

# HORSESHOE RIDGE SUBDIVISION 1ST AMENDMENT

## LOT 1, BLOCK 1, HORSESHOE RIDGE SUBDIVISION 1ST AMENDMENT

### A PARCEL OF LAND LOCATED IN THE SE 1/4 OF SECTION 28, TOWNSHIP 6 SOUTH, RANGE 66 WEST OF THE 6TH PRINCIPAL MERIDIAN

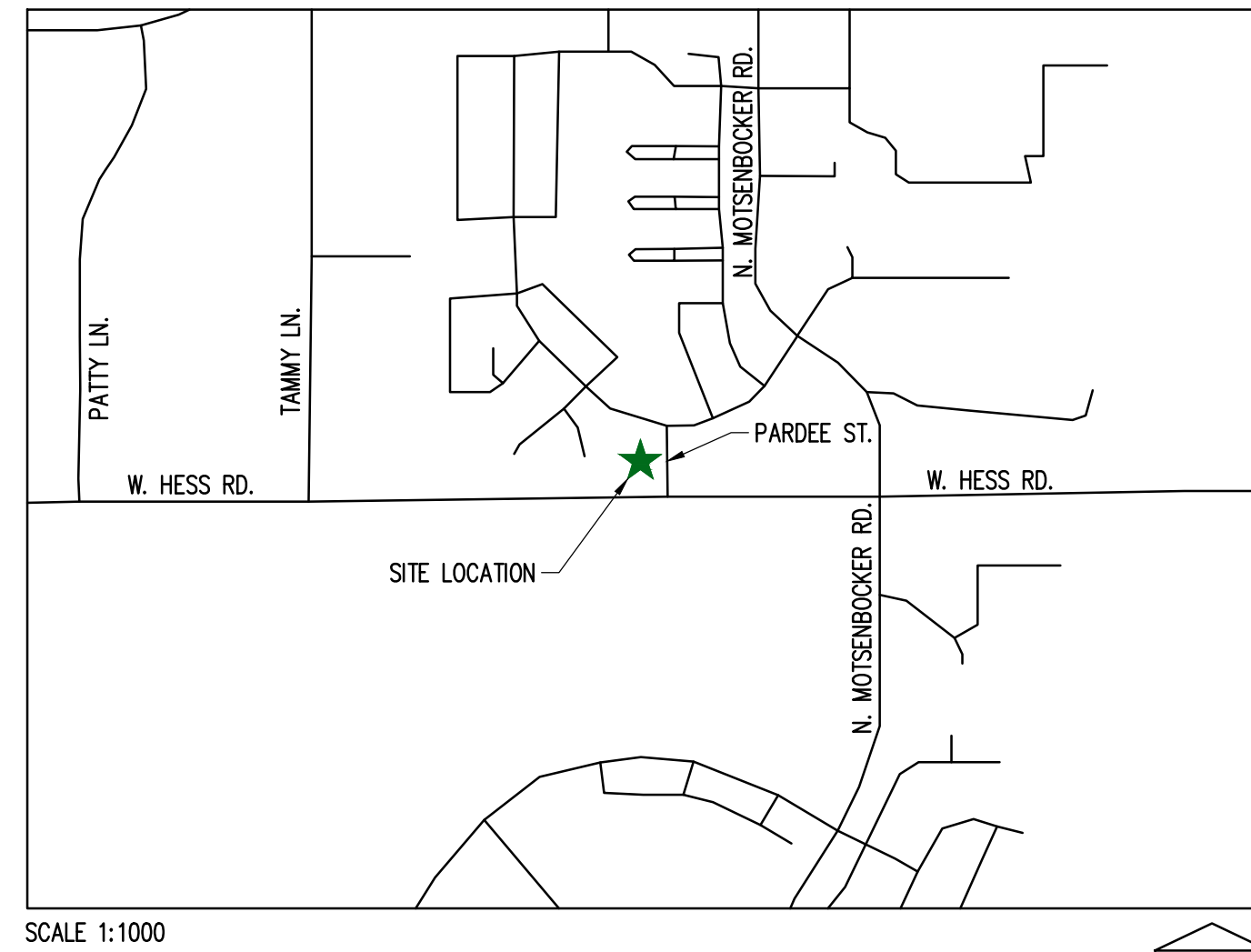
## PARKER WATER AND SANITATION DISTRICT

#### LEGAL DESCRIPTION

LOT 1, BLOCK 1, HORSESHOE RIDGE SUBDIVISION 1ST AMENDMENT

A PARCEL OF LAND LOCATED IN THE SE 1/4 OF SECTION 28, TOWNSHIP 6 SOUTH, RANGE 66 WEST OF THE 6TH PRINCIPAL MERIDIAN

CONTAINING 48,372 SF (1.111 AC), MORE OR LESS.



SCALE 1:1000

VICINITY MAP

#### SHEET INDEX

CV-1.0	COVER SHEET
ON-1.0	WATER & SANITARY GENERAL NOTES
C-3.0	OVERALL UTILITY PLAN
C-3.1	WATER PROFILE SHEETS
C-4.0	WATER AND SANITARY DETAILS
C-4.1	WATER AND SANITARY DETAILS

#### PROJECT CONTACTS:

**PROPERTY OWNER**  
 BRYTAR COMPANIES  
 8117 PRESTON ROAD, #300  
 DALLAS, TX 75225  
 (214) 632-4860  
 CONTACT: SCOTT REMPHREY

**APPLICANT**  
 BRYTAR COMPANIES  
 8117 PRESTON ROAD, #300  
 DALLAS, TX 75225  
 (214) 632-4860  
 CONTACT: SCOTT REMPHREY

**CIVIL ENGINEER**  
 RIDGETOP ENGINEERING AND CONSULTING, LLC  
 541 E. GARDEN DRIVE, UNIT N  
 WINDSOR, CO 80550  
 (970) 663-4552  
 CONTACT: MIKE BEACH, P.E.

**ARCHITECT**  
 ROGUE ARCHITECTURE  
