



Know what's below. Call before you dig.

# MURPHY OIL USA, INC.

A PORTION OF LOT 1, BLOCK 3 PARKER AUTO PLAZA FILING NO. 1  
LOCATED IN THE SOUTHWEST QUARTER OF SECTION 10, TOWNSHIP 6 SOUTH, RANGE 66 WEST OF THE 6TH P.M.  
TOWN OF PARKER, DOUGLAS COUNTY, STATE OF COLORADO  
**SITE CONSTRUCTION PLANS**

### PROJECT CONTACTS:

**RECORD OWNER**  
EVI PARKER COLORADO, LLC  
2710 E CAMELBACK ROAD, SUITE 210  
PHOENIX, AZ 85016  
TEL: (602) 468-6100  
CONTACT: RYAN AMATO

**DEVELOPER/APPLICANT**  
MURPHY OIL USA, INC.  
200 PEACH STREET  
EL DORADO, AR 71730  
CONTACT: GARY HEGENER

**ENGINEER/CONSULTANT**  
GALLOWAY & COMPANY, INC.  
6162 S. WILLOW DRIVE, SUITE 320  
GREENWOOD VILLAGE, CO 80111  
TEL: (303) 770-8884  
FAX: (303) 770-3636  
CONTACT: JIM ERWIN-SVODODA, P.E.  
EMAIL: JIM.ERWIN@GALLOWAYUS.COM

**LANDSCAPE/CONSULTANT**  
GALLOWAY & COMPANY, INC.  
6162 S. WILLOW DRIVE, SUITE 320  
GREENWOOD VILLAGE, CO 80111  
TEL: (303) 770-8884  
FAX: (303) 770-3636  
CONTACT: TIM NELSON, RLA, ASLA, COP  
EMAIL: TIM.NELSON@GALLOWAYUS.COM

**SURVEYOR**  
GALLOWAY & COMPANY, INC.  
1755 TELESTAR DR, SUITE 107  
COLORADO SPRINGS, CO 80920  
TEL: (303) 770-8884  
FAX: (303) 770-3636  
CONTACT: BRIAN DENNIS, PLS  
EMAIL: BRIAN.DENNIS@GALLOWAYUS.COM

### MUNICIPAL & UTILITY CONTACTS:

**ENGINEERING**  
TOWN OF PARKER - ENGINEERING  
20720 E. MAIN STREET  
PARKER, CO 80138  
TEL: (303) 805-3169  
CONTACT: RANDY CAPRA

**STORM SEWER**  
TOWN OF PARKER - PUBLIC WORKS  
20720 E. MAIN STREET  
PARKER, CO 80138  
TEL: (303) 840-9546

**FIRE**  
SOUTH METRO FIRE RESCUE AUTHORITY  
9195 E. MINERAL AVE.  
CENTENNIAL, CO 80112  
TEL: (720) 989-2244  
CONTACT: CHIP KERBOHOVE

**WATER & SANITARY SEWER**  
PARKER WATER AND SANITATION DISTRICT  
1800 E. WOODMAN DRIVE  
PARKER, CO 80138  
TEL: (303) 841-4627  
CONTACT: DRAYTON SANDERSON

**GAS**  
XCEL ENERGY  
1800 LARKMER STREET  
DENVER, CO 80202  
EMAIL: RON.H.JOHNSON@XCELENERGY.COM  
CONTACT: RON JOHNSON

**ELECTRIC**  
INTERMOUNTAIN RURAL ELECTRIC ASSOCIATION  
5498 NORTH US HIGHWAY 85  
SEDALIA, CO 80135  
TEL: (303) 688-3100  
CONTACT: AMANDA STEINER

**TELEVISION**  
COMCAST  
1601 MILE HIGH STADIUM CIRCLE  
DENVER, CO 80204  
EMAIL: DEAN\_FLENTHROP@CABLE.COMCAST.COM  
CONTACT: DEAN FLENTHROP

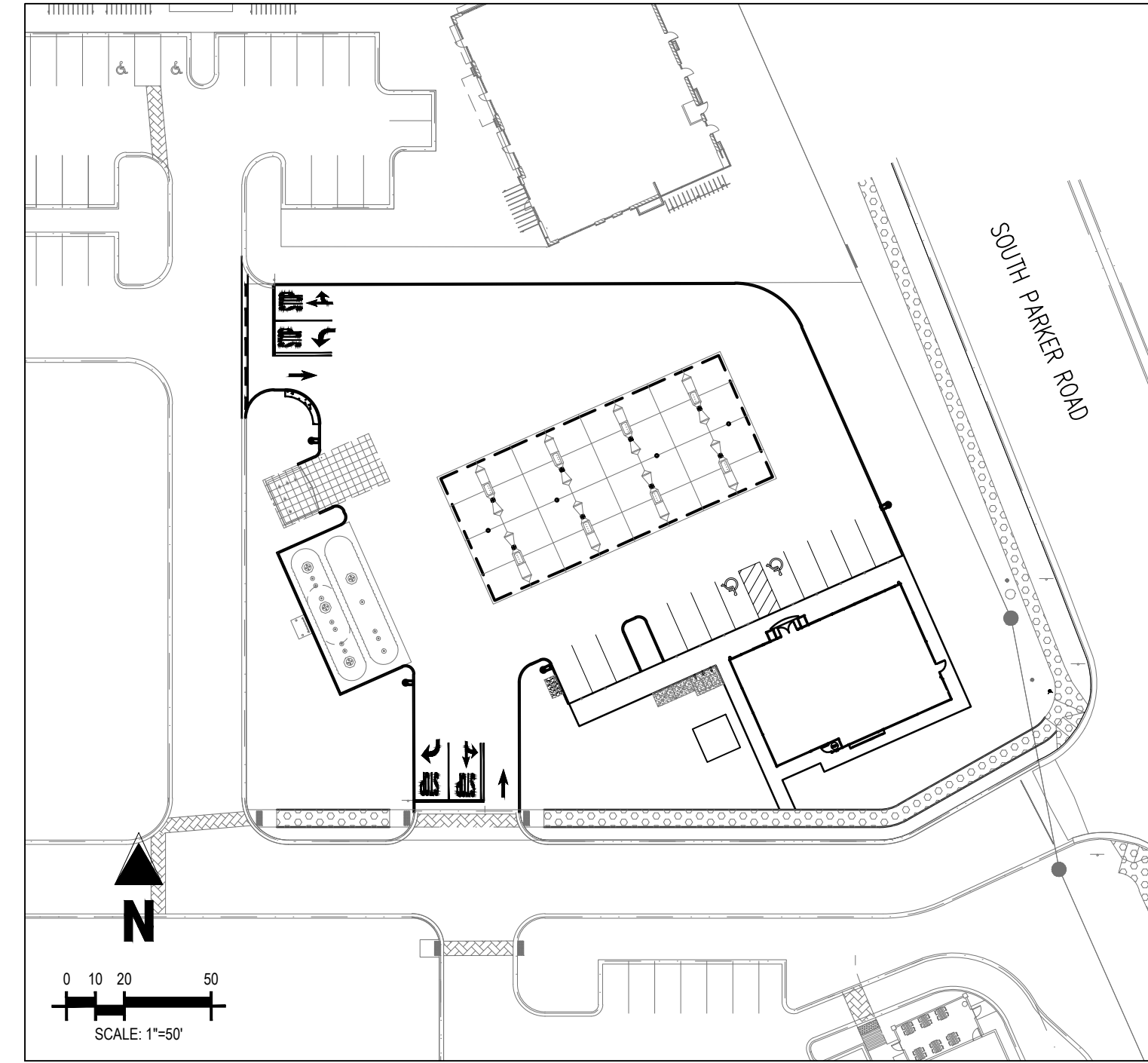
**TELEPHONE**  
CENTURYLINK  
1801 CALIFORNIA STREET, SUITE 240  
DENVER, CO 80202  
CONTACT: IZZY MILLER  
EMAIL: IZZY.MILLER@CENTURYLINK.COM

### GENERAL UTILITY NOTES

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

### SANITARY SEWER NOTES

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



SITE MAP  
SCALE: 1"=50'



VICINITY MAP  
(NOT TO SCALE)

### SHEET INDEX

SHEET NUMBER	DESCRIPTION
C-3.0	UTILITY COVER SHEET
C-3.1	OVERALL UTILITY PLAN
C-3.2	UTILITY DETAILS
C-3.3	UTILITY DETAILS
C-3.4	STORM AND SANITARY PLAN
IR-1.1	IRRIGATION PLAN
IR-1.2	IRRIGATION DETAILS
IR-1.3	IRRIGATION NOTES & DETAILS

### WATER MAIN NOTES

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

### DISTRICT ACCEPTANCE NOTES

- UPON COMPLETION OF SANITARY SEWER AND WATER CONSTRUCTION AND TESTING, THE DEVELOPER OR CONTRACTOR SHALL CONTACT THE DISTRICT FOR PROBATIONARY ACCEPTANCE INSPECTION. A PUNCHLIST WILL BE PROVIDED THE DEVELOPER AND CONTRACTOR UPON COMPLETION OF THE INITIAL WALK-THROUGH AND PROBATIONARY ACCEPTANCE WILL BE ISSUED FOLLOWING COMPLETION AND ACCEPTANCE OF THE WORK OUTLINED IN THE PUNCHLIST.
- THE CONTRACTOR WILL BE HELD RESPONSIBLE FOR THE PROPER FUNCTIONING OF THE LINES FOR UP TO 1-YEAR FROM THE DATE OF PROBATIONARY ACCEPTANCE OF THE LINES BY THE DISTRICT. ANY MALFUNCTION DURING THIS PERIOD OF GUARANTEE SHALL BE REMEDIED BY THE CONTRACTOR TO THE SATISFACTION OF THE DISTRICT ENGINEER AT NO EXPENSE TO THE DISTRICT.
- THE DATE OF FINAL ACCEPTANCE WILL BE INDICATED IN THE CONDITIONS OF THE PROBATIONARY ACCEPTANCE LETTER. THE DEVELOPER SHALL BE RESPONSIBLE FOR CONTACTING THE DISTRICT FOR FINAL INSPECTION AND FINAL ACCEPTANCE.

MATERIALS SPECIFICATIONS	
MATERIAL SPECIFICATION	DESCRIPTION
MS-W1, MS-S1, MS-S4	PIPE TYPE - PVC
MS-W2	PIPE TYPE - DUCTILE IRON
MS-W7	TAPPING SLEEVES
MS-W3, MS-S5	FITTINGS
MS-W4, MS-W5, MS-W6, MS-W8, MS-W9	VALVES, AIR RELEASE VALVES
MS-W7, MS-W18	WATER METER
MS-S2	PRECAST MANHOLES
MS-S3	CASTINGS

### SITE DATA TABLE

SITE AREA	47,621 SF / 1.09 AC
ZONING	PLANNED DEVELOPMENT - COMMERCIAL (PD-C)
BUILDING	SINGLE STORY - 2,824 SF (BUILDING) SINGLE STORY - 4,830 SF (CANOPY)
FAR	25% MAX / 18.1% ACTUAL
BUILDING COVERAGE	50% MAX / 18.1% ACTUAL
OPEN SPACE	20% MIN / 30.6% ACTUAL (16,839 SF LANDSCAPED AREA)
BUILDING SETBACK	25' PUBLIC R.O.W. 25' SIDE & REAR
MAX. BUILDING HT:	35'
PARKING:	12 SPACES (INCLUDES 2 ADA)

### BENCHMARK

ELEVATIONS ARE BASED ON A DOUGLAS COUNTY CONTROL MONUMENT, STATION NAME: CRAIN, BEING A BRASS DISK LOCATED AT 125 FEET NORTH OF THE CENTERLINE OF A DRIVEWAY, 84 FEET SOUTH OF A DOUBLE 36 IN CULVERT, 25 FEET WEST OF THE EDGE OF PARKER ROAD, AND 25 FEET EAST OF THE WEST RIGHT OF WAY FENCE.

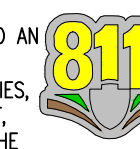
ELEVATION = 5734.25 FEET (NAVD 88) PUBLISHED BY DOUGLAS COUNTY

### BASIS OF BEARING

BEARINGS ARE BASED ON A PORTION OF THE EAST LINE OF LOT 1, BLOCK 3, PARKER AUTO PLAZA FILING NO. 1 AND BEING A PORTION OF THE WEST RIGHT OF WAY LINE OF PARKER ROAD, THE SOUTH END OF THE LINE BEING THE SOUTHEAST CORNER OF SAID LOT 1, BLOCK 3, MONUMENTED ON THE NORTH END BY A FOUND NO. 4 REBAR RED PLASTIC CAP PLS 24960 AND ON THE SOUTH END BY A FOUND NO. 4 REBAR RED PLASTIC CAP PLS 23524, AND IS CONSIDERED TO BEAR S23°56'20"E, A DISTANCE OF 553.91 FEET.

### CONCATION - NOTICE TO CONTRACTOR

- ALL UTILITY LOCATIONS SHOWN ARE BASED ON MAPS PROVIDED BY THE APPROPRIATE UTILITY COMPANY AND FIELD SURFACE EVIDENCE AT THE TIME OF SURVEY AND IS TO BE CONSIDERED AN APPROXIMATE LOCATION ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE LOCATION OF ALL UTILITIES, PUBLIC OR PRIVATE, WHETHER SHOWN ON THE PLANS OR NOT, PRIOR TO CONSTRUCTION. REPORT ANY DISCREPANCIES TO THE ENGINEER PRIOR TO CONSTRUCTION.
- WHERE A PROPOSED UTILITY CROSSES AN EXISTING UTILITY, IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF SUCH EXISTING UTILITY, EITHER THROUGH POT-HOLING OR ALTERNATIVE METHOD. REPORT INFORMATION TO THE ENGINEER PRIOR TO CONSTRUCTION.



Know what's below. Call before you dig.

THE DISTRICT INSPECTOR MUST BE NOTIFIED AT LEAST 48 HOURS PRIOR TO START OF CONSTRUCTION. CALL PARKER WATER AND SANITATION DISTRICT AT 303-841-4627. THE DISTRICT WILL PROVIDE PERIODIC INSPECTIONS OF THE WORK. 24 HOUR NOTICE TO THE INSPECTOR IS REQUIRED FOR SCHEDULING INSPECTIONS.

ANY WORK ACCOMPLISHED WITHOUT THE APPROVAL OF THE INSPECTOR WILL BE SUBJECT TO REJECTION.

REVIEWED FOR CONFORMANCE TO PARKER WATER AND SANITATION DISTRICT STANDARDS.

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

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

APPROVED FOR CONSTRUCTION:  
PARKER WATER AND SANITATION DISTRICT

BY: \_\_\_\_\_  
(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 REQUIREMENTS OF NFPA 24 WHEN SUBMITTING FOR REVIEW.)

### FIRE NOTES

- IT IS THE RESPONSIBILITY OF THE PROPERTY OWNER TO MAINTAIN DRIVE LINES FOR EMERGENCY VEHICLE INGRESS AND EGRESS, INCLUDING SNOW REMOVAL.
- EMERGENCY VEHICLE ACCESS ROAD IS REQUIRED TO ALLOW ACCESS WITHIN 150' OF ALL EXTERIOR OF THE BUILDING BY AN APPROVED ROUTE.
- FIRE APPARATUS ACCESS ROADS SHALL BE DESIGNED AND MAINTAINED TO SUPPORT THE IMPOSED LOADS OF FIRES APPARATUS AND SHALL BE PROVIDED WITH A SURFACE SO AS TO PROVIDE ALL-WEATHER DRIVING CAPABILITIES. ACCESS ROAD SHALL BE EITHER CONCRETE, ASPHALT, OR OTHER APPROVED ALTERNATIVE MATERIAL ACCOMPANIED WITH AN ENGINEER'S STAMP STATING THE MATERIAL WILL MEET A 75,000 LBS IMPOSED LOAD.
- FIRE HYDRANT(S) ARE REQUIRED TO BE INSTALLED AND MADE SERVICEABLE PRIOR TO AND DURING THE TIME OF VERTICAL CONSTRUCTION.
- "NO PARKING FIRE LANE" SIGNS ARE REQUIRED IN AREAS THAT MEET THE FOLLOWING CRITERIA AND IN AREAS DESIGNATED BY THE FIRE PREVENTION BUREAU. SIGNS SHALL BE POSTED ON BOTH SIDES OF FIRE DEPARTMENT ACCESS ROADWAYS, PUBLIC OR PRIVATE ROADWAYS OR DRIVEWAYS LESS THAN 26 FEET WIDE. SIGNS SHALL BE POSTED ON ONE SIDE ONLY OF FIRE DEPARTMENT ACCESS ROADWAYS, PUBLIC OR PRIVATE ROADWAYS OR DRIVEWAYS BETWEEN 26 FEET WIDE AND 32 FEET WIDE. NO SIGNAGE IS REQUIRED FOR ACCESS ROADWAY FIRE DEPARTMENT ACCESS ROADWAYS, PUBLIC OR PRIVATE ROADWAYS OR DRIVEWAYS EXCEEDING 32 FEET WIDE.
- WHEN FIRE APPARATUS ACCESS ROADS OR A WATER SUPPLY FOR FIRE PROTECTION IS REQUIRED TO BE INSTALLED, SUCH PROTECTION SHALL BE INSTALLED AND MADE SERVICEABLE PRIOR TO BUILDING CONSTRUCTION GOING VERTICAL.

SHEET NO.

C-3.0

REV-0 03/16/2020 JES PM --- PRN --- KVL DES KVL DRW

UTILITY COVER SHEET  
MURPHY EXPRESS  
12405 SOUTH PARKER ROAD  
PARKER  
COLORADO

Galloway

6162 S. Willow Drive, Suite 320  
Greenwood Village, CO 80111  
303.770.8884  
GallowayUS.com

MURPHY OIL USA, INC.

MURPHY USA  
200 PEACH STREET  
EL DORADO, AR 71730





Know what's below. Call before you dig.

# MURPHY OIL USA, INC.

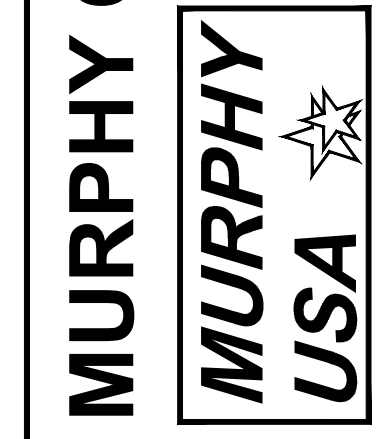
A PORTION OF LOT 1, BLOCK 3 PARKER AUTO PLAZA FILING NO. 1  
LOCATED IN THE SOUTHWEST QUARTER OF SECTION 10, TOWNSHIP 6 SOUTH, RANGE 66 WEST OF THE 6TH P.M.  
TOWN OF PARKER, DOUGLAS COUNTY, STATE OF COLORADO  
**SITE CONSTRUCTION PLANS**

