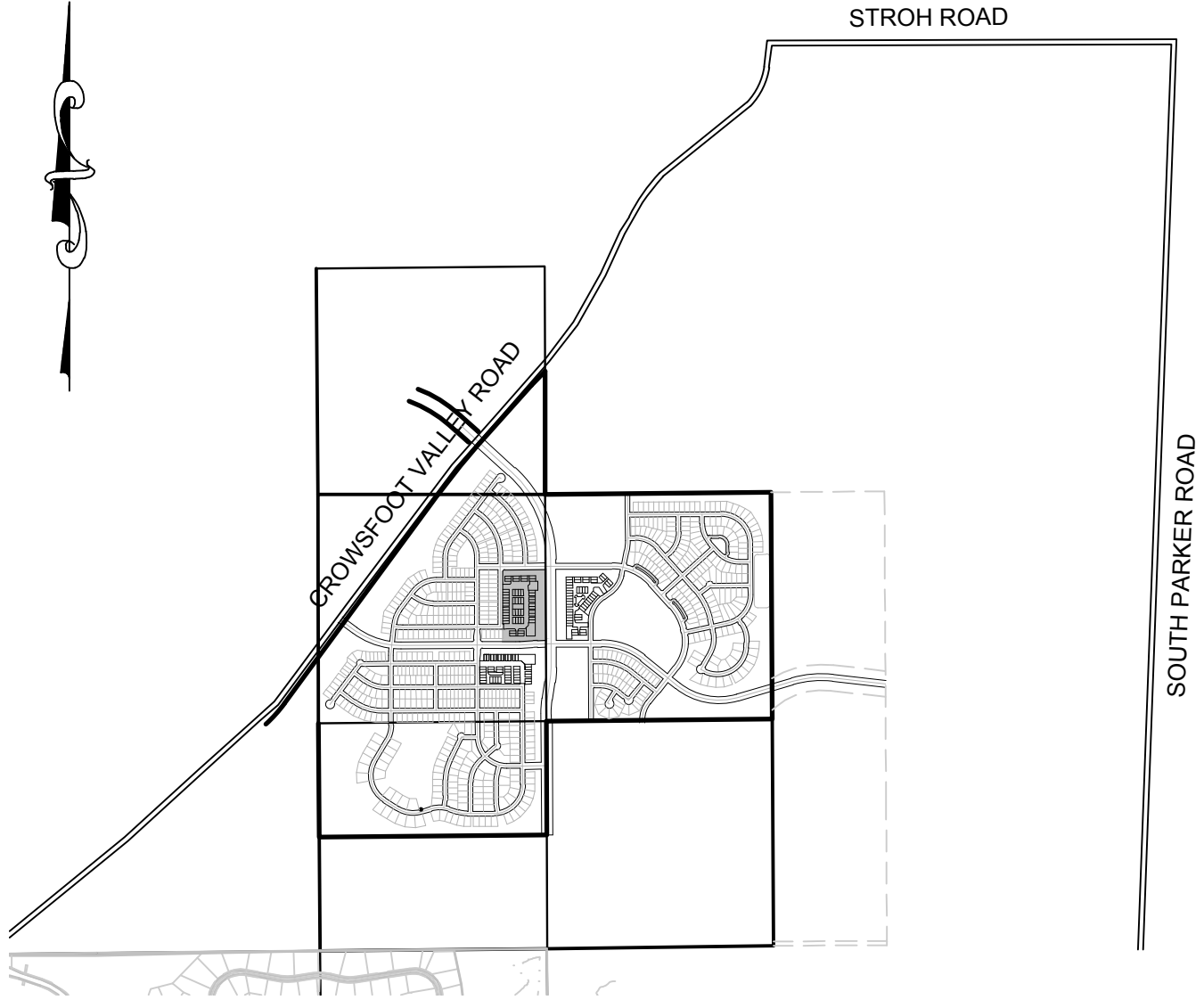


TRAILS AT CROWFOOT FILING 14

PARKER WATER AND SANITATION CONSTRUCTION PLANS

SECTIONS 4, 8, AND 9 TOWNSHIP 7 SOUTH, RANGE 66 WEST OF THE SIXTH PRINCIPAL MERIDIAN COUNTY OF DOUGLAS, STATE OF COLORADO

| Sheet List Table |                                   |
|------------------|-----------------------------------|
| Sheet Number     | Sheet Title                       |
| 1                | COVER SHEET                       |
| 2                | PARKER WATER AND SANITATION NOTES |
| 3                | AREA UTILITY PLAN                 |
| 4                | RED COSMOS STREET                 |
| 5                | RED COSMOS PT                     |
| 6                | FILING 14 SS NORTH                |
| 7                | FILING 14 SS NORTHEAST            |
| 8                | FILING 14 SS EAST-WEST            |
| 9                | FILING 14 SS SOUTH                |
| 10               | FILING 14 SS SOUTHWEST            |
| 11               | ROSE HEALTH STREET                |
| 12               | RED COSMOS STREET                 |
| 13               | BLUE COSMOS CT                    |
| 14               | RED COSMOS COURT                  |
| 15               | ROSE HEATH LANE                   |
| 16               | ROSE HEATH ROAD                   |
| 17               | RED COSMOS POINT                  |
| 18               | ZINNIA COURT                      |
| 19               | SANITARY SEWER DETAILS            |
| 20               | SANITARY SEWER DETAILS            |
| 21               | SANITARY SEWER DETAILS            |
| 22               | WATER DETAILS                     |
| 23               | WATER DETAILS                     |
| 24               | WATER DETAILS                     |
| 25               | WATER DETAILS                     |
| 26               | WATER DETAILS                     |
| 27               | WATER DETAILS                     |
| 28               | WATER DETAILS                     |



VICINITY MAP  
SCALE: 1" = 2000'

| MATERIALS LIST                     |          |      |
|------------------------------------|----------|------|
| DESCRIPTION                        | QUANTITY | UNIT |
| 8" SEWER (SDR-35 PVC)              | 1,568    | L.F. |
| 4' DIA. MANHOLE                    | 12       | EA.  |
| SEWER SERVICE LATERAL W/ WYE TAP   | 36       | EA.  |
| CONNECTION TO EXISTING MAIN        | 1        | EA.  |
| 6" WATERPIPE (DIP)                 | 118      | L.F. |
| 8" WATERPIPE (PVC)                 | 2,030    | L.F. |
| 6" GATE VALVE W/ BOX               | 6        | EA.  |
| 8" GATE VALVE                      | 10       | EA.  |
| 8" MISC FITTINGS                   | 12       | EA.  |
| AIR/VACUUM VALVE                   | 2        | EA.  |
| 8" CAP WITH BLOW OFF               | 4        | EA.  |
| FIRE HYDRANT WITH 6" LEAD          | 6        | EA.  |
| IRRIGATION SERVICE WITH METER (2") | 1        | EA.  |
| DOMESTIC WATER SERVICE WITH METER  | 50       | EA.  |
| CONNECTION TO EXISTING MAIN        | 2        | EA.  |

FIRE DEPARTMENT APPROVAL

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 NFPA24 WHEN SUBMITTING FOR REVIEW.)

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

APPROVED FOR CONSTRUCTION:  
PARKER WATER AND SANITATION DISTRICT

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

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

PREPARED UNDER THE  
SUPERVISION OF

BRIAN P. WILSON  
COLORADO P.E. 0050067

BENCHMARK  
DOUGLAS COUNTY CONTROL POINT KNOWN AS 1.060032, BEING A 3-1/4" ALUMINUM CAP, BEING LOCATED IN THE SOUTHWEST QUARTER OF SECTION 33, TOWNSHIP 6 SOUTH, RANGE 66 WEST OF THE SIXTH PRINCIPAL MERIDIAN, HAVING A PUBLISHED ELEVATION OF 1799.2870 METERS (5903.13 FEET) NAVD '88 DATUM.

BASIS OF BEARINGS:  
THE EAST LINE OF THE NORTHEAST QUARTER OF SAID SECTION 9 BEING MONUMENTED AT THE NORTHEAST CORNER OF SAID SECTION 9 BY A 3-1/4" ALUMINUM CAP STAMPED LS 23053 AND AT THE EAST QUARTER CORNER OF SAID SECTION 9 BY A 2-1/2" ALUMINUM CAP STAMPED LS 6935 BEING CONSIDERED TO BEAR SOUTH 00°15'06" EAST, 2648.70 FEET.

DEVELOPER

HR 935 LLC  
7353 SOUTH ALTON WAY  
CENTENNIAL, CO 80112  
TEL: (303) 770-9111  
CONTACT: MATT JANKE

PLANNER/  
LANDSCAPE  
DESIGNER:

PCS GROUP, INC.  
200 KALAMATH STREET  
DENVER, CO 80233  
TEL: (303) 531-4905  
CONTACT: JOHN PRESTWICH

SURVEYOR/  
ENGINEER:

CVL CONSULTANTS  
OF COLORADO, INC.  
10333 E. DRY CREEK RD. STE 240  
ENGLEWOOD, CO 80112  
TEL: (720) 482-9526  
CONTACT: JIM JANNICKE

UTILITY  
DISTRICT

PARKER WATER AND  
SANITATION DISTRICT  
18100 E. WOODMAN DRIVE  
PARKER, CO 80134  
TEL: (303) 841-4627



N:\PROJECTS\SSR\BANCROFT\ENGINEERING\SSR\SSR\MULTIFAMILY\CDSE\FH\BANCROFT\WATER AND SANITATION\COVER.DWG: BROWNW, 9/25/2018 11:52 AM

|              |                  |                    |                         |                                              |                                                                      |                                                            |  |                                                                                                                |     |           |      |       |       |      |
|--------------|------------------|--------------------|-------------------------|----------------------------------------------|----------------------------------------------------------------------|------------------------------------------------------------|--|----------------------------------------------------------------------------------------------------------------|-----|-----------|------|-------|-------|------|
| SHEET NUMBER | DRAWN BY:<br>RRR | CHECKED BY:<br>BPW | DATE:<br>SEPTEMBER 2018 | SCALE:<br>AS SHOWN<br>FILE NO:<br>8130283701 | TRAILS AT CROWFOOT<br>FILING 14 CONSTRUCTION DRAWINGS<br>COVER SHEET | HR 935 LLC<br>7353 South Alton Way<br>CENTENNIAL, CO 80112 |  | 10333 E. Dry Creek Rd.<br>Suite 240<br>Englewood, Colorado 80112<br>Tel: (720) 482-9526<br>Fax: (720) 482-9546 | No. | Revisions | Date | Init. | Appr. | Date |
|              |                  |                    |                         |                                              |                                                                      |                                                            |  |                                                                                                                |     |           |      |       |       |      |
|              |                  |                    |                         |                                              |                                                                      |                                                            |  |                                                                                                                |     |           |      |       |       |      |
|              |                  |                    |                         |                                              |                                                                      |                                                            |  |                                                                                                                |     |           |      |       |       |      |

N:\PROJECTS\BUSHES RANCH\CAD\ENGINEERING\DWG SHEETS\MULTIFAMILY\CDSEF\H PARKER WATER AND SANITATION\COVER.DWG, BRIAN.W, 9/26/2018 11:52 AM

GENERAL NOTES:

1. ALL CONSTRUCTION SHALL COMPLY WITH PARKER WATER AND SANITATION DISTRICT SPECIFICATIONS.
2. THE CONTRACTOR SHALL CONTACT ALL APPROPRIATE UTILITY COMPANIES AND THE TOWN OF PARKER 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 CONTRACTOR DISCOVERS A DISCREPANCY IN LOCATIONS, HE SHALL CONTACT THE ENGINEER IMMEDIATELY.
4. THE DISTRICT ENGINEER AND OTHER APPROVING AGENCIES ARE TO BE NOTIFIED AT LEAST 48 HOURS PRIOR TO CONSTRUCTION.
5. THE CONTRACTOR SHALL OBTAIN, AT HIS EXPENSE, ALL PERMITS THAT ARE 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 ROLLED "AS-BUILT" BLUELINE PRINTS AND ELECTRONIC FILES TO THE DISTRICT ENGINEER FOR APPROVAL PRIOR TO PRINTING MYLAR SEPIAS FOR THE DISTRICT. AFTER APPROVAL HAS BEEN GRANTED BY THE DISTRICT ENGINEER, FULL SIZE MYLAR SEPIA PRINTS SHALL BE TRANSMITTED TO THE PARKER WATER AND SANITATION DISTRICT OFFICE.
8. 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. 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.
13. ALL SERVICES WILL BE PERMANENTLY MARKED ON CURB FACE AS FOLLOWS: "X" FOR SANITARY SERVICE SEWERS "V" FOR WATER SERVICES
14. NO TREES SHALL BE ALLOWED IN EASEMENTS OR WITHIN 8' OF ANY WATER OR SANITARY SEWER MAINS IN RIGHT OF WAY.
15. 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.

WATER MAIN NOTES:

1. ALL MATERIALS AND WORKMANSHIP SHALL BE IN CONFORMANCE WITH THE PARKER WATER AND SANITATION DISTRICT ENGINEERING STANDARDS AND SPECIFICATIONS, LATEST REVISIONS. ALL WORK SHALL BE INSPECTED AND APPROVED BY PERSONNEL OF THE PARKER WATER SANITATION DISTRICT AND THE DISTRICT ENGINEER.
2. ALL WATER MAINS SHALL BE PER PWSO MATERIALS SPECIFICATIONS.
3. ALL BENDS, PLUGS, REDUCERS, AND FIRE HYDRANTS TO BE RODDED OR MEGA-LUGGED. ALL FITTINGS SHALL BE WRAPPED WITH 8-MIL MINIMUM THICKNESS POLYETHYLENE MATERIAL PER PWSO 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 SHALL INCLUDE ALL PIPE, FITTINGS, VALVES, MATERIALS, AND LABOR WHICH ARE NECESSARY TO INSTALL THE HYDRANT COMPLETE IN PLACE. SEE MATERIALS SPECIFICATIONS FOR APPROVED MODELS
6. ALL BENDS, TEES, FIRE HYDRANTS, BLOW-OFFS AND PLUGS AT DEAD END MAINS SHALL BE PROTECTED FROM THRUST BY USING 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 DAY'S WORK OR FOR OTHER REASONS, SUCH AS REST BREAKS OR MEAL PERIODS. THE MORE CLOSELY THE RATE OF DELIVERY IS CORRELATED TO THE RATE OF PIPE LAYING, THE LOWER THE RISK OF CONTAMINATION.
8. CHLORINATION AND FLUSHING: ALL WATER MAINS SHALL BE INSTALLED AND CHLORINATED PER PARKER WATER AND SANITATION STANDARDS AND SPECIFICATIONS. THE LINES SHALL BE CHLORINATED IN ACCORDANCE WITH ANSI/AWWA C-651-92., "DISINFECTING WATER MAINS." PARKER WATER AND SANITATION DISTRICT REQUIRES THE INITIAL DOSAGE RATE OF DISINFECTION BE AT LEAST 50 MG PER LITER. CHLORINE TABLETS SHOULD BE ADHERED TO THE TOP OF THE PIPE SECTION WITH PERMATEX NO.1 (RED). THE CHLORINATION OF ANY FINISHED PIPELINE SHALL BE DONE PRIOR TO THE HYDROSTATIC TESTING.
9. HYDROSTATIC TESTING: ALL WATER MAINS SHALL BE TESTED PER THE REQUIREMENTS OF THE PARKER WATER AND SANITATION DISTRICT STANDARDS AND SPECIFICATIONS. ALL PIPE SHALL BE FIELD PRESSURE TESTED TO A MINIMUM OF 150 PSI. ALL TESTING SHALL BE DONE IN THE PRESENCE OF A PARKER WATER AND SANITATION DISTRICT INSPECTOR. LEAKAGE FOR EACH SECTION OF PIPE BETWEEN LINES VALVES SHALL NOT EXCEED THE LIMITS SET FORTH IN THE PARKER WATER AND SANITATION DISTRICT STANDARDS AND SPECIFICATIONS.
10. VALVES IN STREETS ARE TO BE LOCATED AT PROPERTY LINE EXTENSIONS EXCEPT FOR TAPPING TEES WHERE AN ADDITIONAL VALVES SHALL BE PLACED ON THE TAPPING TEE. OTHER VALVE LOCATIONS, SUCH AS WHERE CROSS PANS EXIST, ARE SHOWN ON THE PLANS.
11. WHEN NECESSARY TO LOWER OR RAISE WATER LINES AT STORM DRAINS AND OTHER UTILITY CROSSING, A MINIMUM CLEARANCE OF 1.50 FEET SHALL BE MAINTAINED BETWEEN OUTSIDE OF PIPES.
12. THE CONTRACTOR SHALL NOTIFY THE PARKER WATER AND SANITATION DISTRICT AND THE DISTRICT ENGINEER 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.
13. PIPE BEDDING SHALL BE A CLEAN, WELL-GRADED SAND OR SQUEEGEE SAND IN ACCORDANCE WITH PARKER WATER AND SANITATION DISTRICT STANDARDS AND SPECIFICATIONS, LATEST REVISION.
14. THE CONTRACTOR SHALL NOTIFY THE PUBLIC UTILITY COMPANIES AND DETERMINED 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.
15. 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.
16. VALVE BOXES: TYLER SCREW-TYPE 6 INCHES CAST IRON VALVE BOX ASSEMBLY SERIES 6860 WITH NO. 160 OVAL BASE. CLAY AND BAILEY SCREW-TYPE 6 INCH CAST IRON VALVE BOX ASSEMBLY NO. P-108 WITH NO. 106 LARGE OVAL BASE.
17. ALL PIPE LENGTHS ARE APPROXIMATE.
18. 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 REPRESENTATIVE OF OTHER APPROVING AGENCIES. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT THE DISTRICT ENGINEER.

SANITARY SEWER NOTES:

1. ALL SANITARY SEWER CONSTRUCTION SHALL CONFORM TO THE PARKER WATER AND SANITATION DISTRICT SPECIFICATION.
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 PARKER WATER AND SANITATION DISTRICT STANDARD AND 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.
7. 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.
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. ALL PIPE LENGTHS ARE APPROXIMATE.
12. 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.
13. ALL MANHOLES SHALL HAVE SHAPED INVERTS.
14. 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.
15. 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.
16. PRIOR TO PROBATIONARY ACCEPTANCE WALK-THROUGH, THE CLIENT SHALL JET CLEAN THE ENTIRE SANITARY SEWER SYSTEM AND PUMP OUT AT THE PLUGGED MANHOLE.

DISTRICT ACCEPTANCE NOTES:

1. 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-THRU AND PROBATIONARY ACCEPTANCE WILL BE ISSUED FOLLOWING COMPLETION AND ACCEPTANCE OF THE WORK OUTLINED IN THE PUNCHLIST.
2. THE CONTRACTOR WILL BE HELD RESPONSIBLE FOR THE PROPER FUNCTIONING OF THE LINES 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.
3. 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.



UNCC  
UTILITY NOTIFICATION  
CENTER OF COLORADO

CALL 811

TWO WORKING DAYS

BEFORE YOU DIG

1-800-922-1987

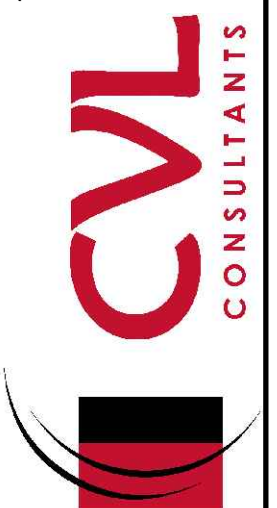
**BENCHMARK**  
DOUGLAS COUNTY CONTROL POINT KNOWN AS 1.060032, BEING A 3-1/4" ALUMINUM CAP, BEING LOCATED IN THE SOUTHWEST QUARTER OF SECTION 33, TOWNSHIP 6 SOUTH, RANGE 66 WEST OF THE SIXTH PRINCIPAL MERIDIAN, HAVING A PUBLISHED ELEVATION OF 1799.2870 METERS (5903.13 FEET) NAVD '88 DATUM.

**BASIS OF BEARINGS:**  
THE EAST LINE OF THE NORTHEAST QUARTER OF SAID SECTION 9 BEING MONUMENTED AT THE NORTHEAST CORNER OF SAID SECTION 9 BY A 3-1/4" ALUMINUM CAP STAMPED LS 23053 AND AT THE EAST QUARTER CORNER OF SAID SECTION 9 BY A 2-1/2" ALUMINUM CAP STAMPED LS 6935 BEING CONSIDERED TO BEAR SOUTH 00°15'06" EAST, 2648.70 FEET.

PREPARED UNDER THE  
SUPERVISION OF

BRIAN P. WILSON  
COLORADO P.E. 0050067

10339 E. Dry Creek Rd.  
Suite 110  
Englewood, CO 80110  
Tel: (720) 482-9526  
Fax: (720) 482-9546



HR 935 LLC  
7353 South Alton Way  
CENTENNIAL, CO 80112

TRAILS AT CROWFOOT  
FILING 14 CONSTRUCTION DRAWINGS  
PARKER WATER AND SANITATION NOTES

SCALE:  
AS SHOWN

DRAWN BY: KJD

CHECKED BY: BPW

DATE: SEPTEMBER 2018

FILE NO:  
8130283701

Revisions

No.

Date

Init.

Appr.

Date

2

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 SCHEDULED 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: \_\_\_\_\_ DATE \_\_\_\_\_  
(DISTRICT REPRESENTATIVE)

APPROVED FOR CONSTRUCTION:  
PARKER WATER AND SANITATION DISTRICT

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

| WATER SERVICE TABLE |                |            |
|---------------------|----------------|------------|
| FILING, BLOCK, LOT  | STREET         | STATIONING |
| F14,B1,L1           | BLUE COSMOS CT | 10+91.00   |
| F14,B1,L2           | BLUE COSMOS CT | 10+81.00   |
| F14,B1,L3           | BLUE COSMOS CT | 10+93.50   |
| F14,B1,L4           | BLUE COSMOS CT | 10+78.50   |
| F14,B1,L5           | RED COSMOS CT  | 11+18.52   |
| F14,B1,L6           | RED COSMOS CT  | 11+08.52   |
| F14,B1,L7           | RED COSMOS CT  | 11+21.02   |
| F14,B1,L8           | RED COSMOS CT  | 11+06.02   |
| F14,B1,L9           | RED COSMOS ST  | 14+29.94   |
| F14,B1,L10          | RED COSMOS ST  | 14+19.94   |
| F14,B1,L11          | RED COSMOS ST  | 13+50.65   |
| F14,B1,L12          | RED COSMOS ST  | 13+40.65   |
| F14,B1,L13          | RED COSMOS ST  | 12+71.65   |
| F14,B1,L14          | RED COSMOS ST  | 12+61.65   |
| F14,B1,L15          | RED COSMOS ST  | 11+92.65   |
| F14,B1,L16          | RED COSMOS ST  | 11+82.65   |
| F14,B1,L17          | RED COSMOS ST  | 11+13.65   |
| F14,B1,L18          | RED COSMOS ST  | 11+03.65   |
| F14,B1,L19          | ZINNIA CT      | 10+68.10   |
| F14,B1,L20          | ZINNIA CT      | 10+83.10   |
| F14,B1,L21          | ZINNIA CT      | 10+70.80   |
| F14,B1,L22          | ZINNIA CT      | 10+80.60   |
| F14,B2,L1           | ROSE HEATH ST  | 10+67.50   |
| F14,B2,L2           | ROSE HEATH ST  | 10+77.50   |
| F14,B2,L3           | ROSE HEATH ST  | 11+31.50   |
| F14,B2,L4           | ROSE HEATH ST  | 11+41.50   |
| F14,B2,L5           | ROSE HEATH ST  | 11+95.50   |
| F14,B2,L6           | ROSE HEATH ST  | 12+05.50   |
| F14,B2,L7           | ROSE HEATH ST  | 12+73.00   |
| F14,B2,L8           | ROSE HEATH ST  | 12+83.00   |
| F14,B2,L9           | ROSE HEATH ST  | 13+37.00   |
| F14,B2,L10          | ROSE HEATH ST  | 13+47.00   |
| F14,B2,L11          | ROSE HEATH ST  | 14+01.00   |
| F14,B2,L12          | ROSE HEATH ST  | 14+11.00   |
| F14,B3,L1           | ROSE HEATH LN  | 10+54.06   |
| F14,B3,L2           | ROSE HEATH LN  | 10+69.06   |
| F14,B3,L3           | ROSE HEATH LN  | 11+18.06   |
| F14,B3,L4           | ROSE HEATH LN  | 11+33.06   |
| F14,B3,L5           | ROSE HEATH LN  | 10+56.56   |
| F14,B3,L6           | ROSE HEATH LN  | 10+66.56   |
| F14,B3,L7           | ROSE HEATH LN  | 11+20.55   |
| F14,B3,L8           | ROSE HEATH LN  | 11+30.56   |
| F14,B3,L9           | ROSE HEATH RD  | 10+54.06   |
| F14,B3,L10          | ROSE HEATH RD  | 10+69.06   |
| F14,B3,L11          | ROSE HEATH RD  | 11+18.06   |
| F14,B3,L12          | ROSE HEATH RD  | 11+33.06   |
| F14,B3,L13          | ROSE HEATH RD  | 10+56.56   |
| F14,B3,L14          | ROSE HEATH RD  | 10+66.56   |
| F14,B3,L15          | ROSE HEATH RD  | 11+20.56   |
| F14,B3,L16          | ROSE HEATH RD  | 11+30.56   |

| SANITARY SERVICE TABLE |                        |            |
|------------------------|------------------------|------------|
| FILING, BLOCK, LOT     | STREET                 | STATIONING |
| F14,B1,L3              | FILING 14 SS NORTH     | 10+99.00   |
| F14,B1,L4              | FILING 14 SS NORTH     | 10+79.00   |
| F14,B1,L5              | FILING 14 SS NORTH     | 10+99.00   |
| F14,B1,L6              | FILING 14 SS NORTH     | 10+76.00   |
| F14,B1,L7              | FILING 14 SS NORTHEAST | 12+51.97   |
| F14,B1,L8              | FILING 14 SS NORTHEAST | 12+31.97   |
| F14,B1,L9              | RED COSMOS ST          | 14+39.68   |
| F14,B1,L10             | RED COSMOS ST          | 14+09.04   |
| F14,B1,L11             | RED COSMOS ST          | 13+60.42   |
| F14,B1,L12             | RED COSMOS ST          | 13+30.06   |
| F14,B1,L13             | RED COSMOS ST          | 12+81.44   |
| F14,B1,L14             | RED COSMOS ST          | 12+51.65   |
| F14,B1,L15             | RED COSMOS ST          | 12+02.65   |
| F14,B1,L16             | RED COSMOS ST          | 11+72.65   |
| F14,B1,L17             | RED COSMOS ST          | 11+23.65   |
| F14,B1,L18             | RED COSMOS ST          | 10+93.65   |
| F14,B1,L19             | FILING 14 SS SOUTHWEST | 10+68.60   |
| F14,B1,L20             | FILING 14 SS SOUTHWEST | 10+88.60   |
| F14,B1,L21             | FILING 14 SS SOUTH     | 10+82.67   |
| F14,B1,L22             | FILING 14 SS SOUTH     | 11+02.67   |
| F14,B3,L1              | RED COSMOS ST          | 16+24.86   |
| F14,B3,L2              | RED COSMOS ST          | 16+04.86   |
| F14,B3,L3              | RED COSMOS ST          | 15+64.42   |
| F14,B3,L4              | RED COSMOS ST          | 15+40.86   |
| F14,B3,L5              | FILING 14 SS EAST-WEST | 10+00.00   |
| F14,B3,L6              | FILING 14 SS EAST-WEST | 10+23.00   |
| F14,B3,L7              | FILING 14 SS EAST-WEST | 10+61.00   |
| F14,B3,L8              | FILING 14 SS EAST-WEST | 10+87.00   |
| F14,B3,L9              | FILING 14 SS EAST-WEST | 10+00.00   |
| F14,B3,L10             | FILING 14 SS EAST-WEST | 10+20.00   |
| F14,B3,L11             | FILING 14 SS EAST-WEST | 10+64.00   |
| F14,B3,L12             | FILING 14 SS EAST-WEST | 10+84.00   |
| F14,B3,L13             | RED COSMOS PT          | 24+13.51   |
| F14,B3,L14             | RED COSMOS PT          | 24+33.49   |
| F14,B3,L15             | RED COSMOS ST          | 9+74.09    |
| F14,B3,L16             | RED COSMOS ST          | 9+94.06    |

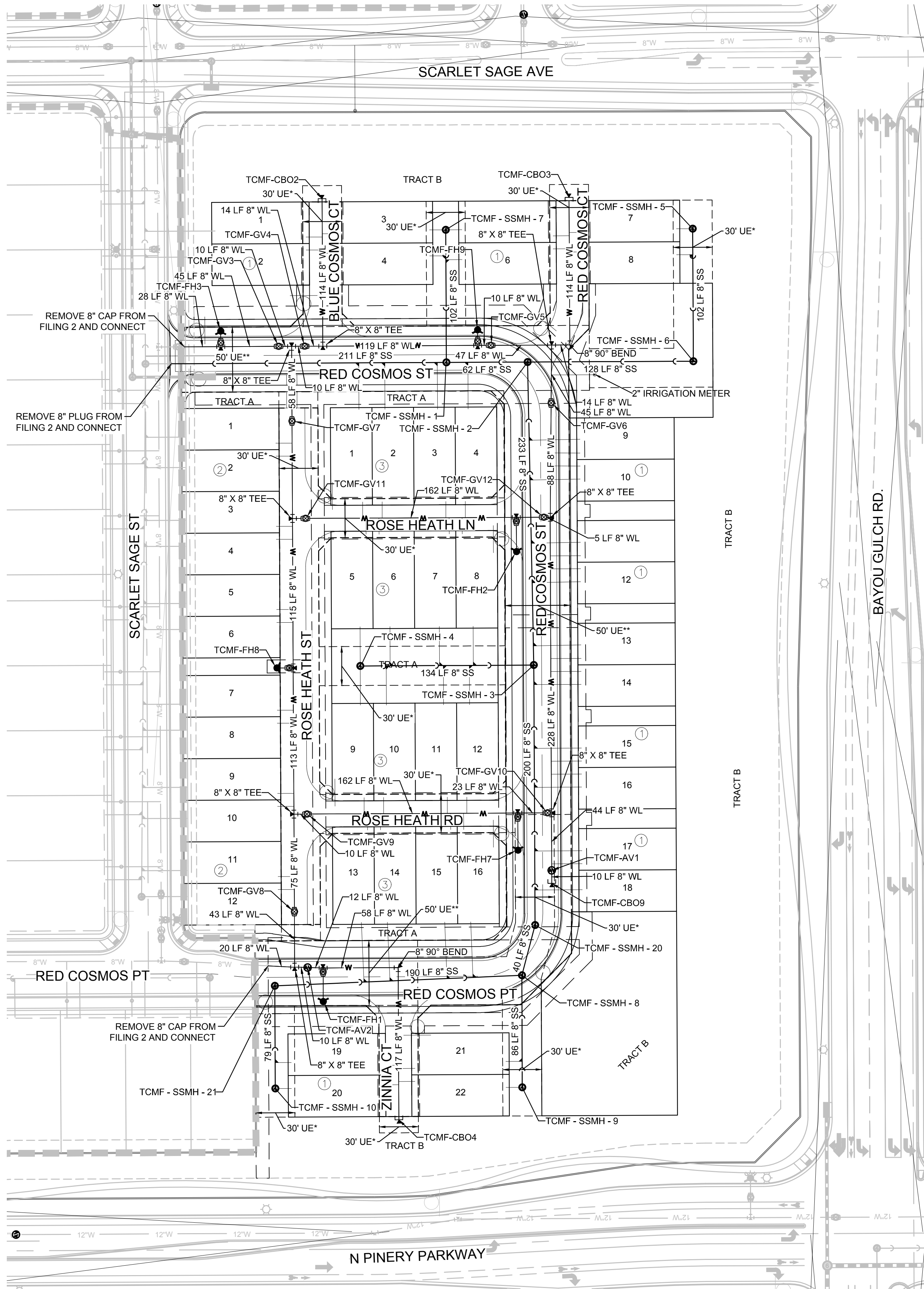
- NOTES:
- SANITARY SERVICES FOR BLOCK 1, LOTS 1-2 & BLOCK 2, LOTS 1-12 WILL BE INSTALLED WITH TRAILS AT CROWFOOT FILING 2.
  - THE PROPOSED UTILITY CONNECTION WILL REQUIRE A TOWN RIGHT-OF-WAY PERMIT PRIOR TO COMMENCING WORK. THE TOWN PREFERS CONNECTIONS TO BE BORED TO THE EXTENT POSSIBLE, AND ANY STREET CUT ALLOWED BY THE TOWN WILL BE REQUIRED TO BE PATCHED ACCORDING TO THE TOWN'S CONSTRUCTION STANDARDS AND DETAILS. THE LIMITS OF PATCHING WILL BE DETERMINED BY THE TOWN AT THE TIME OF CONSTRUCTION. THE TOWN OF PARKER DOES NOT ALLOW ROADWAY CLOSURES FOR UTILITY WORK.
- \* ALL 30" UE ARE 30' PWSD EXCLUSIVE EASEMENTS.  
\*\* ALL 50" UE ARE 50' PWSD NON-EXCLUSIVE EASEMENTS.