 4100 WADSWORTH BLVD, SUITE 300  
 WHEAT RIDGE, CO 80033  
 (720) 599-3330  
 CONTACT: SCOTT BODUCH

**SURVEYOR**  
 PLS GROUP  
 532 WEST 66TH STREET  
 LOVELAND, CO 80538  
 (970) 669-2100  
 CONTACT: BRYAN SHORT

**PARKER PUBLIC WORKS**  
 ASSOCIATE PLANNER  
 20120 E. MAIN STREET  
 PARKER, CO 80138  
 (303) 805-3199  
 CONTACT: STACEY NERGER

**GAS**  
 XCEL ENERGY  
 180 LARIMER ST.  
 DENVER, CO 80202  
 (800) 895-2999

**SOUTH METRO FIRE RESCUE AUTHORITY**  
 9195 E. MINERAL AVE.  
 CENTENNIAL, CO 80112  
 (720) 488-7200  
 CONTACT: RANDY CAPRA

**INTERNATIONAL RURAL ELECTRIC ASSOC.**  
 5496 NORTH US HWY 85  
 P.O. BOX DRAWER A  
 SEDALIA, CO 80135  
 (303) 688-3100  
 CONTACT: BROOK KAUFMAN

**PARKER WATER AND SANITATION DISTRICT**  
 18100 E WOODMAN DR  
 PARKER, CO 80134  
 (303) 841-4627

#### MATERIALS LIST

DESCRIPTION	QTY.	UNIT
TAPPING SADDLE CONNECTION	2	EACH
1.5" TYPE K COPPER (DOMESTIC)	28	LF
1.5" METER ASSEMBLY (DOMESTIC)	1	EACH
3/4" TYPE K COPPER (IRRIGATION)	5	LF
3/4" METER (IRRIGATION)	1	EACH
6" DUCTILE IRON PIPE (FIRE SERVICE(S))	75	LF
FIRE HYDRANT ASSEMBLY	2	EACH
8" PVC	142	LF
8"x8" TEE CONNECTION	1	EACH
8"x6" TEE CONNECTION	3	EACH
45° TEE BLOCK	1	EACH
6" PVC (SANITARY)	51	LF
SANITARY CLEANOUT	1	EACH

