

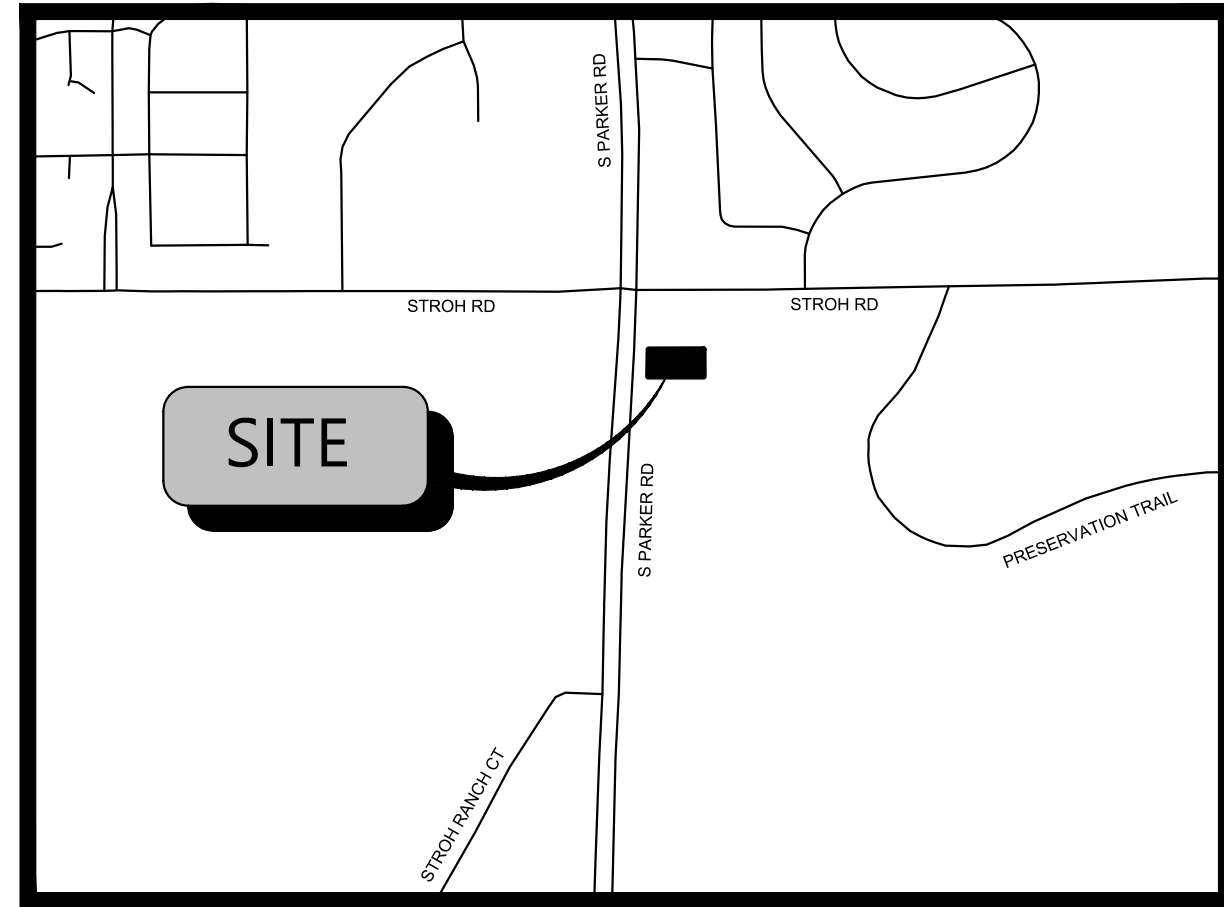
GENERAL NOTES:

1. TOPOGRAPHIC MAPPING AS OF 10/31/2024 PREPARED BY BARRON LAND, LLC. IF CONTRACTOR DOES NOT ACCEPT EXISTING TOPOGRAPHY AS SHOWN ON THE PLANS, WITHOUT EXCEPTION, THEN HE SHALL, AT HIS EXPENSE, HAVE NEW MAPPING PREPARED BY A REGISTERED LAND SURVEYOR AND SUBMIT IT TO THE OWNER FOR ACCEPTANCE AND APPROVAL.
2. CONTRACTOR SHALL REFER TO THE GRADING, EROSION AND SEDIMENT CONTROL (GESC) PLAN FOR ADDITIONAL REQUIREMENTS. NO WORK SHALL OCCUR UNTIL THE BMPs DEPICTED ON THE GESC HAVE BEEN INSTALLED AND ARE APPROVED BY THE CITY. THE CONTRACTOR SHALL ADHERE TO ALL TERMS AND CONDITIONS AS OUTLINED IN THE GENERAL PERMIT FOR STORM WATER DISCHARGE ASSOCIATED WITH CONSTRUCTION ACTIVITIES.
3. EXISTING CONTOURS ARE SHOWN AT 1-FOOT INTERVALS; PROPOSED OVERLOT CONTOURS ARE SHOWN AT 1-FOOT INTERVALS.
4. ALL EARTHWORK, GRADING, OVERLOT GRADING, BACKFILLING, FILLING, EXCAVATION, COMPACTION, PAVEMENT, AND FLATWORK SHALL BE IN CONFORMANCE WITH THE GEOTECHNICAL REPORT PREPARED BY UES. TITLED GEOTECHNICAL EXPLORATION REPORT, DATED FEBRUARY 21, 2024. THE CONTRACTOR IS REQUIRED TO HAVE A SIGNED AND SEALED COPY OF THE REPORT AT THE SITE AT ALL TIMES. DURING CONSTRUCTION, IF UNANTICIPATED CONDITIONS ARE ENCOUNTERED, THE GEOTECHNICAL ENGINEER SHALL BE CONTACTED BY THE CONTRACTOR FOR RECOMMENDATIONS.
5. THE CONTRACTOR IS RESPONSIBLE FOR:
 - a. VERIFYING ALL UTILITIES, WHETHER SHOWN OR NOT SHOWN, AND NOTIFYING THE APPROPRIATE UTILITY COMPANY PRIOR TO BEGINNING CONSTRUCTION. ALL UTILITIES TO REMAIN (MANHOLES, VALVE COVERS, CLEANOUTS, VAULTS, BOXES, ETC.) SHALL BE PROTECTED FROM DAMAGE AND ADJUSTED TO FINAL GRADE.
 - b. PREPARING ANY TRAFFIC CONTROL PLANS, AS MAY BE REQUIRED TO PERFORM THE WORK, AND PROVIDING ALL NECESSARY TRAFFIC CONTROL (SIGNS, BARRICADES, FLAGMEN, LIGHTS, ETC) IN ACCORDANCE WITH THE MUTCD, CURRENT EDITION, AS REQUIRED FOR THE WORK. THE PLAN FOR TRAFFIC CONTROL SHALL BE SUBMITTED TO THE CITY FOR APPROVAL PRIOR TO COMMENCING ANY WORK IN THE RIGHTS-OF-WAY.
 - c. OBTAINING ALL NECESSARY PERMITS AND APPROVALS REQUIRED TO PERFORM THE WORK AND TO OBTAIN A COPY OF ALL APPLICABLE CODES, LICENSES, SPECIFICATIONS, AND STANDARDS NECESSARY TO PERFORM THE WORK, AND BE FAMILIAR WITH THEIR CONTENTS PRIOR TO COMMENCING ANY WORK.
 - d. KEEPING ONE COPY OF THE APPROVED CONSTRUCTION PLANS AND SPECIFICATIONS ON THE JOB SITE AT ALL TIMES. PRIOR TO THE START OF CONSTRUCTION, CONTRACTOR TO VERIFY WITH PROJECT ENGINEER THE LATEST REVISION DATE OF THE APPROVED CONSTRUCTION PLANS.
 - e. COORDINATING PRIOR TO CONSTRUCTION WITH THE GEOTECHNICAL ENGINEER, THE CITY, AND UTILITY AND STORM WATER DISTRICT INSPECTORS TO IDENTIFY PROJECT INSPECTION AND TESTING REQUIREMENTS.
 - f. KEEPING TRACK OF ALL APPROVED DEVIATIONS FROM THE PLANS AND PROVIDING THE PROJECT ENGINEER WITH AS-BUILT DRAWINGS OF ALL IMPROVEMENTS REQUIRED FOR THE WORK.
 - g. COMPLYING WITH CITY GENERAL REQUIREMENTS, STANDARDS, AND SPECIFICATIONS.
 - h. PROVIDING AS-BUILT DRAWINGS OF CONSTRUCTED UTILITIES UPON COMPLETION OF THE WORK.

PARKER WATER AND SANITATION CONSTRUCTION PLANS FOR



S. PARKER RD & STROH RD
PARKER, DOUGLAS COUNTY, COLORADO
TAX PARCEL: 234903104014



VICINITY MAP
N.T.S.



FEMA MAP
N.T.S.

NOTE: BASED ON GRAPHIC DETERMINATION, THIS PROPERTY DOES NOT LIE IN A F.E.M.A./F.I.R.M. SPECIAL FLOOD HAZARD AREA PER COMMUNITY PANEL NO. 08035C0182G DATED MARCH, 16 2016.



AERIAL MAP
N.T.S.

BLACK ROCK COFFEE BAR
TOTAL SITE AREA: 0.60 AC. / 25,933 SF AC.
ZONING: MODIFIED COMMERCIAL

DEVELOPMENT TEAM

OWNER DOUBLETREE VENTURES, LLC P.O. BOX 40326 DENVER, CO 80204 CONTACT: BRIAN ZUREK EMAIL: BRIAN@DOUBLETREEVENTURES.COM	CIVIL ENGINEER ATWELL, LLC 9001 AIRPORT FREEWAY, SUITE 660 NORTH RICHLAND HILLS, TX 76180 PHONE: (972) 638-8860 CONTACT: CATHERINE ATCHLEY EMAIL: CATCHLEY@ATWELL.COM	SURVEYOR BARRON LAND 2790 N. ACADEMY BLVD., SUITE 311 COLORADO SPRINGS, CO 80917 PHONE: (719) 360-6827 CONTACT: SPENCER BARRON	DEVELOPER BLACK ROCK COFFEE BAR 16307 NE CAMERON BLVD PORTLAND, OR 97230 PHONE: (541) 531-2149 CONTACT: TONY POLLOTTA
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GOVERNING AGENCIES AND UTILITY CONTACTS

WATER & WASTEWATER PARKER WATER AND SANITATION DISTRICT 13939 ANCESTRY DRIVE PARKER, CO 80134 PHONE: (303) 841-4627 EMAIL: RRAMSEY@PWSD.ORG CONTACT: ROBERT RAMSEY	STORM DRAINAGE PROVIDER TOWN OR PARKER PUBLIC WORKS 20120 E. MAIN STREET PARKER, CO 80138 CONTACT: CHRIS HUDSON	GAS PROVIDER XCEL ENERGY 1123 WEST 3RD AVE, DENVER, CO 80223 PHONE: (303) 571-3927 CONTACT: BUILDER'S CALL LINE (800) 628-1212 X3
ENGINEERING DEPARTMENT TOWN OF PARKER ENGINEERING & PUBLIC WORKS 20120 E. MAINSTREET PARKER, CO 80134 PHONE: (303) 841-4627 EMAIL: RRAMSEY@PWSD.ORG CONTACT: ROBERT RAMSEY	FIRE PROTECTION TOWN OF PARKER FIRE AND LIFE SAFETY 20120 E. MAINSTREET PARKER, CO 80138 PHONE: (303) 805-3169 CONTACT: RANDY CAPRA EMAIL: RCAPRA@PARKERONLINE.ORG	PHONE PROVIDER CENTURYLINK 9750 EAST COSTILLA AVE. ENGLEWOOD, CO 80112 PHONE: (720) 578-5142
BUILDING PERMIT TOWN OR PARKING BUILDING DIVISION 20120 E. MAINSTREET PARKER, CO 80138 PHONE: (303) 841-1970 CONTACT: RANDY SALE EMAIL: RSALE@PARKERONLINE.ORG	ELECTRIC PROVIDER CORE ELECTRIC COOPERATIVE 5496 NORTH U.S. HIGHWAY 85 SEDALIA, MO 64581 PHONE: (303) 332-9540 CONTACT: BRUFF SHEA	

SUBMITTAL DATE

SUBMITTAL - 2024-03-14

PROJECT NARRATIVE

BLACK ROCK COFFEE BAR IS OWNED BY BLACK ROCK DEVELOPMENT COMPANY, LLC. THEY ARE A PREMIUM CRAFT COFFEE SHOP WITH MULTIPLE LOCATIONS ACROSS THE COUNTRY. THEY CONSIDER THEMSELVES A "PART OF LOCAL COMMUNITIES. EACH BLACK ROCK COFFEE BAR TEAM FINDS WAYS TO SERVE THEIR NEIGHBORHOODS. AND BY DOING SO WE HELP RAISE THE BAR FOR RELATIONSHIP AND COMPASSION." THEIR PROTOTYPE BUILDING IS ROUGHLY 600-700 SQUARE FEET IN SIZE, WITH STATE-OF-THE-ART DESIGN AND IDENTIFIABLE BRANDING ELEMENTS. THEY OFFER PATIO AND INDOOR SEATING WITH THE OPTION OF DRIVE-THRU AVAILABILITY.

A BUILDING WITH THE STANDARD DUAL-LANE ORDERING SINGLE LANE PICKUP IS BEING PROPOSED FOR THIS LOCATION. THIS PROJECT WOULD UTILIZE A PROPOSED ACCESS POINT TO DECLAN DRIVE.

LEGAL DESCRIPTION

LOT 4A, PARKER POINTE SUBDIVISION FILING NO. 1, AMENDMENT NO. 1 ACCORDING TO THE PLAT AS RECORDED JULY 31, 2024 AT RECEPTION NO. 2024031650, COUNTY OF DOUGLAS, STATE OF COLORADO

ADDRESS OF RECORD:
6940 STROH ROAD, PARKER, CO

BENCHMARK

ELEVATIONS ARE BASED UPON DOUGLAS COUNTY GIS SECONDARY CONTROL MONUMENT "1.060032" (ELEVATION - 5903.17 NAVD88)

BASIS OF BEARINGS

BEARINGS ARE BASED UPON THE NORTH LINE OF THE NORTHEAST QUARTER OF SECTION 3, T7S, R66W OF THE 6TH PRINCIPAL MERIDIAN, MONUMENTED ON THE EAST WITH A #6 REBAR WITH 2" ALUMINUM CAP IN MONUMENT BOX STAMPED "PLS 22561" AND ON THE WEST WITH A #6 REBAR WITH A 3.25" ALUMINUM CAP IN MONUMENT BOX STAMPED "PLS 29761", AND IS ASSUMED TO BEAR S 89°59'29" W, A FIELD MEASURED DISTANCE OF 2648.43 FEET.

UTILITY NOTES

1. ROADWAY DIMENSIONS ARE FROM FL-FL, 1-FOOT PAN IS PROPOSED ONSITE.
2. ALL UTILITY CONSTRUCTION SHALL CONFORM TO PARKER WATER AND SANITATION DISTRICT AND CRITERIA REFERENCE LOCAL AGENCY INFRASTRUCTURE DESIGN AND CONSTRUCTION STANDARDS.
3. ALL MATERIALS AND WORKMANSHIP SHALL BE SUBJECT TO INSPECTION BY THE PARKER WATER AND SANITATION DISTRICT THE DISTRICT RESERVES THE RIGHT TO ACCEPT OR REJECT ANY SUCH MATERIALS AND WORKMANSHIP THAT DOES NOT CONFORM TO ITS STANDARDS AND SPECIFICATIONS.
4. THE CONTRACTOR SHALL NOTIFY THE TOWN OF PARKER PUBLIC WORKS AND PARKER WATER AND SANITATION DISTRICT A MINIMUM OF 48 HOURS AND A MAXIMUM OF 96 HOURS PRIOR TO STARTING CONSTRUCTION.
5. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING THE HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UTILITIES. EXISTING UTILITIES SHOWN ON THIS PLANS ARE BASED ON THE BEST AVAILABLE INFORMATION AT THE TIME OF DESIGN AND DO NOT REFLECT A COMPLETE SURVEY OF EXISTING UTILITIES. CONTACT THE ENGINEER WITH DISCREPANCIES.
6. CONTRACTOR SHALL VERIFY THE STUB TIE IN ELEVATION PRIOR TO START OF CONSTRUCTION. THE ELEVATION OF THE STUB SHALL BE COORDINATED WITH THE ENGINEER PRIOR TO SANITARY SEWER CONSTRUCTION.
7. SAWCUT OF EXISTING STREETS SHALL BE IN CONFORMANCE WITH TOWN STANDARDS. CUTS SHALL STRAIGHT WITH CLEAN EDGES. REMOVE EXISTING CURB AND GUTTER TO NEAREST JOINT RETURN ALONG EXISTING LINE AND GRADE.
8. THE OWNER AND OR THEIR REPRESENTATIVE SHALL BE RESPONSIBLE FOR COORDINATION WITH EXISTING FRANCHISE UTILITIES TO INCLUDE COMCAST, XCEL, CENTURY LINK OR OWNERS OF EXISTING DRY UTILITY LINES.
9. EXISTING UTILITY SURFACE APPURTENANCES SHALL BE RAISED TO FINISHED GRADE, THIS INCLUDES BUT IS NOT LIMITED TO MANHOLE LIDS, VALVE COVERS.
10. SITE SURVEY IS PROVIDED BY BARRON LAND DATED 10-31-2024.
11. THE CONTRACTOR SHALL HAVE AN APPROVED SET OF CONSTRUCTION PLANS ON SITE AT ALL TIMES. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS FOR THE CONSTRUCTION, NOTIFYING AND SCHEDULING LOCAL AGENCIES INSPECTIONS.
12. ALL PIPE LENGTHS ARE MEASURED FROM CENTER OF FITTING TO CENTER OF FITTING STATIONING IS ALIGN DRIVE CENTERLINE AND CENTERLINE OF PIPE UNLESS OTHERWISE NOTED.
13. ELEVATIONS ARE FINISHED GRADE ELEVATION UNLESS OTHERWISE NOTED.

Sheet List Table

Sheet Number	Sheet Title
01	WATER AND SEWER COVER SHEET
02	WATER AND SEWER GENERAL NOTES
03	OVERALL UTILITY PLAN
04	WATER PLAN
05	SEWER PLAN AND PROFILE
06	WATER DETAILS
07	WATER DETAILS
08	SEWER DETAILS
09	SEWER DETAILS
L1.01	LANDSCAPE PLAN
L1.02	LANDSCAPE SPECIFICATIONS AND NOTES
L1.03	LANDSCAPE DETAILS
L2.01	IRRIGATION PLAN
L2.02	IRRIGATION SPECIFICATIONS AND NOTES
-	UTILITY FIXTURE COUNT WORKSHEET

PARKER WATER AND SANITATION DISTRICT

THE DISTRICT INSPECTOR MUST BE NOTIFIED AT LEAST 48 HOURS PRIOR TO START OF CONSTRUCTION. CALL PARKER WATER AND SANITATION DISTRICT (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: _____
(DISTRICT ENGINEER)

DATE: _____

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 REQUIREMENT OF NFPA 24 WHEN SUBMITTING FOR REVIEW.

811
Know what's below. Call before you dig.
THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MAY BE INCURRED BY THE CONTRACTOR IN ATTEMPTING TO LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.
NOTICE: CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. NEITHER THE OWNER NOR THE ENGINEER SHALL BE HELD RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS FOR THE WORK, OR ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.
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S. PARKER RD & STROH RD
PARKER
DOUGLAS COUNTY, COLORADO

BLACK ROCK COFFEE BAR
BLACK ROCK DEVELOPMENT COMPANY, LLC
BLACK ROCK COFFEE BAR
WATER AND SEWER COVER SHEET

DATE 2024-03-14

REVISIONS

DRAWN BY: S. KIDD

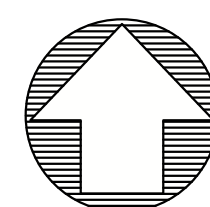
CHECKED BY: C. ATCHLEY

PROJECT MANAGER: C. ATCHLEY

JOB #: 24003198

FILE CODE: ##

SHEET NO. 01



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NOTICE:
CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. NEITHER THE OWNER NOR THE ENGINEER SHALL BE HELD RESPONSIBLE FOR ANY INJURIES OR DAMAGES TO PERSONS OR PROPERTY ARISING FROM THE WORK OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

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S. PARKER RD & STROH RD
PARKER
DOUGLAS COUNTY, COLORADO

BLACK ROCK COFFEE BAR
BLACK ROCK DEVELOPMENT COMPANY, LLC
BLACK ROCK COFFEE BAR
OVERALL UTILITY PLAN

DATE 2024-03-14

REVISIONS

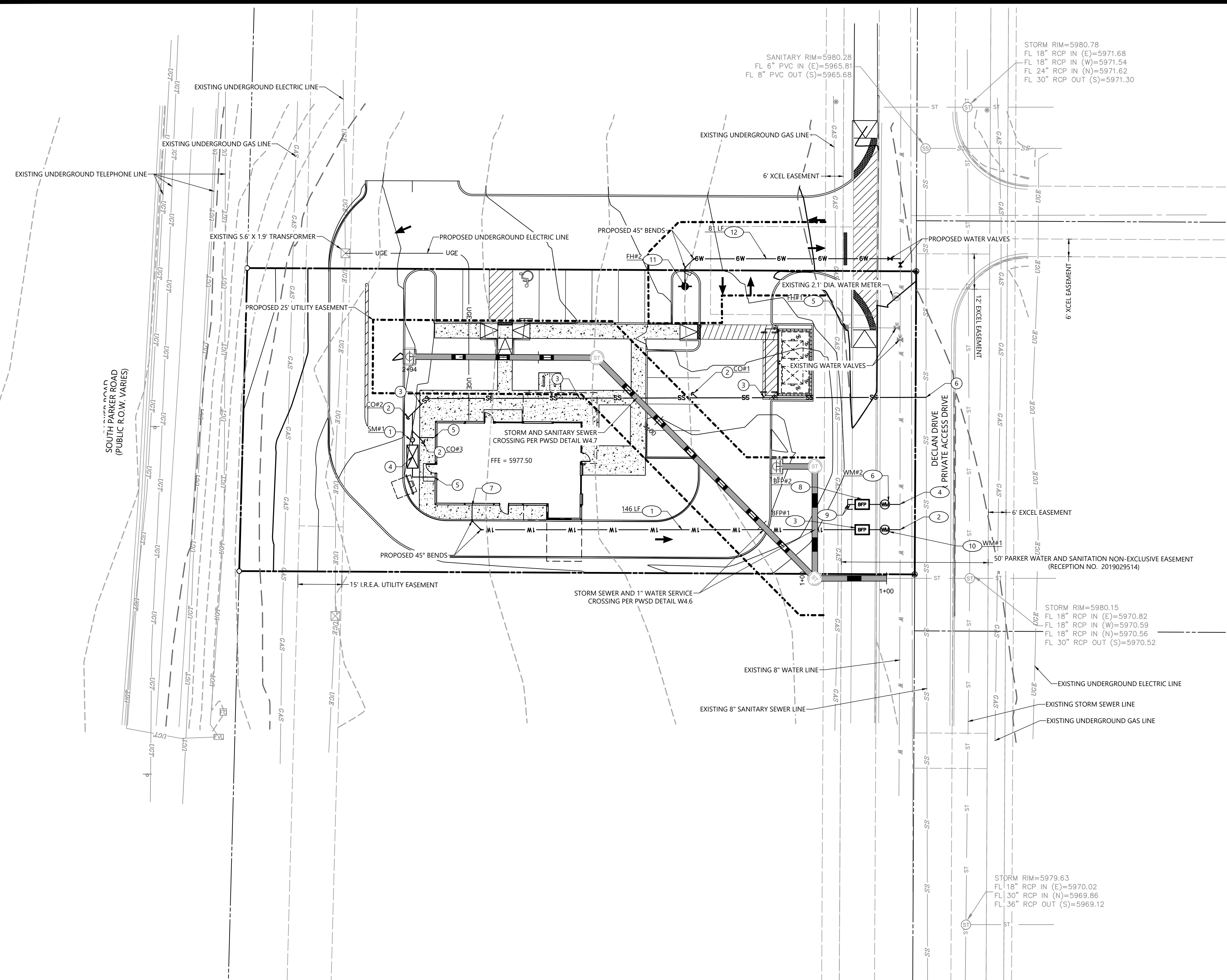
DRAWN BY: S. KIDD
CHECKED BY: C. ATCHLEY
PROJECT MANAGER: C. ATCHLEY
JOB #: 24003198
FILE CODE: ##
SHEET NO. 03

UTILITY NOTES

1. ALL UTILITY CONSTRUCTION SHALL CONFORM TO PARKER WATER AND SANITATION DISTRICT AND CRITERIA REFERENCE. LOCAL AGENCY INFRASTRUCTURE DESIGN AND CONSTRUCTION STANDARDS.
2. NOMINAL DEPTH OF WATER MAIN SHALL BE 4.5' FROM FINISHED GRADE TO TOP OF PIPE.
3. ALL MATERIALS AND WORKMANSHIP SHALL BE SUBJECT TO INSPECTION BY THE PARKER WATER AND SANITATION DISTRICT. THE DISTRICT RESERVES THE RIGHT TO ACCEPT OR REJECT ANY SUCH MATERIALS AND WORKMANSHIP THAT DOES NOT CONFORM TO ITS STANDARDS AND SPECIFICATIONS.
4. THE CONTRACTOR SHALL NOTIFY THE TOWN OF PARKER PUBLIC WORKS AND PARKER WATER AND SANITATION DISTRICT A MINIMUM OF 48 HOURS AND A MAXIMUM OF 96 HOURS PRIOR TO STARTING CONSTRUCTION.
5. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING THE HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UTILITIES. EXISTING UTILITIES SHOWN ON THIS PLANS ARE BASED ON THE BEST AVAILABLE INFORMATION AT THE TIME OF DESIGN AND DO NOT REFLECT A COMPLETE SURVEY OF EXISTING UTILITIES. CONTACT THE ENGINEER WITH DISCREPANCIES.
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7. SAWCUT OF EXISTING STREETS SHALL BE IN CONFORMANCE WITH TOWN STANDARDS. CUTS SHALL STRAIGHT WITH CLEAN EDGES. REMOVE EXISTING CURB AND GUTTER TO NEAREST JOINT RETURN ALONG EXISTING LINE AND GRADE.
8. THE OWNER AND OR THEIR REPRESENTATIVE SHALL BE RESPONSIBLE FOR COORDINATION WITH EXISTING FRANCHISE UTILITIES TO INCLUDE COMCAST, XCEL, CENTURY LINK OR OWNERS OF EXISTING DRY UTILITY LINES.
9. EXISTING UTILITY SURFACE APPURTENANCES SHALL BE RAISED TO FINISHED GRADE, THIS INCLUDES BUT IS NOT LIMITED TO MANHOLE LIDS, VALVE COVERS.

UTILITY LEGEND

- EXISTING PROPERTY LINE
- - - EXISTING EASEMENT
- - - EXISTING ROAD CENTERLINE
- SS SEWER LINE
- 1W DOMESTIC 1" WATER LINE
- STORM SEWER LINE
- WM SANITARY SEWER MANHOLE
- C SANITARY SEWER CLEAN OUT
- M WATER METER
- WATER BEND 45°
- WATER BACK FLOW PREVENTER
- GREASE TRAP
- SM STORM MANHOLE
- CI STORM CURB INLET



WATER SERVICE NOTES

- NOTE - ALL POLY LINES FOR WATER SHOULD BE PEX AND SHOULD UTILIZE PROTEX FITTINGS
- NOTE - ALL WATER SHALL BE INSTALLED PER PARKER WATER AND SANITATION STANDARDS, SPECIFICATIONS AND STANDARD PRODUCTS LIST.
1. INSTALL 1" - 1" COPPER SERVICE LINE, LENGTH PER PLAN
 2. INSTALL 1" - 1" WATER SERVICE INSTALLATION ON EXISTING 8" WATER MAIN PER P.W.S.D. STD. DTL W5.2 WITH RESTRAINT JOINTS
 3. INSTALL 1" - 1" BACKFLOW PREVENTER PER P.W.S.D. STD. DTL W5.9
 4. INSTALL 1/2" WATER SERVICE INSTALLATION ON EXISTING WATER MAIN PER P.W.S.D. STD. DTL5. WITH RESTRAINT JOINTS
 5. EXISTING FIRE HYDRANT ASSEMBLY
 6. INSTALL 1/2" LANDSCAPE METER WITH STEEL METER BOX COVER PER P.W.S.D. STD. DTL W5.9
 7. CONNECT TO BUILDING STUB. SEE ARCHITECTURAL PLANS FOR CONTINUATION
 8. INSTALL 1" LANDSCAPE BACKFLOW PREVENTER PER P.W.S.D. DTL5 W5.9 WITH A 1/2" TO 1" REDUCER BETWEEN THE METER AND BACKFLOW
 9. INSTALL 1/2" SCH 80 PVC WATERLINE AND WATER PLUG PPER P.W.S.D. STD. DTL5.
 10. INSTALL 1" - 1" WATER METER WITH STEEL METER BOX COVER PER P.W.S.D. STD. DTL5.
 11. PROPOSED FIRE HYDRANT ASSEMBLY
 12. 6" SCH 80 PVC WATERLINE, LENGTH PER PLAN

SANITARY SEWER SERVICE NOTES

1. SAMPLING MANHOLE PER P.W.S.D. STD. DTL SS.3
2. INSTALL GAS/WATER TIGHT CLEANOUT PLUGS PER P.W.S.D. STD. DTL S4.12
3. INSTALL 6" PVC SDR-35 SEWER LINE BEDDING AND BACKFILL PER P.W.S.D. STD. DTL S4.1
4. INSTALL GREASE INTERCEPTOR PER P.W.S.D. STD. DTL5 SS.1 & SS.2
5. CONNECT TO BUILDING STUB. SEE ARCHITECTURAL PLANS FOR CONTINUATION
6. CONNECT TO EXISTING SANITARY SEWER LINE

ENGINEERING REVIEW BLOCK

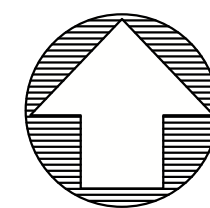
THE TOWN OF PARKER REVIEW CONSTITUTES GENERAL COMPLIANCE WITH THE TOWN'S STANDARDS AND APPROVED VARIANCES, SUBJECT TO THESE PLANS BEING STAMPED, SIGNED, AND DATED BY THE PROFESSIONAL ENGINEER OF RECORD. REVIEW BY THE TOWN DOES NOT CONSTITUTE APPROVAL OF THE PLAN DESIGN OR ACCURACY AND CORRECTNESS OF ENGINEERING CALCULATIONS. ERRORS IN THE DESIGN OR CALCULATIONS REMAIN THE RESPONSIBILITY OF THE REGISTERED PROFESSIONAL ENGINEER WHOSE STAMP AND SIGNATURE ARE AFFIXED TO THIS DOCUMENT.

THIS REVIEW DOES NOT CONSTITUTE APPROVAL OF ANY PRIVATE ON-SITE IMPROVEMENTS WHICH MAY BE SHOWN. CONSTRUCTION CANNOT COMMENCE UNTIL ALL REQUIRED DRAINAGE/TRAFFIC REPORT(S), FINAL DEVELOPMENT PLAN(S), SPECIAL REVIEW(S), GRADING PERMIT, AND/OR OTHER PERMITS ARE COMPLETE, APPROVED AND ON FILE WITH THE TOWN OF PARKER.

TOWN OF PARKER, DIRECTOR OF ENGINEERING/PUBLIC WORKS DATE

FILE NAME: \\f:\data\civ\24003198 - BEC - Parker - 24003198 - OVERALL UTILITY PLAN.dwg LAST MOD BY: 24003198 2/25/2025 3:15 PM PLOTTED BY: 24003198 2/25/2025 3:15 PM PLOTTER: HP DesignJet T1200

CAD FILE: 24003198 - OVERALL UTILITY PLAN

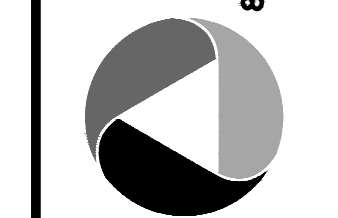


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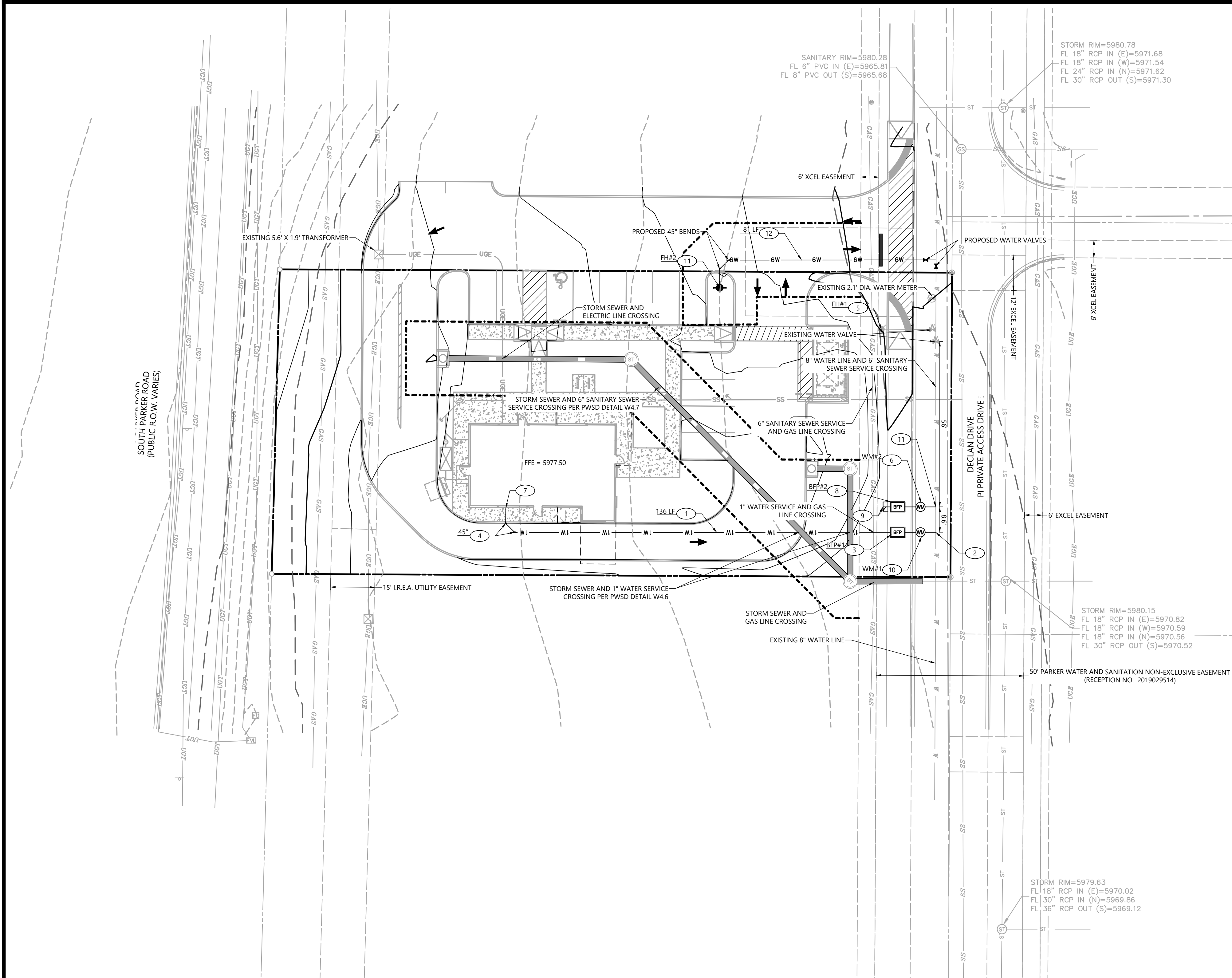
BLACK ROCK COFFEE BAR
 BLACK ROCK DEVELOPMENT COMPANY, LLC
 BLACK ROCK COFFEE BAR
 WATER PLAN

DATE 2024-03-14

REVISIONS

DRAWN BY: S. KIDD
 CHECKED BY: C. ATCHLEY
 PROJECT MANAGER: C. ATCHLEY
 JOB #: 24003198
 FILE CODE: ##
 SHEET NO. 04

CAD FILE: 24003198 - UTILITY WATER PLAN



UTILITY NOTES

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- SAWCUT OF EXISTING STREETS SHALL BE IN CONFORMANCE WITH TOWN STANDARDS. CUTS SHALL STRAIGHT WITH CLEAN EDGES. REMOVE EXISTING CURB AND GUTTER TO NEAREST JOINT RETURN ALONG EXISTING LINE AND GRADE.
- THE OWNER AND OR THEIR REPRESENTATIVE SHALL BE RESPONSIBLE FOR COORDINATION WITH EXISTING FRANCHISE UTILITIES TO INCLUDE COMCAST, XCEL, CENTURY LINK OR OWNERS OF EXISTING DRY UTILITY LINES.
- EXISTING UTILITY SURFACE APPURTENANCES SHALL BE RAISED TO FINISHED GRADE. THIS INCLUDES BUT IS NOT LIMITED TO MANHOLE LIDS, VALVE COVERS.

