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Owner: New Horizon Academy... Architect: Short Elliott Hendrickson, Inc... Landscape Architect: Short Elliott Hendrickson, Inc... Civil Engineer: Short Elliott Hendrickson, Inc... Structural Engineer: Short Elliott Hendrickson, Inc

Mechanical Engineer

Electrical Engineer

NEW HORIZON ACADEMY - DOUGLAS XXX FILING, NO. X PARKER, CO

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SEH Project: NHOC 156217 Checked By: DRH Drawn By: AMP

Project Status: TOWN REVIEW Issue Date: 8/26/2020

Revision Issue: Rev. # Description Date

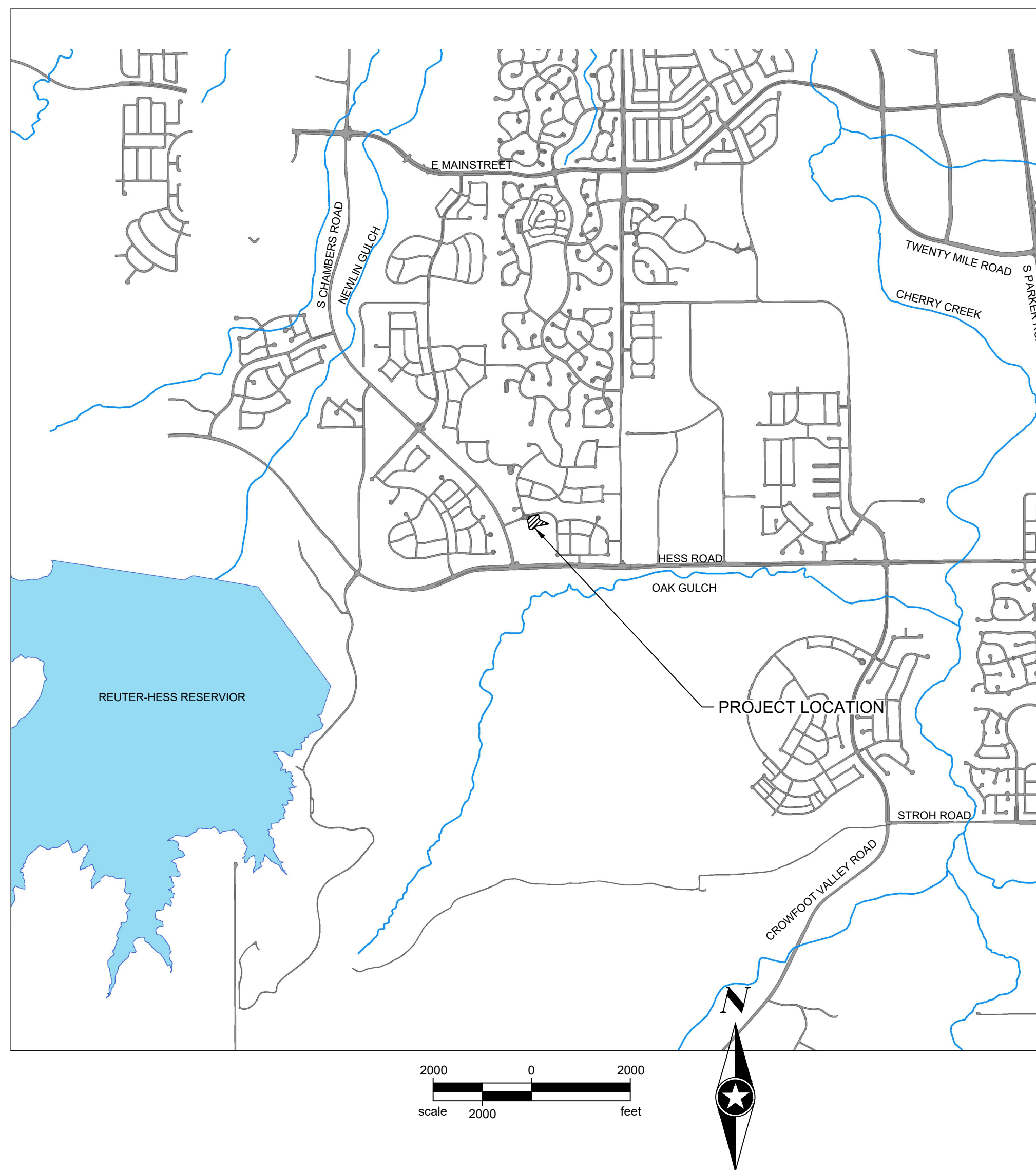
COVER SHEET

C0.0

DOUGLAS 234, FILING NO. X

A PORTION OF THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 29, TOWNSHIP 6 SOUTH, RANGE 66 WEST OF THE 6TH PRINCIPAL MERIDIAN TOWN OF PARKER, COUNTY OF DOUGLAS, STATE OF COLORADO X.X ACRES