#### SOUTH METRO FIRE PROTECTION DISTRICT

ALL FIRE HYDRANTS SHALL BE INSTALLED ACCORDING TO DISTRICT STANDARDS. THE NUMBER AND LOCATIONS OF THE FIRE HYDRANTS AS SHOWN ON THE OVERALL UTILITY PLAN ARE CORRECT AS SPECIFIED BY THE SOUTH METRO FIRE PROTECTION DISTRICT

(SIGNATURE OF FIRE CHIEF OR DESIGNATED REPRESENTATIVE)

DATE SIGNED

#### PWSD CERTIFICATION

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)

DATED SIGNED

APPROVED FOR CONSTRUCTION  
 PARKER WATER AND SANITATION DISTRICT

BY: \_\_\_\_\_  
 (DISTRICT ENGINEER)

DATED SIGNED

LOGO



SEAL

PROJECT TITLE

THE LEARNING EXPERIENCE

12215 PARDEE ST.  
 PARKER, CO 80134

PREPARED FOR

BRYTAR COMPANIES

8117 PRESTON RD. #300  
 DALLAS, TX 75225

SUBMITTAL

PWSD

DRAWN BY: BSA

CHECKED BY: MRB

PROJECT NO.: 18-075-001

REVISIONS

2ND SUBMITTAL 10/31/2019

3RD SUBMITTAL 02/18/2020

4TH SUBMITTAL 04/01/2020

DATE

5/28/2019

SHEET TITLE

COVER SHEET

SHEET INFORMATION


CV-1

# HORSESHOE RIDGE SUBDIVISION 1ST AMENDMENT

## LOT 1, BLOCK 1, HORSESHOE RIDGE SUBDIVISION 1ST AMENDMENT

### A PARCEL OF LAND LOCATED IN THE SE 1/4 OF SECTION 28, TOWNSHIP 6 SOUTH, RANGE 66 WEST OF THE 6TH PRINCIPAL MERIDIAN

## PARKER WATER AND SANITATION DISTRICT



541 E. Garden Drive, Windsor, CO 80550  
T (878) 683-4552  
W ridgepeng.com

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SEAL

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PROJECT TITLE

**THE LEARNING EXPERIENCE**

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PREPARED FOR

**BRYTAR COMPANIES**

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12215 PARDEE ST.  
PARKER, CO 80134

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8117 PRESTON RD. #300  
DALLAS, TX 75225

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SUBMITTAL

PWSD

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DRAWN BY:	BSA
CHECKED BY:	MRB
PROJECT NO.:	18-075-001

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REVISIONS	
2ND SUBMITTAL	10/31/2019
3RD SUBMITTAL	02/18/2020
4TH SUBMITTAL	04/01/2020