UTILITY LEGEND

- EXISTING PROPERTY LINE
- EXISTING EASEMENT
- EXISTING ROAD CENTERLINE
- SS SEWER LINE
- TW DOMESTIC 1" WATER LINE
- STORM SEWER LINE
- ⊕ SANITARY SEWER MANHOLE
- C SANITARY SEWER CLEAN OUT
- ⊙ WATER METER
- X WATER BEND 45°
- ⊠ WATER BACK FLOW PREVENTER
- ⊞ GREASE TRAP
- ⊕ STORM MANHOLE
- ⊙ STORM CURB INLET

WATER QUANTITIES

DESCRIPTION	LEGEND	QUANTITY
DOMESTIC SERVICE (1-INCH)	--- TW ---	± 144 LF
DOMESTIC SERVICE (3/4-INCH)	--- W ---	± 10 LF
BACK FLOW PREVENTER (BFP)	⊠	2 EACH
1" 45° BEND	X	2 EACH
1" DOMESTIC WATER METER (WM)	⊙	1 EACH
3/4" LANDSCAPE WATER METER (WM)	⊙	1 EACH

WATER SERVICE NOTES

- NOTE - ALL POLY LINES FOR WATER SHOULD BE PEX AND SHOULD UTILIZE PROTEX FITTINGS
- NOTE - ALL WATER SHALL BE INSTALLED PER PARKER WATER AND SANITATION STANDARDS, SPECIFICATIONS AND STANDARD PRODUCTS LIST.
- INSTALL 1- 1" COPPER SERVICE LINE, LENGTH PER PLAN
 - INSTALL 1- 1" WATER SERVICE INSTALLATION ON EXISTING 8" WATER MAIN PER P.W.S.D. STD. DTL W5.2 WITH RESTRAINT JOINTS
 - INSTALL 1- 1" BACKFLOW PREVENTER PER P.W.S.D. STD. DTL W5.9
 - INSTALL 1/2" WATER SERVICE INSTALLATION ON EXISTING WATER MAIN PER P.W.S.D. STD. DTLS WITH RESTRAINT JOINTS
 - EXISTING FIRE HYDRANT ASSEMBLY
 - INSTALL 1/2" LANDSCAPE METER WITH STEEL METER BOX COVER PER P.W.S.D. STD. DTL W5.9
 - CONNECT TO BUILDING STUB. SEE ARCHITECTURAL PLANS FOR CONTINUATION
 - INSTALL 1" LANDSCAPE BACKFLOW PREVENTER PER P.W.S.D. DTLS W5.9 WITH A 1/2" TO 1" REDUCER BETWEEN THE METER AND BACKFLOW
 - INSTALL 1/2" SCH 80 PVC WATERLINE AND WATER PLUG PPER P.W.S.D. STD. DTLS.
 - INSTALL 1- 1" WATER METER WITH STEEL METER BOX COVER PER P.W.S.D. STD. DTLS.
 - PROPOSED FIRE HYDRANT ASSEMBLY
 - 6" SCH 80 PVC WATERLINE, LENGTH PER PLAN

INSPECTION POLICY:

1. ALL SERVICE INSPECTIONS MUST BE SCHEDULED AT LEAST 24 HOURS IN ADVANCE OF THE REQUESTED INSPECTION.
2. SERVICE INSPECTIONS WILL OCCUR BETWEEN 1:00 P.M. AND 3:00 P.M. SPECIFIC INSPECTION TIMES ARE NOT AVAILABLE.
3. IF THE CONTRACTOR IS NOT READY FOR INSPECTION WHEN THE INSPECTOR ARRIVES AT THE SITE OR SERVICE FAILS, A RE-INSPECTION WILL HAVE TO BE SCHEDULED IN ACCORDANCE WITH NOTES 1 AND 2 ABOVE AND A RE-INSPECTION FEE CHARGED.
4. SHOULD THE SERVICE LINES BE DAMAGED BY LATER CONSTRUCTION, AN INSPECTION OF THE REPAIR WILL BE REQUIRED IN ACCORDANCE WITH NOTES 1 AND 2 ABOVE.
5. THE CONTRACTOR SHALL LEAVE ALL PIPE AND FITTINGS EXPOSED FOR THE INSPECTOR TO OBSERVE. INSPECTORS WILL NOT ENTER ANY EXCAVATIONS TO CHECK MATERIALS. THE TOP LAYER OF BEDDING CAN BE ADDED AFTER THE INSPECTION HAS BEEN COMPLETED.
6. ALL EXCAVATIONS SHALL BE IN ACCORDANCE WITH OSHA STANDARDS.
7. LOTS WITHOUT BUILDING ADDRESSES BEFORE DISTRICT INSPECTION OR METER SET WILL FAIL AUTOMATICALLY.
8. CONTRACTOR MUST BE PRESENT AT TIME OF INSPECTION, UNLESS COORDINATED WITH DISTRICT INSPECTOR.

INSTALLATION NOTES:

- WATER**
1. ACCEPTABLE PIPE MATERIALS SHALL BE K-COPPER TUBING. (3/4" MIN.)
 2. APPROVED BEDDING TO BE SQUEEGEE.
 3. ONLY ONE COUPLING WILL BE ALLOWED BETWEEN THE STUB-IN AND BUILDING. COMPRESSION COUPLINGS WILL NOT BE ALLOWED ON NEW CONSTRUCTION. SILVER SOLDERED JOINTS MUST BE USED ON SERVICES LARGER THAN 3/4". SILVER SOLDERED JOINTS MUST BE INSPECTED BY PWS BEFORE BURIAL. FLARED COUPLINGS WILL BE ALLOWED ON ALL SERVICES 3/4" AND SMALLER.
 4. A WATER SERVICE WHICH CROSSES A SEWER SERVICE CAN DO SO ONLY AT A 45-90° ANGLE. WATER SERVICES SHALL BE LOCATED A MINIMUM OF 18" ABOVE SEWER SERVICE.
 5. WATER SERVICE FOUNDATION PENETRATIONS SHALL BE WATERPROOFED USING MASTIC OR OTHER APPROVED METHOD. CRAWL SPACE REQUIRES CONTINUOUS COPPER WITH A 1" BURY.
 6. CURB STOP MUST BE PLUMB AND CENTERED OVER THE NUT. IT SHOULD BE STRAPPED TO THE METER PIT (RESIDENTIAL INSTALLATIONS) OR CENTERED OVER THE EASEMENT LINE (COMMERCIAL INSTALLATIONS). THE ASSEMBLY MUST BE AT OR SLIGHTLY ABOVE FINISHED GRADE.
 7. MOVED CURB BOXES MUST BE INSPECTED BY PWS PRIOR TO BURIAL.
 8. WATERLINE MUST BE ATTACHED TO A SUPPORT BOARD THAT IS MOUNTED TO THE WALL.
 9. NO VOIDS ALLOWED UNDER WATERLINES FROM STOP BOX TO FOUNDATION.
 10. CURBSTOP BOXES AND METER PITS CANNOT BE IN DRIVEWAYS.
 11. ONLY 3/4" (JUMPER) PIPES (RESIDENCES) ARE ALLOWED. (JUMPER) PIPES WILL BE REMOVED PRIOR TO METER SET DATE.
 12. ALL SERVICES WILL BE PERMANENTLY MARKED ON CURB FACE AS FOLLOWS:
"X" FOR SANITARY SEWER SERVICE
"V" FOR WATER SERVICES
 13. NO SPLICES OR FLARED COUPLINGS ALLOWED ON SERVICES LARGER THAN 3/4". SILVER SOLDERED JOINTS MUST BE USED IN SETTING MOVING STOPBOXES ON SERVICES

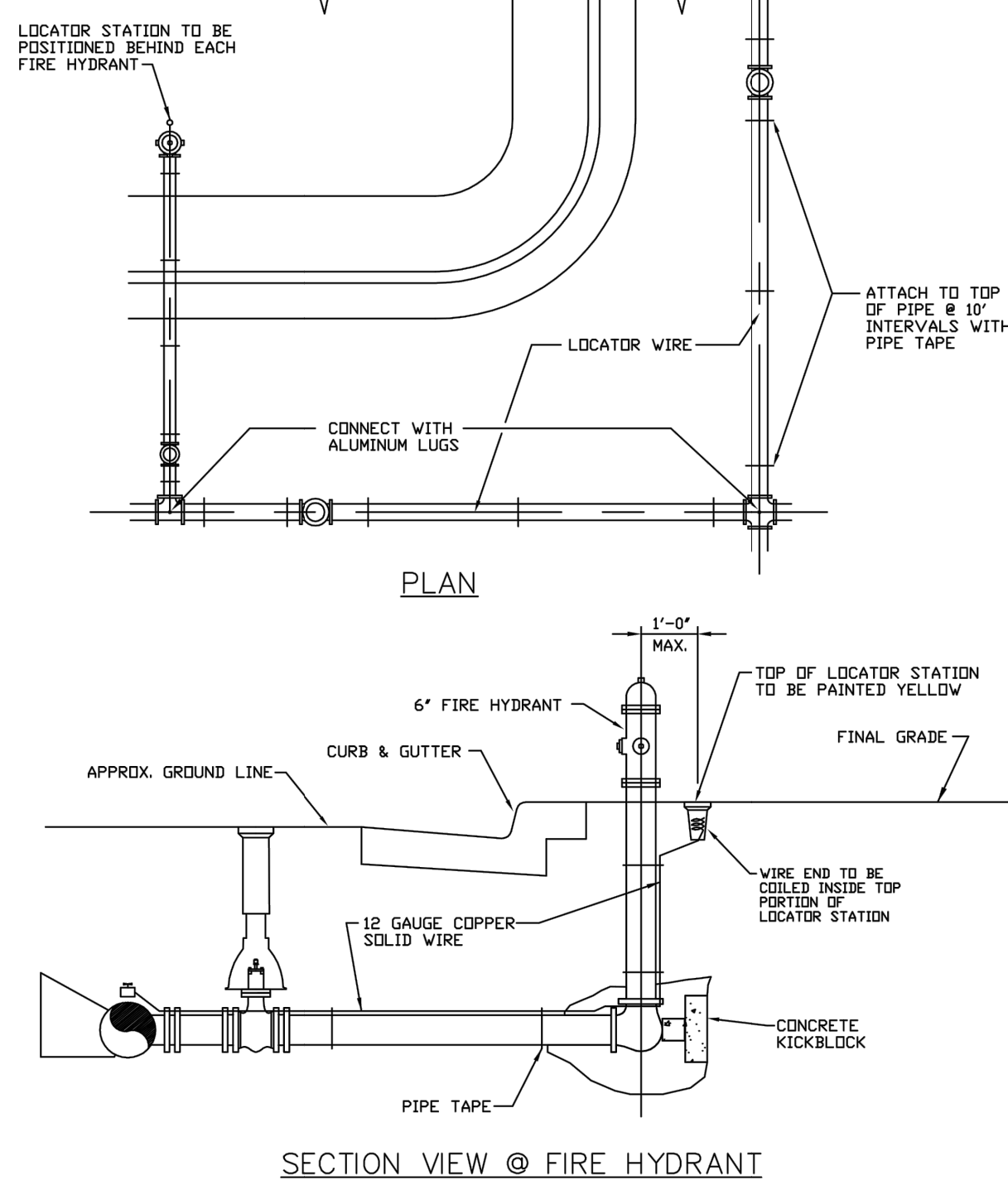
PARKER WATER & SANITATION DISTRICT
DISTRICT POLICIES & INSTALLATION NOTES FOR WATER SERVICES

SCALE: NONE	DATE: 2/96
APPROVED: PVR	1/04 1/16 10/16
DIRECTOR OF ENGINEERING	

SHEET W1.1

2016 REVISION

PIPE LOCATION SYSTEM



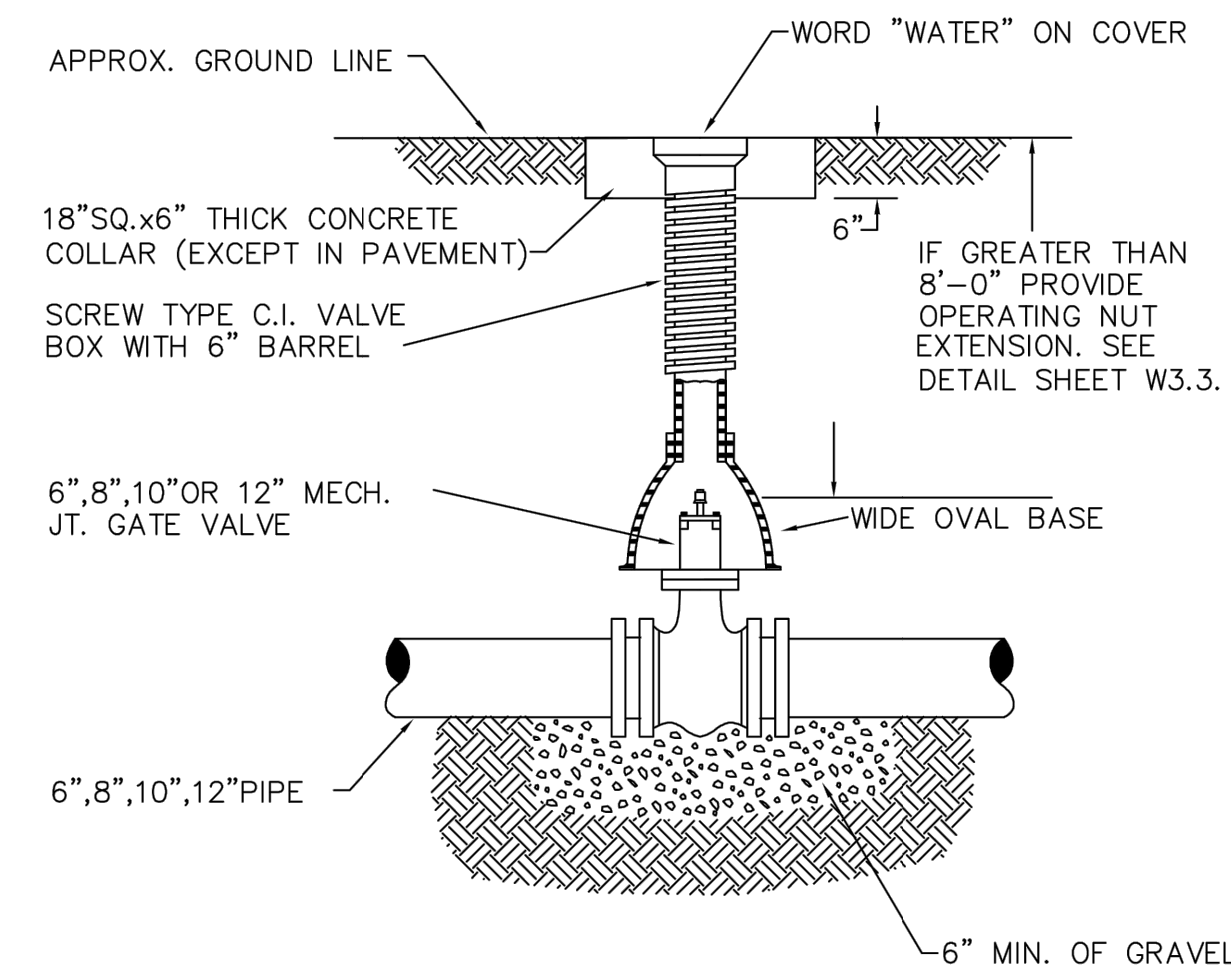
- NOTES:**
1. FOR USE ON ALL DUCTILE IRON AND PVC WATER MAINS.
 2. LOCATOR STATION POSITION MAY BE MODIFIED AT THE DISCRETION OF THE DISTRICT ENGINEER.
 3. A CONTINUITY TEST WILL BE REQUIRED PRIOR TO PRELIMINARY ACCEPTANCE.

PARKER WATER & SANITATION DISTRICT
LOCATOR WIRE DETAILS

SCALE: NONE	DATE: 2/96
APPROVED: PVR	4/01 01/02 01/16 10/16
DIRECTOR OF ENGINEERING	

SHEET W2.6

2016 REVISION



NOTES:

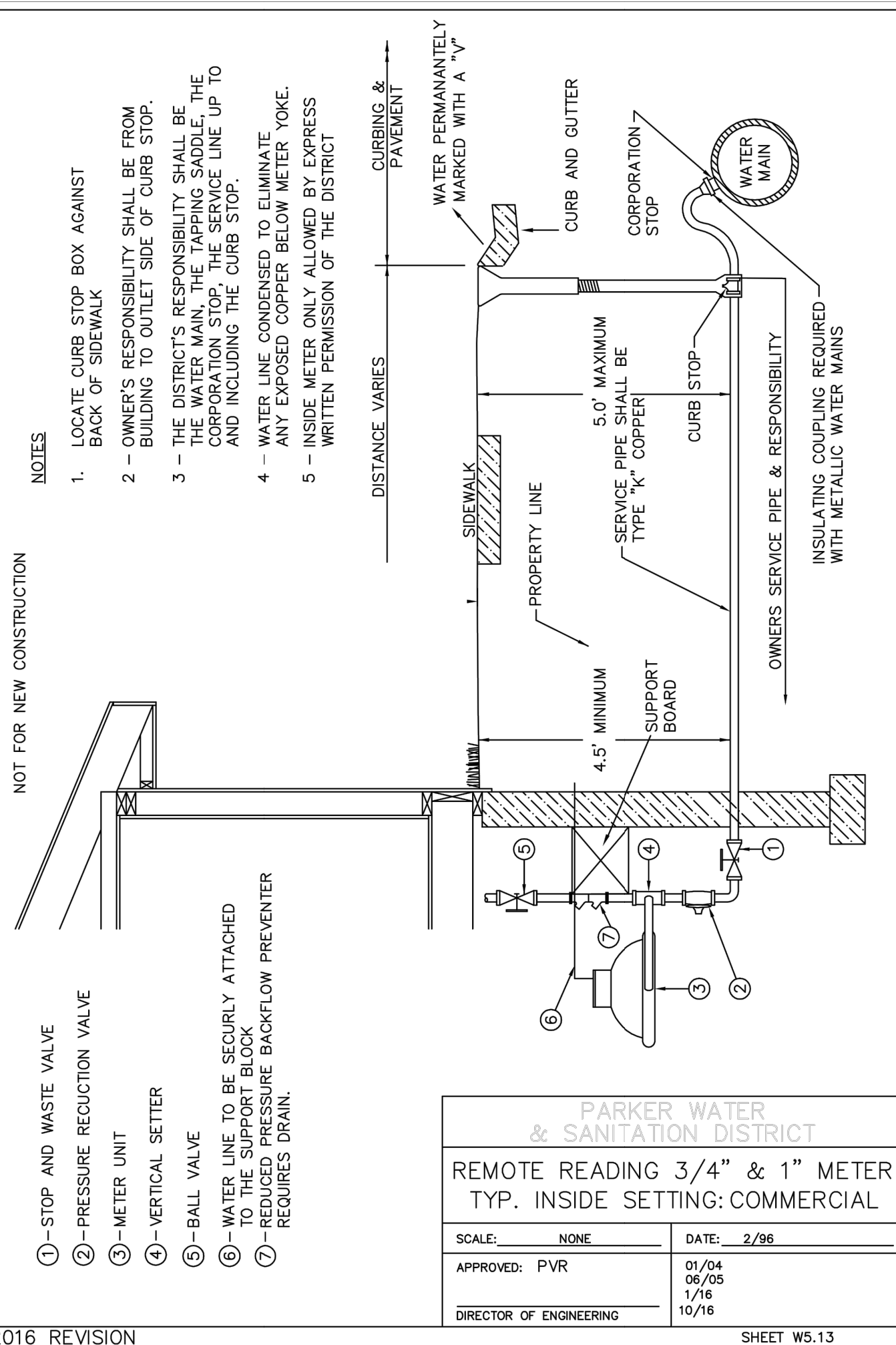
1. ALL C.I. SHALL BE WRAPPED WITH 8 MIL. MIN. THICKNESS POLYETHYLENE.
2. VALVE NUT SHALL BE CENTERED.
3. VALVE BOX SHALL BE PLUMB.
4. SEE MATERIAL SPECIFICATIONS FOR VALVE BOX WITH GREATER THAN BURIED DEPTH OF 4.5 FT.

PARKER WATER & SANITATION DISTRICT
VALVE BOX DETAIL

SCALE: NONE	DATE: 2/96
APPROVED: PVR	5/98 10/16 8/98 12/07 1/16
DIRECTOR OF ENGINEERING	

SHEET W3.10

2016 REVISION

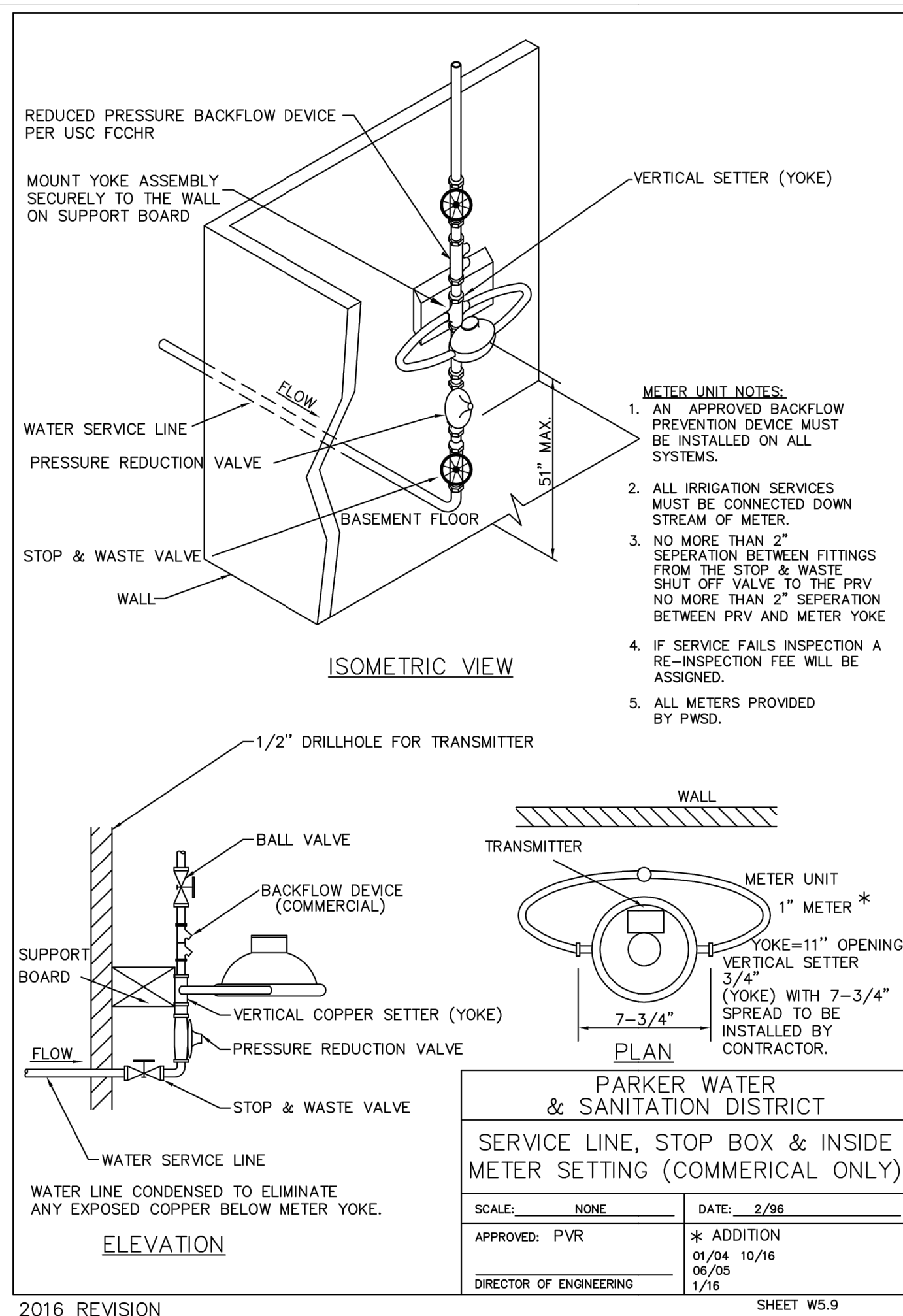


PARKER WATER & SANITATION DISTRICT
REMOTE READING 3/4" & 1" METER TYP. INSIDE SETTING: COMMERCIAL

SCALE: NONE	DATE: 2/96
APPROVED: PVR	01/04 06/05 1/16 10/16
DIRECTOR OF ENGINEERING	

SHEET W5.13

2016 REVISION

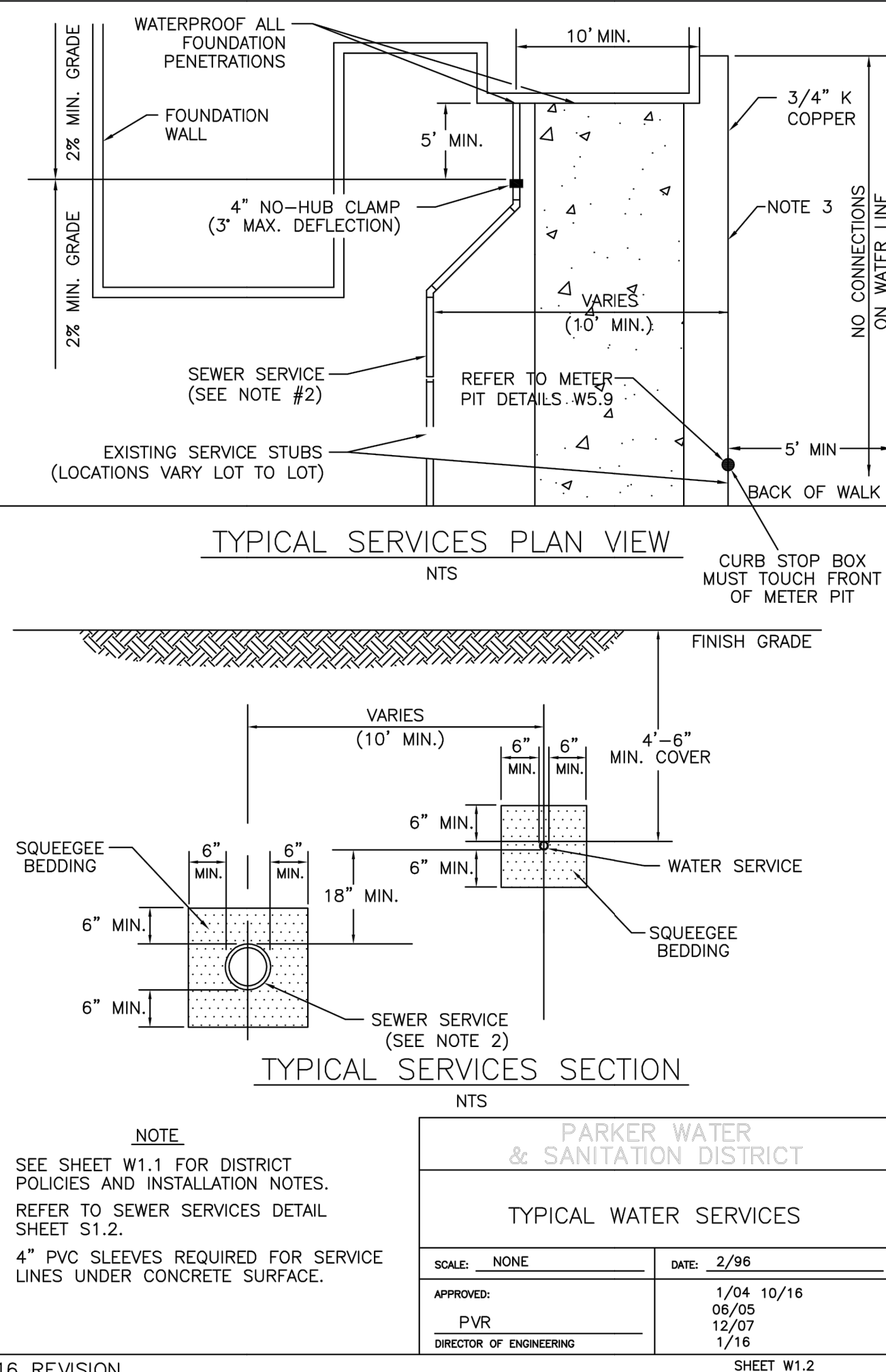


PARKER WATER & SANITATION DISTRICT
SERVICE LINE, STOP BOX & INSIDE METER SETTING (COMMERCIAL ONLY)

SCALE: NONE	DATE: 2/96
APPROVED: PVR	01/04 06/05 1/16
DIRECTOR OF ENGINEERING	

SHEET W5.9

2016 REVISION



PARKER WATER & SANITATION DISTRICT
TYPICAL WATER SERVICES

SCALE: NONE	DATE: 2/96
APPROVED: PVR	1/04 10/16 06/05 12/07 1/16
DIRECTOR OF ENGINEERING	

SHEET W1.2

2016 REVISION

811
Know what's Below. Call before you dig.
THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN BY AN APPROPRIATE WAY ONLY AND HAVE NOT BEEN REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK AND BE RESPONSIBLE FOR ALL DAMAGES TO ANY AND ALL UTILITIES WHICH MAY BE OCCURRED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

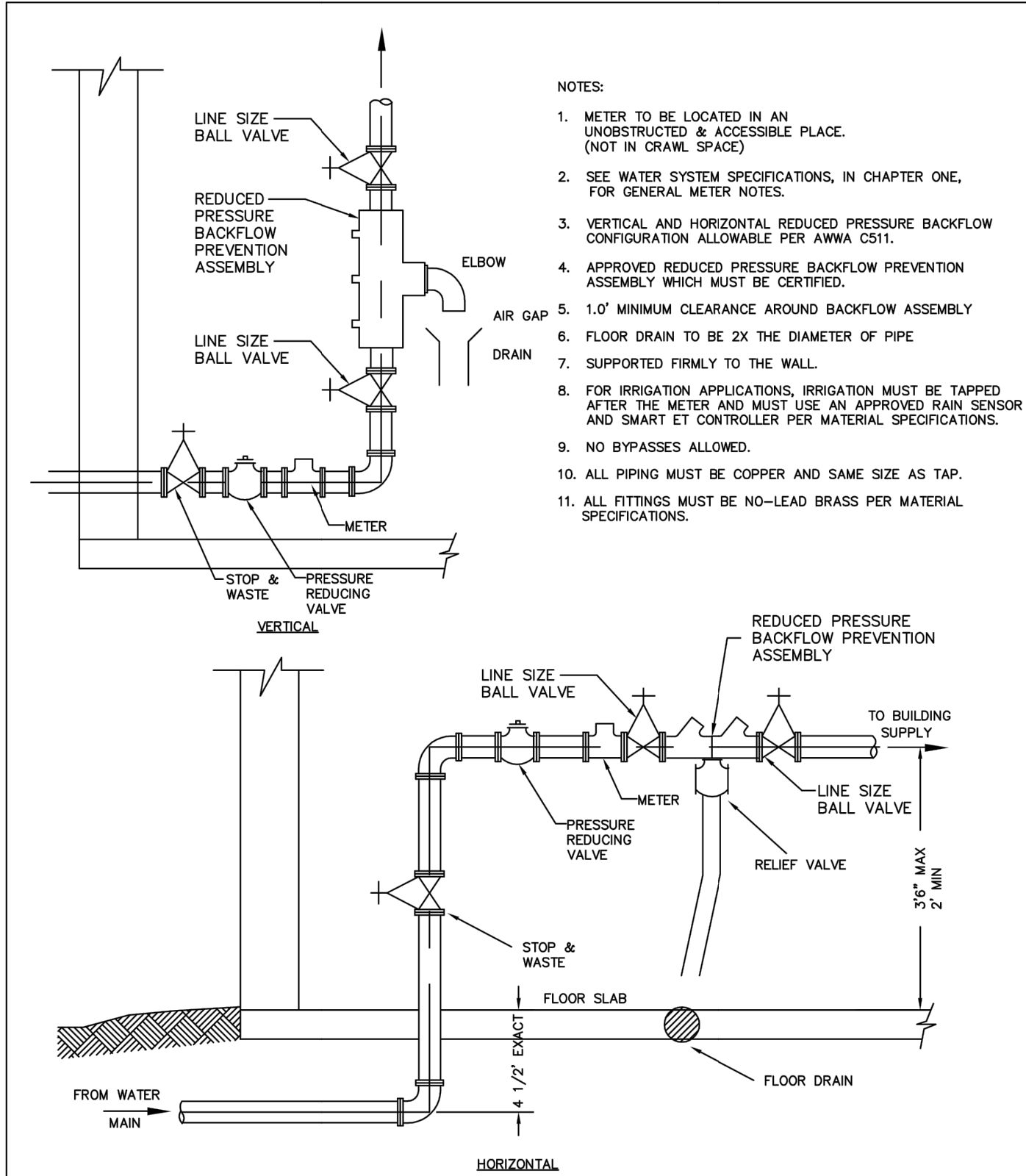
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BLACK ROCK COFFEE BAR
BLACK ROCK DEVELOPMENT COMPANY, LLC
DATE: 2024-03-14
REVISIONS:
DRAWN BY: S. KIDD
CHECKED BY: C. ATCHLEY
PROJECT MANAGER: C. ATCHLEY
JOB #: 24003198
FILE CODE: ##
SHEET NO. 06

PARKER
S. PARKER RD & STROH RD
DOUGLAS COUNTY, COLORADO

BLACK ROCK COFFEE BAR
WATER DETAILS

CAD FILE: 24003198-UTILITY DETAILS



- NOTES:
- METER TO BE LOCATED IN AN UNOBSTRUCTED & ACCESSIBLE PLACE. (NOT IN CRAWL SPACE)
 - SEE WATER SYSTEM SPECIFICATIONS, IN CHAPTER ONE, FOR GENERAL METER NOTES.
 - VERTICAL AND HORIZONTAL REDUCED PRESSURE BACKFLOW PREVENTION CONFIGURATION ALLOWABLE PER AWWA C511.
 - APPROVED REDUCED PRESSURE BACKFLOW PREVENTION ASSEMBLY WHICH MUST BE CERTIFIED.
 - 1.0' MINIMUM CLEARANCE AROUND BACKFLOW ASSEMBLY
 - FLOOR DRAIN TO BE 2X THE DIAMETER OF PIPE
 - SUPPORTED FIRMLY TO THE WALL.
 - FOR IRRIGATION APPLICATIONS, IRRIGATION MUST BE TAPPED AFTER THE METER AND MUST USE AN APPROVED RAIN SENSOR AND SMART ET CONTROLLER PER MATERIAL SPECIFICATIONS.
 - NO BYPASSES ALLOWED.
 - ALL FITTINGS MUST BE COPPER AND SAME SIZE AS TAP.
 - ALL FITTINGS MUST BE NO-LEAD BRASS PER MATERIAL SPECIFICATIONS.