WATER & SEWER CONSTRUCTION PLANS FOR NEW HORIZON ACADEMY



PLAN SHEET INDEX table with columns SHEET NUMBER and SHEET TITLE. Rows include C0.0 COVER SHEET, C0.1 GENERAL NOTES, C1.0 OVERALL UTILITY PLAN, C1.1 SANITARY SERVICE PLAN & PROFILE, C1.2 SANITARY SEWER DETAILS, C1.3 WATER DETAILS, C1.4 WATER DETAILS, C1.5 WATER DETAILS.

CONTACT LIST

PARKER PUBLIC WORKS 20120 E MAINSTREET PARKER, CO 80138 STREETS - MIKE WAUGH STORM WATER - JACOB JAMES 303-840-9546

TOWN OF PARKER POLICE DEPARTMENT 196000 E PARKER SQUARE DR. PARKER, CO 80134 303-841-9800

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

FIRE & LIFE SAFETY RANDALL CAPRA 20120 E. MAINSTREET CENTENNIAL, CO 80138 303-205-3169

UTILITY NOTIFICATION COMPANY OF COLORADO 2801 S. YOUNGFIELD ST. SUITE 301 GOLDEN, CO 80401 LOCAL CALLS 800-922-1987 (811)

XCEL ENERGY MICHELLE O'NAN 5909 E. 38TH AVE. DENVER, CO 80207 303-329-1618

COMCAST KEVIN YOUNG 6859 S. TUCSON WAY ENGLEWOOD, CO 80112 720-490-3867

CENTURY LINK WILLIAM BENSON 9750 E. COSTILLA AVE. ENGLEWOOD, CO 80220 303-792-6069

COLORADO DEPARTMENT OF HEALTH 4210 E. 11TH AVE. DENVER, CO 303-320-8333

INTERMOUNTAIN RURAL ELECTRIC ASSOCIATION JASON JENKS 5496 NORTH US HWY 85 P.O. BOX DRAWER A SEDALIA, CO 80135 303-688-3100

URBAN DRAINAGE FLOOD CONTROL DISTRICT (UDFCD) MIKE SARMENTO 2480 W 26TH AVE. SUITE 156-B DENVER, CO 80211 303-455-6277

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 TOWN OF PARKER, COMMUNITY DEVELOPMENT DEPARTMENT.

FIRE CODE OFFICIAL OR DESIGNATED REPRESENTATIVE DATE

WATER/SANITARY SEWER APPROVAL

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

REVIEWED FOR CONFORMANCE TO PARKER WATER AND SANITATION DISTRICT STANDARDS.

BY: (DISTRICT REPRESENTATIVE)

DATE SIGNED

APPROVED FOR CONSTRUCTION: PARKER WATER AND SANITATION DISTRICT

BY: (DISTRICT ENGINEER)

DATE SIGNED

EXISTING

- RIGHT OF WAY, PERMANENT EASEMENT, PROPERTY LINE, HORIZONTAL CONTROL POINT, BENCHMARK, SURVEY MARKER, SOIL BORING, SANITARY SEWER AND MANHOLE, FORCE MAIN AND LIFT STATION, SANITARY SEWER SERVICE & CLEANOUT, WATER MAIN, HYDRANT, VALVE AND MANHOLE, WATER SERVICE AND CURB STOP BOX, STORM SEWER, MANHOLE AND CATCH BASIN, CULVERT AND APRON ENDWALL, GAS MAIN, VALVE, VENT AND METER, HANDHOLE, BURIED FIBER OPTIC CABLE AND MANHOLE, BURIED PHONE CABLE, PEDESTAL AND MANHOLE, BURIED TV CABLE, PEDESTAL AND MANHOLE, BURIED ELECTRIC CABLE, PEDESTAL, MANHOLE, TRANSFORMER AND METER, OVERHEAD WIRE, POLE AND GUY WIRE, LIGHT POLE, TRAFFIC SIGNAL, STREET NAME SIGN, SIGN (NON STREET NAME), RAILROAD TRACKS, DECIDUOUS AND CONIFEROUS TREE, BUSH / SHRUB AND STUMP, EDGE OF WOODED AREA, WETLAND, BUILDING, FENCE (UNIDENTIFIED), BARBED WIRE FENCE, CHAIN LINK FENCE, ELECTRIC WIRE FENCE, WOOD FENCE, WOVEN WIRE FENCE, PLATE BEAM GUARDRAIL, CABLE GUARDRAIL, POST / BOLLARD, RETAINING WALL