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DATE

**5/28/2019**

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SHEET TITLE

**WATER & SANITARY GENERAL NOTES**

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SHEET INFORMATION

**CN-1.0**

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### PWSD GENERAL NOTES

1. ALL MATERIALS AND WORKMANSHIP SHALL BE IN CONFORMANCE WITH THE PWSD ENGINEERING STANDARDS AND SPECIFICATIONS, LATEST VERSION.
2. 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.
3. 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 PWSD IMMEDIATELY.
4. PWSD ENGINEER AND OTHER APPROVING AGENCIES ARE TO BE NOTIFIED 48 HOURS PRIOR TO CONSTRUCTION.
5. THE CONTRACTOR SHALL OBTAIN, AT HIS EXPENSE, ALL PERMITS NECESSARY TO PERFORM THE PROPOSED WORK.
6. ALL CONCRETE SHALL BE A MINIMUM OF CLASS A, 6 SACK, TYPE II, 3000-POUND COMPRESSION STRENGTH.
7. 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 PWSD OFFICE.
8. 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.
9. TRENCHES SHALL BE EXCAVATED AND THE PIPE EXPOSED FOR THE INSPECTION AT ANY LOCATION ON THE PROJECT IF SO ORDERED BY THE INSPECTOR.
10. 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.
11. 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.
12. ALL SERVICES WILL BE PERMANENTLY MARKED ON CURB FACE AS FOLLOWS:  
"X" FOR SANITARY SERVICE SEWERS  
"V" FOR WATER SERVICES
13. NO TREES ALLOWED IN EASEMENTS OR WITHIN 8' OF WATER OR SANITARY SEWER MAINS IN RIGHT OF WAY.
14. THE CONTRACTOR SHALL HAVE IN HIS POSSESSION AT ALL TIMES ONE (1) SIGNED COPY OF THE PLANS WHICH HAVE BEEN APPROVED BY THE PWSD AND THE DISTRICT ENGINEER AND ONE (1) COPY OF THE LATEST PWSD SPECIFICATION MANUAL.

### PWSD WATER SYSTEM NOTES

1. ALL MATERIALS AND WORKMANSHIP SHALL BE IN CONFORMANCE WITH THE PWSD ENGINEERING STANDARDS AND SPECIFICATIONS, LATEST REVISION.
2. ALL WATER MAINS SHALL BE PER PWSD MATERIALS SPECIFICATIONS. ALL MATERIALS IN CONTACT WITH POTABLE WATER SHALL BE SUITABLE FOR CHLORINATED AND CHLORAMINATED WATER.
3. ALL BENDS, PLUGS, REDUCERS, AND FIRE HYDRANTS TO BE RODDED OR MEGA-LUGGED. ALL FITTINGS SHALL BE WRAPPED PER PWSD MATERIALS SPECIFICATIONS.
4. THERE SHALL BE A MINIMUM COVER OF 4.5 FEET OVER ALL WATER MAINS.
5. FIRE HYDRANTS SHALL CONFORM TO AWWA C-502 "DRY BARREL FIRE HYDRANTS" PIPE HYDRANT ASSEMBLIES PER PWSD SPECIFICATIONS.
6. ALL BENDS, TEES, FIRE HYDRANTS, BLOW-OFFS, AND PLUGS AT DEAD-END MAINS SHALL BE PROTECTED FROM THRUST WITH CONCRETE THRUST BLOCKS.
7. 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 DAYS WORK OR FOR OTHER REASONS, SUCH AS REST BREAKS OR MEAL PERIODS.
8. 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.
9. 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.
10. THE CONTRACTOR SHALL NOTIFY THE PWSD 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.
11. PIPE BEDDING SHALL BE A CLEAN, WELL-GRADED SAND OR SQUEEGEE SAND IN ACCORDANCE WITH PWSD STANDARDS AND SPECIFICATIONS, LATEST REVISION.
12. 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 IN THE AREA OF THE PUBLIC UTILITIES SHALL BE PERFORMED ACCORDING TO THE REQUIREMENTS OF THESE AGENCIES.
13. 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.
14. 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.
15. CHLORINATION AND FLUSHING: ALL WATER MAINS SHALL BE INSTALLED AND CHLORINATED PER PWSD SPECIFICATIONS. CHLORINATION OF FINISHED PIPELINE COMPLETED BEFORE HYDROSTATIC TESTING.
16. HYDROSTATIC TESTING: ALL WATER MAINS SHALL BE TESTED PER THE REQUIREMENTS OF THE PWSD SPECIFICATIONS UP TO MINIMUM OF 150 PSI IN THE PRESENCE OF A PWSD INSPECTOR/ENGINEER.