SHEET NO. **C-3.2**

UTILITY DETAILS  
**MURPHY EXPRESS**  
12405 SOUTH PARKER ROAD  
PARKER COLORADO

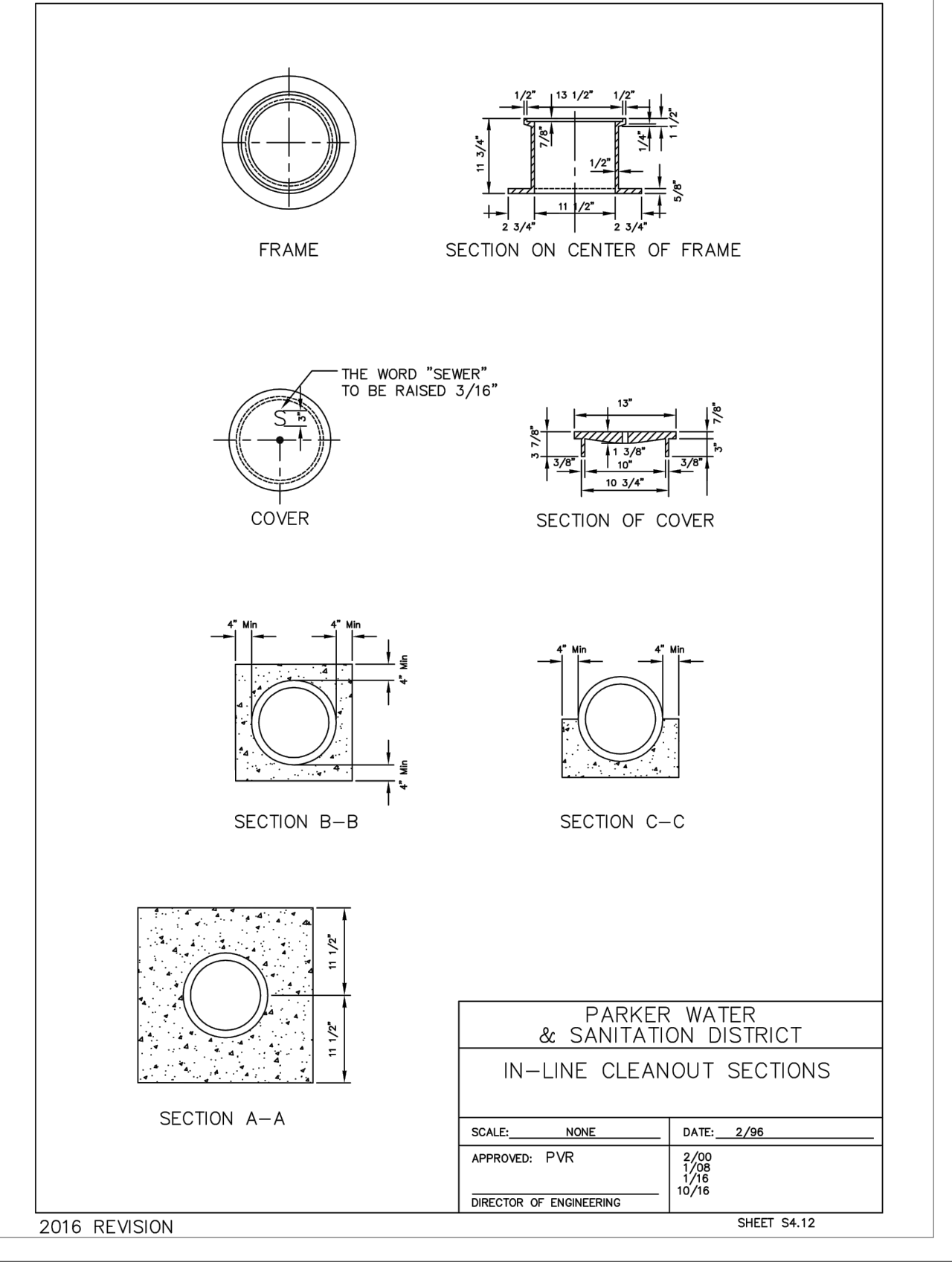
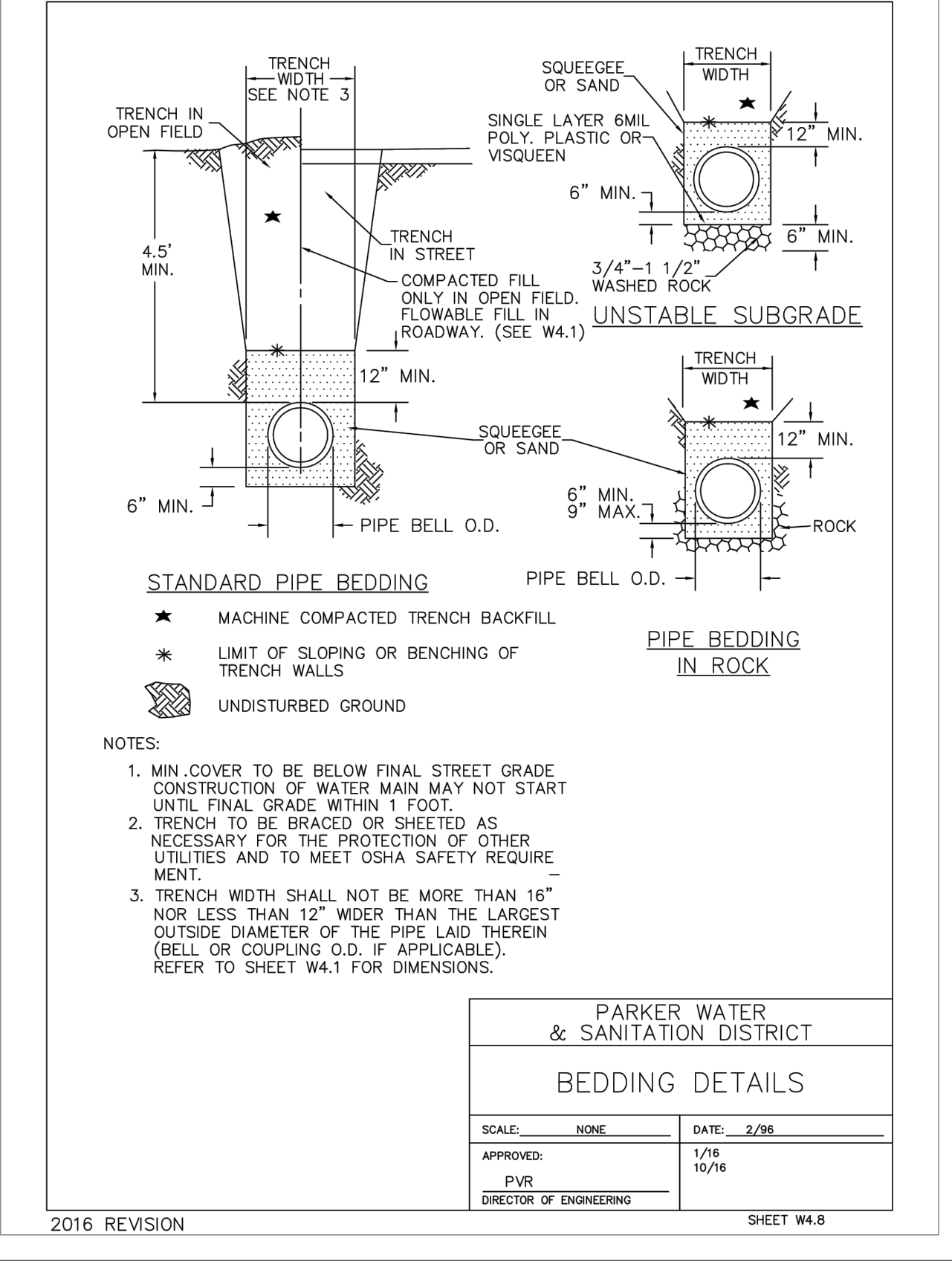
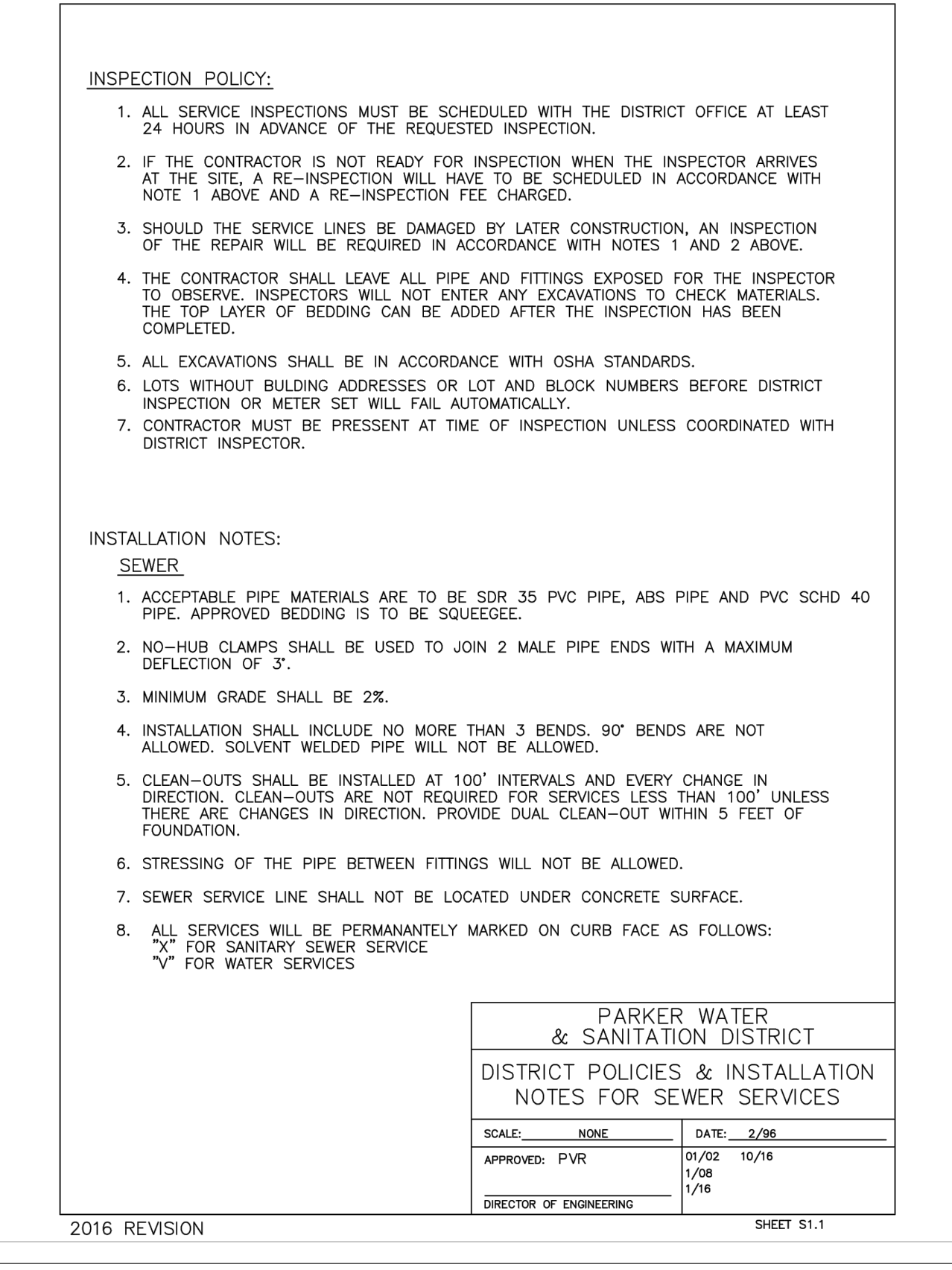
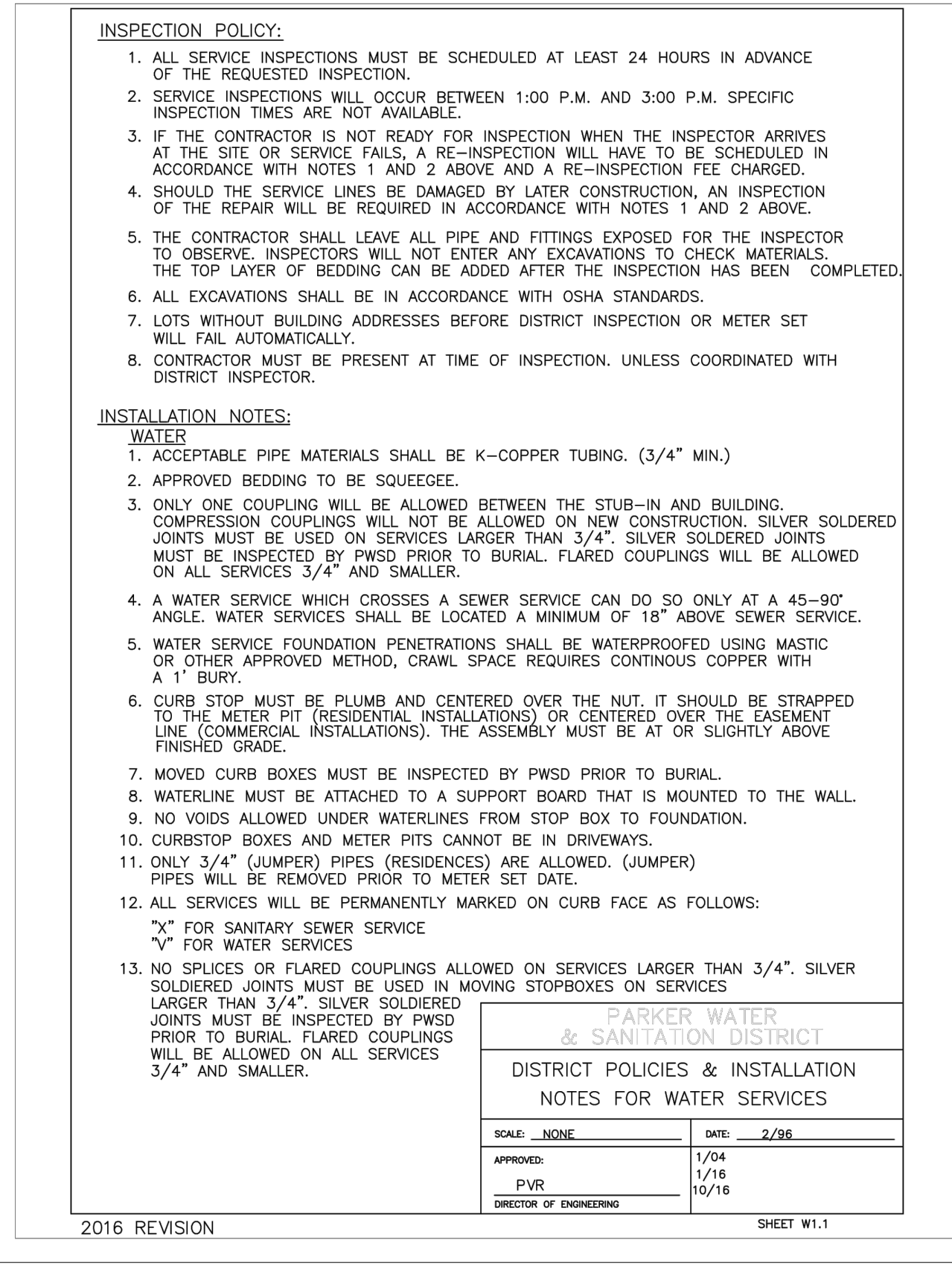
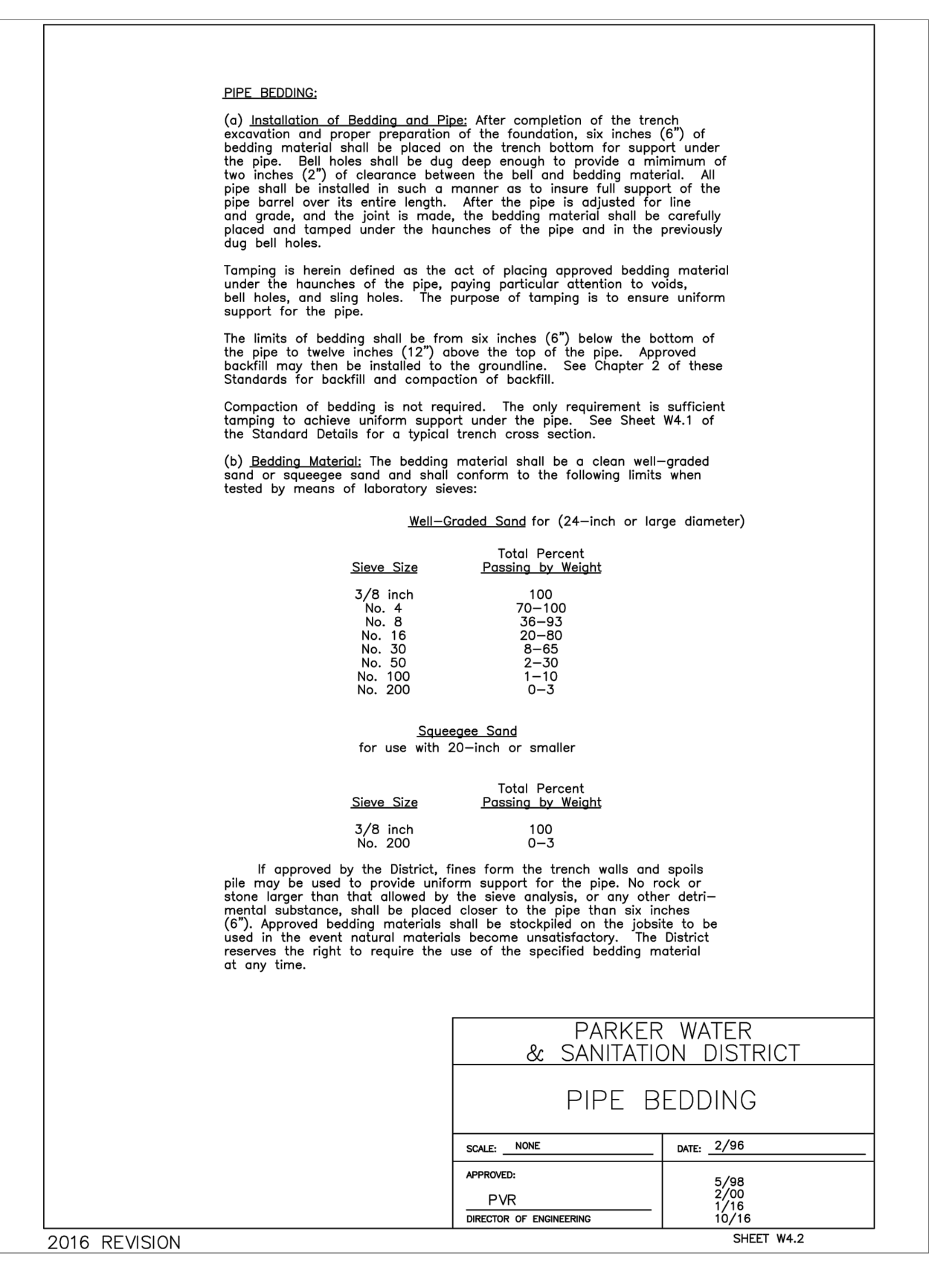
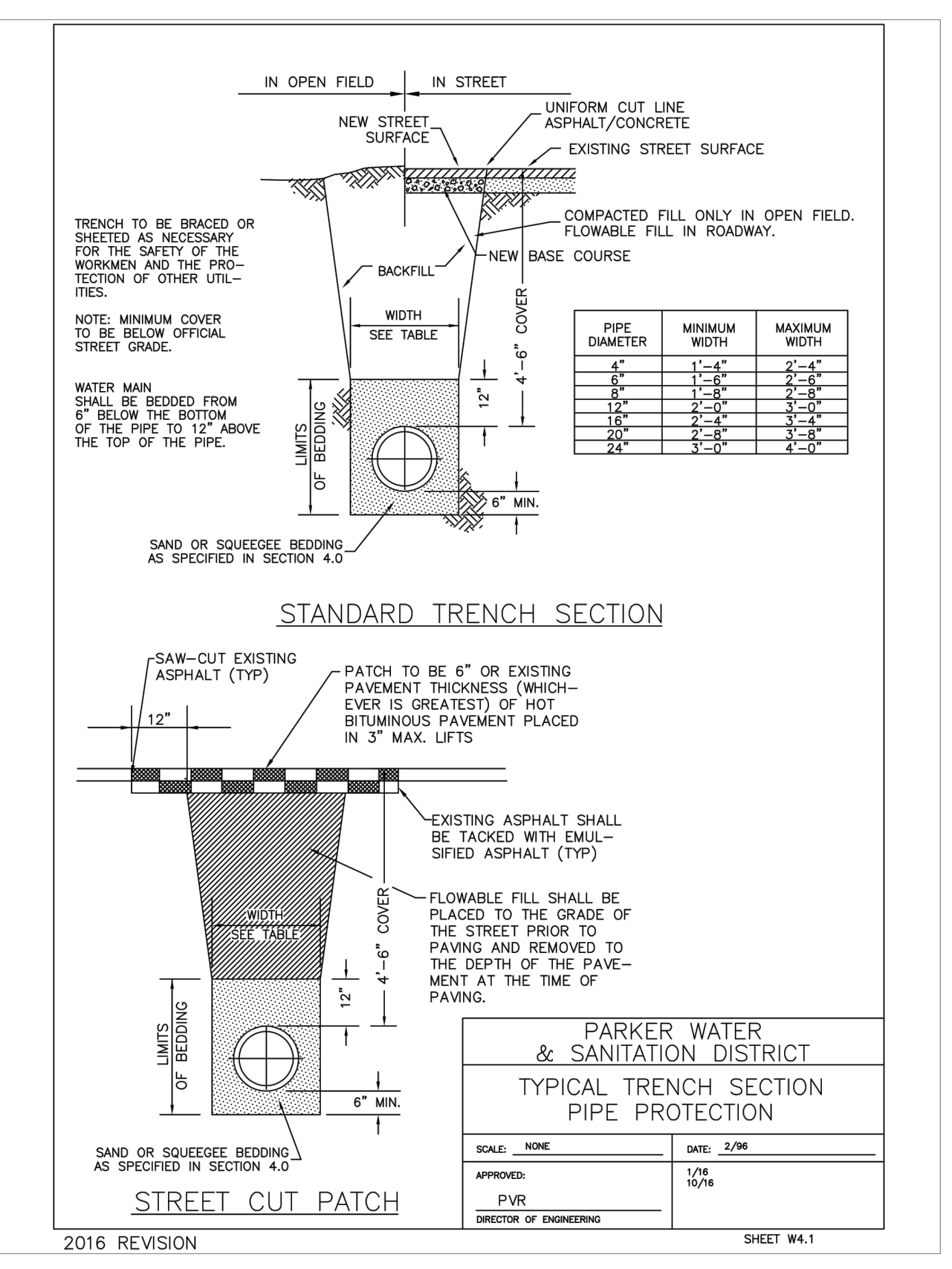
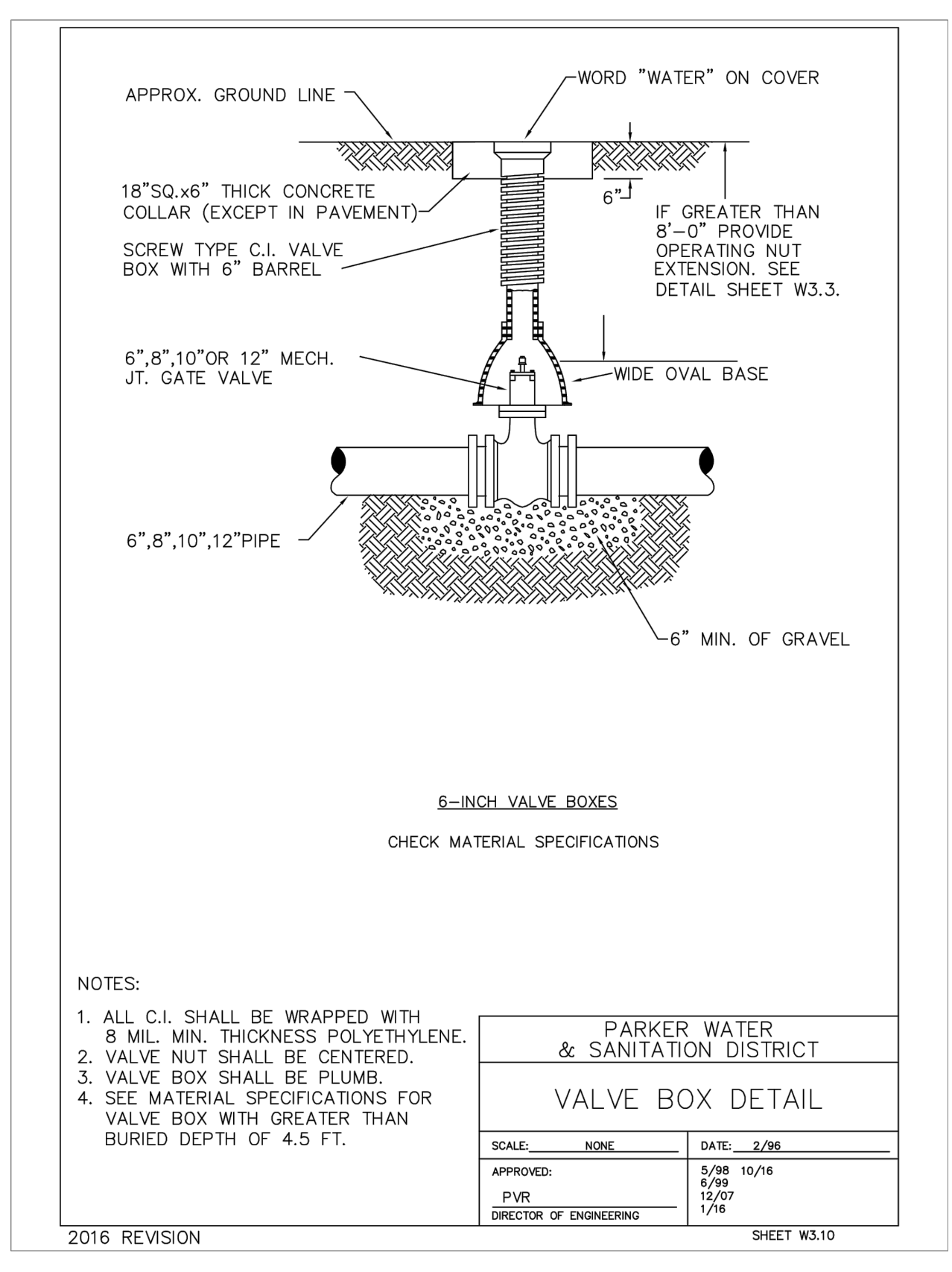
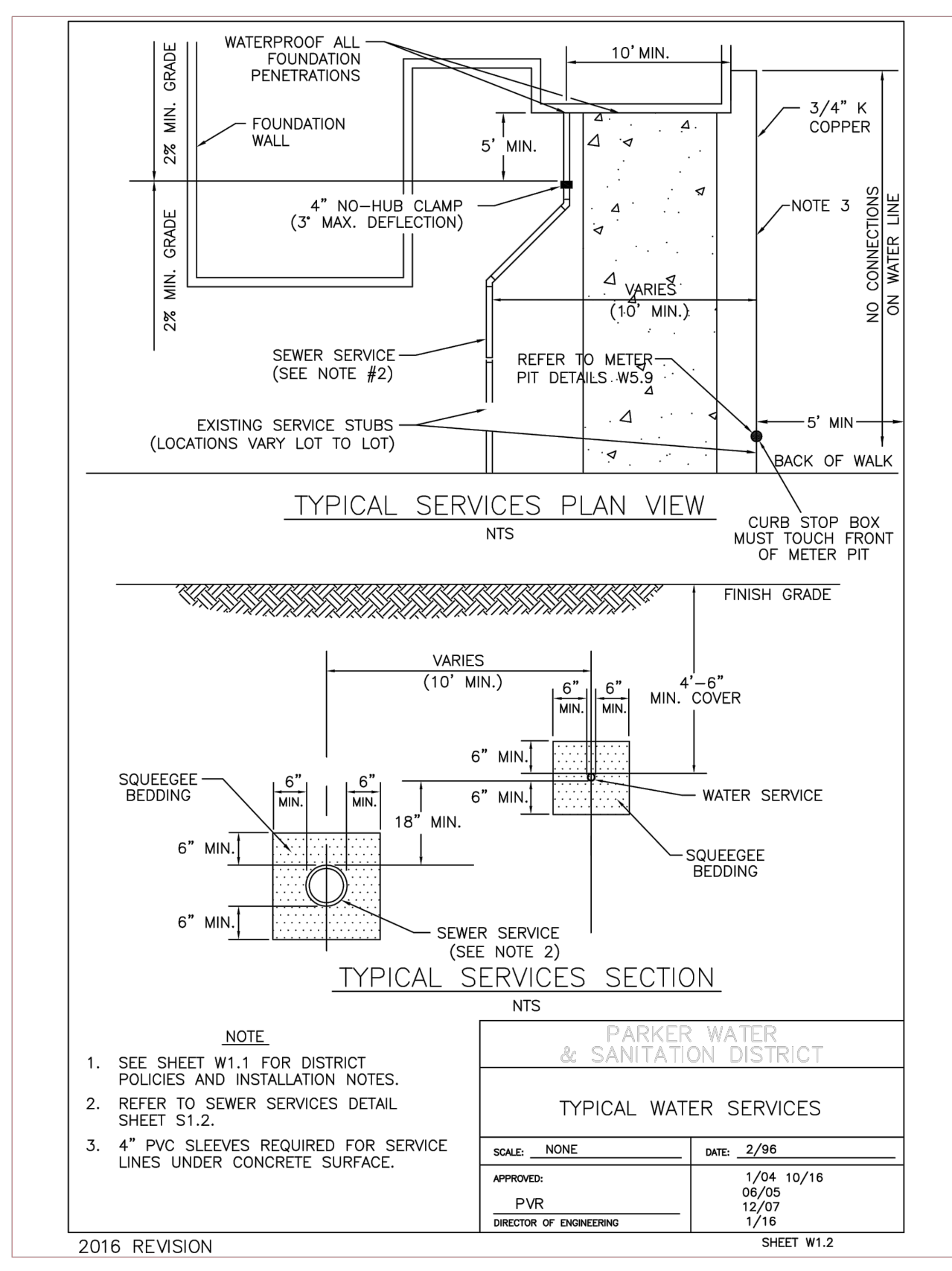
**Galloway**