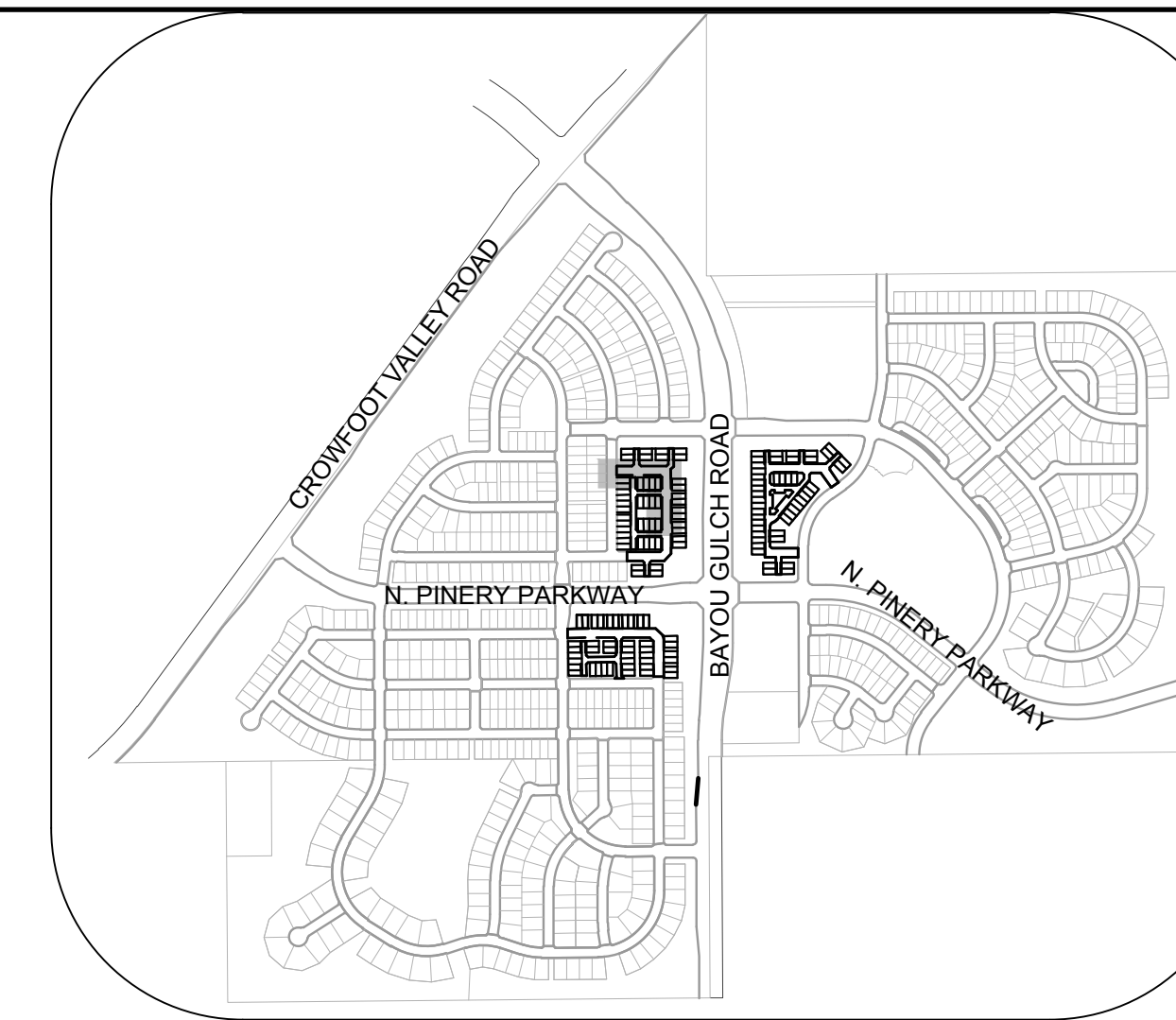
#### FIRE DEPARTMENT APPROVAL

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 \_\_\_\_\_

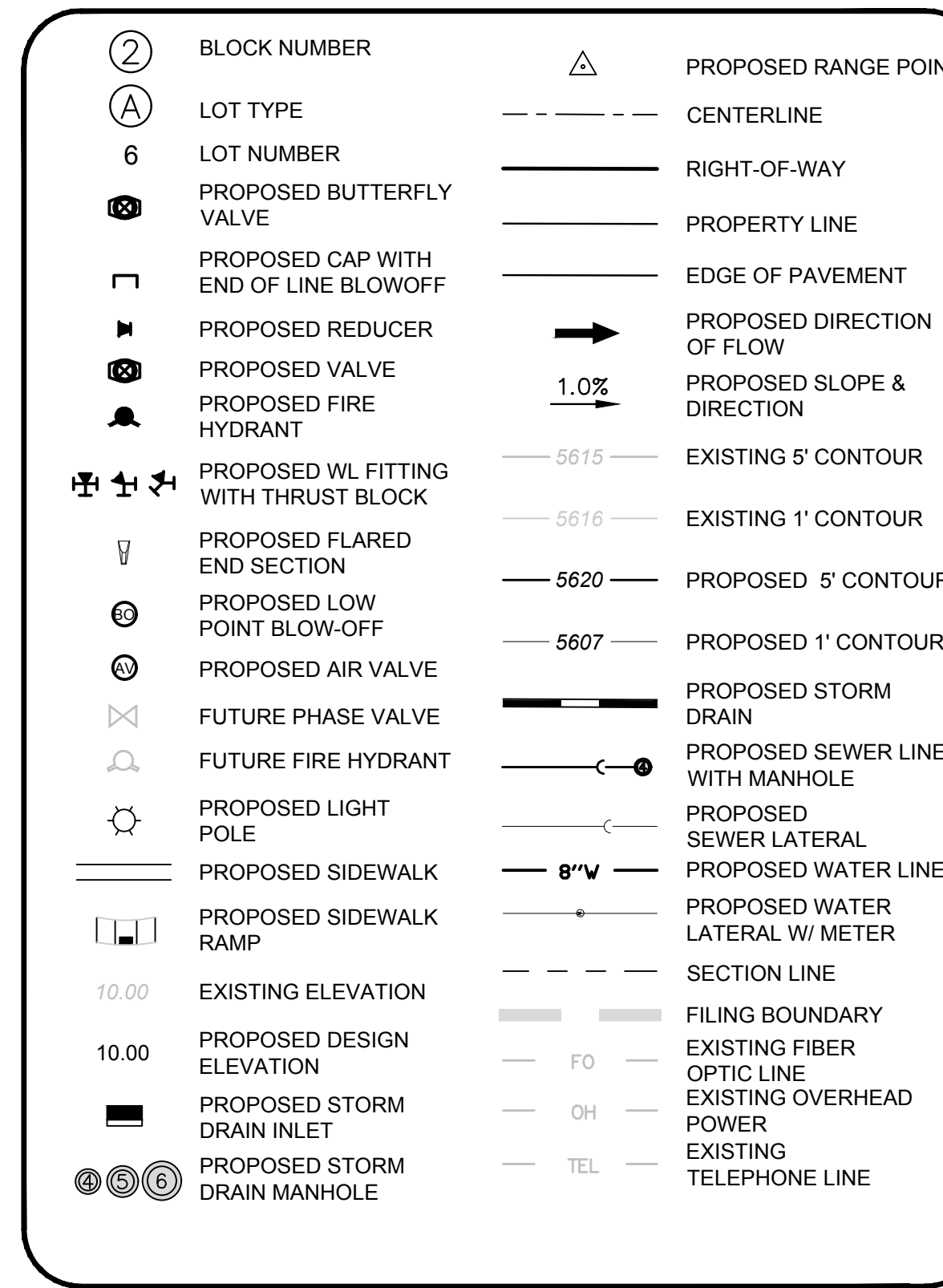
(NOTE- UNDERGROUND FIRE LINE (UFL) SUBMITTAL DOCUMENTS MUST MEET THE REQUIREMENTS OF NFPA24 WHEN SUBMITTING FOR REVIEW.)





## LEGEND

| SANITARY SERVICE TABLE |               |            |
|------------------------|---------------|------------|
| FILING, BLOCK, LOT     | STREET        | STATIONING |
| F14,B1,L9              | RED COSMOS ST | 14+39.68   |
| F14,B1,L10             | RED COSMOS ST | 14+09.04   |
| F14,B1,L11             | RED COSMOS ST | 13+60.42   |
| F14,B1,L12             | RED COSMOS ST | 13+30.06   |
| F14,B1,L13             | RED COSMOS ST | 12+81.44   |
| F14,B1,L14             | RED COSMOS ST | 12+51.65   |
| F14,B1,L15             | RED COSMOS ST | 12+02.65   |
| F14,B1,L16             | RED COSMOS ST | 11+72.65   |
| F14,B1,L17             | RED COSMOS ST | 11+23.65   |
| F14,B1,L18             | RED COSMOS ST | 10+93.65   |
| F14,B3,L1              | RED COSMOS ST | 16+24.86   |
| F14,B3,L2              | RED COSMOS ST | 16+04.86   |
| F14,B3,L3              | RED COSMOS ST | 15+64.42   |
| F14,B3,L4              | RED COSMOS ST | 15+40.86   |



## ABBREVIATIONS

|     |                        |        |                               |
|-----|------------------------|--------|-------------------------------|
| AD  | ANGLE DIFFERENCE       | MH     | MANHOLE                       |
| AV  | AIR VAC RELEASE VALVE  | N.T.S. | NOT TO SCALE                  |
| BVC | BEGIN VERTICAL CURVE   | PVC    | POLYVINYL CHLORIDE            |
| BVP | BEGIN VERTICAL PROFILE | PVI    | PT. OF VERTICAL INTERSECTION  |
| CBO | CAP WITH BLOW OFF      | PVT    | POINT OF VERTICAL TANGENT     |
| CRR | CURB RETURN RADIUS     | RCBC   | REINFORCED CONCRETE BOX CULVE |
| EL  | ELEVATION              | RCP    | REINFORCED CONCRETE PIPE      |
| EP  | EDGE OF PAVEMENT       | ROW    | RIGHT OF WAY                  |
| EVC | END VERTICAL CURVE     | SC     | SANITARY CAP                  |
| EVF | END VERTICAL PROFILE   | SD     | STORM DRAIN                   |
| FG  | FINISHED GROUND        | SL     | SECTION LINE                  |
| FL  | FIRE HYDRANT           | SS     | SANITARY SEWER                |
| FL  | FLOW LINE              | STA    | STATION                       |
| GV  | GATE VALVE             | T.O.P. | TOP OF PIPE                   |
| HCR | HANDICAP CURB RAMP     | UE     | UTILITY EASEMENT              |
| HP  | HIGH POINT             | VC     | VERTICAL CURVE                |
| INV | INVERT                 | WL     | WATER LINE                    |
| K   | CURVATURE COEFFICIENT  | WLC    | WATER LINE CONNECTION         |
| LF  | LINEAR FEET            | WSE    | WATER SURFACE ELEVATION       |

PREPARED UNDER THE  
SUPERVISION OF

BRIAN P. WILSON  
COLORADO P.E. 0050067

N:\PROJECTS\HSS RANCH\CAD\ENGINEERING\SHEET SET\MULTIFAMILY\CDSE 14\PARKE WATER AND SANITATION\SANITARY SEWER SHEETS\RED COSMOS ST.DWG, BRIANNI 9/26/2018 11:58 AM



**CALL 811  
TWO WORKING DAYS  
BEFORE YOU DIG  
1-800-922-1987**

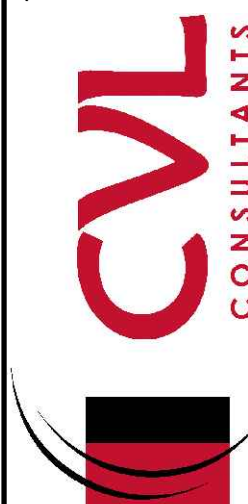
PROFILE: RED COSMOS ST STA: 18+50.00 TO 9+50.00

HORIZONTAL: 1" = 50'  
VERTICAL: 1" = 5'

**BENCHMARK**  
DOUGLAS COUNTY CONTROL POINT KNOWN AS 1.060032, BEING A 3-1/4" ALUMINUM CAP, BEING LOCATED IN THE SOUTHWEST QUARTER OF SECTION 33, TOWNSHIP 6 SOUTH, RANGE 66 WEST OF THE SIXTH PRINCIPAL MERIDIAN, HAVING A PUBLISHED ELEVATION OF 1799.2870 METERS (5903.13 FEET) NAVD '88 DATUM.

**BASIS OF BEARINGS:**  
THE EAST LINE OF THE NORTHEAST QUARTER OF SAID SECTION 9 BEING MONUMENTED AT THE NORTHEAST CORNER OF SAID SECTION 9 BY A 3-1/4" ALUMINUM CAP STAMPED LS 23053 AND AT THE EAST QUARTER CORNER OF SAID SECTION 9 BY A 2-1/2" ALUMINUM CAP STAMPED LS 6935 BEING CONSIDERED TO BEAR SOUTH 00°15'06" EAST, 2648.70 FEET.

333 E. Dry Creek Rd.  
Suite 240  
Englewood, CO 80112  
Tel: (720) 482-9526  
Fax: (720) 482-9546



**HR 935 LLC**  
7353 South Alton Way  
CENTENNIAL, CO 80112

TRAILS AT CROWFOOT  
FILING 14 CONSTRUCTION DRAWINGS  
SANITARY SEWER PLAN & PROFILE  
RED COSMOS STREET

|          |          |
|----------|----------|
| SCALE:   | AS SHOWN |
| FILE NO: |          |

|             |     |
|-------------|-----|
| DRAWN BY:   | RRR |
| CHECKED BY: | BPW |
| DATE:       |     |

4

N:\PROJECTS\SSS BANCHADO\ENGINEERING\SSSHEET SETS\MULTIFAMILY\CDSIF HAPARKER WATER AND SANITATION\SANITARY SEWER SHEETS\RED COSMOS PT DWG. BRIANW. 02/20/18 12:00 PM



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CALL 811

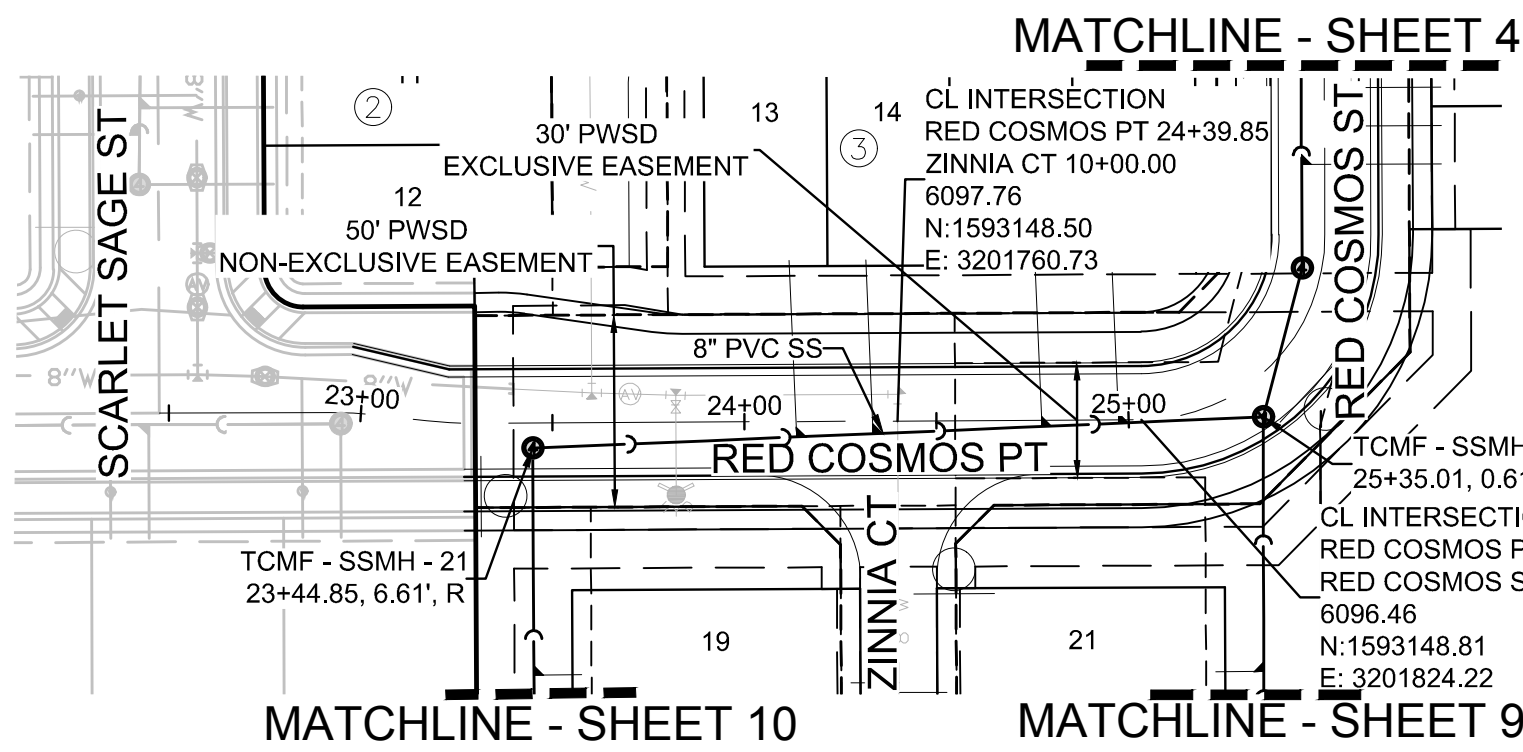
TWO WORKING DAYS

BEFORE YOU DIG

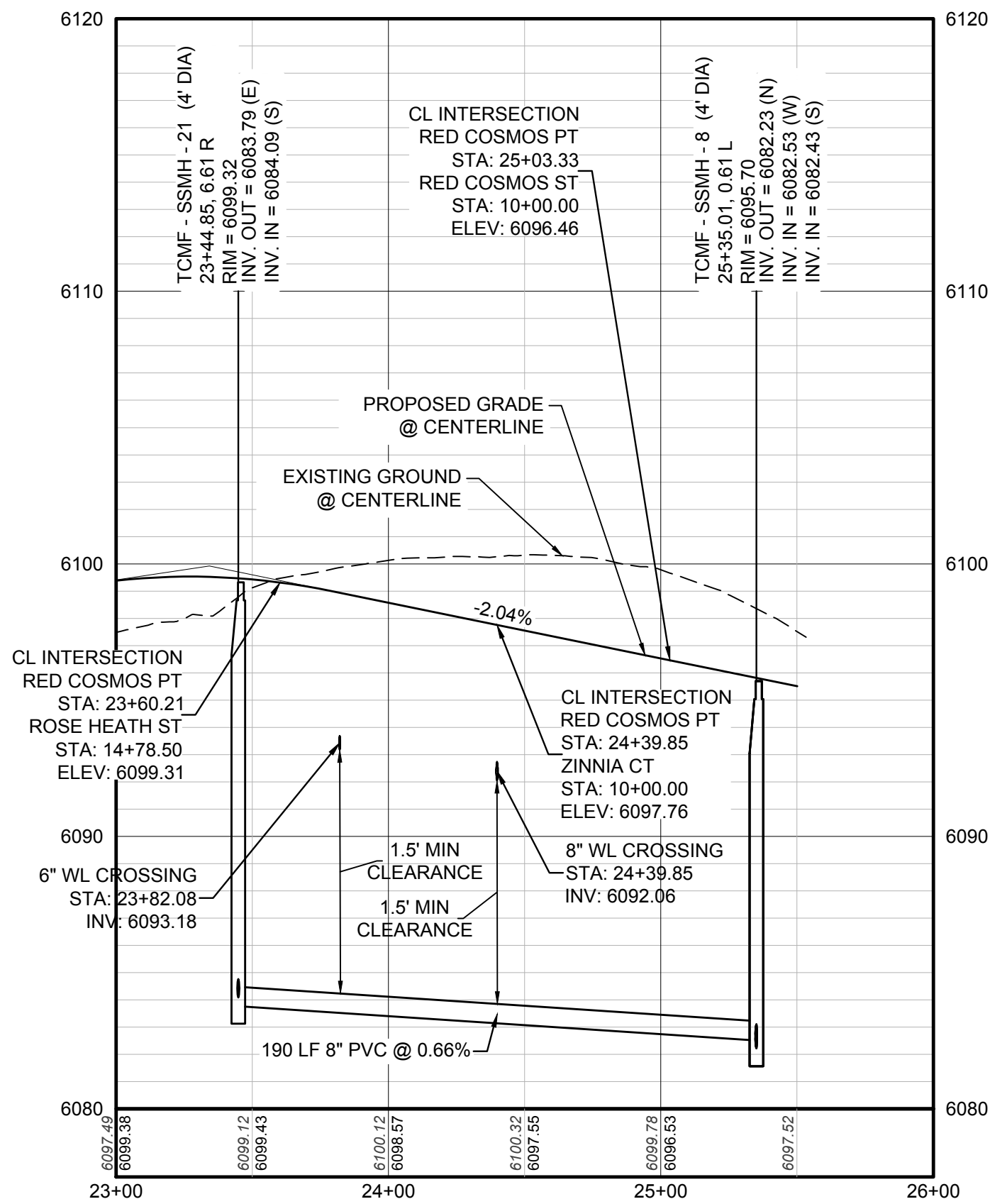
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UTILITY NOTIFICATION

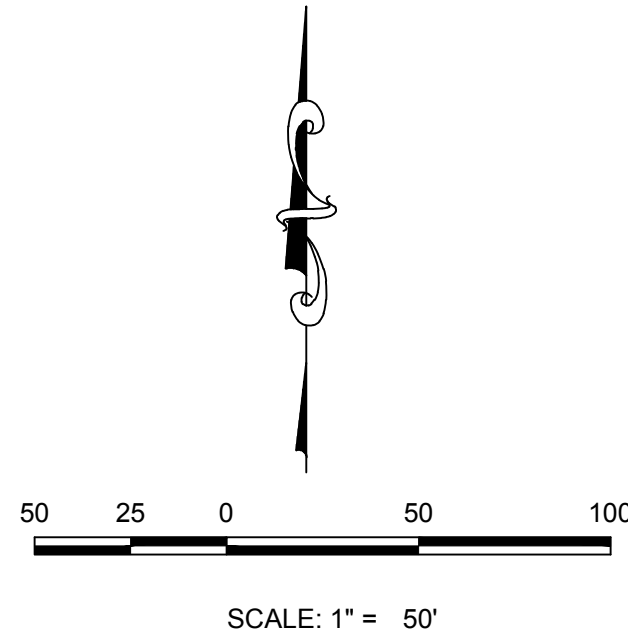
CENTERS OF COLORADO



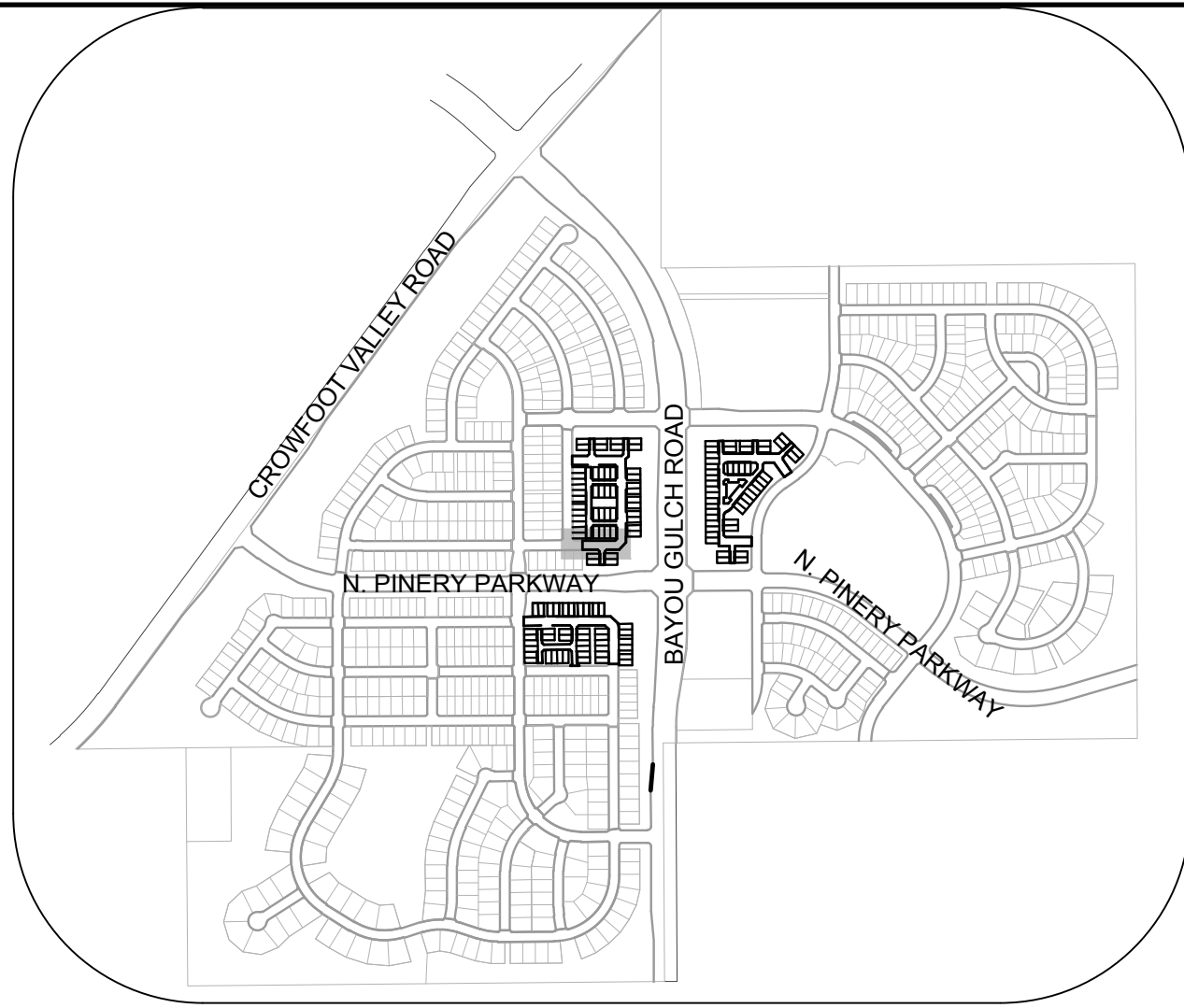
PLAN: RED COSMOS PT STA: 23+00.00 TO 26+00.00  
HORIZONTAL SCALE: 1" = 50'



PROFILE: RED COSMOS PT STA: 23+00.00 TO 26+00.00  
HORIZONTAL: 1" = 50'  
VERTICAL: 1" = 5'



| SANITARY SERVICE TABLE |               |            |
|------------------------|---------------|------------|
| FILING, BLOCK, LOT     | STREET        | STATIONING |
| F14,B3,L13             | RED COSMOS PT | 24+13.51   |
| F14,B3,L14             | RED COSMOS PT | 24+33.49   |
| F14,B3,L15             | RED COSMOS ST | 9+74.09    |
| F14,B3,L16             | RED COSMOS ST | 9+94.06    |



KEYMAP  
N.T.S.

LEGEND

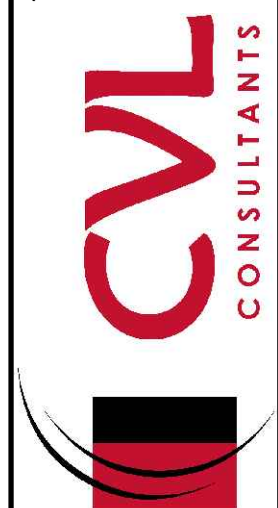
|       |                                       |      |                                     |
|-------|---------------------------------------|------|-------------------------------------|
| 2     | BLOCK NUMBER                          | △    | PROPOSED RANGE POINT                |
| A     | LOT TYPE                              | ---  | CENTERLINE                          |
| 6     | LOT NUMBER                            | ---  | RIGHT-OF-WAY                        |
| ⊗     | PROPOSED BUTTERFLY VALVE              | ---  | PROPERTY LINE                       |
| ⌋     | PROPOSED CAP WITH END OF LINE BLOWOFF | ---  | EDGE OF PAVEMENT                    |
| ⌋     | PROPOSED REDUCER                      | →    | PROPOSED DIRECTION OF FLOW          |
| ⊗     | PROPOSED VALVE                        | 1.0% | PROPOSED SLOPE & DIRECTION          |
| ⌋     | PROPOSED FIRE HYDRANT                 | 5615 | EXISTING 5' CONTOUR                 |
| ⌋     | PROPOSED WL FITTING WITH THRUST BLOCK | 5616 | EXISTING 1' CONTOUR                 |
| ⌋     | PROPOSED FLARED END SECTION           | 5620 | PROPOSED 5' CONTOUR                 |
| ⊗     | PROPOSED LOW POINT BLOW-OFF           | 5607 | PROPOSED 1' CONTOUR                 |
| ⊗     | PROPOSED AIR VALVE                    | ---  | PROPOSED STORM DRAIN                |
| ⊗     | FUTURE PHASE VALVE                    | ---  | PROPOSED SEWER LINE WITH MANHOLE    |
| ⊗     | FUTURE FIRE HYDRANT                   | ---  | PROPOSED SEWER LATERAL WITH MANHOLE |
| ⊗     | PROPOSED LIGHT POLE                   | ---  | PROPOSED WATER LINE                 |
| ⊗     | PROPOSED SIDEWALK                     | 8" W | PROPOSED WATER LATERAL W/ METER     |
| ⊗     | PROPOSED SIDEWALK RAMP                | ---  | SECTION LINE                        |
| 10.00 | EXISTING ELEVATION                    | ---  | FILING BOUNDARY                     |
| 10.00 | PROPOSED DESIGN ELEVATION             | FO   | EXISTING FIBER OPTIC LINE           |
| ⊗     | PROPOSED STORM DRAIN INLET            | OH   | EXISTING OVERHEAD POWER             |
| ⊗     | PROPOSED STORM DRAIN MANHOLE          | TEL  | EXISTING TELEPHONE LINE             |

| ABBREVIATIONS |                        |        |                                 |
|---------------|------------------------|--------|---------------------------------|
| AD            | ANGLE DIFFERENCE       | MH     | MANHOLE                         |
| AV            | AIR VAC RELEASE VALVE  | N.T.S. | NOT TO SCALE                    |
| BVC           | BEGIN VERTICAL CURVE   | PVC    | POLYVINYL CHLORIDE              |
| BVP           | BEGIN VERTICAL PROFILE | PVI    | PT. OF VERTICAL INTERSECTION    |
| CBO           | CAP WITH BLOW OFF      | PVT    | POINT OF VERTICAL TANGENT       |
| CRR           | CURB RETURN RADIUS     | RCBC   | REINFORCED CONCRETE BOX CULVERT |
| EL            | ELEVATION              | RCP    | REINFORCED CONCRETE PIPE        |
| EP            | EDGE OF PAVEMENT       | ROW    | RIGHT OF WAY                    |
| EVC           | END VERTICAL CURVE     | SC     | SANITARY CAP                    |
| EVP           | END VERTICAL PROFILE   | SD     | STORM DRAIN                     |
| FG            | FINISHED GROUND        | SL     | SECTION LINE                    |
| FH            | FIRE HYDRANT           | SS     | SANITARY SEWER                  |
| FL            | FLOW LINE              | STA    | STATION                         |
| GV            | GATE VALVE             | T.O.P. | TOP OF PIPE                     |
| HCR           | HANDICAP CURB RAMP     | UE     | UTILITY EASEMENT                |
| HP            | HIGH POINT             | VC     | VERTICAL CURVE                  |
| INV           | INVERT                 | WL     | WATER LINE                      |
| K             | CURVATURE COEFFICIENT  | WLC    | WATER LINE CONNECTION           |
| LF            | LINEAR FEET            | WSE    | WATER SURFACE ELEVATION         |

PREPARED UNDER THE  
SUPERVISION OF

BRIAN P. WILSON  
COLORADO P.E. 0050067

10333 E. Dry Creek Rd.  
Suite 410  
Englewood, CO 80150  
Tel: (720) 482-9526  
Fax: (720) 482-9546



HR 935 LLC  
7353 South Alton Way  
CENTENNIAL, CO 80112

TRAILS AT CROWFOOT  
FILING 14 CONSTRUCTION DRAWINGS  
SANITARY SEWER PLAN & PROFILE  
RED COSMOS PT

SCALE:  
AS SHOWN

FILE NO:  
8130283701

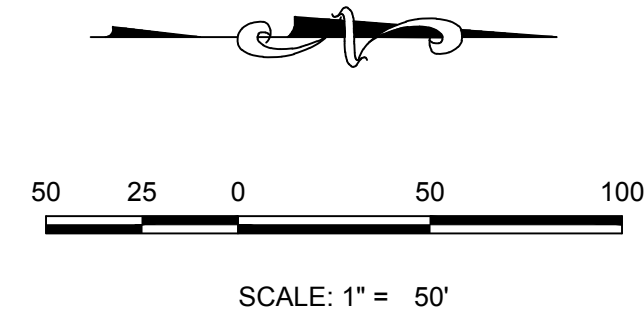
DRAWN BY:  
RRR

CHECKED BY:  
BPW

DATE:  
SEPTEMBER 2018

SHEET NUMBER  
5

Revisions  
No. Date Init. Appr. Date



| SANITARY SERVICE TABLE |                    |            |
|------------------------|--------------------|------------|
| FILING, BLOCK, LOT     | STREET             | STATIONING |
| F14,B1,L3              | FILING 14 SS NORTH | 10+99.00   |
| F14,B1,L4              | FILING 14 SS NORTH | 10+79.00   |
| F14,B1,L5              | FILING 14 SS NORTH | 10+99.00   |
| F14,B1,L6              | FILING 14 SS NORTH | 10+76.00   |



**BENCHMARK**  
DOUGLAS COUNTY CONTROL POINT KNOWN AS 1.060032, BEING A 3-1/4" ALUMINUM CAP, BEING LOCATED IN THE SOUTHWEST QUARTER OF SECTION 33, TOWNSHIP 6 SOUTH, RANGE 66 WEST OF THE SIXTH PRINCIPAL MERIDIAN, HAVING A PUBLISHED ELEVATION OF 1799.2870 METERS (5903.13 FEET) NAVD '88 DATUM.

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PREPARED UNDER THE  
SUPERVISION OF

BRIAN P. WILSON  
COLORADO P.E. 0050067



|                                                                                       |                                       |                                                                                       |                                  |
|---------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------------------------------------------------------|----------------------------------|
|    | BLOCK NUMBER                          |    | PROPOSED RANGE POINT             |
|    | LOT TYPE                              |    | CENTERLINE                       |
| 6                                                                                     | LOT NUMBER                            |    | RIGHT-OF-WAY                     |
|    | PROPOSED BUTTERFLY VALVE              |    | PROPERTY LINE                    |
|    | PROPOSED CAP WITH END OF LINE BLOWOFF |    | EDGE OF PAVEMENT                 |
|    | PROPOSED REDUCER                      |    | PROPOSED DIRECTION OF FLOW       |
|    | PROPOSED VALVE                        |    | PROPOSED SLOPE & DIRECTION       |
|    | PROPOSED FIRE HYDRANT                 |    | EXISTING 5' CONTOUR              |
|    | PROPOSED WL FITTING WITH THRUST BLOCK |    | EXISTING 1' CONTOUR              |
|    | PROPOSED FLARED END SECTION           |    | PROPOSED 5' CONTOUR              |
|    | PROPOSED LOW POINT BLOW-OFF           |    | PROPOSED 1' CONTOUR              |
|  | PROPOSED AIR VALVE                    |  | PROPOSED STORM DRAIN             |
|  | FUTURE PHASE VALVE                    |  | PROPOSED SEWER LINE WITH MANHOLE |
|  | FUTURE FIRE HYDRANT                   |  | PROPOSED SEWER LATERAL           |
|  | PROPOSED LIGHT POLE                   |  | PROPOSED WATER LINE              |
|  | PROPOSED SIDEWALK                     |  | PROPOSED WATER LATERAL W/ METER  |
|  | PROPOSED SIDEWALK RAMP                |  | SECTION LINE                     |
| 10.00                                                                                 | EXISTING ELEVATION                    |  | FILING BOUNDARY                  |
| 10.00                                                                                 | PROPOSED DESIGN ELEVATION             |  | EXISTING FIBER                   |
|  | PROPOSED STORM DRAIN INLET            |  | EXISTING OPTIC LINE              |
|  | PROPOSED STORM DRAIN MANHOLE          |  | EXISTING POWER                   |
|  |                                       |  | EXISTING TELEPHONE LINE          |

|     |                        |        |                                |
|-----|------------------------|--------|--------------------------------|
| AD  | ANGLE DIFFERENCE       | MH     | MANHOLE                        |
| AV  | AIR VAC RELEASE VALVE  | N.T.S. | NOT TO SCALE                   |
| BVC | BEGIN VERTICAL CURVE   | PVC    | POLYVINYL CHLORIDE             |
| BVP | BEGIN VERTICAL PROFILE | PVI    | PT. OF VERTICAL INTERSECTION   |
| CBO | CAP WITH BLOW OFF      | PVT    | POINT OF VERTICAL TANGENT      |
| CRR | CURB RETURN RADIUS     | RCBC   | REINFORCED CONCRETE BOX CULVER |
| EL  | ELEVATION              | RCP    | REINFORCED CONCRETE PIPE       |
| EP  | EDGE OF PAVEMENT       | ROW    | RIGHT OF WAY                   |
| EVC | END VERTICAL CURVE     | SC     | SANITARY CAP                   |
| EVP | END VERTICAL PROFILE   | SD     | STORM DRAIN                    |
| FG  | FINISHED GROUND        | SL     | SECTION LINE                   |
| FH  | FIRE HYDRANT           | SS     | SANITARY SEWER                 |
| FL  | FLOW LINE              | STA    | STATION                        |
| GV  | GATE VALVE             | T.O.P. | TOP OF PIPE                    |
| HCR | HANDICAP CURB RAMP     | UE     | UTILITY EASEMENT               |
| HP  | HIGH POINT             | VC     | VERTICAL CURVE                 |
| INV | INVERT                 | WL     | WATER LINE                     |
| K   | CURVATURE COEFFICIENT  | WLC    | WATER LINE CONNECTION          |
| LF  | LINEAR FEET            | WSE    | WATER SURFACE ELEVATION        |