### PWSD SANITARY SEWER SYSTEM NOTES

1. ALL MATERIALS AND WORKMANSHIP SHALL BE IN CONFORMANCE WITH THE PWSD ENGINEERING STANDARDS AND SPECIFICATIONS, LATEST VERSION.
2. 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.
3. 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 PWSD SPECIFICATIONS. USE RUBBER GASKETS FOR PVC ENCASEMENT.
4. SEWER RIM ELEVATIONS SHOWN ARE APPROPRIATE ONLY AND ARE NOT TO BE TAKEN AS FINAL ELEVATIONS. RING AND COVER SHALL BE SET IN CENTERED CONCRETE RINGS WITH RAM-NECK FOR ADJUSTMENT TO MATCH FINAL PAVEMENT ELEVATIONS.
5. 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.
6. 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.
8. ALL MANHOLES SHALL BE 48-INCHES IN DIAMETER WITH 24-INCH RING AND COVER, ECCENTRIC CONE UNLESS OTHERWISE SPECIFIED. ALL MANHOLES SHALL HAVE SHAPED INVERTS.
9. PIPE BEDDING SHALL BE CLASS "B" AND SHALL CONFORM TO ASTM C-33 OR D-448 GRADATION NO. 6 OR NO. 67.
10. 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.
11. THE CONTRACTOR SHALL HAVE IN HIS POSSESSION AT ALL TIMES ONE (1) SIGNED COPY OF THE PLANS WHICH HAVE BEEN APPROVED BY THE PWSD AND THE DISTRICT ENGINEER AND ONE (1) COPY OF THE LATEST PWSD SPECIFICATION MANUAL.
12. ALL SEWER LINES SHALL BE TESTED IN ACCORDANCE WITH THE PWSD STANDARDS AND SPECIFICATIONS PRIOR TO ACCEPTANCE OR ANY CONNECTION TO AN EXISTING SEWER LINE.
13. PRIOR TO STARTING WORK WHERE SEWER MAIN IS TO BE CONNECTED TO EXISTING PWSD SEWER SYSTEMS. THE NEAREST MANHOLE TO THE POINT OF TIE-IN SHALL BE PLUGGED WITH A PLUMBER'S PLUG ON THE INLET SIDE BY THE CONTRACTOR. THIS PLUG SHALL REMAIN IN PLACE UNTIL FINAL PROBATIONARY ACCEPTANCE BY PWSD. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PUMPING AND CLEANING THESE MANHOLES AND REMOVING THE PLUG WHEN INSTRUCTED BY THE DISTRICT.
14. PRIOR TO PROBATIONARY ACCEPTANCE WALK-THROUGH, THE CONTRACTOR SHALL JET CLEAN THE ENTIRE SANITARY SEWER SYSTEM AND PUMP OUT AT THE PLUGGED MANHOLE.

CASE NUMBER: Z\_\_\_\_\_





# HORSESHOE RIDGE SUBDIVISION 1ST AMENDMENT

## LOT 1, BLOCK 1, HORSESHOE RIDGE SUBDIVISION 1ST AMENDMENT

### A PARCEL OF LAND LOCATED IN THE SE 1/4 OF SECTION 28, TOWNSHIP 6 SOUTH, RANGE 66 WEST OF THE 6TH PRINCIPAL MERIDIAN

## PARKER WATER AND SANITATION DISTRICT

**INSPECTION POLICY:**

- ALL SERVICE INSPECTIONS MUST BE SCHEDULED AT LEAST 24 HOURS IN ADVANCE OF THE REQUESTED INSPECTION.
- SERVICE INSPECTIONS WILL OCCUR BETWEEN 1:00 P.M. AND 3:00 P.M. SPECIFIC INSPECTION TIMES ARE NOT AVAILABLE.
- 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.
- 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.
- 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.
- ALL EXCAVATIONS SHALL BE IN ACCORDANCE WITH OSHA STANDARDS.
- LOTS WITHOUT BUILDING ADDRESSES BEFORE DISTRICT INSPECTION OR METER SET WILL FAIL AUTOMATICALLY.
- CONTRACTOR MUST BE PRESENT AT TIME OF INSPECTION. UNLESS COORDINATED WITH DISTRICT INSPECTOR.