PARKER WATER & SANITATION DISTRICT
INSIDE COMMERCIAL METER INSTALLATION FOR 6" & SMALLER PIPE

SCALE: NONE	DATE: 2/96
APPROVED: PVR	8/99 1/16 2/00 10/16 4/01 01/02 06/05
DIRECTOR OF ENGINEERING	

2016 REVISION SHEET W5.8

PIPE BEDDING:

(a) **Installation of Bedding and Pipe:** After completion of the trench excavation and proper preparation of the foundation, six inches (6") of bedding material shall be placed on the trench bottom for support under the pipe. Bell holes shall be dug deep enough to provide a minimum of two inches (2") of clearance between the bell and bedding material. All pipe shall be installed in such a manner as to insure full support of the pipe barrel over its entire length. After the pipe is adjusted for line and grade, and the joint is made, the bedding material shall be carefully placed and tamped under the haunches of the pipe and in the previously dug bell holes.

Tamping is herein defined as the act of placing approved bedding material under the haunches of the pipe, paying particular attention to voids, bell holes, and sling holes. The purpose of tamping is to ensure uniform support for the pipe.

The limits of bedding shall be from six inches (6") below the bottom of the pipe to twelve inches (12") above the top of the pipe. Approved backfill may then be installed to the groundline. See Chapter 2 of these Standards for backfill and compaction of backfill.

Compaction of bedding is not required. The only requirement is sufficient tamping to achieve uniform support under the pipe. See Sheet W4.1 of the Standard Details for a typical trench cross section.

(b) **Bedding Material:** The bedding material shall be a clean well-graded sand or squeegee sand and shall conform to the following limits when tested by means of laboratory sieves:

Well-Graded Sand for (24-inch or large diameter)

Sieve Size	Total Percent Passing by Weight
3/8 inch	100
No. 4	70-100
No. 8	36-93
No. 16	20-80
No. 30	8-65
No. 50	2-30
No. 100	1-10
No. 200	0-3

Squeegee Sand for use with 20-inch or smaller

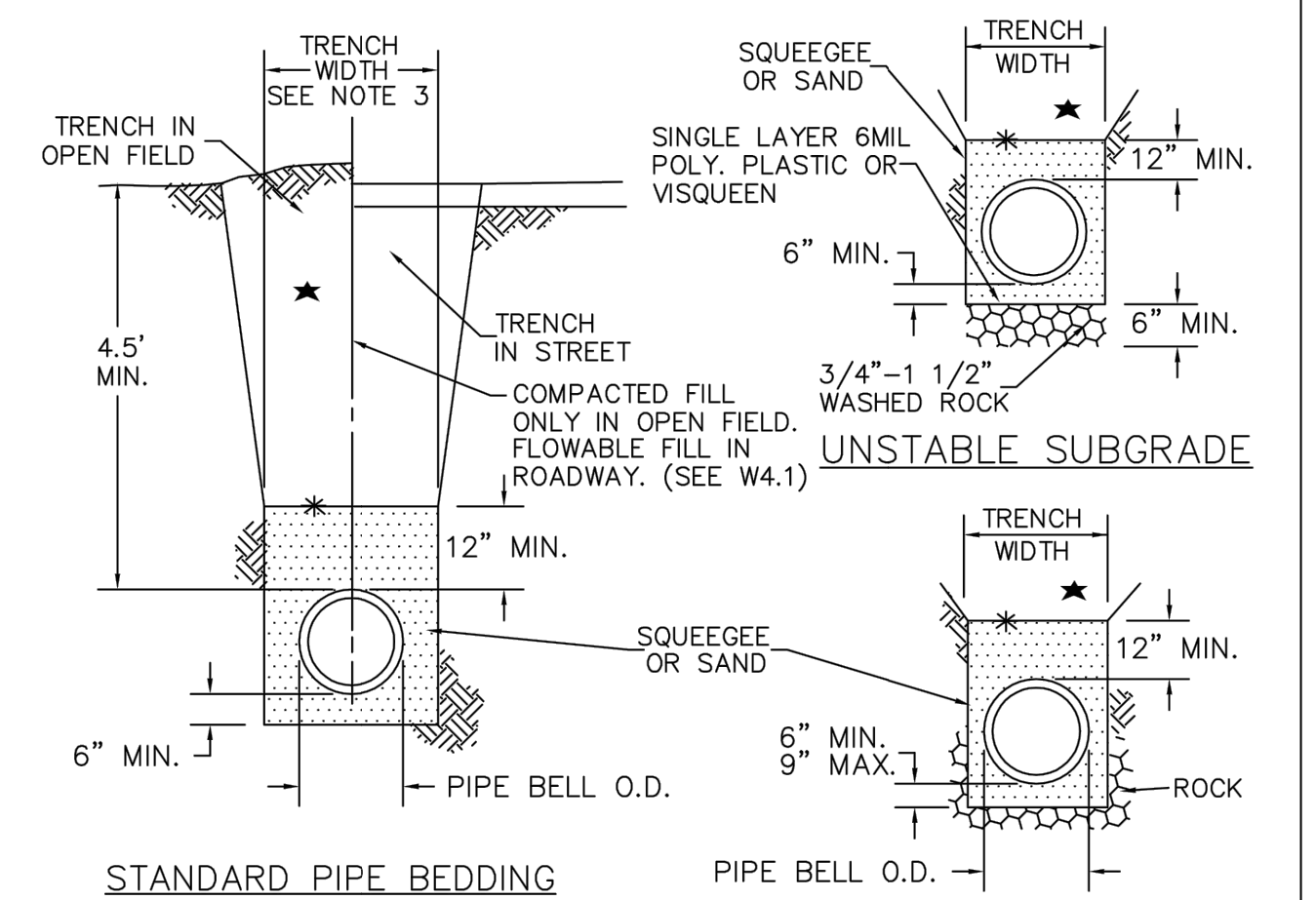
Sieve Size	Total Percent Passing by Weight
3/8 inch	100
No. 200	0-3

If approved by the District, fines form the trench walls and spoils pile may be used to provide uniform support for the pipe. No rock or stone larger than that allowed by the sieve analysis, or any other detrimental substance, shall be placed closer to the pipe than six inches (6"). Approved bedding materials shall be stockpiled on the jobsite to be used in the event natural materials become unsatisfactory. The District reserves the right to require the use of the specified bedding material at any time.

PARKER WATER & SANITATION DISTRICT
PIPE BEDDING

SCALE: NONE	DATE: 2/96
APPROVED: PVR	5/98 2/00 1/16 10/16
DIRECTOR OF ENGINEERING	

2016 REVISION SHEET W4.2



- STANDARD PIPE BEDDING**
- ★ MACHINE COMPACTED TRENCH BACKFILL
 - * LIMIT OF SLOPING OR BENCHING OF TRENCH WALLS
 - UNDISTURBED GROUND
- PIPE BEDDING IN ROCK**

- NOTES:
- MIN. COVER TO BE BELOW FINAL STREET GRADE. CONSTRUCTION OF WATER MAIN MAY NOT START UNTIL FINAL GRADE WITHIN 1 FOOT.
 - TRENCH TO BE BRACED OR SHEETED AS NECESSARY FOR THE PROTECTION OF OTHER UTILITIES AND TO MEET OSHA SAFETY REQUIREMENT.
 - TRENCH WIDTH SHALL NOT BE MORE THAN 16" NOR LESS THAN 12" WIDER THAN THE LARGEST OUTSIDE DIAMETER OF THE PIPE LAID THEREIN (BELL OR COUPLING O.D. IF APPLICABLE). REFER TO SHEET W4.1 FOR DIMENSIONS.

PARKER WATER & SANITATION DISTRICT
BEDDING DETAILS

SCALE: NONE	DATE: 2/96
APPROVED: PVR	1/16 10/16
DIRECTOR OF ENGINEERING	

2016 REVISION SHEET W4.8

811
Know what's below.
Call before you dig.
THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR HIS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK AND AGREE TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE INCURRED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NOTICE:
CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. NEITHER THE OWNER NOR THE ENGINEER SHALL BE HELD RESPONSIBLE FOR ANY PERSONS ENGAGED IN THE WORK OR FOR ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

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S. PARKER RD & STROH RD
PARKER
DOUGLAS COUNTY, COLORADO

BLACK ROCK COFFEE BAR
BLACK ROCK DEVELOPMENT COMPANY, LLC
BLACK ROCK COFFEE BAR
WATER DETAILS

DATE: 2024-03-14

REVISIONS

DRAWN BY: S. KIDD
CHECKED BY: C. ATCHLEY
PROJECT MANAGER: C. ATCHLEY
JOB #: 24003198
FILE CODE: ##
SHEET NO. 07

FILE NAME: \\fiona\c\proj\24003198 - BIC - Parker & Stroh - Parker CO\UTILITY PRODUCTION\UTILITY SHEET 811\24003198 - UTILITY DETAILS.dwg LAST SAVED BY: USER: PVR DATE: 2/15/2025 1:50 PM PLotted By: kwhughes on 2/14/2025 10:45 AM FULL BLEED: 0 (0x0.0 x 0.000 INCHES) DEVICE: AUTOCAD PDF (GENERAL DOCUMENT) PLOTTER: HP DESIGNJET 5000

CAD FILE: 24003198 - UTILITY DETAILS

INSPECTION POLICY:

1. ALL SERVICE INSPECTIONS MUST BE SCHEDULED WITH THE DISTRICT OFFICE AT LEAST 24 HOURS IN ADVANCE OF THE REQUESTED INSPECTION.
2. IF THE CONTRACTOR IS NOT READY FOR INSPECTION WHEN THE INSPECTOR ARRIVES AT THE SITE, A RE-INSPECTION WILL HAVE TO BE SCHEDULED IN ACCORDANCE WITH NOTE 1 ABOVE AND A RE-INSPECTION FEE CHARGED.
3. SHOULD THE SERVICE LINES BE DAMAGED BY LATER CONSTRUCTION, AN INSPECTION OF THE REPAIR WILL BE REQUIRED IN ACCORDANCE WITH NOTES 1 AND 2 ABOVE.
4. THE CONTRACTOR SHALL LEAVE ALL PIPE AND FITTINGS EXPOSED FOR THE INSPECTOR TO OBSERVE. INSPECTORS WILL NOT ENTER ANY EXCAVATIONS TO CHECK MATERIALS. THE TOP LAYER OF BEDDING CAN BE ADDED AFTER THE INSPECTION HAS BEEN COMPLETED.
5. ALL EXCAVATIONS SHALL BE IN ACCORDANCE WITH OSHA STANDARDS.
6. LOTS WITHOUT BUILDING ADDRESSES OR LOT AND BLOCK NUMBERS BEFORE DISTRICT INSPECTION OR METER SET WILL FAIL AUTOMATICALLY.
7. CONTRACTOR MUST BE PRESENT AT TIME OF INSPECTION UNLESS COORDINATED WITH DISTRICT INSPECTOR.

INSTALLATION NOTES:

- SEWER**
1. ACCEPTABLE PIPE MATERIALS ARE TO BE SDR 35 PVC PIPE, ABS PIPE AND PVC SCHD 40 PIPE. APPROVED BEDDING IS TO BE SQUEEGEE.
 2. NO-HUB CLAMPS SHALL BE USED TO JOIN 2 MALE PIPE ENDS WITH A MAXIMUM DEFLECTION OF 3'.
 3. MINIMUM GRADE SHALL BE 2%.
 4. INSTALLATION SHALL INCLUDE NO MORE THAN 3 BENDS. 90° BENDS ARE NOT ALLOWED. SOLVENT WELDED PIPE WILL NOT BE ALLOWED.
 5. CLEAN-OUTS SHALL BE INSTALLED AT 100' INTERVALS AND EVERY CHANGE IN DIRECTION. CLEAN-OUTS ARE NOT REQUIRED FOR SERVICES LESS THAN 100' UNLESS THERE ARE CHANGES IN DIRECTION. PROVIDE DUAL CLEAN-OUT WITHIN 5 FEET OF FOUNDATION.
 6. STRESSING OF THE PIPE BETWEEN FITTINGS WILL NOT BE ALLOWED.
 7. SEWER SERVICE LINE SHALL NOT BE LOCATED UNDER CONCRETE SURFACE.
 8. ALL SERVICES WILL BE PERMANENTLY MARKED ON CURB FACE AS FOLLOWS:
"X" FOR SANITARY SEWER SERVICE
"V" FOR WATER SERVICES

PARKER WATER & SANITATION DISTRICT
DISTRICT POLICIES & INSTALLATION NOTES FOR SEWER SERVICES

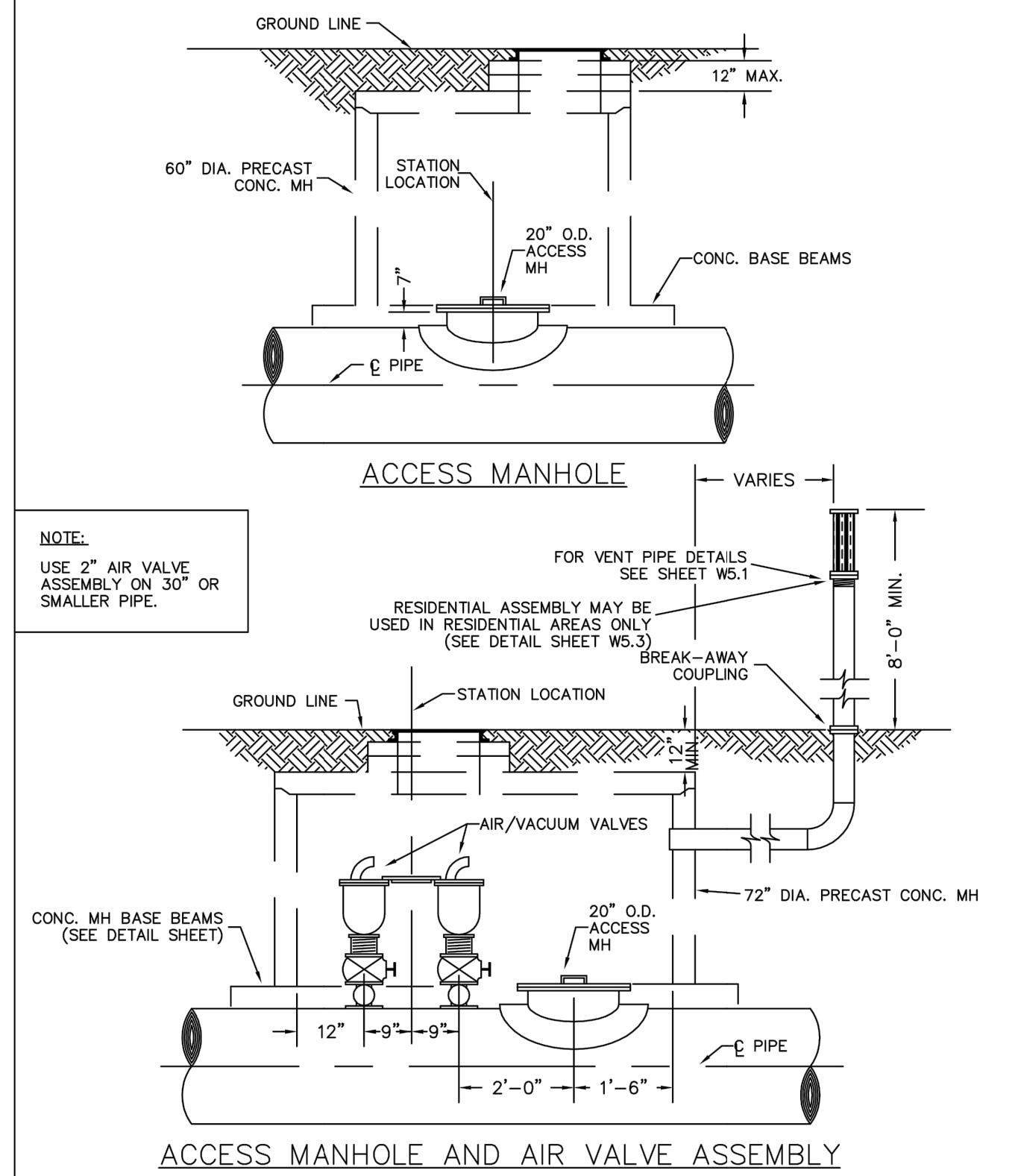
SCALE: NONE DATE: 2/96

APPROVED: PVR 01/02 10/16
1/08 1/16

DIRECTOR OF ENGINEERING

SHEET 51.1

2016 REVISION



PARKER WATER & SANITATION DISTRICT
ACCESS MANHOLE ASSEMBLY

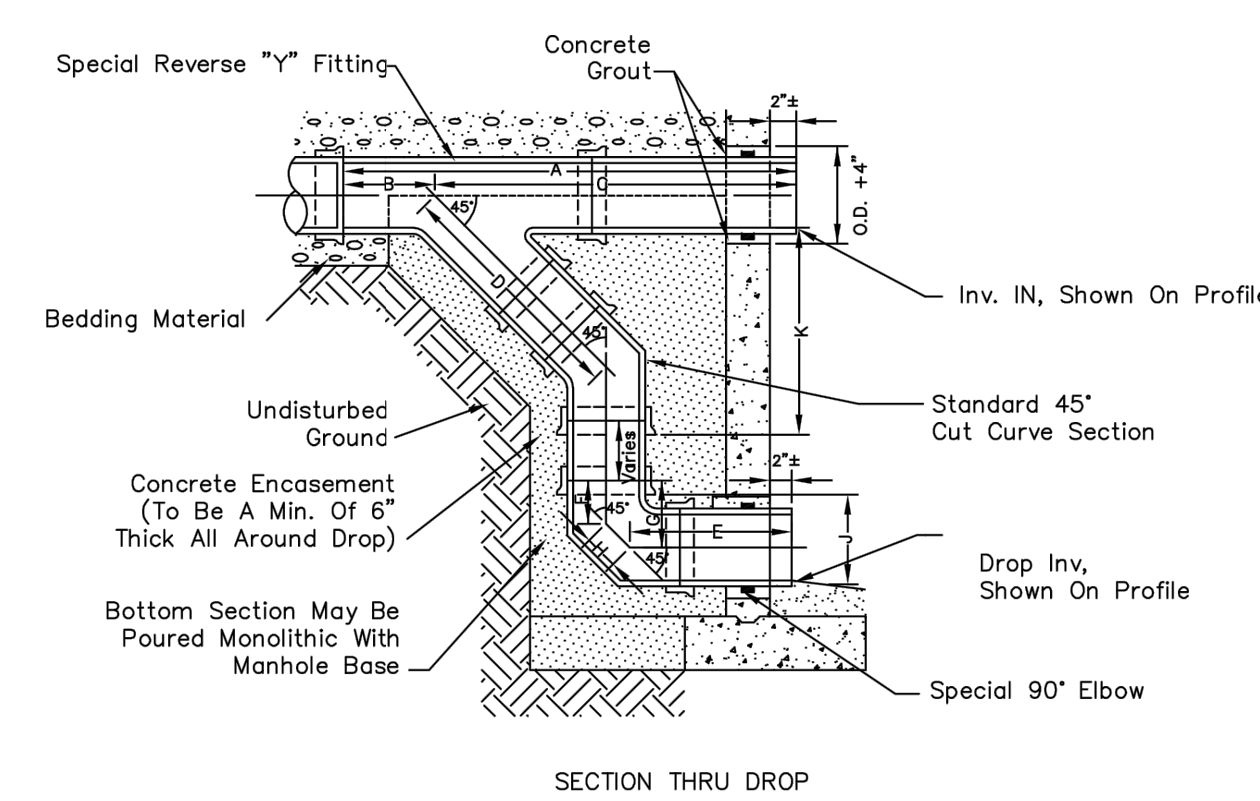
SCALE: NONE DATE: 2/96

APPROVED: PVR 4/01 01/16
1/16 10/16

DIRECTOR OF ENGINEERING

SHEET W3.20

2016 REVISION



SECTION THRU DROP

PIPE I.D.	A	B	C	D	E	F	G	H	J	K	J+K
8"	60"	26"	34"	18"	21"	4 1/2"	6"	4 3/8"	12"	15 7/8"	27 7/8"
10"	60"	26"	34"	18"	21"	4 1/2"	6"	4 3/8"	12"	15 7/8"	27 7/8"
12"	60"	26"	34"	18"	21"	4 1/2"	6"	4 3/8"	12"	15 7/8"	27 7/8"
14"	60"	26"	34"	18"	21"	4 1/2"	6"	4 3/8"	12"	15 7/8"	27 7/8"
16"	60"	26"	34"	18"	21"	4 1/2"	6"	4 3/8"	12"	15 7/8"	27 7/8"

- NOTES:**
1. Vit Clay Pipe & fittings (A.S.T.M. C-700) shown, details similar for all other pipe.
 2. Diameter of drop shall not be less than the line pipe diameter.
 3. For 18" diameter and larger, outside drop detail shall be a special design.
 4. Manhole shall be coated using bituminous mastic (ramneck) or plastic sealing compound.

OUTSIDE DROP MANHOLE CONSTRUCTION

PARKER WATER & SANITATION DISTRICT
OUTSIDE DROP MANHOLE CONSTRUCTION

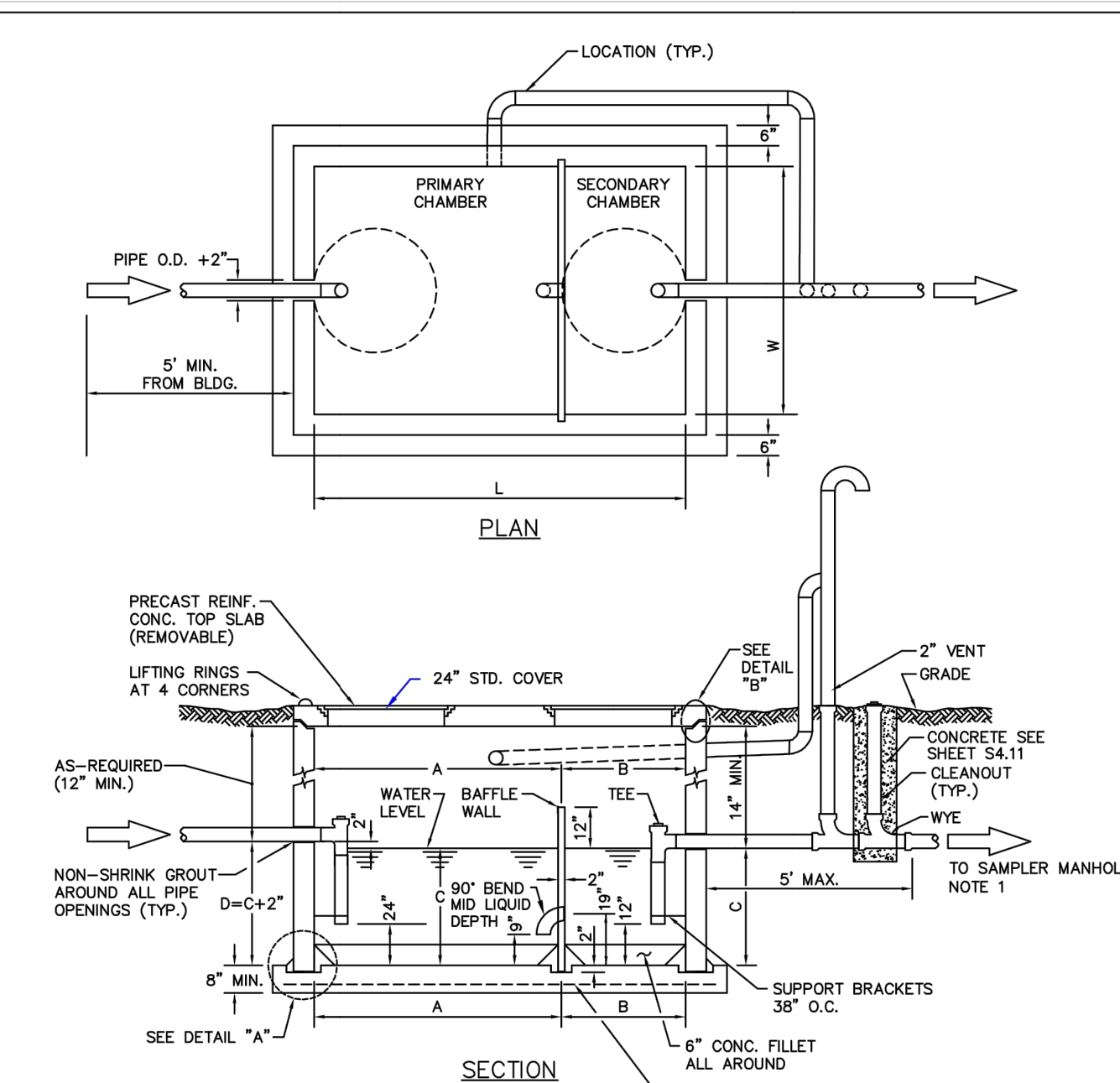
SCALE: NONE DATE: 2/96

APPROVED: PVR 01/16 10/16

DIRECTOR OF ENGINEERING

SHEET 53.8

2016 REVISION



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

TOP OF VAULT BELOW FINISHED GRADE OR AT GRADE. IF BELOW GRADE, RING AND COVER SHALL BE ADJUSTED TO FINAL GRADE USING A MINIMUM OF 4" GRADE RINGS AND A MAXIMUM OF 12" GRADE RINGS. FOR DEPTHS OVER 12" A MAN HOLE BARREL SECTION WILL BE REQUIRED WITH A FLAT TOP FOR DEPTHS OF 4' OR LESS AND AN ECCENTRIC CONE TOP FOR DEPTHS GREATER THAN 4'

PARKER WATER & SANITATION DISTRICT
COMMERCIAL GREASE INTERCEPTOR

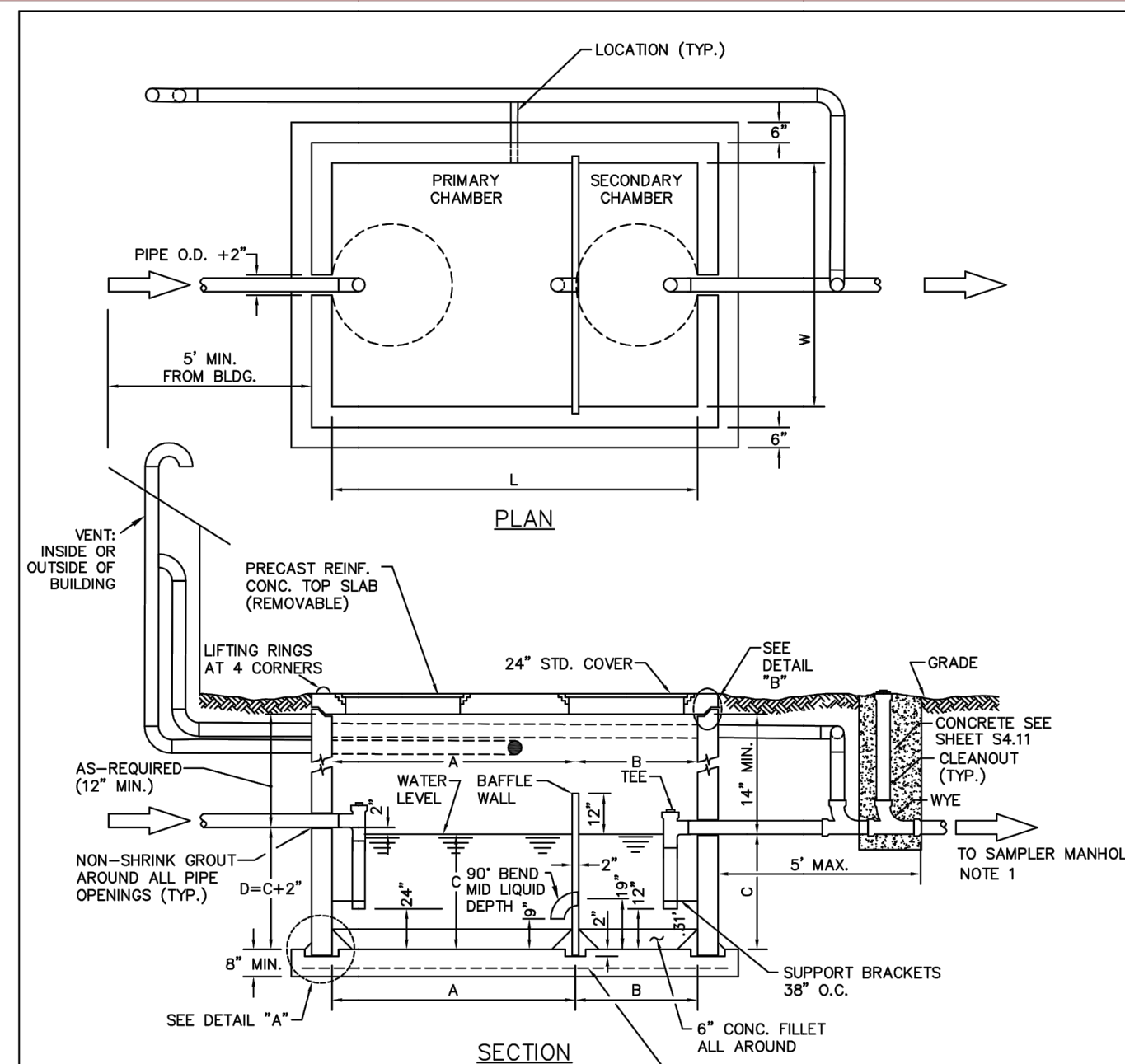
SCALE: NONE DATE: 2/96

APPROVED: PVR 2/00 01/02 01/16 10/16

DIRECTOR OF ENGINEERING

SHEET 51.2

2016 REVISION



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

TOP OF VAULT BELOW FINISHED GRADE OR AT GRADE. IF BELOW GRADE, RING AND COVER SHALL BE ADJUSTED TO FINAL GRADE USING A MINIMUM OF 4" GRADE RINGS AND A MAXIMUM OF 12" GRADE RINGS. FOR DEPTHS OVER 12" A MAN HOLE BARREL SECTION WILL BE REQUIRED WITH A FLAT TOP FOR DEPTHS OF 4' OR LESS AND AN ECCENTRIC CONE TOP FOR DEPTHS GREATER THAN 4'

PARKER WATER & SANITATION DISTRICT
COMMERCIAL GREASE INTERCEPTOR

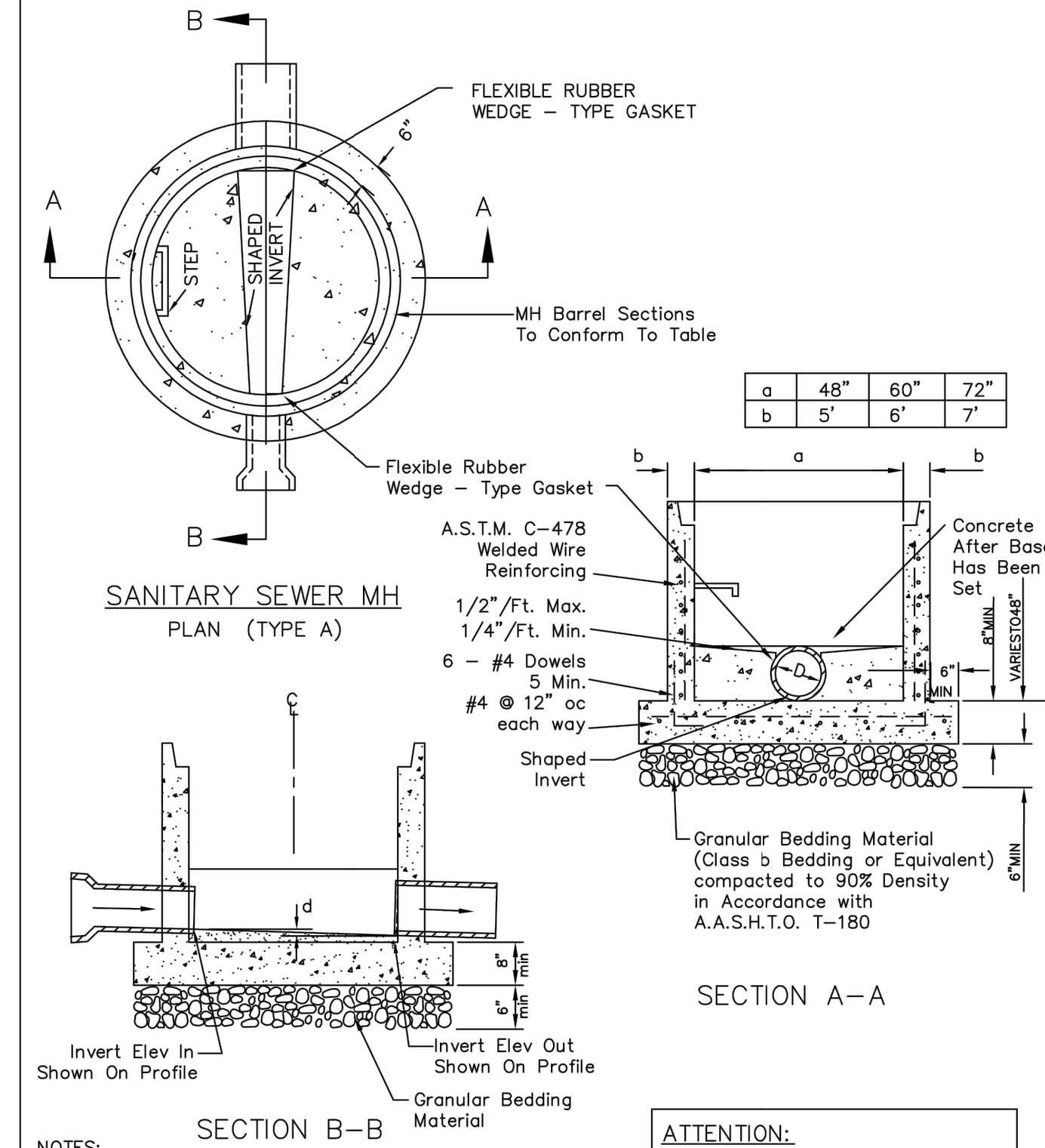
SCALE: NONE DATE: 2/96

APPROVED: PVR 01/02 01/16 10/16

DIRECTOR OF ENGINEERING

SHEET 55.2

2016 REVISION



- NOTES:**
1. Base slab shall be cast monolithically with the bottom riser section.
 2. All pipe openings shall be formed with an approved flexible rubber wedge - type gasket conforming to A.S.T.M. C-443 which shall be capable of providing a water - tight joint with zero leakage around the installed pipe(s).
 3. Manhole steps installed in bottom riser section shall conform to PWSD Standards and Specifications.
 4. Shiplog joint on manhole barrel riser shall conform to PWSD Standards and Specifications. Manhole barrel min. diameter shall conform to table. Precast barrel sections to conform to A.S.T.M. C-478. All dead-end manholes shall be stubbed thru at 0.40% minimum slope.
 5. Grouted flow channels and inverts shall conform to PWSD Standards and Specifications. Manhole barrel min. diameter shall conform to table. Precast barrel sections to conform to A.S.T.M. C-478. All dead-end manholes shall be stubbed thru at 0.40% minimum slope.
 6. Stub outs shall extend 2'-0" min past manhole O.D. and be satisfactory plugs.
 7. Invert drop shall be 1/2" FL - Max. 1/4" FL - Min.
 8. Invert drop thru Manhole (if > 18" outside drop MH req'd)

ATTENTION:
NOT TO BE USED WITHOUT EXPRESS PERMISSION OF DISTRICT ENGINEER.

