

# CONVENIENCE STORE PARKER WATER AND SANITARY CONSTRUCTION PLANS

LOT 1 OF DOUGLAS 234 FILING NO. 6  
 LOCATED IN THE SOUTHEAST QUARTER OF SECTION 29, TOWNSHIP 6  
 SOUTH, RANGE 66 WEST 6TH P.M.  
 TOWN OF PARKER, COUNTY OF DOUGLAS, STATE OF COLORADO

## APPLICANT/OWNER

TWIN STAR ENERGY, LLC  
 7671 SHAFFER PARKWAY  
 LITTLETON, CO 80127  
 C/O: MARK PERRINO  
 P: (303) 898-2603

## OWNERS'S REP

MAPCM  
 6415 CHEROKEE DRIVE  
 SEDALIA, CO 80135  
 ATTN: MARK A PERRINO  
 P: (303) 537-2603

## ARCHITECT

101, ARCHITECTURE LLC  
 8400 E. CRESCENT PARKWAY, SUITE 160  
 GREENWOOD VILLAGE, CO 80111  
 ATTN: BUDDY POPPITT, LEED AP  
 P: (720) 881-1600

## GAS SERVICE

XCEL ENERGY  
 1123 WEST 3RD AVENUE  
 DENVER, CO 80223  
 ATTN: DONNA GEORGE  
 P: (303) 571-3306

## ELECTRICAL SERVICE

IREA  
 5496 US HWY 85  
 SEDALIA, CO 80135  
 ATTN: BROOKS KAUFMAN  
 P: (720) 805 3331

## TELEPHONE

CENTURYLINK  
 1801 CALIFORNIA STREET, SUITE 240  
 DENVER, CO 80202  
 ATTN: IZZY MILLER  
 EMAIL: IZZY.MILLER@CENTURYLINK.COM

## TRAFFIC ENGINEER

RICK ENGINEERING COMPANY  
 9801 EAST EASTER AVE.  
 CENTENNIAL, CO 80112  
 ATTN: JACK SCANLON, PE  
 P: (303) 537-8020

## ENGINEERING CONSULTANT

ENTITLEMENT AND ENGINEERING SOLUTIONS, INC.  
 501 S CHERRY STREET, SUITE 300  
 GLENDALE, CO 80246  
 ATTN: LANDIS GORDON, PE  
 P: (618) 670-1512

## LANDSCAPE ARCHITECT

VALERIAN  
 970 YUMA STREET SUITE 130  
 DENVER, CO 80204  
 ATTN: BRENT KASLON  
 P: (303) 347-1200

## SURVEYOR

RICK ENGINEERING COMPANY  
 9801 EAST EASTER AVE.  
 CENTENNIAL, CO 80112  
 ATTN: ROBERT HENNESSY, PLS  
 P: (303) 537-8020

## WATER/SANITARY SEWER

PARKER WATER AND SANITATION DISTRICT  
 18100 E. WOODMAN DRIVE  
 PARKER, CO 80134  
 ATTN: ROBERT RAMSEY  
 P: (720) 842-4260

## FIRE DEPARTMENT

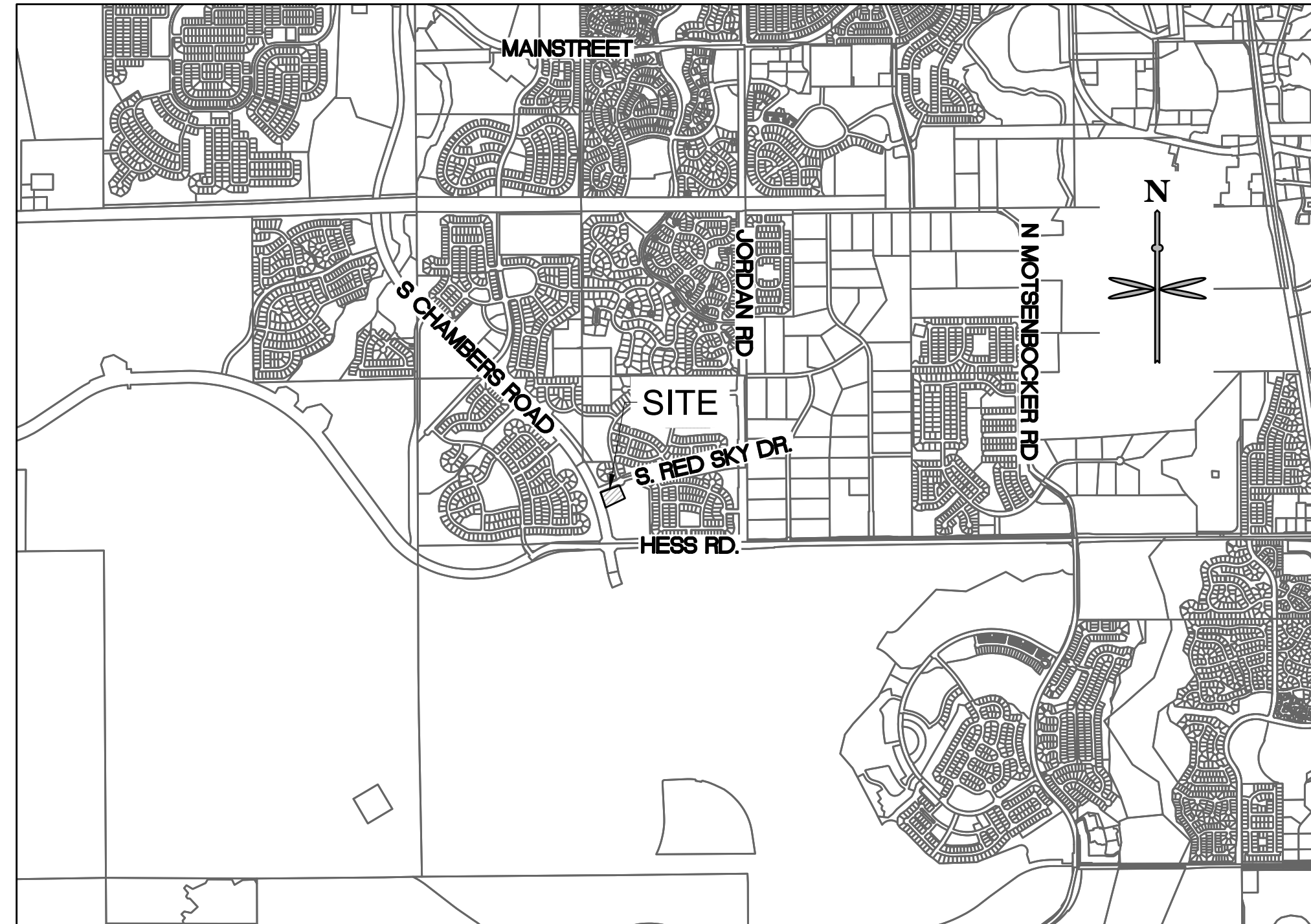
SOUTH METRO FIRE RESCUE AUTHORITY  
 9195 E. MINERAL AVE.  
 CENTENNIAL, CO 80112  
 ATTN: RANDY CAPRA  
 P: (303) 805-3169

## TOWN OF PARKER PLAN REVIEW

20120 E. MAINSTREET  
 PARKER, CO 80138  
 ATTN: BRIANNA SIMON  
 P: (303) 805-3338

## GEOTECHNICAL ENGINEER

TERRACON  
 10625 W. 1-70 FRONTAGE ROAD N, SUITE 3  
 WHEAT RIDGE, CO 80033  
 ATTN: JOHN HAAS  
 P: (303) 454 5290



VICINITY MAP  
 SCALE: 1" = 2000'

## PWSD MATERIALS LIST\*

- HYDRANT:
- 1 EA. - HYDRANT
  - 1 EA. - GATE VALVE
  - 95 LF - 6" DIP
  - 1 EA. - TAPPING SLEEVE + VALVE AT 8" WATER MAIN
- BUILDING FIRE PROTECTION
- 139 LF - 4" DIP
  - 1 EA. - 6"X4" REDUCER
  - 1 EA. - TAPPING SLEEVE + VALVE AT 8" WATER MAIN
- DOMESTIC WATER
- 124 LF - 1" COPPER
  - TAPPING SLEEVE + VALVE AT 8" WATER MAIN
- SANITARY SERVICE
- 128 LF - 4" PVC
  - 1 EA. - SAMPLING MH

\*QUANTITIES ARE APPROXIMATE AND SHALL BE VERIFIED BY CONTRACTOR PRIOR TO ORDERING AND INSTALL.

## SHEET LIST TABLE

SHEET NUMBER	SHEET TITLE
U0.0	PARKER WATER AND SANITARY COVER
U0.1	PWSD STANDARD NOTES
U1.0	UTILITY PLAN
U2.0	WATER & SANITARY SEWER DETAILS
U2.1	WATER & SANITARY SEWER DETAILS
U2.2	WATER & SANITARY SEWER DETAILS
L-3	IRRIGATION PLAN
L-4	IRRIGATION DETAILS AND SPECIFICATIONS
L-5	IRRIGATION DETAILS

## BENCHMARK:

THE PRIMARY BENCHMARK USED TO DETERMINE THE BASIS OF ELEVATIONS FOR THE MAP IS BY GPS OBSERVATION NAVD88. A SITE BENCH MARCH HAS BEEN SET AT THE NORTHWEST CORNER OF A DRAIN INLET ON CHAMBERS ROAD, APPROXIMATELY 200' NORTH OF HESS ROAD. ELEVATION = 6075.31

## BASIS OF BEARING:

THE BASIS OF BEARING IS THE SOUTH LINE OF THE SOUTHEAST QUARTER OF SECTION 29 TOWNSHIP 6 SOUTH, RANGE 66 WEST, 6TH PRINCIPAL MERIDIAN, BEARING SOUTH 89°15'13" WEST AS SHOWN ON FINAL PLAT DOUGLAS 234 FILING NO. 1.

## FLOODPLAIN NOTE:

BY SCALED MAP LOCATION AND GRAPHIC PLOTTING ONLY, THIS PROPERTY LIES IN ZONE X OF THE FLOOD INSURANCE RATE MAP, COMMUNITY PANEL NUMBER T6SR66WS29 AND DATED MARCH 16, 2016 - SUBJECT PROPERTY IS NOT IN A SPECIAL FLOOD HAZARD AREA.

All fire hydrants shall be installed according to water utility standards. The number and locations of the fire hydrants as shown on the Overall Utility Plan are correct as specified by the Town of Parker, Community Development Department.

Fire Code Official or Designated Representative Date

(NOTE – Underground Fire Line (UFL) submittal documents must meet the requirements of NFPA 24 when submitting for review.)

THE DISTRICT INSPECTOR MUST BE NOTIFIED AT LEAST 48 HOURS PRIOR TO START OF CONSTRUCTION. CALL PARKER WATER AND SANITATION DISTRICT AT 303-841-4627. THE DISTRICT WILL PROVIDE PERIODIC INSPECTIONS OF THE WORK. 24 HOUR NOTICE TO THE INSPECTOR IS REQUIRED FOR SCHEDULING INSPECTIONS. ANY WORK ACCOMPLISHED WITHOUT THE APPROVAL OF THE INSPECTOR WILL BE SUBJECT TO REJECTION.

REVIEWED FOR CONFORMANCE TO PARKER WATER AND SANITATION DISTRICT STANDARDS.

BY: \_\_\_\_\_  
 (DISTRICT REPRESENTATIVE)

DATE: \_\_\_\_\_

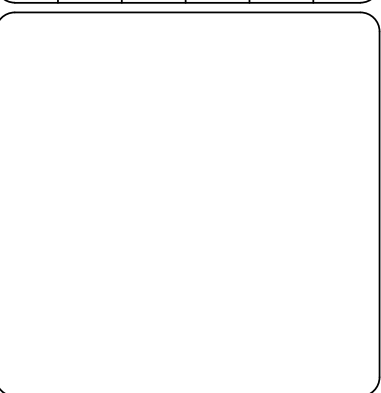
APPROVED FOR CONSTRUCTION:  
 PARKER WATER AND SANITATION DISTRICT

BY: \_\_\_\_\_

DATE: \_\_\_\_\_

**811**  
 CALL UTILITY NOTIFICATION CENTER OF COLORADO  
**1-800-922-1987 or 811**  
 CALL 3-BUSINESS DAYS (NOT INCLUDING INITIAL DAY OF CONTACT) IN ADVANCE BEFORE YOU DIG, GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES.  
 Know what's below. Call before you dig.

No.	REVISION	BY	DATE



501 S Cherry St, Suite 300  
 Glendale, CO 80246  
 303-572-7987 www.ees.us.com

PWSD CONSTRUCTION PLANS LOT 1  
**CONVENIENCE STORE**  
 CHAMBERS AND HESS, PARKER, CO  
**PARKER WATER AND SANITARY COVER**