**INSTALLATION NOTES:**

**WATER**

- ACCEPTABLE PIPE MATERIALS SHALL BE K-COPPER TUBING. (3/4" MIN.)
- APPROVED BEDDING TO BE SQUEEGEE.
- 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.
- 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.
- WATER SERVICE FOUNDATION PENETRATIONS SHALL BE WATERPROOFED USING MASTIC OR OTHER APPROVED METHOD. CRAWL SPACE REQUIRES CONTINUOUS COPPER WITH A 1" BURY.
- 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.
- MOVED CURB BOXES MUST BE INSPECTED BY PWS BEFORE BURIAL.
- WATERLINE MUST BE ATTACHED TO A SUPPORT BOARD THAT IS MOUNTED TO THE WALL.
- NO VOIDS ALLOWED UNDER WATERLINES FROM STOP BOX TO FOUNDATION.
- CURBSTOP BOXES AND METER PITS CANNOT BE IN DRIVEWAYS.
- ONLY 3/4" (JUMPER) PIPES (RESIDENCES) ARE ALLOWED. (JUMPER) PIPES WILL BE REMOVED PRIOR TO METER SET DATE.
- ALL SERVICES WILL BE PERMANENTLY MARKED ON CURB FACE AS FOLLOWS:  
 "X" FOR SANITARY SEWER SERVICE  
 "W" FOR WATER SERVICES
- NO SPLICES OR FLARED COUPLINGS ALLOWED 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.

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

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

2016 REVISION SHEET W1.1

**PREFERRED FIRE HYDRANT LOCATION**

24" MIN.  
 7' MIN.  
 VARIES  
 PROPERTY LINE  
 PC OR PT  
 18" MIN.  
 7' MIN.  
 PROPERTY LINE  
 PC OR PT

6" FIRE HYDRANT  
 3" MIN.  
 CURB & GUTTER  
 TOP OF GRADE  
 APPROX. GROUND LINE

6" ANCHOR COUPLING OR 6" SWIVEL ADAPTOR  
 M.J. TEE (SEE NOTE BELOW)  
 CONCRETE KICKBLOCK

6" M.J. GATE VALVE & 6" VALVE BOX, WIDE OVAL BASE  
 D.I. PIPE

1/3 CY MIN. WELL GRADED GRAVEL, COBBLESTONE, OR BRICK SIZES# GRADED ROCK FOR DRAINAGE.  
 CONCRETE KICKBLOCK

6"x6" TEE - 8" 1'-0"  
 8"x6" TEE - 9" 1'-3"  
 12"x6" TEE - 12"

3/4" RODS AND CLAMPS OR MECHANICAL JOINT RESTRAINT

POLYETHYLENE WRAPPED  
 DO NOT COVER OR PLUG DRAIN LINES WITH CONCRETE

SEE USA FOR TYPICAL LOCATOR STATION NOTES  
 HYDRANT BASE AND DRAINAGE ROCK TO BE COVERED WITH LEADER SHEET OF POLYETHYLENE TO EXCLUDE BACK-FILL MATERIAL FROM VOIDS IN ROCK.