**MURPHY OIL USA, INC.**  
200 PEACH STREET  
EL DORADO, AR 71730



6162 S. Willow Drive, Suite 320  
Littleton, CO 80111  
303.770.8844  
GallowayUS.com

REV-0 03/16/2020 DATE PRN PM DES DRW



# MURPHY OIL USA, INC.

A PORTION OF LOT 1, BLOCK 3 PARKER AUTO PLAZA FILING NO. 1  
 LOCATED IN THE SOUTHWEST QUARTER OF SECTION 10, TOWNSHIP 6 SOUTH, RANGE 66 WEST OF THE 6TH P.M.  
 TOWN OF PARKER, DOUGLAS COUNTY, STATE OF COLORADO  
**SITE CONSTRUCTION PLANS**



**SHEET NO.**  
**C-3.3**

**UTILITY DETAILS**  
**MURPHY EXPRESS**  
**12405 SOUTH PARKER ROAD**  
**PARKER COLORADO**

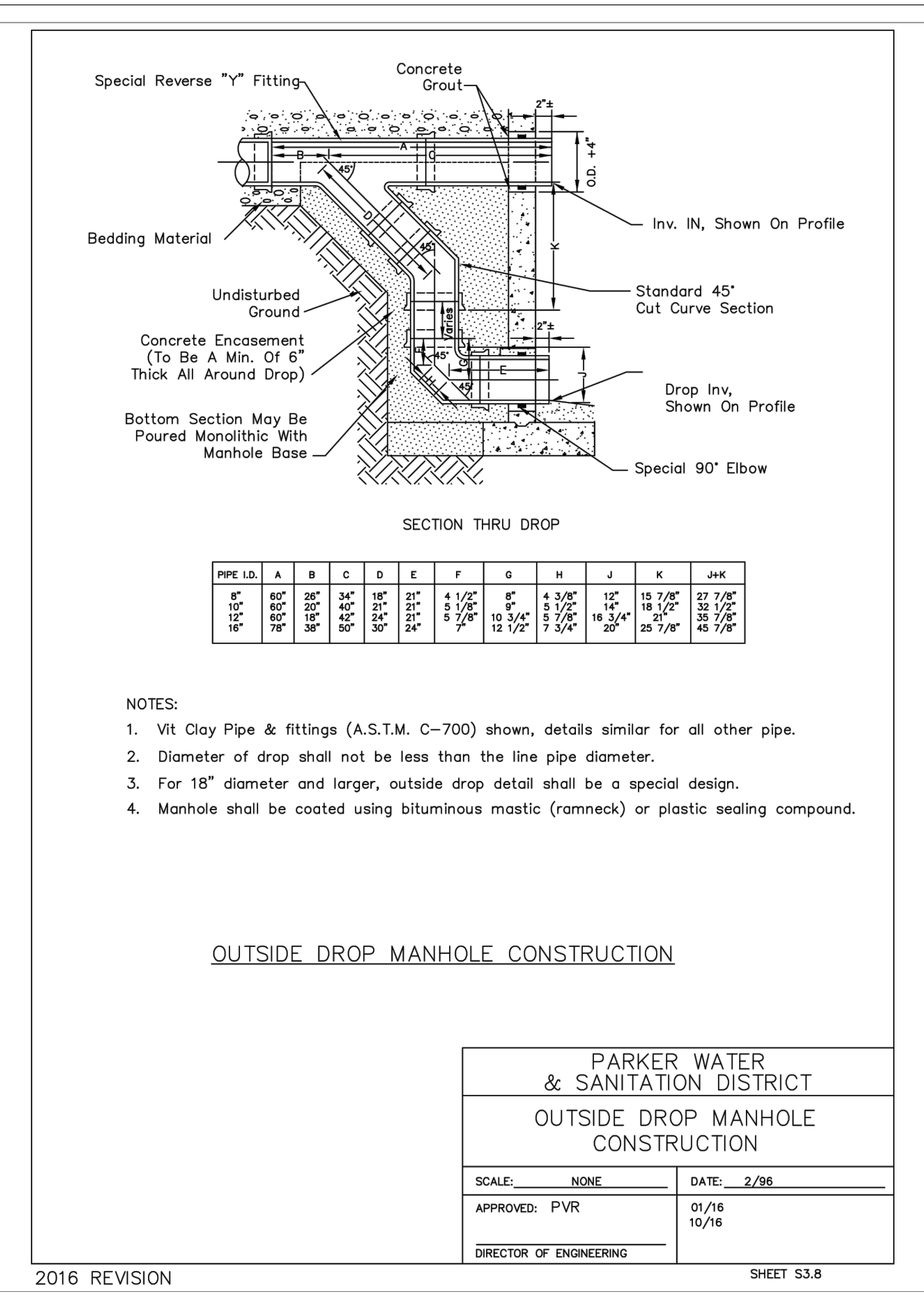
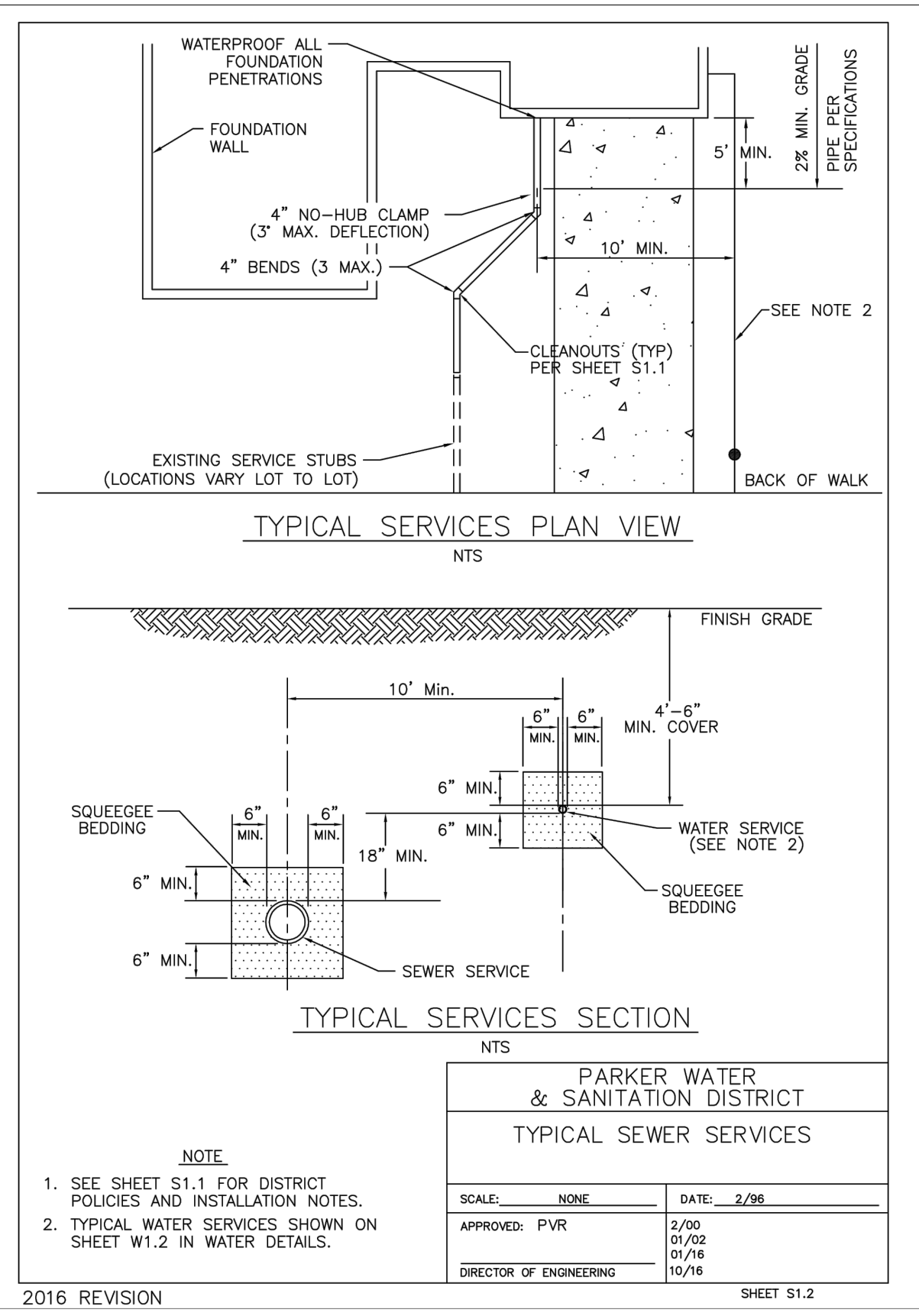
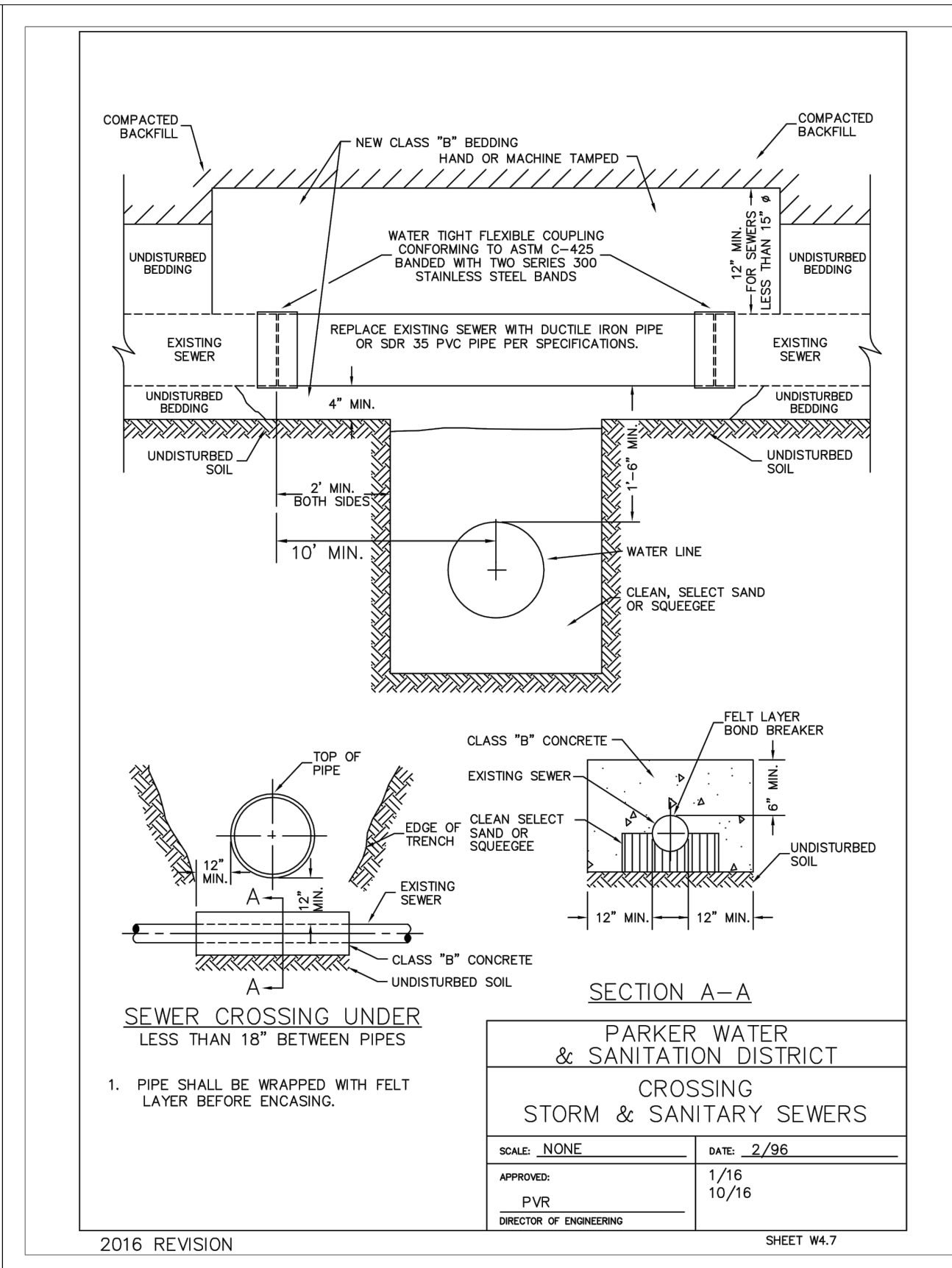
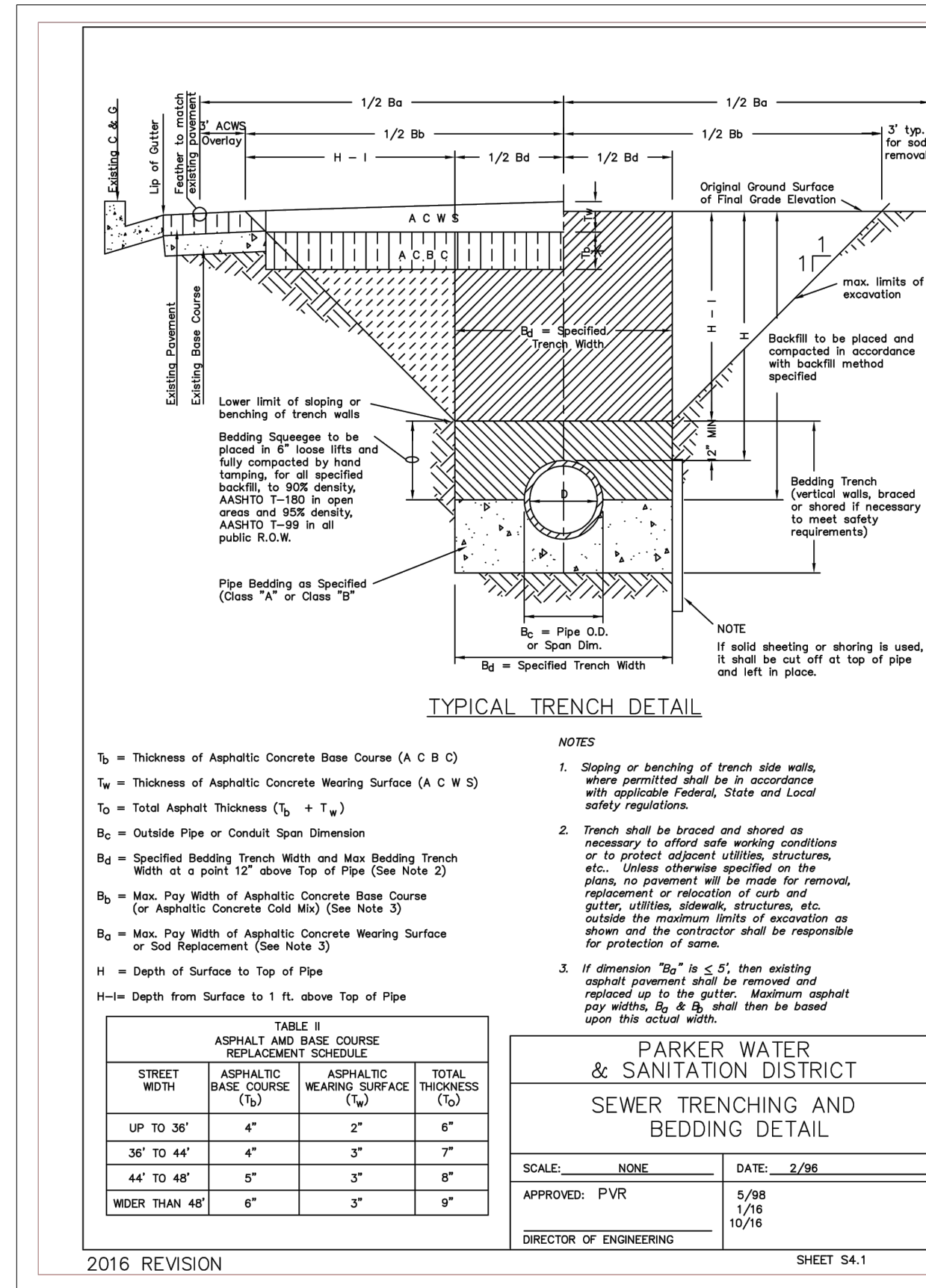
**Galloway**

6162 S. Willow Drive, Suite 320  
 Aurora, CO 80011  
 303.770.9848  
 GallowayUS.com

**MURPHY OIL USA, INC.**  
**MURPHY USA**  
 200 PEACH STREET  
 EL DORADO, AR 71730

REV-0 03/16/2020

DATE PRN PM DES KML DRW



# MURPHY OIL USA, INC.

A PORTION OF LOT 1, BLOCK 3 PARKER AUTO PLAZA FILING NO. 1  
 LOCATED IN THE SOUTHWEST QUARTER OF SECTION 10, TOWNSHIP 6 SOUTH, RANGE 66 WEST OF THE 6TH P.M.  
 TOWN OF PARKER, DOUGLAS COUNTY, STATE OF COLORADO  
**SITE CONSTRUCTION PLANS**



**SHEET NO.**  
**C-3.4**

### BASIS OF BEARING

BEARINGS ARE BASED ON A PORTION OF THE EAST LINE OF LOT 1, BLOCK 3, PARKER AUTO PLAZA FILING NO. 1 AND BEING A PORTION OF THE WEST RIGHT OF WAY LINE OF PARKER ROAD, THE SOUTH END OF THE LINE BEING THE SOUTHEAST CORNER OF SAID LOT 1, BLOCK 3, MONUMENTED ON THE NORTH END BY A FOUND NO. 4 REBAR RED PLASTIC CAP PLS 24960 AND ON THE SOUTH END BY A FOUND NO. 4 REBAR RED PLASTIC CAP PLS 23524, AND IS CONSIDERED TO BEAR S23°56'20"E, A DISTANCE OF 553.91 FEET.