PROJECT NO:  
 DESIGNED BY: LCG  
 DRAWN BY: JLG  
 DATE: 05/27/21  
**U0.0**

P:\TWINSTAR\ENERGY\COO - PARKER - CHAMBERS & HESS\06 CAD\SITE PLAN\LOT 1 COVER SHEET.DWG

**GENERAL NOTES:**

- ALL MATERIALS AND WORKMANSHIP SHALL BE IN CONFORMANCE WITH THE PWSO ENGINEERING STANDARDS AND SPECIFICATIONS, LATEST VERSION.
- THE CONTRACTOR SHALL CONTACT ALL APPROPRIATE UTILITY COMPANIES AND THE TOWN OF PARKER, DOUGLAS COUNTY AND OTHER NEIGHBORING CITIES AND TOWNS PRIOR TO THE BEGINNING OF ANY CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ANY EXISTING UTILITY (INCLUDING DEPTHS) WHICH MAY CONFLICT WITH THE PROPOSED CONSTRUCTION. ALL EXISTING UTILITIES SHALL BE PROTECTED FROM DAMAGE BY THE CONTRACTOR. DAMAGED UTILITIES SHALL BE REPAIRED BY THE CONTRACTOR AT HIS OWN EXPENSE.
- ALL ITEMS SHOWN ON THE PLANS AS EXISTING ARE SHOWN IN APPROXIMATE LOCATIONS ONLY. THE ACTUAL LOCATIONS MAY VARY FROM THE PLANS, ESPECIALLY IN THE CASE OF UNDERGROUND UTILITIES. WHENEVER THE CONTRACTOR DISCOVERS A DISCREPANCY IN LOCATIONS CONTACT THE PWSO IMMEDIATELY.
- PWSO ENGINEER AND OTHER APPROVING AGENCIES ARE TO BE NOTIFIED 48 HOURS PRIOR TO CONSTRUCTION.
- THE CONTRACTOR SHALL OBTAIN, AT HIS EXPENSE, ALL PERMITS NECESSARY TO PERFORM THE PROPOSED WORK.
- ALL CONCRETE SHALL BE A MINIMUM OF CLASS A, 6 SACK, TYPE II, 3000-POUND COMPRESSION STRENGTH.
- THE DESIGN ENGINEER SHALL SUBMIT ONE (1) SET OF "AS-BUILT" DRAWINGS AND ELECTRONIC FILES TO THE DISTRICT ENGINEER FOR APPROVAL BY DISTRICT. AFTER APPROVAL HAS BEEN GRANTED BY THE DISTRICT ENGINEER, FULL SIZE PRINTS SHALL BE TRANSMITTED TO THE PWSO OFFICE.
- NO WORK SHALL BE BACKFILLED UNTIL THE CONSTRUCTION HAS BEEN INSPECTED AND APPROVED FOR BACKFILLING BY THE DISTRICT ENGINEER OR REPRESENTATIVE OF THE DISTRICT ENGINEER. ALL BACKFILL MATERIAL SHALL BE COMPACTED TO 95% STANDARD PROCTOR DENSITY. COMPACTION TESTS MUST BE SUBMITTED TO DISTRICT ENGINEER PRIOR TO PROBATIONARY ACCEPTANCE.
- TRENCHES SHALL BE EXCAVATED AND THE PIPE EXPOSED FOR THE INSPECTION AT ANY LOCATION ON THE PROJECT IF SO ORDERED BY THE INSPECTOR.
- THE CONTRACTOR WILL BE HELD RESPONSIBLE FOR THE PROPER FUNCTIONING OF LINES (WATER AND SEWER) FOR UP TO TWO (2) YEARS FROM THE DATE OF PROBATIONARY ACCEPTANCE OF THE LINES BY THE DISTRICT. ANY MALFUNCTION DURING THIS PERIOD OF GUARANTEE SHALL BE REMEDIED BY THE CONTRACTOR TO THE SATISFACTION OF THE DISTRICT ENGINEER AT NO EXPENSE TO THE DISTRICT.
- SURFACE GRADES ARE TO BE WITHIN PLUS OR MINUS ONE FOOT OF FINISHED GRADE AND VERIFICATION OF PARKER WATER AND SANITATION DISTRICT PAGE 1.7 DISTRICT PLAN APPROVAL PROCEDURES 2017 REVISION COMPACTION RESULTS OBTAINED PRIOR TO THE INSTALLATION OF WATER AND SEWER LINES. RESULTS MUST BE SUBMITTED TO THE DISTRICT ENGINEER.
- ALL SERVICES WILL BE PERMANENTLY MARKED ON CURB FACE AS FOLLOWS: "X" FOR SANITARY SERVICE SEWERS, "V" FOR WATER SERVICES.
- NO TREES ALLOWED IN EASEMENTS OR WITHIN 8' OF WATER OR SANITARY SEWER MAINS IN RIGHT OF WAY.
- THE CONTRACTOR SHALL HAVE IN HIS POSSESSION AT ALL TIMES ONE (1) SIGNED COPY OF THE PLANS WHICH HAVE BEEN APPROVED BY THE PWSO AND THE DISTRICT ENGINEER AND ONE (1) COPY OF THE LATEST PWSO SPECIFICATION MANUAL.

**WATER SYSTEM NOTES:**

- ALL MATERIALS AND WORKMANSHIP SHALL BE IN CONFORMANCE WITH THE PWSO ENGINEERING STANDARDS AND SPECIFICATIONS, LATEST REVISION.
- ALL WATER MAINS SHALL BE PER PWSO MATERIALS SPECIFICATIONS. ALL MATERIALS IN CONTACT WITH POTABLE WATER SHALL BE SUITABLE FOR CHLORINATED AND CHLORAMINATED WATER.
- ALL BENDS, PLUGS, REDUCERS, AND FIRE HYDRANTS TO BE RODDED OR MEGA-LUGGED. ALL FITTINGS SHALL BE WRAPPED PER PWSO MATERIALS SPECIFICATIONS.
- THERE SHALL BE A MINIMUM COVER OF 4.5 FEET OVER ALL WATER MAINS.
- FIRE HYDRANTS SHALL CONFORM TO AWWA C-502 "DRY BARREL FIRE HYDRANTS" PIPE HYDRANT ASSEMBLIES PER PWSO SPECIFICATIONS.
- ALL BENDS, TEES, FIRE HYDRANTS, BLOW-OFFS, AND PLUGS AT DEAD-END MAINS SHALL BE PROTECTED FROM THRUST WITH CONCRETE THRUST BLOCKS.
- PRECAUTIONS SHALL BE TAKEN TO PROTECT THE INTERIOR OF PIPES, FITTINGS, AND VALVES AGAINST CONTAMINATION. ALL OPENINGS IN THE PIPELINE SHALL BE CLOSED WITH WATERTIGHT PLUGS WHEN PIPE LAYING IS STOPPED AT THE CLOSE OF THE DAY'S WORK OR FOR OTHER REASONS, SUCH AS REST BREAKS OR MEAL PERIODS.
- VALVES IN STREETS ARE TO BE LOCATED AT PROPERTY LINE EXTENSIONS EXCEPT FOR TAPPING TEES; WHERE AN ADDITIONAL VALVE SHALL BE PLACED ON THE TAPPING TEE. OTHER LOCATIONS SHOWN ON THE PLANS.
- WHEN NECESSARY TO LOWER OR RAISE WATER LINES AT STORM DRAINS AND OTHER UTILITY CROSSING, A MINIMUM CLEARANCE OF 1.5 FEET SHALL BE MAINTAINED BETWEEN OUTSIDE OF PIPES.
- THE CONTRACTOR SHALL NOTIFY THE PWSO AT LEAST 48 HOURS PRIOR TO ANY CONSTRUCTION. IF WORK IS SUSPENDED FOR ANY PERIOD OF TIME AFTER INITIAL START-UP, THE CONTRACTOR MUST NOTIFY THE DISTRICT ENGINEER 48 HOURS PRIOR TO RE-START.
- PIPE BEDDING SHALL BE A CLEAN, WELL-GRADED SAND OR SQUEEGEE SAND IN ACCORDANCE WITH PWSO STANDARDS AND SPECIFICATIONS, LATEST REVISION.
- THE CONTRACTOR SHALL NOTIFY THE PUBLIC UTILITY COMPANIES AND DETERMINE THE LOCATION OF ALL EXISTING UNDERGROUND UTILITIES PRIOR TO PROCEEDING WITH THE EXCAVATION. ALL WORK PERFORMED IN PARKER WATER AND SANITATION DISTRICT PAGE 1.8 DISTRICT PLAN APPROVAL PROCEDURES 2017 REVISION. THE AREA OF THE PUBLIC UTILITIES SHALL BE PERFORMED ACCORDING TO THE REQUIREMENTS OF THESE AGENCIES.
- COMPACTION OF ALL TRENCHES MUST BE ATTAINED IN ACCORDANCE WITH THE SOILS REPORTS AND COMPACTION TEST RESULTS SUBMITTED TO THE DISTRICT ENGINEER PRIOR TO PROBATIONARY ACCEPTANCE.
- AT LEAST FIVE (5) DAYS PRIOR TO THE START OF CONSTRUCTION, A PRE-CONSTRUCTION MEETING WILL BE HELD AT THE OFFICE OF THE DISTRICT ENGINEER AND ATTENDED BY THE CONTRACTOR, DESIGN ENGINEER, AND REPRESENTATIVE OF OTHER APPROVING AGENCIES.
- CHLORINATION AND FLUSHING: ALL WATER MAINS SHALL BE INSTALLED AND CHLORINATED PER PWSO SPECIFICATIONS. CHLORINATION OF FINISHED PIPELINE COMPLETED BEFORE HYDROSTATIC TESTING.
16. HYDROSTATIC TESTING: ALL WATER MAINS SHALL BE TESTED PER THE REQUIREMENTS OF THE PWSO SPECIFICATIONS UP TO MINIMUM OF 150 PSI IN THE PRESENCE OF A PWSO INSPECTOR/ENGINEER.

**SANITARY SEWER SYSTEM NOTES:**

- ALL MATERIALS AND WORKMANSHIP SHALL BE IN CONFORMANCE WITH THE PWSO ENGINEERING STANDARDS AND SPECIFICATIONS, LATEST VERSION.
- ALL SEWER MAINS SHALL BE PVC, ASTM D-3034, SDR 35 OR APPROVED EQUAL. ALL SEWER MAIN SIZE IS 8" IN DIAMETER UNLESS OTHERWISE NOTED.
- SEWER LINES SHALL BE INSTALLED 5.0 FEET SOUTH OR WEST OF STREET CENTERLINE, UNLESS OTHERWISE SHOWN ON PLANS. SEWER LINES SHALL BE 10.00 FEET FROM WATER LINES EXCEPT WHEN CROSSING EACH OTHER SEWER LINES WHICH CROSS LESS THAN 1.50 FEET VERTICALLY FROM THE WATER MAIN SHALL BE ENCASED IN CONCRETE AS PER PWSO SPECIFICATIONS. USE RUBBER GASKETS FOR PVC ENCASEMENT.
- SEWER RIM ELEVATIONS SHOWN ARE APPROPRIATE ONLY AND ARE NOT TO BE TAKEN AS FINAL ELEVATIONS. RING AND COVER SHALL BE SET IN CENTERED CONCRETE RINGS WITH RAM-NECK FOR ADJUSTMENT TO MATCH FINAL PAVEMENT ELEVATIONS.
- THE CONTRACTOR AND SURVEY CREW SHALL VERIFY ELEVATIONS OF EXISTING SEWER LINES AND MANHOLES TO BE TIED TO PRIOR TO CONSTRUCTION OR STAKING OF SANITARY SEWER.
- NO UNDERDRAIN SYSTEM WILL BE ALLOWED TO BE PLACED IN MAINLINE OR SEWER SERVICE TRENCHES.
- SEWER SERVICE TEES FOR EACH UNIT SHALL BE STAKED BY A SURVEY CREW AND FURNISHED AND INSTALLED BY THE CONTRACTOR. THE CONTRACTOR SHALL FURNISH TO THE ENGINEER "AS CONSTRUCTED" LOCATION OF TEES. SEWER WYES SHALL BE USED RATHER THAN TEES.
- ALL MANHOLES SHALL BE 48-INCHES IN DIAMETER WITH 24-INCH RING AND COVER, ECCENTRIC CONE UNLESS OTHERWISE SPECIFIED. ALL MANHOLES SHALL HAVE SHAPED INVERTS.
- PIPE BEDDING SHALL BE CLASS "B" AND SHALL CONFORM TO ASTM C-33 OR D-448 GRADATION NO. 6 OR NO. 67.
- AT LEAST FIVE (5) DAYS PRIOR TO THE START OF CONSTRUCTION, A PRE-CONSTRUCTION MEETING WILL BE HELD AT THE OFFICE OF THE DISTRICT ENGINEER AND ATTENDED BY THE CONTRACTOR AND REPRESENTATIVES OF THE OTHER APPROVING AGENCIES. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT THE DISTRICT ENGINEER TO SCHEDULE THIS MEETING. PARKER WATER AND SANITATION DISTRICT PAGE 1.9 DISTRICT PLAN APPROVAL PROCEDURES 2017 REVISION
- THE CONTRACTOR SHALL HAVE IN HIS POSSESSION AT ALL TIMES ONE (1) SIGNED COPY OF THE PLANS WHICH HAVE BEEN APPROVED BY THE PWSO AND THE DISTRICT ENGINEER AND ONE (1) COPY OF THE LATEST PWSO SPECIFICATION MANUAL.
- ALL SEWER LINES SHALL BE TESTED IN ACCORDANCE WITH THE PWSO STANDARDS AND SPECIFICATIONS PRIOR TO ACCEPTANCE OR ANY CONNECTION TO AN EXISTING SEWER LINE.
- PRIOR TO STARTING WORK WHERE SEWER MAIN IS TO BE CONNECTED TO EXISTING PWSO SEWER SYSTEMS, THE NEAREST MANHOLE TO THE POINT OF TIE-IN SHALL BE PLUGGED WITH A PLUMBER'S PLUG ON THE INLET SIDE BY THE CONTRACTOR. THIS PLUG SHALL REMAIN IN PLACE UNTIL FINAL PROBATIONARY ACCEPTANCE BY PWSO. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PUMPING AND CLEANING THESE MANHOLES AND REMOVING THE PLUG WHEN INSTRUCTED BY THE DISTRICT.
- PRIOR TO PROBATIONARY ACCEPTANCE WALK-THROUGH, THE CONTRACTOR SHALL JET CLEAN THE ENTIRE SANITARY SEWER SYSTEM AND PUMP OUT AT THE PLUGGED MANHOLE.

**EES UTILITY NOTES:**

- UTILITY SERVICE INSTALLATION AND MATERIALS SHALL BE CONSTRUCTED IN ACCORDANCE WITH PWSO SPECIFICATIONS.
- ALL SEWER SERVICE PIPE SHALL BE POLYVINYL CHLORIDE GRAVITY PIPE (PVC) SDR 35, MINIMUM BURY DEPTH PWSO WATER REQUIREMENTS.
- CONTRACTOR TO FIELD VERIFY LOCATIONS OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION, WHETHER SHOWN ON THE PLANS OR NOT. REPORT ANY DISCREPANCIES TO THE ENGINEER PRIOR TO CONSTRUCTION.
- AT PROPOSED UTILITY CROSSINGS, CONTRACTOR IS TO VERIFY THE REQUIRED GRADES AND CLEARANCES PRIOR TO COMMENCING CONSTRUCTION. ANY REQUIRED CHANGES ARE TO BE COORDINATED DIRECTLY WITH ENGINEER.
- PIPE LENGTHS ARE APPROXIMATE AND SHALL BE VERIFIED BY THE CONTRACTOR.
- UTILITY BURY DEPTH SHALL CONFORM TO PWSO UTILITY STANDARDS.
- REFER TO PWSO UTILITY STANDARDS AND FOR SANITARY SEWER TRENCHING BACKFILL REQUIREMENTS.
- ALL EXISTING UTILITIES TO REMAIN UNLESS OTHERWISE NOTED. PROTECT IN PLACE FROM DAMAGE.
- SANITARY SEWER PIPE LENGTHS ARE MEASURED FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE.
- CONTRACTOR RESPONSIBLE FOR THE CONSTRUCTION AND INSTALLATION OF ALL UTILITY WORK.
- SEE STORM AND SANITARY PLAN AND PROFILE SHEETS FOR DETAILED INFORMATION.
- PWSO IS NOT RESPONSIBLE FOR THE MAINTENANCE OF PRIVATE STORM PIPE OR INFRASTRUCTURE.