1" Ø MIN. WELLS  
 CONCRETE KICKBLOCK

NOTES:  
 1. ALTERNATE TO THE ABOVE: FASTEN M.J. VALVE DIRECTLY TO A M.J. ANCHOR TEE (ALSO CALLED SWIVEL TEE)  
 2. NO HORIZONTAL OR VERTICAL BENDS ARE ALLOWED IN FIRE HYDRANT BRANCH  
 3. NO PORTION OF FIRE HYDRANT MAY  
 4. FIRE HYDRANT EXTENSIONS MAY NOT BE PLACED IN OPEN WALK AREA

**PARKER WATER & SANITATION DISTRICT**  
 FIRE HYDRANTS LOCATION & INSTALLATION

SCALE: NONE DATE: 2/96  
 APPROVED: 4/01 10/16 01/02 12/07 1/16  
 PVR DIRECTOR OF ENGINEERING

2016 REVISION SHEET W2.5

**PIPE LOCATION SYSTEM**

LOCATOR STATION TO BE POSITIONED BEHIND EACH FIRE HYDRANT

ATTACH TO TOP OF PIPE @ 18" INTERVALS WITH PIPE TAPE

CONNECT WITH ALUMINUM LUGS

LOCATOR WIRE

**PLAN**

6" FIRE HYDRANT  
 TOP OF LOCATOR STATION TO BE PAINTED YELLOW  
 FINAL GRADE

APPROX. GROUND LINE  
 CURB & GUTTER

1" Ø MIN. WELLS  
 CONCRETE KICKBLOCK

19 GAUGE COPPER SOLID WIRE  
 PIPE TAPE

**SECTION VIEW @ FIRE HYDRANT**

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 PROBABILITARY ACCEPTANCE.

**PARKER WATER & SANITATION DISTRICT**  
 LOCATOR WIRE DETAILS

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

2016 REVISION SHEET W2.6

**PLAN OF VALVE**

DISTRICT VALVES OPEN CLOCKWISE  
 DISTRICT VALVES CLOSE COUNTER-CLOCKWISE

OPERATING NUT

**VALVE OPENING & CLOSING PROCEDURE**

NOTE:  
 ONLY RIGHT HAND OPENING VALVES ALLOWED.

**PARKER WATER & SANITATION DISTRICT**  
 VALVE OPERATION

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

2016 REVISION SHEET W3.4

**11-1/4", 22-1/2", 45° & 90° BENDS**

**DEAD END**

**TYPICAL CROSS SECTION**

**TEE**

MINIMUM BEARING SURFACE AREA (IN SQUARE FEET)

SIZE OF PIPE	BENDS				TEE OR DEAD END
	11-1/4"	22-1/2"	45°	90°	
4"	1.00	1.00	1.00	1.80	1.50
6"	1.00	1.75	2.25	4.00	3.00
8"	1.00	2.00	3.00	7.50	5.25
12"	2.00	4.25	8.25	15.25	11.00
16"	3.50	6.50	12.50	23.00	16.50
20"	5.00	10.00	19.50	35.50	23.00
24"	6.50	13.00	26.00	47.00	33.00

NOTES:  
 1. ALL VALVES, TEES, BENDS AND PLUGS SHALL BE RESTRAINED AND KICKBLOCKED.  
 2. BEARING SURFACES SHOWN IN CHART ARE MINIMUM.  
 3. BASED ON 150 PSI PIPE PRESSURE PLUS WATER HAMMER.  
 4", 6" AND 8" WATER HAMMER = 120 PSI.  
 12" WATER HAMMER = 110 PSI.  
 16", 20" AND 24" WATER HAMMER = 70 PSI.  
 4. SOIL BEARING CAPACITY = 3,000 LBS./SQ. FT.

**PARKER WATER & SANITATION DISTRICT**  
 CONCRETE KICKBLOCKS BEARING SURFACES AND INSTALLATION

SCALE: NONE DATE: 2/96  
 APPROVED: 4/01 1/16 10/16  
 PVR DIRECTOR OF ENGINEERING

2016 REVISION SHEET W3.18

**STANDARD TRENCH SECTION**

IN OPEN FIELD IN STREET

NEW STREET SURFACE  
 UNIFORM CUT LINE ASPHALT/CONCRETE  
 EXISTING STREET SURFACE

COMPACTED FILL ONLY IN OPEN FIELD.  
 FLOWABLE FILL IN ROADWAY.