### BENCHMARK

ELEVATIONS ARE BASED ON A DOUGLAS COUNTY CONTROL MONUMENT, STATION NAME: CRAIN, BEING A BRASS DISK LOCATED AT 125 FEET NORTH OF THE CENTERLINE OF A DRIVEWAY, 84 FEET SOUTH OF A DOUBLE 36 IN COULVERT, 25 FEET WEST OF THE EDGE OF PARKER ROAD, AND 25 FEET EAST OF THE WEST RIGHT OF WAY FENCE.

ELEVATION = 5734.25 FEET (NAVD 88) PUBLISHED BY DOUGLAS COUNTY

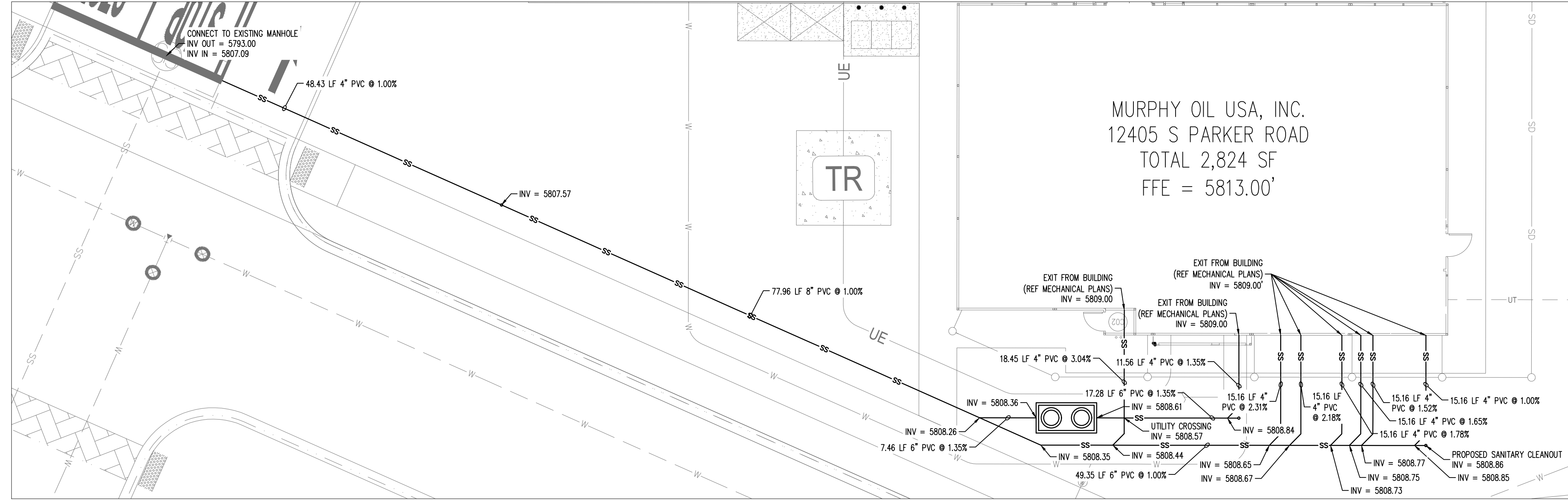
### CAUTION - NOTICE TO CONTRACTOR

- ALL UTILITY LOCATIONS SHOWN ARE BASED ON MAPS PROVIDED BY THE APPROPRIATE UTILITY COMPANY AND FIELD SURFACE EVIDENCE AT THE TIME OF SURVEY AND IS TO BE CONSIDERED AN APPROXIMATE LOCATION ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE LOCATION OF ALL UTILITIES, PUBLIC OR PRIVATE, WHETHER SHOWN ON THE PLANS OR NOT, PRIOR TO CONSTRUCTION. REPORT ANY DISCREPANCIES TO THE ENGINEER PRIOR TO CONSTRUCTION.
- WHERE A PROPOSED UTILITY CROSSES AN EXISTING UTILITY, IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF SUCH EXISTING UTILITY, EITHER THROUGH POT-HOLING OR ALTERNATIVE METHOD. REPORT INFORMATION TO THE ENGINEER PRIOR TO CONSTRUCTION.

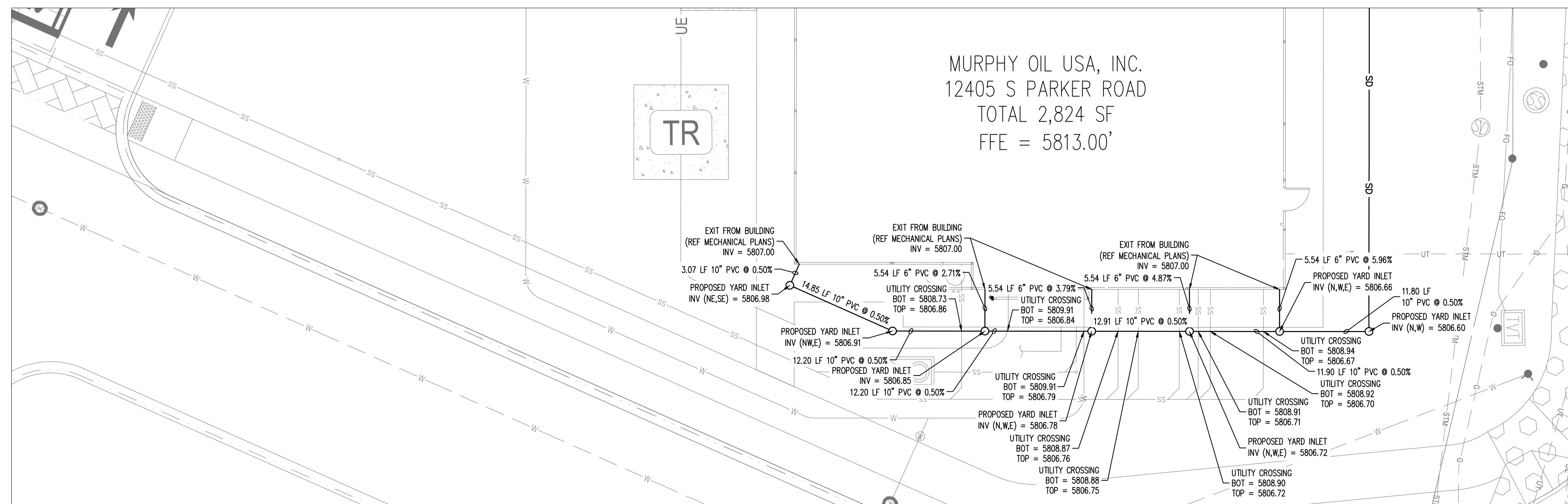


NOTE: CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL INFORMATION FOR FINAL ACCEPTANCE OF WORK FOR ANY LOCAL, STATE OR FEDERAL AGENCY, UTILITY DISTRICT OR ANY OTHER AGENCY OR DISTRICT HAVING APPROVAL AUTHORITY OVER WORK. THIS INFORMATION MAY INCLUDE, BUT IS NOT LIMITED TO, AS-BUILT PLANS, CERTIFICATIONS, INSPECTIONS AND REPORTS.

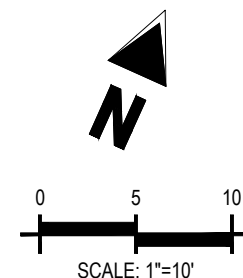
SURVEYOR TO OBTAIN AUTOCAD FILE FROM ENGINEER AND VERIFY ALL HORIZONTAL CONTROL DIMENSIONING PRIOR TO CONSTRUCTION STAKING. SURVEYOR MUST VERIFY ALL BENCHMARK, BASIS OF BEARING AND DATUM INFORMATION TO ENSURE IMPROVEMENTS WILL BE AT THE SAME HORIZONTAL AND VERTICAL LOCATIONS SHOWN ON THE DESIGN CONSTRUCTION DRAWINGS. PRIOR TO CONSTRUCTION STAKING ANY DISCREPANCY MUST BE REPORTED TO OWNER AND ENGINEER PRIOR TO CONTINUATION OF ANY FURTHER STAKING OR CONSTRUCTION WORK.



SANITARY PLAN



STORM PLAN



**STORM AND SANITARY PLAN**  
**MURPHY EXPRESS**  
**12405 SOUTH PARKER ROAD**  
**PARKER COLORADO**

**Galloway**  
 6162 S. Willow Drive, Suite 320  
 Aurora, Colorado 80011  
 303.770.9848  
 GallowayUS.com

**MURPHY OIL USA, INC.**  
 200 PEACH STREET  
 EL DORADO, AR 71730



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 \_\_\_\_\_ DATE \_\_\_\_\_



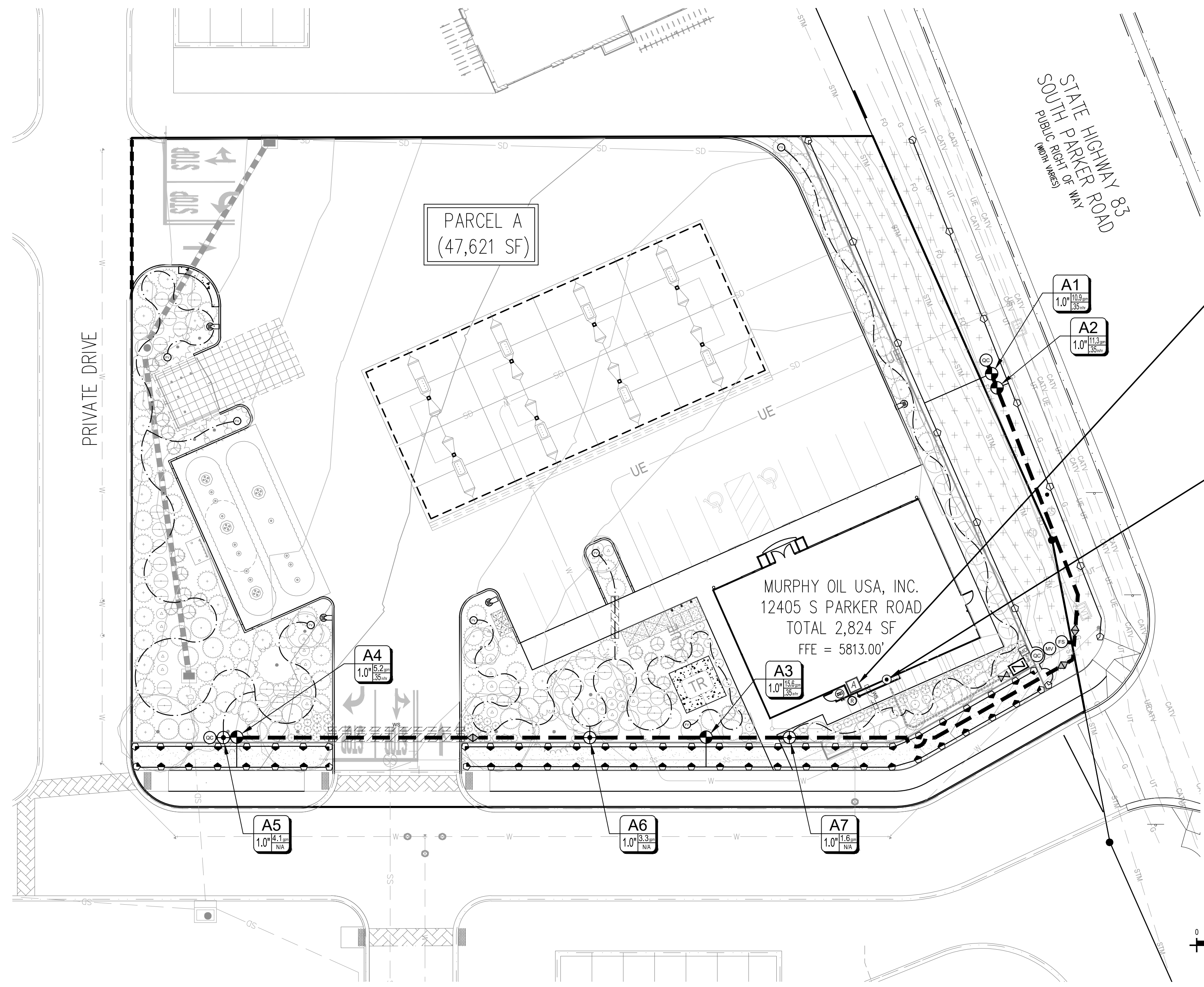
# MURPHY OIL USA, INC.

A PORTION OF LOT 1, BLOCK 3 PARKER AUTO PLAZA FILING NO. 1  
 LOCATED IN THE SOUTHWEST QUARTER OF SECTION 10, TOWNSHIP 6 SOUTH, RANGE 66 WEST OF THE 6TH P.M.  
 TOWN OF PARKER, DOUGLAS COUNTY, STATE OF COLORADO

## SITE CONSTRUCTION PLANS

### IRRIGATION CONTROLLER 'A'

VALVE NUMBER	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10
VALVE SIZE	1.0"	1.0"	1.0"	1.0"	1.0"	1.0"	1.0"	OPEN	OPEN	OPEN
G.P.M.	10.9	11.3	15.6	5.2	4.1	3.3	1.6	OPEN	OPEN	OPEN
OPERATION PSI	40	40	40	40	40	40	40	OPEN	OPEN	OPEN
ZONE TYPE	ROTATOR	ROTATOR	ROTATOR	ROTATOR	DRIP	DRIP	DRIP	OPEN	OPEN	OPEN



**CONTROLLER 'A' NOTE**

- ONE (1) 10 STATION CONTROLLER, SEE LEGEND.
- THREE (3) OPEN STATIONS FOR FUTURE EXPANSION.
- STATION RUN ORDER SHALL MATCH PLANS.
- LOCATE CONTROLLER IN THE UTILITY CLOSET AS SPECIFIED ON THE BUILDING PLANS. VERIFY LOCATION WITH OWNER OR REPRESENTATIVE.
- 120 VAC POWER TO CONTROLLER LOCATION SHALL BE PROVIDED BY OTHERS. HOOK-UP OF CONTROLLERS TO 120 VAC SHALL BE PERFORMED BY THE LANDSCAPE CONTRACTOR.
- CONDUIT FROM INSIDE THE BUILDING TO EXTERIOR IRRIGATION SYSTEM SHALL BE PROVIDED BY OTHERS.

**POINT OF CONNECTION 'A'**

STATIC PRESSURE: +/- TBD  
 SIZE OF TAP: 1"

- USE 1" TAP AND INTO THE DOMESTIC WATER LINE DOWNSTREAM OF THE BUILDING METER.
- 1" TYPE K COPPER SERVICE FROM THE TAP THROUGH THE IRRIGATION BACKFLOW, TO THE MASTER VALVE.
- CONTRACTOR SHALL VERIFY LOCATION OF THE EQUIPMENT, IN FIELD WITH OWNER OR OWNERS AUTHORIZED REPRESENTATIVE AND/OR LANDSCAPE ARCHITECT.
- SEE POINT OF CONNECTION DIAGRAM, THIS SHEET, FOR THE IRRIGATION SYSTEM EQUIPMENT CONFIGURATION.
- THE IRRIGATION CONTRACTOR SHALL FIELD VERIFY THE STATIC & OPERATING WATER PRESSURE PRIOR TO CONSTRUCTION. SEE GENERAL IRRIGATION NOTES.
- WHEN WATER PRESSURE TO THE IRRIGATION SYSTEM EXCEEDS 100 PSI, THE IRRIGATION CONTRACTOR SHALL INSTALL A PRESSURE REDUCING / REGULATING VALVE (PRV) TO LIMIT THE WATER TO 80 PSI MAXIMUM. WHEN PRESSURE DROPS BELOW 65 PSI, THE IRRIGATION CONTRACTOR SHALL INSTALL A BOOSTER PUMP TO A MINIMUM PRESSURE OF 80 PSI.

**CAUTION**  
 UTILITIES EXIST WITHIN CONSTRUCTION LIMITS. CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING UTILITIES PRIOR TO CONSTRUCTION.

### IRRIGATION LEGEND

SYMBOL	MANUF.	MODEL NO.	DESCRIPTION	REMARKS/DETAIL
[A]	HUNTER	I-CORE 10 STATION	IRRIGATION CONTROLLER TO BE A HUNTER IC-1000-M, WITHIN METAL VANDAL RESISTANT LOCKABLE PEDESTAL CABINET. IRRIGATION CONTROLLER TO BE LOCATED AS DIRECTED BY OWNER OR OWNERS REPRESENTATIVE.	DETAIL 1 / IR1.2
[B]	HUNTER	SOLAR-SYNC	ET/RAIN/FREEZE SENSOR - MOUNT PER DETAIL AND PLAN LOCATION	DETAIL 4 / IR1.2

### POINT OF CONNECTION

[C]	PER CITY OR WATER DISTRICT CODES AND STANDARDS	1"	POINT OF CONNECTION, REFERENCE CIVIL PLANS FOR TAP LOCATION.	SEE P.O.C. DIAGRAM THIS SHEET
[M]	PER CITY OR WATER DISTRICT CODES AND STANDARDS		IRRIGATION METER, REFERENCE CIVIL PLANS FOR METER LOCATION.	SEE P.O.C. DIAGRAM THIS SHEET
[N]	FEBCO	MODEL #25YA	1" BACKFLOW PREVENTER-MOUNT IN GUARDSHACK MODEL #GS-1 W/ FROST GUARD BAG MODEL #FG-1 FOR WINTERIZATION, SEE POINT OF CONNECTION SCHEMATIC DIAGRAMS	DETAIL 2 / IR1.2

### VALVES

[W]	HUNTER	IBV-101G-FS	1" MASTER VALVE	DETAIL 2 / IR1.3
[FE]	FLOMEC	QS200-10	1" ULTRASONIC FLOWMETER WITH 1" PVC TEE RECEPTACLE	DETAIL 16 / IR1.2
[H]	HUNTER	ICV-FS-ADJ	REMOTE CONTROL VALVE. SIZE PER PLAN. ADJUST PRESSURE REGULATOR BETWEEN 60-85PSI. GROUP VALVES TO FIT WITHIN WATER SCHEDULES/MAXIMIZE AVAILABLE GPMs.	DETAIL 3 / IR1.2
[R]	RAINBIRD	KCZ-100-PRB-COM (0.3-20 GPM)	DRIP CONTROL ZONE KITS (24 VAC-60HZ) IRRIGATION CONTRACTOR TO VERIFY DRIP ZONES PRESSURE REQUIREMENTS AND USE VALVE REGULATOR FOR HIGH PRESSURES. GROUP VALVES TO FIT WITHIN WATER SCHEDULES/MAXIMIZE AVAILABLE GPMs.	DETAIL 5 / IR1.2
[QC]	HUNTER	HQ-44-LRC	1" QUICK COUPLER WITH LOCK	DETAIL 9 / IR1.2
[V]	HUNTER	AFV-B	AUTOMATIC FLUSH VALVE WITH BARB CONNECTION.	DETAIL 13 / IR1.3
[WV]	WATTS	WG-V	GATE VALVE. SEE POINT OF CONNECTION SCHEMATIC DIAGRAMS	DETAIL 7 / IR1.2
[A]	ANY APPROVED	ANY APPROVED	PVC BALL VALVE - SIZE PER MAINLINE SIZE	DETAIL 11 / IR1.2

### MAIN LINE / LATERALS & SLEEVES

[---]	ANY APPROVED	PRESSURIZED PVC MAINLINE - 1-1/2" CLASS 200 PVC PIPE UNLESS OTHERWISE NOTED ON THE PLANS	DETAIL 10 / IR1.2
[---]	ANY APPROVED	LATERAL LINE - USE CLASS 300 PVC. SIZE 1"-INCH SIZE UNLESS OTHERWISE NOTED ON THE PLANS. INSTALL ANTI-FREEZE DRAINS AT LOW POINTS	DETAIL 10 / IR1.2
[---]	ANY APPROVED	IRRIGATION SLEEVE - SCHEDULE 40 PVC TWICE THE SIZE OF THE PIPE TO BE INSERTED, ONE SLEEVE PER PIPE	DETAIL 10 / IR1.2
[---]	ANY APPROVED	CONTROL WIRING SLEEVE - 2" SCHEDULE 40 PVC PIPE (SEE WIRING/SPLICING/SLEEVE NOTE, THIS SHEET)	DETAIL 10 / IR1.2

### ROTORS & SPRAY HEADS

[R]	HUNTER	PROS-06-CV/MPI1000-90 (TURF) PROS-12-CV/MPI1000-90 (SEED)	MP ROTATOR-QUARTER	MAROON	8'-13"	0.16	40	DETAIL 1 / IR1.3
[R]	HUNTER	PROS-06-CV/MPI1000-90 (TURF) PROS-12-CV/MPI1000-90 (SEED)	MP ROTATOR-135°	MAROON	8'-13"	0.24	40	DETAIL 1 / IR1.3
[R]	HUNTER	PROS-06-CV/MPI1000-90 (TURF) PROS-12-CV/MPI1000-90 (SEED)	MP ROTATOR-HALF	MAROON	8'-13"	0.32	40	DETAIL 1 / IR1.3
[R]	HUNTER	PROS-06-CV/MPI1000-360 (TURF) PROS-12-CV/MPI1000-360 (SEED)	MP ROTATOR-FULL	OLIVE	8'-13"	0.65	40	DETAIL 1 / IR1.3
[R]	HUNTER	PROS-06-CV/MPI3000-90 (TURF) PROS-12-CV/MPI3000-90 (SEED)	MP ROTATOR-QUARTER	BLUE	20'-28"	0.74	40	DETAIL 1 / IR1.3
[R]	HUNTER	PROS-06-CV/MPI3000-90 (TURF) PROS-12-CV/MPI3000-90 (SEED)	MP ROTATOR-135°	BLUE	20'-28"	1.29	40	DETAIL 1 / IR1.3
[R]	HUNTER	PROS-06-CV/MPI3000-90 (TURF) PROS-12-CV/MPI3000-90 (SEED)	MP ROTATOR-HALF	BLUE	20'-28"	1.58	40	DETAIL 1 / IR1.3