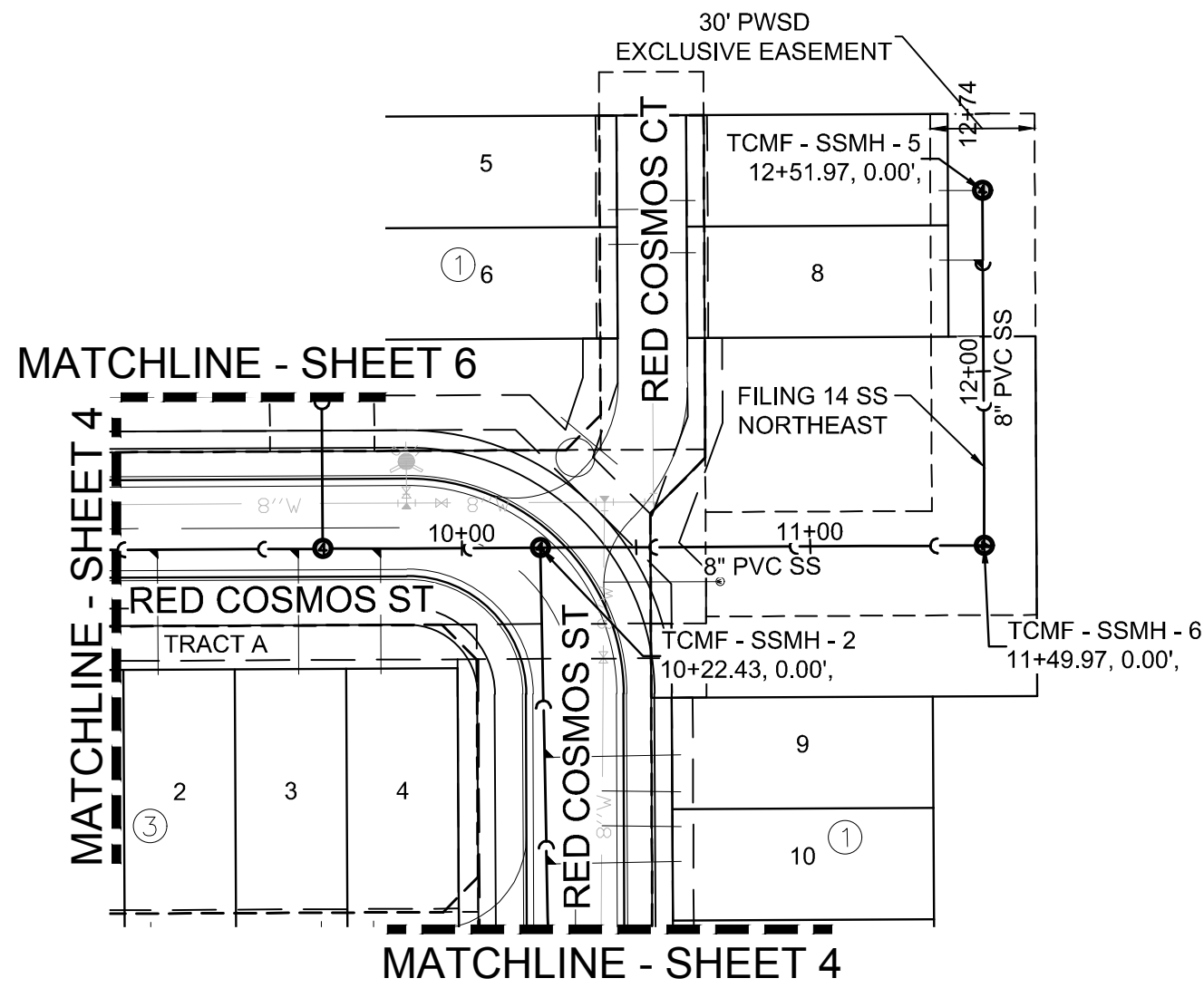
|                                  |                         |  |                        |                                                                                                                                                     |                                                                                                                                                                                                                                                    |                                                                                                                                                     |     |           |      |       |       |      |  |  |
|----------------------------------|-------------------------|--|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------|------|-------|-------|------|--|--|
| SHEET NUMBER<br><br><div>6</div> | DRAWN BY:<br>RRR        |  | SCALE:<br>AS SHOWN     | <div>TRAILS AT CROWFOOT</div> <div>FILING 14 CONSTRUCTION DRAWINGS</div> <div>SANITARY SEWER PLAN &amp; PROFILE</div> <div>FILING 14 SS NORTH</div> | <div></div> <div>HR 935 LLC</div> <div>7353 South Allon Way</div> <div>CENTENNIAL, CO 80112</div> <div>Tel: (720) 462-9526</div> <div>Fax: (720) 462-9546</div> | <div>10333 E. Dry Creek Rd.</div> <div>Suite 240</div> <div>Englewood, CO 80112</div> <div>Tel: (720) 462-9526</div> <div>Fax: (720) 462-9546</div> |     |           |      |       |       |      |  |  |
|                                  | CHECKED BY:<br>BRW      |  | FILE NO:<br>8130283701 |                                                                                                                                                     |                                                                                                                                                                                                                                                    |                                                                                                                                                     |     |           |      |       |       |      |  |  |
|                                  | DATE:<br>SEPTEMBER 2018 |  |                        |                                                                                                                                                     |                                                                                                                                                                                                                                                    |                                                                                                                                                     |     |           |      |       |       |      |  |  |
|                                  |                         |  |                        |                                                                                                                                                     |                                                                                                                                                                                                                                                    |                                                                                                                                                     |     |           |      |       |       |      |  |  |
|                                  |                         |  |                        |                                                                                                                                                     |                                                                                                                                                                                                                                                    |                                                                                                                                                     | No. | Revisions | Date | Init. | Appr. | Date |  |  |

N:\PROJECTS\SSS BANCHADO\ENGINEERING\SSS BANCHADO\MULTIFAMILY\CDSF\HARKER WATER AND SANITATION\SANITARY SEWER SHEETS\FILING 14 SS NORTHEAST DWG. BRIAN.W 9/26/2019 12:05 PM

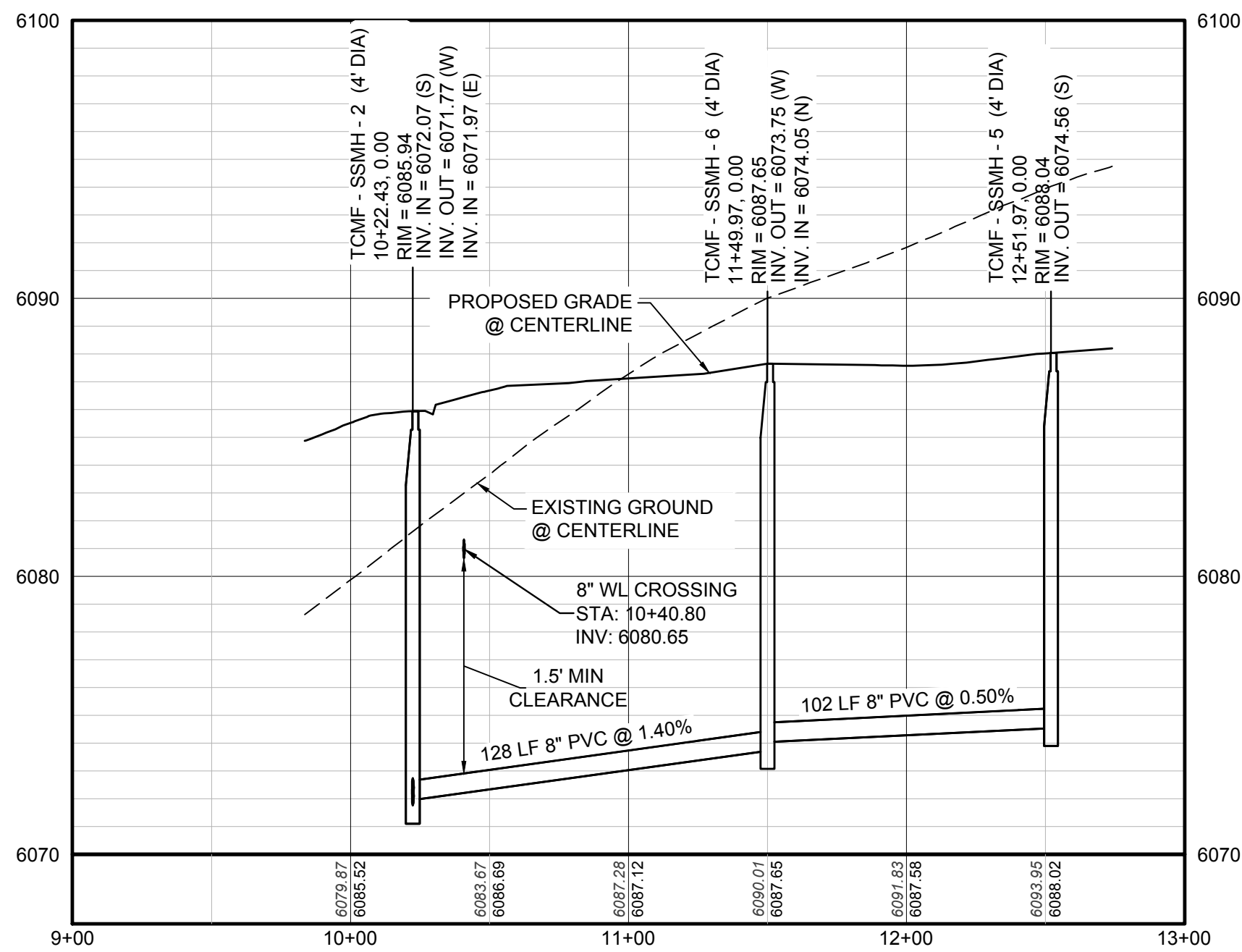


CALL 811  
TWO WORKING DAYS  
**BEFORE YOU DIG**  
**UNCC** 1-800-922-1987

UTILITY NOTIFICATION  
CENTER OF COLORADO



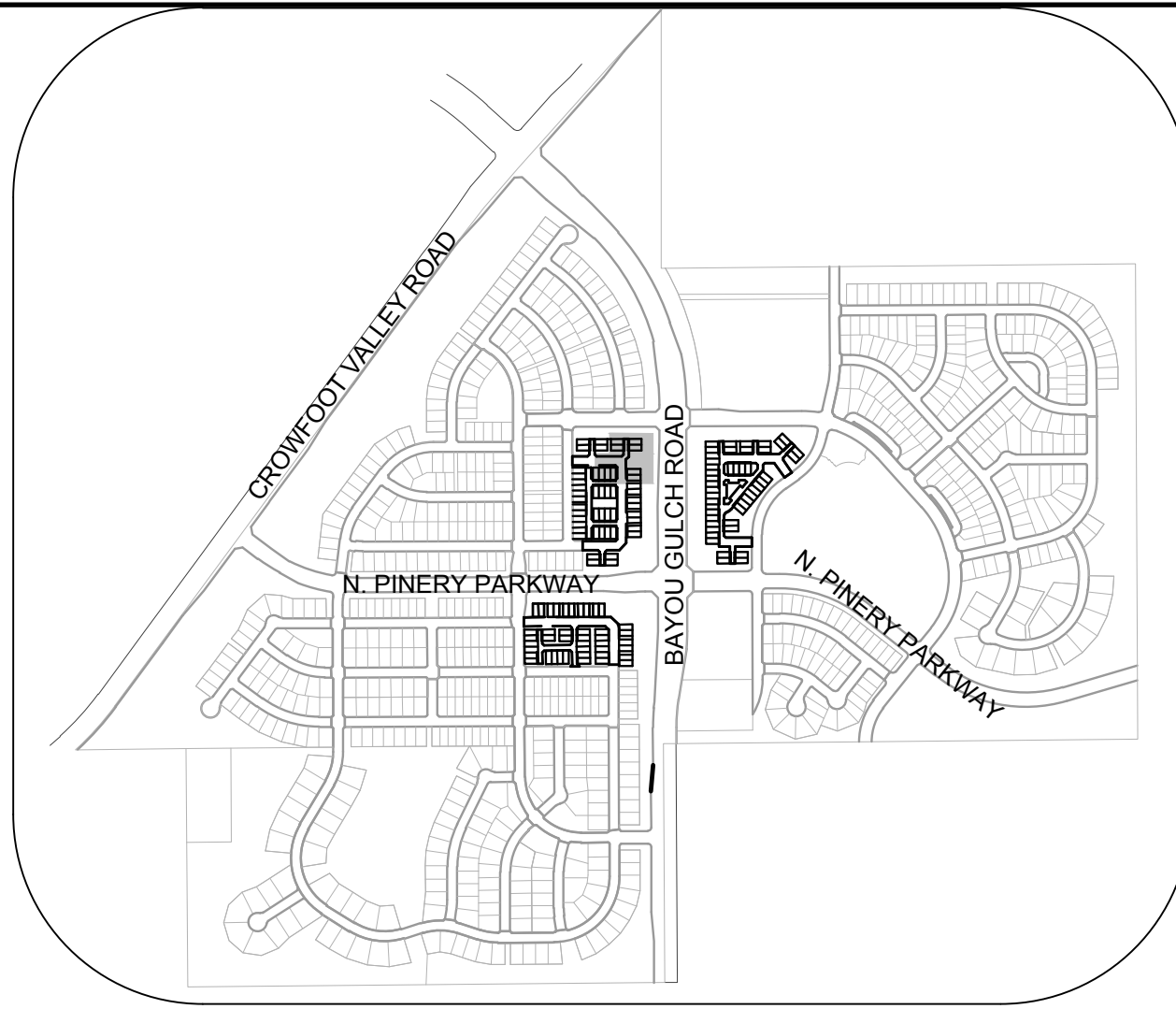
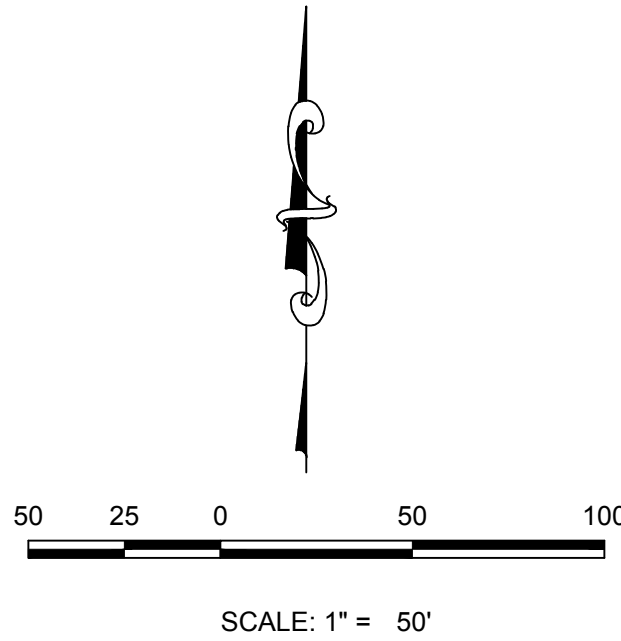
PLAN: FILING 14 SS NORTHEAST STA: 9+00.00 TO 13+00.00  
HORIZONTAL SCALE: 1" = 50'



PROFILE: FILING 14 SS NORTHEAST STA: 9+00.00 TO 13+00.00  
HORIZONTAL: 1" = 50'  
VERTICAL: 1" = 5'

**BENCHMARK**  
DOUGLAS COUNTY CONTROL POINT KNOWN AS 1.060032, BEING A 3-1/4" ALUMINUM CAP, BEING LOCATED IN THE SOUTHWEST QUARTER OF SECTION 33, TOWNSHIP 6 SOUTH, RANGE 66 WEST OF THE SIXTH PRINCIPAL MERIDIAN, HAVING A PUBLISHED ELEVATION OF 1799.2870 METERS (5903.13 FEET) NAVD '88 DATUM.

**BASIS OF BEARINGS:**  
THE EAST LINE OF THE NORTHEAST QUARTER OF SAID SECTION 9 BEING MONUMENTED AT THE NORTHEAST CORNER OF SAID SECTION 9 BY A 3-1/4" ALUMINUM CAP STAMPED LS 23053 AND AT THE EAST QUARTER CORNER OF SAID SECTION 9 BY A 2-1/2" ALUMINUM CAP STAMPED LS 9935 BEING CONSIDERED TO BEAR SOUTH 00°15'06" EAST, 2648.70 FEET.



KEYMAP  
N.T.S.

| SANITARY SERVICE TABLE |                        |            |
|------------------------|------------------------|------------|
| FILING, BLOCK, LOT     | STREET                 | STATIONING |
| F14.B1.L7              | FILING 14 SS NORTHEAST | 12+51.97   |
| F14.B1.L8              | FILING 14 SS NORTHEAST | 12+31.97   |

**LEGEND**

2

A

6

PROPOSED BUTTERFLY VALVE

PROPOSED CAP WITH END OF LINE BLOWOFF

PROPOSED REDUCER

PROPOSED VALVE

PROPOSED FIRE HYDRANT

PROPOSED WL FITTING WITH THRUST BLOCK

PROPOSED FLARED END SECTION

PROPOSED LOW POINT BLOW-OFF

PROPOSED AIR VALVE

FUTURE PHASE VALVE

FUTURE FIRE HYDRANT

PROPOSED LIGHT POLE

PROPOSED SIDEWALK

PROPOSED SIDEWALK RAMP

10.00

10.00

PROPOSED STORM DRAIN INLET

PROPOSED STORM DRAIN MANHOLE

PROPOSED RANGE POINT

CENTERLINE

RIGHT-OF-WAY

PROPERTY LINE

EDGE OF PAVEMENT

PROPOSED DIRECTION OF FLOW

PROPOSED SLOPE & DIRECTION

EXISTING 5' CONTOUR

EXISTING 1' CONTOUR

PROPOSED 5' CONTOUR

PROPOSED 1' CONTOUR

PROPOSED STORM DRAIN

PROPOSED SEWER LINE WITH MANHOLE

PROPOSED SEWER LATERAL

PROPOSED WATER LINE

PROPOSED WATER LATERAL W/ METER

SECTION LINE

FILING BOUNDARY

EXISTING FIBER OPTIC LINE

EXISTING OVERHEAD POWER

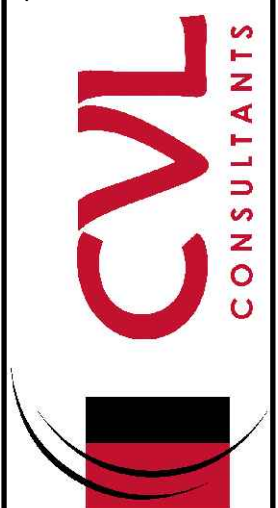
EXISTING TELEPHONE LINE

| ABBREVIATIONS |                        |        |                                 |
|---------------|------------------------|--------|---------------------------------|
| AD            | ANGLE DIFFERENCE       | MH     | MANHOLE                         |
| AV            | AIR VAC RELEASE VALVE  | N.T.S. | NOT TO SCALE                    |
| BVC           | BEGIN VERTICAL CURVE   | PVC    | POLYVINYL CHLORIDE              |
| BVP           | BEGIN VERTICAL PROFILE | PVI    | PT. OF VERTICAL INTERSECTION    |
| CBO           | CAP WITH BLOW OFF      | PVT    | POINT OF VERTICAL TANGENT       |
| CRR           | CURB RETURN RADIUS     | RCBC   | REINFORCED CONCRETE BOX CULVERT |
| EL            | ELEVATION              | RCP    | REINFORCED CONCRETE PIPE        |
| EP            | EDGE OF PAVEMENT       | ROW    | RIGHT OF WAY                    |
| EVC           | END VERTICAL CURVE     | SC     | SANITARY CAP                    |
| EVP           | END VERTICAL PROFILE   | SD     | STORM DRAIN                     |
| FG            | FINISHED GROUND        | SL     | SECTION LINE                    |
| FH            | FIRE HYDRANT           | SS     | SANITARY SEWER                  |
| FL            | FLOW LINE              | STA    | STATION                         |
| GV            | GATE VALVE             | T.O.P. | TOP OF PIPE                     |
| HCR           | HANDICAP CURB RAMP     | UE     | UTILITY EASEMENT                |
| HP            | HIGH POINT             | VC     | VERTICAL CURVE                  |
| INV           | INVERT                 | WL     | WATER LINE                      |
| K             | CURVATURE COEFFICIENT  | WLC    | WATER LINE CONNECTION           |
| LF            | LINEAR FEET            | WSE    | WATER SURFACE ELEVATION         |

PREPARED UNDER THE  
SUPERVISION OF

BRIAN P. WILSON  
COLORADO P.E. 0050067

10333 E. Dry Creek Rd.  
Suite 110  
Englewood, CO 80150  
Tel: (720) 482-9526  
Fax: (720) 482-9546



**HR 935 LLC**  
7353 South Alton Way  
CENTENNIAL, CO 80112

**TRAILS AT CROWFOOT**  
FILING 14 CONSTRUCTION DRAWINGS  
SANITARY SEWER PLAN & PROFILE  
FILING 14 SS NORTHEAST

SCALE:  
AS SHOWN

DRAWN BY:  
RRR

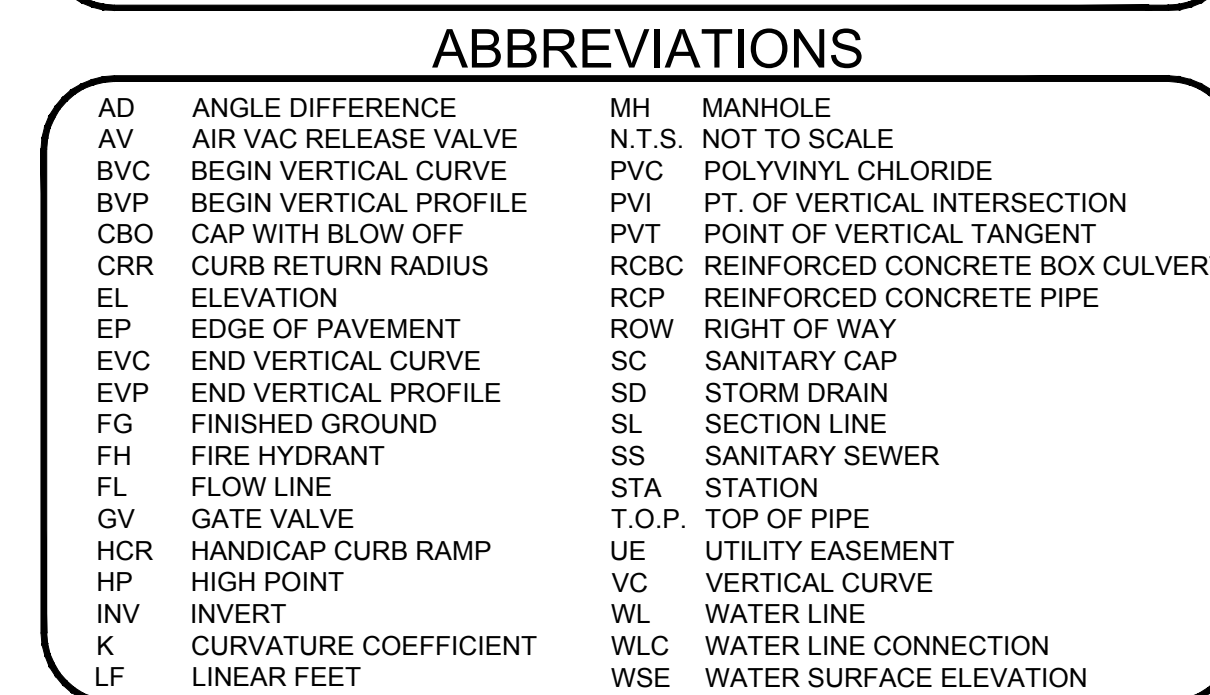
CHECKED BY:  
BPW

DATE:  
SEPTEMBER 2018

FILE NO:  
8130283701

SHEET NUMBER  
**7**

Revisions  
No. Date Init. Appr. Date

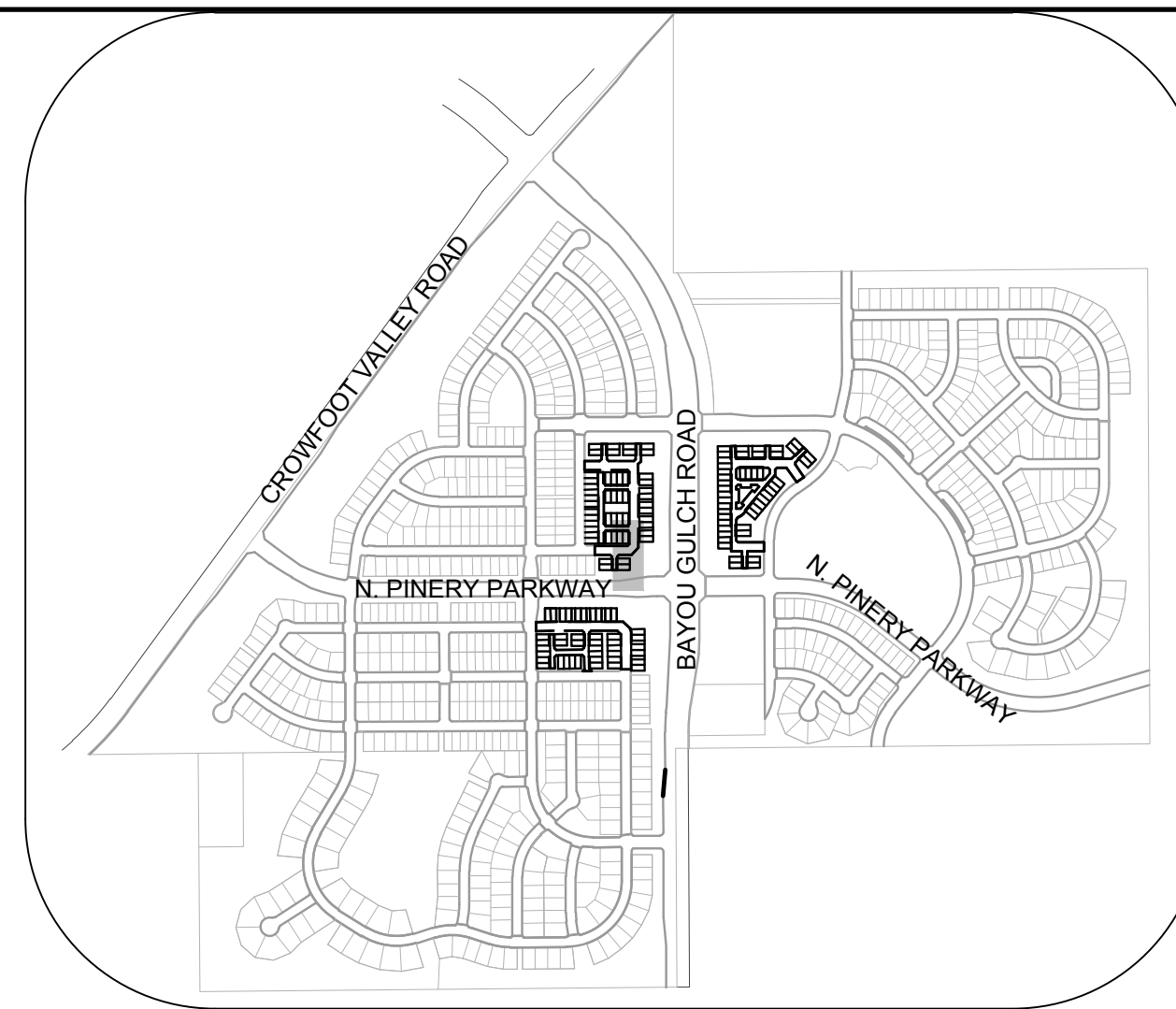
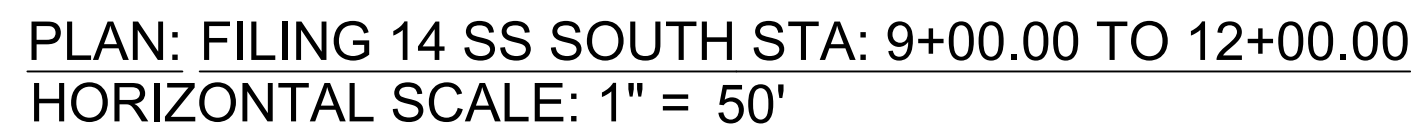


BRIAN P. WILSON  
COLORADO P.E. 0050067

TRAILS AT CROWFOOT  
FILING 14 CONSTRUCTION DRAWINGS  
SANITARY SEWER PLAN & PROFILE  
FILING 14 SS EAST-WEST

|             |     |                |            |
|-------------|-----|----------------|------------|
| DRAWN BY:   | RRR | SCALE:         | AS SHOWN   |
| CHECKED BY: | BPW | FILE NO:       | 8130283701 |
| DATE:       |     | SEPTEMBER 2018 |            |

8



KEYMAP  
N.T.S.

## LEGEND

- | SYMBOL | DESCRIPTION                           | SYMBOL      | DESCRIPTION                      |
|--------|---------------------------------------|-------------|----------------------------------|
| ②      | BLOCK NUMBER                          |             | PROPOSED RANGE POINT             |
| Ⓐ      | LOT TYPE                              | - - - - -   | CENTERLINE                       |
| 6      | LOT NUMBER                            | =====       | RIGHT-OF-WAY                     |
|        | PROPOSED BUTTERFLY VALVE              | =====       | PROPERTY LINE                    |
|        | PROPOSED CAP WITH END OF LINE BLOWOFF | =====       | EDGE OF PAVEMENT                 |
|        | PROPOSED REDUCER                      |             | PROPOSED DIRECTION OF FLOW       |
|        | PROPOSED VALVE                        | <u>1.0%</u> | PROPOSED SLOPE & DIRECTION       |
|        | PROPOSED FIRE HYDRANT                 | — 5615 —    | EXISTING 5' CONTOUR              |
|        | PROPOSED WL FITTING WITH THRUST BLOCK | — 5616 —    | EXISTING 1' CONTOUR              |
|        | PROPOSED FLARED END SECTION           | — 5620 —    | PROPOSED 5' CONTOUR              |
| Ⓢ      | PROPOSED LOW POINT BLOW-OFF           | — 5607 —    | PROPOSED 1' CONTOUR              |
| Ⓐ      | PROPOSED AIR VALVE                    |             | PROPOSED STORM DRAIN             |
|        | FUTURE PHASE VALVE                    |             | PROPOSED SEWER LINE WITH MANHOLE |
|        | FUTURE FIRE HYDRANT                   |             | PROPOSED SEWER LATERAL           |
|        | PROPOSED LIGHT POLE                   |             | PROPOSED WATER LINE              |
| =====  | PROPOSED SIDEWALK                     | — 8" W —    | PROPOSED SIDEWALK RAMP           |
|        | PROPOSED SIDEWALK RAMP                | — • —       | PROPOSED WATER LATERAL W/ METER  |
| 10.00  | EXISTING ELEVATION                    | - - - - -   | SECTION LINE                     |
|        | EXISTING ELEVATION                    |             | FILING BOUNDARY                  |
| 10.00  | PROPOSED DESIGN ELEVATION             | — FO —      | EXISTING FIBER                   |
|        | PROPOSED STORM DRAIN INLET            | — OH —      | EXISTING OVERHEAD POWER          |
|        | PROPOSED STORM DRAIN MANHOLE          | — TEL —     | EXISTING TELEPHONE LINE          |

## ABBREVIATIONS

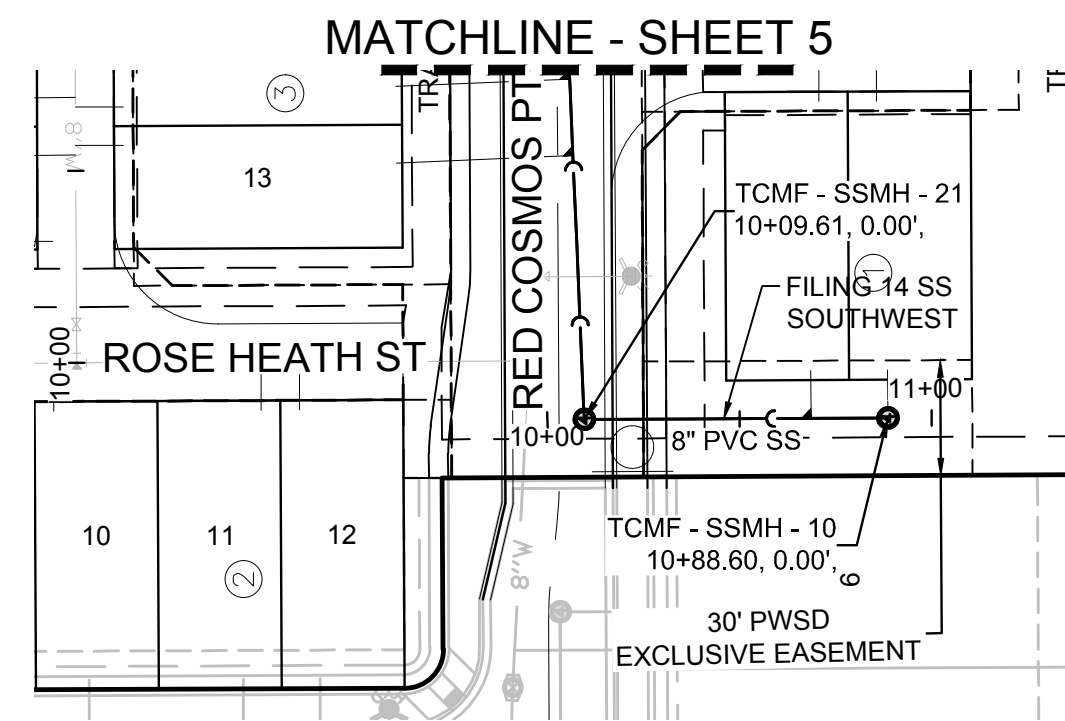
- |     |                        |        |                                 |
|-----|------------------------|--------|---------------------------------|
| AD  | ANGLE DIFFERENCE       | MH     | MANHOLE                         |
| AV  | AIR VAC RELEASE VALVE  | N.T.S. | NOT TO SCALE                    |
| BVC | BEGIN VERTICAL CURVE   | PVC    | POLYVINYL CHLORIDE              |
| BVP | BEGIN VERTICAL PROFILE | PVI    | PT. OF VERTICAL INTERSECTION    |
| CBO | CAP WITH BLOW OFF      | PVT    | POINT OF VERTICAL TANGENT       |
| CRR | CURB RETURN RADIUS     | RBCB   | REINFORCED CONCRETE BOX CULVERT |
| EL  | ELEVATION              | RCP    | REINFORCED CONCRETE PIPE        |
| EP  | EDGE OF PAVEMENT       | ROW    | RIGHT OF WAY                    |
| EVC | END VERTICAL CURVE     | SC     | SANITARY CAP                    |
| EVF | END VERTICAL PROFILE   | SD     | STORM DRAIN                     |
| FG  | FINISHED GROUND        | SL     | SECTION LINE                    |
| FL  | FIRE HYDRANT           | SS     | SANITARY SEWER                  |
| FL  | FLOW LINE              | STA    | STATION                         |
| GV  | GATE VALVE             | T.O.P. | TOP OF PIPE                     |
| HCR | HANDICAP CURB RAMP     | UE     | UTILITY EASEMENT                |
| HP  | HIGH POINT             | VC     | VERTICAL CURVE                  |
| INV | INVERT                 | WL     | WATER LINE                      |
| K   | CURVATURE COEFFICIENT  | WLC    | WATER LINE CONNECTION           |
| LF  | LINEAR FEET            | WSE    | WATER SURFACE ELEVATION         |



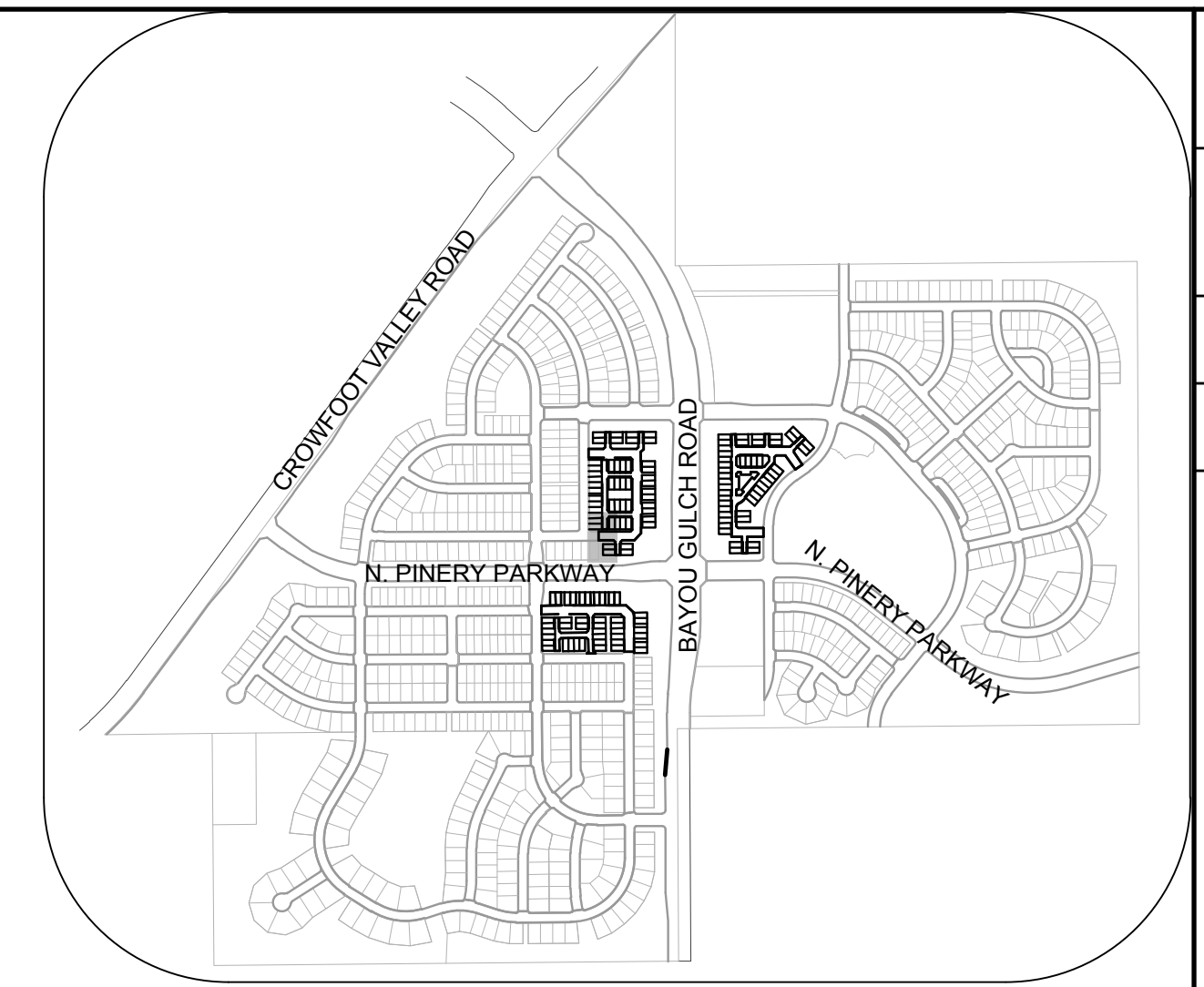
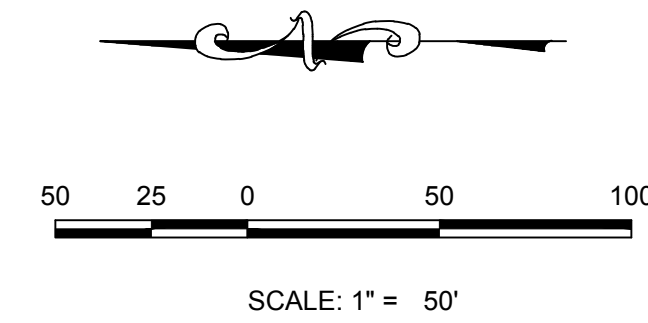
PREPARED UNDER THE  
SUPERVISION OF