P:\TWINSTAR\ENERGY\CD - PARKER - CHAMBERS & HESS\06\CAD\SITE PLAN\LOT 1\COVER SHEET.DWG

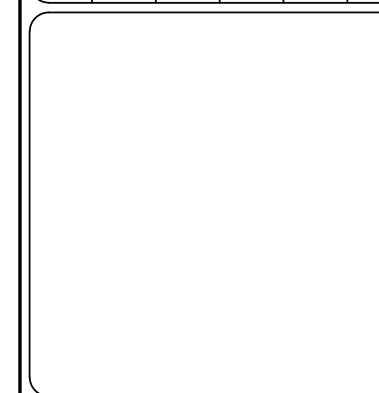


CALL UTILITY NOTIFICATION CENTER OF COLORADO  
1-800-922-1987 or 811

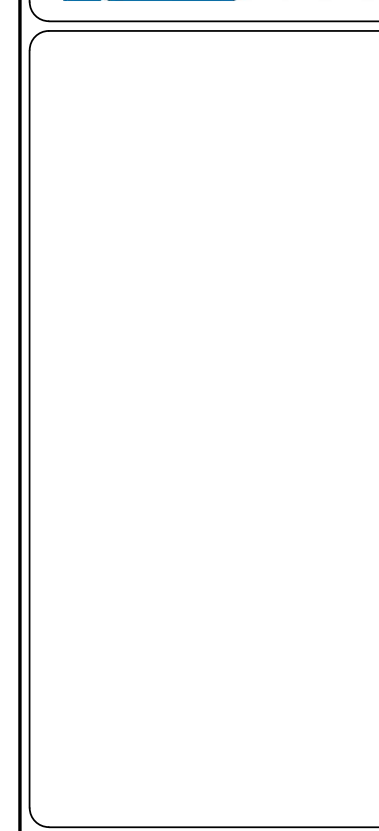
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CALL 3-BUSINESS DAYS (NOT INCLUDING INITIAL DAY OF CONTACT) IN ADVANCE BEFORE YOU DIG, GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES.

DATE	BY	REVISION



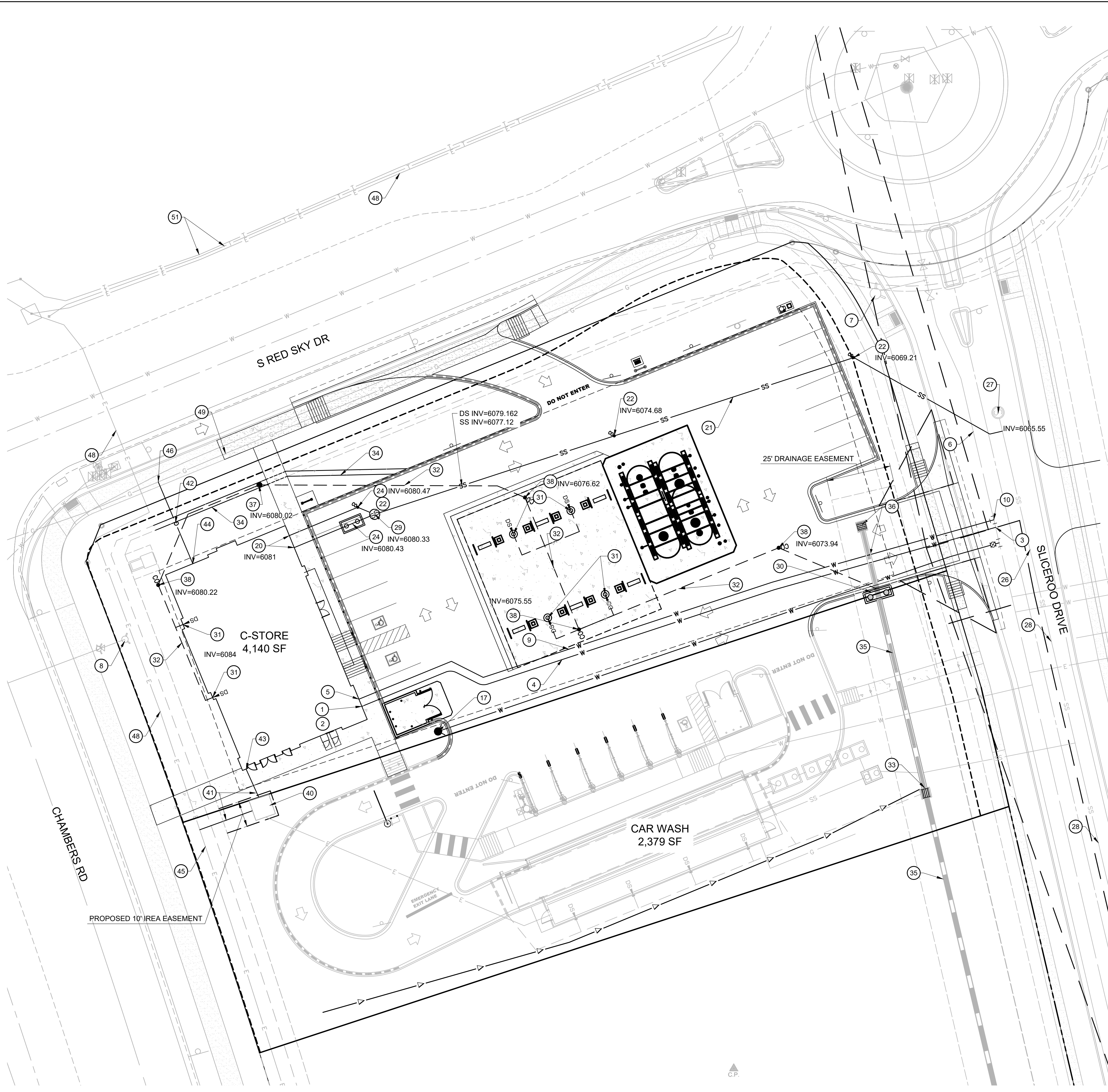
**EES**  
ENTITLEMENT AND ENGINEERING SOLUTIONS, INC.  
501 S Cherry St, Suite 300  
Glendale, CO 80246  
303-572-7957 www.ees.us.com



**PWSO CONSTRUCTION PLANS LOT 2**  
**CARWASH**  
CHAMBERS AND HESS, PARKER, CO  
**PWSO STANDARD NOTES**

PROJECT NO:  
DESIGNED BY: LCG  
DRAWN BY: JLG  
DATE: 05/27/21  
**U0.1**

P:\WINSTAR\ENERGY\COO - PARKER - CHAMBERS & HESS\06 CAD\SITE PLAN\LOT 1 UTILITY PLAN.DWG



**WATER**

- 1 PROPOSED 1" TYPE K COPPER DOMESTIC WATER CONNECTION TO BUILDING. STUB 5' OFF OF BUILDING. REFER TO PLUMBING PLANS UNDER SEPARATE COVER FOR CONTINUATION.
- 2 PROPOSED 1" DOMESTIC WATER METER (INTERIOR).
- 3 PROPOSED 1" TAP.
- 4 PROPOSED 1" TYPE K COPPER DOMESTIC WATER SERVICE LINE.
- 5 PROPOSED FDC WITH KNOX BOX.
- 6 8" PVC WATER MAIN BY MASTER DEVELOPER.
- 7 FIRE HYDRANT BY MASTER DEVELOPER.
- 8 EXISTING FIRE HYDRANT
- 9 PR. 4" DIP FIRE LINE (PRIVATE). (VERIFY W/ MEP)
- 10 PR. 8" X 4" TEE FIRE CONNECTION.
- 11 PR. 1.5" SERVICE LINE FROM METER TO BUILDING.

**SANITARY SEWER**

- 20 PROPOSED 4" SANITARY SEWER STUB 5 FEET OFF BUILDING. REFER TO PLUMBING PLANS UNDER SEPARATE COVER FOR CONTINUATION.
- 21 PROPOSED 4" PVC SDR 35 SANITARY SEWER SERVICE @ 2.1% SLOPE.
- 22 PROPOSED HS-20 TRAFFIC RATED SANITARY SEWER CLEANOUT.
- 23 PROPOSED 45° BEND W/ HS-20 TRAFFIC RATED SANITARY SEWER CLEANOUT.
- 24 PR. 1,200 GAL. GREASE INTERCEPTOR. (VERIFY W/ MEP)
- 25 PR. PRIVATE RECLAIM SYSTEM WITH SAND OIL INTERCEPTOR. (VERIFY W/ MEP)
- 26 PROPOSED CONNECTION TO EXISTING SANITARY MAIN.
- 27 SANITARY MANHOLE BY MASTER DEVELOPER. PROTECT IN PLACE.
- 28 8" PVC MAIN BY MASTER DEVELOPER.
- 29 PROPOSED SAMPLING MANHOLE.

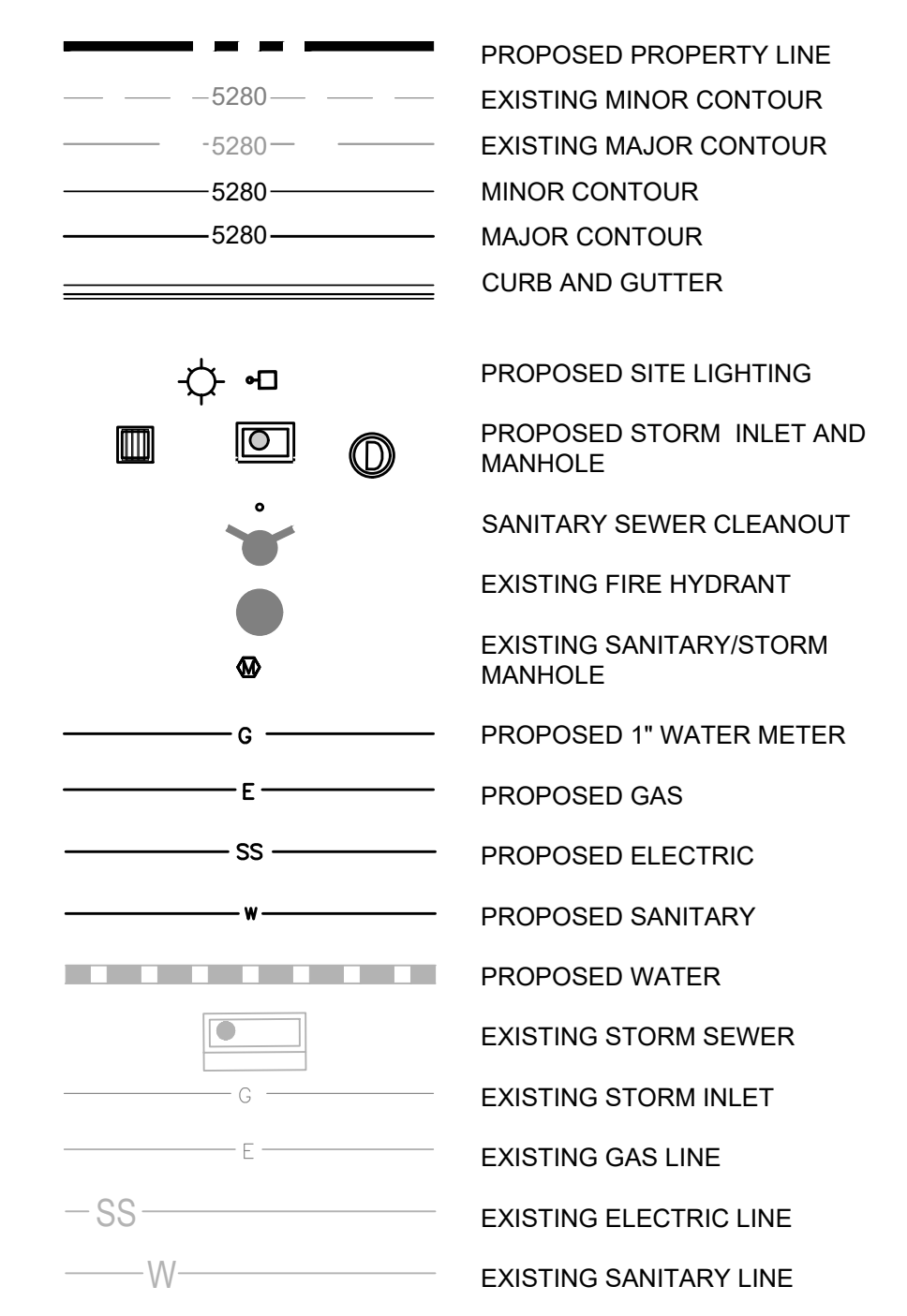
**STORM SEWER**

- 30 PROPOSED PRIVATE CDOT 10' TYPE R INLET. CONNECTION TO EXISTING PRIVATE STORM SEWER PROVIDED BY BY MASTER DEVELOPER. CONTRACTOR TO VERIFY INVERTS AND NOTIFY ENGINEER OF ANY DISCREPANCY. SEE SHEET C3.0 FOR INVERTS.
- 31 PROPOSED DOWNSPOUT LOCATION.
- 32 PROPOSED DOWNSPOUT 8" PVC @ 2%.
- 33 EXISTING PRIVATE STORM SEWER, INLET OR MANHOLE BY MASTER DEVELOPER. PROTECT IN PLACE.
- 34 PROP. STORM CONC. CHASE DRAIN PER TOWN DETAIL.
- 35 PRIVATE 18" STORM SEWER PIPE BY MASTER DEVELOPER. PROTECT IN PLACE.
- 36 PRIVATE STORM SEWER OR INLET BY MASTER DEVELOPER TO BE REMOVED.
- 37 PROPOSED PRIVATE LANDSCAPE DRAIN.
- 38 PROPOSED STORM BEND/CLEANOUT.

**DRY UTILITIES**

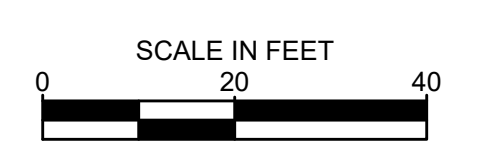
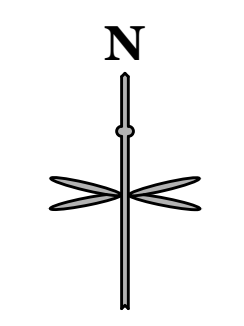
- 40 PROPOSED 8' X 8' ELECTRICAL TRANSFORMER PAD. REFER TO MEP PLANS FOR TRANSFORMER DESIGN UNDER SEPARATE COVER.
- 41 PROPOSED ELECTRIC LINE. (APPROXIMATE LOCATION. CONTRACTOR TO COORDINATE WITH PROJECT MEP AND UTILITY COMPANY PRIOR TO ANY CONSTRUCTION)
- 42 PROPOSED GAS LINE. (APPROXIMATE LOCATION. CONTRACTOR TO COORDINATE WITH PROJECT MEP AND UTILITY COMPANY PRIOR TO ANY CONSTRUCTION)
- 43 PROPOSED ELECTRICAL METER. (LOCATION FOR REFERENCE ONLY).
- 44 PROPOSED GAS METER. (LOCATION FOR REFERENCE ONLY).
- 45 PROPOSED ELECTRIC LINE CONNECTION TO EXISTING LINE. (LOCATION FOR REFERENCE ONLY).
- 46 PROPOSED GAS LINE CONNECTION TO EXISTING LINE. (LOCATION FOR REFERENCE ONLY).
- 47 PROPOSED LIGHT POLE, BASE AND FIXTURE (SEE PHOTOMETRIC PLAN UNDER SEPARATE COVER).
- 48 EXISTING UNDERGROUND ELECTRIC.
- 49 EXISTING UNDERGROUND GAS LINE.
- 50 EXISTING UNDERGROUND COMMUNICATION LINE.
- 51 EXISTING TELECOMMUNICATION LINE.