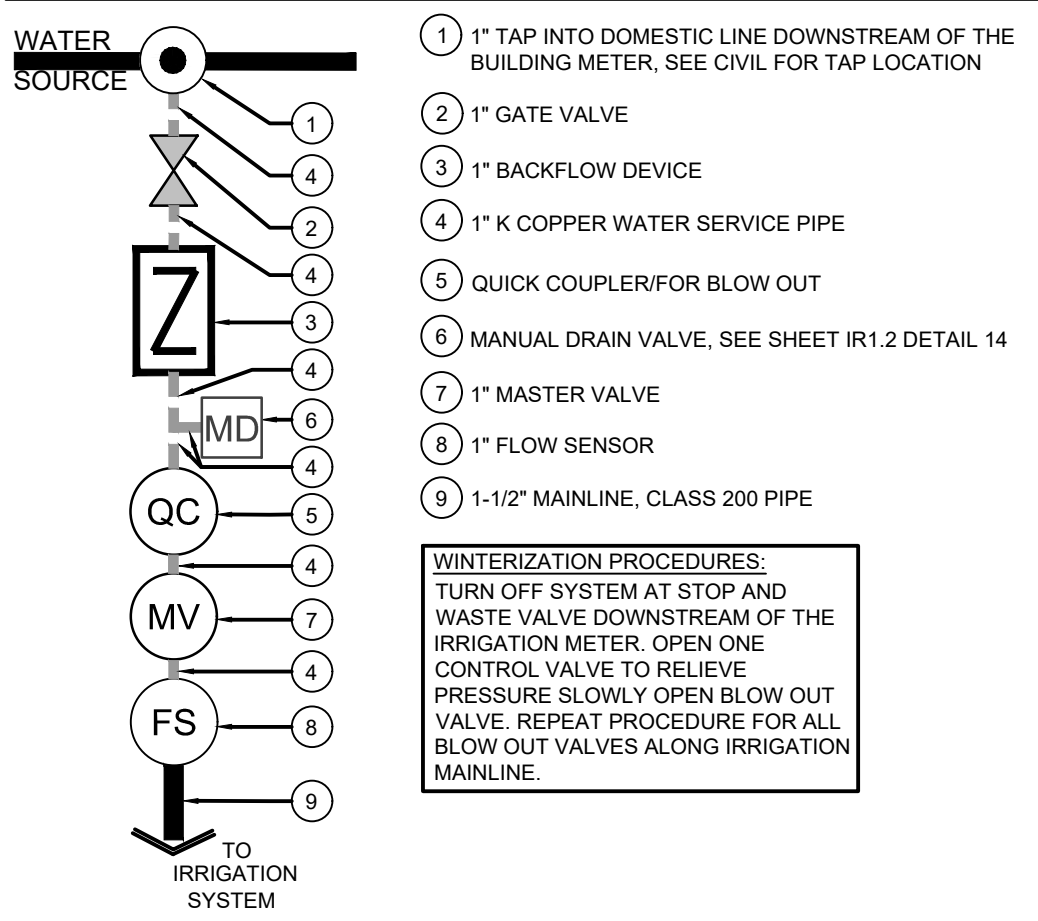
### SPRAY NOTES:

1. CONTRACTOR SHALL USE RADIUS REDUCTION SCREWS ON MP ROTATORS AS NECESSARY TO ACHIEVE APPROPRIATE RADII COVERAGE.

### DRIP SYSTEM

[R]	RAINBIRD	FOR LANDSCAPE BED AREAS - XBS-XXX	XERI BLACK STRIPE POLY TUBING (OR APPROVED EQUAL). CONNECTION TO PVC LATERAL PER CONTRACTOR. ATTACH TREE & SHRUB DRIP EMITTERS PER THE EMITTER SCHEDULE BELOW. USE 3/4-INCH POLY TUBING SIZE UNLESS OTHERWISE NOTED. FLOWS IN GPM FOR LINE CHANGES SHALL BE: (3/4"-1 TO 7 GPM), (1"-8 TO 14 GPM), (1-1/2"-15 TO 35 GPM). INSTALL SEVERAL IN-LINE CHECK VALVES IN ZONES W/ LARGE ELEVATION DIFFERENCES. GROUP DRIP CONTROLLER VALVES TOGETHER TO MAXIMIZE WATER WINDOWS.	DETAIL 8 / IR1.2
[V]	HUNTER	AFV-B	AUTOMATIC FLUSH VALVE WITH BARB CONNECTION.	DETAIL 13 / IR1.2
[R]	DRIP EMITTER SCHEDULE	PROVIDE THE FOLLOWING DRIP EMITTERS FOR EACH PLANT:	PLANTS, 1 GALLON AND SMALLER: 2, XB-10PC - (2 GPH) EMITTERS PER PLANT PLANTS, 5 GALLON: 3, XB-10PC - (3 GPH) EMITTERS PER TREE UPRIGHT JUNIPERS, 10-15 GALLON: 4, XB-10PC - (4 GPH) EMITTERS PER TREE TREES, 1" TO 2-1/2" CALIPER: 7, XB-10PC - (7 GPH) EMITTERS PER TREE TREES, 3" TO 4" CALIPER:	---

### TYPICAL POINT OF CONNECTION SCHEMATIC DIAGRAM



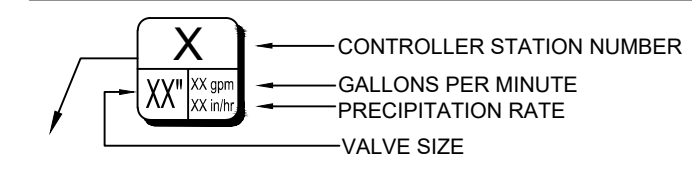
### IRRIGATION DISCLAIMER

- IRRIGATION DESIGN IS NOT AN EXACT SCIENCE. IT IS BASED ON THEORIES, ASSUMPTIONS, AND/OR INFORMATION PROVIDED BY CIVIL MODELS/UTILITIES/MUNICIPALITIES ENTITIES AND THIS DIAGRAMMATIC IN NATURE.
- CONTRACTOR SHALL INSTALL MAINLINES 12" FROM PAVEMENT EDGE IN PLANTING AREAS. 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 AS INDICATED ON THESE PLANS.
- THE IRRIGATION CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL ABOVE-GRADE AND VISIBLE IRRIGATION EQUIPMENT (CONTROLLERS, BACKFLOW PREVENTERS, METER PITS, ETC.) WITH THE OWNER'S AUTHORIZED REPRESENTATIVE AND / OR LANDSCAPE ARCHITECT PRIOR TO INSTALLATION. THE INSTALLATION OF THESE ITEMS SHALL BE INTEGRATED WITHIN DESIGNATED LANDSCAPE AREAS. FAILURE TO LOCATE THIS EQUIPMENT IN AN APPROVED LOCATION MAY RESULT IN THE IRRIGATION CONTRACTOR BEING REQUIRED TO MOVE SUCH ITEMS AT HIS OWN COST.
- THE IRRIGATION SYSTEM DESIGN IS BASED ON THE MINIMUM OPERATING PRESSURE AND THE MAXIMUM FLOW DEMAND SHOWN ON THE DRAWINGS. THE IRRIGATION CONTRACTOR SHALL FIELD VERIFY THE STATIC & OPERATING WATER PRESSURE PRIOR TO CONSTRUCTION OF ANY COMPONENT OF THE IRRIGATION SYSTEM. AFTER FIELD VERIFICATION, THE IRRIGATION CONTRACTOR SHALL NOTIFY THE OWNER, OWNER'S REPRESENTATIVE, LANDSCAPE ARCHITECT, & IRRIGATION DESIGNER OF THE PRESSURE READING FOR THE TAP.
- ALL PRESSURIZED MAINLINES, VALVES, DRIP, AND ROTOR AND SPRAY HEADS SHALL BE INSTALLED A MINIMUM OF 5' AWAY FROM ANY BUILDING FOUNDATION. ADDITIONAL REQUIREMENTS MAY BE LISTED IN THE GEOTECHNICAL REPORT REGARDING IRRIGATION NEAR BUILDING FOUNDATIONS. CONTRACTOR IS RESPONSIBLE TO ABIDE BY THE 5' MINIMUM DISTANCE AND/OR THE GEOTECHNICAL REPORT REQUIREMENTS. IF THIS EQUIPMENT IS SHOWN WITHIN THE 5' OFFSET ON THESE PLANS, IT IS FOR THE PURPOSE OF GRAPHIC CLARITY ONLY.
- REFER TO SHEET IR1.2 FOR IRRIGATION DETAILS AND IR1.3 FOR IRRIGATION NOTES.

### UTILITY NOTES

- THE LANDSCAPE CONTRACTOR IS REQUIRED TO CONTACT THE COUNTY PUBLIC WORKS DEPARTMENT, AND ANY OTHER PUBLIC OR PRIVATE AGENCY NECESSARY FOR UTILITY LOCATION PRIOR TO ANY CONSTRUCTION.
- THIS DRAWING IS A PART OF A COMPLETE SET OF BID DOCUMENTS, SPECIFICATIONS, ADDITIONAL DRAWINGS, AND EXHIBITS. UNDER NO CIRCUMSTANCES SHOULD THESE PLANS BE USED FOR CONSTRUCTION PURPOSES WITHOUT EXAMINING ACTUAL LOCATIONS OF UTILITIES ON SITE, AND REVIEWING ALL RELATED DOCUMENTS.
- THE LOCATION OF THE ALL UNDERGROUND UTILITIES ARE LOCATED ON THE ENGINEERING DRAWINGS FOR THIS PROJECT. THE MOST CURRENT REVISION IS HERE IN MADE PART OF THIS DOCUMENT. UNDERGROUND UTILITIES EXIST THROUGHOUT THIS SITE AND MUST BE LOCATED PRIOR TO ANY CONSTRUCTION ACTIVITY. WHERE UNDERGROUND UTILITIES EXIST, FIELD ADJUSTMENT MAY BE NECESSARY AND MUST BE APPROVED BY A REPRESENTATIVE OF THE OWNER. NEITHER THE OWNER NOR THE LANDSCAPE ARCHITECT ASSUMES ANY RESPONSIBILITY WHATSOEVER, IN RESPECT TO THE CONTRACTORS ACCURACY IN LOCATING THE INDICATED PLANT MATERIAL, AND UNDER NO CIRCUMSTANCES SHOULD THESE PLANS BE USED WITHOUT REFERENCING THE ABOVE MENTIONED DOCUMENTS.

### VALVE KEY DIAGRAM

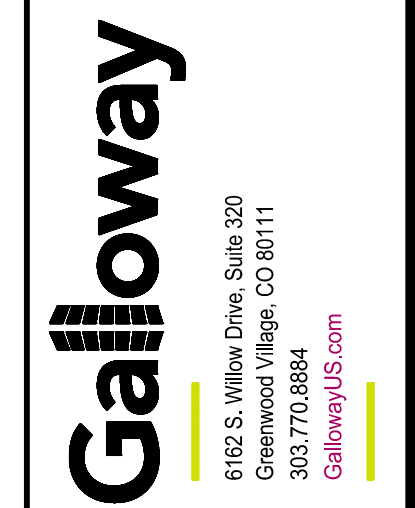


### WIRING / SPLICING / SLEEVING NOTES

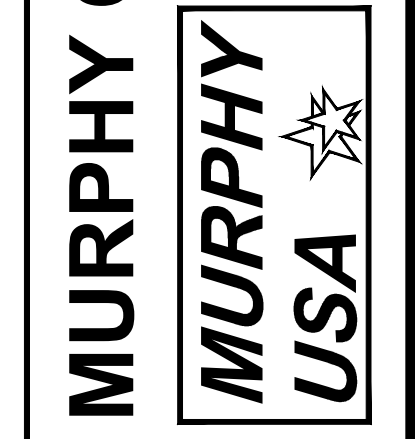
- 14 AWG WIRE TO BE USED FOR UP TO 10,000 LF. 12 AWG WIRE SHALL BE USED BETWEEN 10,000 LF & 15,000 LF.
- ALL CONNECTIONS AND SPLICES MUST BE MADE WITH DBRY-8 WATERPROOF CONNECTORS. LEAVE 5 LF OF WIRE SLACK FOR EASE OF MAINTENANCE AND PREVENT DAMAGE FROM CONTRACTION.
- PROVIDE AND INSTALL SCHEDULE 40 PVC SLEEVES FOR ALL CONTROLLER WIRES OCCURRING UNDER ALL ROADWAYS AND WALKWAYS. SLEEVES FOR CONTROLLER WIRES SHALL BE 2" DIA.

SHEET NO. IR1.1

IRRIGATION PLAN  
 MURPHY EXPRESS  
 12405 SOUTH PARKER ROAD  
 PARKER, COLORADO



MURPHY OIL USA, INC.  
 200 PEACH STREET  
 EL DORADO, AR 71730



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 REVIEW, AND/OR OTHER PERMITS ARE COMPLETE, APPROVED AND ON FILE WITH THE TOWN OF PARKER.

TOWN OF PARKER, DIRECTOR OF ENGINEERING DATE

# MURPHY OIL USA, INC.

A PORTION OF LOT 1, BLOCK 3 PARKER AUTO PLAZA FILING NO. 1  
 LOCATED IN THE SOUTHWEST QUARTER OF SECTION 10, TOWNSHIP 6 SOUTH, RANGE 66 WEST OF THE 6TH P.M.  
 TOWN OF PARKER, DOUGLAS COUNTY, STATE OF COLORADO  
**SITE CONSTRUCTION PLANS**

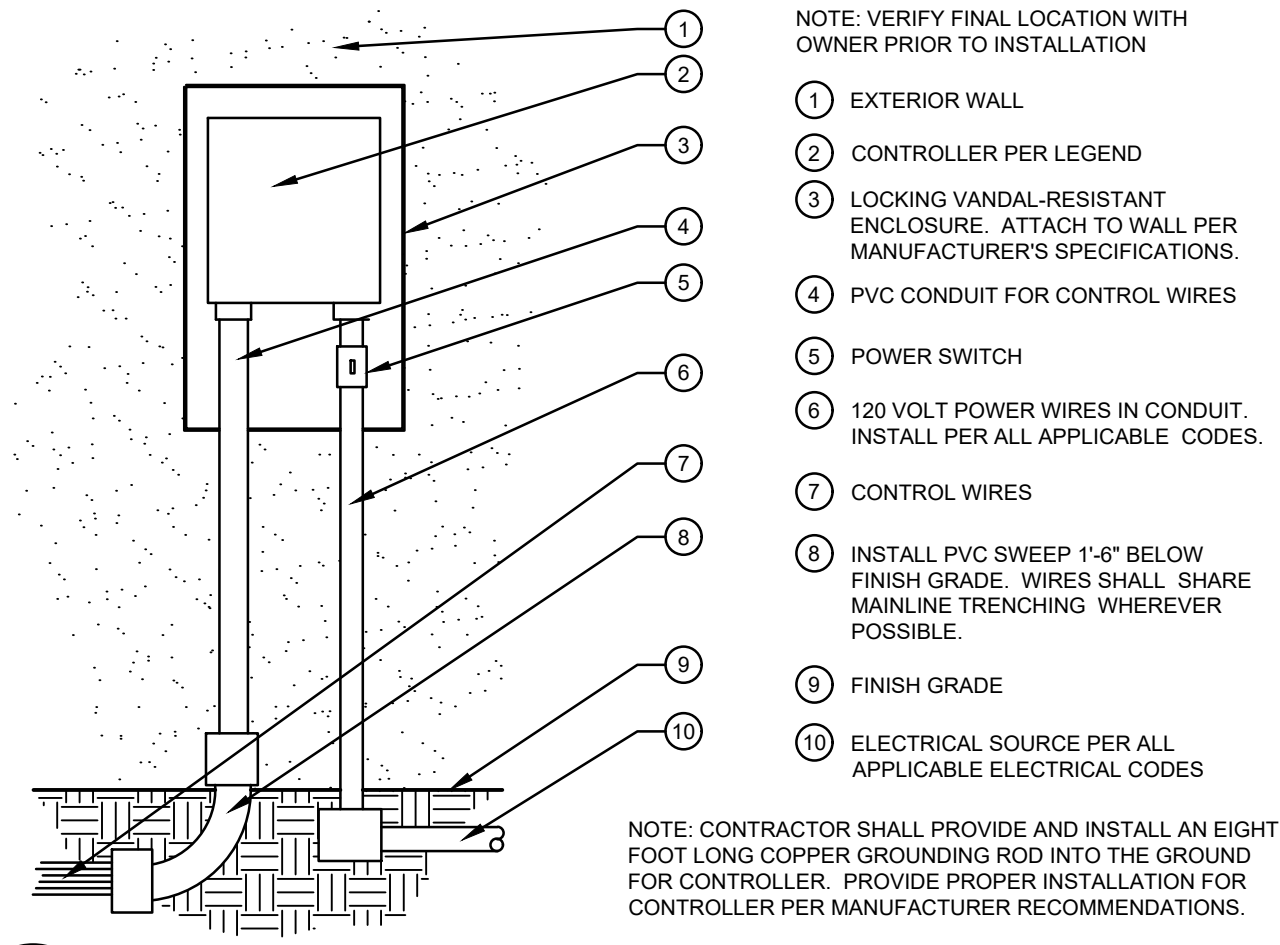


SHEET NO. **IR1.2**

IRRIGATION DETAILS  
 MURPHY EXPRESS  
 12405 SOUTH PARKER ROAD  
 PARKER, COLORADO

**Galloway**  
 6162 S. Willow Drive, Suite 320  
 Littleton, CO 80111  
 303.770.8848  
 GallowayUS.com

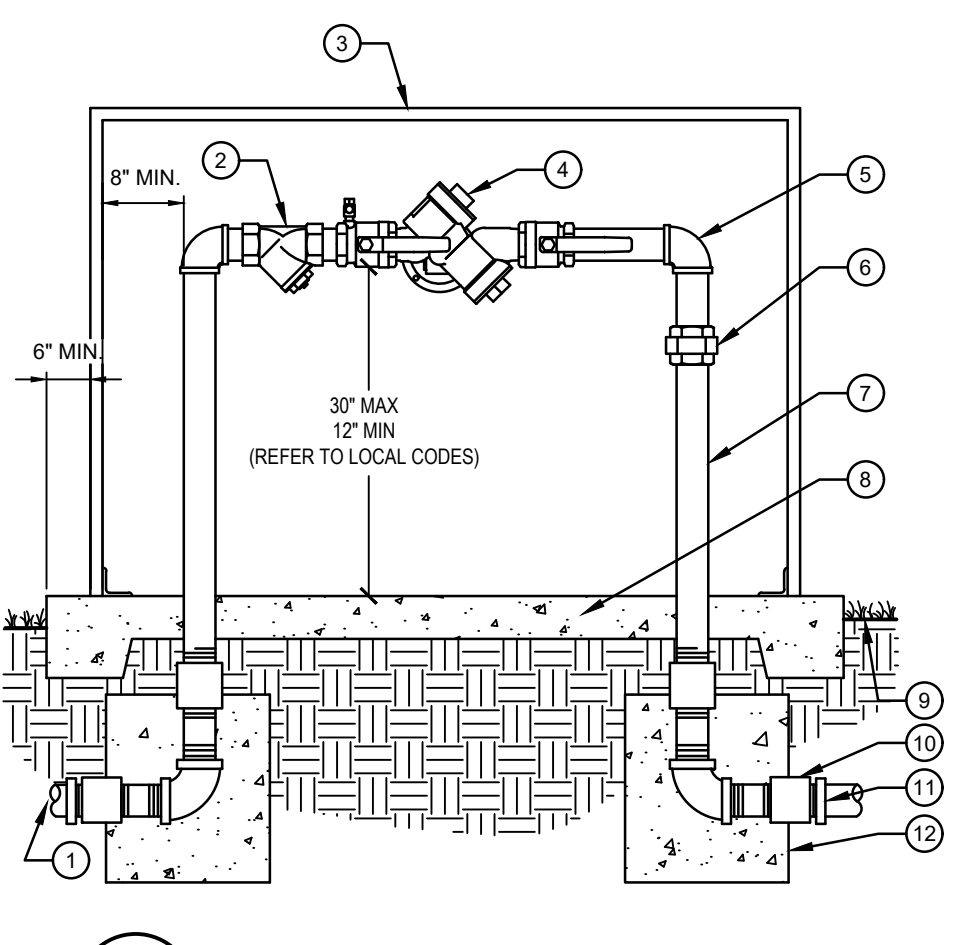
**MURPHY OIL USA, INC.**  
 200 PEACH STREET  
 EL DORADO, AR 71730  
**MURPHY USA**



**1 WALL MOUNT CONTROLLER**  
 SCALE: NOT TO SCALE

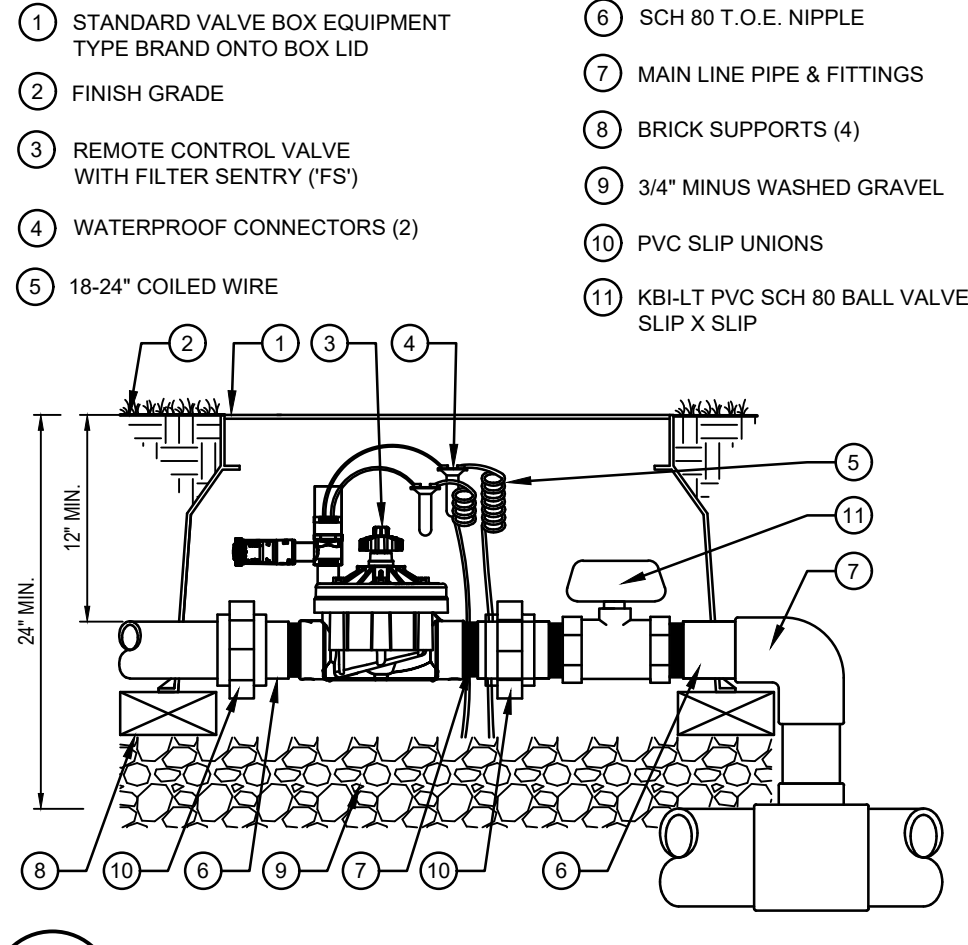
- NOTE: VERIFY FINAL LOCATION WITH OWNER PRIOR TO INSTALLATION
- EXTERIOR WALL
  - CONTROLLER PER LEGEND
  - LOCKING VANDAL-RESISTANT ENCLOSURE. ATTACH TO WALL PER MANUFACTURER'S SPECIFICATIONS.
  - PVC CONDUIT FOR CONTROL WIRES
  - POWER SWITCH
  - 120 VOLT POWER WIRES IN CONDUIT. INSTALL PER ALL APPLICABLE CODES.
  - CONTROL WIRES
  - INSTALL PVC SWEEP 1'-6" BELOW FINISH GRADE. WIRES SHALL SHARE MAINLINE TRENCHING WHEREVER POSSIBLE.
  - FINISH GRADE
  - ELECTRICAL SOURCE PER ALL APPLICABLE ELECTRICAL CODES

NOTE: CONTRACTOR SHALL PROVIDE AND INSTALL AN EIGHT FOOT LONG COPPER GROUNDING ROD INTO THE GROUND FOR CONTROLLER. PROVIDE PROPER INSTALLATION FOR CONTROLLER PER MANUFACTURER RECOMMENDATIONS.