BRIAN P. WILSON  
COLORADO P.E. 0050067

|                                  |             |                |          |                                 |  |                                                                                                                                                                                                                                                                                              |     |           |      |       |
|----------------------------------|-------------|----------------|----------|---------------------------------|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----------|------|-------|
| SHEET NUMBER<br><br><div>9</div> | DRAWN BY:   | BIG            | SCALE:   | TRAILS AT CROWFOOT              |  | <div><div>HR 935 LLC<br/>7353 South Alton Way<br/>CENTENNIAL, CO 80112</div><div>10333 E. Dry Creek Rd.<br/>Suite 240<br/>Englewood, CO 80112<br/>Tel: (720) 482-9526<br/>Fax: (720) 462-9546</div></div> |     |           |      |       |
|                                  | CHECKED BY: | BPW            | FILE NO: | FILING 14 CONSTRUCTION DRAWINGS |  |                                                                                                                                                                                                                                                                                              |     |           |      |       |
|                                  | DATE:       | SEPTEMBER 2018 |          | SANITARY SEWER PLAN & PROFILE   |  |                                                                                                                                                                                                                                                                                              |     |           |      |       |
|                                  |             |                |          | FILING 14 SS SOUTH              |  |                                                                                                                                                                                                                                                                                              |     |           |      |       |
|                                  |             |                |          |                                 |  |                                                                                                                                                                                                                                                                                              | No. | Revisions | Date | Appr. |
|                                  |             |                |          |                                 |  |                                                                                                                                                                                                                                                                                              |     |           |      |       |



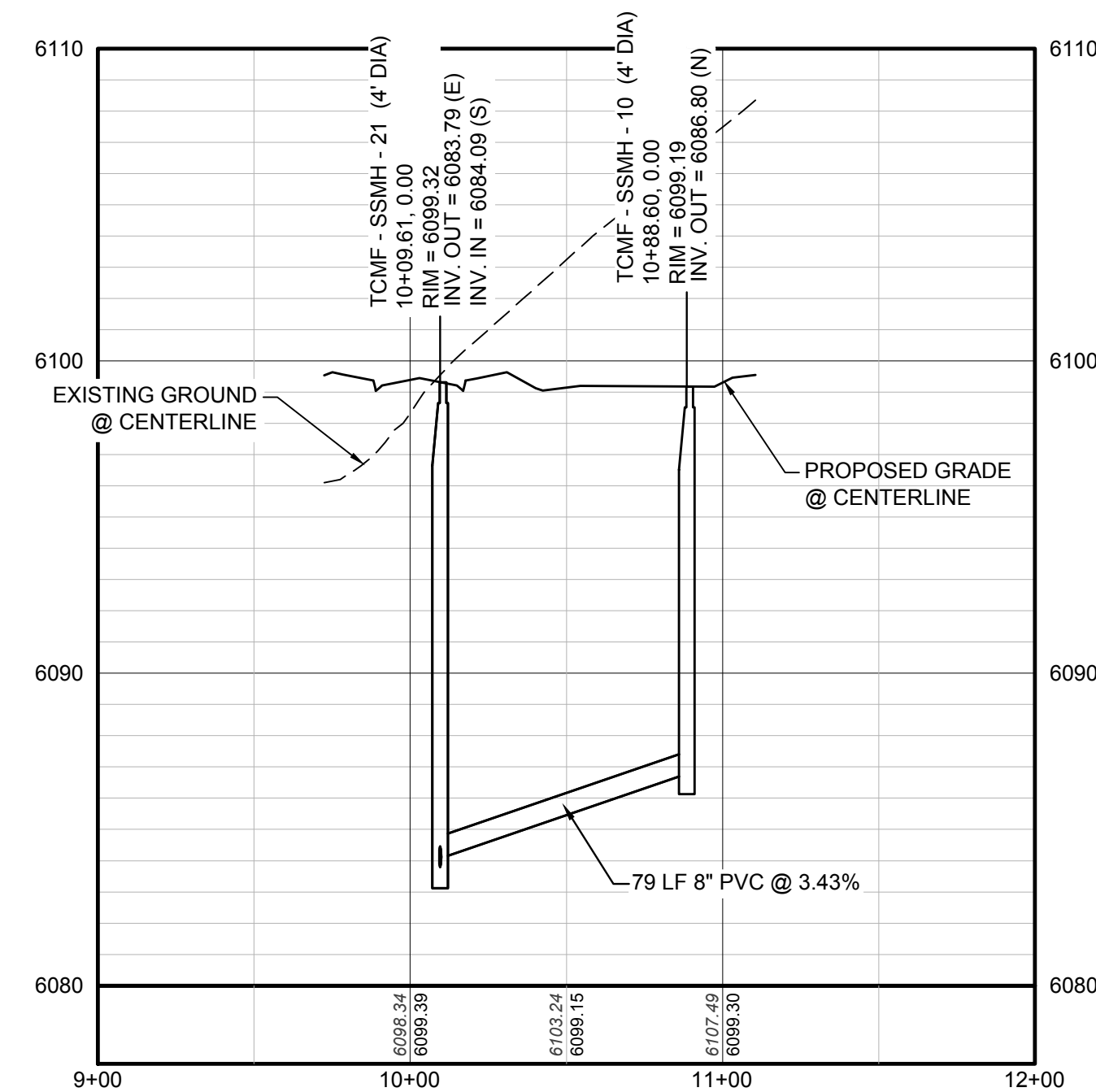
PLAN: FILING 14 SS SOUTHWEST STA: 9+00.00 TO 12+00.00  
HORIZONTAL SCALE: 1" = 50'



KEYMAP  
N.T.S.

### LEGEND

| SANITARY SERVICE TABLE |                        |            |
|------------------------|------------------------|------------|
| FILING, BLOCK, LOT     | STREET                 | STATIONING |
| F14,B1,L19             | FILING 14 SS SOUTHWEST | 10+88.60   |
| F14,B1,L20             | FILING 14 SS SOUTHWEST | 10+88.60   |



PROFILE: FILING 14 SS SOUTHWEST STA: 9+00.00 TO 12+00.00  
HORIZONTAL: 1" = 50'  
VERTICAL: 1" = 5'

|                                                                                       |                                       |                                                                                           |                                  |
|---------------------------------------------------------------------------------------|---------------------------------------|-------------------------------------------------------------------------------------------|----------------------------------|
|    | BLOCK NUMBER                          |        | PROPOSED RANGE POINT             |
|    | LOT TYPE                              | ---                                                                                       | CENTERLINE                       |
| 6                                                                                     | LOT NUMBER                            | =====                                                                                     | RIGHT-OF-WAY                     |
|    | PROPOSED BUTTERFLY VALVE              | =====                                                                                     | PROPERTY LINE                    |
|    | PROPOSED CAP WITH END OF LINE BLOWOFF | =====                                                                                     | EDGE OF PAVEMENT                 |
|    | PROPOSED REDUCER                      |        | PROPOSED DIRECTION OF FLOW       |
|    | PROPOSED VALVE                        |        | PROPOSED SLOPE & DIRECTION       |
|    | PROPOSED FIRE HYDRANT                 | — 5615 —                                                                                  | EXISTING 5' CONTOUR              |
|    | PROPOSED WL FITTING WITH THRUST BLOCK | — 5616 —                                                                                  | EXISTING 1' CONTOUR              |
|    | PROPOSED FLARED END SECTION           | — 5620 —                                                                                  | PROPOSED 5' CONTOUR              |
|    | PROPOSED LOW POINT BLOW-OFF           | — 5607 —                                                                                  | PROPOSED 1' CONTOUR              |
|  | PROPOSED AIR VALVE                    |      | PROPOSED STORM DRAIN             |
|  | FUTURE PHASE VALVE                    | —  — | PROPOSED SEWER LINE WITH MANHOLE |
|  | FUTURE FIRE HYDRANT                   | —  — | PROPOSED SEWER LATERAL           |
|  | PROPOSED LIGHT POLE                   | —  — | PROPOSED WATER LINE              |
| =====                                                                                 | PROPOSED SIDEWALK                     | —  — | PROPOSED WATER LATERAL W/ METER  |
|  | PROPOSED SIDEWALK RAMP                | ---                                                                                       | SECTION LINE                     |
| 10.00                                                                                 | EXISTING ELEVATION                    |      | FILING BOUNDARY                  |
| 10.00                                                                                 | PROPOSED DESIGN ELEVATION             | — FO —                                                                                    | EXISTING FIBER OPTIC LINE        |
|  | PROPOSED STORM DRAIN INLET            | — OH —                                                                                    | EXISTING OVERHEAD POWER          |
|  | PROPOSED STORM DRAIN MANHOLE          | — TEL —                                                                                   | EXISTING TELEPHONE LINE          |

## ABBREVIATIONS

|     |                        |        |                                 |
|-----|------------------------|--------|---------------------------------|
| AD  | ANGLE DIFFERENCE       | MH     | MANHOLE                         |
| AV  | AIR VAC RELEASE VALVE  | N.T.S. | NOT TO SCALE                    |
| BVC | BEGIN VERTICAL CURVE   | PVC    | POLYVINYL CHLORIDE              |
| BVP | BEGIN VERTICAL PROFILE | PVI    | PT. OF VERTICAL INTERSECTION    |
| CBO | CAP WITH BLOW OFF      | PVT    | POINT OF VERTICAL TANGENT       |
| CRR | CURB RETURN RADIUS     | RCBC   | REINFORCED CONCRETE BOX CULVERT |
| EL  | ELEVATION              | RCP    | REINFORCED CONCRETE PIPE        |
| EP  | EDGE OF PAVEMENT       | ROW    | RIGHT OF WAY                    |
| EVC | END VERTICAL CURVE     | SC     | SANITARY CAP                    |
| EVP | END VERTICAL PROFILE   | SD     | STORM DRAIN                     |
| FG  | FINISHED GROUND        | SL     | SECTION LINE                    |
| FH  | FIRE HYDRANT           | SS     | SANITARY SEWER                  |
| FL  | FLOW LINE              | STA    | STATION                         |
| GV  | GATE VALVE             | T.O.P. | TOP OF PIPE                     |
| HCR | HANDICAP CURB RAMP     | UE     | UTILITY EASEMENT                |
| HP  | HIGH POINT             | VC     | VERTICAL CURVE                  |
| INV | INVERT                 | WL     | WATER LINE                      |
| K   | CURVATURE COEFFICIENT  | WLC    | WATER LINE CONNECTION           |
| LF  | LINEAR FEET            | WSE    | WATER SURFACE ELEVATION         |



**BENCHMARK**  
DOUGLAS COUNTY CONTROL POINT KNOWN AS 1.060032, BEING A  
3-1/4" ALUMINUM CAP, BEING LOCATED IN THE SOUTHWEST  
QUARTER OF SECTION 33, TOWNSHIP 6 SOUTH, RANGE 66 WEST  
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PREPARED UNDER THE  
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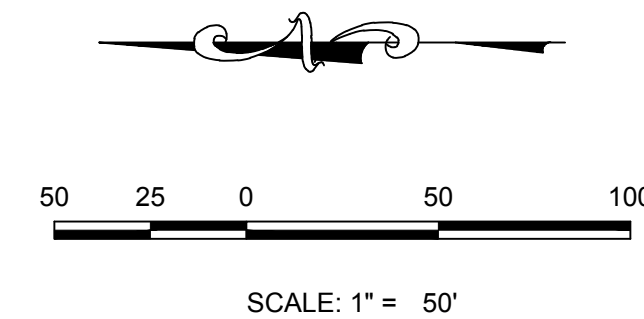


**HR 935 LLC**  
7353 South Alton Way  
CENTENNIAL, CO 80112

**FILING 14 CONSTRUCTION DRAWINGS**  
SANITARY SEWER PLAN & PROFILE  
FILING 14 SS SOUTHWEST

|             |          |          |            |
|-------------|----------|----------|------------|
| RRR         | AS SHOWN | FILE NO: | 8130283701 |
| CHECKED BY: |          |          |            |
| BPW         |          |          |            |
| DATE:       |          |          |            |

10



| WATER SERVICE TABLE |               |            |
|---------------------|---------------|------------|
| FILING, BLOCK, LOT  | STREET        | STATIONING |
| F14,B2,L1           | ROSE HEATH ST | 10+67.50   |
| F14,B2,L2           | ROSE HEATH ST | 10+77.50   |
| F14,B2,L3           | ROSE HEATH ST | 11+31.50   |
| F14,B2,L4           | ROSE HEATH ST | 11+41.50   |
| F14,B2,L5           | ROSE HEATH ST | 11+95.50   |
| F14,B2,L6           | ROSE HEATH ST | 12+05.50   |
| F14,B2,L7           | ROSE HEATH ST | 12+73.00   |
| F14,B2,L8           | ROSE HEATH ST | 12+83.00   |
| F14,B2,L9           | ROSE HEATH ST | 13+37.00   |
| F14,B2,L10          | ROSE HEATH ST | 13+47.00   |
| F14,B2,L11          | ROSE HEATH ST | 14+01.00   |
| F14,B2,L12          | ROSE HEATH ST | 14+11.00   |

|                                                                                       |                                       |                                                                                           |                                  |
|---------------------------------------------------------------------------------------|---------------------------------------|-------------------------------------------------------------------------------------------|----------------------------------|
|    | BLOCK NUMBER                          |        | PROPOSED RANGE POINT             |
|    | LOT TYPE                              | ----                                                                                      | CENTERLINE                       |
| 6                                                                                     | LOT NUMBER                            | =====                                                                                     | RIGHT-OF-WAY                     |
|    | PROPOSED BUTTERFLY VALVE              | =====                                                                                     | PROPERTY LINE                    |
|    | PROPOSED CAP WITH END OF LINE BLOWOFF | =====                                                                                     | EDGE OF PAVEMENT                 |
|    | PROPOSED REDUCER                      |        | PROPOSED DIRECTION OF FLOW       |
|    | PROPOSED VALVE                        | <u>1.0%</u>                                                                               | PROPOSED SLOPE & DIRECTION       |
|    | PROPOSED FIRE HYDRANT                 | — 5615 —                                                                                  | EXISTING 5' CONTOUR              |
|    | PROPOSED WL FITTING WITH THRUST BLOCK | — 5616 —                                                                                  | EXISTING 1' CONTOUR              |
|    | PROPOSED FLARED END SECTION           | — 5620 —                                                                                  | PROPOSED 5' CONTOUR              |
|    | PROPOSED LOW POINT BLOW-OFF           | — 5607 —                                                                                  | PROPOSED 1' CONTOUR              |
|  | PROPOSED AIR VALVE                    |      | PROPOSED STORM DRAIN             |
|  | FUTURE PHASE VALVE                    | —  — | PROPOSED SEWER LINE WITH MANHOLE |
|  | FUTURE FIRE HYDRANT                   | —  — | PROPOSED SEWER LATERAL           |
|  | PROPOSED LIGHT POLE                   | — <b>8" W</b> —                                                                           | PROPOSED WATER LINE              |
| =====                                                                                 | PROPOSED SIDEWALK                     | —  — | PROPOSED WATER LATERAL W/ METER  |
|  | PROPOSED SIDEWALK RAMP                | ----                                                                                      | SECTION LINE                     |
| 10.00                                                                                 | EXISTING ELEVATION                    |      | FILING BOUNDARY                  |
| 10.00                                                                                 | PROPOSED DESIGN ELEVATION             | — FO —                                                                                    | EXISTING FIBER OPTIC LINE        |
|  | PROPOSED STORM DRAIN INLET            | — OH —                                                                                    | EXISTING OVERHEAD POWER          |
|  | PROPOSED STORM DRAIN MANHOLE          | — TEL —                                                                                   | EXISTING TELEPHONE LINE          |

|     |                        |        |                                 |
|-----|------------------------|--------|---------------------------------|
| AD  | ANGLE DIFFERENCE       | MH     | MANHOLE                         |
| AV  | AIR VAC RELEASE VALVE  | N.T.S. | NOT TO SCALE                    |
| BVC | BEGIN VERTICAL CURVE   | PVC    | POLYVINYL CHLORIDE              |
| BVP | BEGIN VERTICAL PROFILE | PVI    | PT. OF VERTICAL INTERSECTION    |
| CBO | CAP WITH BLOW OFF      | PVT    | POINT OF VERTICAL TANGENT       |
| CRR | CURB RETURN RADIUS     | RCBC   | REINFORCED CONCRETE BOX CULVERT |
| EL  | ELEVATION              | RCP    | REINFORCED CONCRETE PIPE        |
| EP  | EDGE OF PAVEMENT       | ROW    | RIGHT OF WAY                    |
| EVC | END VERTICAL CURVE     | SC     | SANITARY CAP                    |
| EVP | END VERTICAL PROFILE   | SD     | STORM DRAIN                     |
| FG  | FINISHED GROUND        | SL     | SECTION LINE                    |
| FH  | FIRE HYDRANT           | SS     | SANITARY SEWER                  |
| FL  | FLOW LINE              | STA    | STATION                         |
| GV  | GATE VALVE             | T.O.P. | TOP OF PIPE                     |
| HCR | HANDICAP CURB RAMP     | UE     | UTILITY EASEMENT                |
| HP  | HIGH POINT             | VC     | VERTICAL CURVE                  |
| INV | INVERT                 | WL     | WATER LINE                      |
| K   | CURVATURE COEFFICIENT  | WLC    | WATER LINE CONNECTION           |
| LF  | LINEAR FEET            | WSE    | WATER SURFACE ELEVATION         |



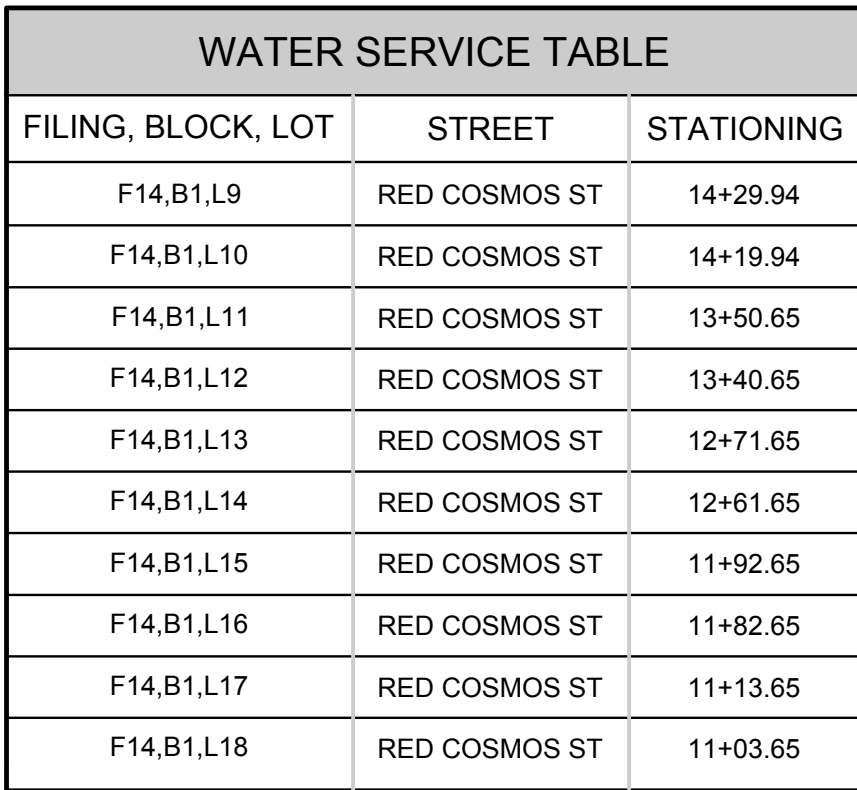
BRIAN P. WILSON  
COLORADO P.E. 0050067

**BASIS OF BEARINGS:**  
THE EAST LINE OF THE NORTHEAST QUARTER OF SAID SECTION 9 BEING MONUMENTED AT THE NORTHEAST CORNER OF SAID SECTION 9 BY A 3-1/4" ALUMINUM CAP STAMPED LS 23053 AND AT THE EAST QUARTER CORNER OF SAID SECTION 9 BY A 2-1/2" ALUMINUM CAP STAMPED LS 6935 BEING CONSIDERED TO BEAR SOUTH 00°15'06" EAST. 2648.70 FEET.

[illegible]

**BASIS OF BEARINGS:**  
THE EAST LINE OF THE NORTHEAST CORNER OF THE TRACT BEING MONUMENTED AT THE NORTH CORNER OF THE SECTION 9 BY A 3-1/4" ALUMINUM CAP STAMPED LS 6935 BEARING THE EAST QUARTER CORNER OF SECTION 9 BY A 3-1/4" ALUMINUM CAP STAMPED LS 6935 BEARING SOUTH 00°15'06" EAST, 2648.70 FEET.

BRIAN P. WILSON  
COLORADO P.E. 0050067



|                                                                                       |                                       |                                                                                       |                                  |
|---------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------------------------------------------------------|----------------------------------|
|    | BLOCK NUMBER                          |    | PROPOSED RANGE POINT             |
|    | LOT TYPE                              |    | CENTERLINE                       |
| 6                                                                                     | LOT NUMBER                            |    | RIGHT-OF-WAY                     |
|    | PROPOSED BUTTERFLY VALVE              |    | PROPERTY LINE                    |
|    | PROPOSED CAP WITH END OF LINE BLOWOFF |    | EDGE OF PAVEMENT                 |
|    | PROPOSED REDUCER                      |    | PROPOSED DIRECTION OF FLOW       |
|    | PROPOSED VALVE                        |    | PROPOSED SLOPE & DIRECTION       |
|    | PROPOSED FIRE HYDRANT                 |    | EXISTING 5' CONTOUR              |
|    | PROPOSED WL FITTING WITH THRUST BLOCK |    | EXISTING 1' CONTOUR              |
|    | PROPOSED FLARED END SECTION           |    | PROPOSED 5' CONTOUR              |
|    | PROPOSED LOW POINT BLOW-OFF           |   | PROPOSED 1' CONTOUR              |
|  | PROPOSED AIR VALVE                    |  | PROPOSED STORM DRAIN             |
|  | FUTURE PHASE VALVE                    |  | PROPOSED SEWER LINE WITH MANHOLE |
|  | FUTURE FIRE HYDRANT                   |  | PROPOSED SEWER LATERAL           |
|  | PROPOSED LIGHT POLE                   |  | PROPOSED WATER LINE              |
|  | PROPOSED SIDEWALK                     |  | PROPOSED WATER LATERAL W/ METER  |
|  | PROPOSED SIDEWALK RAMP                |  | SECTION LINE                     |
| 10.00                                                                                 | EXISTING ELEVATION                    |  | FILING BOUNDARY                  |
| 10.00                                                                                 | PROPOSED DESIGN ELEVATION             |  | EXISTING FIBER OPTIC LINE        |
|  | PROPOSED STORM DRAIN INLET            |  | EXISTING OVERHEAD POWER          |
|  | PROPOSED STORM DRAIN MANHOLE          |  | EXISTING TELEPHONE LINE          |

|     |                        |        |                                 |
|-----|------------------------|--------|---------------------------------|
| AD  | ANGLE DIFFERENCE       | MH     | MANHOLE                         |
| AV  | AIR VAC RELEASE VALVE  | N.T.S. | NOT TO SCALE                    |
| BVC | BEGIN VERTICAL CURVE   | PVC    | POLYVINYL CHLORIDE              |
| BVP | BEGIN VERTICAL PROFILE | PVI    | POINT OF VERTICAL INTERSECTION  |
| CBO | CAP WITH BLOW OFF      | PVT    | POINT OF VERTICAL TANGENT       |
| CRR | CURB RETURN RADIUS     | RCBC   | REINFORCED CONCRETE BOX CULVERT |
| EL  | ELEVATION              | RCP    | REINFORCED CONCRETE PIPE        |
| EP  | EDGE OF PAVEMENT       | ROW    | RIGHT OF WAY                    |
| EVC | END VERTICAL CURVE     | SC     | SANITARY CAP                    |
| EVF | END VERTICAL PROFILE   | SD     | STORM DRAIN                     |
| FG  | FINISHED GROUND        | SL     | SECTION LINE                    |
| FH  | FIRE HYDRANT           | SS     | SANITARY SEWER                  |
| FL  | FLOW LINE              | STA    | STATION                         |
| GV  | GATE VALVE             | T.O.P. | TOP OF PIPE                     |
| HCR | HANDICAP CURB RAMP     | UE     | UTILITY EASEMENT                |
| HP  | HIGH POINT             | VC     | VERTICAL CURVE                  |
| INV | INVERT                 | WL     | WATER LINE                      |
| K   | CURVATURE COEFFICIENT  | WLC    | WATER LINE CONNECTION           |
| LF  | LINEAR FEET            | WSE    | WATER SURFACE ELEVATION         |



**CVL**  
CONSULTANTS

HR 935 LLC  
7353 South Alton Way  
CENTENNIAL CO 80112

TRAILS AT CROWFOOT  
FILING 14 CONSTRUCTION DRAWINGS  
WATER PLAN & PROFILE  
RED COSMOS STREET

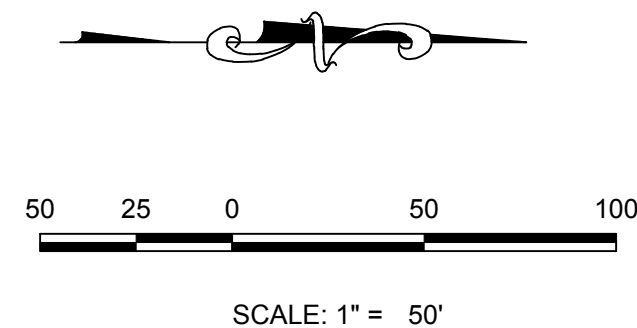
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| DATE:       |     |          |            |

12



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**UNCC**  
UTILITY NOTIFICATION  
CENTER OF COLORADO



| WATER SERVICE TABLE |                |            |
|---------------------|----------------|------------|
| FILING, BLOCK, LOT  | STREET         | STATIONING |
| F14,B1,L1           | BLUE COSMOS CT | 10+91.00   |
| F14,B1,L2           | BLUE COSMOS CT | 10+81.00   |
| F14,B1,L3           | BLUE COSMOS CT | 10+93.50   |
| F14,B1,L4           | BLUE COSMOS CT | 10+78.50   |



|                                                                                       |                                       |                                                                                       |                                  |
|---------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------------------------------------------------------|----------------------------------|
|    | BLOCK NUMBER                          |    | PROPOSED RANGE POINT             |
|    | LOT TYPE                              |    | CENTERLINE                       |
| 6                                                                                     | LOT NUMBER                            |    | RIGHT-OF-WAY                     |
|    | PROPOSED BUTTERFLY VALVE              |    | PROPERTY LINE                    |
|    | PROPOSED CAP WITH END OF LINE BLOWOFF |    | EDGE OF PAVEMENT                 |
|    | PROPOSED REDUCER                      |    | PROPOSED DIRECTION OF FLOW       |
|    | PROPOSED VALVE                        |    | PROPOSED SLOPE & DIRECTION       |
|    | PROPOSED FIRE HYDRANT                 |    | EXISTING 5' CONTOUR              |
|    | PROPOSED WL FITTING WITH THRUST BLOCK |    | EXISTING 1' CONTOUR              |
|    | PROPOSED FLARED END SECTION           |    | PROPOSED 5' CONTOUR              |
|    | PROPOSED LOW POINT BLOW-OFF           |   | PROPOSED 1' CONTOUR              |
|  | PROPOSED AIR VALVE                    |  | PROPOSED STORM DRAIN             |
|  | FUTURE PHASE VALVE                    |  | PROPOSED SEWER LINE WITH MANHOLE |
|  | FUTURE FIRE HYDRANT                   |  | PROPOSED SEWER LATERAL           |
|  | PROPOSED LIGHT POLE                   |  | PROPOSED WATER LINE              |
|  | PROPOSED SIDEWALK                     |  | PROPOSED WATER LATERAL W/ METER  |
|  | PROPOSED SIDEWALK RAMP                |  | SECTION LINE                     |
| 10.00                                                                                 | EXISTING ELEVATION                    |  | FILING BOUNDARY                  |
| 10.00                                                                                 | PROPOSED DESIGN ELEVATION             |  | EXISTING FIBER OPTIC LINE        |
|  | PROPOSED STORM DRAIN INLET            |  | EXISTING OVERHEAD POWER          |
|  | PROPOSED STORM DRAIN MANHOLE          |  | EXISTING TELEPHONE LINE          |

|     |                        |        |                                 |
|-----|------------------------|--------|---------------------------------|
| AD  | ANGLE DIFFERENCE       | MH     | MANHOLE                         |
| AV  | AIR VAC RELEASE VALVE  | N.T.S. | NOT TO SCALE                    |
| BVC | BEGIN VERTICAL CURVE   | PVC    | POLYVINYL CHLORIDE              |
| BVP | BEGIN VERTICAL PROFILE | PVI    | PT. OF VERTICAL INTERSECTION    |
| CBO | CAP WITH BLOW OFF      | PVT    | POINT OF VERTICAL TANGENT       |
| CRR | CURB RETURN RADIUS     | RCB    | REINFORCED CONCRETE BOX CULVERT |
| EL  | ELEVATION              | RCP    | REINFORCED CONCRETE PIPE        |
| EP  | EDGE OF PAVEMENT       | ROW    | RIGHT OF WAY                    |
| EVC | END VERTICAL CURVE     | SC     | SANITARY CAP                    |
| EVP | END VERTICAL PROFILE   | SD     | STORM DRAIN                     |
| FG  | FINISHED GROUND        | SL     | SECTION LINE                    |
| FH  | FIRE HYDRANT           | SS     | SANITARY SEWER                  |
| FL  | FLOWLINE               | STA    | STATION                         |
| GV  | GATE VALVE             | T.O.P. | TOP OF PIPE                     |
| HCR | HANDICAP CURB RAMP     | UE     | UTILITY EASEMENT                |
| HP  | HIGH POINT             | VC     | VERTICAL CURVE                  |
| INV | INVERT                 | WL     | WATER LINE                      |
| K   | CURVATURE COEFFICIENT  | WLC    | WATER LINE CONNECTION           |
| LF  | LINEAR FEET            | WSE    | WATER SURFACE ELEVATION         |

[illegible]

**cvl**  
**CONSULTANTS**

10333 E. Dry Creek Rd.,  
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Fax: (720) 482-9546

**HR 935 LLC**  
7353 South Alton Way  
CENTENNIAL, CO 80112

TRAILS AT CROWFOOT  
FILING 14 CONSTRUCTION DRAWINGS  
WATER PLAN & PROFILE  
BLUE COSMOS CT

|           |             |                |          |
|-----------|-------------|----------------|----------|
| DRAWN BY: | KJD         | SCALE:         | AS SHOWN |
|           | CHECKED BY: | FILE NO:       |          |
| BPW       |             | 8130283701     |          |
| DATE:     |             | SEPTEMBER 2018 |          |

13



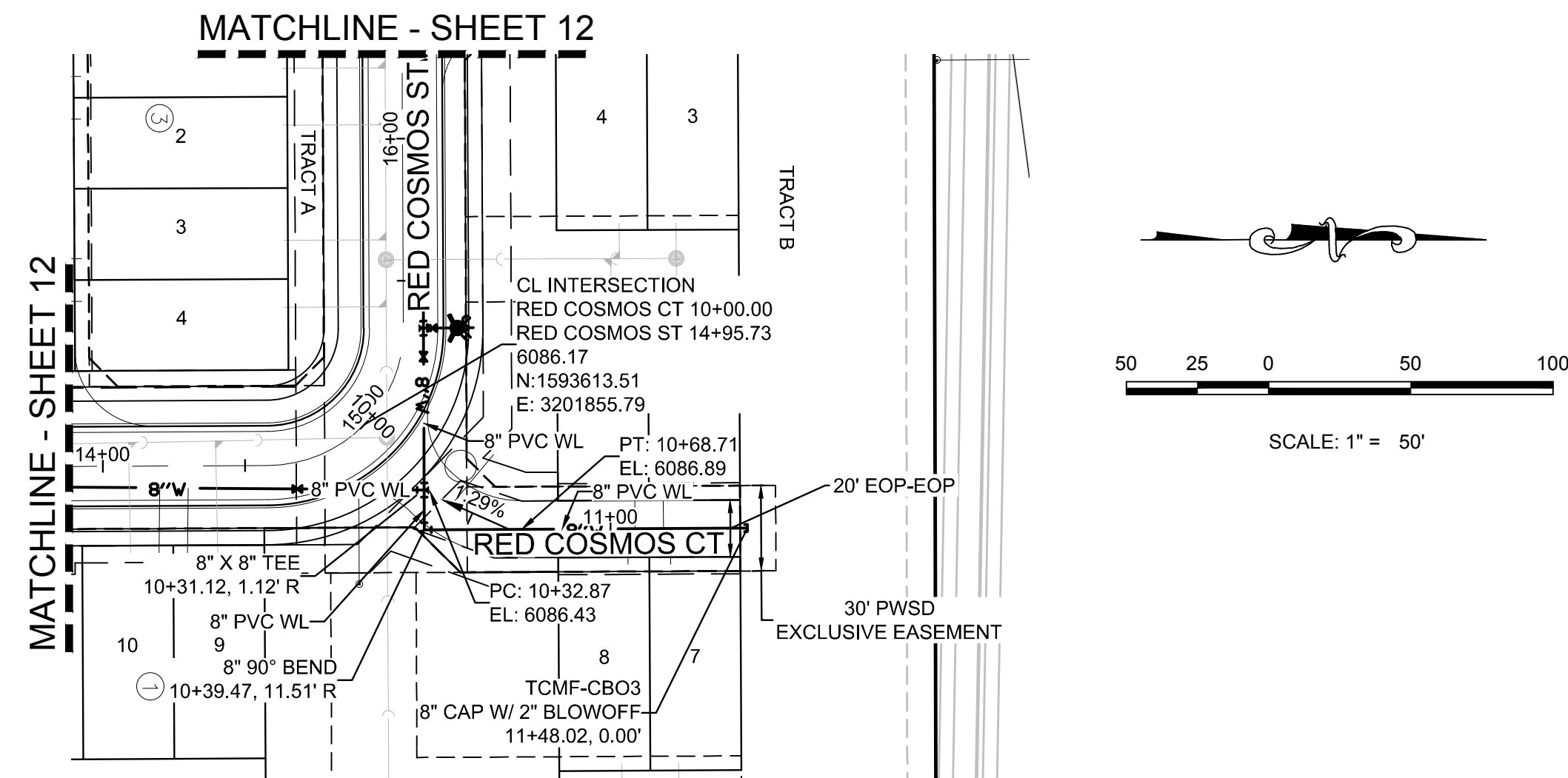
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**BENCHMARK**  
DOUGLAS COUNTY CONTROL POINT KNOWN AS 1.060032, BEING A 3-1/4" ALUMINUM CAP, BEING LOCATED IN THE SOUTHWEST QUARTER OF SECTION 33, TOWNSHIP 6 SOUTH, RANGE 66 WEST OF THE SIXTH PRINCIPAL MERIDIAN, HAVING A PUBLISHED ELEVATION OF 1799.2870 METERS (5903.13 FEET) NAVD '88 DATUM.

