO WATER COMPANY AVENUE WATER LINE PROJECT

SECTIONS AND DETAILS

SAN ANTONIO WATER COMPANY

6 of 7

DRAWING NO.

CO #1800-P

W.O.F.B. FILE NO. __