PARKER WATER & SANITATION DISTRICT
PRECAST MANHOLE BASE DETAIL

SCALE: NONE DATE: 2/96

APPROVED: PVR 01/02 10/16

DIRECTOR OF ENGINEERING

SHEET 53.4

2016 REVISION

811
Know what's Below.
Call before you dig.
THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN BY AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK AND AGREE TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MAY BE INCURRED BY THE CONTRACTOR. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NOTICE:
CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. NEITHER THE OWNER NOR THE ENGINEER SHALL BE HELD RESPONSIBLE FOR ANY ACCIDENTS OR INJURIES TO PERSONS OR PROPERTY OCCURRING IN CONNECTION WITH THE WORK OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

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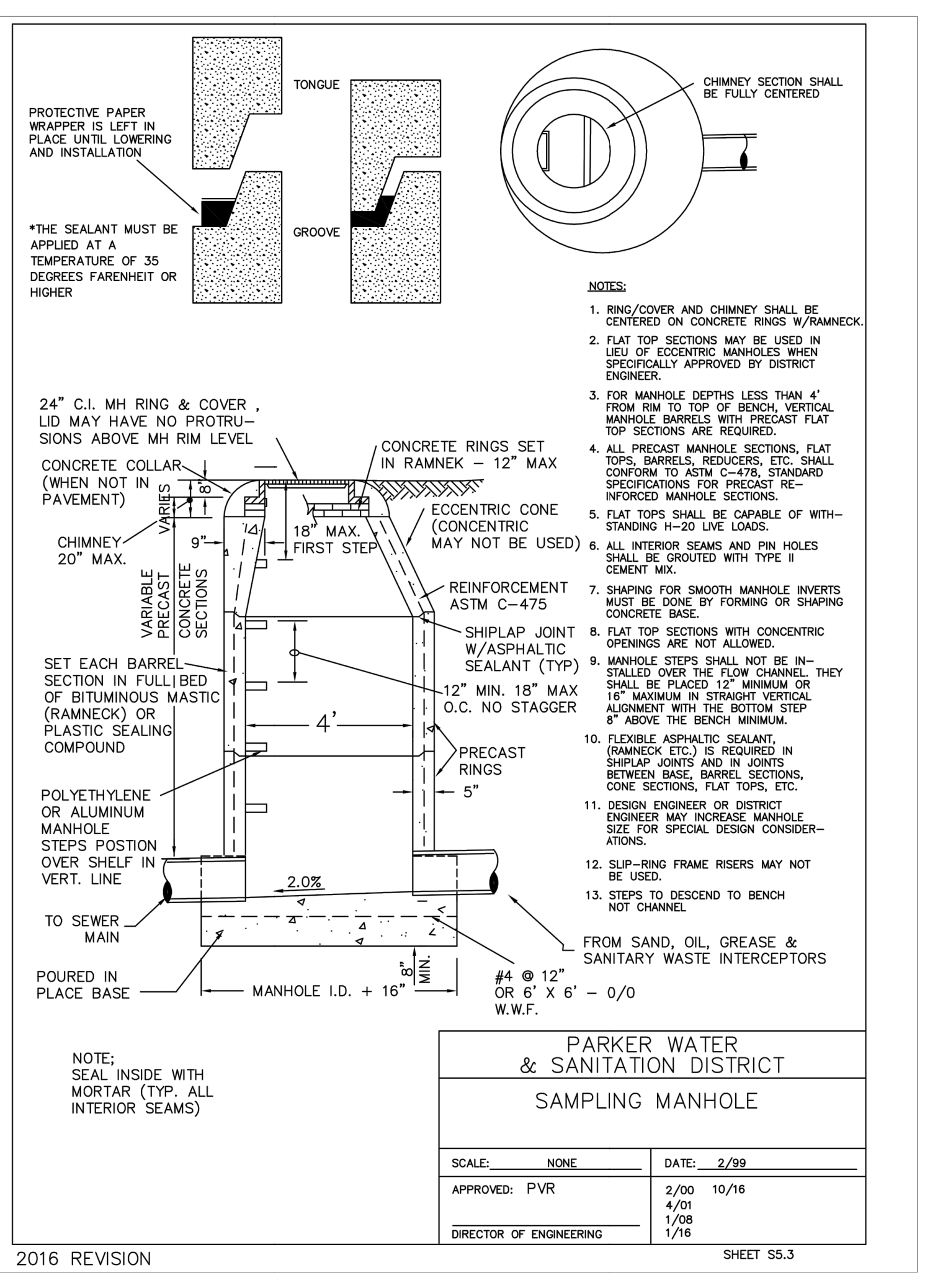
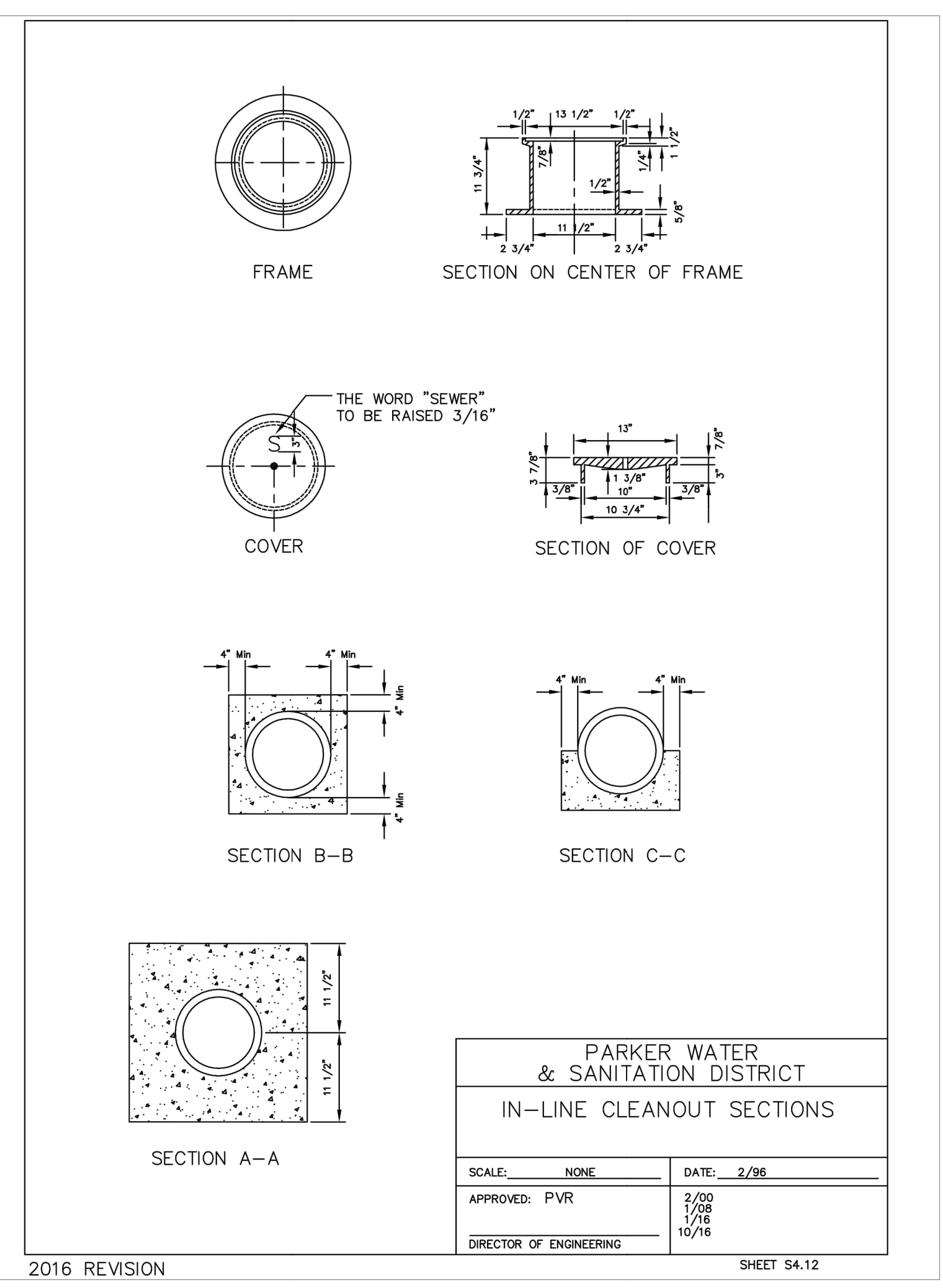
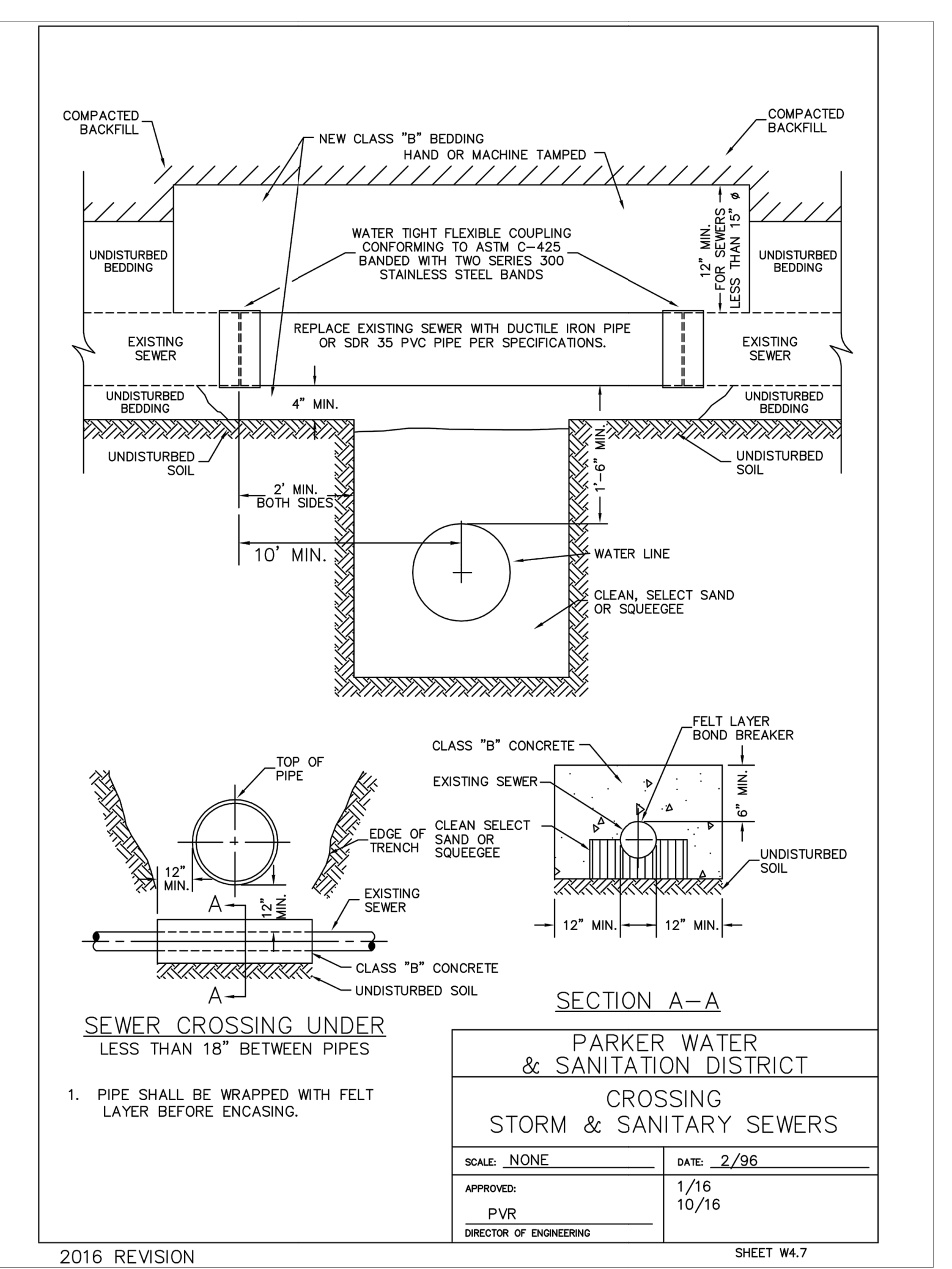
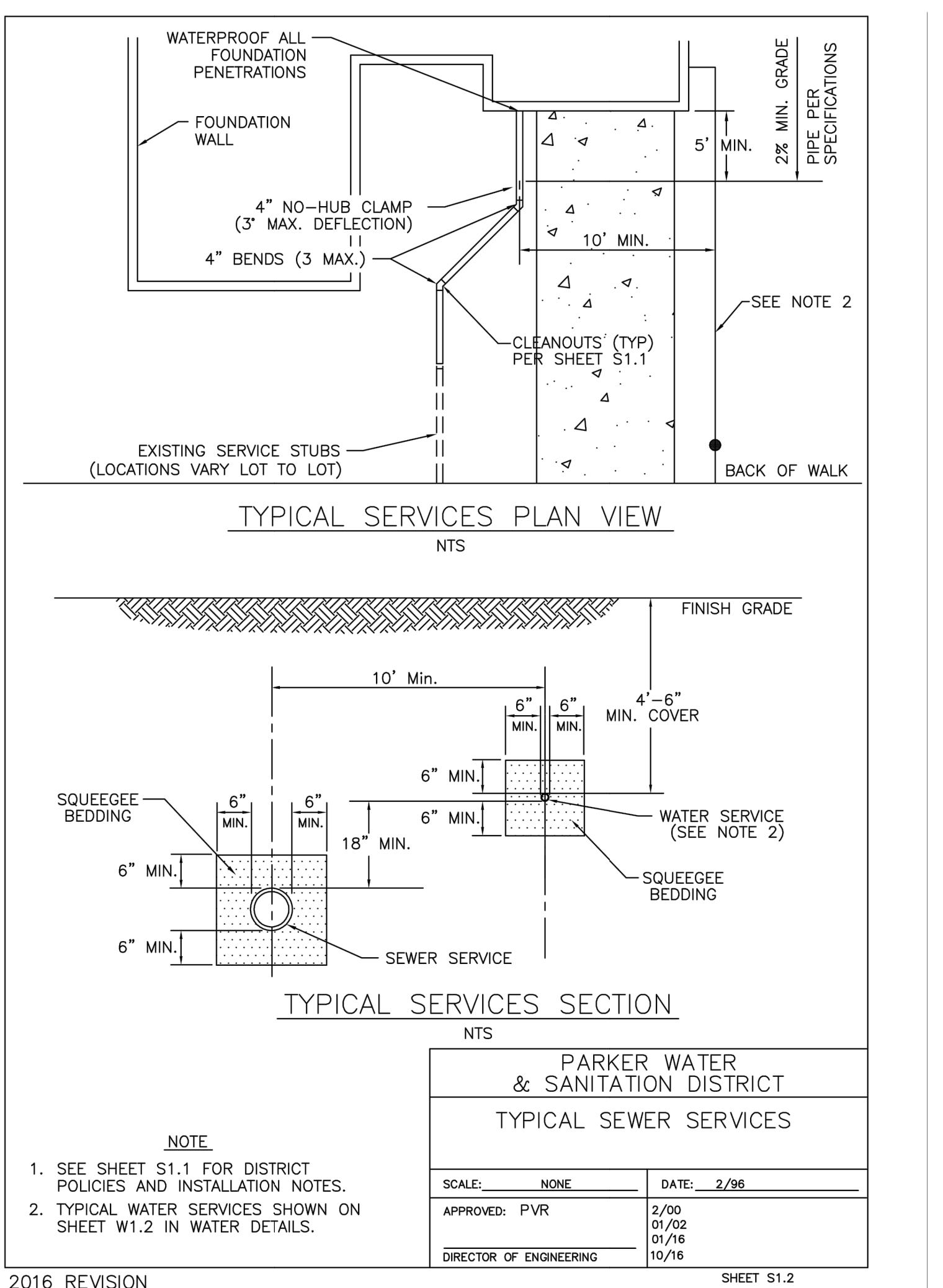
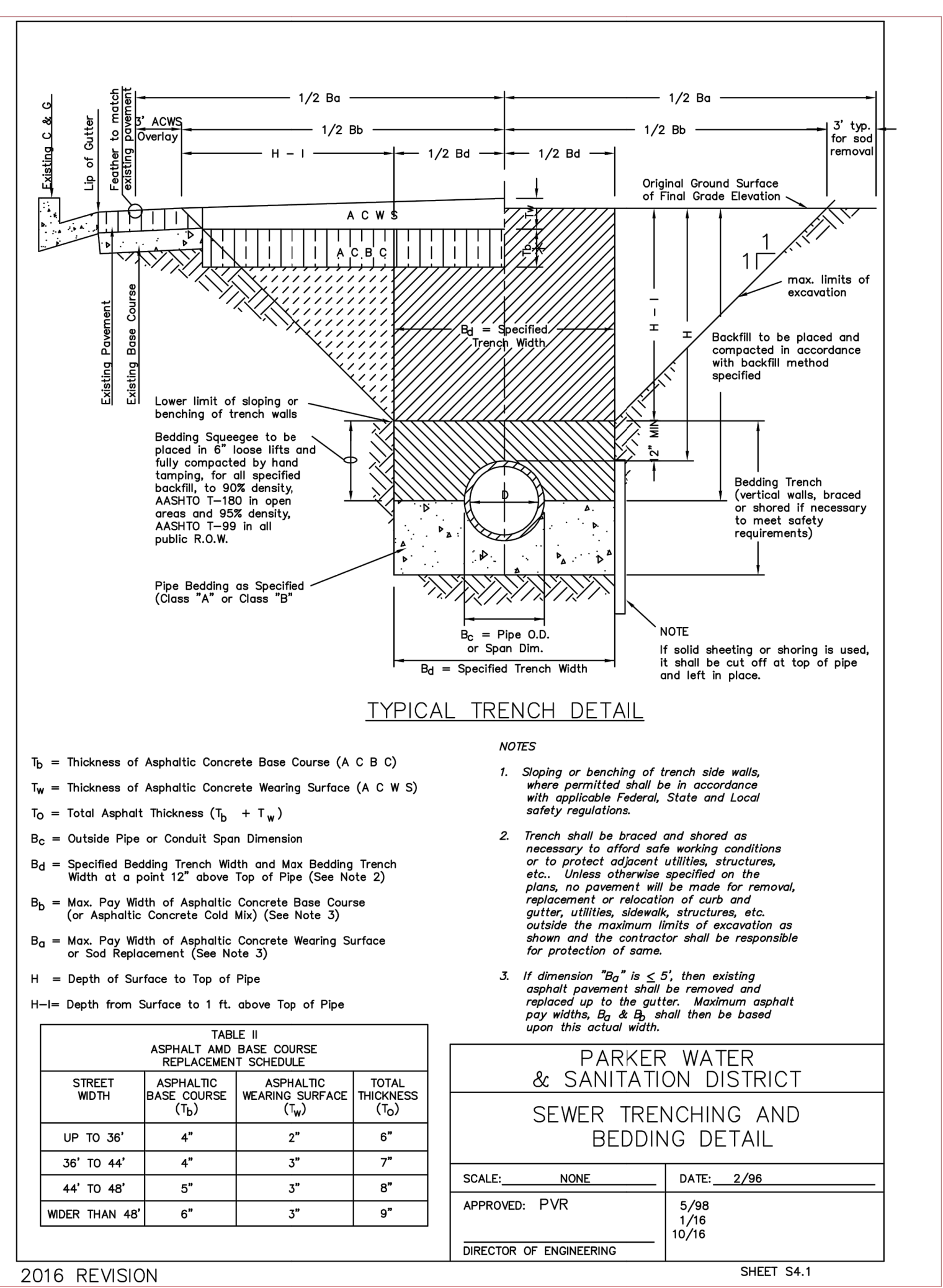
S. PARKER RD & STROH RD
PARKER
DOUGLAS COUNTY, COLORADO

BLACK ROCK COFFEE BAR
BLACK ROCK DEVELOPMENT COMPANY, LLC
BLACK ROCK COFFEE BAR
SEWER DETAILS

DATE: 2024-03-14

REVISIONS

DRAWN BY: S. KIDD
CHECKED BY: C. ATCHLEY
PROJECT MANAGER: C. ATCHLEY
JOB #: 24003198
FILE CODE: ##
SHEET NO.



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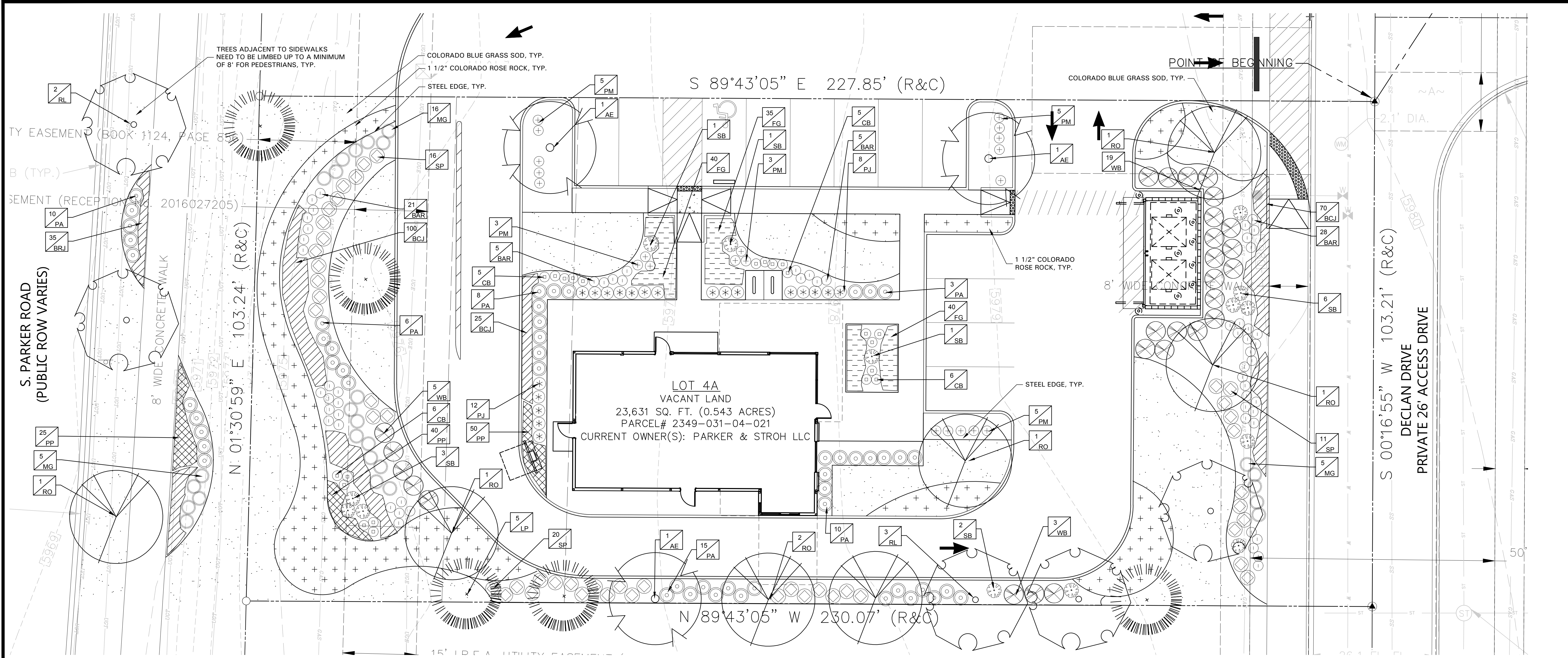
BLACK ROCK COFFEE BAR
BLACK ROCK DEVELOPMENT COMPANY, LLC
S. PARKER RD & STROH RD
PARKER
DOUGLAS COUNTY, COLORADO

BLACK ROCK COFFEE BAR
SEWER DETAILS

DATE: 2024-03-14

REVISIONS

DRAWN BY: S. KIDD
CHECKED BY: C. ATCHLEY
PROJECT MANAGER: C. ATCHLEY
JOB #: 24003198
FILE CODE: ##
SHEET NO. 09



GENERAL LAWN NOTES

- CONTRACTOR SHALL COORDINATE OPERATIONS AND AVAILABILITY OF EXISTING TOPSOIL WITH ON-SITE CONSTRUCTION MANAGER.
- LAWN AREAS SHALL BE LEFT 1" BELOW FINAL FINISHED GRADE PRIOR TO TOPSOIL INSTALLATION.
- CONTRACTOR TO FIND GRADE AREAS TO ACHIEVE FINAL CONTOURS AS SHOWN ON CIVIL DRAWINGS. POSITIVE DRAINAGE SHALL BE PROVIDED AWAY FROM ALL BUILDINGS. ROUNDING AT TOP AND BOTTOM OF SLOPES SHALL BE PROVIDED AND IN OTHER AREAS IN GRADE. CORRECT AREAS WHERE STANDING WATER MAY OCCUR.
- ALL LAWN AREAS SHALL BE FINE GRADED. IRRIGATION TRENCHES COMPLETELY SETTLED AND FINISH GRADE APPROVED BY THE OWNER'S CONSTRUCTION MANAGER OR LANDSCAPE ARCHITECT PRIOR TO LAWN INSTALLATION.
- CONTRACTOR SHALL REMOVE ALL ROCKS 3/4" IN DIAMETER AND LARGER. REMOVE ALL DIRT CLOUDS, STICKS, CONCRETE SPOILS, TRASH ETC PRIOR TO PLACING TOPSOIL AND GRASS INSTALLATION.
- CONTRACTOR SHALL MAINTAIN ALL LAWN AREAS UNTIL FINAL ACCEPTANCE.
- CONTRACTOR SHALL GUARANTEE ESTABLISHMENT OF ACCEPTABLE TURF AREA AND SHALL PROVIDE REPLACEMENT IF NECESSARY.

SOLID SOD:

- SOLID SOD SHALL BE PLACED ALONG ALL IMPERVIOUS EDGES AT A MINIMUM THIS SHALL INCLUDE CURBS, WALKS, INLETS, MANHOLES AND PLANTING BED AREAS. SOD SHALL COVER OTHER AREAS COMPLETELY AS INDICATED BY PLAN.
- SOD SHALL BE STRONGLY ROOTED DROUGHT RESISTANT SOD, NOT LESS THAN 2 YEARS OLD, FREE OF WEEDS AND UNDESIRABLE NATIVE GRASS AND MACHINE CUT TO PAD THICKNESS OF 3/4" (+/- 1/4"), EXCLUDING TOP GROWTH AND THATCH.
- LAY SOD BY HAND TO COVER INDICATED AREAS COMPLETELY, ENSURING EDGES ARE TO JOINTS WITH TIGHTLY FITTING JOINTS, NO OVERLAPS WITH STAGGERED STRIPS TO OFFSET JOINTS.
- TOP DRESS JOINTS IN SOD BY HAND WITH TOPSOIL TO FILL VOIDS IF NECESSARY.
- SOD SHALL BE ROLLED TO CREATE A SMOOTH EVEN SURFACE. SOD SHOULD BE WATERED THOROUGHLY DURING INSTALLATION PROCESS.
- SHOULD INSTALLATION OCCUR BETWEEN OCTOBER 1ST AND MARCH 1ST, OVERSEED BERMUDAGRASS SOD WITH WINTER RYEGRASS AT A RATE OF 4 POUNDS PER 1000 S.F.

HYDROMULCH:

- SCARIFY AND LOOSEN ALL AREAS TO BE HYDROMULCHED TO A MINIMUM DEPTH OF 4" PRIOR TO TOPSOIL AND HYDROMULCH INSTALLATION.
- COLORADO BLUE GRASS SEED SHALL BE EXTRA HULLED, TREATED LAWN TYPE. SEED SHALL BE DELIVERED TO THE SITE IN ITS ORIGINAL UNOPENED CONTAINER AND SHALL MEET ALL STATE AND LOCAL LAW REQUIREMENTS.
- FIBER SHALL BE 100% WOOD CELLULOSE FIBER, DELIVERED TO THE SITE IN ITS ORIGINAL UNOPENED CONTAINER AS MANUFACTURED BY "CONNOR" OR EQUAL.
- FIBER TACK SHALL BE DELIVERED TO THE SITE IN ITS UNOPENED CONTAINER AND SHALL BE "TERRA-TACK ONE", AS MANUFACTURED BY GROWERS, INC OR APPROVED EQUAL.
- HYDROMULCH WITH COLORADO BLUE GRASS SEED AT A RATE OF 2 POUNDS PER 1000 S.F.
- USE A BATTER BOARD AGAINST ALL BED AREAS TO PREVENT OVER SPRAY.
- IF INADEQUATE MOISTURE IS PRESENT IN SOIL, APPLY WATER AS NECESSARY FOR OPTIMUM MOISTURE FOR SEED APPLICATION.
- IF INSTALLATION OCCURS BETWEEN SEPTEMBER 1ST AND MAY 1ST, ALL HYDROMULCH AREAS SHALL BE OVER-SEED WITH WINTER RYE GRASS AT A RATE OF FOUR POUNDS PER ONE THOUSAND SQUARE FEET.
- CONTRACTOR SHALL BE REQUIRED TO RE-HYDROMULCH WITH COLORADO BLUE GRASS GRASS THE FOLLOWING GROWING SEASON AS PART OF THIS CONTRACT.
- AFTER APPLICATION, NO EQUIPMENT SHALL OPERATE OVER APPLIED AREAS. WATER SEEDED AREAS IMMEDIATELY AFTER INSTALLATION TO SATURATION.
- ALL LAWN AREAS TO BE HYDROMULCHED SHALL ACHIEVE 100% COVERAGE PRIOR TO FINAL ACCEPTANCE.

LANDSCAPE NOTES

- CONTRACTOR TO VERIFY AND LOCATE ALL PROPOSED AND EXISTING UTILITIES. NOTIFY LANDSCAPE ARCHITECT OR DESIGNATED REPRESENTATIVE FOR ANY LAYOUT DISCREPANCIES OR ANY CONDITIONS THAT WOULD PREVENT THE INSTALLATION AS SHOWN. SURVEY DATA OF EXISTING CONDITIONS WAS SUPPLIED BY OTHERS.

IRRIGATION:

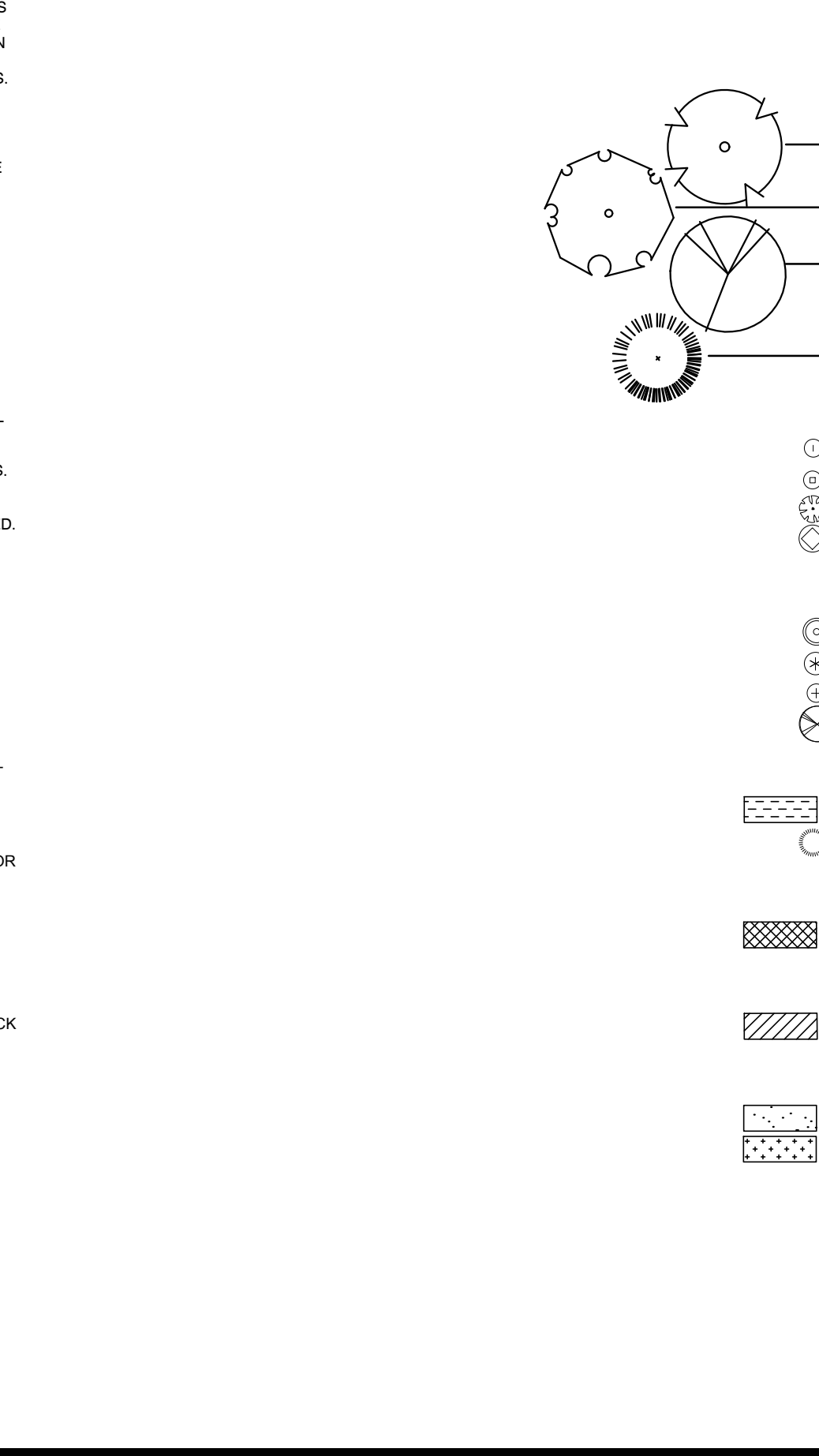
- ALL REQUIRED LANDSCAPE AREAS SHALL HAVE AN AUTOMATIC IRRIGATION SYSTEM WITH A FREEZE/RAIN SENSOR. SYSTEM SHALL ALSO HAVE AN ET WEATHER BASED CONTROLLER AND BE DESIGNED AND INSTALLED BY A LICENSED IRRIGATOR.

MAINTENANCE REQUIREMENTS:

- VEGETATION SHOULD BE INSPECTED REGULARLY TO ENSURE THAT PLANT MATERIAL IS ESTABLISHING PROPERLY AND REMAINS IN A HEALTHY GROWING CONDITION APPROPRIATE FOR THE SEASON. IF DAMAGED OR REMOVED, PLANTS MUST BE REPLACED BY A SIMILAR VARIETY AND SIZE.
- MOWING, TRIMMING, EDGING AND SUPERVISION OF WATER APPLICATION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR UNTIL THE OWNER OR OWNER'S REPRESENTATIVE ACCEPTS AND ASSUMES REGULAR MAINTENANCE.
- ALL LANDSCAPE AREAS SHOULD BE CLEANED AND KEPT FREE OF TRASH, DEBRIS, WEEDS AND OTHER MATERIAL.