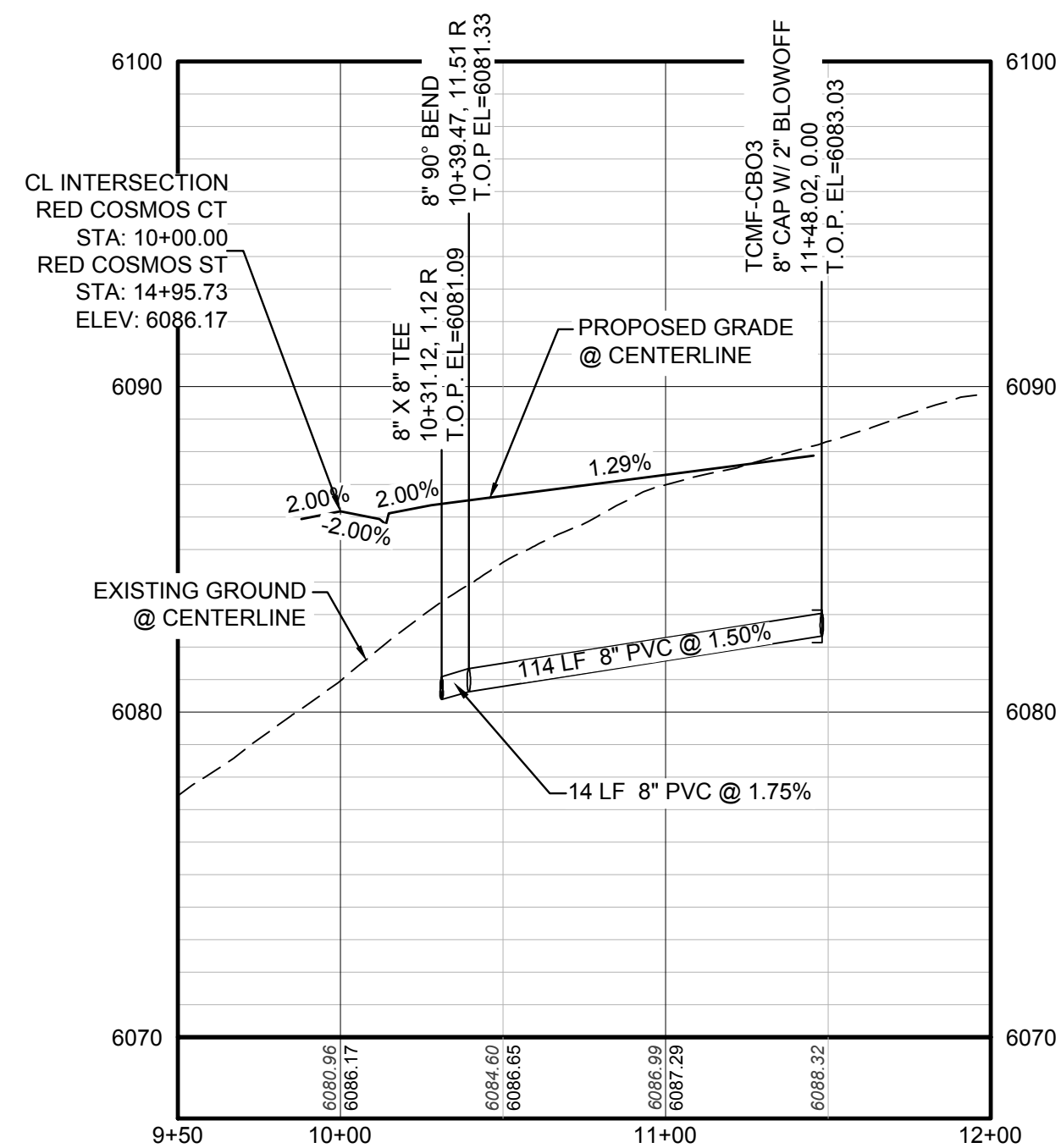
**BASIS OF BEARINGS:**  
THE EAST LINE OF THE NORTHEAST QUARTER OF SAID SECTION 9 BEING MONUMENTED AT THE NORTHEAST CORNER OF SAID SECTION 9 BY A 3-1/4" ALUMINUM CAP STAMPED LS 23053 AND AT THE EAST QUARTER CORNER OF SAID SECTION 9 BY A 2-1/2" ALUMINUM CAP STAMPED LS 6935 BEING CONSIDERED TO BEAR SOUTH 00°15'06" EAST, 2648.70 FEET.

PREPARED UNDER THE  
SUPERVISION OF

BRIAN P. WILSON  
COLORADO P.E. 0050067

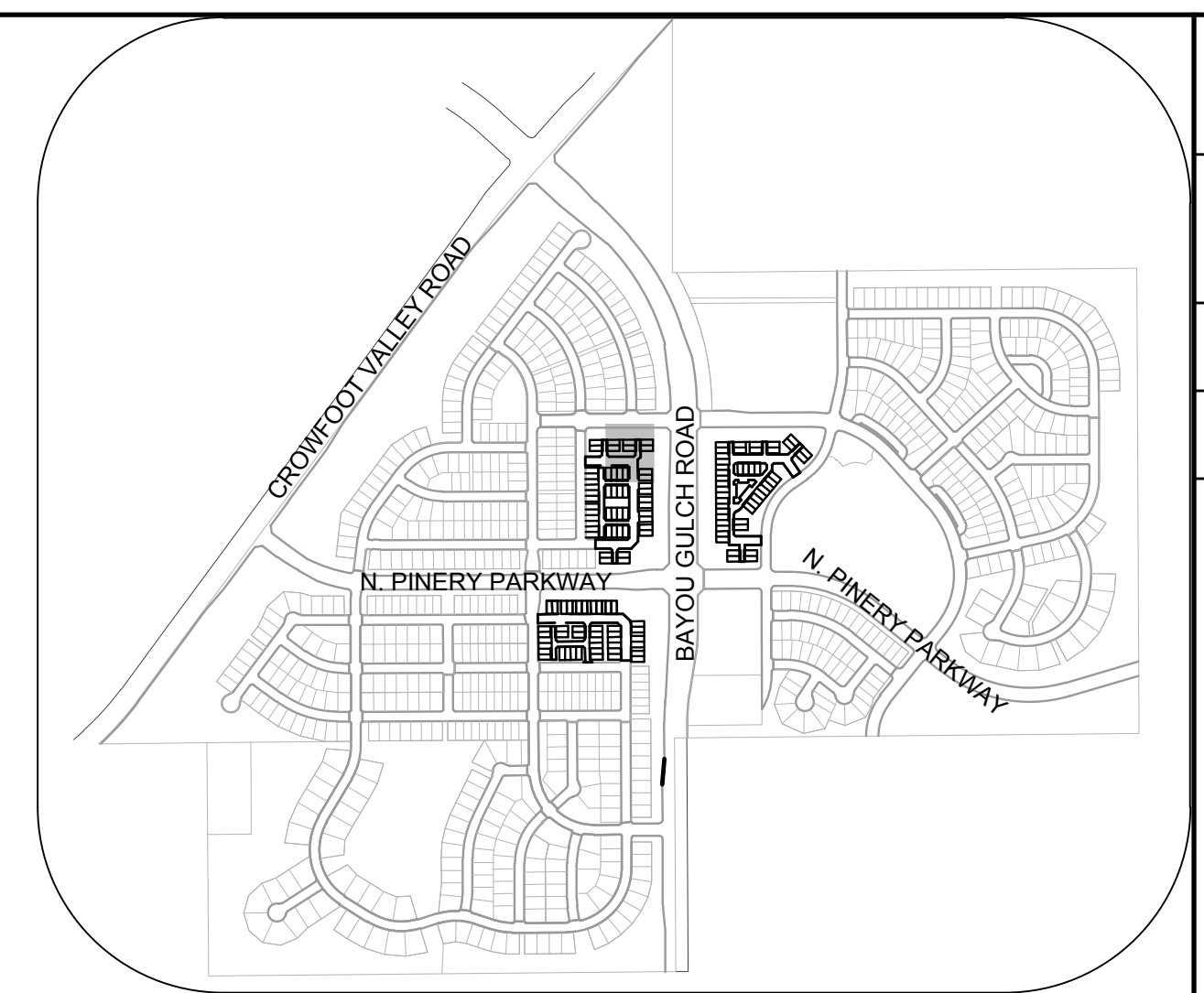


PLAN: RED COSMOS CT STA: 9+50.00 TO 12+00.00  
HORIZONTAL SCALE: 1" = 50'



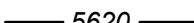
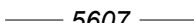
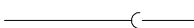
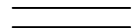
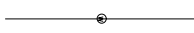
PROFILE: RED COSMOS CT STA: 9+50.00 TO 12+00.00  
HORIZONTAL: 1" = 50'  
VERTICAL: 1" = 5'

| WATER SERVICE TABLE |               |            |
|---------------------|---------------|------------|
| FILING, BLOCK, LOT  | STREET        | STATIONING |
| F14,B1,L5           | RED COSMOS CT | 11+18.52   |
| F14,B1,L6           | RED COSMOS CT | 11+08.52   |
| F14,B1,L7           | RED COSMOS CT | 11+21.02   |
| F14,B1,L8           | RED COSMOS CT | 11+06.02   |



KEYMAP  
N.T.S.

### LEGEND

|                                                                                       |                                        |                                                                                       |                                  |
|---------------------------------------------------------------------------------------|----------------------------------------|---------------------------------------------------------------------------------------|----------------------------------|
|    | BLOCK NUMBER                           |    | PROPOSED RANGE POINT             |
|    | LOT TYPE                               |    | CENTERLINE                       |
| 6                                                                                     | LOT NUMBER                             |    | RIGHT-OF-WAY                     |
|    | PROPOSED BUTTERFLY VALVE               |    | PROPERTY LINE                    |
|    | PROPOSED CAP WITH END OF LINE BLOWOFF  |    | EDGE OF PAVEMENT                 |
|    | PROPOSED REDUCER                       |    | PROPOSED DIRECTION OF FLOW       |
|    | PROPOSED VALVE                         |    | PROPOSED SLOPE & DIRECTION       |
|    | PROPOSED FIRE HYDRANT                  |    | EXISTING 5' CONTOUR              |
|    | PROPOSED W/L FITTING WITH THRUST BLOCK |    | EXISTING 1' CONTOUR              |
|    | PROPOSED FLARED END SECTION            |    | PROPOSED 5' CONTOUR              |
|    | PROPOSED LOW POINT BLOW-OFF            |   | PROPOSED 1' CONTOUR              |
|  | PROPOSED AIR VALVE                     |  | PROPOSED STORM DRAIN             |
|  | FUTURE PHASE VALVE                     |  | PROPOSED SEWER LINE WITH MANHOLE |
|  | FUTURE FIRE HYDRANT                    |  | PROPOSED SEWER LATERAL           |
|  | PROPOSED LIGHT POLE                    |  | PROPOSED WATER LINE              |
|  | PROPOSED SIDEWALK                      |  | PROPOSED WATER LATERAL W/ METER  |
|  | PROPOSED SIDEWALK RAMP                 |  | SECTION LINE                     |
| 10.00                                                                                 | EXISTING ELEVATION                     |  | FILING BOUNDARY                  |
| 10.00                                                                                 | PROPOSED DESIGN ELEVATION              |  | EXISTING FIBER OPTIC LINE        |
|  | PROPOSED STORM DRAIN INLET             |  | EXISTING OVERHEAD POWER          |
|  | PROPOSED STORM DRAIN MANHOLE           |  | EXISTING TELEPHONE LINE          |

## ABBREVIATIONS

|     |                        |        |                                 |
|-----|------------------------|--------|---------------------------------|
| AD  | ANGLE DIFFERENCE       | MH     | MANHOLE                         |
| AV  | AIR VAC RELEASE VALVE  | N.T.S  | NOT TO SCALE                    |
| BVC | BEGIN VERTICAL CURVE   | PVC    | POLYVINYL CHLORIDE              |
| BVP | BEGIN VERTICAL PROFILE | PVI    | PT OF VERTICAL INTERSECTION     |
| CBO | CAP WITH BLOW OFF      | PVT    | POINT OF VERTICAL TANGENT       |
| CCR | CURB RETURN RADIUS     | PCB    | REINFORCED CONCRETE BOX CULVERT |
| EL  | ELEVATION              | RCP    | REINFORCED CONCRETE PIPE        |
| EP  | EDGE OF PAVEMENT       | ROW    | RIGHT OF WAY                    |
| EVC | END VERTICAL CURVE     | SC     | SANITARY CAP                    |
| EVP | END VERTICAL PROFILE   | SD     | STORM DRAIN                     |
| FG  | FINISHED GROUND        | SL     | SECTION LINE                    |
| FH  | FIRE HYDRANT           | SS     | SANITARY SEWER                  |
| FL  | FLOW LINE              | STA    | STATION                         |
| GV  | GATE VALVE             | T.O.P. | TOP OF PIPE                     |
| HCR | HANDICAP CURB RAMP     | UE     | UTILITY EASEMENT                |
| HCP | HIGH POINT             | VC     | VERTICAL CURVE                  |
| INV | INVERT                 | WL     | WATER LINE                      |
| K   | CURVATURE COEFFICIENT  | WLC    | WATER LINE CONNECTION           |
| LF  | LINEAR FEET            | WSE    | WATER SURFACE ELEVATION         |

PREPARED UNDER THE  
SUPERVISION OF

BRIAN P. WILSON  
COLORADO P.E. 0050067



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**BENCHMARK**  
DOUGLAS COUNTY CONTROL POINT KNOWN AS 1.060032, BEING A 3-1/4" ALUMINUM CAP, BEING LOCATED IN THE SOUTHWEST QUARTER OF SECTION 33, TOWNSHIP 6 SOUTH, RANGE 66 WEST OF THE SIXTH PRINCIPAL MERIDIAN, HAVING A PUBLISHED ELEVATION OF 1799.2870 METERS (5903.13 FEET) NAVD '88 DATUM.

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| No. | Revisions | Date | Init. | Appr. | Date |
|-----|-----------|------|-------|-------|------|
|     |           |      |       |       |      |
|     |           |      |       |       |      |
|     |           |      |       |       |      |
|     |           |      |       |       |      |
|     |           |      |       |       |      |

500 E. Dry Creek Rd.  
Suite 240  
Englewood, CO 80112  
Tel: (720) 482-9526  
Fax: (720) 482-9546



**HR 935 LLC**  
7353 South Alton Way  
CENTENNIAL, CO 80112

**FILING 14 CONSTRUCTION DRAWINGS**  
WATER PLAN & PROFILE  
RED COSMOS COURT

|             |                |          |            |
|-------------|----------------|----------|------------|
| DATE:       | SEPTEMBER 2018 | FILE NO: | 8130283701 |
| CHECKED BY: | BPW            | AS SHOWN |            |
| KJD         |                |          |            |

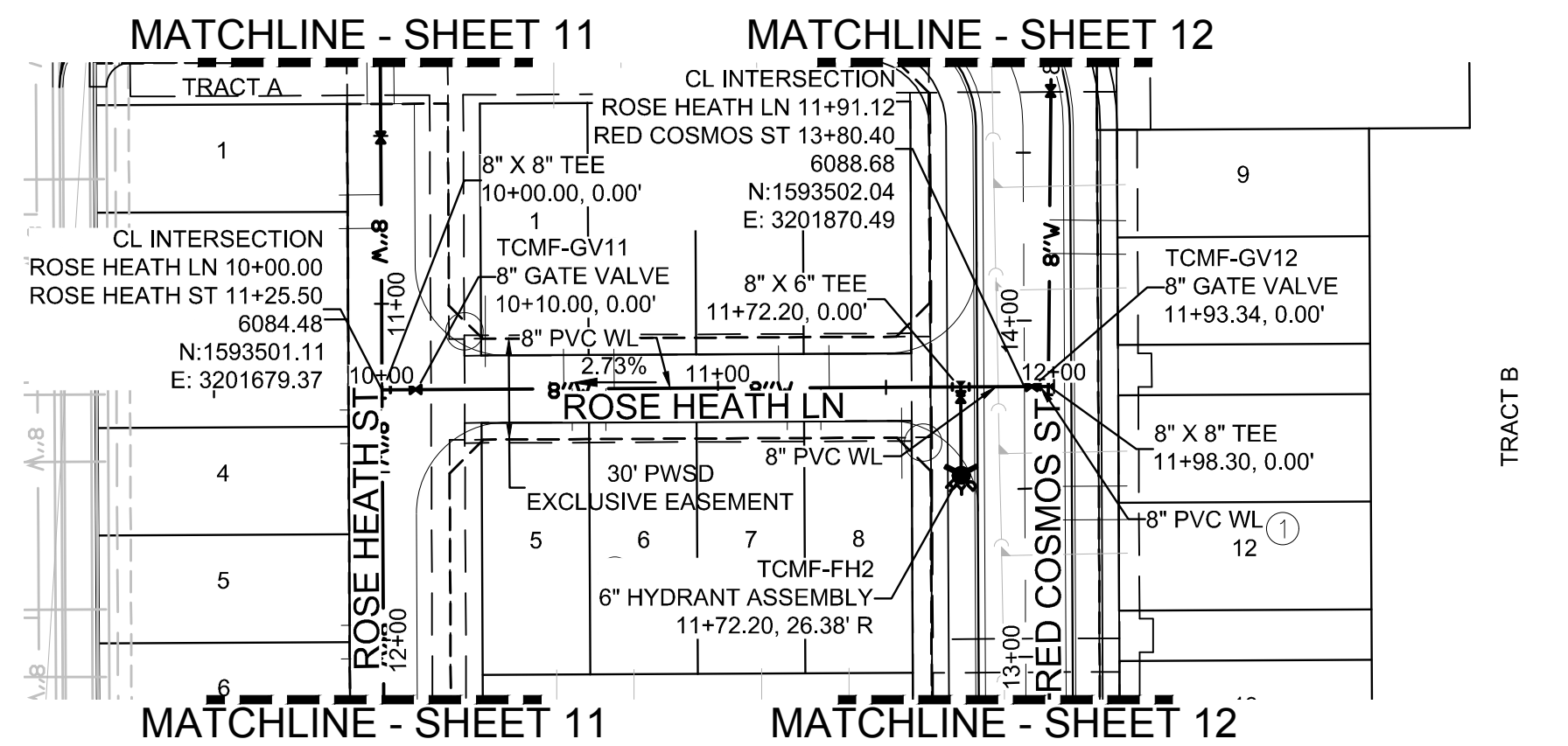
14

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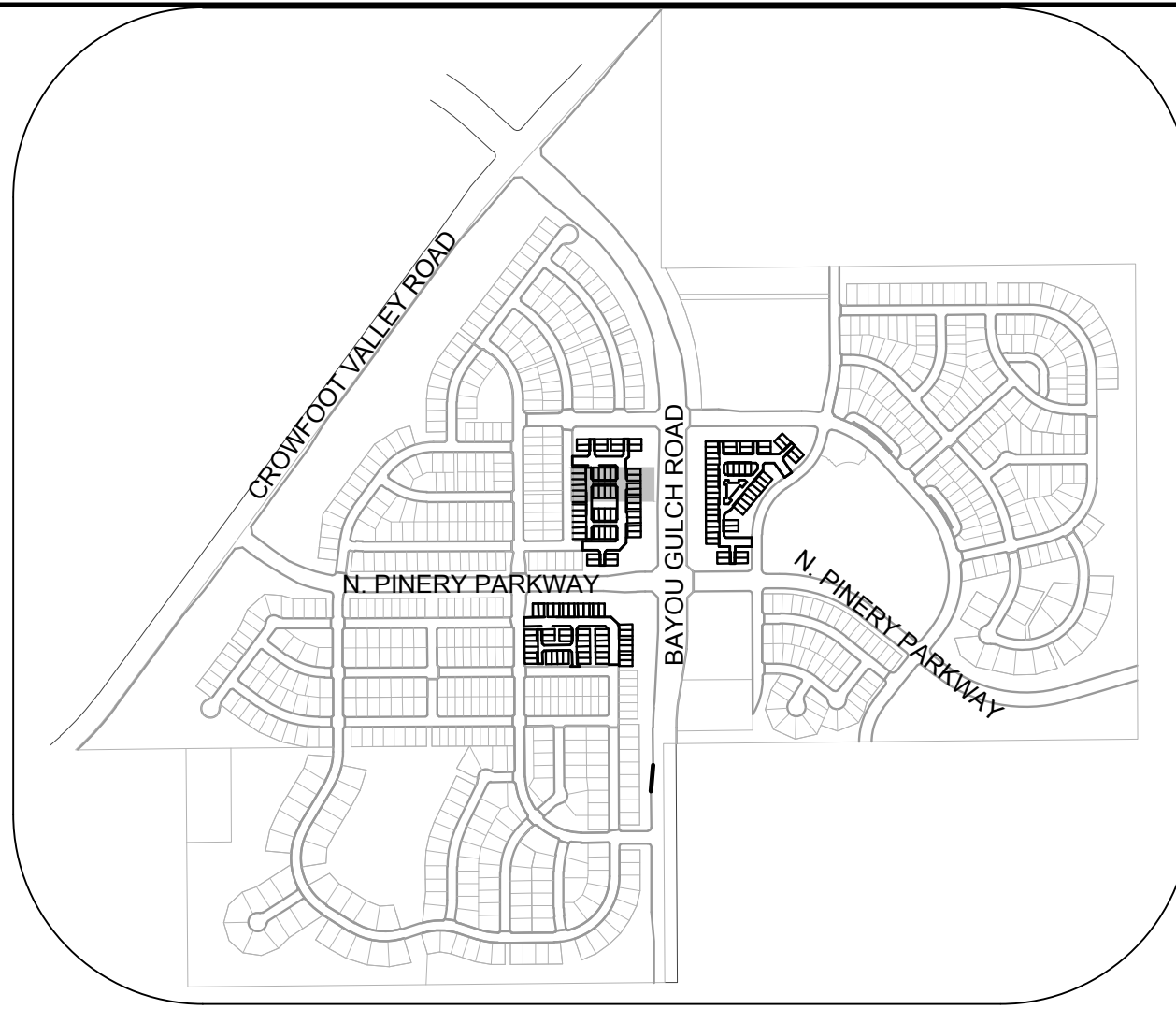
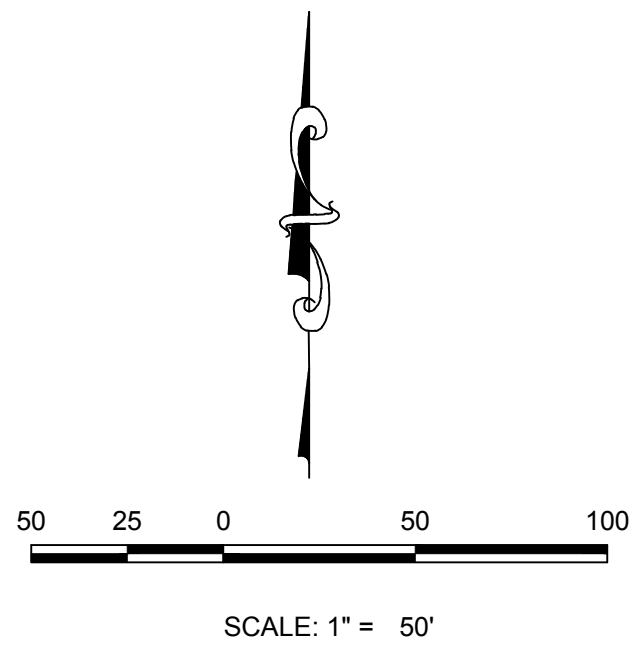


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UTILITY NOTIFICATION  
CENTER OF COLORADO

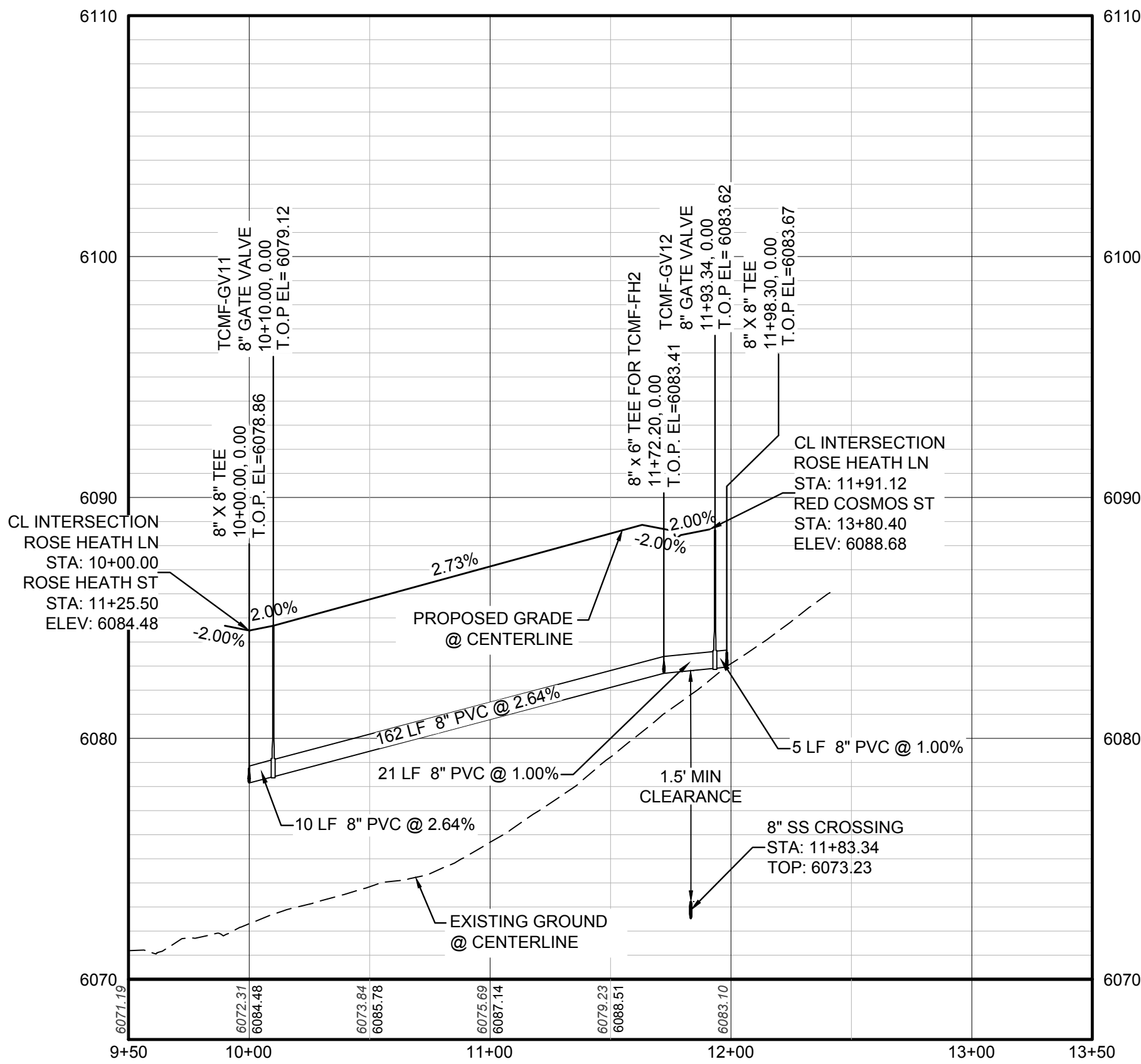


PLAN: ROSE HEATH LN STA: 9+50.00 TO 13+50.00  
HORIZONTAL SCALE: 1" = 50'



KEYMAP  
N.T.S.

| WATER SERVICE TABLE |               |            |
|---------------------|---------------|------------|
| FILING, BLOCK, LOT  | STREET        | STATIONING |
| F14.B3.L1           | ROSE HEATH LN | 10+54.06   |
| F14.B3.L2           | ROSE HEATH LN | 10+69.06   |
| F14.B3.L3           | ROSE HEATH LN | 11+18.06   |
| F14.B3.L4           | ROSE HEATH LN | 11+33.06   |
| F14.B3.L5           | ROSE HEATH LN | 10+56.56   |
| F14.B3.L6           | ROSE HEATH LN | 10+66.56   |
| F14.B3.L7           | ROSE HEATH LN | 11+20.55   |
| F14.B3.L8           | ROSE HEATH LN | 11+30.56   |



PROFILE: ROSE HEATH LN STA: 9+50.00 TO 13+50.00  
HORIZONTAL: 1" = 50'  
VERTICAL: 1" = 5'

LEGEND

2

BLOCK NUMBER

A

LOT TYPE

6

LOT NUMBER

⊗

PROPOSED BUTTERFLY VALVE

⌋

PROPOSED CAP WITH END OF LINE BLOWOFF

⌋

PROPOSED REDUCER

⊗

PROPOSED VALVE

⊗

PROPOSED FIRE HYDRANT

⌋

PROPOSED WL FITTING WITH THRUST BLOCK

⌋

PROPOSED FLARED END SECTION

⊗

PROPOSED LOW POINT BLOW-OFF

⊗

PROPOSED AIR VALVE

⊗

FUTURE PHASE VALVE

⊗

FUTURE FIRE HYDRANT

⊗

PROPOSED LIGHT POLE

⌋

PROPOSED SIDEWALK

⌋

PROPOSED SIDEWALK RAMP

10.00

EXISTING ELEVATION

10.00

PROPOSED DESIGN ELEVATION

⊗

PROPOSED STORM DRAIN INLET

⊗

PROPOSED STORM DRAIN MANHOLE

△

PROPOSED RANGE POINT

---

CENTERLINE

---

RIGHT-OF-WAY

---

PROPERTY LINE

---

EDGE OF PAVEMENT

→

PROPOSED DIRECTION OF FLOW

1.0%

PROPOSED SLOPE & DIRECTION

5615

EXISTING 5' CONTOUR

5616

EXISTING 1' CONTOUR

5620

PROPOSED 5' CONTOUR

5607

PROPOSED 1' CONTOUR

---

PROPOSED STORM DRAIN

---

PROPOSED SEWER LINE WITH MANHOLE

---

PROPOSED SEWER LATERAL

8"W

PROPOSED WATER LINE

---

PROPOSED WATER LATERAL W/ METER

---

SECTION LINE

---

FILING BOUNDARY

---

EXISTING FIBER OPTIC LINE

---

EXISTING OVERHEAD POWER

---

EXISTING TELEPHONE LINE

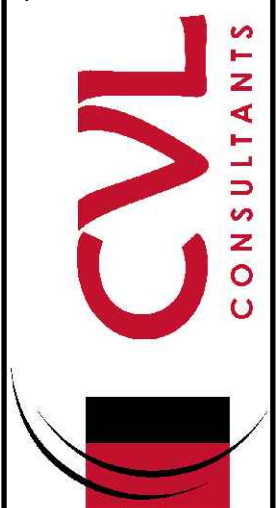
| ABBREVIATIONS |                        |        |                                 |
|---------------|------------------------|--------|---------------------------------|
| AD            | ANGLE DIFFERENCE       | MH     | MANHOLE                         |
| AV            | AIR VAC RELEASE VALVE  | N.T.S. | NOT TO SCALE                    |
| BVC           | BEGIN VERTICAL CURVE   | PVC    | POLYVINYL CHLORIDE              |
| BVP           | BEGIN VERTICAL PROFILE | PVI    | PT. OF VERTICAL INTERSECTION    |
| CBO           | CAP WITH BLOW OFF      | PVT    | POINT OF VERTICAL TANGENT       |
| CRR           | CURB RETURN RADIUS     | RCBC   | REINFORCED CONCRETE BOX CULVERT |
| EL            | ELEVATION              | RCP    | REINFORCED CONCRETE PIPE        |
| EP            | EDGE OF PAVEMENT       | ROW    | RIGHT OF WAY                    |
| EVC           | END VERTICAL CURVE     | SC     | SANITARY CAP                    |
| EVP           | END VERTICAL PROFILE   | SD     | STORM DRAIN                     |
| FG            | FINISHED GROUND        | SL     | SECTION LINE                    |
| FH            | FIRE HYDRANT           | SS     | SANITARY SEWER                  |
| FL            | FLOW LINE              | STA    | STATION                         |
| GV            | GATE VALVE             | T.O.P. | TOP OF PIPE                     |
| HCR           | HANDICAP CURB RAMP     | UE     | UTILITY EASEMENT                |
| HP            | HIGH POINT             | VC     | VERTICAL CURVE                  |
| INV           | INVERT                 | WL     | WATER LINE                      |
| K             | CURVATURE COEFFICIENT  | WLC    | WATER LINE CONNECTION           |
| LF            | LINEAR FEET            | WSE    | WATER SURFACE ELEVATION         |

**BENCHMARK**  
DOUGLAS COUNTY CONTROL POINT KNOWN AS 1.060032, BEING A 3-1/4" ALUMINUM CAP, BEING LOCATED IN THE SOUTHWEST QUARTER OF SECTION 33, TOWNSHIP 6 SOUTH, RANGE 66 WEST OF THE SIXTH PRINCIPAL MERIDIAN, HAVING A PUBLISHED ELEVATION OF 1799.2870 METERS (5903.13 FEET) NAVD '88 DATUM.

**BASIS OF BEARINGS:**  
THE EAST LINE OF THE NORTHEAST QUARTER OF SAID SECTION 9 BEING MONUMENTED AT THE NORTHEAST CORNER OF SAID SECTION 9 BY A 3-1/4" ALUMINUM CAP STAMPED LS 23053 AND AT THE EAST QUARTER CORNER OF SAID SECTION 9 BY A 2-1/2" ALUMINUM CAP STAMPED LS 9935 BEING CONSIDERED TO BEAR SOUTH 00°15'06" EAST, 2648.70 FEET.