**UTILITY LEGEND**



**UTILITY NOTES:**

1. CONSTRUCT ALL WET UTILITIES IN ACCORDANCE WITH THE TOWN OF PARKER STANDARDS AND DETAILS.
2. ALL PROPOSED EASEMENTS MUST BE RECORDED PRIOR TO ISSUANCE OF CONSTRUCTION PERMITS.
3. THE MINIMUM SEPARATION BETWEEN WATERLINES, SANITARY SEWER AND STORM SEWER LINES IS 10 FEET.
4. THE MINIMUM SEPARATION BETWEEN WATER SERVICE LINES IS 3 FEET.
5. THE SITE IS LOCATED WITHIN THE TOWN OF PARKER WATER PRESSURE ZONE.
6. THE CONTRACTOR SHALL NOTIFY ENGINEER AND FIELD VERIFY TYPE, SIZE, AND LOCATION OF EXISTING UTILITIES PRIOR TO UTILITY CONSTRUCTION.
7. THE CONTRACTOR SHALL NOTIFY THE TOWN OF PARKER OF ANY WORK THAT IS REQUIRED SHUTDOWN OR INTERRUPTION OF SERVICE OF EXISTING WATER MAINS TWO WEEKS PRIOR TO THE PROPOSED SHUTDOWN OR INTERRUPTION UNLESS OTHERWISE APPROVED BY THE UTILITIES DEPARTMENT.



IF BAR DOES NOT MEASURE 1 INCH THEN DRAWING IS NOT TO SCALE

**811**  
 CALL UTILITY NOTIFICATION CENTER OF COLORADO  
 1-800-922-1987 or 811  
 CALL 3-BUSINESS DAYS (NOT INCLUDING INITIAL DAY OF CONTACT) IN ADVANCE BEFORE YOU DIG, GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES.  
 Know what's below.  
 Call before you dig.

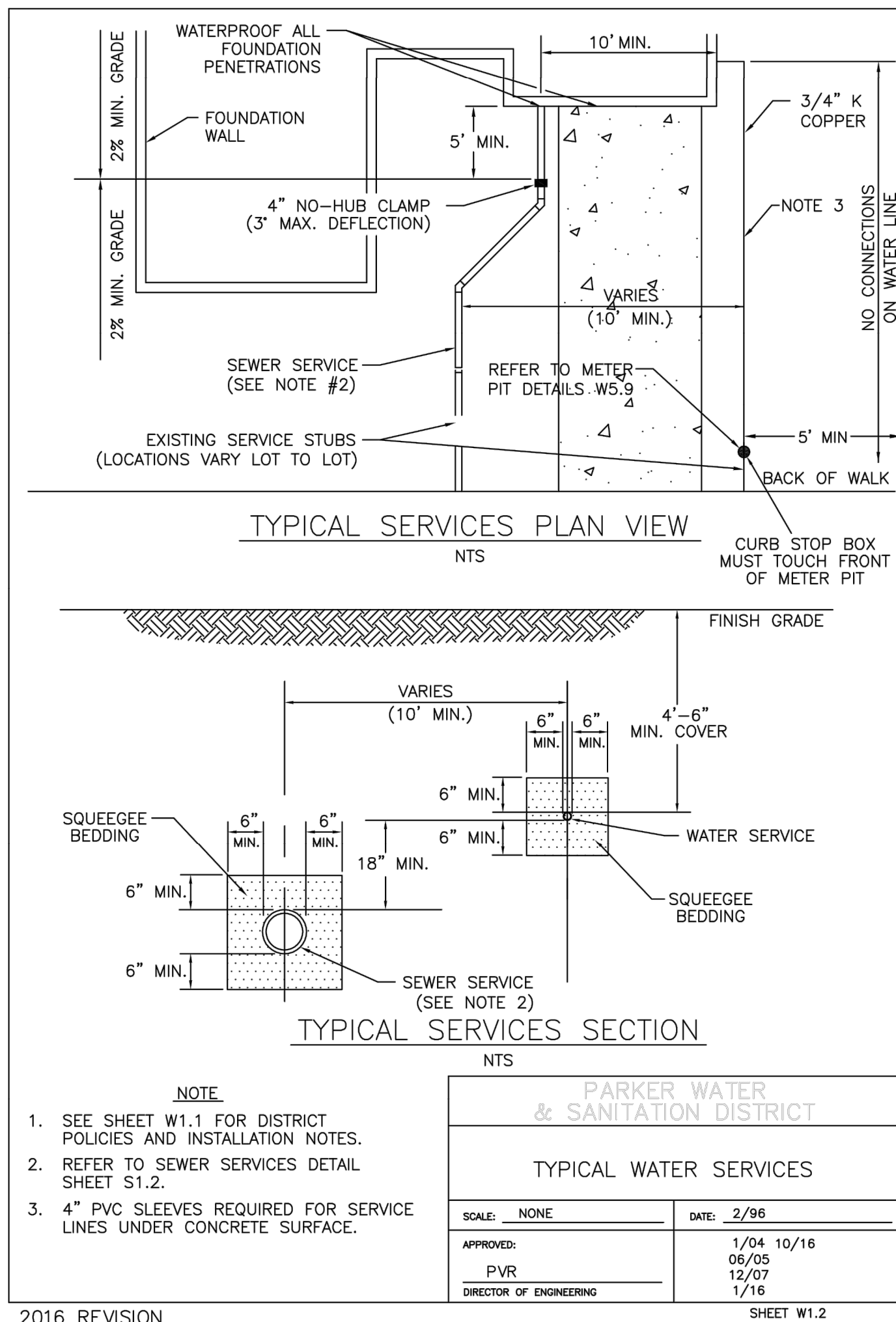
DATE	
BY	
REVISION	
No.	

**EES**  
 ENTITLEMENT AND ENGINEERING SOLUTIONS, INC.  
 501 S Cherry St, Suite 300  
 Glendale, CO 80246  
 303-572-7957 www.ees.us.com

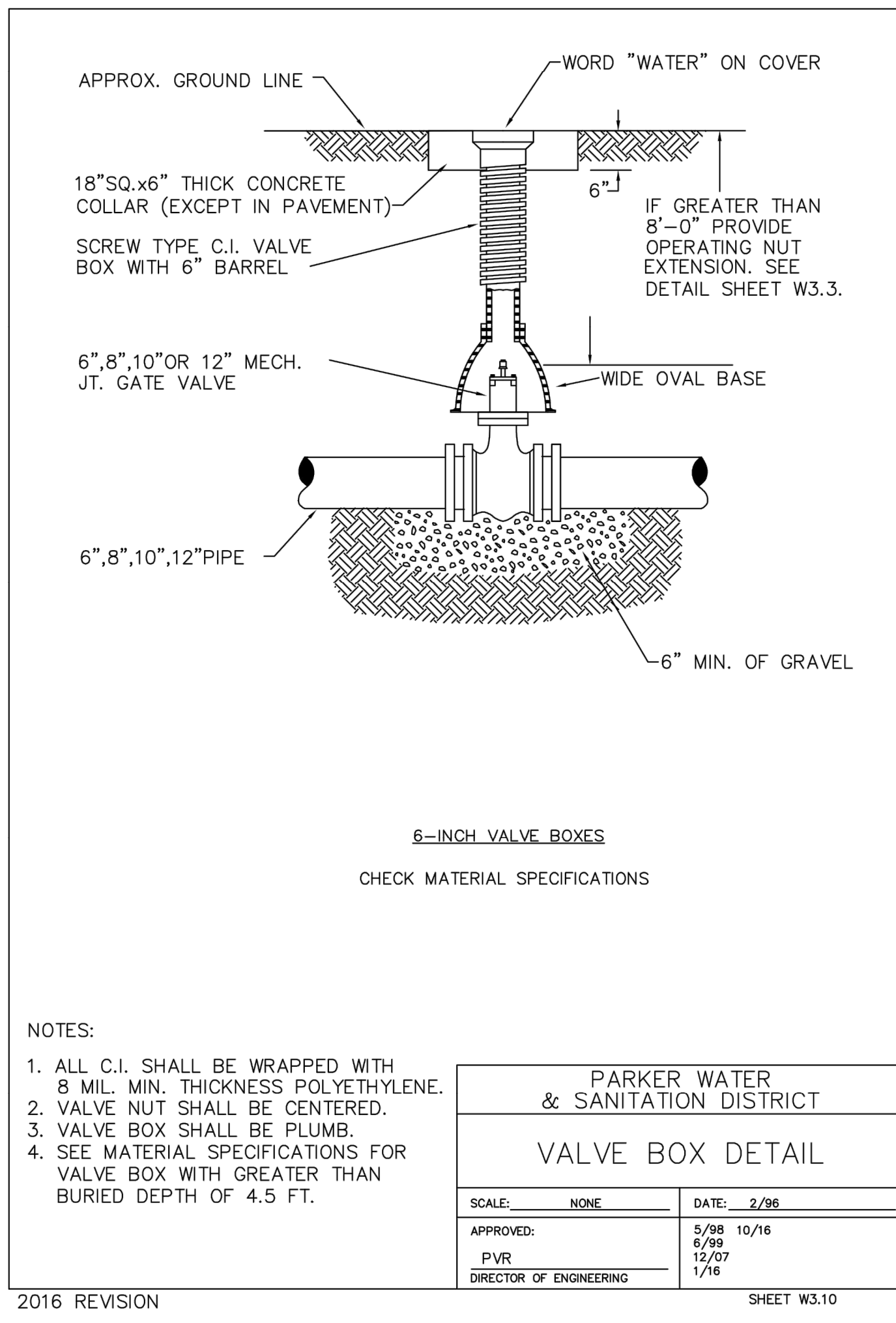
**PWSD CONSTRUCTION PLANS LOT 1**  
**CONVENIENCE STORE**  
 CHAMBERS AND HESS, PARKER, CO  
**UTILITY PLAN**