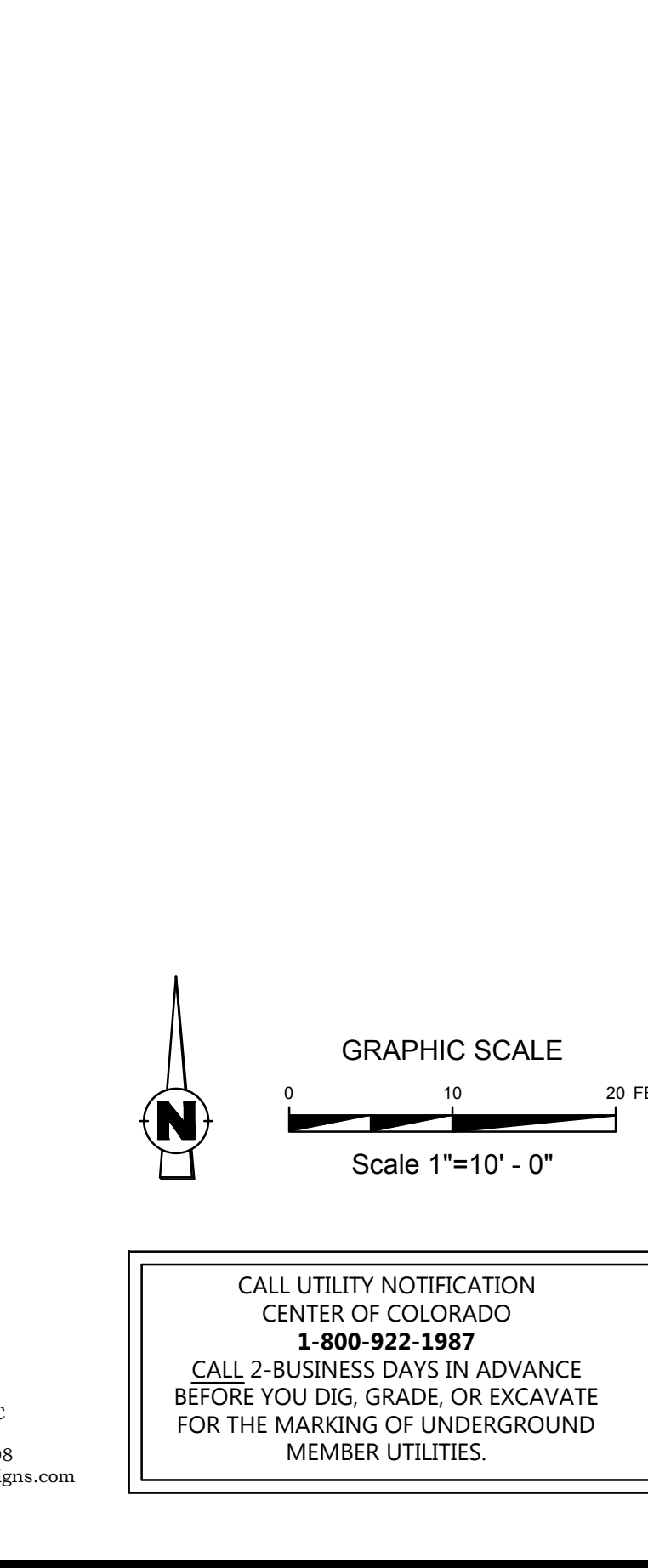
MISCELLANEOUS MATERIALS:

- STEEL EDGING SHALL BE 3/4" X 4 X 16" DARK GREEN DURAEDGE STEEL LANDSCAPE EDGING UNLESS NOTED OTHERWISE ON PLANS/DETAILS.
- ROCK SHALL BE COLORADO ROSE ROCK, 1.5" IN DIAMETER. RIVER ROCK SHALL BE COMPACTED TO A MINIMUM OF 3" DEPTH OVER FILTER FABRIC.



PLANT SCHEDULE	
LABEL	COMMON NAME
DECIDUOUS TREES	
AE	Acotlade Elm
RL	Redmond Linden
RO	Northern Red Oak
EVERGREEN TREES	
LP	Lacebark Pine
DECIDUOUS SHRUBS	
BAR	Concord Barberry
CB	Chokeberry
SB	Spanish Gold Broom
SP	Snowmound Spirea
EVERGREEN SHRUBS	
PA	Panchito manzania
PJ	Pencil Point Juniper
PM	Pine, Mugo, Teeny
WB	Wichita Blue Juniper
ORNAMENTAL GRASSES	
FG	Fountain Grass
MG	Maiden Grass, Gold Bar
PERENNIAL	
PP	Pikes Peak Purple Penstemon
EVERGREEN GROUNDCOVER	
BCJ	Blue Chip Juniper
GROUNDCOVER	
	Colorado Blue Grass Sod
	1 1/2" Colorado Rose Rock

AMANDA W. RICHARDSON
1484
12/08/2020
Original Date of Licensure
STATE OF COLORADO
LICENSED LANDSCAPE ARCHITECT



PLANS NOTED:

LANDSCAPE DESIGN FEATURES OF COMMERCIAL, MIXED-USE, INDUSTRIAL, AND MULTIPLE-FAMILY DEVELOPMENTS

- LANDSCAPE PLANTING MATERIALS SHALL GENERALLY BE LAYERED AGAINST A BUILDING OR EDGE TREATMENT FROM HIGH TO LOW IN HEIGHT SO THAT THE FULL CHARACTER OF THE PLANTS CAN BE APPRECIATED AND UTILIZED TO SHAPE EXTERIOR SPACES.
- TREE GRATES SHALL BE A MINIMUM OF FIVE (5) FEET BY EIGHT (8) FEET.
- UTILIZE LAWN AREAS ONLY WHERE ACTIVE RECREATION AND USAGE WILL OCCUR.
- PROVIDE A MINIMUM EIGHT (8) FOOT LANDSCAPE BUFFER BETWEEN PUBLIC WALKWAYS AND BUILDING EDGES EXCEPT AT BUILDING ENTRY AND EXIT POINTS.
- THE PLANTING STRIP BETWEEN THE BACK OF THE ROADWAY CURB AND THE SIDEWALK SHALL BE PLANTED WITH SHRUBS AND GROUNDCOVER OR LOW WATER USE TURF AND DESIGNED TO CREATE VISUAL INTEREST.
- THE SPACE BETWEEN THE PUBLIC REALM AND A BUILDING FACADE THAT DOES NOT HAVE AN ACTIVE USE SHALL BE DESIGNED WITH HIGHER STANDARDS OF LANDSCAPING AND STREETScape TO CREATE AN ATTRACTIVE BUILDING FRONT AND STREET EDGE.
- SELECT NATURAL PLANT MATERIALS THAT TRANSITION BETWEEN NATURAL OPEN SPACES AND THE INTERNAL PROJECT LANDSCAPE MATERIAL.
- UTILIZE LANDSCAPING TO LOGICALLY SHAPE SPACES THAT CREATE AND FACILITATE CIRCULATION PATHS IN LOGICAL AND INTUITIVE PATTERNS USE LANDSCAPING TO HELP GUIDE PEOPLE TO BUILDING ENTRY POINTS THROUGH HIGHER CONCENTRATION OF LANDSCAPE MATERIAL.

NO CHANGE TO THE APPROVED LANDSCAPE AND STREETScape PLAN MAY OCCUR WITHOUT PRIOR APPROVAL FROM THE TOWN AND THE WATER SANITATION DISTRICT

THIS REVIEW DOES NOT CONSTITUTE APPROVAL OF ANY PRIVATE ON-SITE IMPROVEMENTS WHICH MAY BE SHOWN. CONSTRUCTION CANNOT COMMENCE UNTIL ALL REQUIRED DRAINAGE/TRAFFIC REPORT(S), FINAL DEVELOPMENT PLANS, SPECIAL REVIEWS, GRADING PERMIT, AND/OR OTHER PERMITS ARE COMPLETE APPROVED AND ON FILE WITH THE TOWN OF PARKER.

TOWN OF PARKER, DIRECTOR ENGINEERING DATE

Know what's Below.
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LOT 4A, PARKER POINT SUBD. FILING NO. 1, AMEND. NO. 1

BLACK ROCK COFFEE BAR
13135 DECLAN DRIVE
PARKER
DOUGLAS COUNTY, COLORADO

DATE: 2025-02-24

REVISIONS

TOWN OF PARKER, DIRECTOR ENGINEERING DATE

DRAWN BY: K. SARWAR
CHECKED BY: N. SALAZAR
PROJECT MANAGER: N. SALAZAR
JOB #: 24003198
FILE CODE: ##
SHEET NO: L1.01

SECTION 32 9300 - LANDSCAPE

PART 1 - GENERAL

1.1 QUALIFICATIONS OF THE LANDSCAPE CONTRACTOR

A. ALL LANDSCAPE WORK SHOWN ON THESE PLANS SHALL BE PERFORMED BY A SINGLE FIRM SPECIALIZING IN LANDSCAPE PLANTING

1.2 REFERENCE DOCUMENTS

A. REFER TO LANDSCAPE PLANS, NOTES, SCHEDULES AND DETAILS FOR ADDITIONAL REQUIREMENTS

1.3 SCOPE OF WORK / DESCRIPTION OF WORK

A. WORK COVERED BY THESE SECTIONS INCLUDES: FURNISH ALL SUPERVISORS, LABOR, MATERIALS, SERVICES, EQUIPMENT AND APPLIANCES REQUIRED TO COMPLETE THE WORK COVERED IN CONJUNCTION WITH THE LANDSCAPING COVERED IN LANDSCAPE PLANS AND SPECIFICATIONS INCLUDING:

1. PLANTING (TREES, SHRUBS, GRASSES)
1. BED PREP AND FERTILIZATION
3. NOTIFICATION OF SOURCES
4. WATER AND MAINTENANCE UNTIL ACCEPTANCE

B. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE LAWS, CODES AND REGULATIONS REQUIRED BY AUTHORITIES HAVING JURISDICTION OVER SUCH WORK, INCLUDING ALL INSPECTION AND PERMITS REQUIRED BY FEDERAL, STATE AND LOCAL AUTHORITIES IN SUPPLY, TRANSPORTATION AND INSTALLATION OF MATERIALS.

C. THE LANDSCAPE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL UNDERGROUND UTILITY LINES (WATER, SEWER, ELECTRICAL, TELEPHONE, GAS, CABLE, TELEVISION, ETC.) PRIOR TO THE START OF ANY WORK

1.4 REFERENCES

- A. AMERICAN STANDARD FOR NURSERY STOCK PUBLISHED BY AMERICAN ASSOCIATION OF NURSERYMEN, 1980 EDITION; BY AMERICAN NATIONAL STANDARDS INSTITUTE (Z60.1) - PLANT MATERIAL
- B. AMERICAN JOINT COMMITTEE ON HORTICULTURE NOMENCLATURE, 1942 EDITION OF STANDARDIZED PLANT NAMES.
- C. TEXAS ASSOCIATION OF NURSERYMEN, GRADES AND STANDARDS

1.5 SUBMITTALS

- A. PROVIDE REPRESENTATIVE QUANTITIES OF EACH SOIL, MULCH, BED MIX, GRAVEL AND STONE BEFORE INSTALLATION. SAMPLES TO BE APPROVED BY OWNERS REPRESENTATIVE BEFORE USE.
- B. SOIL AMENDMENTS AND FERTILIZERS SHOULD BE RESEARCHED AND BASED ON THE SOILS IN THE AREA.
- C. BEFORE INSTALLATION, SUBMIT DOCUMENTATION THAT PLANT MATERIALS ARE AVAILABLE AND HAVE BEEN RESERVED. FOR ANY PLANT MATERIAL NOT AVAILABLE, SUBMIT REQUEST FOR SUBSTITUTION.

1.6 JOB CONDITIONS, DELIVERY, STORAGE AND HANDLING

- A. GENERAL CONTRACTOR TO COMPLETE WORK BEFORE LANDSCAPE CONTRACTOR TO COMMENCE.
- B. ALL PLANTING BED AREAS SHALL BE LEFT THREE INCHES BELOW FINAL GRADE OF SIDEWALKS, DRIVES AND CURBS. ALL AREAS TO RECEIVE SOD SHOULD BE LEFT ONE INCH BELOW THE FINAL GRADE OF WALKS, DRIVES AND CURBS. CONSTRUCTION DEBRIS SHALL BE REMOVED PRIOR TO LANDSCAPE CONTRACTOR BEGINNING WORK ON TREES AND PLANTS.
- C. STORAGE OF MATERIALS AND EQUIPMENT AT THE JOB SITE WILL BE AT THE RISK OF THE LANDSCAPE CONTRACTOR. THE OWNER CANNOT BE HELD RESPONSIBLE FOR THEFT OR DAMAGE.

1.7 SEQUENCING

- A. INSTALL TREES, SHRUBS, AND LINER STOCK PLANT MATERIALS PRIOR TO INSTALLATION OF LAWN/SOD/SOD.
- B. WHERE EXISTING TURF AREAS ARE BEING CONVERTED TO PLANTING BEDS, THE TURF SHALL BE CHEMICALLY EDICATED TO MINIMIZE RE-GROWTH IN THE FUTURE. AREAS SHALL BE PROPERLY PREPARED WITH AMENDED ORGANIC MATTER.

1.8 MAINTENANCE AND GUARANTEE

MAINTENANCE:

- A. THE LANDSCAPE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR THE MAINTENANCE OF ALL WORK FROM THE TIME OF PLANTING UNTIL FINAL ACCEPTANCE BY OWNER.
- B. NO TREES, GRASS, GROUND COVER OR GRASS WILL BE ACCEPTED UNLESS THEY SHOW HEALTHY GROWTH AND SATISFACTORY FOLIAGE CONDITIONS.
- C. MAINTENANCE SHALL INCLUDE WATERING OF TREES AND PLANTS, CULTIVATING, WEED SPRAYING, EDGING, PRUNING OF TREES, MOVING OF GRASS, CLEANING UP AND ALL OTHER WORK NECESSARY FOR MAINTENANCE.
- D. A WRITTEN NOTICE REQUESTING FINAL INSPECTION AND ACCEPTANCE SHOULD BE SUBMITTED TO THE OWNER AT LEAST 7 DAYS PRIOR TO COMPLETION. ON ON SITE INSPECTION BY THE OWNERS AUTHORIZED REPRESENTATIVE WILL BE COMPLETED PRIOR TO WRITTEN ACCEPTANCE.
- E. NOTIFY OWNER OR OWNERS REPRESENTATIVE SEVEN DAYS PRIOR TO THE EXPIRATION OF THE WARRANTY PERIOD.
- F. REMOVE DEAD, UNHEALTHY AND UNSIGHTLY PLANTS DURING WARRANTY PERIOD.
- G. REMOVE DIVING AND STAKING MATERIALS AFTER ONE YEAR.
- H. ALL LANDSCAPE MUST BE MAINTAINED AND GRASS MOWED/EDGED ON A WEEKLY SCHEDULE UNTIL ACCEPTANCE BY OWNER. REMOVE CLIPPINGS AND DEBRIS FROM SITE PROMPTLY.
- I. REMOVE TRASH, DEBRIS, AND LITTER, WATER, PRUNE, RESTAKE TREES, FERTILIZE, WEED AND APPLY HERBICIDES AND FUNGICIDES AS REQUIRED.
- J. COORDINATE THE OPERATION OF IRRIGATION SYSTEM TO ENSURE THAT PLANTS ARE ADEQUATELY WATERED. HAND WATER AREAS NOT RECEIVING ADEQUATE WATER FROM AN IRRIGATION SYSTEM.
- K. THE LANDSCAPE CONTRACTOR SHALL MAINTAIN THE IRRIGATION SYSTEM IN ACCORDANCE TO THE MAINTENANCE SERVICE TO ENSURE THE SYSTEM IS IN PROPER WORKING ORDER WITH SCHEDULING ADJUSTMENTS BY SEASON TO MAXIMIZE WATER CONSERVATION.
- L. REAPPLY MULCH TO BARE AND THIN AREAS.
- M. SHOULD SEEDED AND/OR SODDED AREAS NOT BE COVERED BY AN AUTOMATIC IRRIGATION SYSTEM, THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR WATERING THESE AREAS AND OBTAINING A FULL, HEALTHY STAND OF GRASS AT NO ADDITIONAL COST TO THE OWNER.
- N. TO ACHIEVE FINAL ACCEPTANCE AT THE END OF MAINTENANCE PERIOD, ALL OF THE FOLLOWING CONDITIONS MUST OCCUR:
 - a. THE LANDSCAPE SHALL SHOW ACTIVE, HEALTHY GROWTH (WITH EXCEPTIONS MADE FOR SEASONAL DORMANCY). ALL PLANTS NOT MEETING THIS CONDITION SHALL BE REJECTED AND REPLACED BY HEALTHY PLANT MATERIAL PRIOR TO FINAL ACCEPTANCE.
 - b. ALL HARDSCAPE SHALL BE CLEANED PRIOR TO FINAL ACCEPTANCE.
 - c. SODDED AREAS MUST BE ACTIVELY GROWING AND MUST REACH A MINIMUM HEIGHT OF 1/2 INCHES BEFORE FIRST MOWING. HYDROMULCHED AREAS SHALL SHOW ACTIVE, HEALTHY GROWTH. BARE AREAS LARGER THAN TWELVE SQUARE INCHES MUST BE RESODDED OR RESEEDED (AS APPROPRIATE) PRIOR TO FINAL ACCEPTANCE. ALL SODDED TURF SHALL BE NEATLY MOWED.

GUARANTEE:

- A. TREES, SHRUBS, GROUND COVER SHALL BE GUARANTEED (IN WRITING) FOR A 12 MONTH PERIOD (90 DAYS FOR ANNUAL PLANTING OR AT THE END OF THE SEASONAL COLOR GROWING SEASON, WHICHEVER COMES SOONER) AFTER FINAL ACCEPTANCE. THE CONTRACTOR SHALL REPLACE ALL DEAD MATERIALS AS SOON AS WEATHER PERMITS AND UPON NOTIFICATION OF THE OWNER.
- B. PLANTS INCLUDING TREES, WHICH HAVE PARTIALLY DIED SO THAT SHAPE, SIZE OR SYMMETRY HAVE BEEN DAMAGED SHALL BE CONSIDERED SUBJECT TO REPLACEMENT. IN SUCH CASES, THE OPINION OF THE OWNER SHALL BE FINAL.
- C. PLANTS USED FOR REPLACEMENT SHALL BE OF THE SAME SIZE AND KIND AS THOSE ORIGINALLY PLANTED OR PROVIDED. ALL WORK INCLUDING MATERIALS, LABOR AND EQUIPMENT USED IN REPLACEMENTS SHALL CARRY A 12 MONTH GUARANTEE. ANY DAMAGE INCLUDING RUTS IN LAWN OR BED AREAS INCURRED AS A RESULT OF MAKING REPLACEMENTS SHALL BE IMMEDIATELY REPAIRED.
- D. WHEN PLANT REPLACEMENTS ARE MADE, PLANTS, SOIL MIX, FERTILIZER AND MULCH ARE TO BE UTILIZED AS ORIGINALLY SPECIFIED AND RE-INSPECTED FOR FULL COMPLIANCE WITH THE CONTRACT REQUIREMENTS. ALL REPLACEMENTS ARE INCLUDED UNDER "WORK" OF THIS SECTION.
- E. THE OWNER AGREES THAT FOR THE ONE YEAR WARRANTY PERIOD TO BE EFFECTIVE, HE WILL WATER PLANTS AT LEAST TWICE A WEEK DURING DRY PERIODS.
- F. THE ABOVE GUARANTEE SHALL NOT APPLY WHERE PLANTS DIE AFTER ACCEPTANCE BECAUSE OF DAMAGE DUE TO ACTS OF GOD, VANDALISM, INSECTS, DISEASE, INJURY BY HUMANS, MACHINES, THEFT OR NEGLIGENCE BY OWNER.
- G. ACCEPTANCE FOR ALL LANDSCAPE WORK SHALL BE GIVEN AFTER FINAL INSPECTION BY THE OWNER. THE JOB IS IN COMPLETE AND UNDAMAGED CONDITION AND THERE IS A STAND OF GRASS IN ALL LAWN AREAS. AT THAT TIME, THE OWNER WILL ASSUME MAINTENANCE ON THE ACCEPTED WORK.

1.9 QUALITY ASSURANCE

- A. COMPLY WITH ALL FEDERAL, STATE, COUNTY AND LOCAL REGULATIONS GOVERNING LANDSCAPE MATERIALS AND WORK.
- B. EMPLOY PERSONNEL EXPERIENCED AND FAMILIAR WITH THE REQUIRED WORK AND SUPERVISED BY A FOREMAN.
- C. MAKE CONTACT WITH SUPPLIERS IMMEDIATELY UPON OBTAINING NOTICE

OF CONTRACT ACCEPTANCE TO SELECT AND BOOK MATERIALS.

D. DEVELOP A PROGRAM OF MAINTENANCE (PRUNING AND FERTILIZATION) WHICH WILL ENSURE THE PURCHASED MATERIALS WILL MEET AND/OR EXCEED PROJECT SPECIFICATIONS.

- E. DO NOT MAKE PLANT MATERIAL SUBSTITUTIONS IF THE LANDSCAPE MATERIAL SPECIFIED IS NOT READILY AVAILABLE, SUBMIT PROOF TO LANDSCAPE ARCHITECT ALONG WITH THE PROPOSED MATERIAL TO BE USED IN LEVY OF THE SPECIFIED PLANT.
- F. AT THE TIME BIDS ARE SUBMITTED, THE CONTRACTOR IS ASSUMED TO HAVE LOCATED THE MATERIALS NECESSARY TO COMPLETE THE JOB AS SPECIFIED.
- G. OWNERS REPRESENTATIVE SHALL INSPECT ALL PLANT MATERIAL AND RETAINS THE RIGHT TO INSPECT MATERIALS UPON ARRIVAL TO THE SITE AND DURING INSTALLATION. THE OWNERS REPRESENTATIVE MAY ALSO REJECT ANY MATERIALS HE/SHE FEELS TO BE UNSATISFACTORY OR DEFECTIVE DURING THE WORK PROCESS. ALL PLANTS DAMAGED IN TRANSIT OR AT THE JOB SITE SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.

1.10 PRODUCT DELIVERY, STORAGE AND HANDLING

- A. PREPARATION
 1. BALLED AND BURLAPPED 888 PLANTS; DIO AND PREPARE SHIPMENT IN A MANNER THAT WILL NOT DAMAGE ROOTS, BRANCHES, SHAPE AND FUTURE DEVELOPMENT.
 2. CONTAINER GROWN PLANTS: DELIVER PLANTS IN RIGID CONTAINER TO HOLD BALL SHAPE AND PROTECT ROOT MASS.
- B. DELIVERY
 1. DELIVER PACKAGED MATERIALS IN SEALED CONTAINERS SHOWING WEIGHT, ANALYSIS AND NAME OF MANUFACTURER. PROTECT MATERIALS FROM DECONTAMINATION DURING DELIVERY AND WHILE STORED ON SITE.
 2. DELIVER ONLY PLANT MATERIALS THAT CAN BE PLANTED IN ONE DAY UNLESS ADEQUATE STORAGE AND WATERING FACILITIES ARE AVAILABLE ON SITE.
 3. PROTECT ROOT BALLS BY HEELING IN WITH SAWDUST OR OTHER APPROVED MOISTURE RETAINING MATERIAL IF NOT PLANTED WITHIN 24 HOURS OF DELIVERY.
 4. PROTECT PLANTS DURING DELIVERY TO PREVENT DAMAGE TO ROOT AND BALL OR DECONTAMINATION OF LEAVES.
 5. KEEP PLANTS MOIST AT ALL TIMES. COVER ALL MATERIALS DURING TRANSPORT.
 6. NOTIFY OWNERS REPRESENTATIVE OF DELIVERY 72 HOURS PRIOR TO DELIVERY OF PLANT MATERIAL AT JOB SITE.
 7. REMOVE REJECTED PLANT MATERIAL IMMEDIATELY FROM JOB SITE.
 8. TO AVOID DAMAGE OR STRESS, DO NOT LIFT, MOVE, ADJUST TO PLUMBS, OR OTHERWISE MANIPULATE PLANTS BY TRUNK OR STEMS.

PART 2 - PRODUCTS

2.1 PLANT MATERIALS

- A. GENERAL: WELL FORMED NO. 1 GRADE OR BETTER NURSERY GROWN STOCK LISTED PLANT HEIGHTS ARE FROM TOPS OF FOOT BALLS TO NOMINAL TOPS OF PLANTS. PLANT SPREAD REFERS TO NOMINAL OUTER WIDTH OF THE PLANT NOT THE OUTER LEAF TIPS. PLANTS SHALL BE INDIVIDUALLY APPROVED BY THE OWNERS REPRESENTATIVE AND THEIR DECISION AS TO THEIR ACCEPTABILITY SHALL BE FINAL.
- B. QUANTITIES: THE DRAWINGS AND SPECIFICATIONS ARE COMPLEMENTARY. ANYTHING CALLED FOR ON ONE AND NOT THE OTHER IS BINDING AS IF SHOWN AND CALLED FOR ON BOTH. THE PLANT SCHEDULE IS AN AID TO BIDDERS ONLY. CONFIRM ALL QUANTITIES ON PLAN.
- C. QUANTITIES AND SIZE: PLANT MATERIALS SHALL CONFORM TO THE SIZE GIVEN ON THE PLAN AND SHALL BE HEALTHY, WELL SHAPED, FULL BRANCHED AND WELL ROOTED. SYMMETRY IS ALSO IMPERATIVE. PLANTS SHALL BE FREE FROM INSECTS, INJURY, DISEASE, BROKEN BRANCHES, DISFIGUREMENTS, INSECT EGGS AND ARE TO BE OF SPECIMEN QUALITY.
- D. APPROVAL: ALL PLANTS WHICH ARE FOUND UNSUITABLE IN GROWTH OR ARE UNHEALTHY, BADLY SHAPED OR UNDERSIZED WILL BE REJECTED BY THE OWNERS REPRESENTATIVE EITHER BEFORE OR AFTER PLANTING AND SHALL BE REMOVED AT THE EXPENSE OF THE LANDSCAPE CONTRACTOR AND REPLACED WITH ACCEPTABLE SPECIMENS.
- E. TREES SHALL BE HEALTHY, FULL BRANCHED, WELL SHAPED AND SHALL MEET THE MINIMUM REQUIREMENTS AS SPECIFIED ON THE PLANT SCHEDULE. ALL TREES SHALL BE OBTAINED FROM SOURCES WITHIN 200 MILES OF THE PROJECT SITE IF POSSIBLE, AND WITH SIMILAR CLIMATIC CONDITIONS.
- F. PRUNING: ALL PRUNING OF TREES AND SHRUBS SHALL BE EXECUTED BY THE LANDSCAPE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER, PRIOR TO FINAL ACCEPTANCE.
- G. PLANTS SHALL CONFORM TO THE MEASUREMENTS SPECIFIED EXCEPT THE PLANTS LARGER THAN THOSE SPECIFIED MAY BE USED. USE OF LARGER PLANTS SHALL NOT INCREASE THE CONTRACT PRICE.
- H. WHERE MATERIALS ARE PLANTED IN MASSES, PROVIDE PLANTS OF UNIFORM SIZE.
- I. ROOT SYSTEMS SHALL BE HEALTHY, DENSELY BRANCHED, FIBROUS ROOT SYSTEMS, NON-POT-BOUND, FREE FROM ENCODING AND/OR GIRDLING ROOTS, AND FREE FROM ANY OTHER ROOT DISEASES (SUCH AS SHAPED ROOTS).
- J. ALL TREES SHALL BE STANDARD IN FORM, UNLESS OTHERWISE SPECIFIED. TREES WITH CENTRAL LEADERS WILL NOT BE ACCEPTED IF LEADER IS DAMAGED OR REMOVED. PRUNE ALL DAMAGED TWIGS AFTER PLANTING.
- K. TREE TRUNKS TO BE STURDY, EXHIBIT HARDENED SYSTEMS AND VIGOROUS AND FIBROUS ROOT SYSTEMS, NOT ROOT OR POT BOUND.
- L. TREES WITH DAMAGED OR CROOKED LEADERS, BARK ABRASIONS, SUNSCALD, DISFIGURING KNOTS, OR INSECT DAMAGE WILL BE REJECTED.
- M. CALIPER MEASUREMENTS FOR STANDARD (SINGLE TRUNK) TREES SHALL BE AS FOLLOWS: SIX INCHES ABOVE THE ROOT FLARE OR TRUNK UP TO AND INCLUDING FOUR INCHES IN CALIPER, AND TWELVE INCHES ABOVE THE ROOT FLARE FOR TREES EXCEEDING FOUR INCHES IN CALIPER.
- N. MULTITRUNK TREES SHALL BE MEASURED BY THEIR OVERALL HEIGHT, MEASURED FROM THE TOP OF THE ROOT BALL.
- O. ANY TREE OR SHRUB SHOWN TO HAVE EXCESS SOIL PLACED ON TOP OF THE ROOT BALL, SO THAT THE ROOT FLARE HAS BEEN COMPLETELY COVERED, SHALL BE REJECTED.
- P. SOD: PROVIDE WELL-ROOTED SOD OF THE VARIETY NOTED ON THE PLANS. SOD SHALL BE CUT FROM HEALTHY, MATURE TURF WITH SOIL THICKNESS OF 3/4" TO 1". EACH PALLET OF SOD SHALL BE ACCOMPANIED BY A CERTIFICATE FROM SUPPLIER STATING THE COMPOSITION OF THE SOD.

2.2 SOIL PREPARATION MATERIALS

- A. SANDY LOAM:
 1. FRABLE, FERTILE, DARK, LOAMY SOIL, FREE OF CLAY LUMPS, SUBSOIL, STONES AND OTHER EXTRANEIOUS MATERIAL AND REASONABLY FREE OF WEEDS AND FOREIGN GRASSES. LOAM CONTAINING DALLAS GRASSES OR NUTGRASS SHALL BE REJECTED.
 2. PHYSICAL PROPERTIES AS FOLLOWS:
 - a. CLAY - BETWEEN 7-27%
 - b. SILT - BETWEEN 15-25%
 - c. SAND - LESS THAN 52%
 3. ORGANIC MATTER SHALL BE 3%-10% OF TOTAL DRY WEIGHT.
 4. IF REQUESTED, LANDSCAPE CONTRACTOR SHALL PROVIDE A CERTIFIED SOIL ANALYSIS CONDUCTED BY AN APPROVED SOIL TESTING LABORATORY VERIFYING THAT SANDY LOAM MEETS THE ABOVE REQUIREMENTS.
- B. ORGANIC MATERIAL: COMPOST WITH A MIXTURE OF 80% VEGETATIVE MATTER AND 20% ANIMAL WASTE. INGREDIENTS SHOULD BE A MIX OF COARSE AND FINE TEXTURED MATERIAL.
- C. PREMIXED BEDDING SOIL AS SUPPLIED BY VITAL EARTH RESOURCES, GLADEWATER, TEXAS; PROFESSIONAL BEDDING SOIL AS SUPPLIED BY LIVING EARTH TECHNOLOGY, DALLAS, TEXAS; OR ACID GRO MUNICIPAL MIX AS SUPPLIED BY SOIL BUILDING SYSTEMS, DALLAS, TEXAS OR APPROVED EQUAL.
- D. SHARP SAND: SHARP SAND MUST BE FREE OF SEEDS, SOIL PARTICLES AND WEEDS.
- E. MULCH: DOUBLE SHREDDED HARDWOOD MULCH, PARTIALLY DECOMPOSED, DARK BROWN.
- F. ORGANIC FERTILIZER: FERTILIZED, SUSTANE, OR GREEN SEEN OR EQUAL AS RECOMMENDED FOR REQUIRED APPLICATIONS. FERTILIZER SHALL BE DELIVERED TO THE SITE IN ORIGINAL UNOPENED CONTAINERS, EACH BEARING THE MANUFACTURER'S GUARANTEED STATEMENT OF ANALYSIS.
- G. COMMERCIAL FERTILIZER: 10-20-10 OR SIMILAR ANALYSIS. NITROGEN AND MULCH ARE TO BE UTILIZED AS ORIGINALLY SPECIFIED AND RE-INSPECTED FOR FULL COMPLIANCE WITH THE CONTRACT REQUIREMENTS. ALL REPLACEMENTS ARE INCLUDED UNDER "WORK" OF THIS SECTION.
- H. FEAT: COMMERCIAL SPHAGNUM PEAT MOSS OR PARTIALLY DECOMPOSED SHREDDED PINE BARK OR OTHER APPROVED ORGANIC MATERIAL.

2.3 MISCELLANEOUS MATERIALS

- A. STEEL EDGING - SHALL BE 3/16" X 4" X 16" DARK GREEN LANDSCAPE EDGING, DURAEDEGE STEEL OR APPROVED EQUAL.
- B. TREE STAKING - TREE STAKING SOLUTIONS OR APPROVED SUBSTITUTE; REFER TO DETAILS.
- C. FILTER FABRIC - MIRAFI 1405 BY MIRAFI INC. OR APPROVED SUBSTITUTE. AVAILABLE AT LONE STAR PRODUCTS, INC. (469-523-0444)
- D. SAND - UNIFORMLY GRADED, WASHED, CLEAN, BAKED RUN SAND.
- E. GRAVEL: WASHED NATIVE PEA GRAVEL GRADED 1" TO 1 1/2"
- F. DECOMPOSED GRANITE - BASE MATERIAL OF NATURAL MATERIAL MIX OF GRANITE AGGREGATE NOT TO EXCEED 1/8" IN DIAMETER COMPOSED OF VARIOUS STAGES OF DECOMPOSED EARTH.
- G. ROCK - LOCALLY AVAILABLE NATIVE ROCK 1.5" IN DIAMETER.
- H. PRE-EMERGENT HERBICIDES: ANY GRANULAR, NON-STAINING PRE-EMERGENT HERBICIDE THAT IS LABELED FOR THE SPECIFIC ORNAMENTALS OR TURF ON WHICH IT WILL BE UTILIZED. PRE-EMERGENT

HERBICIDES SHALL BE APPLIED PER THE MANUFACTURERS LABELED RATES.

PART 3 - EXECUTION

3.1 PREPARATION

- A. LANDSCAPE CONTRACTOR TO INSPECT ALL EXISTING CONDITIONS AND REPORT ANY DEFICIENCIES TO THE OWNER.
- B. ALL PLANTING AREAS SHALL BE CONDITIONED AS FOLLOWS:
 1. PREPARE NEW PLANTING BEDS BY SCRAPING AWAY EXISTING GRASS AND WEEDS AS NECESSARY. TILL EXISTING SOIL TO A DEPTH OF SIX (6") INCHES PRIOR TO PLACING COMPOST AND FERTILIZER. APPLY FERTILIZER AS PER MANUFACTURER'S RECOMMENDATIONS AND ADD SIX (6") INCHES OF COMPOST AND TILL INTO A DEPTH OF SIX (6") INCHES OF SPECIFIED MULCH (SETTLED THICKNESS).
 2. BACKFILL FOR TREE PITS SHALL BE AS FOLLOWS: USE EXISTING TOP SOIL ON SITE (USE IMPORTED TOPSOIL AS NEEDED) FREE FROM LARGE CLUMPS, ROCKS, DEBRIS, CALICHE, SUBSOILS, ETC., PLACED IN NINE (9") INCH LAYERS AND WATERED IN THOROUGHLY.
- C. GRASS AREAS:
 1. BLOCKS OF SOD SHOULD BE LAID JOINT TO JOINT (STAGGERED JOINTS) AFTER FERTILIZING THE GROUND FIRST. ROLL GRASS AREAS TO ACHIEVE A SMOOTH, EVEN SURFACE. THE JOINTS BETWEEN THE BLOCKS OF SOD SHOULD BE FILLED WITH TOPSOIL WHERE THEY ARE GAPPED OPEN, THEN WATERED THOROUGHLY.