PREPARED UNDER THE  
SUPERVISION OF  
  
BRIAN P. WILSON  
COLORADO P.E. 0050067

10333 E. Dry Creek Rd.  
Suite 410  
Englewood, CO 80150  
Tel: (720) 482-9526  
Fax: (720) 482-9546



HR 935 LLC  
7353 South Alton Way  
CENTENNIAL, CO 80112

TRAILS AT CROWFOOT  
FILING 14 CONSTRUCTION DRAWINGS  
WATER PLAN & PROFILE  
ROSE HEATH LANE

DRAWN BY: KJD

CHECKED BY: BPW

DATE: SEPTEMBER 2018

SCALE: AS SHOWN

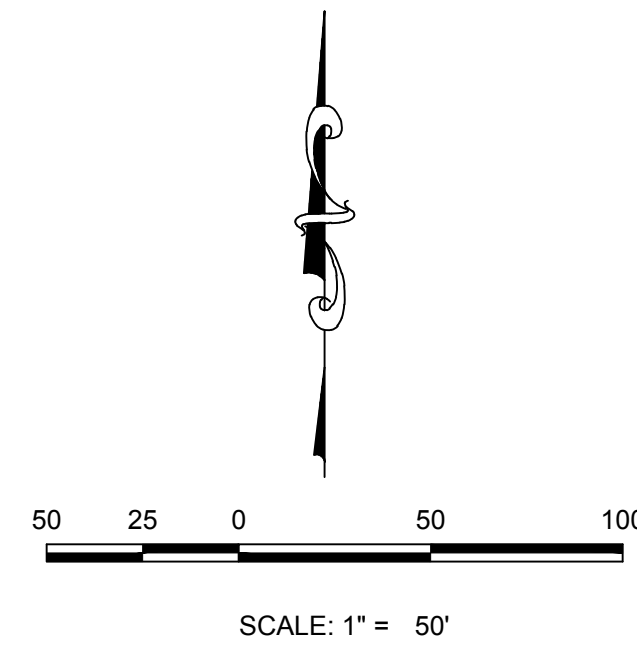
FILE NO: 8130283701

SHEET NUMBER

15

Revisions

| No. | Date | Init. | Appr. | Date |
|-----|------|-------|-------|------|
|     |      |       |       |      |
|     |      |       |       |      |
|     |      |       |       |      |
|     |      |       |       |      |



| WATER SERVICE TABLE |               |            |
|---------------------|---------------|------------|
| FILING, BLOCK, LOT  | STREET        | STATIONING |
| F14,B3,L9           | ROSE HEATH RD | 10+54.06   |
| F14,B3,L10          | ROSE HEATH RD | 10+69.06   |
| F14,B3,L11          | ROSE HEATH RD | 11+18.06   |
| F14,B3,L12          | ROSE HEATH RD | 11+33.06   |
| F14,B3,L13          | ROSE HEATH RD | 10+56.56   |
| F14,B3,L14          | ROSE HEATH RD | 10+66.56   |
| F14,B3,L15          | ROSE HEATH RD | 11+20.56   |
| F14,B3,L16          | ROSE HEATH RD | 11+30.56   |

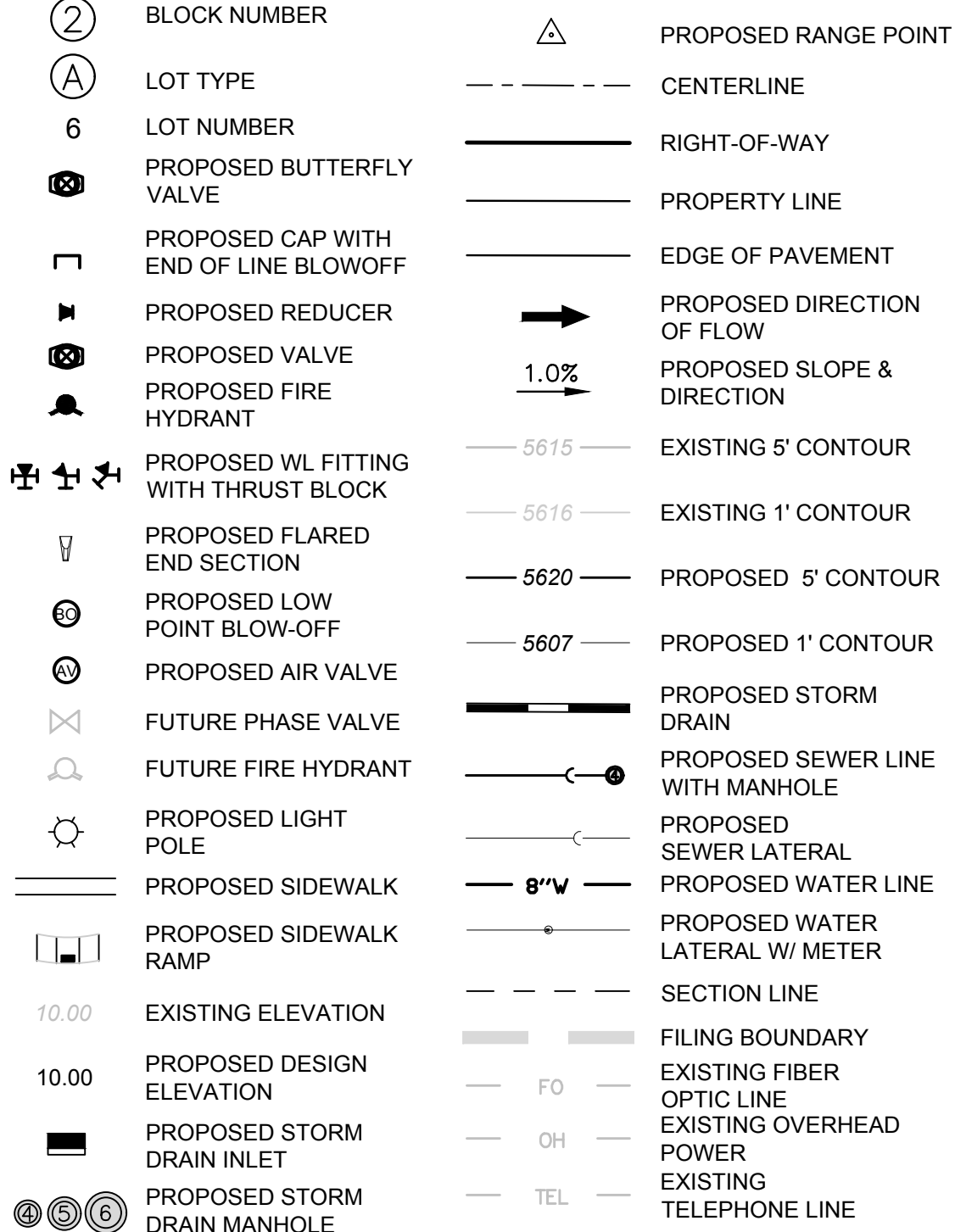
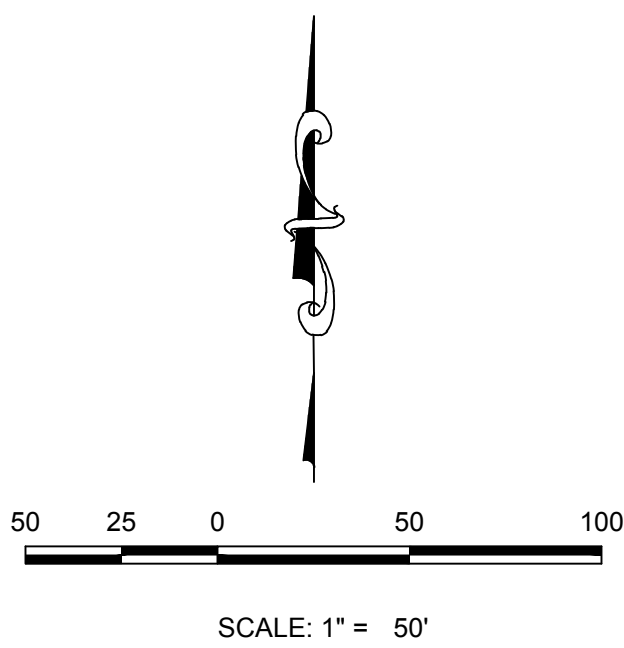


|                                                                                       |                                       |                                                                                       |                                  |
|---------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------------------------------------------------------|----------------------------------|
|    | BLOCK NUMBER                          |    | PROPOSED RANGE POINT             |
|    | LOT TYPE                              |    | CENTERLINE                       |
| 6                                                                                     | LOT NUMBER                            |    | RIGHT-OF-WAY                     |
|    | PROPOSED BUTTERFLY VALVE              |    | PROPERTY LINE                    |
|    | PROPOSED CAP WITH END OF LINE BLOWOFF |    | EDGE OF PAVEMENT                 |
|    | PROPOSED REDUCER                      |    | PROPOSED DIRECTION OF FLOW       |
|    | PROPOSED VALVE                        |    | PROPOSED SLOPE & DIRECTION       |
|    | PROPOSED FIRE HYDRANT                 |    | EXISTING 5' CONTOUR              |
|    | PROPOSED WL FITTING WITH THRUST BLOCK |    | EXISTING 1' CONTOUR              |
|    | PROPOSED FLARED END SECTION           |    | PROPOSED 5' CONTOUR              |
|    | PROPOSED LOW POINT BLOW-OFF           |   | PROPOSED 1' CONTOUR              |
|  | PROPOSED AIR VALVE                    |  | PROPOSED STORM DRAIN             |
|  | FUTURE PHASE VALVE                    |  | PROPOSED SEWER LINE WITH MANHOLE |
|  | FUTURE FIRE HYDRANT                   |  | PROPOSED SEWER LATERAL           |
|  | PROPOSED LIGHT POLE                   |  | PROPOSED WATER LINE              |
|  | PROPOSED SIDEWALK                     |  | PROPOSED WATER LATERAL W/ METER  |
|  | PROPOSED SIDEWALK RAMP                |  | SECTION LINE                     |
| 10.00                                                                                 | EXISTING ELEVATION                    |  | FLILING BOUNDARY                 |
| 10.00                                                                                 | PROPOSED DESIGN ELEVATION             |  | EXISTING FIBER OPTIC LINE        |
|  | PROPOSED STORM DRAIN INLET            |  | EXISTING OVERHEAD POWER          |
|  | PROPOSED STORM DRAIN MANHOLE          |  | EXISTING TELEPHONE LINE          |

|     |                        |        |                                 |
|-----|------------------------|--------|---------------------------------|
| AD  | ANGLE DIFFERENCE       | MH     | MANHOLE                         |
| AV  | AIR VAC RELEASE VALVE  | N.T.S  | NOT TO SCALE                    |
| BVC | BEGIN VERTICAL CURVE   | PVC    | POLYVINYL CHLORIDE              |
| BVP | BEGIN VERTICAL PROFILE | PVI    | PT. OF VERTICAL INTERSECTION    |
| CBO | CAP WITH BLOW OFF      | PVT    | POINT OF VERTICAL TANGENT       |
| CRR | CURB RETURN RADIUS     | RCBC   | REINFORCED CONCRETE BOX CULVERT |
| EL  | ELEVATION              | RCP    | REINFORCED CONCRETE PIPE        |
| EP  | EDGE OF PAVEMENT       | ROW    | RIGHT OF WAY                    |
| EVC | END VERTICAL CURVE     | SC     | SANITARY CAP                    |
| EVP | END VERTICAL PROFILE   | SD     | STORM DRAIN                     |
| FG  | FINISHED GROUND        | SS     | SECTION LINE                    |
| FH  | FIRE HYDRANT           | SL     | SANITARY SEWER                  |
| FL  | FLOW LINE              | STA    | STATION                         |
| GV  | GATE VALVE             | T.O.P. | TOP OF PIPE                     |
| HCR | HANDICAP CURB RAMP     | UE     | UTILITY EASEMENT                |
| HP  | HIGH POINT             | VC     | VERTICAL CURVE                  |
| INV | INVERT                 | WL     | WATER LINE                      |
| K   | CURVATURE COEFFICIENT  | WLC    | WATER LINE CONNECTION           |
| LF  | LINE FEET              | WSE    | WATER SURFACE ELEVATION         |

BRIAN P. WILSON  
COLORADO P.E. 0050067

**BASIS OF BEARINGS:**  
THE EAST LINE OF THE NORTHEAST QUARTER OF SAID SECTION 9 BEING MONUMENTED AT THE NORTHEAST CORNER OF SAID SECTION 9 BY A 3-1/4" ALUMINUM CAP STAMPED LS 23053 AND AT THE EAST QUARTER CORNER OF SAID SECTION 9 BY A 2-1/2" ALUMINUM CAP STAMPED LS 6935 BEING CONSIDERED TO BEAR SOUTH 00°15'06" EAST, 2648.70 FEET.



|     |                        |        |                                 |
|-----|------------------------|--------|---------------------------------|
| AD  | ANGLE DIFFERENCE       | MH     | MANHOLE                         |
| AV  | AIR VAC RELEASE VALVE  | N.T.S. | NOT TO SCALE                    |
| BVC | BEGIN VERTICAL CURVE   | PVC    | POLYVINYL CHLORIDE              |
| BVP | BEGIN VERTICAL PROFILE | PVI    | PT. OF VERTICAL INTERSECTION    |
| CBO | CAP WITH BLOW OFF      | PVT    | POINT OF VERTICAL TANGENT       |
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| EL  | ELEVATION              | RCP    | REINFORCED CONCRETE PIPE        |
| EP  | EDGE OF PAVEMENT       | ROW    | RIGHT OF WAY                    |
| EVC | END VERTICAL CURVE     | SC     | SANITARY CAP                    |
| EVF | END VERTICAL PROFILE   | SD     | STORM DRAIN                     |
| FG  | FINISHED GROUND        | SS     | SECTION LINE                    |
| FH  | FIRE HYDRANT           | SL     | SANITARY SEWER                  |
| FI  | FLOW LINE              | STA    | STATION                         |
| GV  | GATE VALVE             | T.O.P. | TOP OF PIPE                     |
| HC  | HANDICAP CURB RAMP     | UE     | UTILITY EASEMENT                |
| HP  | HIGH POINT             | VC     | VERTICAL CURVE                  |
| INV | INVERT                 | WL     | WATER LINE                      |
| K   | CURVATURE COEFFICIENT  | WLC    | WATER LINE CONNECTION           |
| L   | LINEAR FEET            | WSE    | WATER SURFACE ELEVATION         |



**HR 935 LLC**  
7353 South Alton Way  
CENTENNIAL, CO 80112

TRAILS AT CROWFOOT  
FILING 14 CONSTRUCTION DRAWINGS  
WATER PLAN & PROFILE  
RED COSMOS POINT

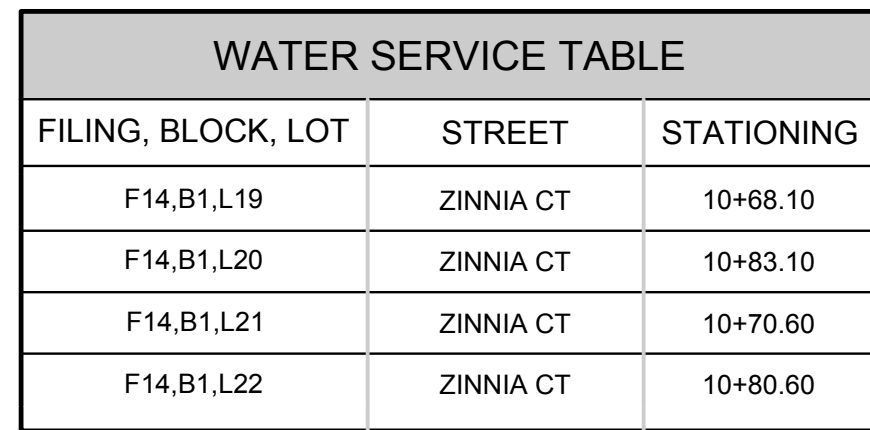
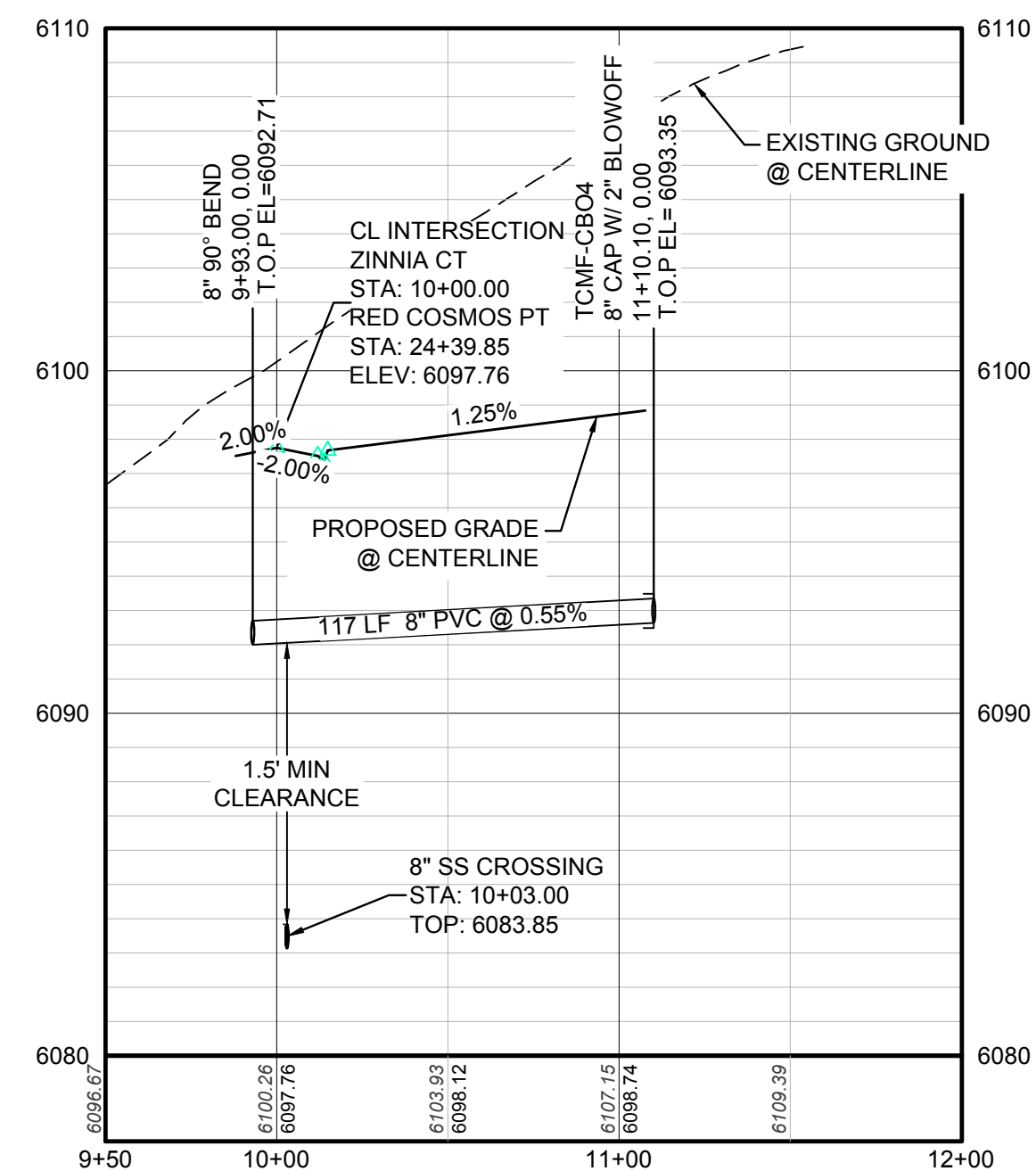
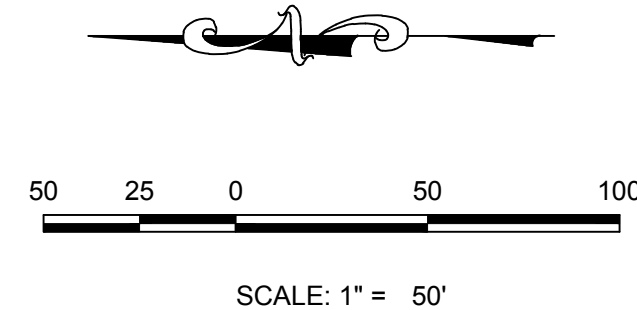
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| DRAWN BY:   | KJD            | SCALE:   | AS SHOWN   |
| CHECKED BY: | BPW            | FILE NO: | 8130283701 |
| DATE:       | SEPTEMBER 2018 |          |            |

17

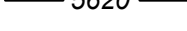
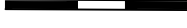
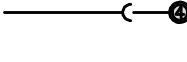
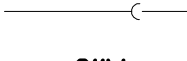
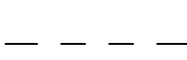
BRIAN P. WILSON  
COLORADO P.E. 005006

**BASIS OF BEARINGS:**  
THE EAST LINE OF THE NORTHEAST QUARTER OF SAID SECTION 9  
BEING MONUMENTED AT THE NORTHEAST CORNER OF SAID  
SECTION 9 BY A 3-1/4" ALUMINUM CAP STAMPED LS 230521 AND  
AT THE EAST QUARTER CORNER OF SAID SECTION 9 BY A 2-1/2"  
ALUMINUM CAP STAMPED LS 6935 BEING CONSIDERED TO BEAR  
SOUTH 00°15'06" EAST. 2648.70 FEET.





## LEGEND

| LEGEND                                                                                |                                       | SYMBOLS                                                                               |                                  |
|---------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------------------------------------------------------|----------------------------------|
|    | BLOCK NUMBER                          |    | PROPOSED RANGE POINT             |
|    | LOT TYPE                              |    | CENTERLINE                       |
| 6                                                                                     | LOT NUMBER                            |    | RIGHT-OF-WAY                     |
|    | PROPOSED BUTTERFLY VALVE              |    | PROPERTY LINE                    |
|    | PROPOSED CAP WITH END OF LINE BLOWOFF |    | EDGE OF PAVEMENT                 |
|    | PROPOSED REDUCER                      |    | PROPOSED DIRECTION OF FLOW       |
|    | PROPOSED VALVE                        |    | PROPOSED SLOPE & DIRECTION       |
|    | PROPOSED FIRE HYDRANT                 |    | EXISTING 5' CONTOUR              |
|    | PROPOSED WL FITTING WITH THRUST BLOCK |    | EXISTING 1' CONTOUR              |
|    | PROPOSED FLARED END SECTION           |    | PROPOSED 5' CONTOUR              |
|   | PROPOSED LOW POINT BLOW-OFF           |   | PROPOSED 1' CONTOUR              |
|  | PROPOSED AIR VALVE                    |  | PROPOSED STORM DRAIN             |
|  | FUTURE PHASE VALVE                    |  | PROPOSED SEWER LINE WITH MANHOLE |
|  | PROPOSED LIGHT POLE                   |  | PROPOSED SEWER LATERAL           |
|  | PROPOSED SIDEWALK                     |  | PROPOSED WATER LINE              |
|  | PROPOSED SIDEWALK RAMP                |  | PROPOSED WATER LATERAL W/ METER  |
| 10.00                                                                                 | EXISTING ELEVATION                    |  | SECTION LINE                     |
| 10.00                                                                                 | PROPOSED DESIGN ELEVATION             |  | FILING BOUNDARY                  |
|  | PROPOSED STORM DRAIN INLET            |  | EXISTING FIBER OPTIC LINE        |
|  | PROPOSED STORM DRAIN MANHOLE          |  | EXISTING OVERHEAD POWER          |
|                                                                                       |                                       |  | EXISTING TELEPHONE LINE          |

## ABBREVIATIONS

|     |                        |        |                                 |
|-----|------------------------|--------|---------------------------------|
| AD  | ANGLE DIFFERENCE       | MH     | MANHOLE                         |
| AV  | AIR VAC RELEASE VALVE  | N.T.S. | NOT TO SCALE                    |
| BVC | BEGIN VERTICAL CURVE   | PVC    | POLYVINYL CHLORIDE              |
| BVP | BEGIN VERTICAL PROFILE | PVI    | PT. OF VERTICAL INTERSECTION    |
| CBO | CAP WITH BLOW OFF      | PVT    | POINT OF VERTICAL TANGENT       |
| CRR | CURB RETURN RADIUS     | RCBC   | REINFORCED CONCRETE BOX CULVERT |
| EL  | ELEVATION              | RCP    | REINFORCED CONCRETE PIPE        |
| EP  | EDGE OF PAVEMENT       | ROW    | RIGHT OF WAY                    |
| EVC | END VERTICAL CURVE     | SC     | SANITARY CAP                    |
| EVP | END VERTICAL PROFILE   | SD     | STORM DRAIN                     |
| FG  | FINISHED GROUND        | SL     | SECTION LINE                    |
| FH  | FIRE HYDRANT           | SS     | SANITARY SEWER                  |
| FL  | FLOW LINE              | STA    | STATION                         |
| GV  | GATE VALVE             | T.O.P. | TOP OF PIPE                     |
| HCR | HANDICAP CURB RAMP     | UE     | UTILITY EASEMENT                |
| HP  | HIGH POINT             | VC     | VERTICAL CURVE                  |
| INV | INVERT                 | WL     | WATER LINE                      |
| K   | CURVATURE COEFFICIENT  | WLC    | WATER LINE CONNECTION           |
| L   | LINEAR FEET            | WSE    | WATER SURFACE ELEVATION         |

BRIAN P. WILSON  
COLORADO P.E. 0050067

# 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:

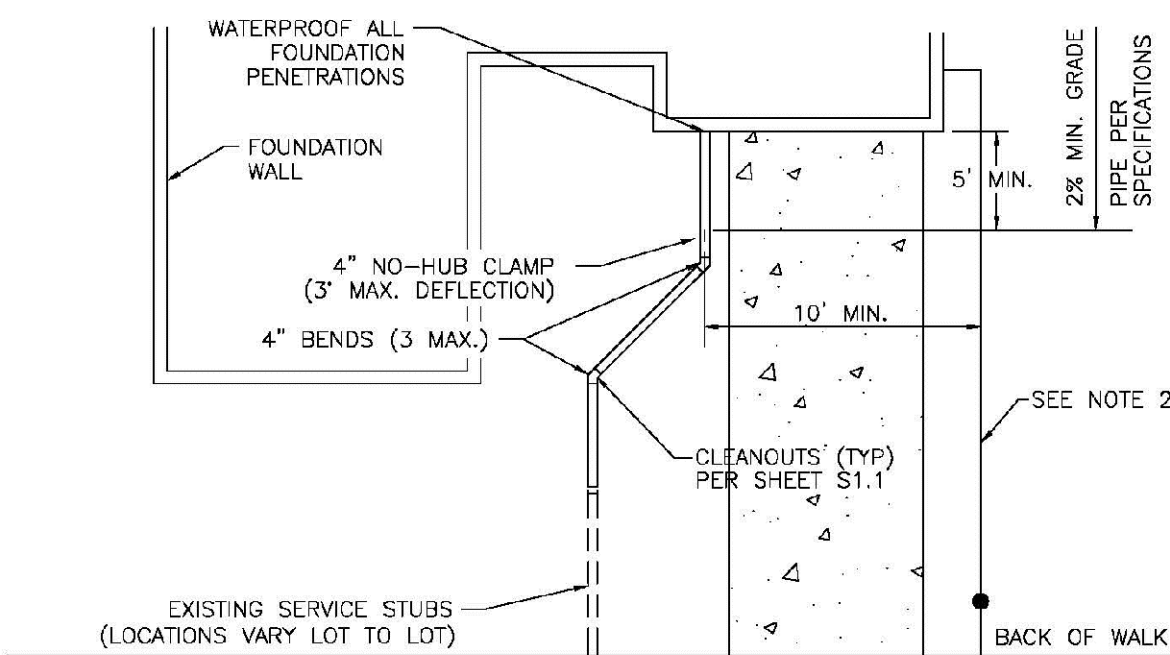
### SEWER

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

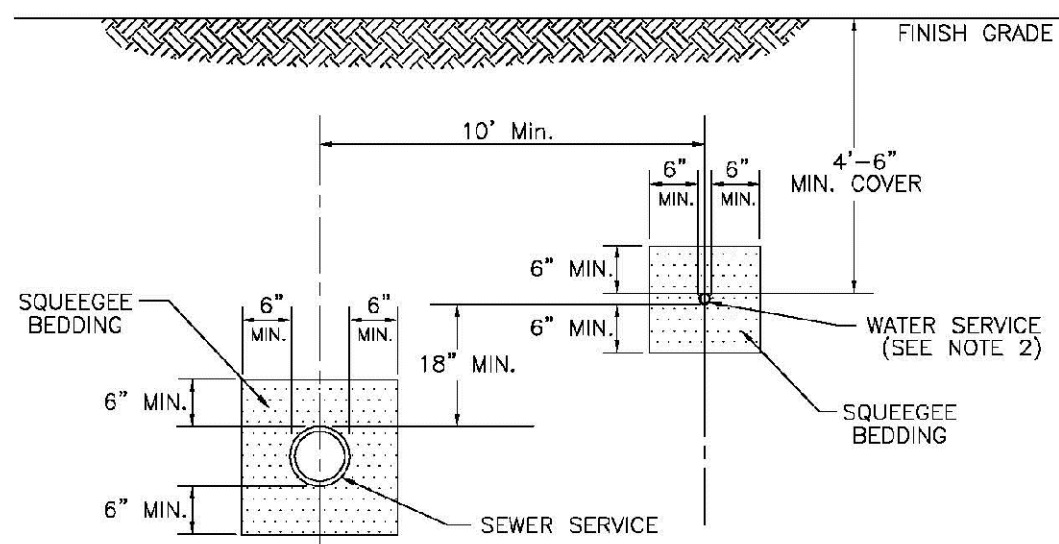
| PARKER WATER & SANITATION DISTRICT                        |                        |  |  |
|-----------------------------------------------------------|------------------------|--|--|
| DISTRICT POLICIES & INSTALLATION NOTES FOR SEWER SERVICES |                        |  |  |
| SCALE: NONE                                               | DATE: 2/96             |  |  |
| APPROVED: PVR                                             | 01/02<br>01/08<br>1/16 |  |  |
| DIRECTOR OF ENGINEERING                                   |                        |  |  |

2016 REVISION

SHEET 51.1



TYPICAL SERVICES PLAN VIEW



TYPICAL SERVICES SECTION

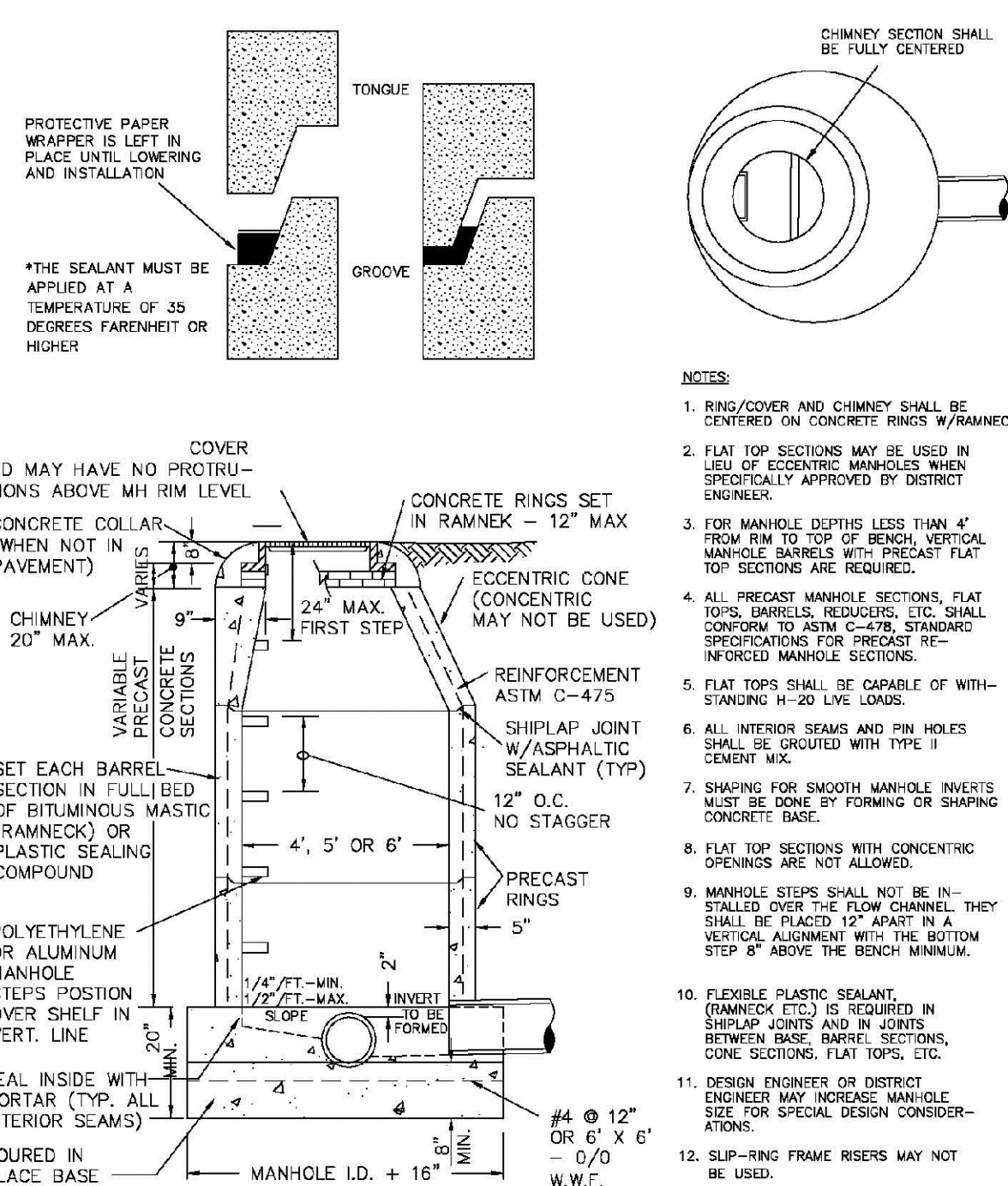
- NOTE:
1. SEE SHEET 51.1 FOR DISTRICT POLICIES AND INSTALLATION NOTES.
  2. TYPICAL WATER SERVICES SHOWN ON SHEET W1.2 IN WATER DETAILS.

2016 REVISION

SHEET 51.2

| PARKER WATER & SANITATION DISTRICT |                                 |  |  |
|------------------------------------|---------------------------------|--|--|
| TYPICAL SEWER SERVICES             |                                 |  |  |
| SCALE: NONE                        | DATE: 2/96                      |  |  |
| APPROVED: PVR                      | 2/00<br>01/02<br>01/16<br>10/18 |  |  |
| DIRECTOR OF ENGINEERING            |                                 |  |  |

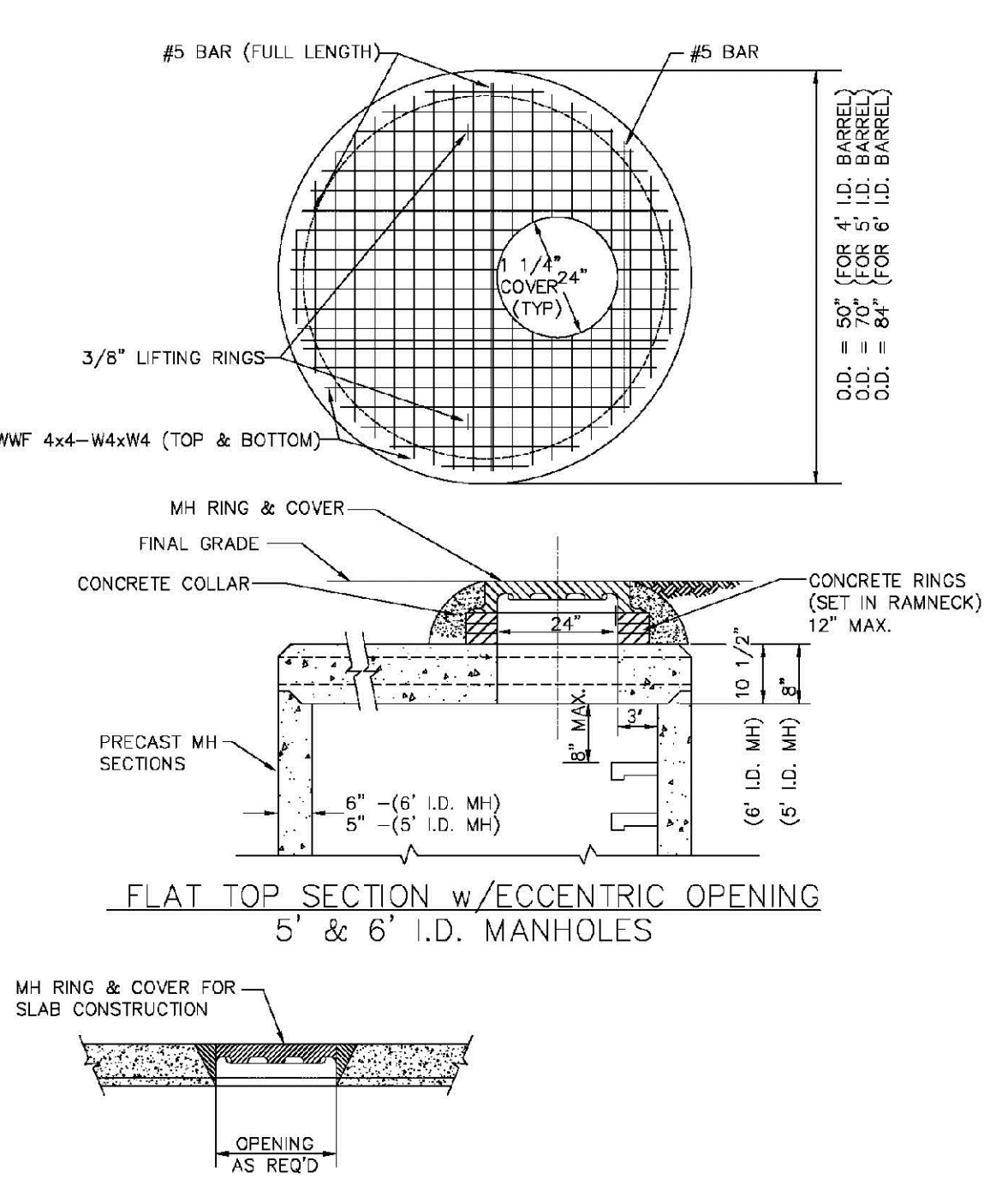
SHEET 51.2



| PIPE I.D.     | MANHOLE I.D.   |
|---------------|----------------|
| 18" & SMALLER | 4'-0"          |
| 21" TO 48"    | 5'-0"          |
| 54"           | 6'-0"          |
| 60" & LARGER  | SPECIAL DESIGN |

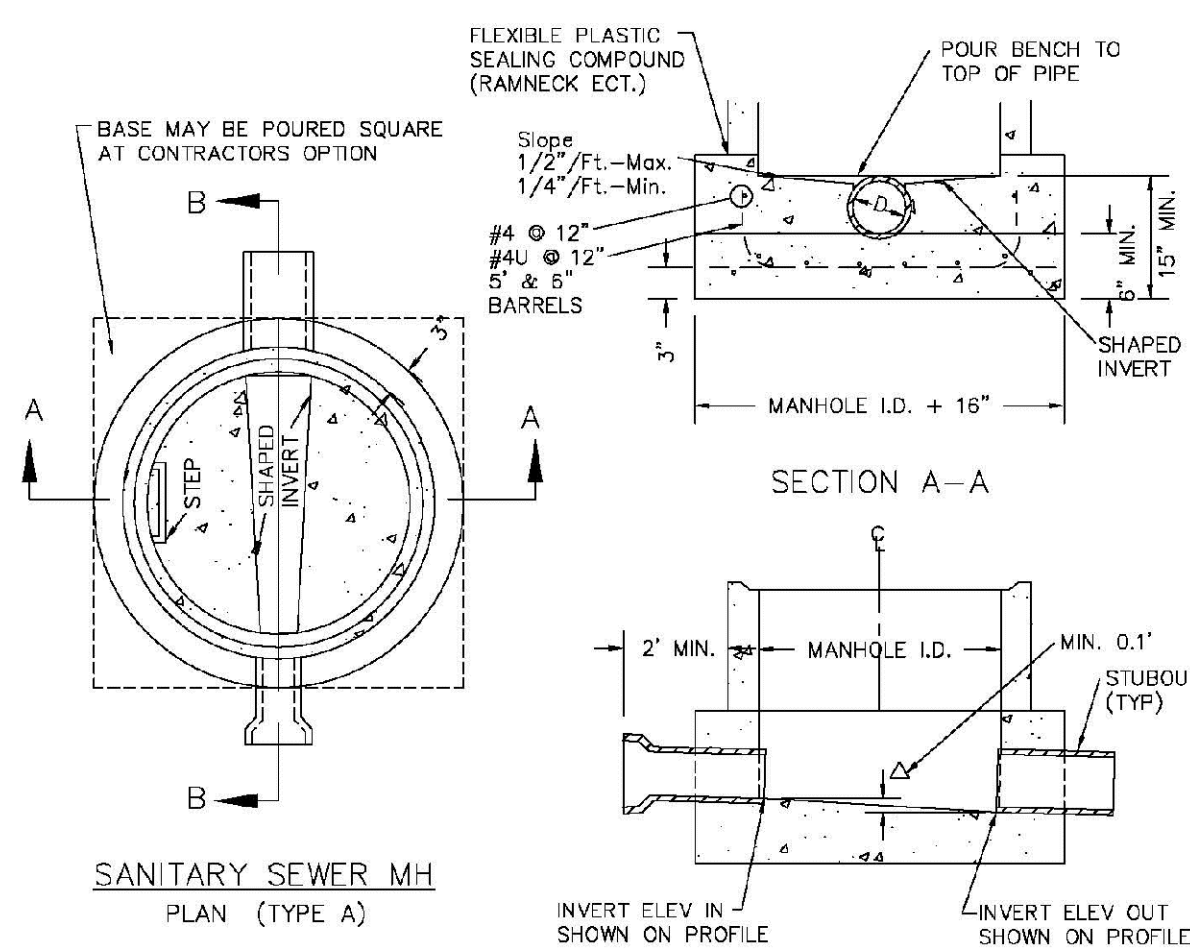
| PARKER WATER & SANITATION DISTRICT |                               |  |  |
|------------------------------------|-------------------------------|--|--|
| PARKER MANHOLE ECCENTRIC CONE      |                               |  |  |
| SCALE: NONE                        | DATE: 2/96                    |  |  |
| APPROVED: PVR                      | 4/01<br>01/02<br>1/08<br>1/16 |  |  |
| DIRECTOR OF ENGINEERING            |                               |  |  |