PROJECT NO:  
 DESIGNED BY: LCG  
 DRAWN BY: JLG  
 DATE: 05/27/21

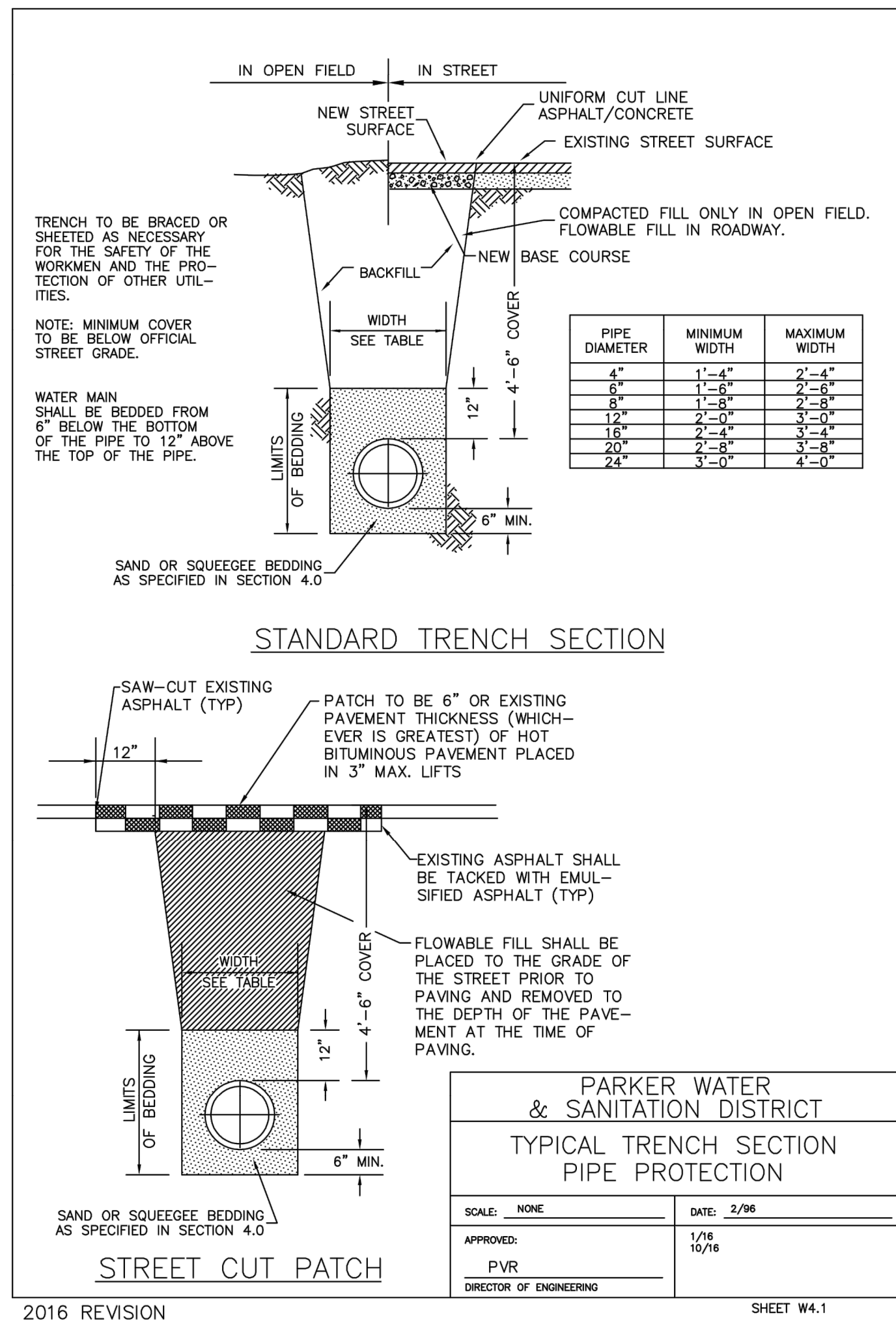
**U1.0**



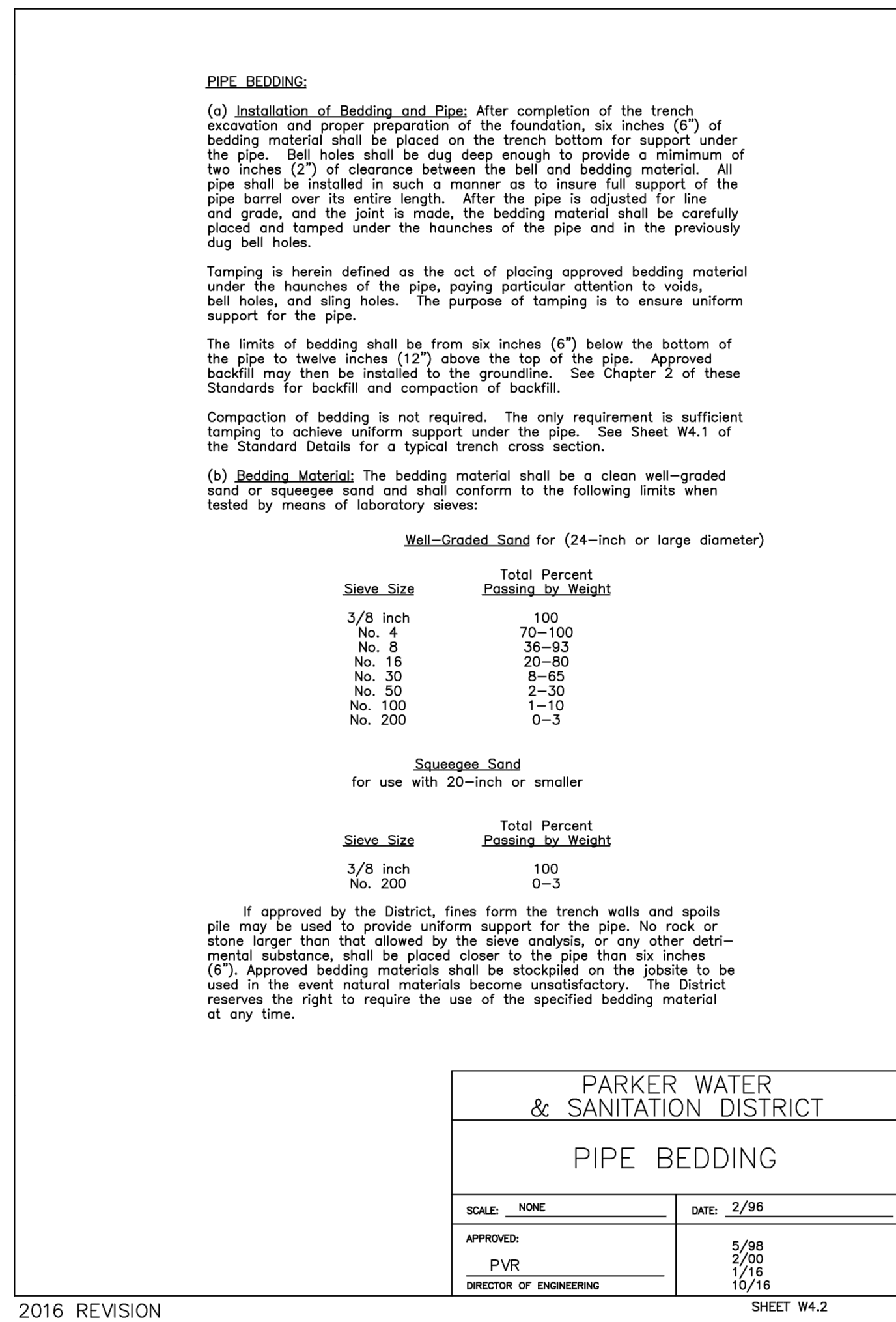
2016 REVISION



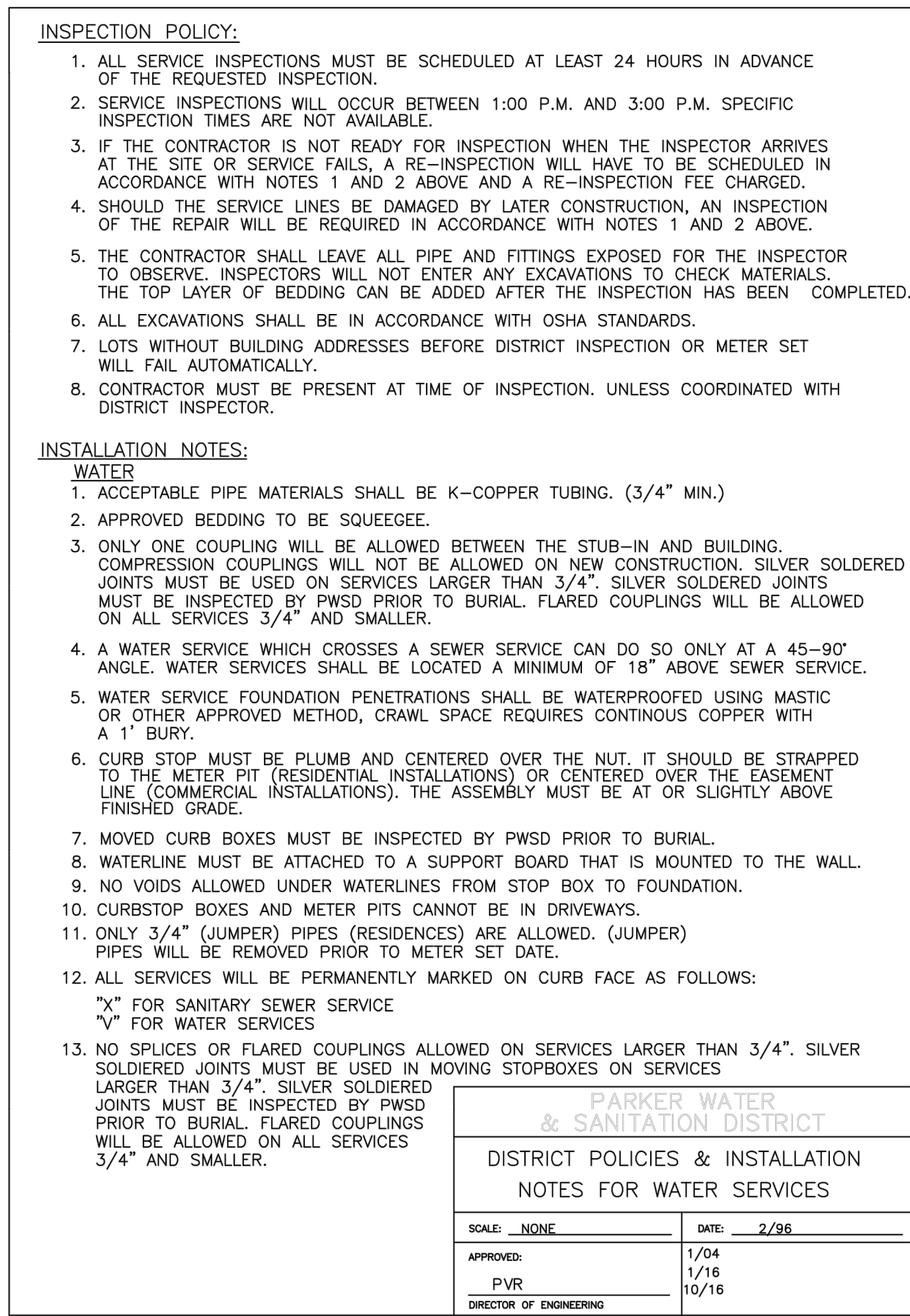
2016 REVISION



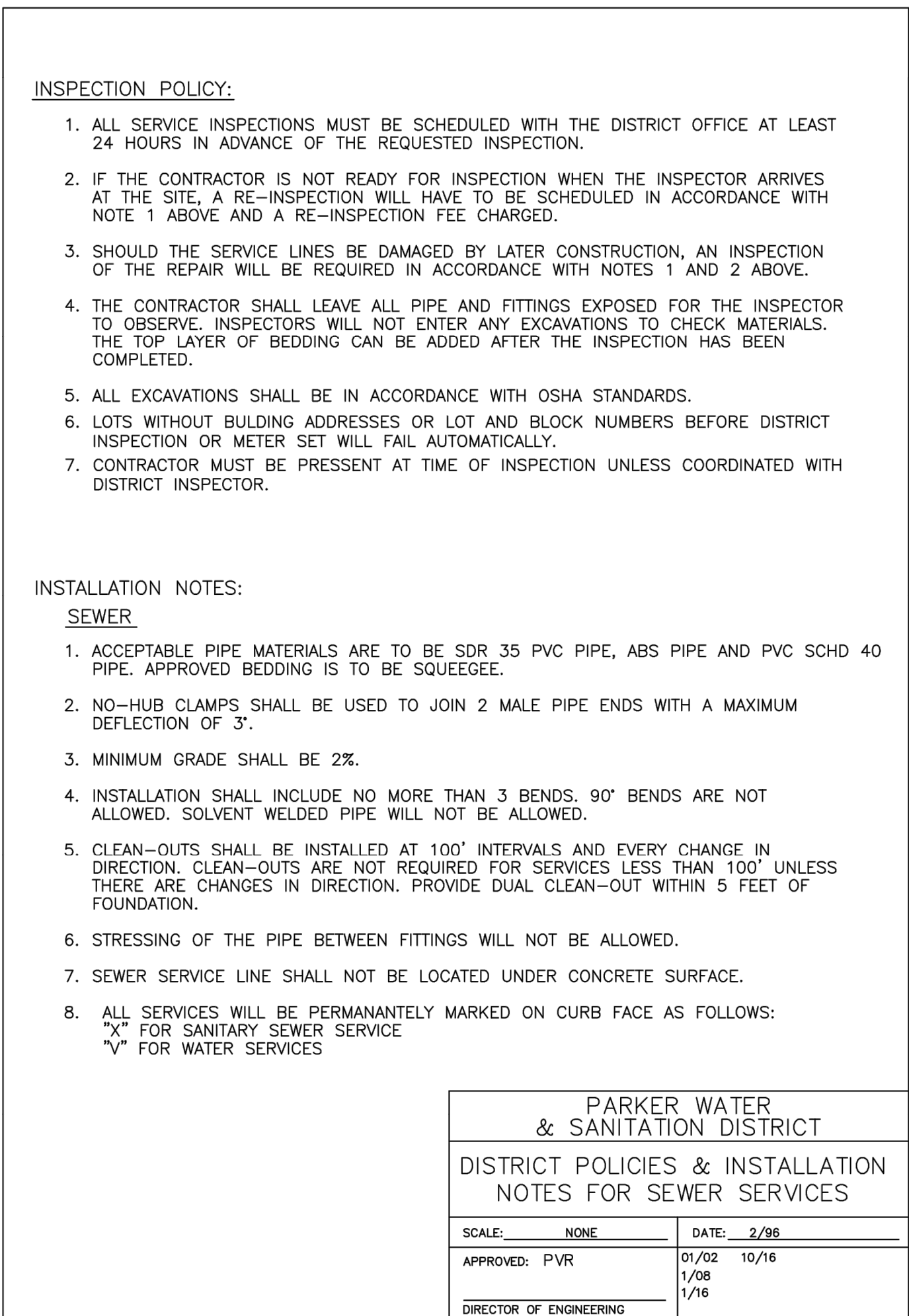
2016 REVISION



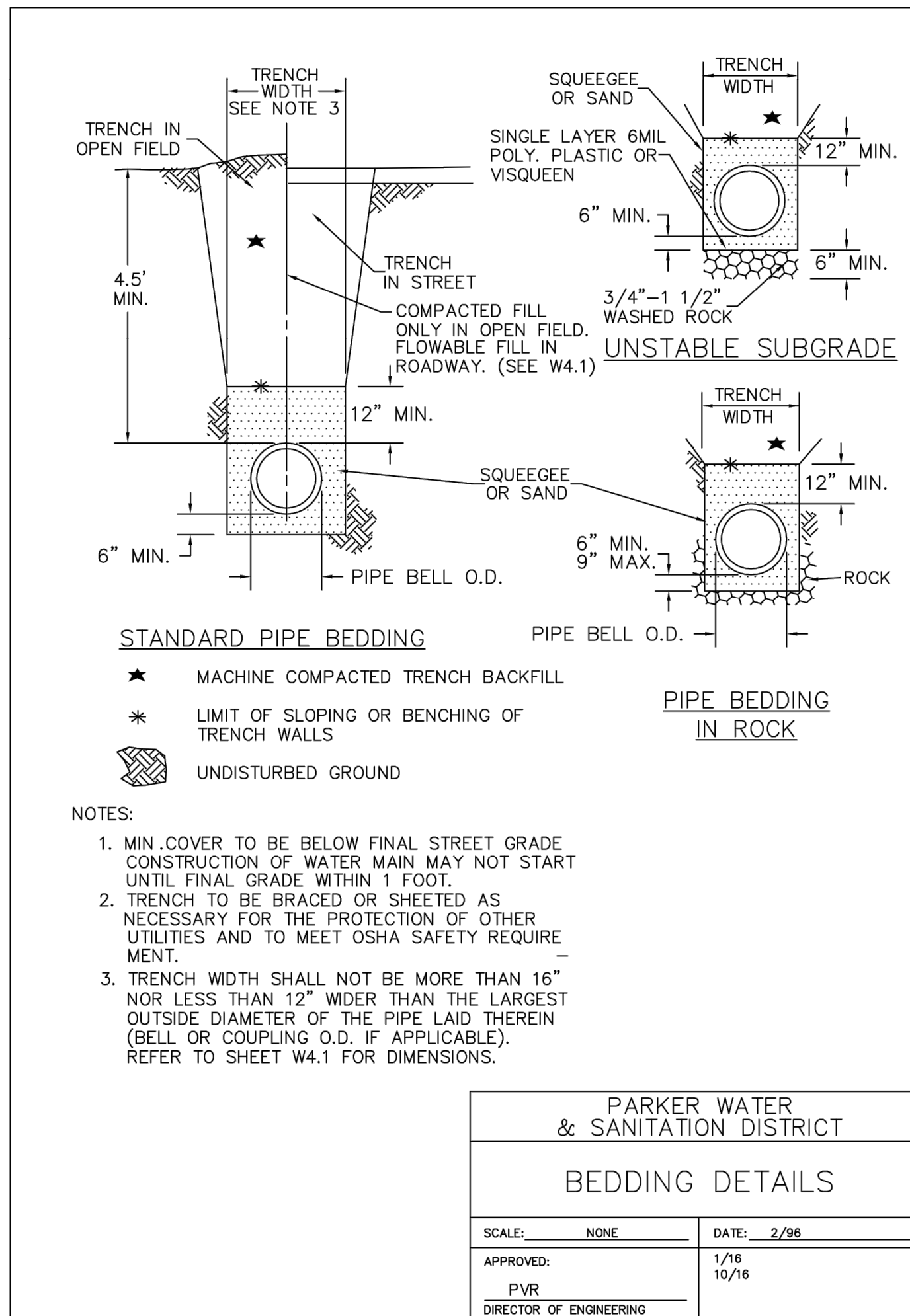
2016 REVISION



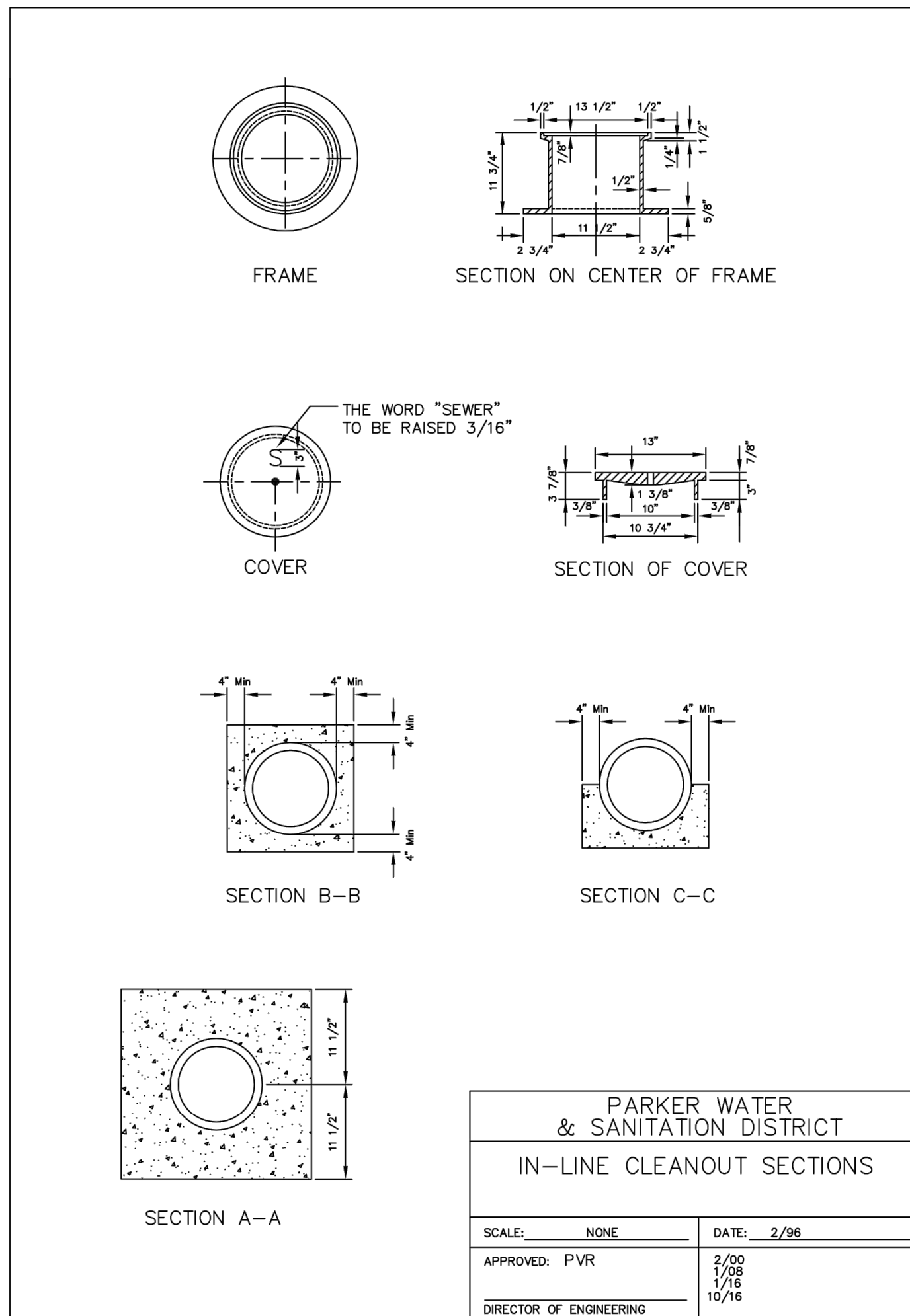
2016 REVISION



2016 REVISION



2016 REVISION



2016 REVISION

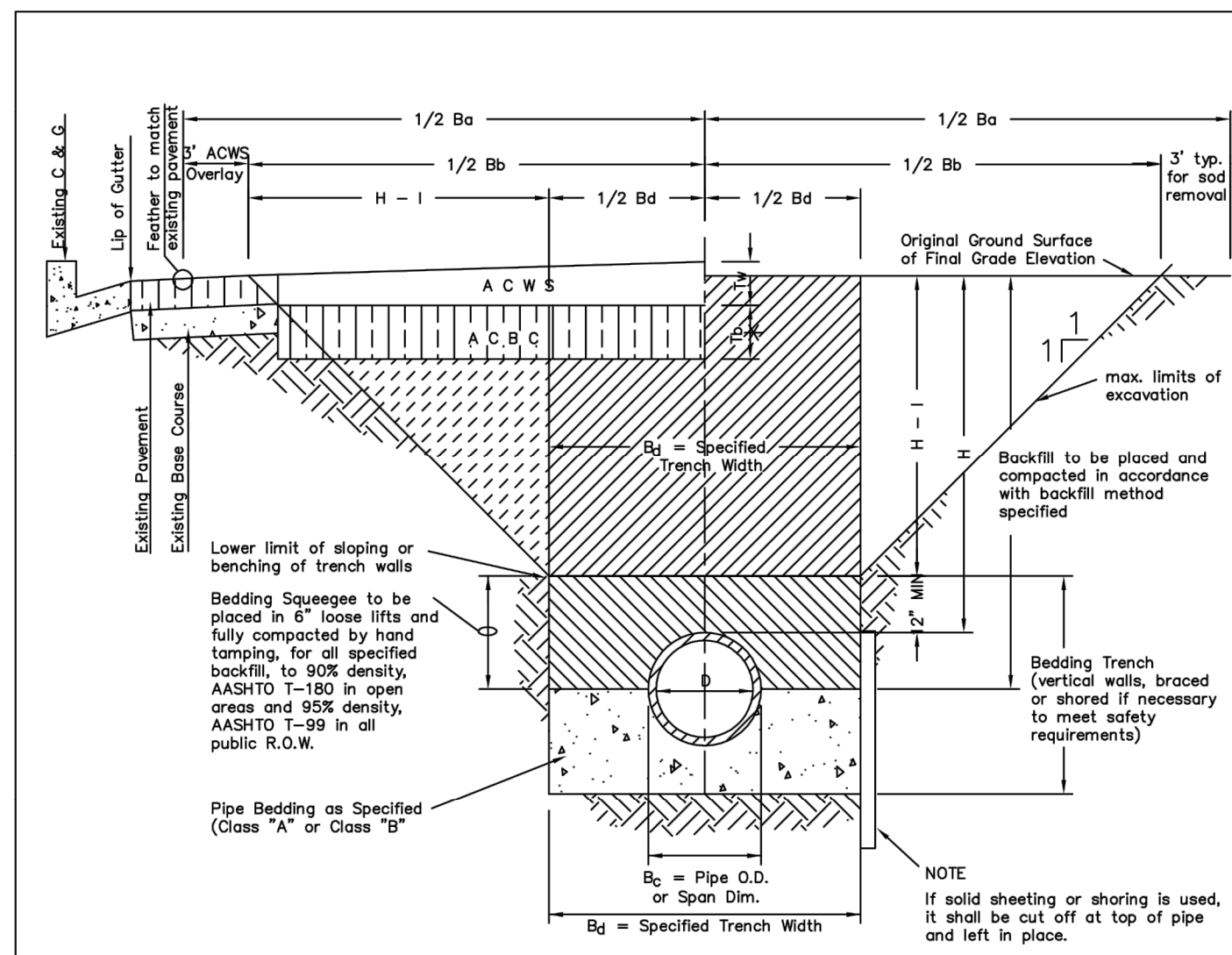
DATE	
BY	
REVISION	
No.	

**EES**  
ENTITLEMENT AND ENGINEERING SOLUTIONS, INC.  
501 S Cherry St, Suite 300  
Glendale, CO 80246  
303-572-7957 www.ees-us.com

**PWSO CONSTRUCTION PLANS LOT 1**  
**CONVENIENCE STORE**  
CHAMBERS AND HESS, PARKER, CO  
**WATER & SANITARY SEWER DETAILS**

PROJECT NO:  
DESIGNED BY: LCG  
DRAWN BY: JLG  
DATE: 05/27/21

**U2.0**



TYPICAL TRENCH DETAIL

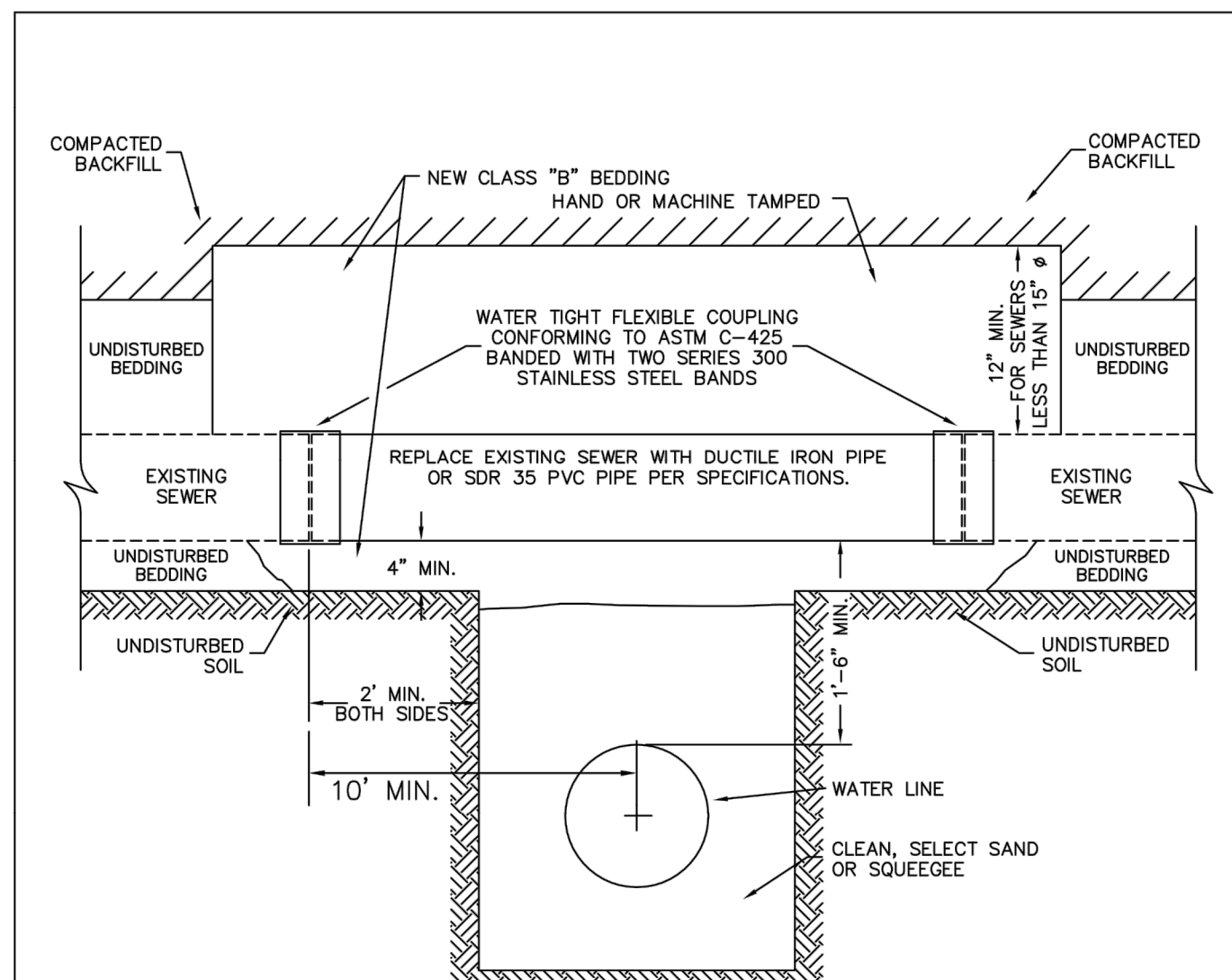
- NOTES**
1. Sloping or benching of trench side walls, where permitted shall be in accordance with applicable Federal, State and Local safety regulations.