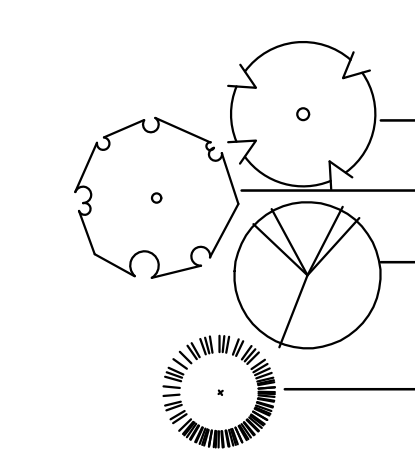
3.2 INSTALLATION

- A. MAINTENANCE OF PLANT MATERIALS SHALL BEGIN IMMEDIATELY AFTER EACH PLANT IS DELIVERED TO THE SITE AND SHALL CONTINUE UNTIL THE CONTRACTOR'S CONSTRUCTION IS SATISFACTORILY ACCOMPLISHED.
- B. PLANT MATERIALS SHALL BE DELIVERED TO THE SITE ONLY AFTER THE BEDS ARE PREPARED AND AREAS ARE READY FOR PLANTING. ALL SHIPMENTS OF NURSERY MATERIALS SHALL BE THOROUGHLY PROTECTED FROM THE WINDS DURING TRANSPORT. ALL PLANTS WHICH CANNOT BE PLANTED AT ONCE, AFTER DELIVERY TO THE SITE, SHALL BE WELL PROTECTED AGAINST THE POSSIBILITY OF DRYING BY WIND AND BALLS OF EARTH OF PLANTS' LEAVES.
- C. POSITION THE TREES AND SHRUBS IN THEIR INTENDED LOCATION AS PER PLAN.
- D. NOTIFY THE OWNER'S AUTHORIZED REPRESENTATIVE FOR INSPECTION AND APPROVAL OF ALL POSITIONING OF PLANT MATERIALS.
- E. EXCAVATE PITS WITH VERTICAL SIDES AND HORIZONTAL BOTTOM. TREE PITS SHALL BE LARGE ENOUGH TO PERMIT HANDLING AND PLANTING WITHOUT INJURY TO BALLS OF EARTH OR ROOTS AND SHALL BE OF SUCH DEPTH THAT WHEN PLANTED AND SETTLED, THE CROWN OF THE PLANT SHALL BEAR THE SAME RELATIONSHIP TO THE FINISH GRADE AS IT DID TO SOIL SURFACE IN ORIGINAL PLACE OF GROWTH. THE SIDES OF THE HOLE SHOULD BE ROUGH AND JAGGED, NEVER SMOOTH OR GLAZED.
- F. SHRUB AND TREE PITS SHALL BE NO LESS THAN TWENTY-FOUR (24") INCHES WIDE. THE LATERAL DIMENSION OF THE EARTH BALL AND SIX (6") INCHES DEEPER THAN IT'S VERTICAL DIMENSION. REMOVE AND HAUL FROM SITE ALL ROCKS AND STONES OVER THREE-QUARTER (3/4") INCH IN DIAMETER. PLANTS SHOULD BE THOROUGHLY MOIST BEFORE REMOVING CONTAINERS.
- G. PERCOLATION TEST: FILL THE HOLE WITH WATER. IF THE WATER LEVEL DOES NOT PERCOLATE WITHIN 24 HOURS, THE TREE NEEDS TO MOVE TO ANOTHER LOCATION OR HAVE DRAINAGE ADDED. INSTALL A PVC STAND PIPE PER TREE IF THE PERCOLATION TEST FAILS.
- H. BACKFILL ONLY WITH 5 PARTS EXISTING SOIL OR SANDY LOAM AND 1 PART BED PREPARATION. WHEN THE HOLE IS DUG IN SOLID ROCK, TOPSOIL FROM THE SAME AREA SHOULD NOT BE USED. CAREFULLY SETTLE BY WATERING TO PREVENT AIR POCKETS. REMOVE THE BURLAP FROM THE TOP 1/2 OF THE BALL, AS WELL AS ALL NYLON, PLASTIC STRING AND WIRE CONTAINER TIES WHICH WOULD BE ROOT BOUND, IF SO "TOP" STANDARD NURSERY PRACTICE OF "ROOT SCORING".
- I. DO NOT WRAP TREES.
- J. DO NOT OVER PRUNE.
- K. REMOVE NURSERY TAGS AND STAKES FROM ALL PLANTS.
- L. REMOVE BOTTOM OF PLANT BOXES PRIOR TO PLANTING. REMOVE SIDES AFTER PLACEMENT AND PARTIAL BACKFILLING.
- M. REMOVE UPPER THIRD OF BURLAP FROM BALLED AND BURLAPPED TREES AFTER PLACEMENT.
- N. PLACE PLANT UPRIGHT AND PLUMB IN CENTER OF HOLE. ORIENT PLANTS FOR BEST APPEARANCE.
- O. MULCH THE TOP OF THE BALL. DO NOT PLANT GRASS ALL THE WAY TO THE TRUNK OF THE TREE. LEAVE THE AREA ABOVE THE TOP OF THE BALL AND MULCH WITH AT LEAST TWO (2") INCHES OF SPECIFIED MULCH.
- P. ALL PLANT BEDS AND TREES TO BE MULCHED WITH A MINIMUM SETTLED THICKNESS OF TWO (2") INCHES OVER THE ENTIRE BED OR PIT.
- Q. OBSTRUCTION BELOW GROUND: IN THE EVENT THAT ROCK, OR UNDERGROUND CONSTRUCTION WORK OR OBSTRUCTIONS ARE ENCOUNTERED IN ANY PLANT PIT EXCAVATION WORK TO BE DONE UNDER THIS SECTION, ALTERNATE LOCATIONS MAY BE SELECTED BY THE OWNER, WHERE LOCATIONS CANNOT BE CHANGED, THE OBSTRUCTIONS SHALL BE REMOVED TO A DEPTH OF NOT LESS THAN THREE (3") FEET BELOW GRADE AND NO LESS THAN SIX (6") INCHES BELOW THE BOTTOM OF BALL WHEN PLANT IS PROPERLY SET AT THE REQUIRED GRADE. THE WORK OF THIS SECTION SHALL INCLUDE THE REMOVAL FROM THE SITE OF SUCH ROCK OR UNDERGROUND OBSTRUCTIONS ENCOUNTERED AT THE COST OF THE LANDSCAPE CONTRACTOR.
- R. TREES AND LARGE SHRUBS SHALL BE STAKED AS SITE CONDITIONS REQUIRE. POSITION STAKES TO SECURE TREES AGAINST SEASONAL PREVAILING WINDS.
- S. PRUNING AND MULCHING: PRUNING SHALL BE DIRECTED BY THE LANDSCAPE ARCHITECT AND SHALL BE PRUNED IN ACCORDANCE WITH STANDARD HORTICULTURAL PRACTICE FOLLOWING FINE PRUNING, CLASS I PRUNING STANDARDS PROVIDED BY THE NATIONAL ARBORIST ASSOCIATION.
 1. DEAD WOOD, SUCKERS, BROKEN AND BADLY BRUISED BRANCHES SHALL BE REMOVED. GENERAL TIPPING OF THE BRANCHES IS NOT PERMITTED. DO NOT CUT TERMINAL BRANCHES.
 2. PRUNING SHALL BE DONE WITH CLEAN, SHARP TOOLS.
 3. IMMEDIATELY AFTER PLANTING OPERATIONS ARE COMPLETED, ALL TREE PITS SHALL BE COVERED WITH A LAYER OF ORGANIC MATERIAL TWO (2") INCHES IN DEPTH. THIS LIMIT OF THE ORGANIC MATERIAL FOR TREES SHALL BE THE DIAMETER OF THE PLANT PIT.

3.3 CLEANUP AND ACCEPTANCE

- A. CLEANUP: DURING THE WORK, THE PREMISES SHALL BE KEPT NEAT AND ORDERLY AT ALL TIMES. STORAGE AREAS FOR ALL MATERIALS SHALL BE SO ORGANIZED SO THAT THEY, TOO, ARE NEAT AND ORDERLY. ALL TRASH AND DEBRIS SHALL BE REMOVED FROM THE SITE AS WORK PROGRESSES. KEEP PAVED AREAS CLEAN BY SWEEPING OR HOSEING THEM AT END OF EACH WORK DAY.
- B. REPAIR RUTS, HOLES AND SCARS IN GROUND SURFACES.
- C. ENSURE THAT WORK IS COMPLETE AND PLANT MATERIALS ARE IN VIGOROUS AND HEALTHY GROWING CONDITION.
- D. UPON COMPLETION OF THE WORK, THE LANDSCAPE CONTRACTOR SHALL PROTECT THE SITE FROM THE CLEAN TURF AND RELEASE ORGANIC NITROGEN FOR USE AS INTENDED. THE LANDSCAPE CONTRACTOR SHALL THEN REQUEST AN INSPECTION BY THE OWNER TO DETERMINE FINAL ACCEPTABILITY.
- E. WHENEVER THE INSPECTED PLANTING WORK DOES NOT COMPLY WITH THE CONTRACT DOCUMENTS, THE LANDSCAPE CONTRACTOR SHALL REPLACE AND/OR REPAIR THE REJECTED WORK TO THE OWNERS SATISFACTION WITHIN 24 HOURS.
- F. THE LANDSCAPE MAINTENANCE PERIOD WILL NOT COMMENCE UNTIL THE LANDSCAPE WORK HAS BEEN REINSPECTED BY THE OWNER AND FOUND TO BE ACCEPTABLE. AT THAT TIME, WRITTEN NOTICE OF FINAL ACCEPTANCE WILL BE ISSUED BY THE OWNER, AND THE MAINTENANCE AND GUARANTEE PERIODS WILL COMMENCE.

END OF SECTION



PLANT SCHEDULE

QTY	LABEL	COMMON NAME	SCIENTIFIC NAME	SIZE	NOTES	MATURE SIZE	YEARS TO MATURITY	
DECIDUOUS TREES								
3	AE	Accolade Elm	<i>Ulmus 'Accolade'</i>	3" cal.	12' ht., 4' spread	60' ht x 40' w	10-15 years	
5	RL	Redmond Linden	<i>Tilia americana 'Redmond'</i>	3" cal.	12' ht., 4' spread	60' ht x 40' w	20-30 years	
7	RO	Northern Red Oak	<i>Quercus rubra</i>	3" cal.	12' ht., 5' spread	60' ht x 40' w	30-35 years	
15	TOTAL DECIDUOUS TREES							
EVERGREEN TREES								
5	LP	Lacebark Pine	<i>Pinus bungeana</i>	3" cal.	12' ht., 5' spread	40' ht x 25' w	20-30 years	
5	TOTAL EVERGREEN TREES							
5	TOTAL TREES							
DECIDUOUS SHRUBS								
59	BAR	Concord Barberry	<i>Berberis thunbergii 'Concorde'</i>	5 gal.	full, 20" sprd, 24" o.c.	2' ht x 3' w	2-3 years	
22	CB	Chokeberry	<i>Aronia melanocarpa 'UCONNAM165'</i>	5 gal.	full, 20" sprd, 24" o.c.	2' ht x 4' w	2-3 years	
14	SB	Spanish Gold Broom	<i>Cytisus purgan 'Spanish Gold'</i>	5 gal.	full, 24" sprd, 36" o.c.	4' ht x 5' w	2-3 years	
49	SP	Snowmound Spirea	<i>Spiraea nipponica 'Snowmound'</i>	5 gal.	full, 24" sprd, 36" o.c.	5' ht x 8' w	2-3 years	
144	TOTAL DECIDUOUS SHRUBS							
EVERGREEN SHRUBS								
52	PA	Panchito manzanita	<i>Arctostaphylos x coloradensis 'Panchito'</i>	5 gal.	full, 24" sprd, 36" o.c.	2.5' ht x 5' w	2-3 years	
20	PJ	Juniper Point Juniper	<i>Juniperus communis 'Compressa'</i>	5 gal.	full, 20" spread, 30" o.c.	3' ht x 2' w	10 years	
21	PM	Pine, Mugo, Teeny	<i>Pinus mugo 'Teeny'</i>	5 gal.	full, 20" sprd, 24" o.c.	2' ht x 3' w	5-10 years	
27	WB	Wichita Blue Juniper	<i>Juniperus scopulman 'Wichita Blue'</i>	5 gal.	full, 24" sprd, 42" o.c.	15' ht x 6' w	8-10 years	
120	TOTAL EVERGREEN SHRUBS							
264	TOTAL SHRUBS							
ORNAMENTAL GRASSES								
115	FG	Fountain Grass	<i>Pennisetum orientale</i>	1 gal.	full, 18" o.c.	2' ht x 2' w	2 years	
26	MG	Maiden Grass, Gold Bar	<i>Miscanthus sinensis 'Gold Bar'</i>	5 gal.	full, 20" spread, 30" o.c.	4' ht x 3' w	2 years	
141	TOTAL ORNAMENTAL GRASSES							
PERENNIAL								
115	PP	Pikes Peak Purple Penstemon	<i>Penstemon x mexicali 'Pikes Peak Purple'</i>	1 gal.	full, 12" o.c.	1' ht x 1' w	2 years	
EVERGREEN GROUND COVER								
230	BCJ	Blue Chip Juniper	<i>Juniperus horizontalis 'Blue Chip'</i>	1 gal.	full, 18" o.c.	1' ht x 8' w	5-10 years	
345	TOTAL PERENNIAL AND EVERGREEN GROUND COVER							
486	TOTAL ORNAMENTAL GRASSES, PERENNIALS, EVERGREEN GROUND COVER							
GROUND COVER								
Colorado Blue Grass Sod								
1 1/2" Colorado Rose Rock								

Plant list is an aid to bidders only. Contractor shall verify all quantities on plan. All heights and spreads are minimums. Trees shall have a strong central leader and be of matching specimens. All plant material shall meet or exceed remarks as indicated.

A. INTERNAL LANDSCAPING

NET SITE AREA	LANDSCAPE AREA			% LIVE COVER		
	REQUIRED (25%)	PROVIDED	SURPLUS/DEFICIT	REQUIRED (75%)	PROVIDED	SURPLUS/DEFICIT
23653 S.F.	3913	10,580	6,667	2661	9039	6378

INTERNAL SITE AREA (S.F.)	TREE REQUIREMENT 1/1500 S.F.			SHRUB REQUIREMENT 5/1500 S.F.			TREE EQUIVALENT CALCULATION		
	REQUIRED	PROVIDED	SURPLUS/DEFICIT	REQUIRED	PROVIDED	SURPLUS/DEFICIT	SHRUBS AVAILABLE FOR TREE EQUIVALENTS	TOTAL EQUIVALENT TREES	TOTAL TREE AND TREE EQUIVALENTS PROVIDED
3913	3	3	0	13	81	68	68	6.8	9.8

B. STREETScape LANDSCAPE

LOCATION	LENGTH	TREE REQUIREMENT 1/40 L.F.			TREE EQUIVALENT CALCULATION		
		REQUIRED	PROVIDED				



Know what's Below. Call before you dig.
 THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE MANNER ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK AND ACCEPT FULL RESPONSIBILITY FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCURRED BY THE CONTRACTOR'S FAILURE TO LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NOTICE
 CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. NEITHER THE OWNER NOR THE ENGINEER SHALL BE HELD RESPONSIBLE FOR ANY ACCIDENTS OR INJURIES THAT MAY OCCUR ON THE WORK OF ANY NEARBY STRUCTURE, OR OF ANY OTHER PERSONS.
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24 HOUR EMERGENCY CONTACT

ATWELL
 866.850.4200 www.atwell-group.com
 9001 AIRPORT FREEWAY, SUITE 660
 NORTH RICHLAND HILLS, TX 76180
 972.656.8680

LOT 1A PARKER POINTE SUBD. FILING NO. 1. AMEND. NO. 1
 S. PARKER RD & STROH RD
 PARKER
 DOUGLAS COUNTY, COLORADO

BLACK ROCK COFFEE BAR
 13135 DECLAN DRIVE
 IRRIGATION PLAN

DATE 2025-02-24

REVISIONS

DRAWN BY: K. SARWAR
 CHECKED BY: N. SALAZAR
 PROJECT MANAGER: N. SALAZAR
 JOB #: 24003198
 FILE CODE: ##
 SHEET NO. L2.01

SLEEVING NOTES

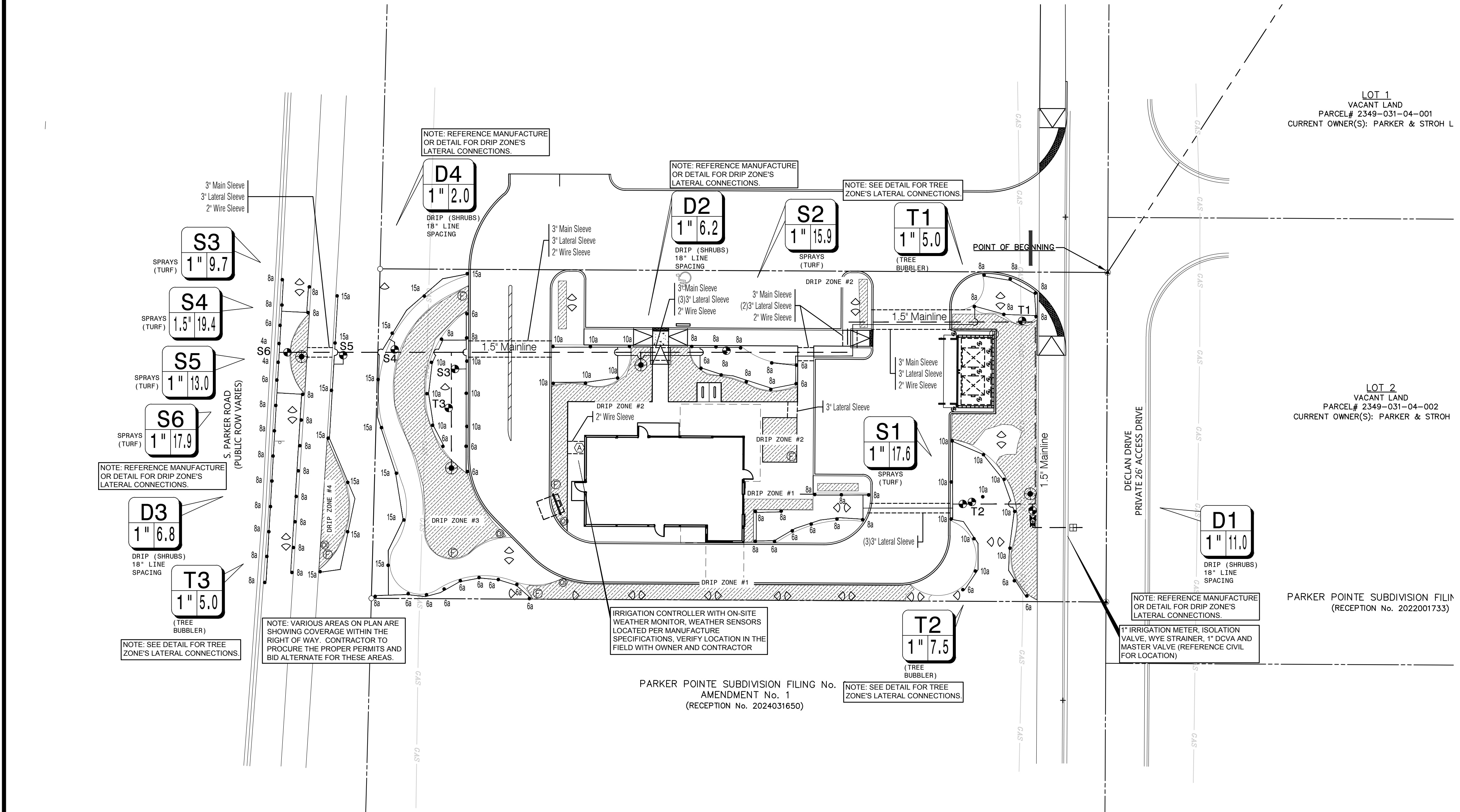
1. PIPING AND CONTROL WIRES SHALL BE INSTALLED IN SEPARATE SLEEVES UNDER PAVING. REFERENCE DRAWINGS FOR SLEEVE SIZE AND LOCATION.
2. SLEEVES SHALL BE FURNISHED AND INSTALLED BY GENERAL CONTRACTOR.
3. INSTALLATION OF SLEEVES SHALL BE TWENTY (20) FEET BELOW TOP OF PAVEMENT OR FINISHED GRADE.
4. SLEEVES SHALL EXTEND ONE (1) FOOT BEYOND EDGE OF ALL PAVEMENT AND STAKED FOR LOCATION.
5. ALL SLEEVES SHALL BE SCHEDULE 40 PVC PIPE, CAPPED ON BOTH ENDS AND SIZED AT LEAST TWO TIMES LARGER THAN THE DIAMETER OF THE PIPE INSIDE THE SLEEVE.
6. SLEEVE LOCATIONS SHALL BE MARKED ON THE CURB WITH A SAWCUT OF TWO PARALLEL LINES THAT ARE TWO (2) INCHES LONG AND ONE (1) INCH APART.
7. CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION OF SLEEVES AND SHALL ALSO BE RESPONSIBLE FOR LOCATING ANY SLEEVE THAT CANNOT BE FOUND DURING THE INSTALLATION OF THE SYSTEM.
8. CONTRACTOR SHALL FURNISH OWNER AND IRRIGATION CONTRACTOR WITH AN AS-BUILT DRAWING SHOWING ALL SLEEVE LOCATIONS.

IRRIGATION GENERAL NOTES

1. THE IRRIGATION CONTRACTOR SHALL COORDINATE INSTALLATION OF THE IRRIGATION SYSTEM WITH THE LANDSCAPE CONTRACTOR SO THAT ALL PLANT MATERIAL WILL BE WATERED IN ACCORDANCE WITH THE INTENT OF THE PLANS AND SPECIFICATIONS.
2. THE CONTRACTOR SHALL BE RESPONSIBLE TO NOTIFY THE IRRIGATION DESIGNER OF SITE CONDITIONS OR ASSUME FULL RESPONSIBILITY FOR ANY AND ALL ON SITE REVISIONS NECESSARY.
3. CONTRACTOR TO VERIFY DESIGN AND ITS INTENT TO PROVIDE FULL COVERAGE TO ALL UTILITIES AND SITE LIGHTING CONDUITS BEFORE IRRIGATION INSTALLATION BEGINS.
4. IRRIGATION CONTRACTOR TO PROCURE ALL PERMITS, LICENSES AND GIVE ALL NECESSARY NOTICES THROUGHOUT THE DURATION OF THE PROJECT.
5. THE CONTRACTOR SHALL BE A REGISTERED LICENSED IRRIGATOR IN TEXAS AND SHALL COMPLY WITH ALL STATE BOARDS AND ORDINANCES.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY AND ALL PLANT MATERIAL UPON ACCEPTANCE AND THROUGH THE WARRANTY PERIOD FOR DAMAGE DUE TO IRRIGATION SYSTEM FAILURE.
7. ALL ASPECTS OF THE IRRIGATION INSTALLATION SHALL CONFORM WITH THE PROPER GOVERNING AUTHORITIES, CODES AND ORDINANCES.
8. SLEEVES SHALL BE FURNISHED AND INSTALLED BY GENERAL CONTRACTOR. SLEEVE MATERIAL SHALL BE SCHEDULE 40, SIZE AS INDICATED ON PLAN. REFER TO SLEEVING NOTES.
9. ALL MAIN LINE AND LATERAL LINE PIPING IN PLANTING AND LAWN AREAS SHALL HAVE A MINIMUM OF 12 INCHES OF COVER. ALL PIPING UNDER PAVING SHALL HAVE A MINIMUM OF 18 INCHES OF COVER. CONTRACTOR TO VERIFY LOCAL FREEZE DEPTHS AND ADJUST DEPTH OF COVER ACCORDINGLY.
10. ZONE VALVES SHALL NOT BE LOCATED WITHIN THREE (3) FEET OF ANY DRIVEWAY, TRAFFIC AISLE, ISLAND ETC. WHERE THEY WILL BE DAMAGED BY VEHICLES DRIVING OVER CURBS.
11. ALL NOZZLES IN PARKING LOT ISLANDS AND PLANTING BEDS SHALL BE LOW ANGLE NOZZLES TO MINIMIZE OVER SPRAY ON PAVEMENT SURFACES.
12. AUTOMATIC CONTROLLER SHALL BE INSTALLED AT LOCATION SHOWN. POWER (120V) SHALL BE LOCATED IN A JUNCTION BOX WITHIN FIVE (5) FEET OF CONTROLLER. LOCATION BY OTHER TRADES. RAIN AND FREEZE SENSORS SHALL BE INSTALLED WITH EACH CONTROLLER.
13. ELECTRICAL SPLICES SHOULD BE LOCATED AT EACH VALVE AND CONTROLLER ONLY.
14. PROVIDE A 3/4" BLOW DOWN DRAIN TEE TO ALLOW WATER TO BE BLOWN FROM THE IRRIGATION LINES SYSTEM.
15. DISTURBED AREAS IN NEED OF TURF ESTABLISHMENT MAY EXIST BEYOND COVERAGE LIMITS OF THE PERMANENT IRRIGATION SYSTEM. IN THESE AREAS, CONTRACTOR TO DETERMINE A TEMPORARY MEANS TO ESTABLISH NECESSARY TURF. CONTRACTOR IS ENCOURAGED TO BEGINS TURF ESTABLISHMENT IMMEDIATELY UPON FINAL GRADE IN ACCORDANCE WITH AND TO SATISFY SWPPP.
16. PROVIDE WITH OWNER A COPY OF ALL INSTALLED EQUIPMENT AND LINES (AS BUILT PLANS).
17. PLACE COPY OF ZONE MAP WITH ALL ZONE VALVE LOCATIONS SHOWN AND APPROVED IRRIGATION PLAN IN PROTECTIVE JACKET IN MAIN CONTROL PANEL.

IRRIGATION PROJECT NOTES

1. THE LOCATION OF MAINLINE AND VALVES ON THIS PLAN MAY BE SHOWN IN PAVED AREAS FOR DESIGN CLARITY ONLY. IRRIGATION ELEMENTS HAVE BEEN SHOWN ON THIS PLAN AS ACCURATELY AS POSSIBLE WITHOUT THE FORFEIT OF DESIGN CLARITY AND INTENT. ALL PIPES AND VALVES SHALL BE INSTALLED WITHIN PERVIOUS AREAS. ALL PIPE AND WIRES THAT CROSS UNDER PAVING SHALL BE INSTALLED IN SEPARATE SLEEVES AS SPECIFIED.
2. ALL SPRINKLER EQUIPMENT NUMBERS REFERENCE THE HUNTER EQUIPMENT CATALOG UNLESS OTHERWISE INDICATED.
3. TEN DAYS PRIOR TO START OF CONSTRUCTION, IRRIGATION CONTRACTOR SHALL VERIFY STATIC WATER PRESSURE. THE IRRIGATION SYSTEM FOR THIS SITE IS DESIGNED TO OPERATE WITH A PRESSURE OF SIXTY FIVE (65 PSI) POUNDS PER SQUARE INCH. SHOULD THE DESIGN PRESSURE FOR THE SYSTEM BE HIGHER THAN THE EXISTING PRESSURE, THE IRRIGATION CONTRACTOR SHALL NOTIFY THE IRRIGATION DESIGNER IMMEDIATELY.
4. IRRIGATION CONTRACTOR SHALL COORDINATE THE LOCATION OF THE CONTROLLER AND SENSORS WITH THE GENERAL CONTRACTOR AND OWNER. A 110 VOLT ELECTRICAL SERVICE TO POWER THE IRRIGATION CONTROLLER SHALL BE PROVIDED BY THE GENERAL CONTRACTOR AT THE LOCATION SHOWN ON THIS PLAN.
5. WATER SERVICE TAP, METER AND LEAD FOR THE IRRIGATION SYSTEM SHALL BE PROVIDED AND INSTALLED BY THE GENERAL CONTRACTOR. SERVICE LINE AND METER SHALL BE SIZED AS NOTED ON THIS PLAN.
6. TYPE AND INSTALLATION OF THE WATER METER AND BACK FLOW PREVENTION DEVICE SHALL BE DETERMINED BY THE GOVERNING AUTHORITY. AN ISOLATION VALVE SHALL BE PROVIDED BETWEEN THE WATER METER AND BACK FLOW DEVICE.
7. ALL CALCULATIONS FOR THE IRRIGATION SYSTEM ARE BASED ON PRODUCTS AND EQUIPMENT INFORMATION PROVIDED BY HUNTER. INSTALLATION OF THE PRODUCTS SHALL NOT EXCEED MANUFACTURERS RECOMMENDATIONS.
8. REFERENCE HUNTER GUIDELINES AND SPECIFICATIONS PRIOR TO INSTALLATION. CONFIRM REQUIREMENTS FOR CONTROLLER, WATERPROOF CONNECTIONS, GROUNDING, SURGE PROTECTORS, DECODERS, VALVES AND WIRING PRIOR TO INSTALLATION. HUNTER TECHNICAL SERVICES (760) 591-7383. WWW.HUNTERINDUSTRIES.COM
9. SPRAY HEADS LOCATED IN TURF AREAS SHALL BE HUNTER PROS-04-PRS30 SPRAY BODIES WITH PRO ADJUSTABLE NOZZLES, FIXED ARC NOZZLES, AND STRIP PATTERN NOZZLES. SEE RADIUS AS INDICATED ON THE PLAN.
10. IRRIGATION REMOTE CONTROL VALVES SHALL BE 1" AND/OR 1.5" HUNTER ICZ AS INDICATED. PRIOR TO ALL REMOTE CONTROL VALVES, INSTALL A NOMINALLY SIZED BALL VALVE WITHIN THE SAME BOX.
11. SIZE OF VALVES ARE AS SHOWN ON PLAN. VALVES SHALL BE INSTALLED IN APPROVED BOXES WITH COVERS LARGE ENOUGH TO PERMIT MANUAL OPERATION, REMOVAL OF SOLENOID AND / OR VALVE COVER WITHOUT ANY EARTH EXCAVATION. OWNERS MAY EJECT LOCKING BOXES ON A PROJECT BY PROJECT BASIS.
12. QUICK COUPLING VALVES SHALL BE HUNTER INSTALLED PER DETAIL SHOWN. SWING JOINTS SHALL BE CONSTRUCTED USING 1/2" SCHEDULE 80 ELBOWS. CONTRACTOR SHALL SUPPLY OWNER WITH TWO (2) HD-3HC COUPLERS WITH (2) HK-33 KEYS AND TWO (2) HS-0 HOSE SWIVELS AS PART OF THIS CONTRACT.
13. IRRIGATION SYSTEM AUTOMATIC CONTROLLER SHALL BE HUNTER PRO-C WITH RAIN AND FREEZE SENSORS. INSTALL PER MANUFACTURERS RECOMMENDATIONS. CONFIRM WIRING, GROUNDING AND SURGE PROTECTION REQUIREMENTS BEFORE INSTALLING.
14. DRIP IRRIGATION REMOTE CONTROL VALVES SHALL BE HUNTER ICZ-101-LF-40 AS INDICATED. DRIP TUBING SHALL BE HUNTER HDL-06-12-CV.
15. INSTALL DRIP TUBING/LINES PER MANUFACTURERS RECOMMENDATIONS. USE PLD-LOC FITTINGS PLD-LOC-075, PLD-LOC-050, PLD-LOC-ELB, PLD-LOC-CPL, PLD-LOC-CAP, PLD-LOC-TEE, PLD-LOC OR USE FHS BARB FITTINGS PLD-075, PLD-050, PLD-ELB, PLD-CPL, PLD-CAP, PLD-TEE, PLD-075-TBTEE, PLD-BV. USE ECO-INDICATOR ECO-ID. USE LINE FLUSHING VALVE HUNTER AFV-B.
16. DRIP TUBING SHALL BE SPACED 18" APART IN SHRUB AREAS. REFER TO MANUFACTURERS RECOMMENDATIONS.
17. TREE BUBBLERS SHALL USE HUNTER PROS-06-PRS30 BODIES WITH HUNTER MULTI-STREAM BUBBLERS MODEL MSB-N-50H NOZZLES.
18. ALL VALVE CONTROL WIRE SHALL BE SIZED PER MANUFACTURER GUIDELINES BY THE CONTRACTOR ACCORDING TO THE ACTUAL FIELD DISTANCE. ALL CONNECTIONS SHALL BE WATERPROOF, KEPT TO A MINIMUM, AND LOCATED IN AN APPROVED BOX.



PARKER POINTE SUBDIVISION FILING NO. 1
 AMENDMENT NO. 1
 (RECEPTION NO. 2024031650)

PARKER POINTE SUBDIVISION FILING
 (RECEPTION NO. 202201733)

IRRIGATION LEGEND

SYMBOL	DESCRIPTION	MANUFACTURER	MODEL NO.
10a	SPRAYS WITH PRO ADJ. NOZZLES	HUNTER	PROS-04-PRS30 (SEE PLAN FOR RADIUS)
R20	NOT SHOWN		
25a	NOT SHOWN		
10b	MULTI-STREAM BUBBLERS	HUNTER	PROS-06-PRS30 W/ MSB50H NOZZLES
10c	REMOTE CONTROL VALVE	HUNTER	ICV
10d	1" DOUBLE CHECK ASSEMBLY	FEBCO	850 SERIES
10e	HDL DRIPLINE	HUNTER	HDL-06-12-CV
10f	LINE FLUSHING VALVE	HUNTER	AFV-B
10g	PRESSURE OPERATOR INDICATOR	HUNTER	ECO-ID
10h	DRIP CONTROL VALVE	HUNTER	ICZ-101-LF-40

IRRIGATION LEGEND

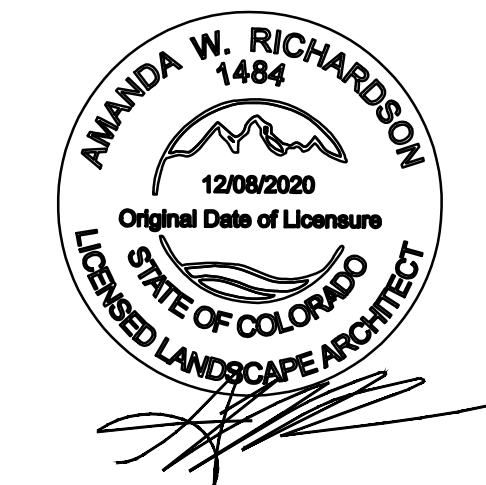
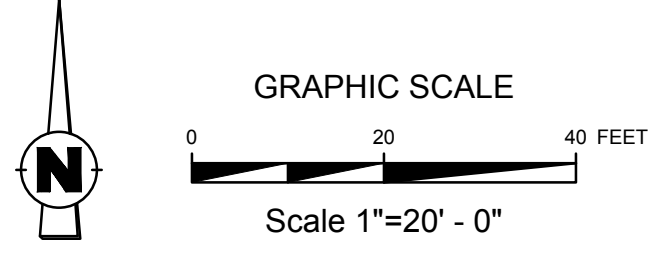
SYMBOL	DESCRIPTION
10i	1" IRRIGATION METER
10j	HUNTER - PRO-C CONTROLLER WITH RAIN AND FREEZE SENSORS
10k	ISOLATION VALVE
10l	LATERAL PIPING REFER TO PLAN CLASS 200 PVC
10m	MAINLINE PIPING REFER TO PLAN SCH. 40 PVC, SIZED AS SHOWN (INSTALL THRUST BLOCKS AND AIR/VACUUM RELIEF VALVES AS NECESSARY TO PROTECT MAINLINE SYSTEM)
10n	IRRIGATION SLEEVE, SCH. 40 PVC, MIN. TWICE SIZE OF PIPE TO BE INSERTED, ONE SLEEVE PER PIPE
10o	CONTROL WIRING SLEEVE, 2" SCH. 40 PVC
D1	VALVE STATION # (WHERE D = DRIP TUBING, S = SPRAY, R = ROTOR, T = TREE DRIP)
1"	VALVE SIZE
8.8	GPM

NOTE:
 1. ENTIRE SYSTEM SHALL BE INSTALLED PER STATE STANDARDS, MANUFACTURERS SPECIFICATIONS AND ALL CITY CODES.
 2. THIS DESIGN IS DIAGRAMMATIC. ALL PIPING, VALVES, AND OTHER EQUIPMENT SHOWN WITHIN PAVED AREAS OR OUT OF PROPERTY BOUNDARIES ARE FOR DESIGN CLARIFICATION ONLY, AND SHALL BE INSTALLED IN PLANTING AREAS WITHIN THE PROPERTY LINES OR LIMITS INDICATED ON PLAN. THE IRRIGATION CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL ABOVE GROUND IRRIGATION EQUIPMENT WITH THE OWNERS AUTHORIZED REPRESENTATIVE PRIOR TO INSTALLATION. OR IRRIGATION CONTRACTOR MAY BE REQUIRED TO MOVE SUCH ITEMS AT HIS OWN COST.
 3. VARIOUS AREAS ON PLAN ARE SHOWING SINGLE HEAD COVERAGE. IF OWNER SHOULD ELECT FOR FULL COVERAGE, CONTRACTOR TO PROCURE THE PROPER PERMITS AND BID ALTERNATE FOR THESE ADDITIONAL SPRAY HEADS, ZONES, AND CONTROLLER EXPANSION FOR THE SYSTEM.
 4. IRRIGATION CONTRACTOR IS TO COORDINATE LOCATION AND PLACEMENT OF ALL IRRIGATION ITEMS WITH THE GENERAL CONTRACTOR. CONTRACTOR IS TO USE EXTREME CAUTION IN TRENCHING TO AVOID EXISTING AND PROPOSED UTILITIES. CONTRACTOR TO LOCATE ALL UTILITIES PRIOR TO IRRIGATION INSTALLATION.
 5. IRRIGATION SPRAY NOZZLES TO BE ADJUSTED TO AVOID PAVEMENT, BUILDING, WALLS, FENCES, UTILITIES, EQUIPMENT, SIGNAGE, AND CALL BOX.
 6. REFERENCE LANDSCAPE PLAN FOR LOCATION OF GRAVEL, STEEL EDGING AND ALL PROPOSED PLANT MATERIAL.
 7. IN TURF AREAS (BOTH SOO AND HYDROMULCH AREAS) OUTSIDE OF IRRIGATION PERMANENT COVERAGE, CONTRACTOR TO PROVIDE TEMPORARY IRRIGATION UNTIL ESTABLISHED, TYP.
 8. CONTRACTOR TO TAKE ALL NECESSARY MEASURES TO PREVENT WATER HAMMER AND SYSTEM COLLAPSE BY DISCHARGING AIR DURING STARTUP AND ALLOWING AIR TO ENTER DURING SHUTDOWN. INSTALL THRUST BLOCKS AND AIR/VACUUM RELIEF VALVES AS NECESSARY TO PROTECT MAINLINE SYSTEM. FOR 3 INCH AND LARGER MAINLINE, INSTALL JOINT RESTRAINTS AT TURNS. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.
 9. ALL MAINLINE PIPING 3 INCHES AND LARGER SHALL BE BELL AND GASKETED CLASS 200 PVC PIPE. SOR 21. INSTALL PER MANUFACTURERS RECOMMENDATIONS. CONTACT MANUFACTURE OR DISTRIBUTOR FOR PRODUCT DEMONSTRATION.
 10. GROUP VALVES IN FIELD AS NECESSARY FOR MAINLINE SIZING. CENTER FEED LATERALS WHEN POSSIBLE.