SHEET 53.1



| PARKER WATER & SANITATION DISTRICT                 |                         |  |  |
|----------------------------------------------------|-------------------------|--|--|
| PRECAST MANHOLE - 5' & 6' I.D. WITH ECCENTRIC CONE |                         |  |  |
| SCALE: NONE                                        | DATE: 2/96              |  |  |
| APPROVED: PVR                                      | 01/02<br>01/16<br>10/16 |  |  |
| DIRECTOR OF ENGINEERING                            |                         |  |  |

SHEET 53.3



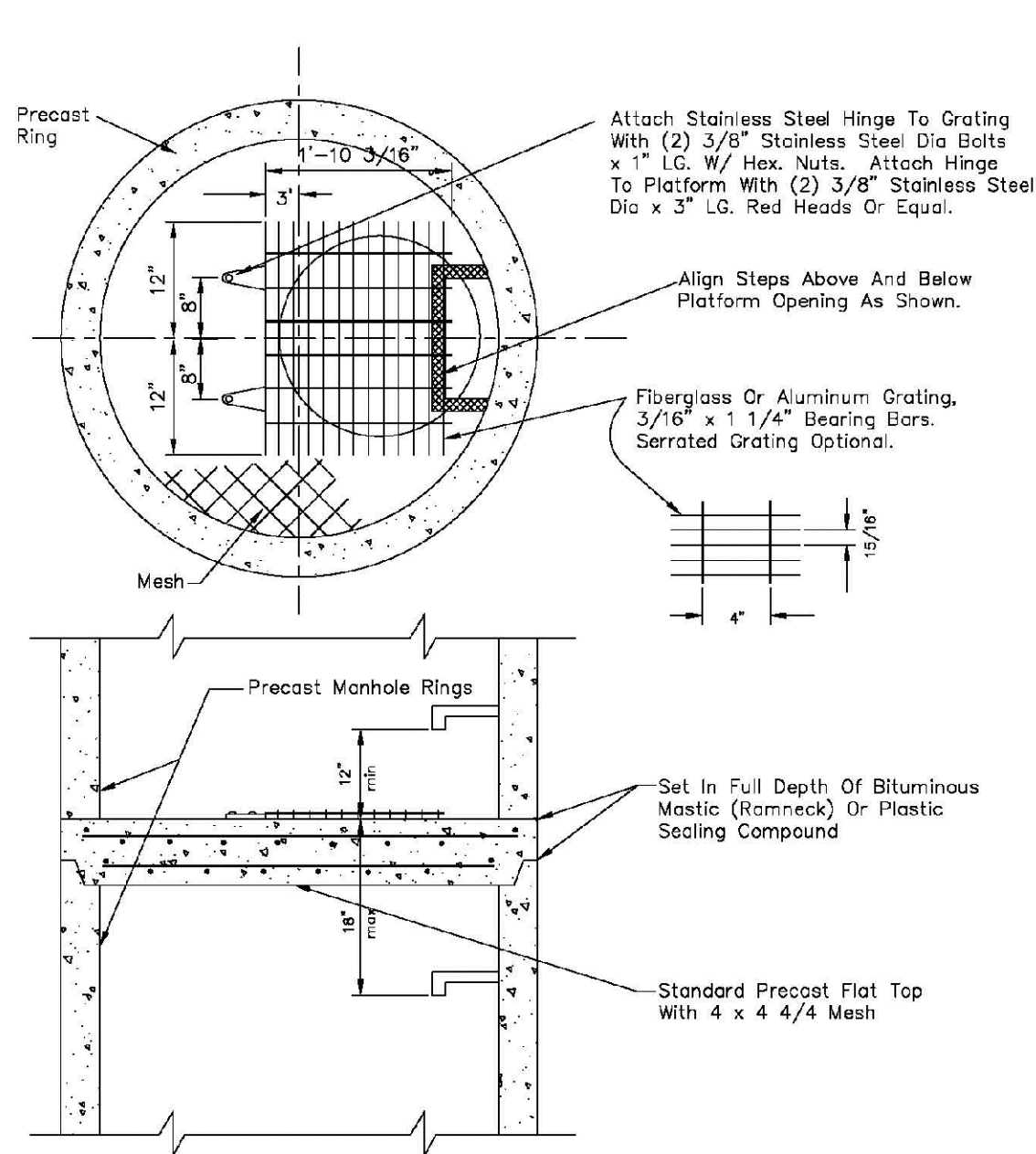
## NOTES:

1. Manhole barrel min. thickness to be 5".
2. Shaping for smooth manhole inverts may be done by forming or shaping with cement mortar (San. Sewer).
3. The manhole steps shall conform to District Standards and Specifications.
4. Precast sections to conform to A.S.T.M. C-478.
5. All dead-end manholes, that call out a stub out, shall be thru at 0.40% minimum slope.
6. Stub outs shall extend 2'-0" minimum past manhole O.D. and be satisfactorily plugged.
7. Reinforcing in base required for manhole.
8. Slope of bench = 1/2"/FT.-Max. 1/4"/FT.-Min.
9. Δ = invert drop thru MH (if Δ > 18", outside drop MH required). Min. 0.1" for all straight through MH and 0.2" for all angled MH.

| PARKER WATER & SANITATION DISTRICT |                         |  |  |
|------------------------------------|-------------------------|--|--|
| CAST-IN-PLACE MANHOLE BASE DETAIL  |                         |  |  |
| SCALE: NONE                        | DATE: 2/96              |  |  |
| APPROVED: PVR                      | 01/02<br>01/16<br>10/16 |  |  |
| DIRECTOR OF ENGINEERING            |                         |  |  |

2016 REVISION

SHEET 53.5

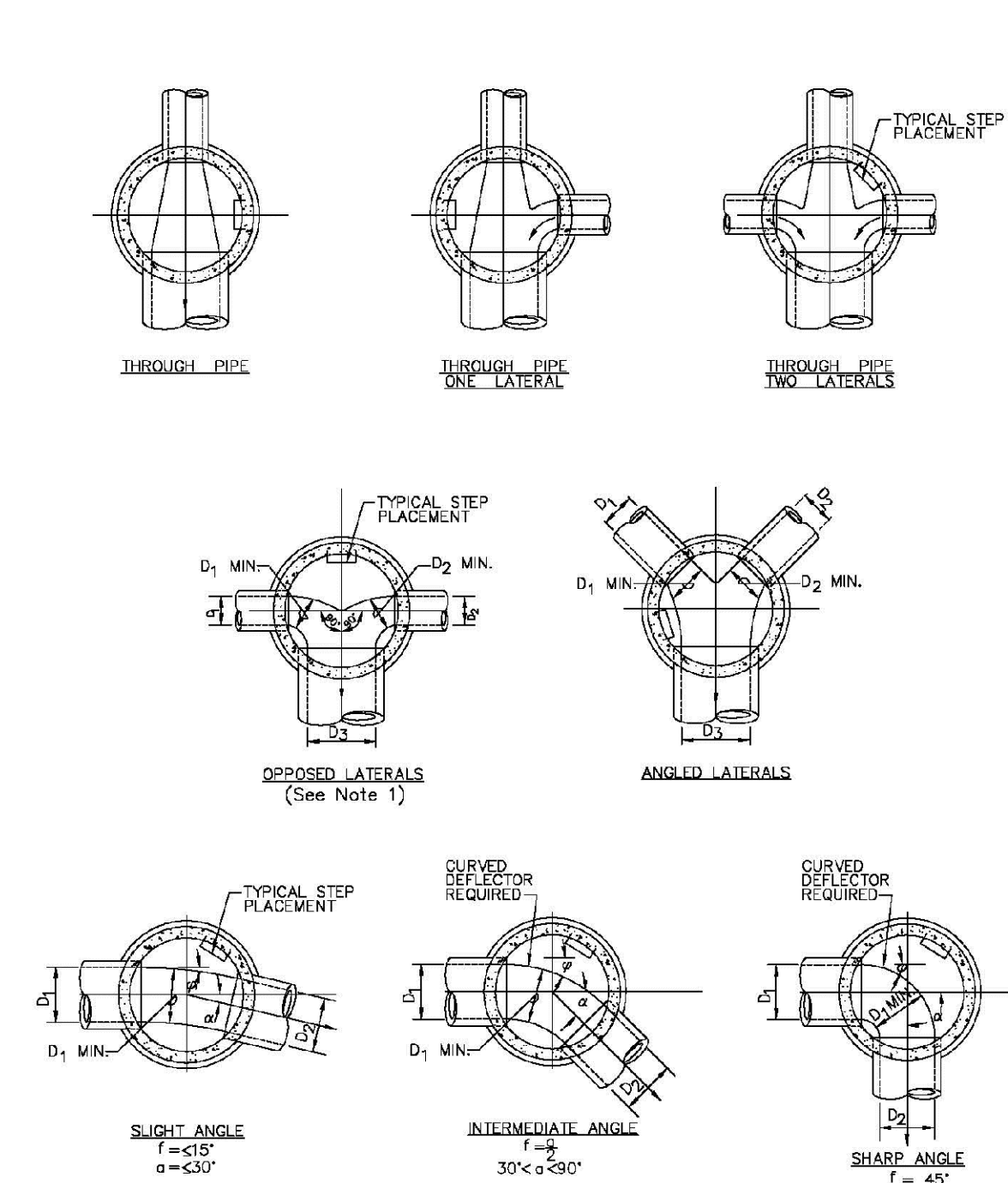


## NOTES:

- 1.1 Maximum distance between platforms shall be 15' vertically.
- 1.2 All hardware used inside a manhole shall be stainless steel.
- 1.3 Manholes over 20' deep shall submit structural calculations on base and wall sizing.

| PARKER WATER & SANITATION DISTRICT                |                       |  |  |
|---------------------------------------------------|-----------------------|--|--|
| INTERMEDIATE PLATFORM FOR MANHOLES OVER 20' DEPTH |                       |  |  |
| SCALE: NONE                                       | DATE: 2/96            |  |  |
| APPROVED: PVR                                     | 2/00<br>1/16<br>10/16 |  |  |
| DIRECTOR OF ENGINEERING                           |                       |  |  |

SHEET 53.6

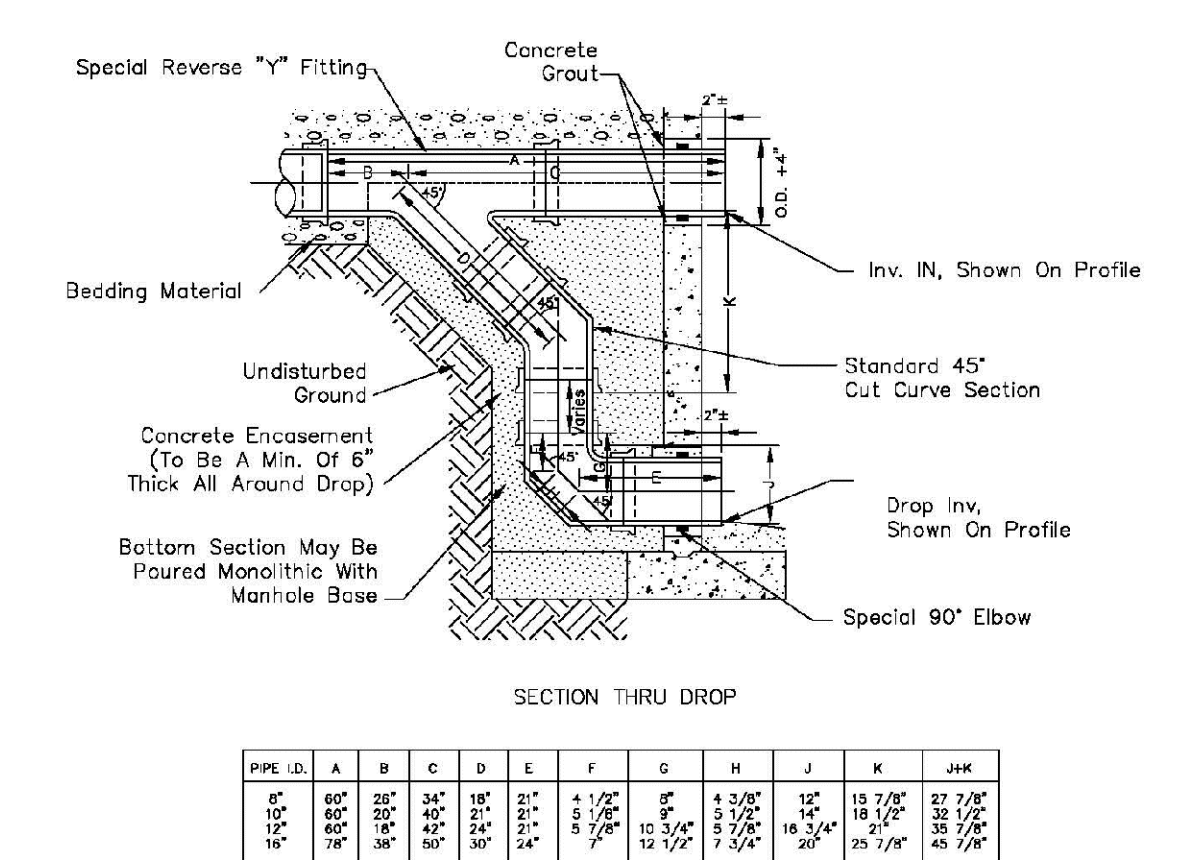


## NOTES:

1. Manhole shall be coated using bituminous mastic (ramneck) or plastic sealing compound.

| PARKER WATER & SANITATION DISTRICT  |                |  |  |
|-------------------------------------|----------------|--|--|
| TYPICAL BASE CHANNELIZATION DETAILS |                |  |  |
| SCALE: NONE                         | DATE: 2/96     |  |  |
| APPROVED: PVR                       | 01/16<br>10/16 |  |  |
| DIRECTOR OF ENGINEERING             |                |  |  |

SHEET 53.7

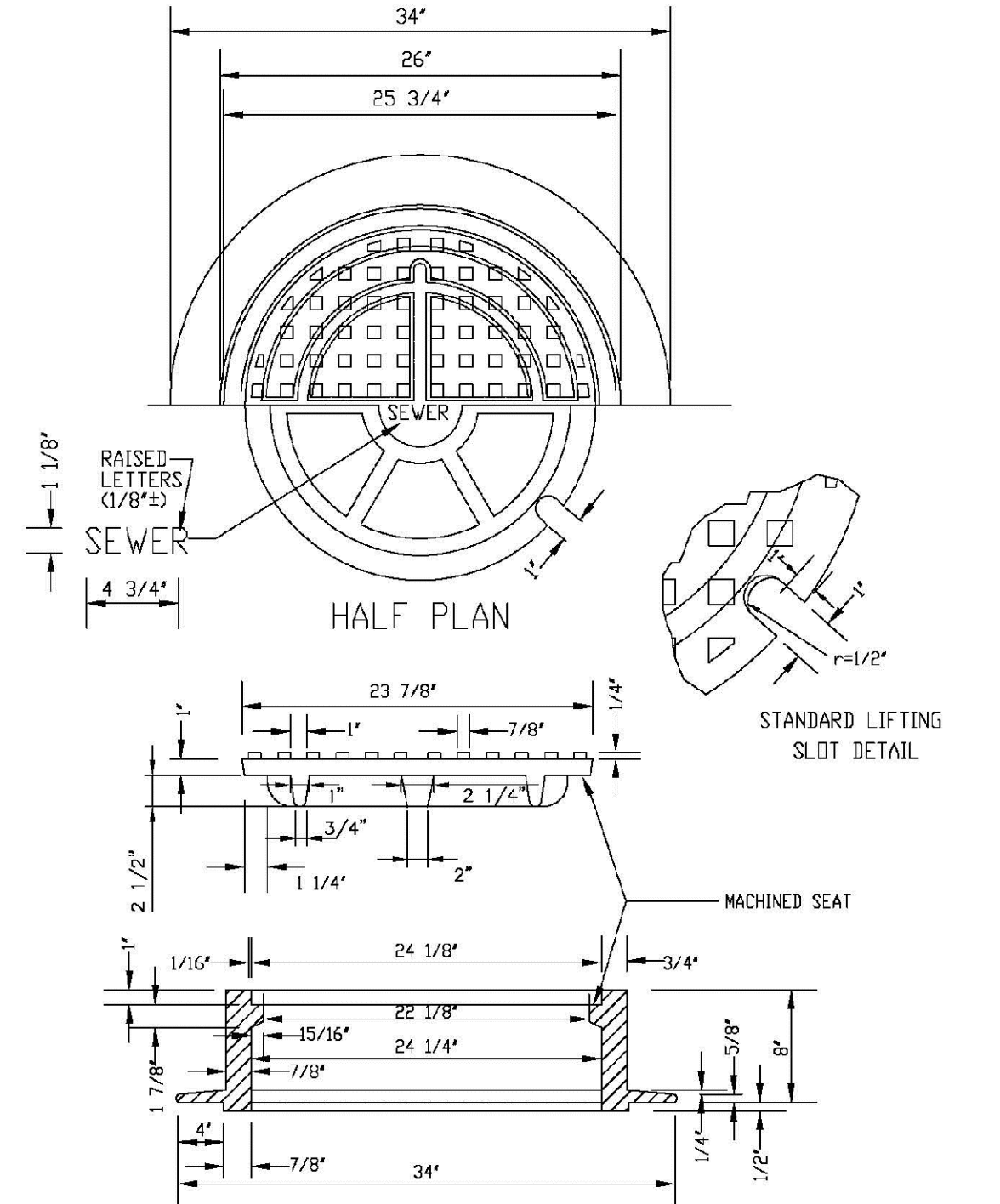


## NOTES:

1. Vlt 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.

| PARKER WATER & SANITATION DISTRICT |                |  |  |
|------------------------------------|----------------|--|--|
| OUTSIDE DROP MANHOLE CONSTRUCTION  |                |  |  |
| SCALE: NONE                        | DATE: 2/96     |  |  |
| APPROVED: PVR                      | 01/16<br>10/16 |  |  |
| DIRECTOR OF ENGINEERING            |                |  |  |

SHEET 53.8



## NOTE:

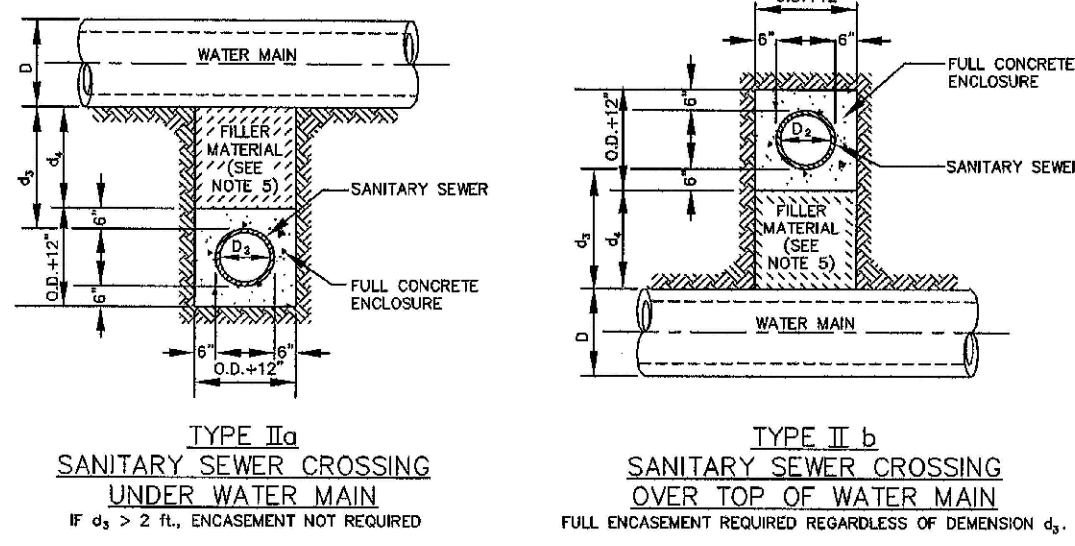
1. Casting Specifications: ASTM A-48 With A Minimum Tensile Strength Of 25 KSI (Class 25)
2. All Casting To Be Dipped in Asphalt Base Paint (Or Approved Equal).
3. No other manhole lids will be accepted without prior approval from the District Engineer.

| PARKER WATER & SANITATION DISTRICT |                |  |  |
|------------------------------------|----------------|--|--|
| 24" DIAMETER RING AND COVER        |                |  |  |
| SCALE: NONE                        | DATE: 2/96     |  |  |
| APPROVED: PVR                      | 01/16<br>10/16 |  |  |
| DIRECTOR OF ENGINEERING            |                |  |  |

SHEET 53.9



N:\PROJECTS\BSS RANCH\ENGINEERING\DRAWINGS\SET\MULTIFAMILY\CD\SF HP PARKER WATER AND SANITATION\SANITARY SEWER DETAILS.DWG, BRIANW, 9/26/2018 12:27 PM



TYPE II  
CONCRETE ENCASEMENT FOR SANITARY SEWERS  
CROSSING OVER OR UNDER WATER MAIN

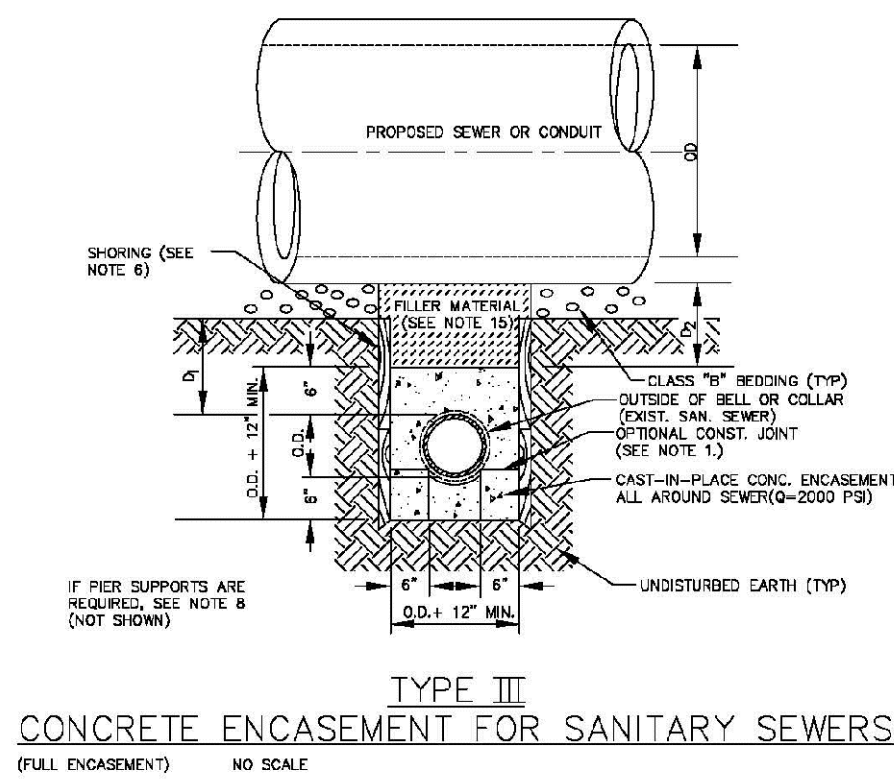
GENERAL NOTES FOR TYPE I, II & III ENCASEMENT

- CONCRETE TO BE CAST AGAINST UNDISTURBED SOIL OR SHORING. IF OPTIONAL CONSTRUCTION JOINT IS USED & BOTTOM HALF OF ENCASEMENT IS POURED SEPARATELY, A ONE INCH LAYER OF SAND OR MORTAR SHALL BE PLACED BETWEEN BOTTOM OF SANITARY SEWER AND TOP OF CONCRETE.
- LENGTH OF ENCASEMENT FOR:  
(a) TYPE I & II ENCASEMENT SHALL EXTEND FULL TRENCH WIDTH EXCAVATED FOR PROPOSED SEWER OR CONDUIT.  
(b) TYPE II ENCASEMENT SHALL EXTEND AT LEAST 10 FEET EACH SIDE OF WATER MAIN.
- UNLESS OTHERWISE NOTED ON PLAN/PROFILE DRAWINGS, TYPE I, II & III ENCASEMENTS NEED NOT BE REINFORCED. REINFORCEMENT, IF REQUIRED, SHALL BE SPECIFIED AND DETAILED SEPARATELY ON PLAN & PROFILE DRAWINGS.
- TYPE I, II OR III ENCASEMENTS ARE REQUIRED UNDER FOLLOWING CONDITIONS:  
(a) TYPE I OR TYPE II IF  $d_s \leq 18"$  ( $d_s \leq 12"$  EXCEPT FOR SANITARY SEWER CROSSING OVER OR UNDER WATER MAINS).
- WATER MAINS AND  $d_s \leq 24"$  ( $d_s \leq 18"$ ).
- TYPE II IS REQUIRED FOR SANITARY SEWERS CROSSING OVER TOP OF WATER MAINS, REGARDLESS OF DIMENSION  $d_s$ .
- EXCEPT FOR UNUSUAL CIRCUMSTANCES, WATER MAIN CROSSINGS, OR WHERE UNSTABLE SOIL CONDITIONS ARE ENCOUNTERED, TYPE I ENCASEMENT WILL NORMALLY BE SATISFACTORY.
- IF THE SANITARY SEWER IS REPLACED OR CONSTRUCTED OF DUCTILE IRON PIPE (AWWA C-150 OR C-151), CONCRETE ENCASEMENT MAY NOT BE REQUIRED.
- FILLER MATERIAL BETWEEN CONDUITS TO BE:  
(a) APPROVED COMPRESSIBLE MATERIAL SUCH AS STYROFOAM, ETC IF  $d_s \leq 4"$  &  $d_s \leq 12"$ .  
(b) COMPACTED CLASS "B" BEDDING IF  $d_s \leq 4"$  &  $d_s > 12"$  (IF  $d_s > 12"$  FOR TYPE II ENCASEMENT POUR CONCRETE ON UNDISTURBED SOIL).
- SHORING OR SHEETING, IF USED, TO BE CUT OFF AT TOP OF ENCASEMENT.
- THESE ENCASEMENT DETAILS MAY ALSO BE APPLICABLE FOR CONDUITS OTHER THAN STORM OR SANITARY SEWER INSTALLATIONS.
- IN CERTAIN SITUATIONS WHERE CONDUIT DIAMETER "D" IS EXTREMELY LARGE, PIPE SUPPORTS ON EACH SIDE OF SANITARY SEWER MAY ALSO BE REQUIRED. IF REQUIRED, SUPPORTS SHALL BE SPECIFIED AND DETAILED SEPARATELY ON PLAN AND PROFILE DRAWINGS.

|                                       |                      |
|---------------------------------------|----------------------|
| PARKER WATER<br>& SANITATION DISTRICT |                      |
| CONCRETE ENCASEMENT<br>TYPE II        |                      |
| SCALE: NONE                           | DATE: 2/98           |
| APPROVED: JFN                         | 5/98<br>4/01<br>1/08 |
| DISTRICT ENGINEER                     |                      |

2008 REVISION

SHEET 7



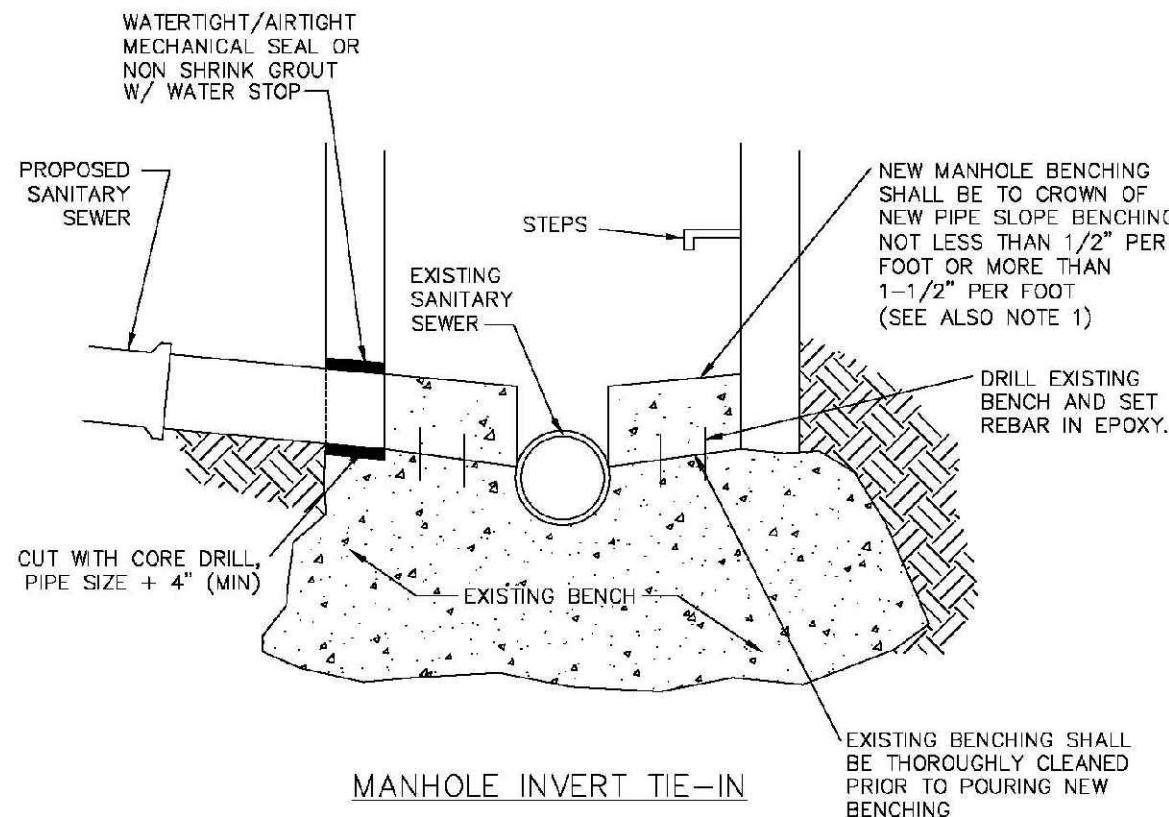
GENERAL NOTES FOR TYPE I, II & III ENCASEMENT

- CONCRETE TO BE CAST AGAINST UNDISTURBED SOIL OR SHORING. IF OPTIONAL CONSTRUCTION JOINT IS USED & BOTTOM HALF OF ENCASEMENT IS POURED SEPARATELY, A ONE INCH LAYER OF SAND OR MORTAR SHALL BE PLACED BETWEEN BOTTOM OF SANITARY SEWER AND TOP OF CONCRETE.
- LENGTH OF ENCASEMENT FOR:  
(a) TYPE I & II ENCASEMENT SHALL EXTEND FULL TRENCH WIDTH EXCAVATED FOR PROPOSED SEWER OR CONDUIT.  
(b) TYPE II ENCASEMENT SHALL EXTEND AT LEAST 10 FEET EACH SIDE OF WATER MAIN.
- UNLESS OTHERWISE NOTED ON PLAN/PROFILE DRAWINGS, TYPE I, II & III ENCASEMENTS NEED NOT BE REINFORCED. REINFORCEMENT, IF REQUIRED, TO BE SPECIFIED AND DETAILED SEPARATELY ON PLAN & PROFILE DRAWINGS.
- TYPE I, II OR III ENCASEMENTS ARE REQUIRED UNDER FOLLOWING CONDITIONS:  
(a) TYPE I OR TYPE II IF  $d_s \leq 18"$  ( $d_s \leq 12"$  EXCEPT FOR SANITARY SEWER CROSSING OVER OR UNDER WATER MAINS).
- WATER MAINS AND  $d_s \leq 24"$  ( $d_s \leq 18"$ ).
- TYPE II IS REQUIRED FOR SANITARY SEWERS CROSSING OVER TOP OF WATER MAINS, REGARDLESS OF DIMENSION  $d_s$ .
- EXCEPT FOR UNUSUAL CIRCUMSTANCES, WATER MAIN CROSSINGS, OR WHERE UNSTABLE SOIL CONDITIONS ARE ENCOUNTERED, TYPE I ENCASEMENT WILL NORMALLY BE SATISFACTORY.
- IF THE SANITARY SEWER IS REPLACED OR CONSTRUCTED OF DUCTILE IRON PIPE (AWWA C-150 OR C-151), CONCRETE ENCASEMENT MAY NOT BE REQUIRED.
- FILLER MATERIAL BETWEEN CONDUITS TO BE:  
(a) APPROVED COMPRESSIBLE MATERIAL SUCH AS STYROFOAM, ETC IF  $d_s \leq 4"$  &  $d_s \leq 12"$ .  
(b) COMPACTED CLASS "B" BEDDING IF  $d_s \leq 4"$  &  $d_s > 12"$  (IF  $d_s > 12"$  FOR TYPE II ENCASEMENT POUR CONCRETE ON UNDISTURBED SOIL).
- SHORING OR SHEETING, IF USED, TO BE CUT OFF AT TOP OF ENCASEMENT.
- THESE ENCASEMENT DETAILS MAY ALSO BE APPLICABLE FOR CONDUITS OTHER THAN STORM OR SANITARY SEWER INSTALLATIONS.
- IN CERTAIN SITUATIONS WHERE CONDUIT DIAMETER "D" IS EXTREMELY LARGE, PIPE SUPPORTS ON EACH SIDE OF SANITARY SEWER MAY ALSO BE REQUIRED. IF REQUIRED, SUPPORTS SHALL BE SPECIFIED AND DETAILED SEPARATELY ON PLAN AND PROFILE DRAWINGS.
- CONCRETE ENCASED PIPING SHALL BE UNIED WITH FELT LAYER.

|                                       |                       |
|---------------------------------------|-----------------------|
| PARKER WATER<br>& SANITATION DISTRICT |                       |
| CONCRETE ENCASEMENT<br>TYPE III       |                       |
| SCALE: NONE                           | DATE: 2/98            |
| APPROVED: PVR                         | 5/98<br>1/16<br>10/16 |
| DIRECTOR OF ENGINEERING               |                       |