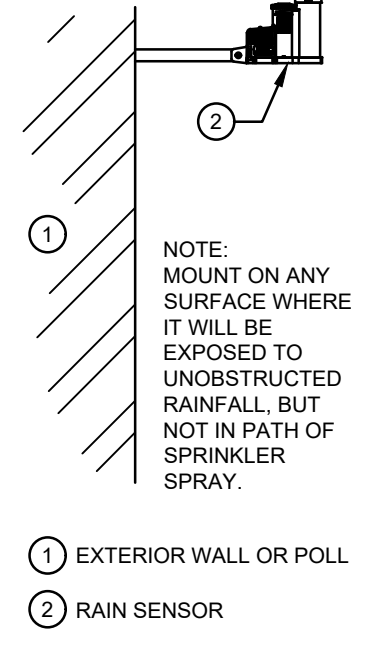
**2 BACKFLOW PREVENTER, REDUCED PRESSURE**  
 SCALE: NOT TO SCALE

- TO POINT OF CONNECTION-ADAPT AS NECESSARY ALL WORK SHALL CONFORM TO ALL APPLICABLE CODES
- BRASS WYE STRAINER W/60 MESH SCREEN
- ENCLOSURE PER IRRIGATION LEGEND
- BACKFLOW PREVENTER UNIT
- BRASS 90 DEGREE ELLS (TYP.)
- BRASS UNION (TYPICAL)
- BRASS NIPPLES (TYPICAL)
- 4" CONCRETE PAD - SLOPE TO DRAIN AWAY FROM BACKFLOW PREVENTER
- FINISH GRADE 2" BELOW PAD
- BRASS COUPLING
- PIPE ADAPTER AND MAINLINE PIPE
- 12"x12"x12" THRUST BLOCKS

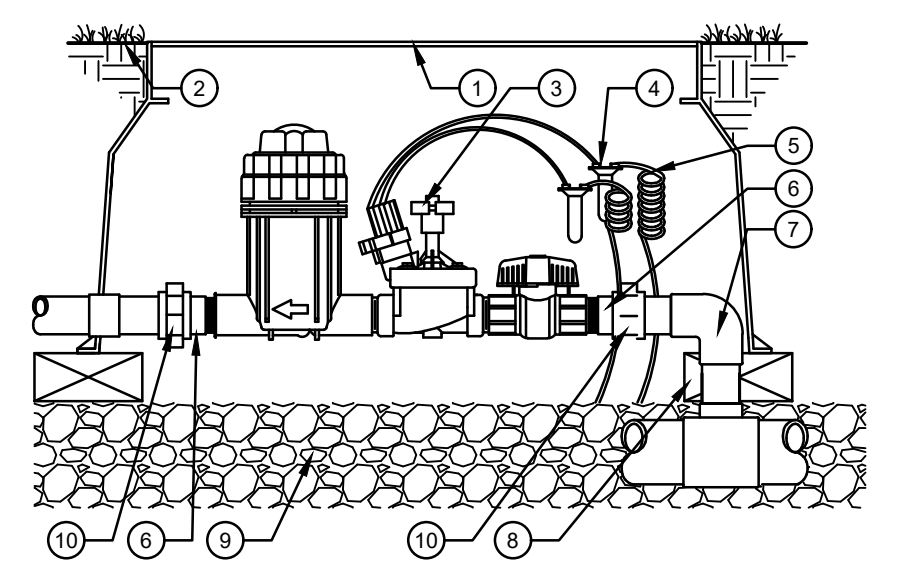


**3 REMOTE CONTROL VALVE**  
 SCALE: NOT TO SCALE

- STANDARD VALVE BOX EQUIPMENT TYPE BRAND ONTO BOX LID
- FINISH GRADE
- REMOTE CONTROL VALVE WITH FILTER ENTRY (FS)
- WATERPROOF CONNECTORS (2)
- 18-24" COILED WIRE
- SCH 80 T.O.E. NIPPLE
- MAIN LINE PIPE & FITTINGS
- BRICK SUPPORTS (4)
- 3/4" MINUS WASHED GRAVEL
- PVC SLIP UNIONS
- KBI-LT PVC SCH 80 BALL VALVE SLIP X SLIP

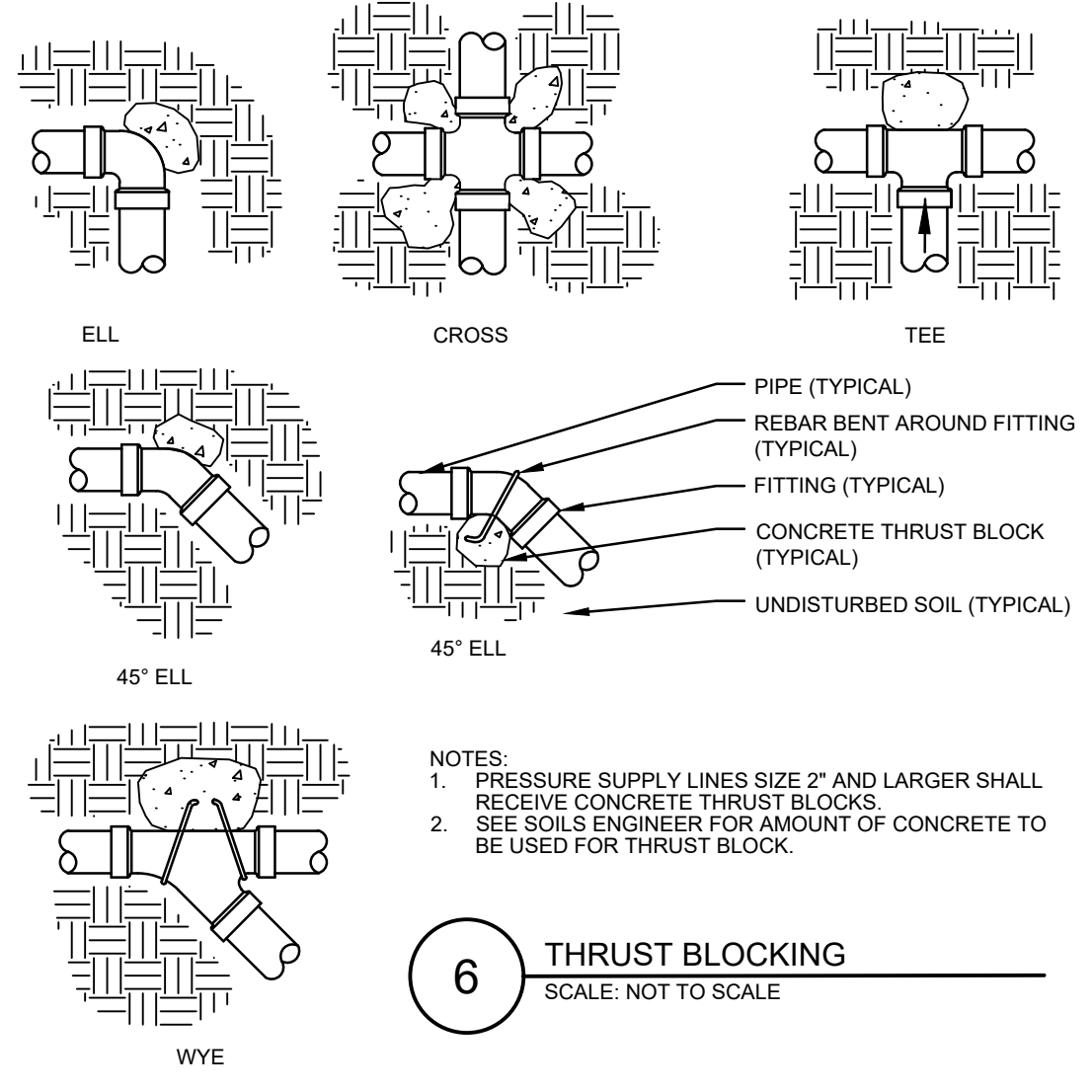


**4 WEATHER SENSOR**  
 SCALE: NOT TO SCALE



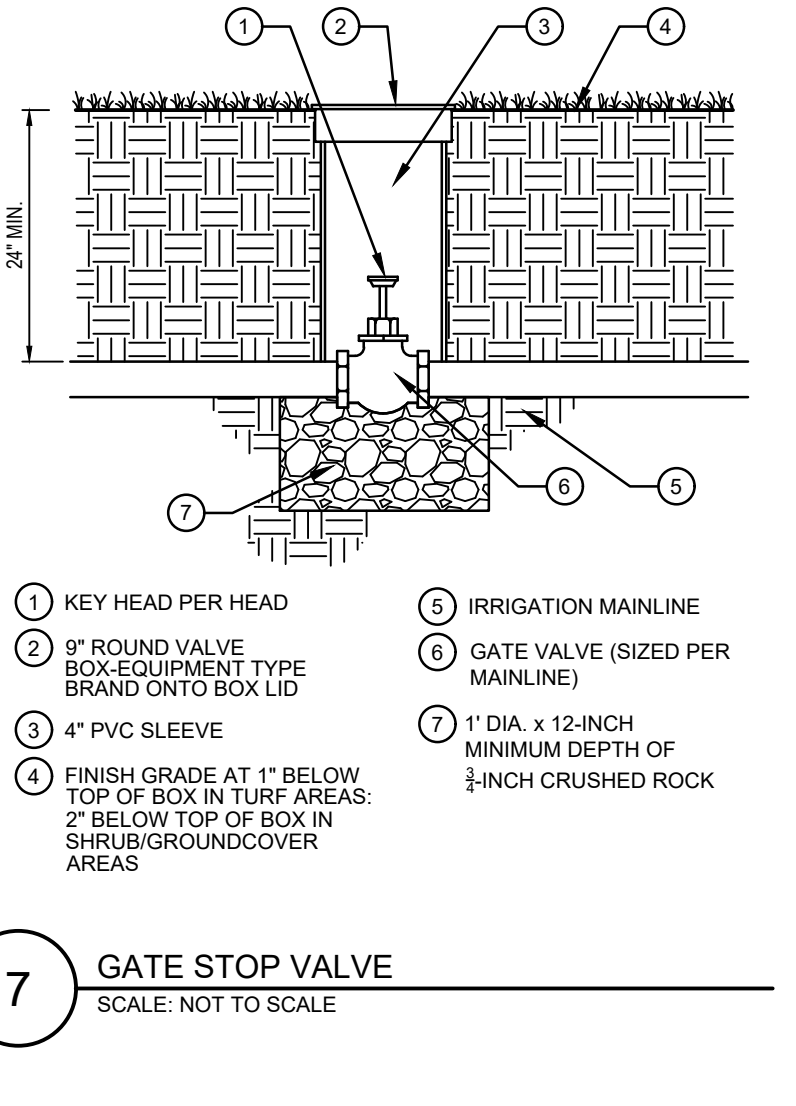
**5 REMOTE DRIP CONTROL VALVE**  
 SCALE: NOT TO SCALE

- STANDARD VALVE BOX, BRAND EQUIPMENT TYPE AND ZONE NUMBER ONTO LID
- FINISH GRADE
- DRIP ZONE KIT PER PLAN
- WATERPROOF CONNECTORS (2)
- 18-24" COILED WIRE
- SCH 80 T.O.E. NIPPLE
- MAIN LINE PIPE & FITTINGS
- BRICK SUPPORTS (4)
- 6" MINIMUM LAYER OF 3/4" MINUS WASHED GRAVEL
- PVC SLIP UNIONS

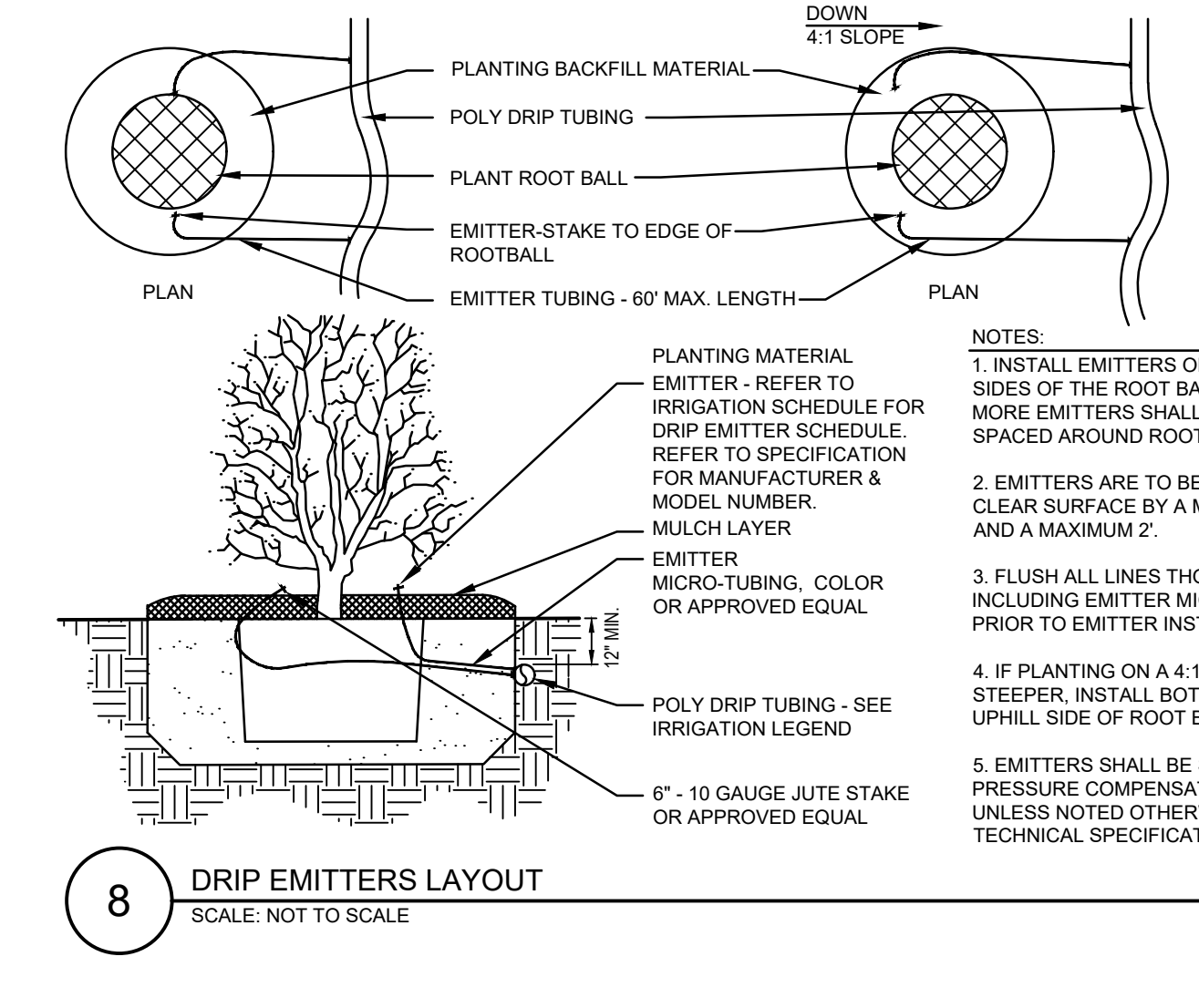


**6 THRUST BLOCKING**  
 SCALE: NOT TO SCALE

- NOTES:  
 1. PRESSURE SUPPLY LINES SIZE 2" AND LARGER SHALL RECEIVE CONCRETE THRUST BLOCKS.  
 2. SEE SOILS ENGINEER FOR AMOUNT OF CONCRETE TO BE USED FOR THRUST BLOCK.

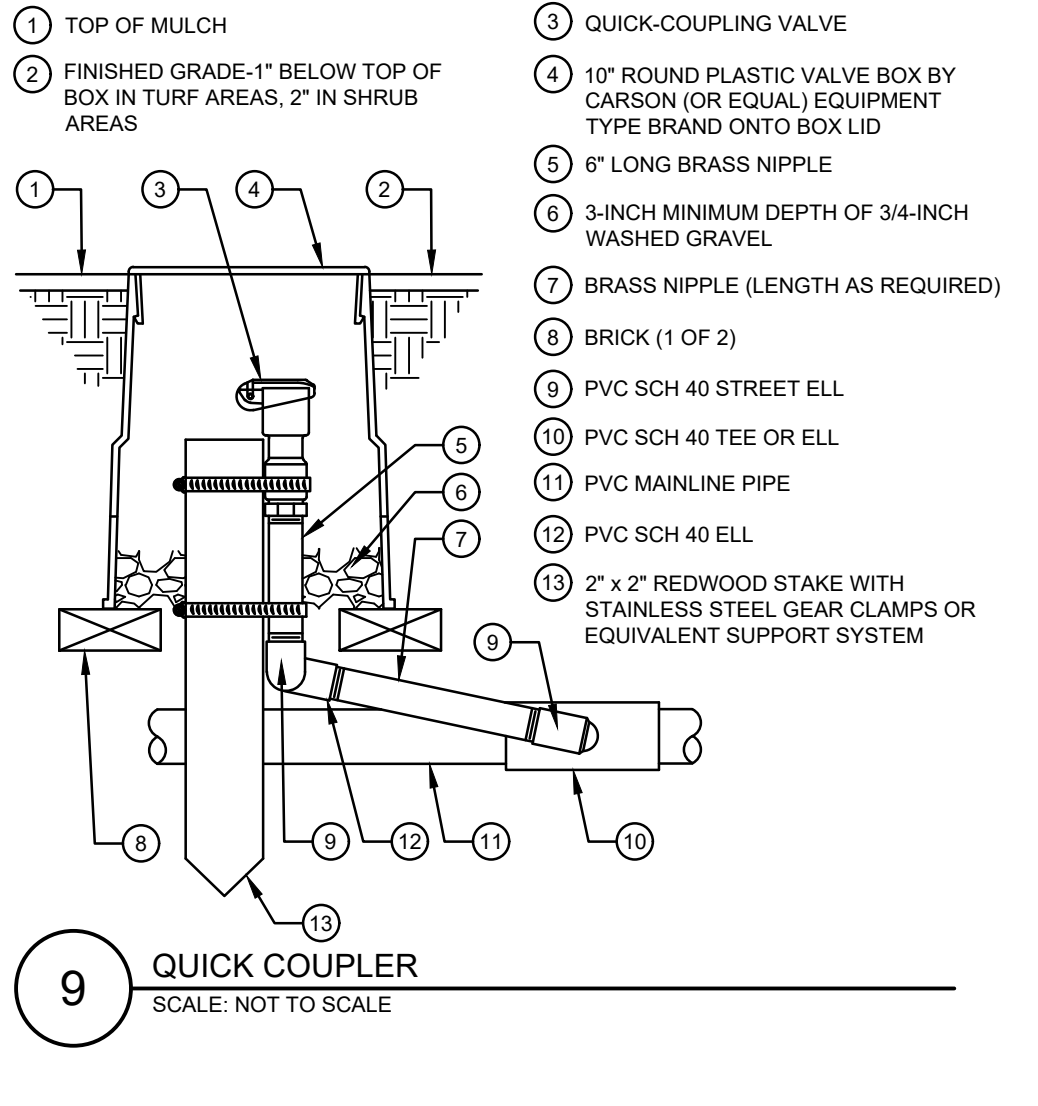


**7 GATE STOP VALVE**  
 SCALE: NOT TO SCALE



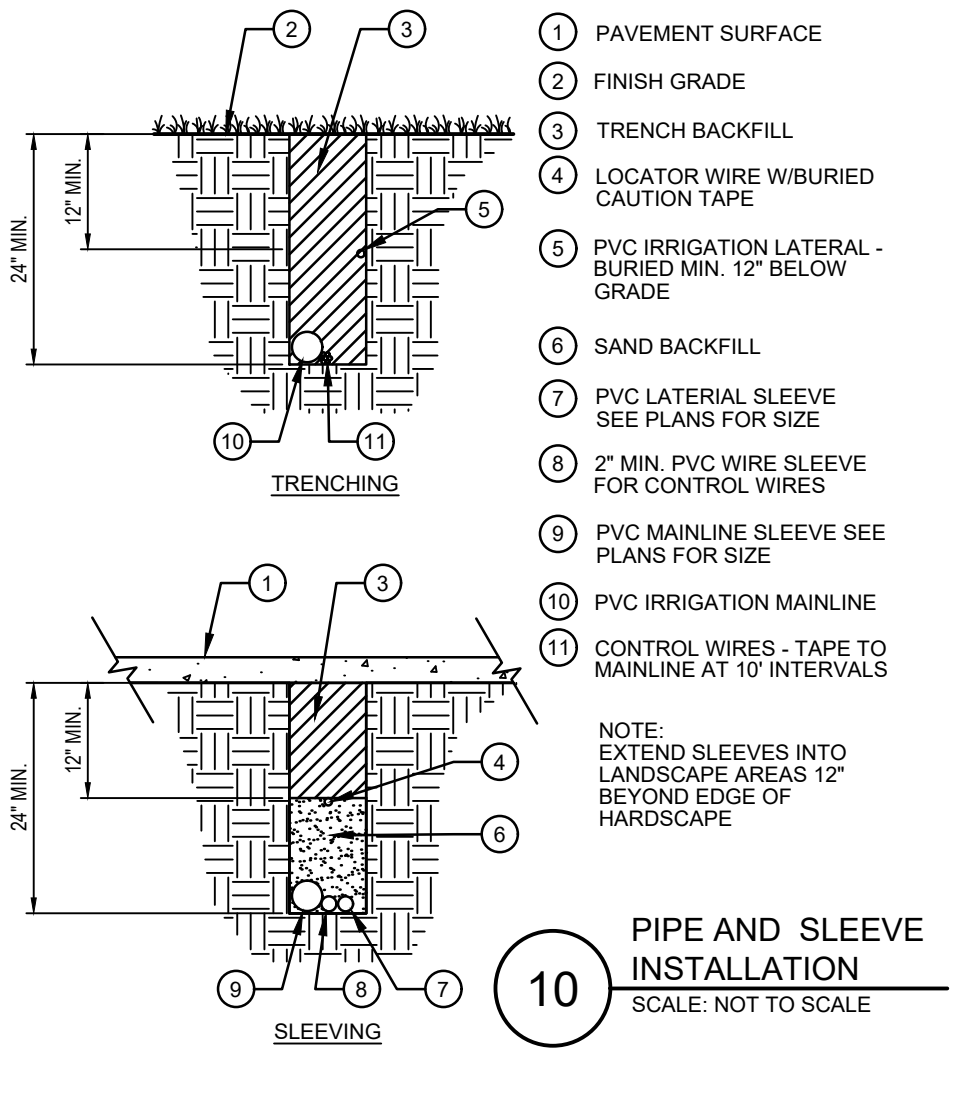
**8 DRIP EMITTERS LAYOUT**  
 SCALE: NOT TO SCALE