NOTE TO CONTRACTOR:
 1. PLAN SHEETS DO NOT SHOW EXISTING AND PROPOSED UTILITIES FOR CLARITY ONLY. CONTRACTOR TO LOCATE ALL UTILITIES PRIOR TO INSTALLATION. CONTRACTOR IS TO USE EXTREME CAUTION IN DIGGING AND TRENCHING TO AVOID EXISTING AND PROPOSED UTILITIES.

SUGGESTED LATERAL PIPE SIZE, CLASS 200 PVC

FLOW RANGE GPM	PIPE SIZE
0 - 8 GPM	3/4"
8 - 12 GPM	1"
12 - 22 GPM	1-1/4"
22 - 28 GPM	1-1/2"
28 + GPM	2"



CALL UTILITY NOTIFICATION
 CENTER OF COLORADO
 1-800-922-1987
 CALL 2-BUSINESS DAYS IN ADVANCE
 BEFORE YOU DIG, GRADE, OR EXCAVATE
 FOR THE MARKING OF UNDERGROUND
 MEMBER UTILITIES.

THE TOWN OF PARKER REVIEW CONSTITUTES GENERAL COMPLIANCE WITH THE TOWN'S STANDARDS AND APPROVED VARIANCES. SUBJECT TO THESE PLANS BEING STAMPED, SIGNED AND DATED BY THE PROFESSIONAL ENGINEER OF RECORD. REVIEW BY THE TOWN DOES NOT CONSTITUTE APPROVAL OF THE PLAN DESIGN OR ACCURACY AND CORRECTNESS OF ENGINEERING CALCULATIONS. ERRORS IN THE DESIGN OR CALCULATIONS REMAIN THE RESPONSIBILITY OF THE REGISTERED PROFESSIONAL ENGINEER WHOSE STAMP AND SIGNATURE ARE AFFIXED TO THIS DOCUMENT.

THIS REVIEW DOES NOT CONSTITUTE APPROVAL OF ANY PRIVATE ON-SITE IMPROVEMENTS WHICH MAY BE SHOWN. CONSTRUCTION CANNOT COMMENCE UNTIL ALL REQUIRED DRAINAGE/TRAFFIC REPORT(S), FINAL DEVELOPMENT PLANS(S), SPECIAL REVIEWS(S), GRADING PERMIT, AND/OR OTHER PERMITS ARE COMPLETE APPROVED AND ON FILE WITH THE TOWN OF PARKER.

TOWN OF PARKER, DIRECTOR ENGINEERING DATE

SECTION 32 8423 - UNDERGROUND IRRIGATION SLEEVES AND UTILITY CONDUITS

PART 1 - GENERAL

- 1.1 DESCRIPTION
 - A. PROVIDE UNDERGROUND IRRIGATION SLEEVES AS INDICATED ON THE DRAWINGS.
- 1.2 RELATED WORK
 - A. SECTION 32 8424 - IRRIGATION SYSTEM.
- 1.3 REFERENCE STANDARDS
 - A. AMERICAN STANDARD FOR TESTING AND MATERIALS (ASTM) - LATEST EDITION.

PART 2 - MATERIALS

- 2.1 GENERAL
 - A. POLYVINYL CHLORIDE PIPE (PVC) - SCHEDULE 40 SHALL BE USED FOR ALL SLEEVING PURPOSES.
 - B. PVC PIPES SHALL BE MARKED WITH SDR NUMBER, ASTM STANDARD NUMBER, AND THE NSF SEAL.
 - C. SOLVENT SHALL BE USED AS RECOMMENDED BY MANUFACTURER TO MAKE SOLVENT WELDED JOINTS. PIPE AND FITTINGS SHOULD BE CLEANED BEFORE APPLYING SOLVENT.

PART 3 - EXECUTION

- 3.1 INSTALLATION
 - A. A MINIMUM OF TWENTY FOUR (24) INCHES COVER SHALL BE PROVIDED OVER THE TOP OF SLEEVE FROM FINISH GRADE.
 - B. SLEEVES SHALL BE EXTENDED ONE (1) FOOT PAST THE EDGE OF PAVEMENT OF WALLS. INSTALL A NINETY DEGREE ELBOW ON EACH SLEEVE AND ADD ADDITIONAL LENGTH TO EXTEND ABOVE FINISH GRADE BY TWELVE (12) INCHES. CAP PIPE ENDS.
- 3.2 BACKFILL
 - A. BACKFILL SHALL BE PLACED OVER SLEEVES IN SIX (6) INCH LIFTS. SOIL SHALL BE TAMPED INTO PLACE, TAKING CARE TO NOT DAMAGE SLEEVE.
 - B. REPAIR ANY DAMAGE FROM IMPROPER COMPACTION.

END OF SECTION

SECTION 32 8424 - IRRIGATION SYSTEM

PART 1 - GENERAL

- 1.1 DESCRIPTION
 - A. PROVIDE A COMPLETE IRRIGATION SYSTEM INSTALLATION AS DETAILED AND SPECIFIED. THIS SHALL INCLUDE FURNISHING ALL LABOR, MATERIAL, EQUIPMENT AND SERVICES NECESSARY TO PROVIDE COMPLETE INSTALLATION. WORK INCLUDES:
 - a. TRENCHING
 - b. BACKFILL
 - c. AUTOMATIC CONTROLLED SYSTEM
 - d. AS BUILT DRAWINGS
 - B. SLEEVING AS SHOWN SHALL BE FURNISHED BY THE GENERAL CONTRACTOR.
 - C. METER AND POWER SHALL BE PROVIDED BY THE GENERAL CONTRACTOR.

1.2 RELATED WORK

- C. REFERENCE IRRIGATION PLANS FOR CONTROLLER, HEAD AND ALL VALVE LOCATIONS.
- D. REFERENCE LANDSCAPE PLANS, NOTES, DETAILS FOR ADDITIONAL REQUIREMENTS.

E. SECTION 32 9300 - LANDSCAPE

F. SECTION 32-8423 - UNDERGROUND IRRIGATION SLEEVE AND UTILITY CONDUITS

- 1.3 REFERENCE STANDARDS
 - A. AMERICAN STANDARD FOR TESTING AND MATERIALS (ASTM) - LATEST EDITION.
- 1.4 QUALITY ASSURANCE AND REQUIREMENTS
 - A. PERMITS AND FEES: THE CONTRACTOR SHALL OBTAIN AND PAY FOR ANY PERMITS NECESSARY AND ALL OBSERVATIONS AS REQUIRED.
 - B. MANUFACTURER'S DIRECTIONS: MANUFACTURER'S DIRECTIONS AND DETAILED DRAWINGS SHALL BE FOLLOWED IN ALL CASES WHERE THE MANUFACTURER'S ARTICLES USED IN THIS CONTRACT FURNISH DIRECTIONS COVERING POINTS NOT SHOWN IN THE DRAWINGS AND SPECIFICATIONS.
 - C. ORDINANCES, CODES, AND REGULATIONS: ALL LOCAL, MUNICIPAL AND STATE LAWS, AND RULES AND REGULATIONS GOVERNING OR RELATING TO ANY PORTION OF THIS WORK ARE HEREBY INCORPORATED INTO AND MADE A PART OF THESE SPECIFICATIONS, AND THEIR PROVISIONS SHALL BE CARRIED OUT BY THE CONTRACTOR. ANYTHING CONTAINED IN THESE SPECIFICATIONS SHALL NOT BE CONSTRUED TO CONFLICT WITH ANY OF THE ABOVE RULES AND REGULATIONS AND REQUIREMENTS OF THE SAME.
 - D. DESCRIBE, WHEN THESE SPECIFICATIONS OR DRAWINGS CALL FOR OR DESCRIBE MATERIALS, WORKMANSHIP, OR CONSTRUCTION OF A BETTER QUALITY, HIGHER STANDARD OR LARGER SIZE THAN IS REQUIRED BY THE ABOVE RULES AND REGULATIONS, THESE SPECIFICATIONS AND DRAWINGS SHALL TAKE PRECEDENCE.
- 1.5 SCHEDULE OF MATERIALS
 - A. MATERIALS LIST:
 - a. ALL EQUIPMENT MANUFACTURERS AND MODEL NUMBERS SHALL BE AS NOTED ON THE PLANS.
 - b. THE CONTRACTOR SHALL FURNISH THE ARTICLES, EQUIPMENT, MATERIALS, OR PROCESSES SPECIFIED BY NAME IN THE DRAWINGS AND SPECIFICATIONS. NO SUBSTITUTION WILL BE ALLOWED WITHOUT PRIOR WRITTEN APPROVAL OF THE LANDSCAPE ARCHITECT.
 - c. A COMPLETE MATERIAL LIST OF EQUIPMENT SHALL BE SUBMITTED BEFORE PERFORMING ANY WORK. SUBMITTAL SHOULD INCLUDE ALL MANUFACTURER'S SPECIFICATIONS AND LITERATURE FOR APPROVAL BY THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
 - d. EQUIPMENT OR MATERIALS INSTALLED OR FURNISHED WITHOUT PRIOR APPROVAL OF THE LANDSCAPE ARCHITECT MAY BE REJECTED.
 - e. APPROVAL OF ANY ITEM, ALTERNATE OR SUBSTITUTE INDICATES ONLY THAT THE PRODUCT OR PRODUCTS APPARENTLY MEET THE REQUIREMENTS OF THE DRAWINGS AND SPECIFICATIONS ON THE BASIS OF THE INFORMATION OR SAMPLES SUBMITTED.
 - f. MANUFACTURER'S WARRANTIES SHALL NOT RELIEVE THE CONTRACTOR OF HIS LIABILITY UNDER THE GUARANTEE. SUCH WARRANTIES SHALL ONLY SUPPLEMENT THE GUARANTEE.

2.1 MATERIALS

- B. REFER TO CONSTRUCTION DRAWINGS AND NOTES.
- C. SPRINKLER HEADS IN LAWN AREAS AS SPECIFIED ON PLAN.
- D. PVC PIPE: CLASS 200 SPR 21
- E. COPPER TUBING (FOR CITY CONNECTIONS): TYPE "M"
- F. 24V WIRE - SIZE 14, TYPE UF
- G. ELECTRIC VALVES TO BE ALL PLASTIC CONSTRUCTION AS INDICATED ON PLANS.
- H. REFER TO DRAWING FOR BACKFLOW PREVENTION LOCATION - COORDINATE EXACT LOCATION WITH THE GENERAL CONTRACTOR.

2.2 MATERIALS

- B. REFER TO CONSTRUCTION DRAWINGS AND NOTES.
- C. SPRINKLER HEADS IN LAWN AREAS AS SPECIFIED ON PLAN.
- D. PVC PIPE: CLASS 200 SPR 21
- E. COPPER TUBING (FOR CITY CONNECTIONS): TYPE "M"
- F. 24V WIRE - SIZE 14, TYPE UF
- G. ELECTRIC VALVES TO BE ALL PLASTIC CONSTRUCTION AS INDICATED ON PLANS.
- H. REFER TO DRAWING FOR BACKFLOW PREVENTION LOCATION - COORDINATE EXACT LOCATION WITH THE GENERAL CONTRACTOR.

3.1 INSTALLATION

- A. CONTRACTOR SHALL PROVIDE AND KEEP UP TO DATE AND COMPLETE "AS-BUILT" RECORD SET OF PRINTS.
- B. CONTRACTOR SHOULD USE ALL SYMBOLS AND NOTATIONS CONSISTENT WITH THE ORIGINAL DRAWINGS.
- C. IN "AS-BUILT" DRAWINGS, CONTRACTOR SHALL LOCATE:
 - a. CONNECTION TO EXISTING WATER LINES
 - b. CONNECTION TO ELECTRICAL POWER
 - c. GATE VALVES
 - d. ROUTING OF SPRINKLER PRESSURE LINES

3.2 RELATED WORK

- C. REFERENCE IRRIGATION PLANS FOR CONTROLLER, HEAD AND ALL VALVE LOCATIONS.
- D. REFERENCE LANDSCAPE PLANS, NOTES, DETAILS FOR ADDITIONAL REQUIREMENTS.

e. SPRINKLER CONTROL VALVES

- f. QUICK COUPLING VALVES
- g. OTHER RELATED EQUIPMENT
- D. SUBMIT COMPLETED TRACINGS PRIOR TO FINAL ACCEPTANCE. DATE AND SIGN ALL DRAWINGS.
- E. EQUIPMENT TO BE FURNISHED:
 - i. SUPPLY AS PART OF THIS CONTRACT THE FOLLOWING TOOLS:
 - a. QUICK COUPLING KEYS, THREE (3) WITH BOILER DRAINS ATTACHED USING BRASS REDUCER.
 - ii. THREE (3) KEYS FOR EACH AUTOMATIC CONTROLLER
 - b. THE ABOVE MENTIONED EQUIPMENT SHALL BE TURNED OVER TO THE OWNER AT THE CONCLUSION OF THE PROJECT.
- F. THE IRRIGATION CONTRACTOR SHOULD DEMONSTRATE THAT THE FINAL INSTALLED SYSTEM WILL OPERATE ACCORDING TO THE INTENT OF THE DESIGNED AND SPECIFIED SYSTEM. IRRIGATION CONTRACTOR SHALL GUARANTEE 100% COVERAGE TO ALL AREAS TO BE IRRIGATED.

3.2 PREPARATION

- A. PHYSICAL LAYOUT:
 - a. PIPING AND HEAD LAYOUT AS SHOWN ON PLANS IS SCHEMATIC ONLY. ALL PIPES TO BE INSTALLED DIRECTLY BEHIND CURBS, WALKS AND WALLS WHEREVER POSSIBLE.
 - b. PRIOR TO INSTALLATION CONTRACTOR SHALL STAKE OUT ALL PRESSURE SUPPLY LINES, ROUTING AND LOCATION OF SPRINKLER HEADS.
 - c. ALL LAYOUTS SHALL BE APPROVED BY THE LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION.
- B. WATER SUPPLY:
 - a. IRRIGATION SYSTEM SHALL BE CONNECTED TO WATER SUPPLY POINTS OF CONNECTION AS INDICATED ON THE DRAWINGS.
 - b. CONNECTIONS SHOULD BE MADE AT APPROXIMATE LOCATIONS AS SHOWN ON DRAWINGS. CONTRACTOR SHALL VERIFY IN FIELD AND BE RESPONSIBLE FOR MINOR CHANGES CAUSED BY ACTUAL SITE CONDITIONS.

3.3 INSTALLATION

- A. TRENCHING
 - a. DIG TRENCHES STRAIGHT 6" WIDE WITH NEAR VERTICAL SIDE AND SUPPORT PIPE CONTINUOUSLY ON BOTTOM OF TRENCH. REMOVE LUMBER, RUBBISH, LARGE ROCKS ETC. FROM TRENCHES. LAY PIPE TO AN EVEN GRADE - WITH A FIRM, UNIFORM BEARING FOR ENTIRE LENGTH OF PIPE.
 - b. REMOVE FOREIGN MATTER OR DIRT FROM INSIDE OF PIPE BEFORE WELDING AND KEEP PIPING CLEAN BY ANY MEANS POSSIBLE DURING AND AFTER LAYING OF PIPE.
 - c. PROVIDE A MINIMUM OF EIGHTEEN (18) INCHES OF COVER FOR ALL PRESSURE SUPPLY LINES.
 - d. PROVIDE A MINIMUM OF TWELVE (12) INCHES OF COVER FOR ALL NON-PRESSURE LINES.
 - e. PROVIDE A MINIMUM COVER OF EIGHTEEN (18) INCHES FOR ALL CONTROL WIRING.
 - f. NO MACHINE TRENCHING, UNLESS APPROVED BY THE LANDSCAPE ARCHITECT, SHALL BE DONE WITHIN DRIP LINE OF EXISTING TREES. TRENCHING SHOULD BE DONE BY HAND, TUNNELING OR BORING OR OTHER METHODS APPROVED BY THE LANDSCAPE ARCHITECT. IT SHOULD BE UNDERSTOOD THAT PIPING LAYOUT IS DIAGRAMMATIC AND PIPING SHALL BE ROUTED AROUND TREES AND SHRUBS IN SUCH A MANNER TO AVOID DAMAGE TO PLANTS.
- B. BACKFILL
 - a. TRENCHES SHALL NOT BE BACKFILLED UNTIL ALL REQUIRED TESTS ARE PERFORMED. TRENCHES SHALL BE CAREFULLY BACKFILLED WITH THE EXCAVATED MATERIALS APPROVED FOR BACKFILLING, CONSISTING OF EARTH, LOAM, SANDY CLAY, SAND OR OTHER APPROVED MATERIALS, FREE FROM LARGE CLODS, STONES OR STICKS.
 - b. IF SETTLEMENT OCCURS AND SUBSEQUENT ADJUSTMENTS IN PIPE, VALVES, SPRINKLER HEADS, LAWN OR PLANTING OR OTHER

PART 2 - PRODUCTS

- 2.1 MATERIALS
 - B. REFER TO CONSTRUCTION DRAWINGS AND NOTES.
 - C. SPRINKLER HEADS IN LAWN AREAS AS SPECIFIED ON PLAN.
 - D. PVC PIPE: CLASS 200 SPR 21
 - E. COPPER TUBING (FOR CITY CONNECTIONS): TYPE "M"
 - F. 24V WIRE - SIZE 14, TYPE UF
 - G. ELECTRIC VALVES TO BE ALL PLASTIC CONSTRUCTION AS INDICATED ON PLANS.
 - H. REFER TO DRAWING FOR BACKFLOW PREVENTION LOCATION - COORDINATE EXACT LOCATION WITH THE GENERAL CONTRACTOR.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. SITE CONDITIONS:
 - a. ALL SCALED DIMENSIONS ARE APPROXIMATE. THE CONTRACTOR SHALL CHECK AND VERIFY ALL SIZE DIMENSIONS.
 - b. EXERCISE EXTREME CARE IN EXCAVATING AND WORKING NEAR UTILITIES. CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGES TO UTILITIES WHICH ARE CAUSED BY ANY OF HIS OPERATIONS OR NEGLIGENCE.
 - c. COORDINATE INSTALLATION OF IRRIGATION MATERIALS, INCLUDING PIPE, SO THERE SHALL BE NO INTERFERENCE WITH UTILITIES OR OTHER CONSTRUCTION DIFFICULTY IN PLANTING TREES, SHRUBS, AND GROUNDCOVERS. COORDINATE WORK WITH OTHER SITE CONTRACTORS.
- 3.2 PREPARATION
 - A. PHYSICAL LAYOUT:
 - a. PIPING AND HEAD LAYOUT AS SHOWN ON PLANS IS SCHEMATIC ONLY. ALL PIPES TO BE INSTALLED DIRECTLY BEHIND CURBS, WALKS AND WALLS WHEREVER POSSIBLE.
 - b. PRIOR TO INSTALLATION CONTRACTOR SHALL STAKE OUT ALL PRESSURE SUPPLY LINES, ROUTING AND LOCATION OF SPRINKLER HEADS.
 - c. ALL LAYOUTS SHALL BE APPROVED BY THE LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION.
 - B. WATER SUPPLY:
 - a. IRRIGATION SYSTEM SHALL BE CONNECTED TO WATER SUPPLY POINTS OF CONNECTION AS INDICATED ON THE DRAWINGS.
 - b. CONNECTIONS SHOULD BE MADE AT APPROXIMATE LOCATIONS AS SHOWN ON DRAWINGS. CONTRACTOR SHALL VERIFY IN FIELD AND BE RESPONSIBLE FOR MINOR CHANGES CAUSED BY ACTUAL SITE CONDITIONS.

3.3 INSTALLATION

- A. TRENCHING
 - a. DIG TRENCHES STRAIGHT 6" WIDE WITH NEAR VERTICAL SIDE AND SUPPORT PIPE CONTINUOUSLY ON BOTTOM OF TRENCH. REMOVE LUMBER, RUBBISH, LARGE ROCKS ETC. FROM TRENCHES. LAY PIPE TO AN EVEN GRADE - WITH A FIRM, UNIFORM BEARING FOR ENTIRE LENGTH OF PIPE.
 - b. REMOVE FOREIGN MATTER OR DIRT FROM INSIDE OF PIPE BEFORE WELDING AND KEEP PIPING CLEAN BY ANY MEANS POSSIBLE DURING AND AFTER LAYING OF PIPE.
 - c. PROVIDE A MINIMUM OF EIGHTEEN (18) INCHES OF COVER FOR ALL PRESSURE SUPPLY LINES.
 - d. PROVIDE A MINIMUM OF TWELVE (12) INCHES OF COVER FOR ALL NON-PRESSURE LINES.
 - e. PROVIDE A MINIMUM COVER OF EIGHTEEN (18) INCHES FOR ALL CONTROL WIRING.
 - f. NO MACHINE TRENCHING, UNLESS APPROVED BY THE LANDSCAPE ARCHITECT, SHALL BE DONE WITHIN DRIP LINE OF EXISTING TREES. TRENCHING SHOULD BE DONE BY HAND, TUNNELING OR BORING OR OTHER METHODS APPROVED BY THE LANDSCAPE ARCHITECT. IT SHOULD BE UNDERSTOOD THAT PIPING LAYOUT IS DIAGRAMMATIC AND PIPING SHALL BE ROUTED AROUND TREES AND SHRUBS IN SUCH A MANNER TO AVOID DAMAGE TO PLANTS.
- B. BACKFILL
 - a. TRENCHES SHALL NOT BE BACKFILLED UNTIL ALL REQUIRED TESTS ARE PERFORMED. TRENCHES SHALL BE CAREFULLY BACKFILLED WITH THE EXCAVATED MATERIALS APPROVED FOR BACKFILLING, CONSISTING OF EARTH, LOAM, SANDY CLAY, SAND OR OTHER APPROVED MATERIALS, FREE FROM LARGE CLODS, STONES OR STICKS.
 - b. IF SETTLEMENT OCCURS AND SUBSEQUENT ADJUSTMENTS IN PIPE, VALVES, SPRINKLER HEADS, LAWN OR PLANTING OR OTHER

CONSTRUCTION ARE NECESSARY. THE CONTRACTOR SHALL MAKE ALL REQUIRED ADJUSTMENTS WITHOUT THE COST TO THE OWNER.

- C. TRENCHING AND BACKFILL UNDER PAVING:
 - a. ALL IRRIGATION MAIN LINE AND LATERAL LINES OR WIRING LOCATED UNDER AREAS WHERE PAVING, ASPHALT OR CONCRETE SHALL BE INSTALLED IN SCHEDULE 40 PVC SLEEVES OF ADEQUATE SIZE. SEE SECTION 32 8423.
- D. ASSEMBLIES
 - a. INSTALL ALL ASSEMBLIES SPECIFIED HEREIN IN ACCORDANCE WITH RESPECTIVE DETAILS. IN ABSENCE OF DETAIL DRAWINGS OR SPECIFICATIONS, PERFORM SUCH WORK IN ACCORDANCE WITH BEST STANDARD PRACTICES OR MANUFACTURER'S RECOMMENDATIONS AS APPROVED BY THE LANDSCAPE ARCHITECT.
 - b. MAKE SOLVENT WELDED JOINTS USING ONLY THE SOLVENT RECOMMENDED BY THE MANUFACTURER. PIPES AND FITTINGS SHOULD BE CLEANED OF ALL DIRT AND DUST AND MOISTENED BEFORE APPLYING SOLVENT.
 - c. ON PVC TO METAL CONNECTIONS, THE CONTRACTOR SHALL WORK METAL CONNECTIONS FIRST. USE NON-HARDENING PIPE DOPE OR TEFLON TAPE ON THREADED PVC ADAPTERS INTO WHICH PIPE MAY BE WELDED. LIGHT WRENCH PRESSURE IS ALL THAT IS REQUIRED. USE THREADED PVC ADAPTERS INTO WHICH THE PIPE MAY BE WELDED.
 - d. WIRE CLEARANCE: ALL LINES SHALL HAVE A MINIMUM CLEARANCE OF SIX (6) INCHES FROM EACH OTHER AND FROM OTHER TRADES. PARALLEL LINES SHALL NOT BE DIRECTLY INSTALLED ONE OVER THE OTHER.
 - e. WIRING: SUPPLY WIRE FROM THE AUTOMATIC CONTROLLER TO ALL THE VALVES. A SEPARATE WIRE IS REQUIRED TO EACH ELECTRIC VALVE. A COMMON NEUTRAL WIRE IS ALSO REQUIRED FROM EACH CONTROL TO EACH OF THE VALVES. BUNDLE MULTIPLE WIRES AND TAP THEM TOGETHER AT TEN FOOT INTERVALS. EXPANSION COILS OF TEN INCHES SHALL BE INSTALLED APPROXIMATELY EVERY 100 FEET. MAKE ALL SPICES WATERPROOF.
 - f. AUTOMATIC CONTROLLER: INSTALL AS PER MANUFACTURER'S SPECIFICATIONS AND INSTRUCTIONS. REMOVE CONTROL VALVES SHALL BE CONNECTED TO CONTROLLER IN NUMERICAL SEQUENCE AS SHOWN ON THE DRAWINGS. EACH REMOTE CONTROL VALVE SHALL BE WIRED TO ONE STATION OF THE CONTROLLER.
 - g. REMOTE CONTROL VALVES:
 - a. INSTALL WHERE SHOWN ON DRAWINGS AND DETAILS. VALVES SHALL BE SIZED ACCORDING TO THE DRAWINGS.
 - b. INSTALL IN A LEVEL POSITION IN ACCORDANCE TO MANUFACTURER'S SPECIFICATIONS.
 - c. WHEN GROUPED TOGETHER, ALLOW AT LEAST TWELVE (12) INCHES BETWEEN VALVES. INSTALL EACH REMOTE CONTROL VALVE IN A SEPARATE VALVE BOX. EACH VALVE NUMBER AND ITS CONTROLLER LETTER SHALL BE STENCILED INSIDE VALVE BOX TOP WITH EXTERIOR PAINT.
 - d. FLUSHING OF SYSTEM:
 - a. AFTER ALL NEW SPRINKLER PIPE LINES AND RISERS ARE IN PLACE AND CONNECTED, ALL NECESSARY WIRE HAS BEEN COMPLETED, AND PRIOR TO INSTALLATION OF SPRINKLER HEADS, THE CONTROL VALVES SHALL BE OPENED AND A FULL HEAD OF WATER USED TO FLUSH OUT THE SYSTEM.
 - b. SPRINKLER HEADS SHALL BE INSTALLED ONLY AFTER FLUSHING OF THE SYSTEM HAS BEEN ACCOMPLISHED.
 - e. SPRINKLER HEADS:
 - a. INSTALL HEADS AS DESIGNED ON THE DRAWINGS. MAKE APPROPRIATE ADJUSTMENTS TO HEAD LAYOUT TO ACCOMMODATE FOR ACTUAL FIELD CONDITIONS.
 - b. SPACING OF HEADS SHALL NOT EXCEED THE MAXIMUM INDICATED ON THE DRAWINGS. IN NO CASE SHALL THE SPACING EXCEED THE MAXIMUM

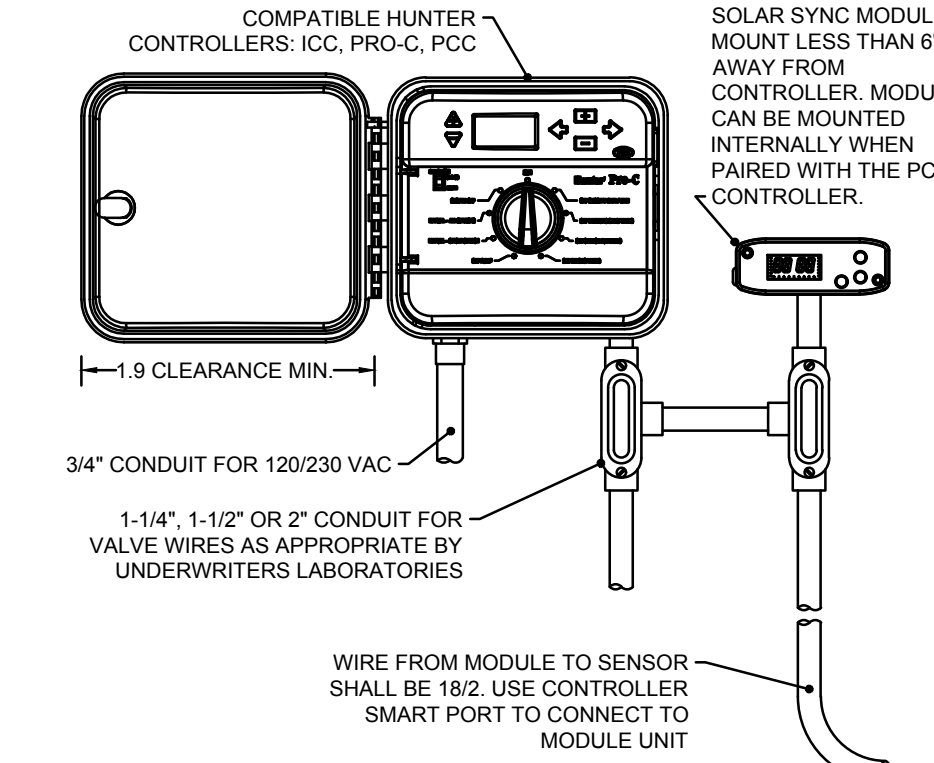
RECOMMENDED BY THE MANUFACTURER.

C. ALL SPRINKLERS TO ATTACH TO LATERAL LINES WITH FLEXIBLE CONNECTORS. REFERENCE DETAILS ON DRAWINGS.

3.4 TESTING

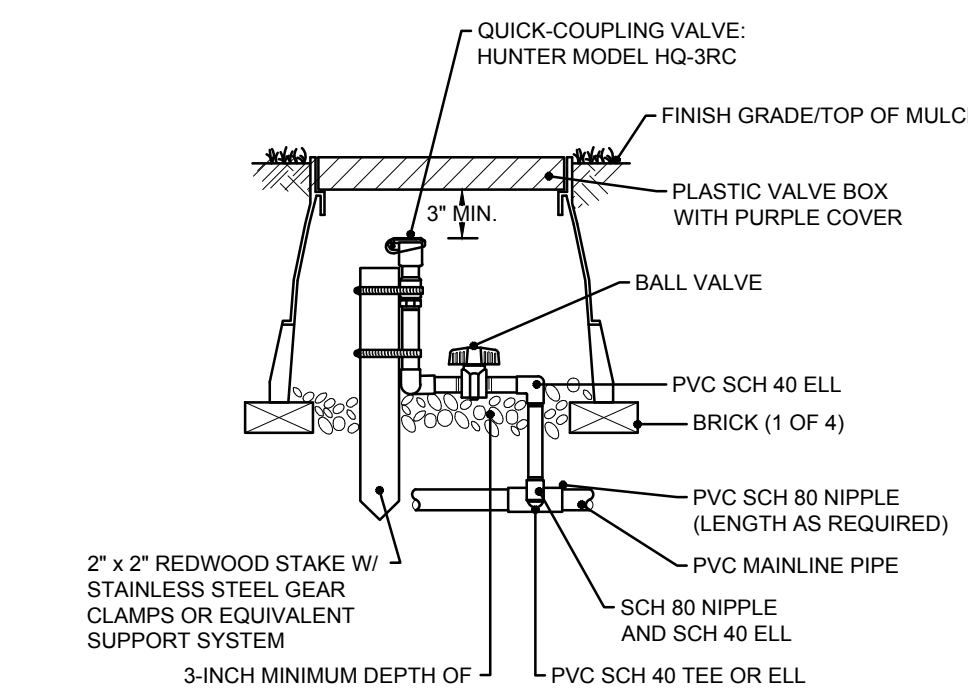
- A. THE CONTRACTOR SHALL TEST SPRINKLER MAIN FOR TWELVE TO FOURTEEN HOURS UNDER NORMAL PRESSURE. IF LEAKS ARE PRESENT, REPLACE JOINT OR JOINS AND REPEAT TEST.
- B. A COMPLETE TEST SHALL BE MADE PRIOR TO BACKFILLING. BACKFILLING MATERIALS MAY BE PLACED IN TRENCHES IN LIFTS TO ENSURE STABILITY OF THE LINE UNDER THE PRESSURE OF BACKFILL. IN EACH CASE, LEAVE FITTINGS AND COUPLINGS OPEN TO VISUALLY INSPECT FOR FULL PERIOD OF TEST.
- C. WHEN SYSTEM IS COMPLETE, A COVERAGE TEST SHALL BE PERFORMED IN THE PRESENCE OF THE LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE. IT SHALL BE DETERMINED IF THE WATER COVERAGE FOR ALL PLANTING AREAS IS COMPLETE AND ADEQUATE. FURNISH ALL MATERIALS AND PERFORM ALL WORK REQUIRED TO CORRECT ANY INADEQUACIES OF COVERAGE.
- D. UPON COMPLETION OF EACH PHASE OF WORK, THE ENTIRE SYSTEM SHOULD BE TESTED AND ADJUSTED TO MEET SITE REQUIREMENTS.