  2. Trench shall be braced and shored as necessary to afford safe working conditions or to protect adjacent utilities, structures, etc. Unless otherwise specified on the plans, no pavement will be made for removal, replacement or relocation of curb and gutter, utilities, sidewalks, structures, etc. outside the maximum limits of excavation as shown and the contractor shall be responsible for protection of same.
  3. If dimension "B<sub>4</sub>" is <math>c \le 5'</math>, then existing asphalt pavement shall be removed and replaced up to the gutter. Maximum asphalt pay width, B<sub>4</sub> & B<sub>3</sub>, shall then be based upon this actual width.
- TABLE II**  
ASPHALT AND BASE COURSE REPLACEMENT SCHEDULE
- | STREET WIDTH   | ASPHALTIC BASE COURSE (T <sub>B</sub> ) | ASPHALTIC WEARING SURFACE (T <sub>W</sub> ) | TOTAL THICKNESS (T <sub>T</sub> ) |
|----------------|---|---|-----------------------------------|
| UP TO 36'      | 4"                                      | 2"  | 6"                                |
| 36' TO 44'     | 4"                                      | 3"  | 7"                                |
| 44' TO 48'     | 5"                                      | 3"  | 8"                                |
| WIDER THAN 48' | 6"                                      | 3"  | 9"                                |