- NOTES:  
 1. INSTALL EMITTERS ON OPPOSING SIDES OF THE ROOT BALL. THREE OR MORE EMITTERS SHALL BE EQUALLY SPACED AROUND ROOT BALL.  
 2. EMITTERS ARE TO BE INSTALLED TO CLEAR SURFACE BY A MINIMUM OF 1" AND A MAXIMUM 2".  
 3. FLUSH ALL LINES THOROUGHLY, INCLUDING EMITTER MICRO-TUBING PRIOR TO EMITTER INSTALLATION.  
 4. IF PLANTING ON A 4:1 SLOPE OR STEEPER, INSTALL BOTH EMITTERS ON UPHILL SIDE OF ROOT BALL.  
 5. EMITTERS SHALL BE SELF-FLUSHING, PRESSURE COMPENSATING-TYPE UNLESS NOTED OTHERWISE WITHIN TECHNICAL SPECIFICATIONS.



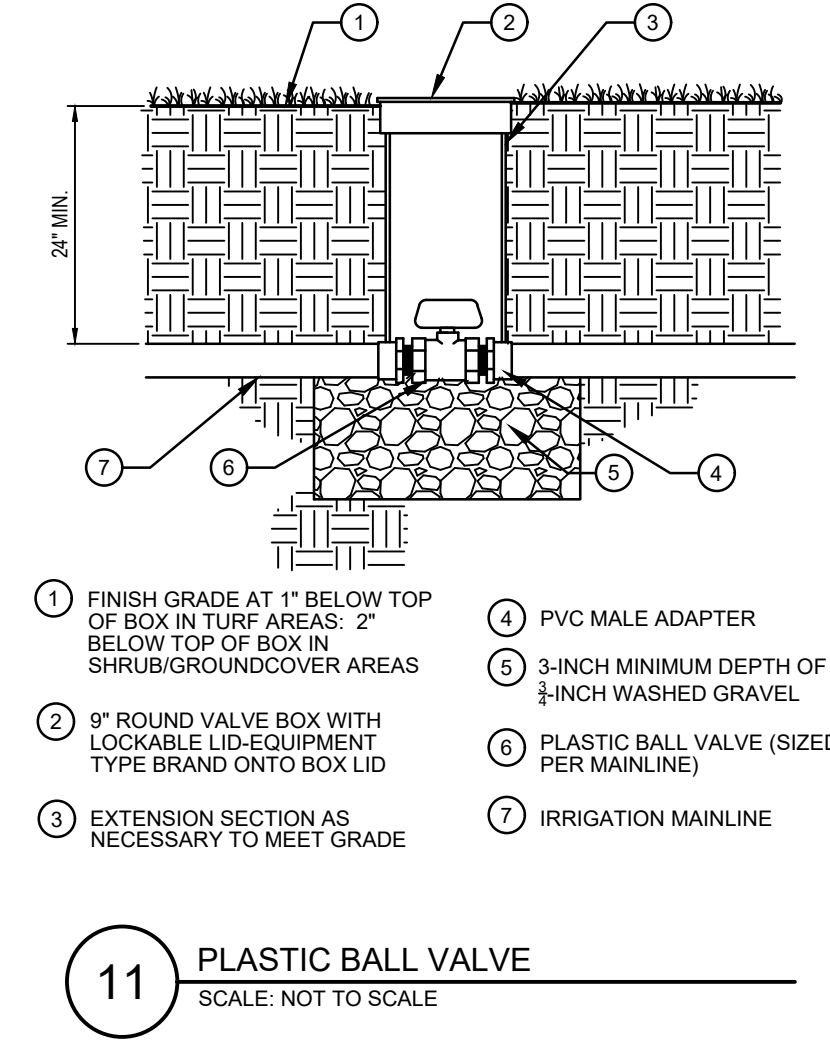
**9 QUICK COUPLER**  
 SCALE: NOT TO SCALE

- TOP OF MULCH
- FINISHED GRADE-1" BELOW TOP OF BOX IN TURF AREAS, 2" IN SHRUB AREAS
- QUICK-COUPLING VALVE
- 10" ROUND PLASTIC VALVE BOX BY CARSON (OR EQUAL) EQUIPMENT TYPE BRAND ONTO BOX LID
- 6" LONG BRASS NIPPLE
- 3-INCH MINIMUM DEPTH OF 3/4-INCH WASHED GRAVEL
- BRICK (1 OF 2)
- PVC SCH 40 STREET ELL
- 2" x 2" REDWOOD STAKE WITH STAINLESS STEEL GEAR CLAMPS OR EQUIVALENT SUPPORT SYSTEM
- PVC SCH 40 TEE OR ELL
- PVC MAINLINE PIPE
- PVC SCH 40 ELL



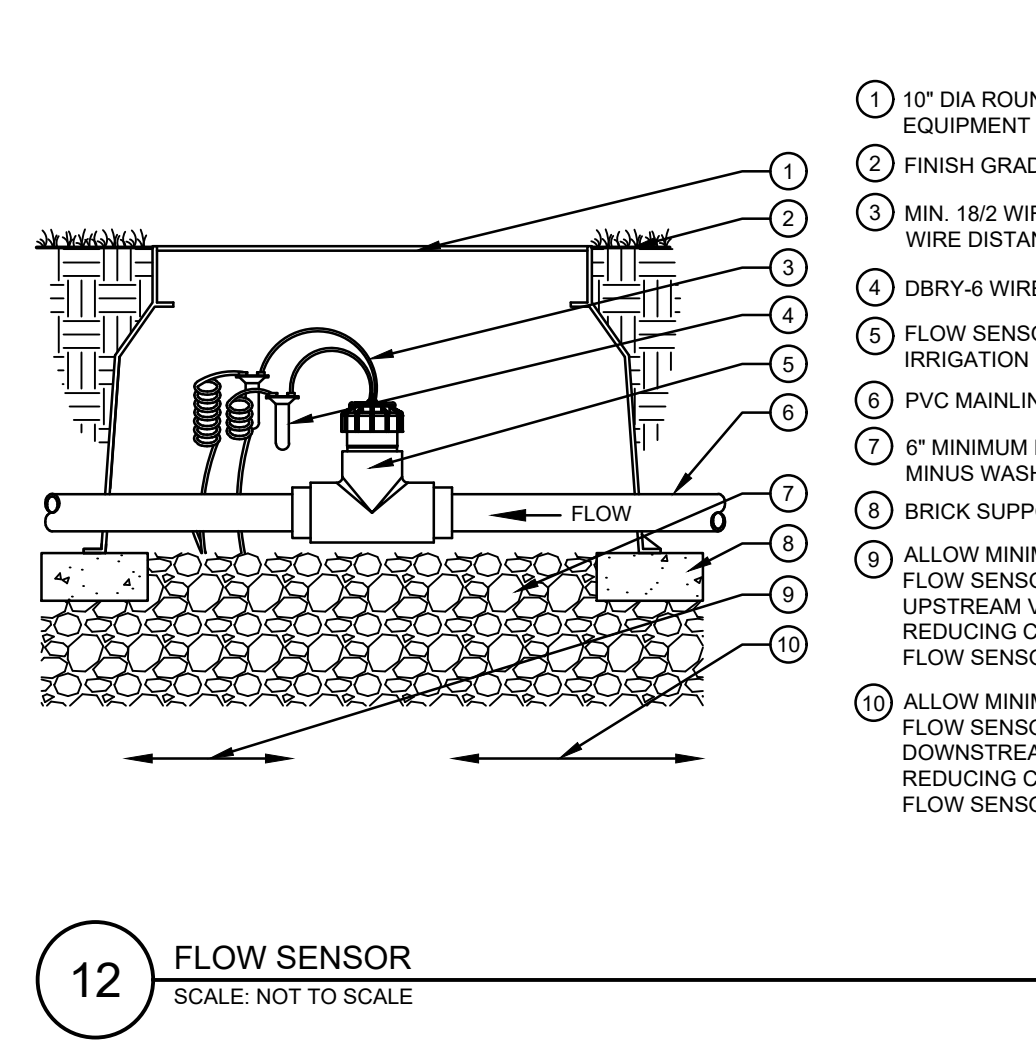
**10 PIPE AND SLEEVE INSTALLATION**  
 SCALE: NOT TO SCALE

- PAVEMENT SURFACE
  - FINISH GRADE
  - TRENCH BACKFILL
  - LOCATOR WIRE W/BURIED CAUTION TAPE
  - PVC IRRIGATION LATERAL - BURIED MIN. 12" BELOW GRADE
  - SAND BACKFILL
  - PVC LATERAL SLEEVE SEE PLANS FOR SIZE
  - 2" MIN. PVC WIRE SLEEVE FOR CONTROL WIRES
  - PVC MAINLINE SLEEVE SEE PLANS FOR SIZE
  - PVC IRRIGATION MAINLINE
  - CONTROL WIRES - TAPE TO MAINLINE AT 10' INTERVALS
- NOTE: EXTEND SLEEVES INTO LANDSCAPE AREAS 12" BEYOND EDGE OF HARDSCAPE



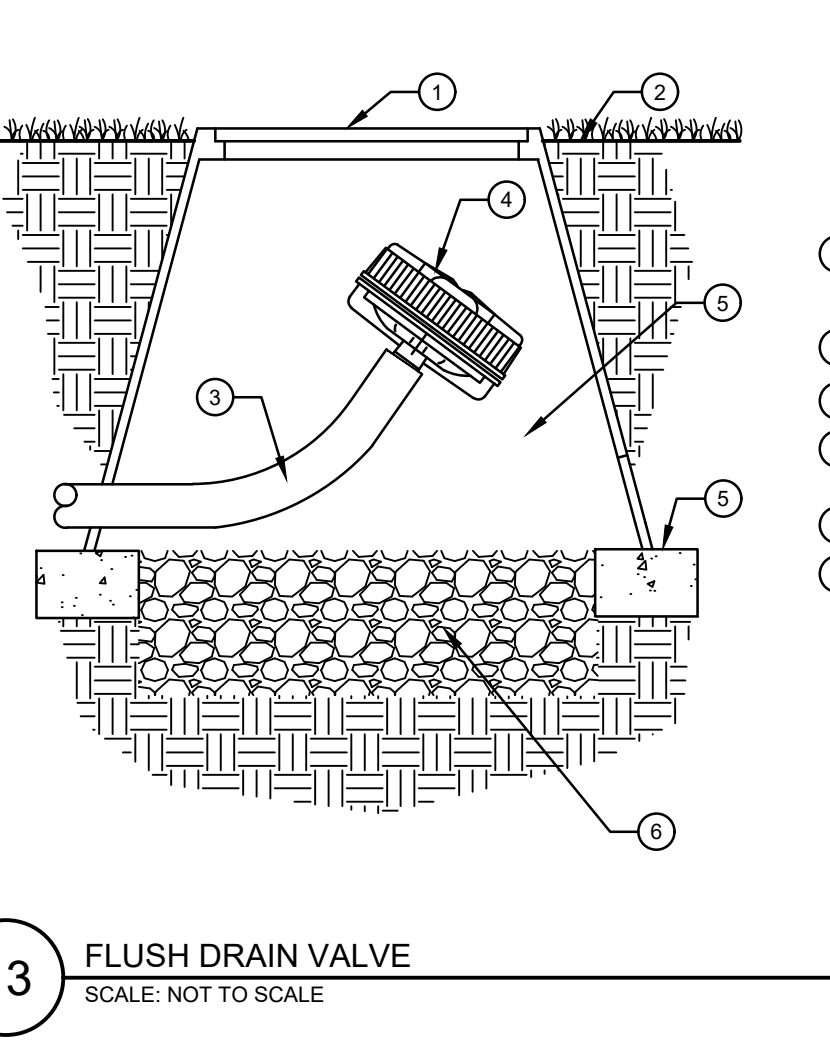
**11 PLASTIC BALL VALVE**  
 SCALE: NOT TO SCALE

- FINISH GRADE AT 1" BELOW TOP OF BOX IN TURF AREAS, 2" BELOW TOP OF BOX IN SHRUB/GROUNDCOVER AREAS
- 9" ROUND VALVE BOX WITH LOCKABLE LID-EQUIPMENT TYPE BRAND ONTO BOX LID
- EXTENSION SECTION AS NECESSARY TO MEET GRADE
- PVC MALE ADAPTER
- 3-INCH MINIMUM DEPTH OF 3/4-INCH WASHED GRAVEL
- PLASTIC BALL VALVE (SIZED PER MAINLINE)
- IRRIGATION MAINLINE



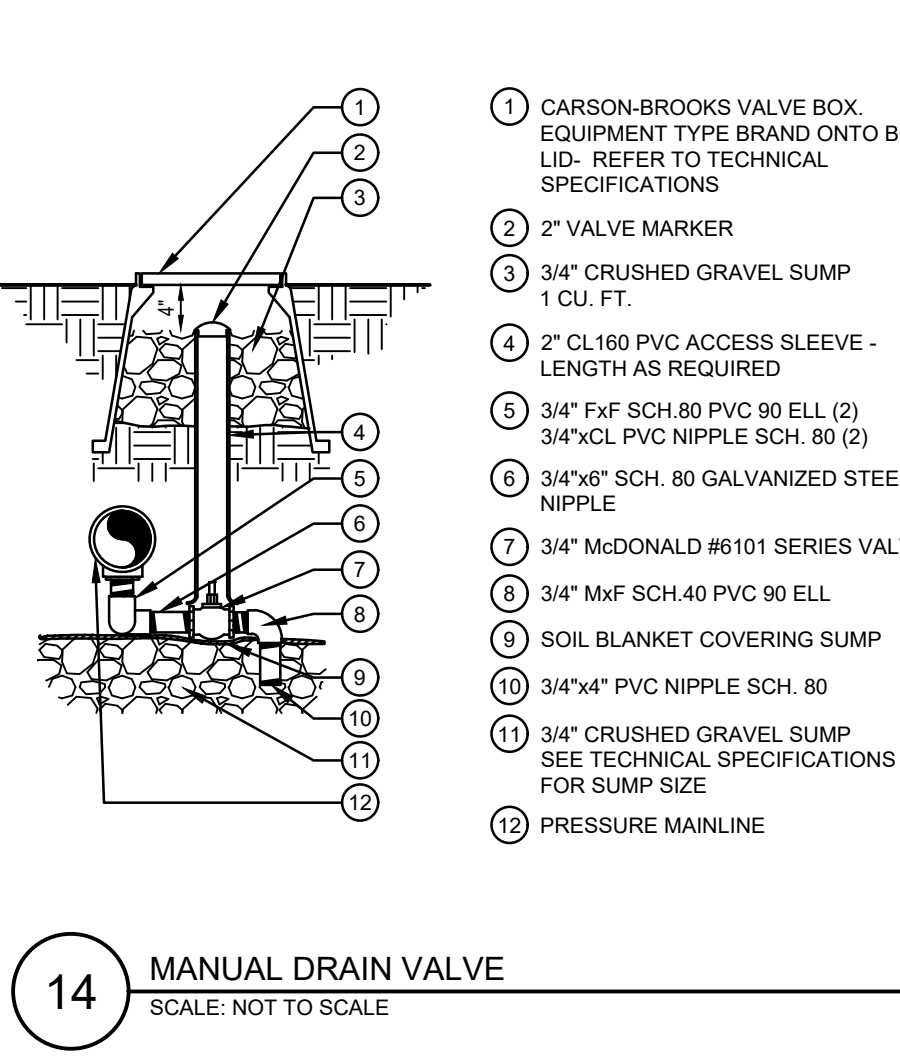
**12 FLOW SENSOR**  
 SCALE: NOT TO SCALE

- 10" DIA ROUND VALVE BOX, BRAND EQUIPMENT TYPE ONTO LID
- FINISH GRADE
- MIN. 18/2 WIRE TO CONTROLLER, MAX WIRE DISTANCE RUN OF 1,000'
- DBRY-6 WIRE CONNECTORS (2)
- FLOW SENSOR AS REFERENCED IN IRRIGATION LEGEND
- PVC MAINLINE PIPE
- 6" MINIMUM LAYER OF 3/4" MINUS WASHED GRAVEL
- BRICK SUPPORTS (3)
- ALLOW MINIMUM DISTANCE OF 10X FLOW SENSOR SIZE FROM NEAREST UPSTREAM VALVE, FITTING OR REDUCING COUPLER FROM EDGE OF FLOW SENSOR
- ALLOW MINIMUM DISTANCE OF 5X FLOW SENSOR SIZE FROM NEAREST DOWNSTREAM VALVE, FITTING OR REDUCING COUPLER FROM EDGE OF FLOW SENSOR



**13 FLUSH DRAIN VALVE**  
 SCALE: NOT TO SCALE

- 6" DIA ROUND VALVE BOX, BRAND EQUIPMENT TYPE ONTO LID
- FINISH GRADE
- POLYPIPE DRIP LINE
- AUTOMATIC FLUSH VALVE
- BRICK SUPPORTS (3)
- 6" MINIMUM LAYER OF 3/4" MINUS WASHED GRAVEL



**14 MANUAL DRAIN VALVE**  
 SCALE: NOT TO SCALE

- CARSON-BROOKS VALVE BOX, EQUIPMENT TYPE BRAND ONTO BOX LID - REFER TO TECHNICAL SPECIFICATIONS
- 2" VALVE MARKER
- 3/4" CRUSHED GRAVEL SUMP 1 CU. FT.
- 2" CL160 PVC ACCESS SLEEVE - LENGTH AS REQUIRED
- 3/4" Fx F SCH 80 PVC 90 ELL (2)
- 3/4"xCL PVC NIPPLE SCH. 80 (2)
- 3/4"x6" SCH. 80 GALVANIZED STEEL NIPPLE
- 3/4" McDONALD #6101 SERIES VALVE
- 3/4" Mx F SCH. 40 PVC 90 ELL
- SOIL BLANKET COVERING SUMP
- 3/4"x4" PVC NIPPLE SCH. 80
- 3/4" CRUSHED GRAVEL SUMP SEE TECHNICAL SPECIFICATIONS FOR SUMP SIZE
- PRESSURE MAINLINE

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 \_\_\_\_\_ DATE \_\_\_\_\_



# MURPHY OIL USA, INC.

A PORTION OF LOT 1, BLOCK 3 PARKER AUTO PLAZA FILING NO. 1  
 LOCATED IN THE SOUTHWEST QUARTER OF SECTION 10, TOWNSHIP 6 SOUTH, RANGE 66 WEST OF THE 6TH P.M.  
 TOWN OF PARKER, DOUGLAS COUNTY, STATE OF COLORADO  
**SITE CONSTRUCTION PLANS**