2016 REVISION

SHEET S4.8

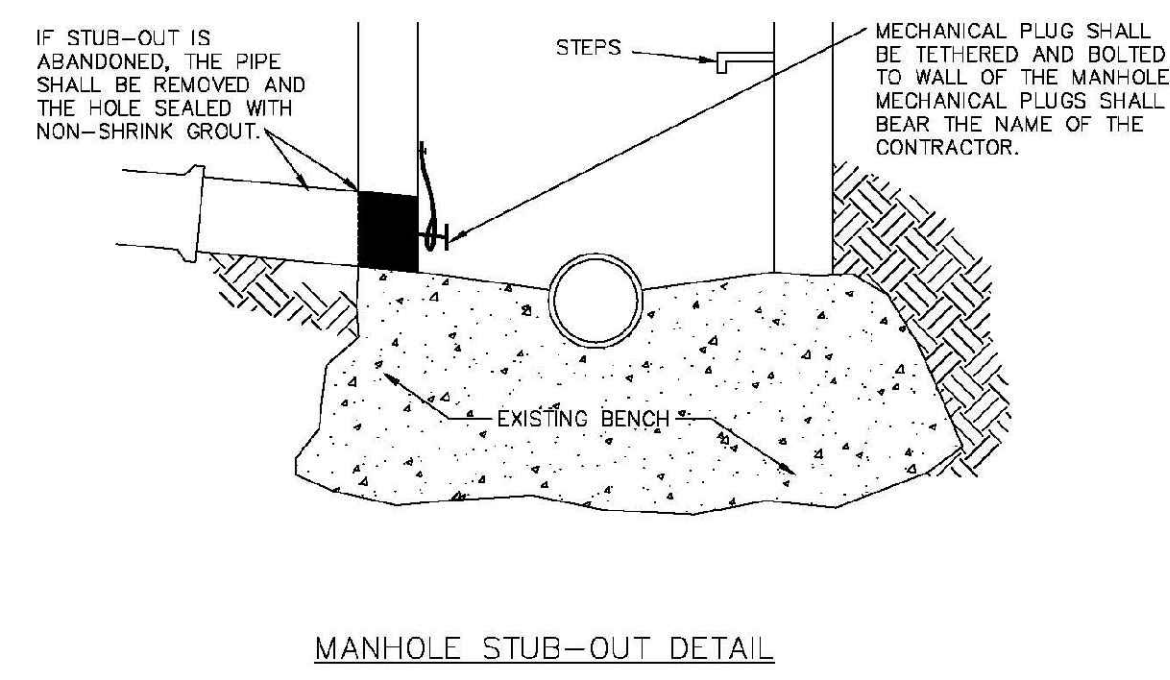


- NOTES
- NEW BENCH SHALL INCLUDE REINFORCEMENT TO CONTROL CONCRETE CRACKING.

|                                       |               |
|---------------------------------------|---------------|
| PARKER WATER<br>& SANITATION DISTRICT |               |
| MANHOLE INVERT<br>TIE-IN DETAIL       |               |
| SCALE: NONE                           | DATE: 2/98    |
| APPROVED: PVR                         | 1/16<br>10/16 |
| DIRECTOR OF ENGINEERING               |               |

2016 REVISION

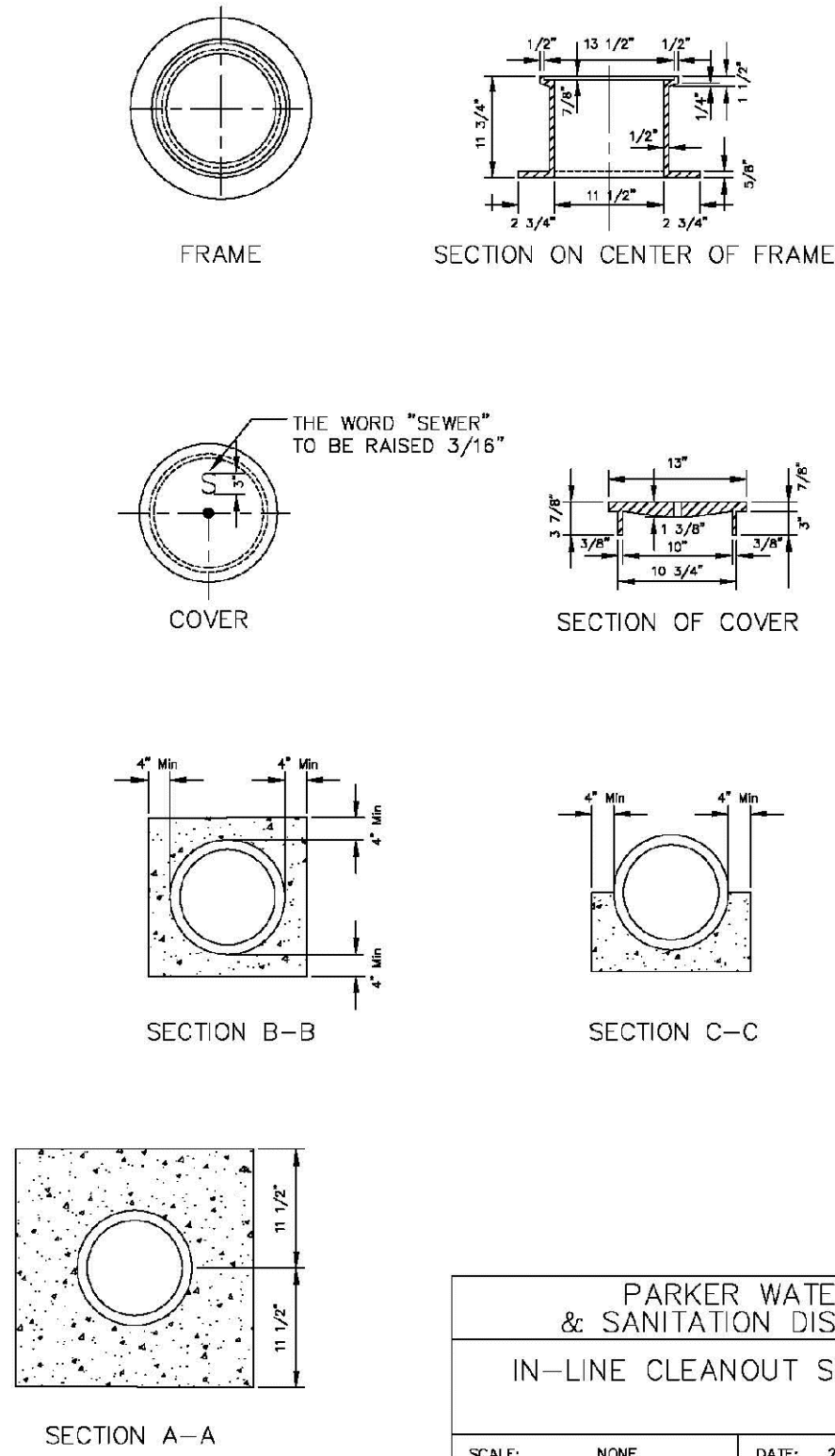
SHEET S4.9



|                                       |               |
|---------------------------------------|---------------|
| PARKER WATER<br>& SANITATION DISTRICT |               |
| MANHOLE STUB-OUT<br>DETAIL            |               |
| SCALE: NONE                           | DATE: 2/98    |
| APPROVED: PVR                         | 1/16<br>10/16 |
| DIRECTOR OF ENGINEERING               |               |

2016 REVISION

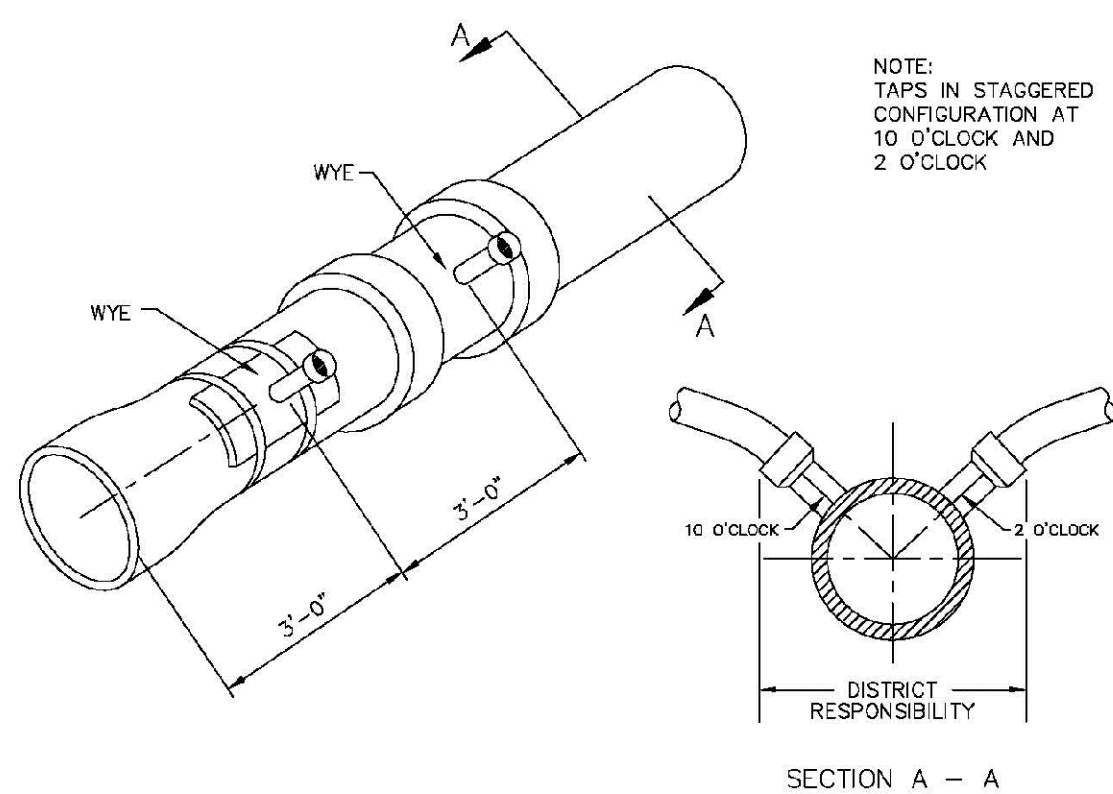
SHEET S4.10



|                                       |                       |
|---------------------------------------|-----------------------|
| PARKER WATER<br>& SANITATION DISTRICT |                       |
| IN-LINE CLEANOUT SECTIONS             |                       |
| SCALE: NONE                           | DATE: 2/98            |
| APPROVED: PVR                         | 2/00<br>1/08<br>10/16 |
| DIRECTOR OF ENGINEERING               |                       |

2016 REVISION

SHEET S4.12

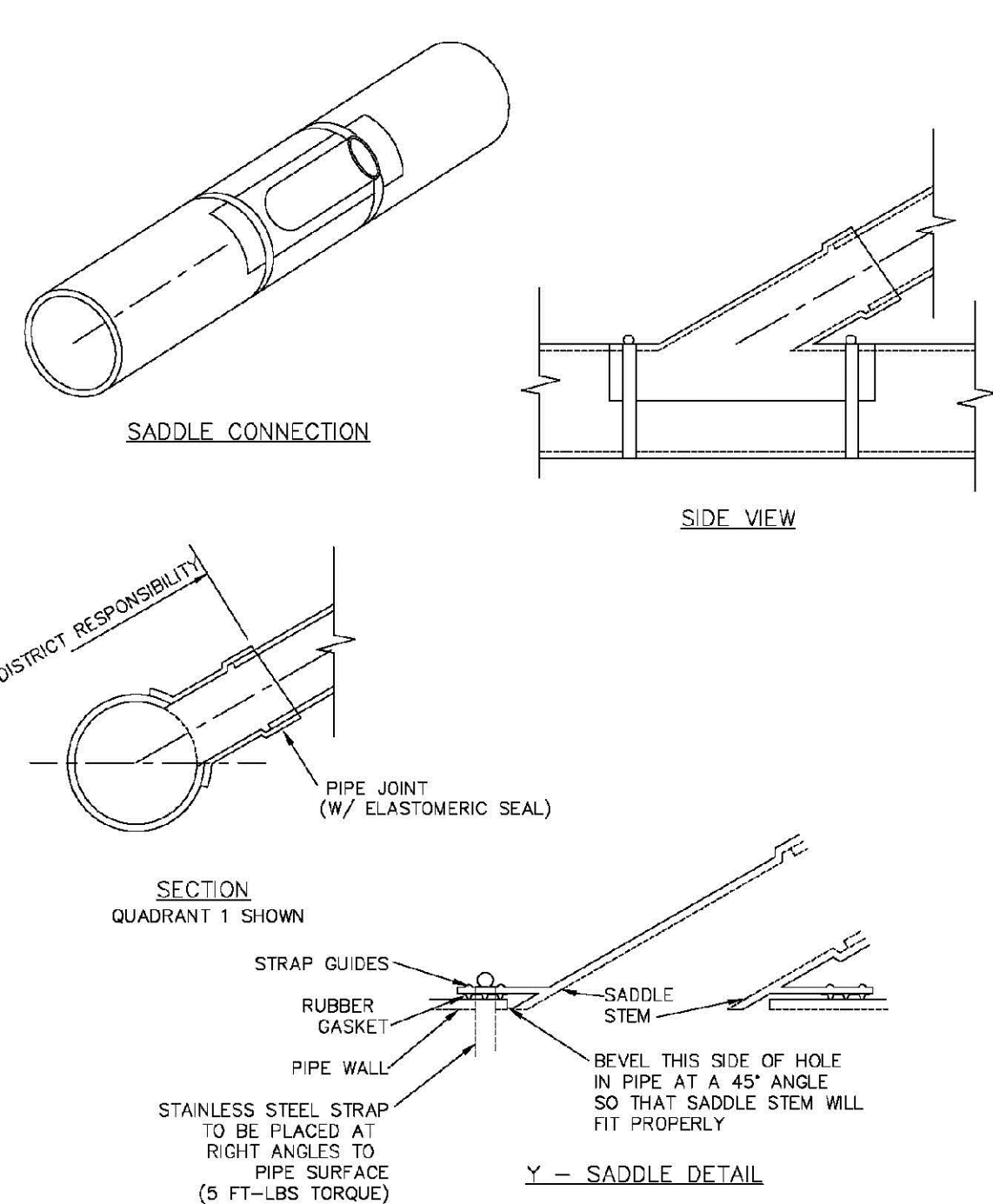


Sewer service connections shall be positioned at either the 2 o'clock or the 10 o'clock position on the circumference of the sewer main. On new installations, tee or wye fittings shall be used. When tapping into existing sewer main, a saddle connection and approved coring method shall be used. The minimum distance between service connections made along the pipe shall be 3 feet. The minimum distance from either the bell or spigot end of a pipe shall be 3 feet. The minimum distance from the center of a manhole to a service connection shall be either 7 feet or the transition point from the manhole trench to the normal pipe trench, whichever is greater. A maximum of 4 sewer service connections shall be allowed per 20 foot length of pipe. In all cases, a specific soils investigation should be conducted to assure that the external loading will be within allowable limits regardless of the number of taps involved.

|                                       |                               |
|---------------------------------------|-------------------------------|
| PARKER WATER<br>& SANITATION DISTRICT |                               |
| DOMESTIC SEWER<br>TAPPING DETAIL      |                               |
| SCALE: NONE                           | DATE: 2/98                    |
| APPROVED: PVR                         | 4/01<br>1/08<br>1/16<br>10/16 |
| DIRECTOR OF ENGINEERING               |                               |

2016 REVISION

SHEET S4.13



- NOTES:
- SADDLE FITTINGS TO BE PER ASTM D3034.
  - CONNECTION SHALL BE Y - SADDLE WITH TWO BONDS

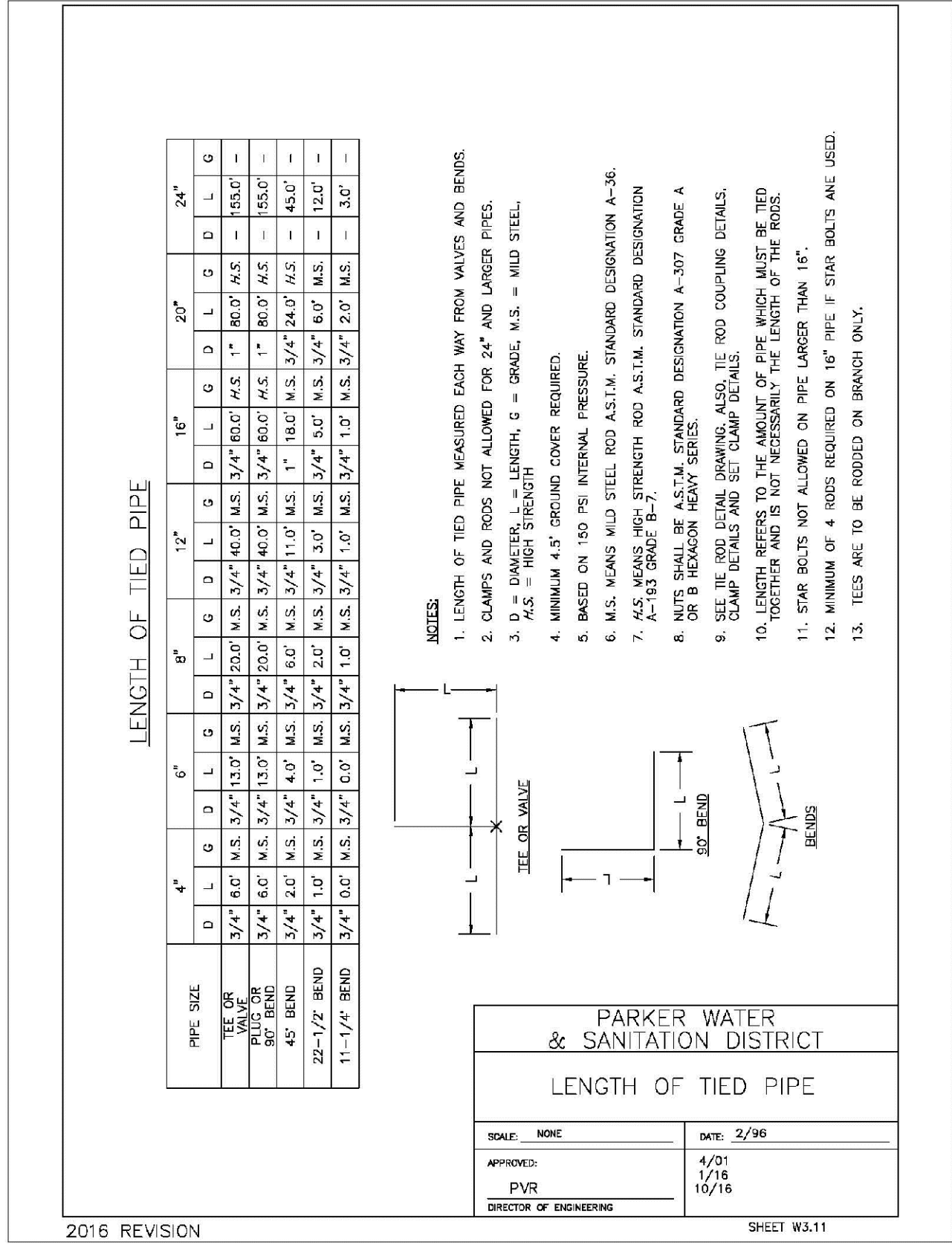
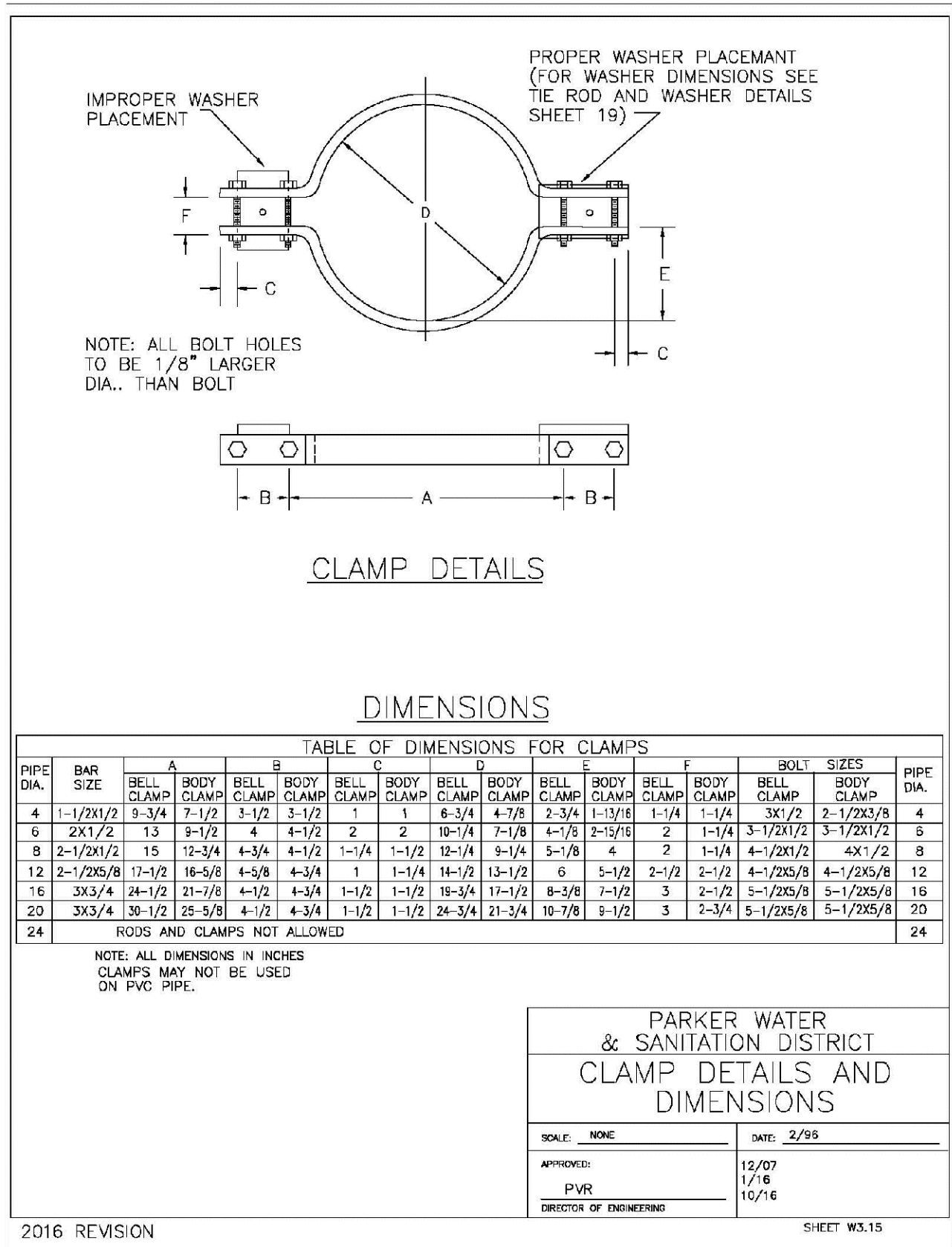
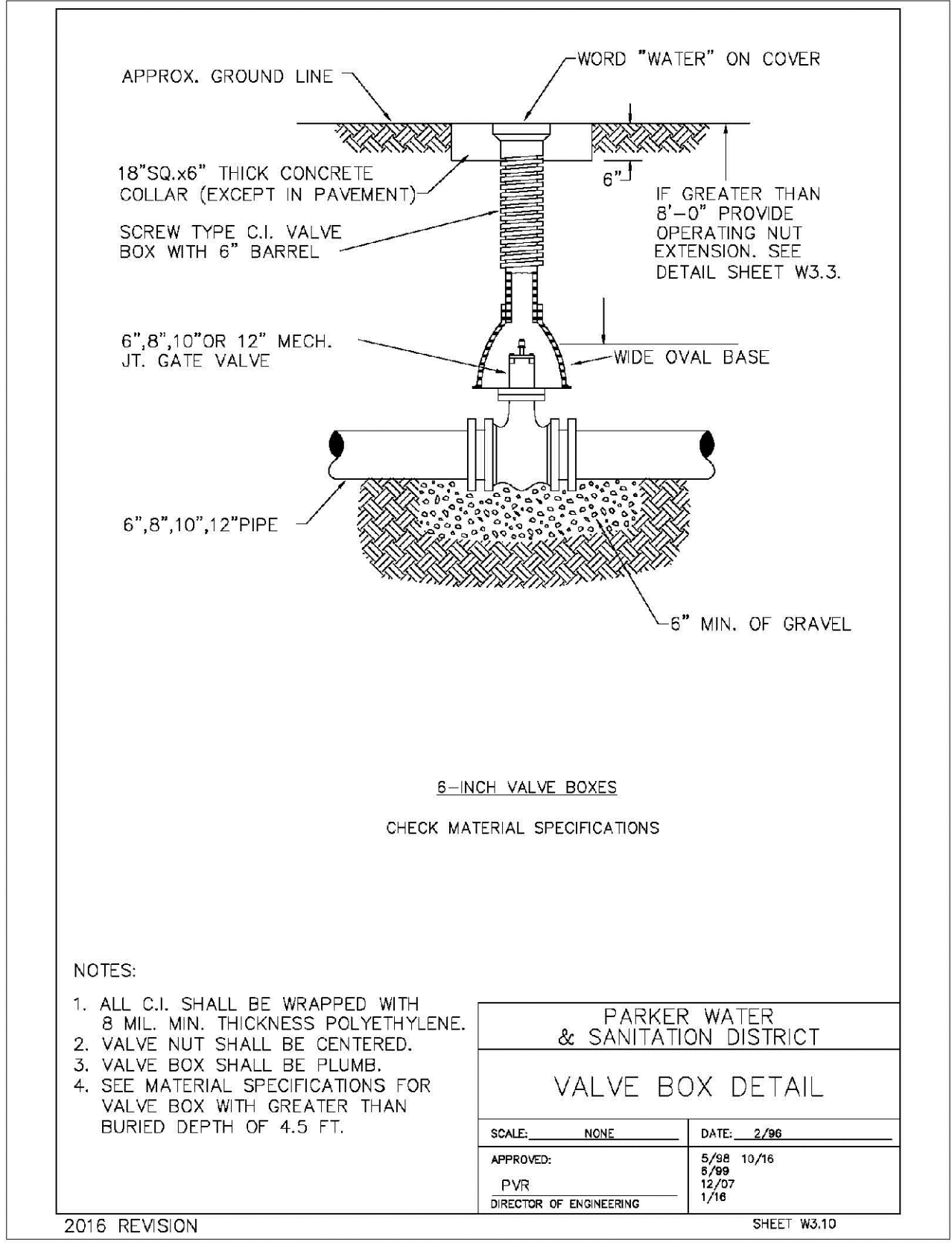
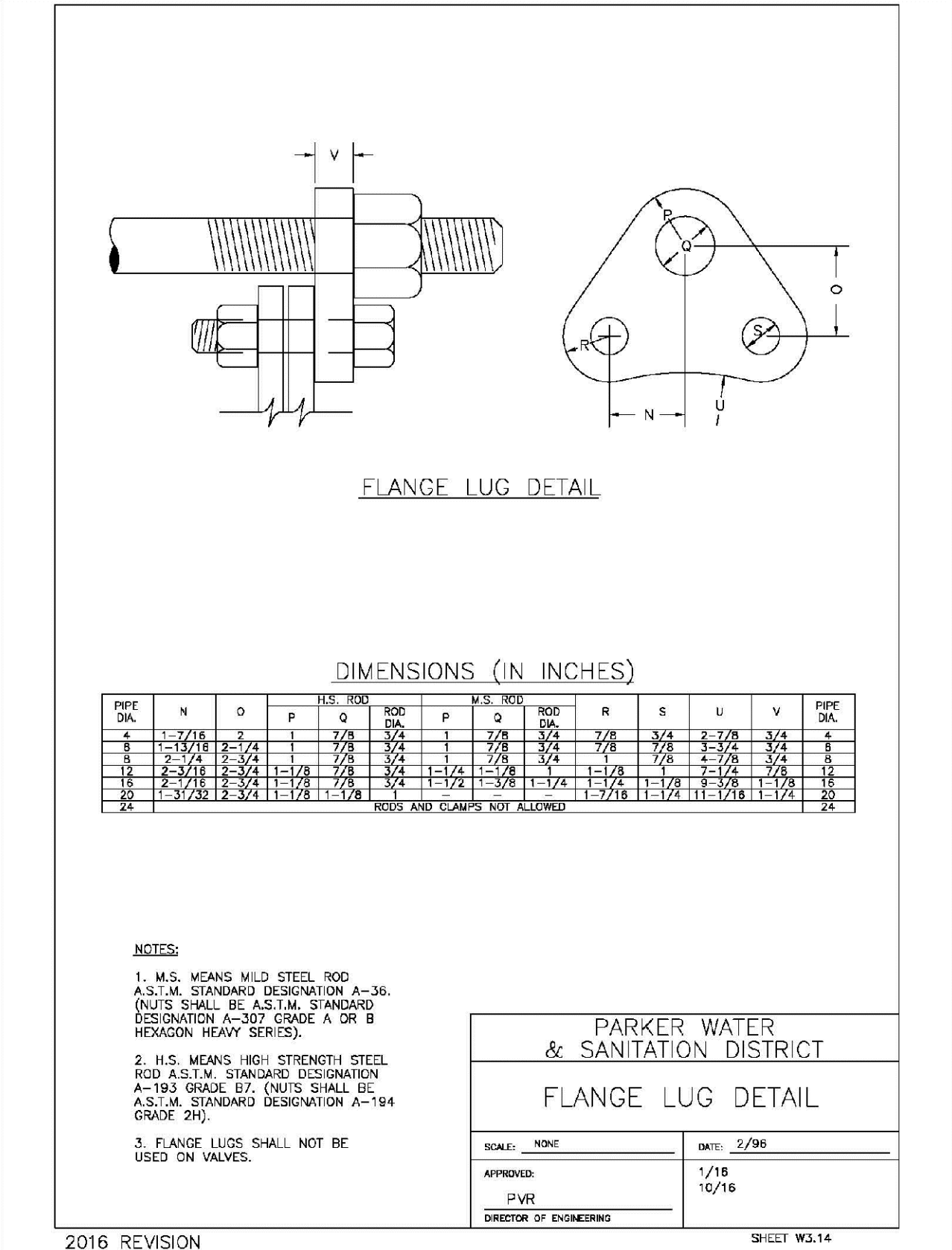
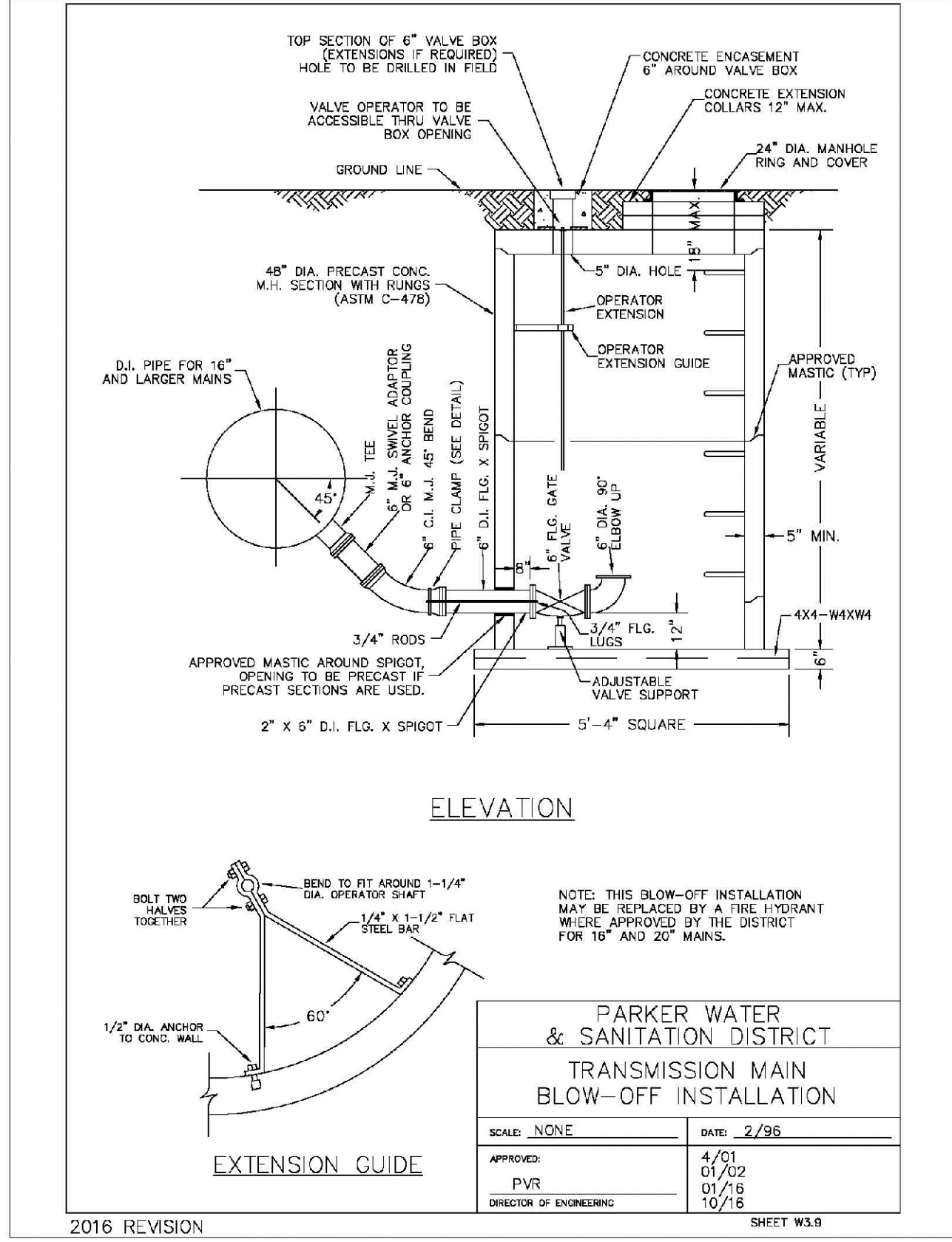
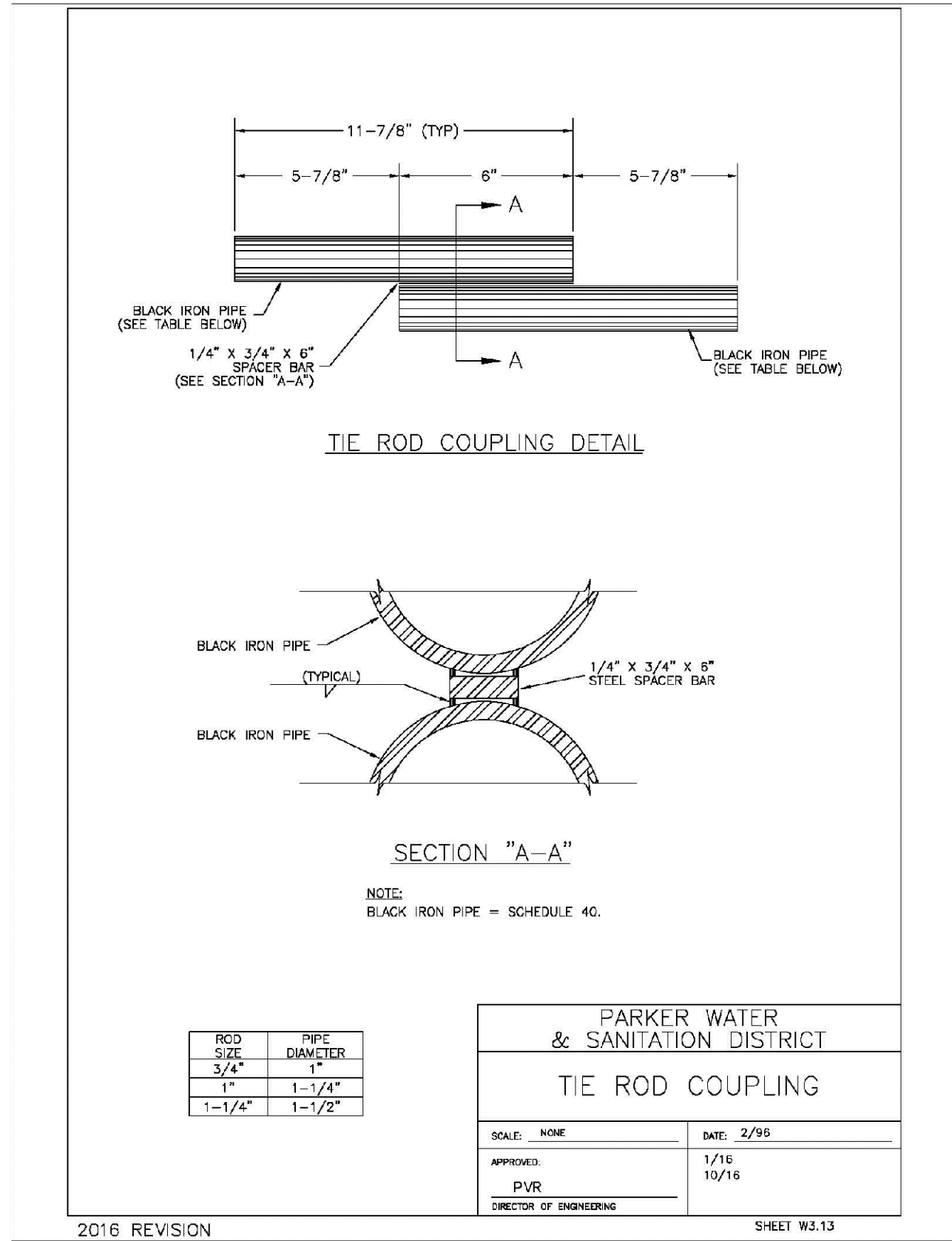
|                                       |               |
|---------------------------------------|---------------|
| PARKER WATER<br>& SANITATION DISTRICT |               |
| P.V.C. SADDLE<br>CONNECTION DETAIL    |               |
| SCALE: NONE                           | DATE: 2/98    |
| APPROVED: PVR                         | 1/16<br>10/16 |
| DIRECTOR OF ENGINEERING               |               |

2016 REVISION

SHEET S4.14









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