**PARKER WATER & SANITATION DISTRICT**  
SEWER TRENCHING AND BEDDING DETAIL

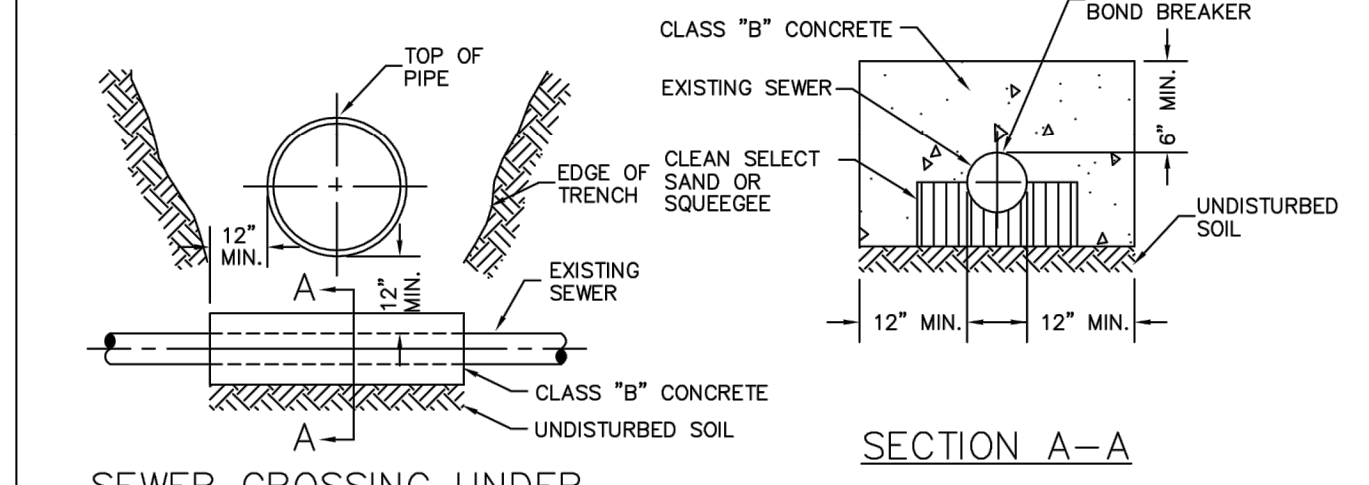
SCALE: NONE DATE: 2/96

APPROVED: PVR 5/98 1/16 10/16  
DIRECTOR OF ENGINEERING

SHEET S4.1



SEWER CROSSING UNDER LESS THAN 18" BETWEEN PIPES



SECTION A-A

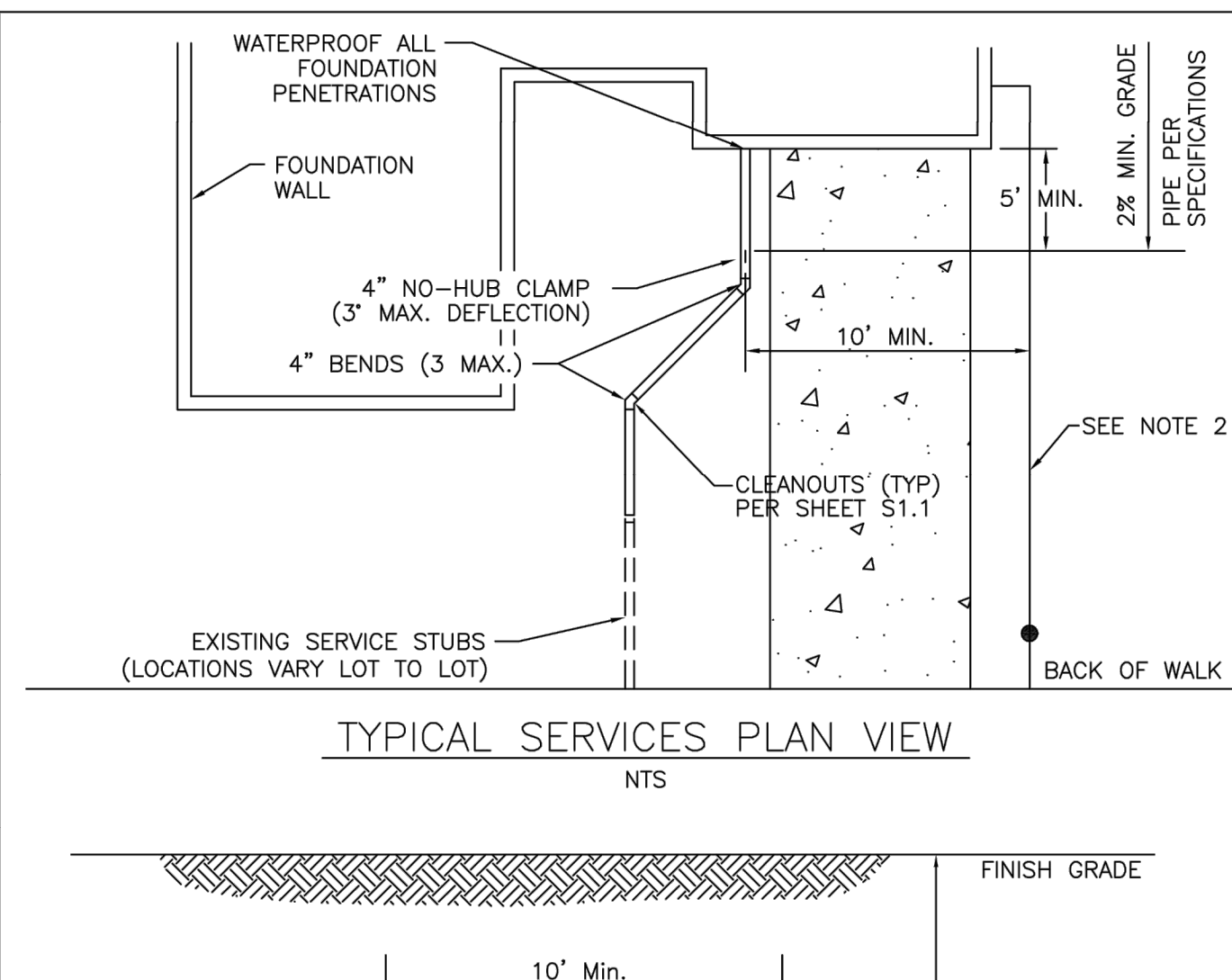
**PARKER WATER & SANITATION DISTRICT**  
CROSSING STORM & SANITARY SEWERS

SCALE: NONE DATE: 2/96

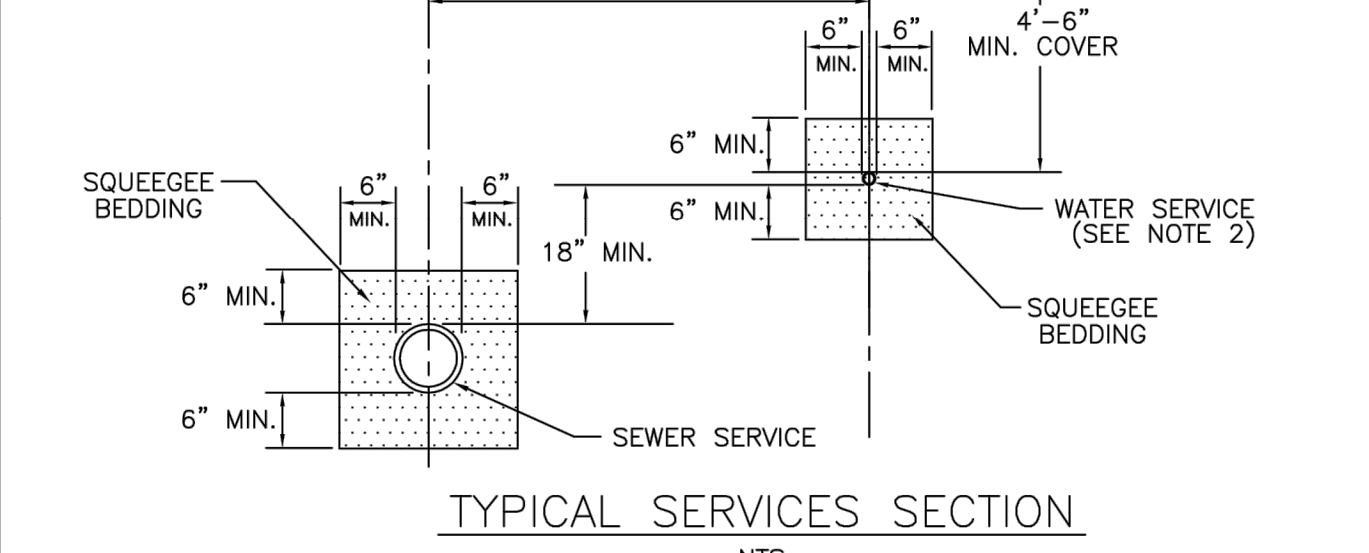
APPROVED: PVR 1/16 10/16  
DIRECTOR OF ENGINEERING

SHEET W4.7

1. PIPE SHALL BE WRAPPED WITH FELT LAYER BEFORE ENCASING.



TYPICAL SERVICES PLAN VIEW



TYPICAL SERVICES SECTION

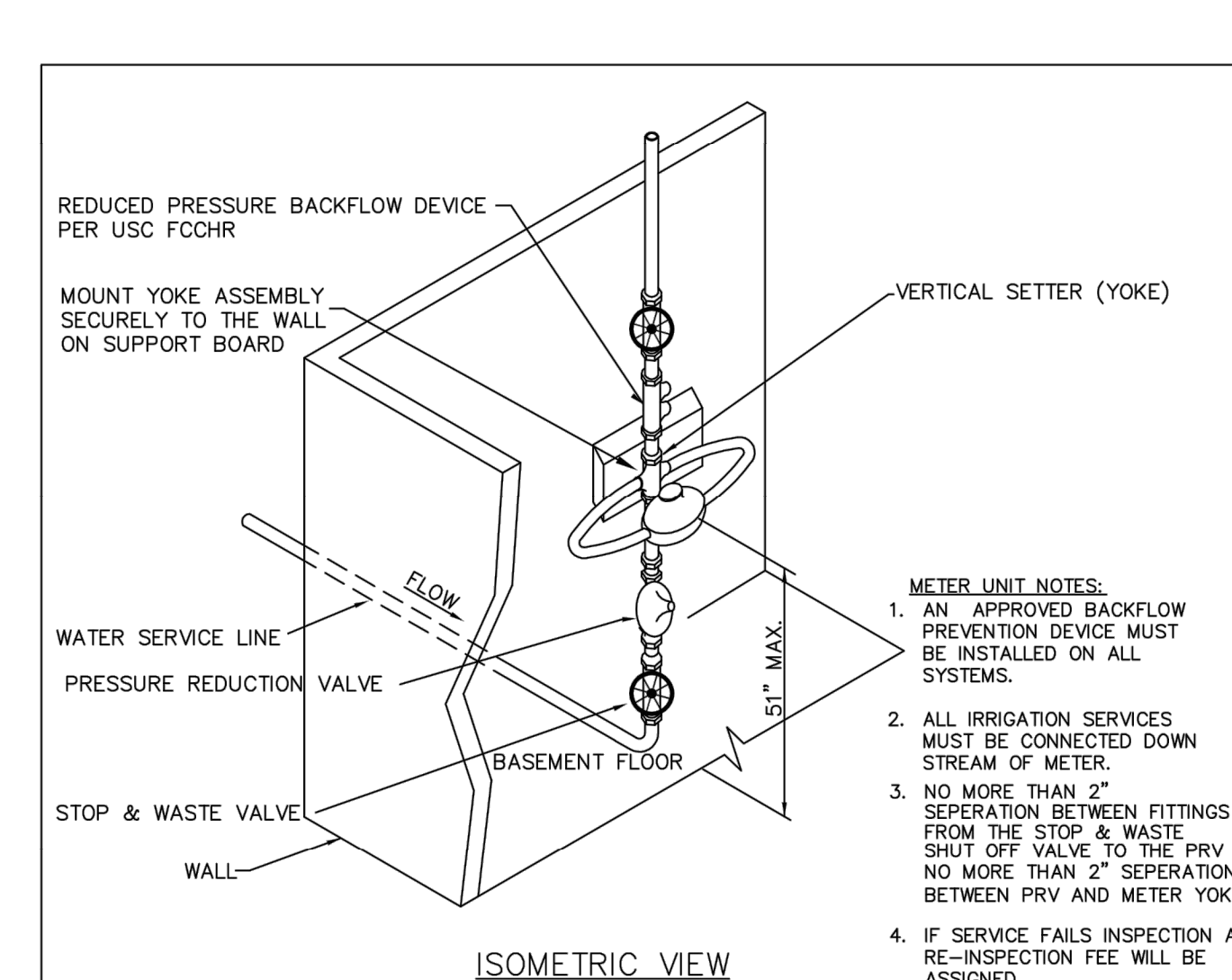
**PARKER WATER & SANITATION DISTRICT**  
TYPICAL SEWER SERVICES

SCALE: NONE DATE: 2/96

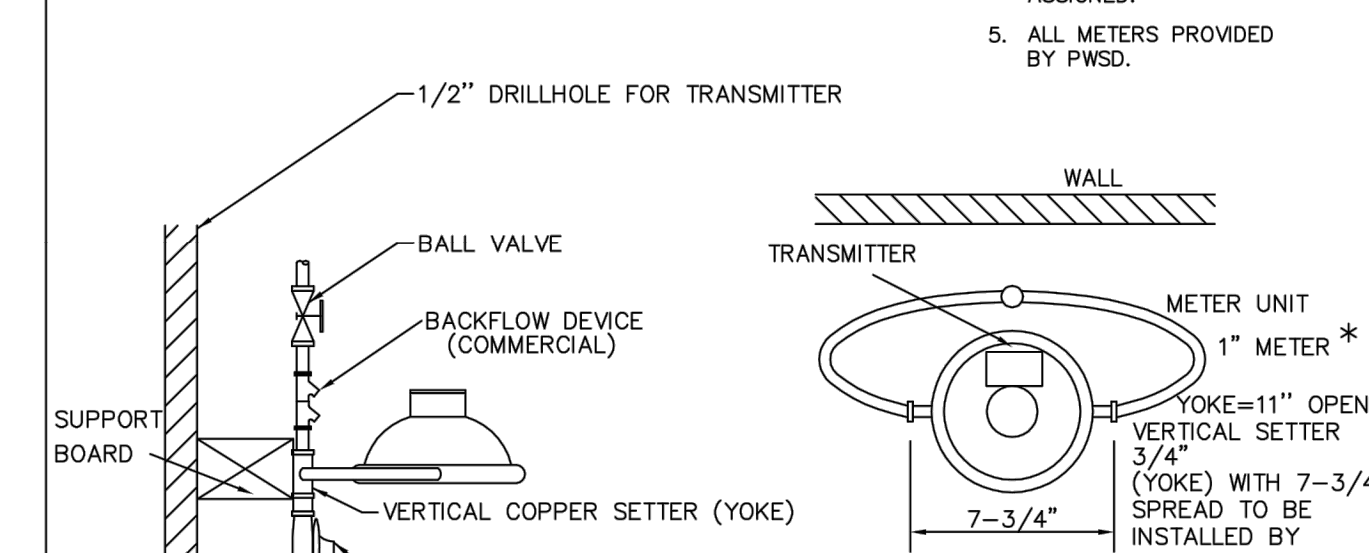
APPROVED: PVR 2/00 01/02 01/16 10/16  
DIRECTOR OF ENGINEERING

SHEET S1.2

NOTE:  
1. SEE SHEET S1.1 FOR DISTRICT POLICIES AND INSTALLATION NOTES.  
2. TYPICAL WATER SERVICES SHOWN ON SHEET W1.2 IN WATER DETAILS.