SHEET NO. **IR1.3**

### GENERAL IRRIGATION NOTES

- IRRIGATION DESIGN IS NOT AN EXACT SCIENCE. IT IS BASED ON THEORIES, ASSUMPTIONS, AND/OR INFORMATION PROVIDED BY CIVIL ENGINEERS, MUNICIPAL ENTITIES AND THIS IS DIAGRAMMATIC IN NATURE. ALL PIPING, VALVES, AND OTHER EQUIPMENT SHOWN WITHIN PAVED AREAS OR OUT OF PROPERTY BOUNDARIES ARE FOR GRAPHIC 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-GRADE IRRIGATION EQUIPMENT WITH THE OWNER'S AUTHORIZED REPRESENTATIVE PRIOR TO INSTALLATION, OR IRRIGATION CONTRACTOR MAY BE REQUIRED TO MOVE SUCH ITEMS AT HIS OWN COST.
- REFER TO SPECIFICATIONS (AS APPROPRIATE) FOR SUBMITTALS, INSPECTIONS AND OTHER APPLICABLE INFORMATION. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING A COPY OF THE PROJECT SPECIFICATIONS PRIOR TO BIDDING. THE PROJECT SPECIFICATIONS ARE A PART OF THESE PLANS AND SHALL BE CONSULTED BY THE IRRIGATION CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR IMPLEMENTING WORK AS SPECIFIED IN THE PROJECT SPECIFICATIONS AND ON THE PLANS.
- THE IRRIGATION CONTRACTOR SHALL MEET WITH THE OWNER'S REPRESENTATIVE PRIOR TO COMMENCEMENT OF WORK AND SHALL OBTAIN ALL ENGINEERING, LANDSCAPE, AND OTHER APPLICABLE PLANS & DOCUMENTS. CONTRACTOR SHALL THOROUGHLY REVIEW PLANS & REPORT ANY CONFLICTS OR DISCREPANCIES TO OWNER'S REPRESENTATIVE IMMEDIATELY.
- CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS, EQUIPMENT QUANTITIES, AND UTILITY LOCATIONS PRIOR TO BEGINNING WORK. DO NOT INSTALL THE IRRIGATION SYSTEM AS SHOWN ON THE DRAWINGS WHEN IT IS OBVIOUS IN THE FIELD THAT OBSTRUCTIONS, GRADE DIFFERENCES, OR DIFFERENCES IN THE AREA DIMENSIONS EXIST THAT MIGHT NOT HAVE EXISTED AT THE TIME OF THE IRRIGATION DESIGN PREPARATION. SUCH OBSTRUCTIONS OR DIFFERENCES SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE OWNER'S AUTHORIZED REPRESENTATIVE AND LANDSCAPE ARCHITECT. IN THE EVENT THIS NOTIFICATION IS NOT GIVEN, THE IRRIGATION CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ANY REVISIONS NECESSARY TO BRING THE SYSTEM TO A PROPER WORKING CONDITION, AND TO THE OWNER'S SATISFACTION.
- IT IS THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR TO FAMILIARIZE HIMSELF WITH ALL GRADE DIFFERENCES, LOCATIONS OF WALLS, RETAINING WALLS, ETC. THE IRRIGATION CONTRACTOR SHALL COORDINATE HIS WORK WITH THE GENERAL CONTRACTOR AND OTHER SUBCONTRACTORS FOR THE LOCATION AND INSTALLATION OF PIPE SLEEVES THROUGH WALL, UNDER ROADWAY PAVING, ETC.
- THE CONTRACTOR SHALL MAKE NO SUBSTITUTIONS, DELETIONS, OR ADDITIONS TO

- THIS PLAN WITHOUT APPROVAL OF THE LANDSCAPE ARCHITECT.
- SEE CIVIL ENGINEER'S DRAWINGS FOR IRRIGATION POINT OF CONNECTION (TAP) AND DOMESTIC WATER SUPPLY.
- ALL CONSTRUCTION SHALL CONFORM TO CITY, COUNTY, STATE, AND FEDERAL REQUIREMENTS. IT SHALL BE THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR TO ENSURE THAT ALL IRRIGATION EQUIPMENT MEETS GOVERNMENT REGULATIONS. CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR OBTAINING ANY NECESSARY PERMITS OR APPROVALS.
- THE IRRIGATION SYSTEM DESIGN IS BASED ON THE MINIMUM OPERATING PRESSURE AND THE MAXIMUM FLOW DEMAND SHOWN ON THE POINT OF CONNECTION NOTE TAG(S) ON THE DRAWINGS. THE IRRIGATION CONTRACTOR SHALL FIELD VERIFY THE STATIC & OPERATING WATER PRESSURE PRIOR TO CONSTRUCTION, AND SHALL REPORT ANY DIFFERENCES BETWEEN THE WATER PRESSURE INDICATED ON THE DRAWINGS AND THE ACTUAL PRESSURE READING AT THE IRRIGATION POINT OF CONNECTION TO THE OWNER'S AUTHORIZED REPRESENTATIVE AND LANDSCAPE ARCHITECT. IN THE EVENT PRESSURE DIFFERENCES ARE NOT REPORTED OR PRESSURES HAVE GREATLY CHANGED PRIOR TO THE START OF THE IRRIGATION SYSTEM CONSTRUCTION, THE IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE FOR RECOMMENDING A SOLUTION AND PROVIDING AN ALTERNATE BID FOR IRRIGATION COSTS.
- CONTRACTOR SHALL NOTIFY LANDSCAPE ARCHITECT IF AVAILABLE WATER PRESSURE EXCEEDS 5 PSI HIGHER OR LOWER THAN AVAILABLE WATER PRESSURE.
- NO MORE THAN 90% OF AVAILABLE MINIMUM STATIC WATER PRESSURE WAS USED IN PREPARATION OF THESE PLANS, FURTHERMORE, THE MAXIMUM FLOW THROUGH THE METER SHOULD NOT EXCEED 75% OF THE MAXIMUM SAFE FLOW.
- SUPPLY LINE AND METER TO BE PROVIDED BY GENERAL CONTRACTOR. BACKFLOW PREVENTER TO BE PROVIDED BY IRRIGATION CONTRACTOR. IRRIGATION CONTRACTOR'S POINT OF CONNECTION TO BEGIN AFTER THE IRRIGATION WATER METER.
- INSTALL ALL MATERIALS AND EQUIPMENT AS SHOWN ON THE PLANS AND DETAILS. NO SUBSTITUTIONS OF EQUIPMENT WILL BE ACCEPTABLE WITHOUT PRIOR WRITTEN APPROVAL BY THE LANDSCAPE ARCHITECT OR THE OWNER'S REPRESENTATIVE. THE IRRIGATION CONTRACTOR MAY BE REQUIRED TO REMOVE AND REPLACE ALL UNAPPROVED SUBSTITUTED EQUIPMENT AT HIS OWN COST IF SO DIRECTED BY THE OWNER.
- WHEN INSTALLING IRRIGATION PIPE AND EQUIPMENT NEXT TO HARDSCAPE (SUCH

- AS WALLS, CURBS, OR WALKS), PLACE PIPE AS CLOSE AS POSSIBLE TO HARDSCAPE TO AVOID CONFLICTS WITH PLANTING. REFER TO MAINLINE TRENCHING DETAILS FOR ADDITIONAL INFORMATION.
- THE IRRIGATION CONTRACTOR SHALL COORDINATE 120 V A.C. ELECTRICAL POWER TO CONTROLLERS AND DEDICATE ONE (1) 20-AMP BREAKER FOR EACH CONTROLLER. IT SHALL BE THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR TO MAKE THE FINAL HOOK-UP FROM THE ELECTRICAL SOURCE TO THE CONTROLLER UNIT ONLY.
- THE RAIN SENSOR SHALL BE LOCATED NEAR THE IRRIGATION CONTROLLER, AND SHALL BE MOUNTED AS SHOWN ON THE DETAIL AND/OR LEGEND. LOCATE SENSOR AWAY FROM TALL TREES, SHRUBS, AND OTHER POTENTIAL OBSTRUCTIONS.
- ALL VALVE CONTROL WIRE SHALL BE AWG 14 TYPE UF, 600 VOLT TEST, DIRECT BURIAL. NO SPLICES SHALL BE ALLOWED EXCEPT AT VALVES AND CONTROLLER. WHERE SPLICES MAY BE NECESSARY DUE TO EXCESSIVELY LONG WIRE RUNS, THE CONTRACTOR SHALL MAKE ALL SPLICES IN 6" ROUND VALVE BOXES WITH 3MS "DBY-DIRECT BURIAL SPLICE KIT". THE CONTRACTOR SHALL LABEL ALL WIRES WITH WATERPROOF TAGS AND MARKERS AT ALL SPLICES AND VALVE MANIFOLDS, AND SHALL LEAVE A 24" COIL OF EXCESS WIRE AT EACH CONNECTION.
- CONTRACTOR SHALL PROVIDE #10 COMMON WIRE, DIRECT BURIAL, TO ALL REMOTE CONTROL VALVES.
- CONNECT ALL DIRECT BURIAL WIRES TO VALVES USING 3MS "DBY-DIRECT BURIAL SPLICE KIT" (UNLESS OTHERWISE SPECIFIED).
- PROVIDE ADDITIONAL IRRIGATION CONTROL WIRES TO THE AMOUNT OF OPEN ZONES ON THE CONTROLLER ALONG EACH BRANCH OR MAINLINE FOR FUTURE EXPANSION. STUB ADDITIONAL CONTROL WIRES INTO BACK OF IRRIGATION CONTROLLERS.
- THE IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING ALL CONTROL WIRE SLEEVES AND PIPE SLEEVES UNDER PAVED AREAS PRIOR TO PAVING. ELECTRICAL WIRES FOR IRRIGATION VALVES AND IRRIGATION LINES ARE TO BE PLACED IN SEPARATE SLEEVES. ALL SLEEVING SHALL BE PVC SCHEDULE 40 PIPE. SLEEVES FOR MAINLINE AND LATERAL LINES SHALL BE A MINIMUM TWICE THE DIAMETER OF THE ENCLOSED PIPE. SLEEVES FOR CONTROL WIRES SHALL BE AS PER THE SLEEVING/WIRING NOTE AND THE WIRING SLEEVE LEGEND ITEM AS SHOWN ON THESE DRAWINGS.
- TRENCH BACKFILL MATERIAL SHALL BE FREE OF ROCKS, GLASS, AND OTHER EXTRANEIOUS MATERIALS LARGER THAN 1" IN DIAMETER. BACKFILL SHALL BE

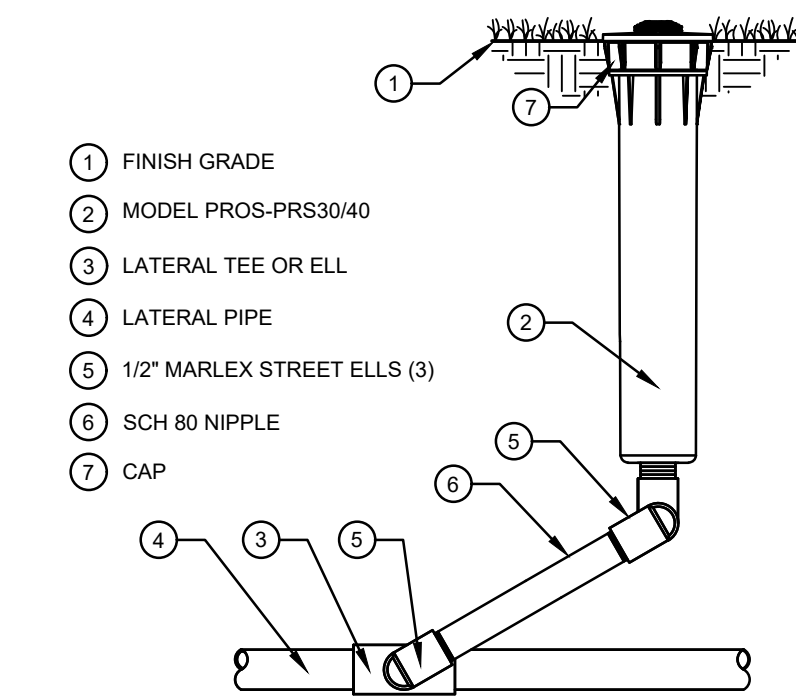
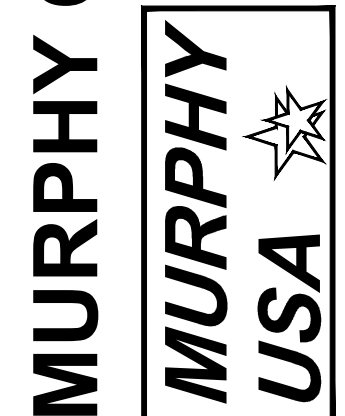
- COMPACTED TO 90% MAXIMUM DRY DENSITY.
- WHERE VALVES ARE LOCATED IN CLOSE PROXIMITY TO EACH OTHER, CLUSTER VALVES INTO MANIFOLDS. INSTALL NO MORE THAN ONE VALVE PER VALVE BOX.
- MANUAL DRAIN VALVE FOR FREEZE PROTECTION ARE TO BE LOCATED AT ALL LOW POINTS OF IRRIGATION LATERAL LINES. WHERE THE LOW POINT IS AT THE END OF THE LINE, LOCATE DRAIN VALVE A MINIMUM OF 12" DOWNSTREAM FROM THE LAST SPRINKLER HEAD. SEE DETAIL FOR VALVE ORIENTATION.
- USE TEFLON TAPE ON ALL PVC MALE PIPE THREADS ON ALL SWING JOINT AND VALVE ASSEMBLIES.
- ALL IRRIGATION HEADS, INCLUDING FIXED-SPRAY AND DRIP DEVICES, SHALL BE SET PERPENDICULAR TO THE FINISH GRADE OF THE AREA TO BE IRRIGATED.
- ALL PRESSURIZED MAINLINES, VALVES, DRIP, AND ROTOR AND SPRAY HEADS SHALL BE INSTALLED A MINIMUM OF 3' AWAY FROM ANY BUILDING FOUNDATION. IF THIS EQUIPMENT IS SHOWN WITHIN THE 3' OFFSET ON THESE PLANS, IT IS FOR THE PURPOSE OF GRAPHIC CLARITY ONLY.
- EXCEPT WHERE SPECIFICALLY NOTED OTHERWISE, IT IS THE INTENT OF THE IRRIGATION DESIGN TO INDICATE ALL SPRAY HEADS AS "POP-UPS". IN THE EVENT THAT POP-UP HEADS HAVE NOT BEEN SPECIFIED IN TURF AREAS, IT SHALL BE THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR TO BRING THIS TO THE ATTENTION OF THE LANDSCAPE ARCHITECT PRIOR TO BIDDING AND CONSTRUCTION.
- ALL SPRAY AND ROTOR HEAD LOCATIONS SHALL BE STAKED, FLAGGED AND/OR OTHERWISE CLEARLY MARKED ON THE GROUND PRIOR TO INSTALLATION. SPRINKLER HEAD STAKING SHALL BE INSPECTED AND APPROVED BY THE OWNER'S REPRESENTATIVE OR THE LANDSCAPE ARCHITECT BEFORE INSTALLATION. STAKED LOCATIONS SHALL BE SPACED TO PROVIDE HEAD-TO-HEAD COVERAGE. RECOMMENDED SETBACK DISTANCE OF ALL PROPOSED IRRIGATION HEADS IS 12" FROM BACK OF CURB AND EDGE OF PAVEMENT.
- FLUSH AND ADJUST ALL SPRINKLER HEADS FOR OPTIMUM PERFORMANCE AND TO PREVENT OVERSPRAY ONTO WALKS, ROADWAYS, AND/OR BUILDINGS AS MUCH AS POSSIBLE. THIS SHALL INCLUDE SELECTING THE BEST NOZZLE ARC AND RADIUS TO FIT THE EXISTING SITE CONDITIONS.
- ALL POP-UP TYPE SPRINKLER HEADS INSTALLED IN TURF AREAS SHALL BE INSTALLED SO THE TOP OF THE SPRINKLER HEAD IS FLUSH WITH THE ADJACENT SIDEWALK, OR PAVING. ALL POP-UP HEADS AWAY FROM HARDSCAPE EDGES IN

- TURF SHALL BE 1" ABOVE THE FINISH GRADE TO PREVENT CONTACT WITH MOWERS.
- EXISTING TREES TO REMAIN ARE TO BE PROTECTED FROM DAMAGE. DO NOT TRENCH OR EXCAVATE WITHIN THE CRITICAL ROOT ZONE OF ANY TREE.
- ALL PLANT MATERIAL IN TREE HOLDING AREAS SHALL BE MANUALLY WATERED/IRRIGATED TO KEEP MOIST UNTIL PLANTED.
- UPON COMPLETION OF INSTALLATION OF IRRIGATION SYSTEM, IRRIGATION CONTRACTOR SHALL PROVIDE THE FOLLOWING:
  - ACCURATE AND COMPLETE "AS BUILT" PLANS OF IRRIGATION SYSTEM INCLUDING 8-1/2" X 11" ZONE MAP TO BE PLACED INSIDE EACH CONTROLLER BOX.
  - LOG ON ALL WATER WINDOWS, RUN SCHEDULE TIMES, AND OTHER CHANGES AND/OR MODIFICATIONS TO THE IRRIGATION SYSTEM SINCE INSTALLATION.
  - ONE HOUR OF TRAINING TO OWNER ON IRRIGATION SYSTEM AND CONTROLLER OPERATION.
  - THREE OF EACH TYPE OF HEAD AND EMITTER INSTALLED.
  - ONE OF EACH TYPE OF VALVE INSTALLED.
  - REVIEW WINTERIZATION PROCEDURES FOR IRRIGATION SYSTEM WITH OWNERS REPRESENTATIVE.
- PRIOR TO ACCEPTANCE OF IRRIGATION SYSTEM AT THE END OF THE MAINTENANCE PERIOD, THE IRRIGATION CONTRACTOR SHALL PROVIDE THE FOLLOWING: CURRENT SCHEDULE RUN TIME AND WATER WINDOW LOG, ALONG WITH NOTING ANY OTHER PERTINENT INFORMATION.
- UNLESS OTHERWISE SPECIFIED, THE IRRIGATION CONTRACTOR SHALL REPAIR OR REPLACE ANYTHING DAMAGED BY HIS WORK AT NO ADDITIONAL COST TO THE OWNER.
- CONTRACTOR SHALL INSTALL MAINLINES 12" FROM PAVEMENT EDGE IN PLANTING AREAS. 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 AS INDICATED ON THESE PLANS.
- IN THE EVENT OF A DISCREPANCY BETWEEN THE PLAN AND SPECIFICATIONS, THE PLAN SHALL TAKE PRECEDENCE.
- THE IRRIGATION SYSTEM SHALL BE INSTALLED BY A QUALIFIED IRRIGATION CONTRACTOR.

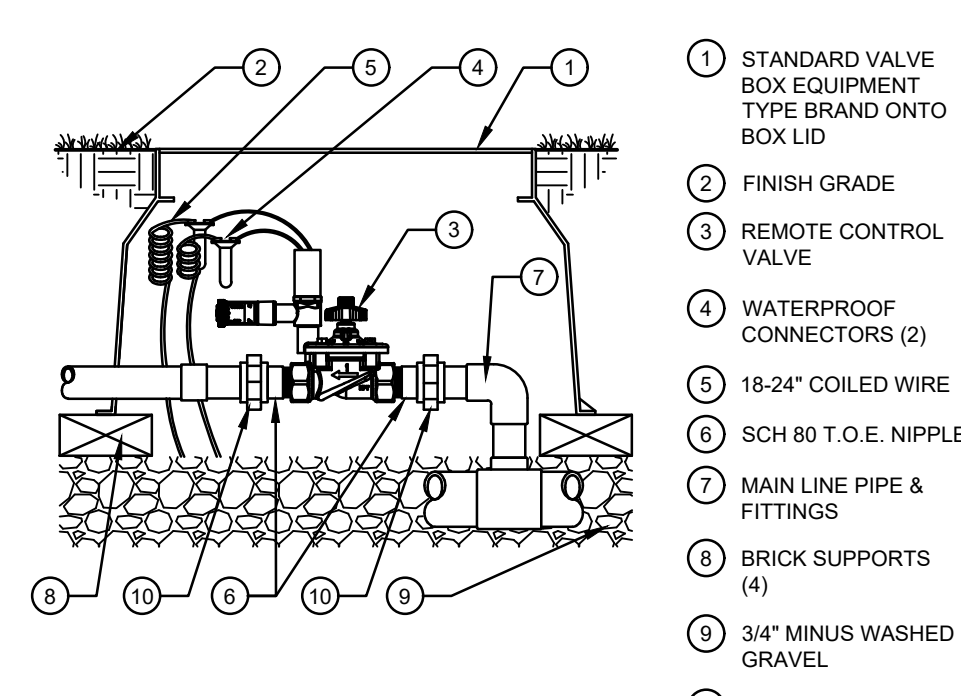
IR1.3  
 IRRIGATION NOTES & DETAILS  
 MURPHY EXPRESS  
 12405 SOUTH PARKER ROAD  
 PARKER, COLORADO



MURPHY OIL USA, INC.  
 200 PEACH STREET  
 EL DORADO, AR 71730



1 MP ROTATOR SPRINKLER  
 SCALE: NOT TO SCALE



2 MASTER VALVE  
 SCALE: NOT TO SCALE



### Landscape/Irrigation Worksheet

Project Name: Murphy Oil USA - 12405 S Parker Rd

Landscape/Irrigation Tap address (physical location of tap) 1" Tap off the domestic line downstream of the building meter

Landscape Area	High Water TURF (6,000sf = 1 SFE)	Native Grass and Perennials (10,000sf = 1 SFE)	Drip Irrigated area (20,000sf = 1 SFE)	Sub-Total of Non-irrigated area (calculated) Areas: SFE per 6000	PWSD one	SFE Requirement (Sub-Total Calculation divided by 6000 = requirement)
Area #1	1,800 sf x 1 =	4,500 sf x .6 =	8,355 sf x .3 =	0 sf x 0 =	8,355 sf	6,000
						1.16 SFE's

Worksheet Completed by: Troy Noser  
 Company: Galloway  
 Address: 6162 S Willow Drive Suite 320 Greenwood Village, CO 80111  
 Phone #: 303-770-8884

Owner/Developer: \_\_\_\_\_  
 Attn: \_\_\_\_\_  
 Billing Address: \_\_\_\_\_  
 Phone #: \_\_\_\_\_

ET Controller (with Rain Sensor)  
 Manufacturer: Hunter I-Core w/ Solar Sync  
 Model number: Hunter IC-1000-M

Tap Size Requirements:  
 0 - 1 SFE's requires a 3/4-inch tap  
 1.1 - 2.0 SFE's requires a 1-inch tap  
 2.1 - 4.0 SFE's requires a 1 1/2-inch tap  
 4.1 - 7.0 SFE's requires a 2-inch tap  
 7.1 - 16.0 SFE's requires a 3-inch tap

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 \_\_\_\_\_ DATE \_\_\_\_\_