END OF SECTION



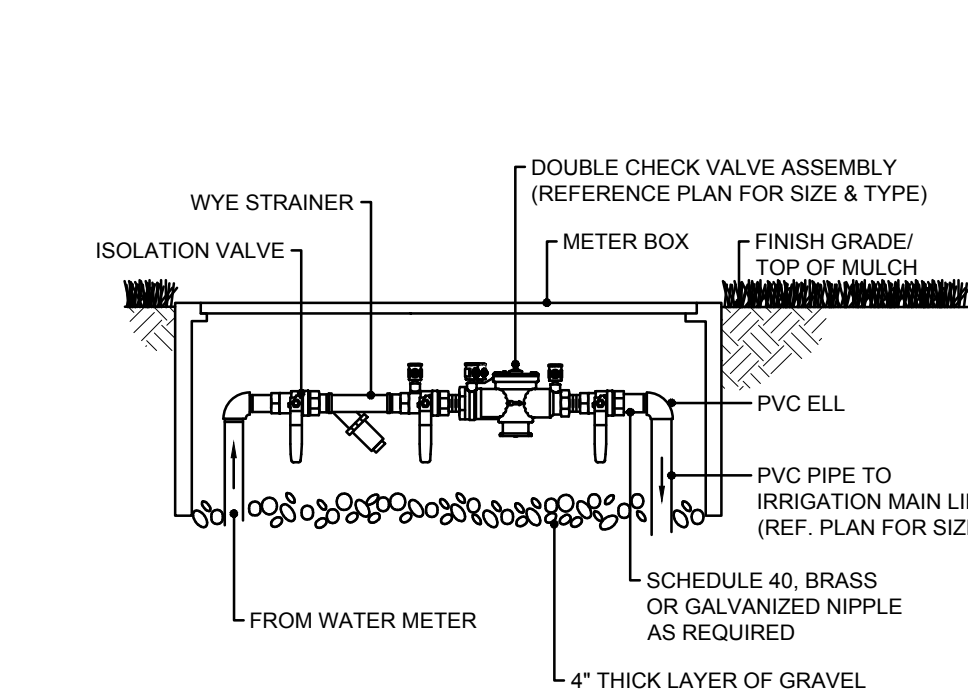
NOTE: 1. WEATHER SENSORS ARE TO BE PROVIDED AS REQUIRED BY LOCAL CODES. VERIFY LOCAL REQUIREMENTS PRIOR TO INSTALLATION.

1 PRO-C CONTROLLER W/SOLAR SYNC SYSTEM N.T.S.



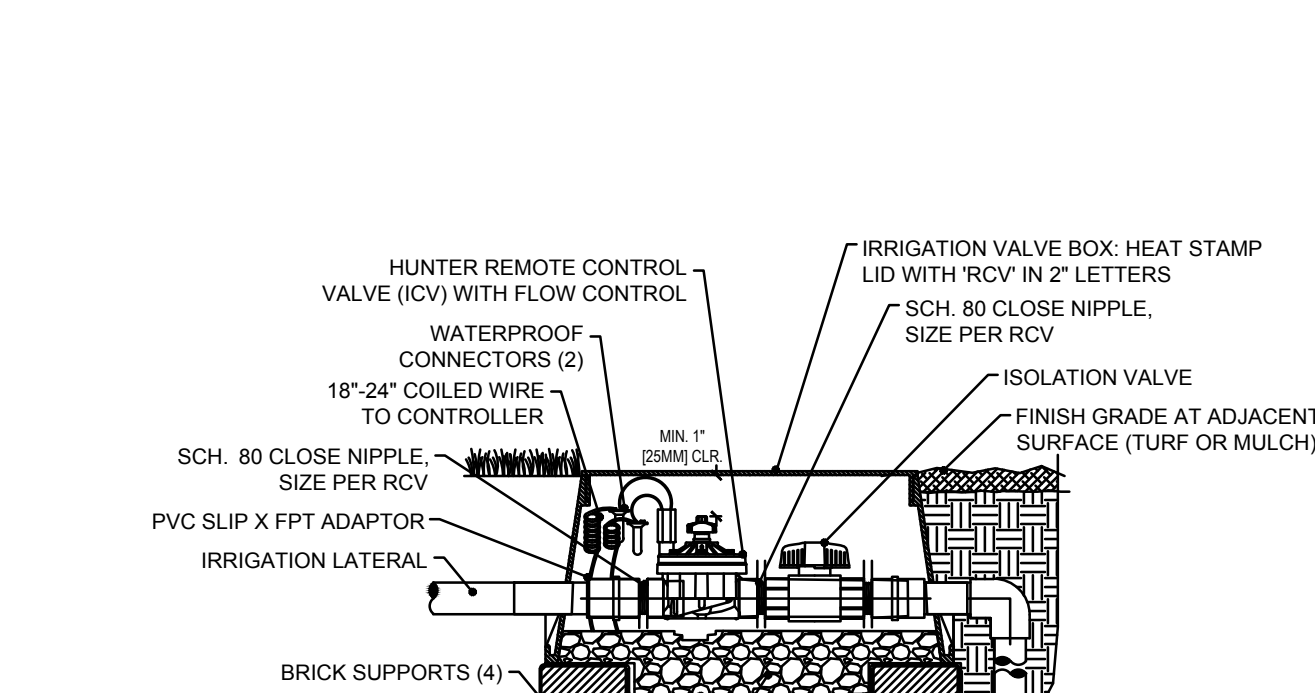
NOTE: 1. FURNISH NOMINALLY SIZED BALL VALVE WITHIN SAME BOX AND PRIOR TO MAINLINE TEE. 2. FURNISH FITTINGS AND PIPING NOMINALLY SIZED IDENTICAL TO NOMINAL QUICK COUPLING VALVE INLET SIZE.

2 QUICK COUPLING VALVE N.T.S.



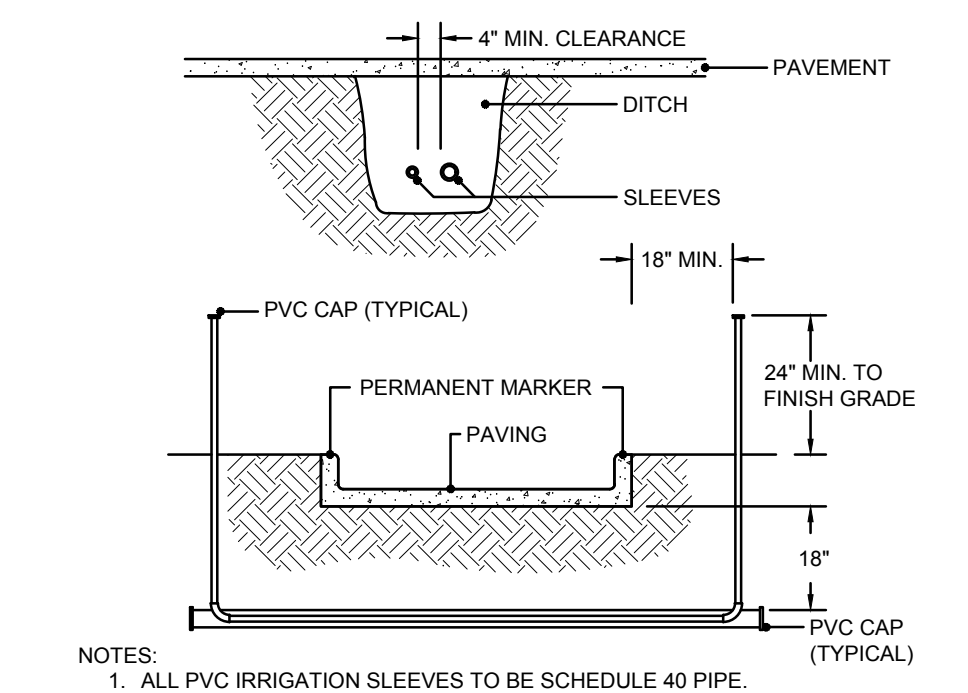
NOTE: 1. INSTALL BACKFLOW PREVENTER AS REQUIRED BY LOCAL CODES AND HEALTH DEPARTMENT. VERIFY LOCAL REQUIREMENTS PRIOR TO INSTALLATION. PRIOR TO BACKFLOW PREVENTER, INSTALL A NOMINALLY SIZED ISOLATION VALVE.

3 DOUBLE CHECK ASSEMBLY N.T.S.



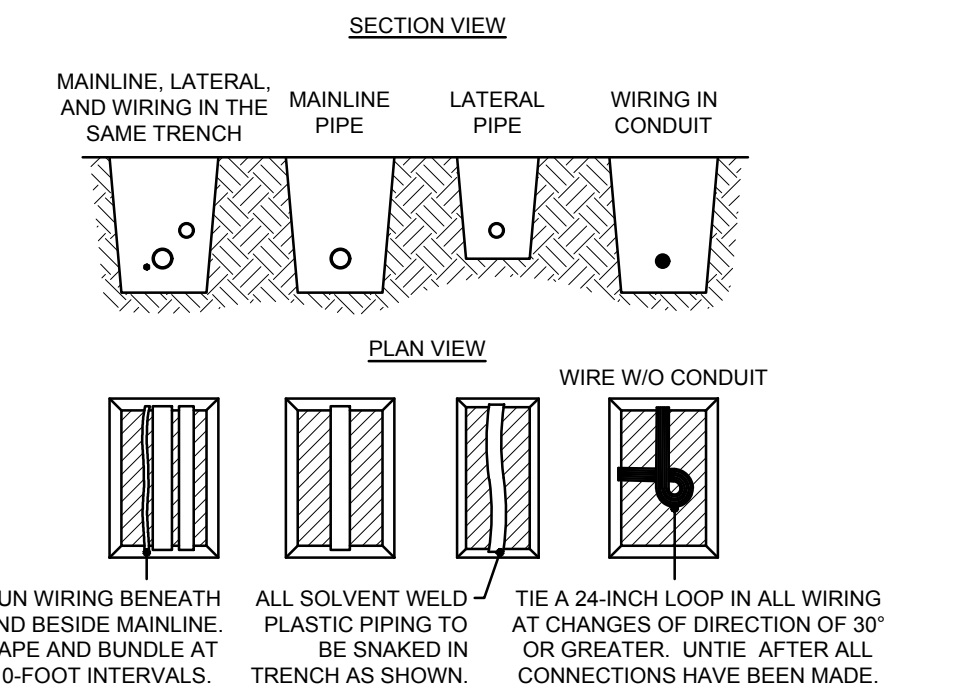
NOTE: 1. PLACE POP-UP BUBBLER DIRECTLY AT THE EDGE OF THE ROOT BALL. ENSURE THAT THE STREAM BUBBLERS SPRAYS DIRECTLY ONTO THE ROOT BALL TO WET THOROUGHLY. 2. SPACE REQUIRED NUMBER OF SPRAY BODIES EQUIDISTANT AROUND EDGE OF ROOT BALL. 3. USE NUMBER OF SPRAY BODIES PER PLAN.

4 IN-LINE VALVE (ICV) WITH ISOLATION VALVE N.T.S.



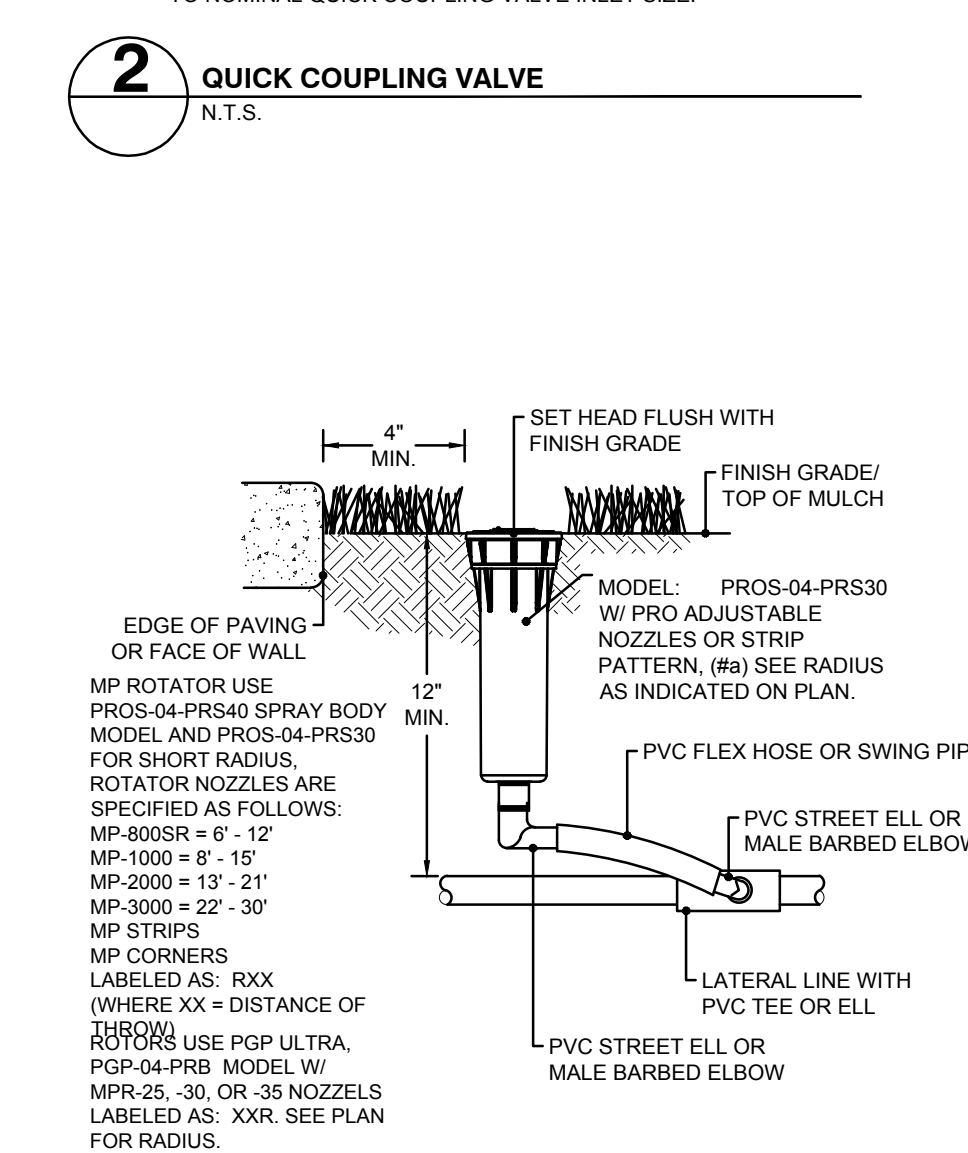
NOTE: 1. ALL PVC IRRIGATION SLEEVES TO BE SCHEDULE 40 PIPE. 2. ALL JOINTS TO BE SOLVENT WELDED AND TIGHT. 3. WHERE THERE IS MORE THAN ONE SLEEVE, EXTEND THE SMALLER SLEEVE TO 24-INCHES MINIMUM ABOVE FINISH GRADE. 4. MECHANICALLY TAMP TO 95% PROCTOR. 5. SLEEVE LOCATIONS SHALL BE MARKED ON THE TOP OF CURB WITH A SAWCUT OF TWO PARALLEL LINES THAT ARE 2" LONG AND 1" APART.

5 IRRIGATION PVC SLEEVES N.T.S.



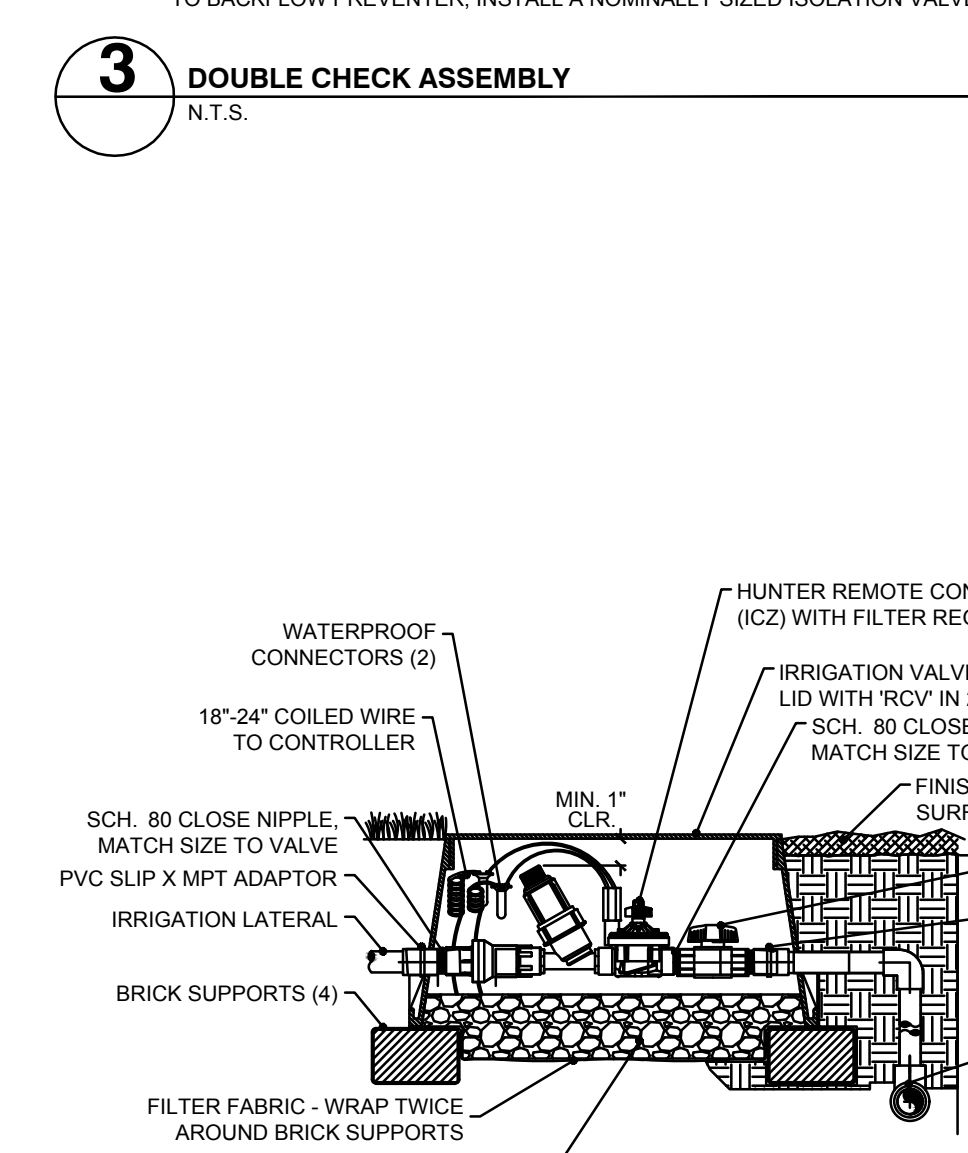
NOTE: 1. SLEEVE BELOW ALL HARDSCAPE ELEMENTS WITH SCH 40 PVC TWICE THE DIAMETER OF THE PIPE OR WIRE BUNDLE WITHIN. 2. FOR PIPE AND WIRE BURIAL DEPTHS, SEE SPECIFICATIONS. MINIMUM - 12" 3. BACKFILL AND COMPACT TRENCHES TO ORIGINAL GRADE.

6 PIPE AND WIRING TRENCHING N.T.S.



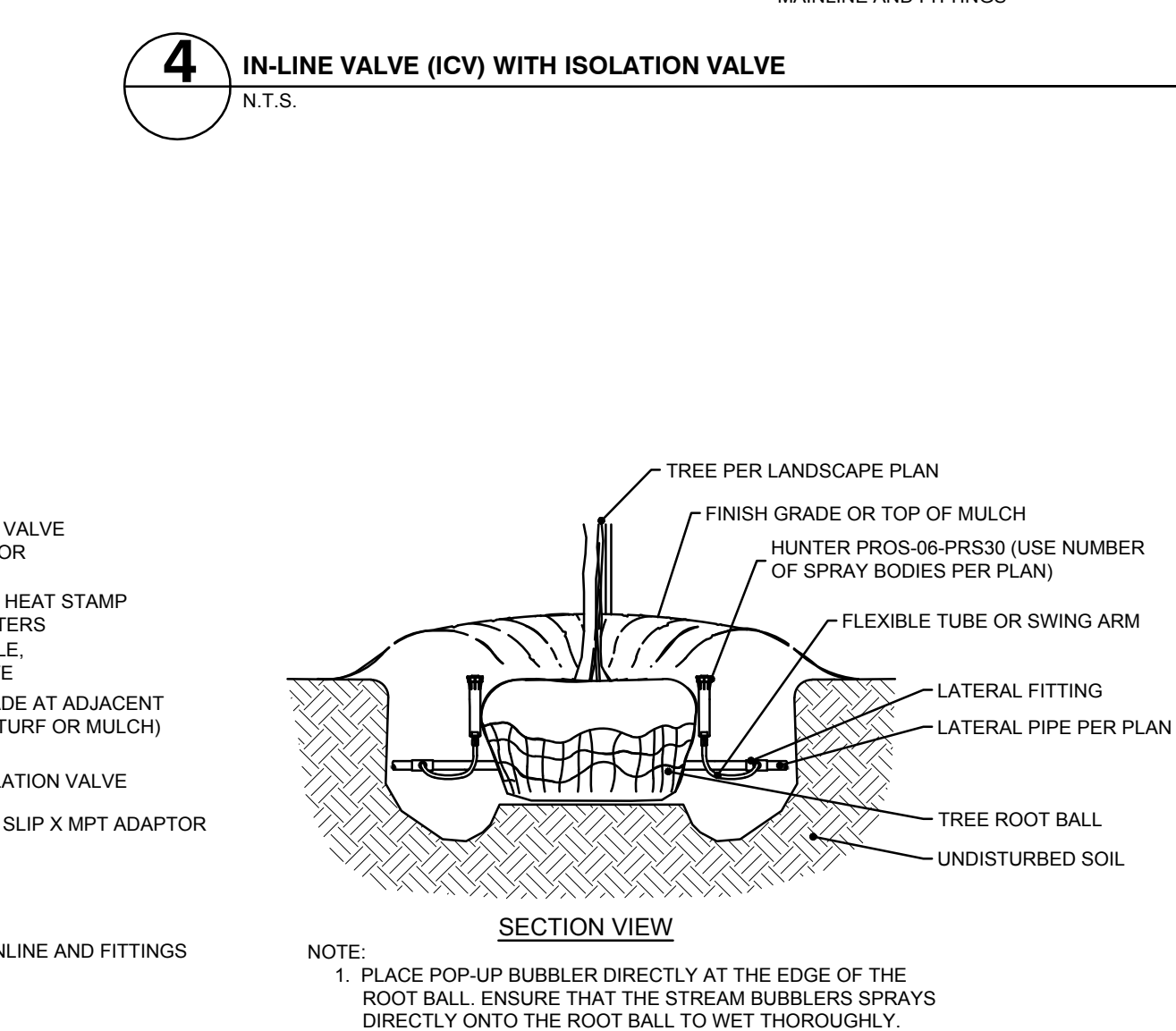
NOTE: 1. MAY NOT BE USED IN LANDSCAPE AREAS LESS THAN FORTY-EIGHT INCHES (48") IN LENGTH OR WIDTH.

7 POP-UP SPRAY BODY OR POP-UP ROTOR N.T.S.



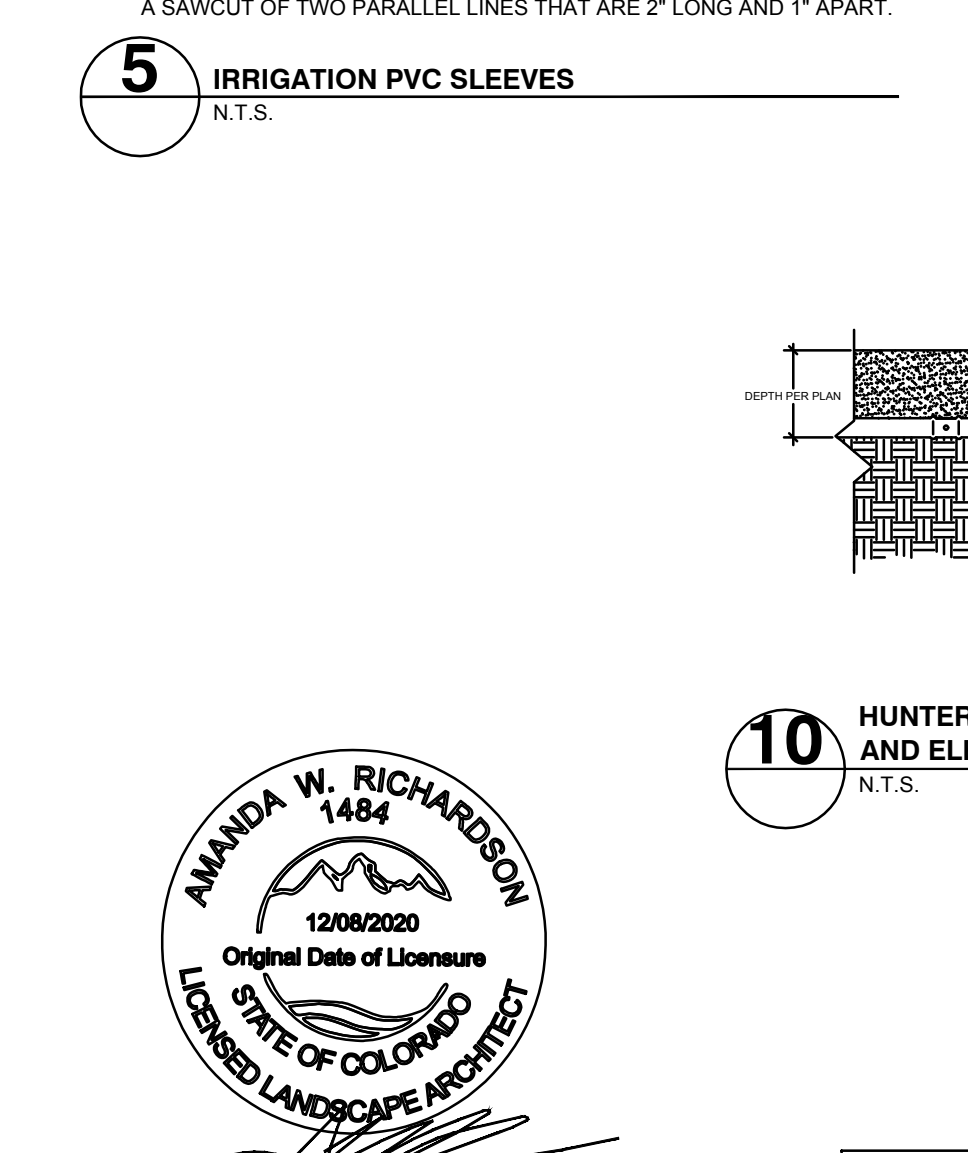
NOTE: 1. PLACE POP-UP BUBBLER DIRECTLY AT THE EDGE OF THE ROOT BALL. ENSURE THAT THE STREAM BUBBLERS SPRAYS DIRECTLY ONTO THE ROOT BALL TO WET THOROUGHLY. 2. SPACE REQUIRED NUMBER OF SPRAY BODIES EQUIDISTANT AROUND EDGE OF ROOT BALL. 3. USE NUMBER OF SPRAY BODIES PER PLAN.

8 DRIP CONTROL ZONE KIT W/ ISOLATION VALVE N.T.S.



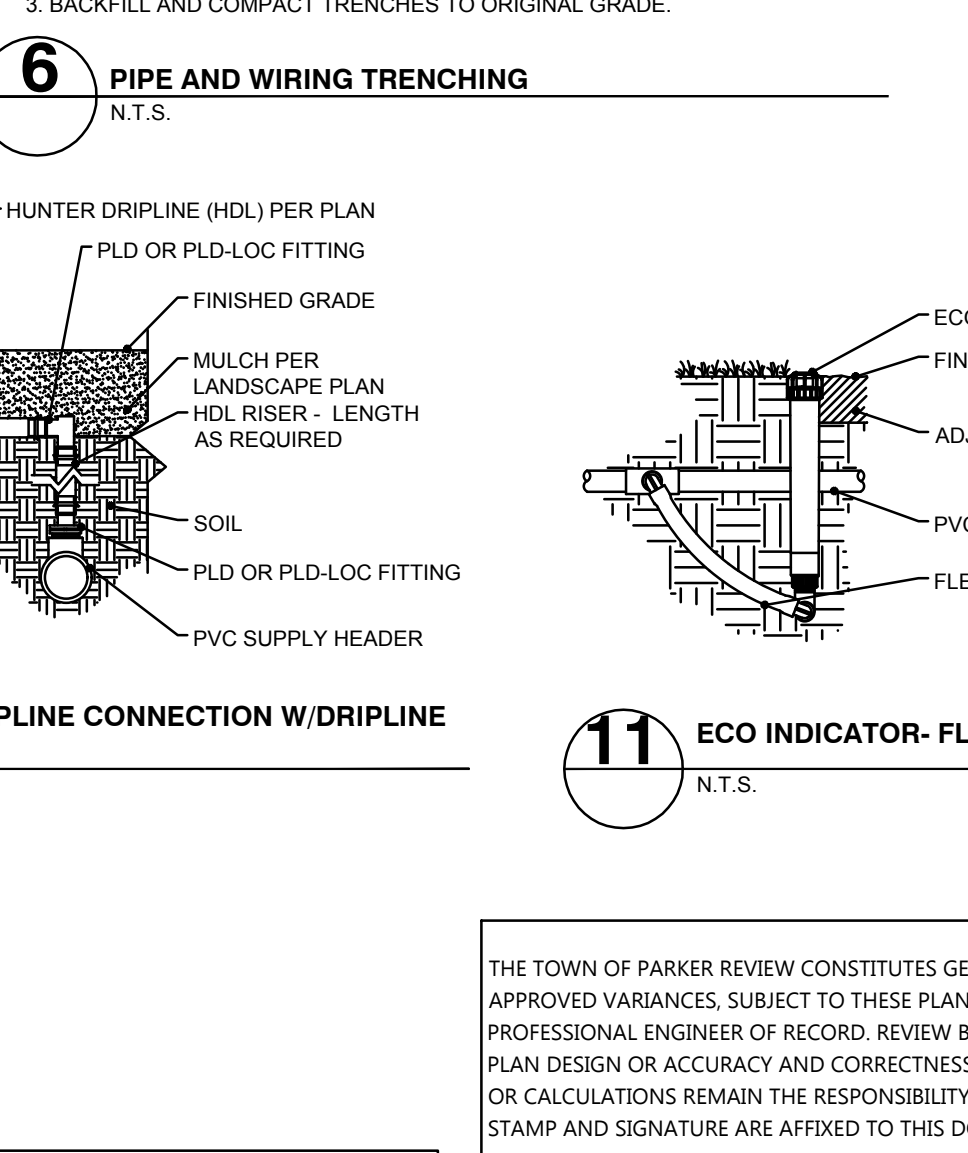
NOTE: 1. PLACE POP-UP BUBBLER DIRECTLY AT THE EDGE OF THE ROOT BALL. ENSURE THAT THE STREAM BUBBLERS SPRAYS DIRECTLY ONTO THE ROOT BALL TO WET THOROUGHLY. 2. SPACE REQUIRED NUMBER OF SPRAY BODIES EQUIDISTANT AROUND EDGE OF ROOT BALL. 3. USE NUMBER OF SPRAY BODIES PER PLAN.

9 TREE BUBBLER ASSEMBLY WITH HUNTER PROS-06-PRS30 N.T.S.



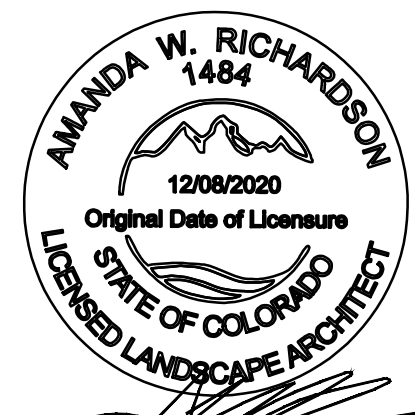
NOTE: 1. PLACE POP-UP BUBBLER DIRECTLY AT THE EDGE OF THE ROOT BALL. ENSURE THAT THE STREAM BUBBLERS SPRAYS DIRECTLY ONTO THE ROOT BALL TO WET THOROUGHLY. 2. SPACE REQUIRED NUMBER OF SPRAY BODIES EQUIDISTANT AROUND EDGE OF ROOT BALL. 3. USE NUMBER OF SPRAY BODIES PER PLAN.

10 HUNTER DRIPLINE CONNECTION W/DRIPLINE AND ELBOW N.T.S.



NOTE: 1. PLACE POP-UP BUBBLER DIRECTLY AT THE EDGE OF THE ROOT BALL. ENSURE THAT THE STREAM BUBBLERS SPRAYS DIRECTLY ONTO THE ROOT BALL TO WET THOROUGHLY. 2. SPACE REQUIRED NUMBER OF SPRAY BODIES EQUIDISTANT AROUND EDGE OF ROOT BALL. 3. USE NUMBER OF SPRAY BODIES PER PLAN.

11 ECO INDICATOR - FLEX TUBING N.T.S.



CALL UTILITY NOTIFICATION CENTER OF COLORADO 1-800-922-1987 CALL 2-BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRAVE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES.

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TOWN OF PARKER, DIRECTOR ENGINEERING DATE

Know what's Below. Call before you dig.
THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE MANNER ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK AND AGREE TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCURRED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. NEITHER THE OWNER NOR THE ENGINEER SHALL BE HELD RESPONSIBLE FOR ANY INJURY OR DAMAGE TO PERSONS OR PROPERTY OR SAFETY OF THE WORK OR PERSONS ENGAGED IN THE WORK OF ANY MANUFACTURER, OR OF ANY OTHER PERSONS.

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BLACK ROCK COFFEE BAR

S. PARKER RD & STROH RD

PARKER

DOUGLAS COUNTY, COLORADO

13135 DECLAN DRIVE

IRRIGATION SPECIFICATIONS AND DETAILS

DATE 2025-02-24

REVISIONS

DRAWN BY: K. SARWAR
CHECKED BY: N. SALAZAR
PROJECT MANAGER: N. SALAZAR
JOB #: 24003198
FILE CODE: ##
SHEET NO. L2.02



Black Rock Coffee of Parker, Colorado

Section A: Water Improvements

A1	1" Copper Service Line	146	LF
A2	1" Water Service Installation on Existing 8" Water Main	1	EA
A3	3/4" Water Service Installation on Existing 8" Water Main	1	EA
A4	Fire Hydrant Assembly	1	EA
A5	Backflow Preventer	1	EA
A6	3/4" Landscape Meter	1	EA
A7	1" Landscape Backflow Preventer	1	EA
A8	1" Water Meter	1	EA
A9	6" PVC line	81	LF
A10	45 ° Bends	4	EA

Section B: Wastewater Improvements

B1	6" PVC SDR-35	213	LF
B2	Sampling Manhole	1	EA
B3	Sanitary Sewer Clean Out	2	EA
B4	Grease Interceptor	1	EA

Section C: Storm Sewer Improvements

C1	18" RCP	229	LF
C2	5' Curb Inlet	2	EA
C3	City of Parker Standard Manhole	3	EA