BACKFILL  
 NEW BASE COURSE

WIDTH  
 SEE TABLE

4" - 6" COVER

12" OF BEDDING

6" MIN.

SAND OR SQUEEGEE BEDDING AS SPECIFIED IN SECTION 4.0

PIPE DIAMETER	MINIMUM WIDTH	MAXIMUM WIDTH
4"	1'-4"	2'-4"
6"	1'-8"	2'-8"
8"	1'-8"	2'-8"
12"	2'-4"	3'-4"
16"	2'-4"	3'-4"
20"	2'-8"	3'-8"
24"	3'-0"	4'-0"

NOTE: MINIMUM COVER TO BE BELOW OFFICIAL STREET GRADE.

WATER MAIN SHALL BE BEDDED FROM 6" BELOW THE BOTTOM OF THE PIPE TO 12" ABOVE THE TOP OF THE PIPE.

SAW-CUT EXISTING ASPHALT (TYP)  
 PATCH TO BE 6" OR EXISTING PAVEMENT THICKNESS (WHICHEVER IS GREATER) OF HOT BITUMINOUS PAVEMENT PLACED IN 3" MAX. LIFTS

EXISTING ASPHALT SHALL BE TACKED WITH EMULSIFIED ASPHALT (TYP)

FLOWABLE FILL SHALL BE PLACED TO THE GRADE OF THE STREET PRIOR TO PAVING AND REMOVED TO THE DEPTH OF THE PAVEMENT AT THE TIME OF PAVING.

**PARKER WATER & SANITATION DISTRICT**  
 TYPICAL TRENCH SECTION PIPE PROTECTION

SCALE: NONE DATE: 2/96  
 APPROVED: 1/76 10/16  
 PVR DIRECTOR OF ENGINEERING

2016 REVISION SHEET W4.1

**PLAN**

OUTSIDE WALL

1  
 2  
 3  
 4  
 5  
 6  
 7

FLOW

**ELEVATION**

OUTSIDE WALL

METER SUPPORT  
 LOK-PAK COUPLING

18" MAX.

NOTES:  
 1 - PIPE JOINT SHALL BE THREADED OR SOLDERED WITH SILVER SOLDER.  
 2 - INSTALLATION MUST ALLOW ACCESS FOR MAINTENANCE AND BE PROTECTED FROM FREEZING.  
 3 - SEE WATER SYSTEM SPECIFICATIONS FOR GENERAL METER NOTES.  
 4 - COMPANION FLANGES SHALL BE BRASS.  
 5 - METER SUPPORT SHALL BE EITHER CONCRETE OR GALV. STEEL PIPE (SEE SHEET W4.10)  
 6 - 1.0' MINIMUM CLEARANCE AROUND BACKFLOW DEVICE  
 7 - FLOOR DRAIN TO BE 2X PIPE SIZE AND FOR IRRIGATION USES, ADD RAIN SENSOR AND SMART I.T. CONTROLLER

METER YOKE DISTANCE  
 1.5" 13.25" WITH ADJUSTABLE FLANGE FOR GASKET  
 2" 17.25" WITH ADJUSTABLE FLANGE FOR GASKET

**PARKER WATER & SANITATION DISTRICT**  
 INSIDE SETTING FOR 1 1/2" & 2" METER

SCALE: NONE DATE: 2/96  
 APPROVED: PVR 8/98 01/02 01/16 2/00 05/05 10/16 4/01 07/08  
 DIRECTOR OF ENGINEERING

2016 REVISION SHEET W5.14

File: TLE - PWS - ROP1400.dwg Path: P:\Colorado\Parker\Brytar\PARKER TLE - 18-075-001\2 Drawings\ Plotted by: Brad Date: 21-Apr-20 8:24:14am