ISOMETRIC VIEW



PLAN

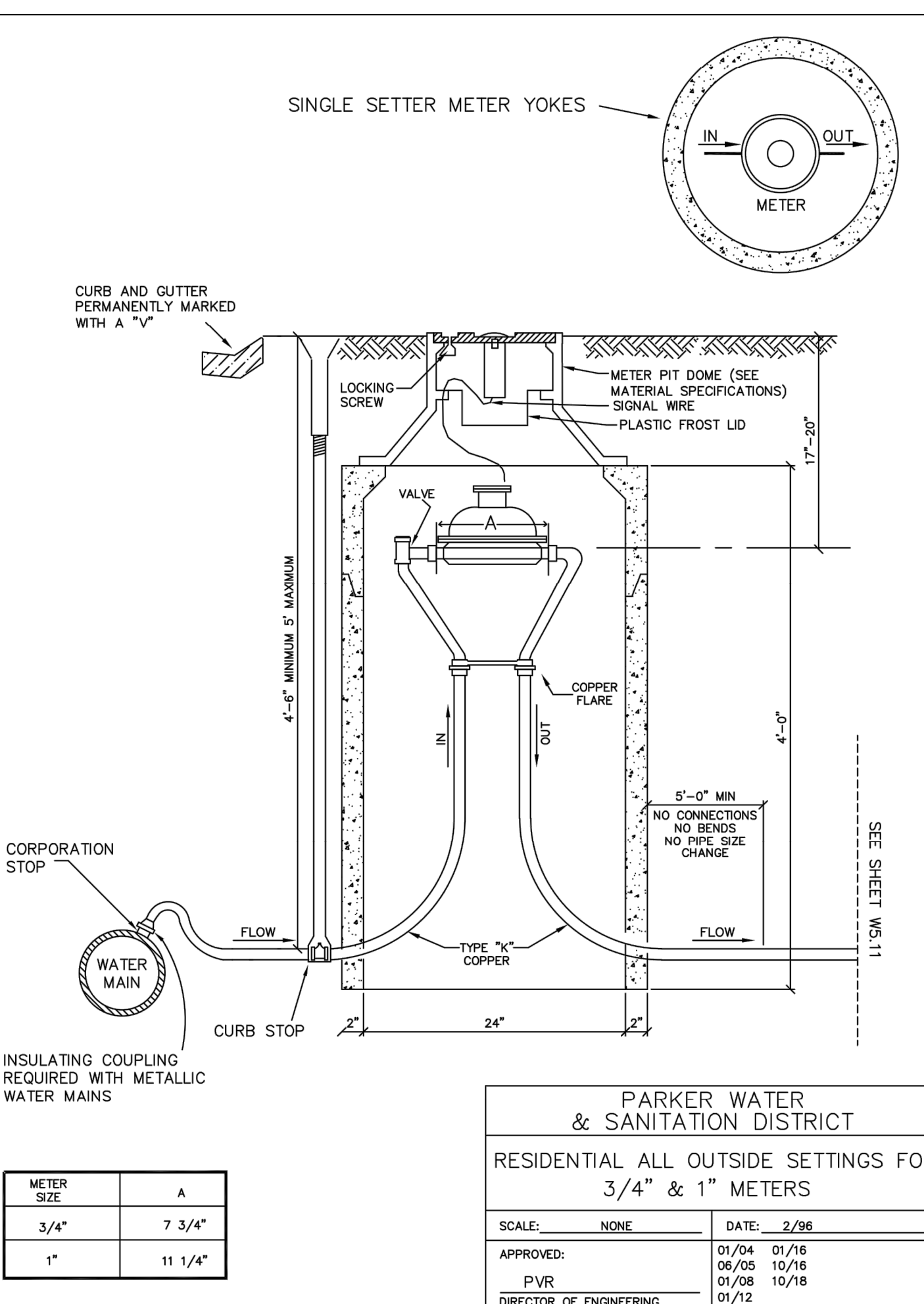
**PARKER WATER & SANITATION DISTRICT**  
SERVICE LINE, STOP BOX & INSIDE METER SETTING (COMMERCIAL ONLY)

SCALE: NONE DATE: 2/96

APPROVED: PVR \* ADDITION 01/04 10/16 06/05 1/16  
DIRECTOR OF ENGINEERING

SHEET W5.9

1. AN APPROVED BACKFLOW PREVENTION DEVICE MUST BE INSTALLED ON ALL SYSTEMS.  
2. ALL IRRIGATION SERVICES MUST BE CONNECTED DOWN STREAM OF METER.  
3. NO MORE THAN 2" SEPARATION BETWEEN FITTINGS FROM THE STOP & WASTE SHUT OFF VALVE TO THE PRV NO MORE THAN 2" SEPARATION BETWEEN PRV AND METER YOKE.  
4. IF SERVICE FAILS INSPECTION A RE-INSPECTION FEE WILL BE ASSIGNED.  
5. ALL METERS PROVIDED BY PWSO.



SINGLE SETTER METER YOKES

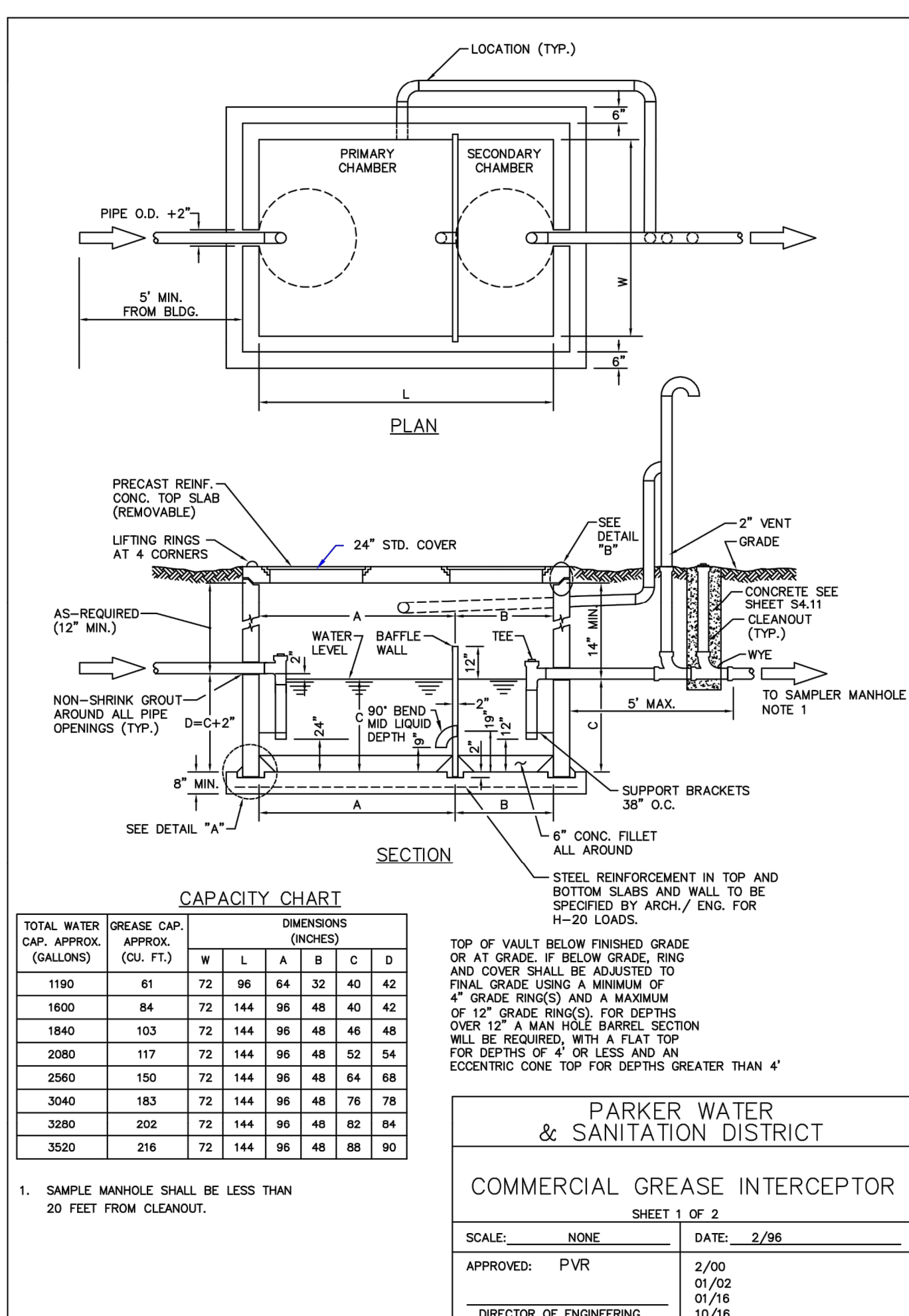
METER SIZE	A
3/4"	7 3/4"
1"	11 1/4"

**PARKER WATER & SANITATION DISTRICT**  
RESIDENTIAL ALL OUTSIDE SETTINGS FOR 3/4" & 1" METERS

SCALE: NONE DATE: 2/96

APPROVED: PVR 01/04 01/16 06/05 10/16 01/08 10/18 01/12  
DIRECTOR OF ENGINEERING

SHEET W5.10



CAPACITY CHART

TOTAL WATER CAP. APPROX. (GALLONS)	GREASE CAP. APPROX. (CU. FT.)	DIMENSIONS (INCHES)					
		W	L	A	B	C	D
1190	61	72	96	64	32	40	42
1600	84	72	144	96	48	40	42
1840	103	72	144	96	48	46	48
2080	117	72	144	96	48	52	54
2560	150	72	144	96	48	64	68
3040	183	72	144	96	48	76	78
3280	202	72	144	96	48	82	84
3520	216	72	144	96	48	88	90

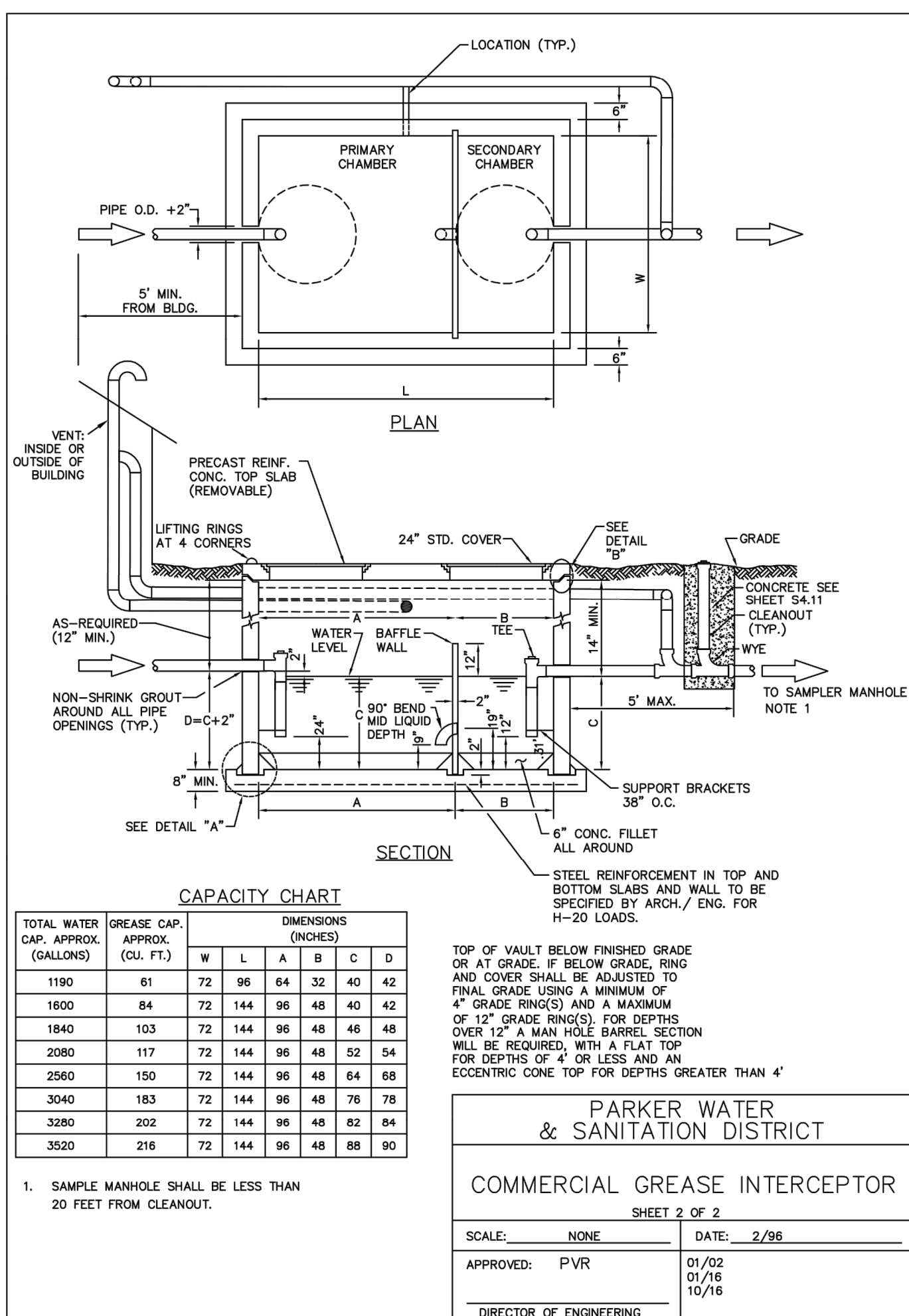
**PARKER WATER & SANITATION DISTRICT**  
COMMERCIAL GREASE INTERCEPTOR

SCALE: NONE DATE: 2/96

APPROVED: PVR 2/00 01/02 01/16 10/16  
DIRECTOR OF ENGINEERING

SHEET 1 OF 2

1. SAMPLE MANHOLE SHALL BE LESS THAN 20 FEET FROM CLEANOUT.



CAPACITY CHART

TOTAL WATER CAP. APPROX. (GALLONS)	GREASE CAP. APPROX. (CU. FT.)	DIMENSIONS (INCHES)					
		W	L	A	B	C	D
1190	61	72	96	64	32	40	42
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3040	183	72	144	96	48	76	78
3280	202	72	144	96	48	82	84
3520	216	72	144	96	48	88	90

**PARKER WATER & SANITATION DISTRICT**  
COMMERCIAL GREASE INTERCEPTOR

SCALE: NONE DATE: 2/96

APPROVED: PVR 2/00 01/02 01/16 10/16  
DIRECTOR OF ENGINEERING

SHEET 2 OF 2

1. SAMPLE MANHOLE SHALL BE LESS THAN 20 FEET FROM CLEANOUT.

DATE: \_\_\_\_\_

BY: \_\_\_\_\_

REVISION: \_\_\_\_\_

No. \_\_\_\_\_

**EES**  
ENGINEERING AND SOLUTIONS, INC.  
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PWSO CONSTRUCTION PLANS LOT 1

**CONVENIENCE STORE**

CHAMBERS AND HESS, PARKER, CO

**WATER & SANITARY SEWER DETAILS**

PROJECT NO: \_\_\_\_\_

DESIGNED BY: LCG

DRAWN BY: JLG

DATE: 05/27/21

**U2.1**