PROPOSED

- STREET CENTERLINE, RIGHT-OF-WAY, PERMANENT EASEMENT, TEMPORARY EASEMENT, CONSTRUCTION LIMITS, SANITARY SEWER, BULKHEAD AND MANHOLE, FORCE MAIN, SANITARY SERVICE AND CLEANOUT, WATER MAIN, TEE, HYDRANT, BULKHEAD AND VALVE, WATER VALVE MANHOLE, REDUCER, BEND AND CROSS, WATER SERVICE AND CURB STOP BOX, STORM SEWER, MANHOLE AND CATCH BASIN, CULVERT AND APRON ENDWALL, DRAIN TILE, DITCH / SWALE, RIPRAP, STREET NAME SIGN, SIGN (NON STREET NAME), RETAINING WALL

SOIL PREPARATION AND PAVEMENT DESIGN NOTE

SOIL PREPARATION AND PAVEMENT DESIGN SHALL BE PER RECOMMENDATIONS FROM A GEOTECHNICAL REPORT PREPARED FOR THIS SITE AS FOLLOWS.

GEOTECHNICAL ENGINEER: ROCKY MOUNTAIN GROUP. PROJECT NO. 167366

THE CONTRACTOR MUST FULLY REVIEW THIS REPORT AND BRING ANY CONFLICTS BETWEEN IT AND THE CONSTRUCTION PLANS AND SPECIFICATIONS TO THE ENGINEER'S ATTENTION PRIOR TO BEGINNING WORK.

BASIS OF BEARINGS:

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

BENCHMARK

BENCHMARK IS BY GPS OBSERVATION NAVD 88. SET SITE BENCHMARK AT NORTHWEST CORNER OF INLET ON CHAMBERS RD. APPROXIMATELY 200'+/- NORTH OF HESS RD.

Save: 8/25/2020 12:31 PM apopp Plot: 8/25/2020 1:14 PM X:\KON\NHOC\1562176-final-dsgn\51-drawings\10-Civil\card.dwg\sheet\Utility_Plans\CO_NHOAC156217_General Utility Notes.dwg

TOWN OF PARKER GENERAL NOTES – CONSTRUCTION

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

TOWN OF PARKER GENERAL NOTES – WATER SYSTEM

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

TOWN OF PARKER GENERAL NOTES – SANITARY SEWER SYSTEM

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



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218.279.3000

Structural Engineer

Mechanical Engineer

Electrical Engineer

New Horizon Academy
NEW HORIZON ACADEMY - DOUGLAS XXX FILING, NO. X
PARKER, CO

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SEH Project	NHOAC 156217
Checked By	DRH
Drawn By	AMP

Project Status	Issue Date
TOWN REVIEW	8/26/2020
-	-
-	-

Revision Issue		
Rev. #	Description	Date

GENERAL NOTES

C0.1

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OVERALL UTILITY PLAN

C1.0

GENERAL UTILITY NOTES

- ALL UTILITIES SHALL BE INSTALLED IN ACCORDANCE WITH THE TOWN OF PARKER STANDARDS AND SPECIFICATIONS.
- CONTRACTOR SHALL VERIFY ALL UTILITY LOCATIONS THROUGH THE COLORADO ONE CALL SERVICE PRIOR TO CONSTRUCTION.
- CALL 3 BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES.
- ANY DEVIATIONS FROM THE LOCATIONS SHOWN ON THE CONSTRUCTION DOCUMENTS SHALL BE REPORTED TO THE DESIGN ENGINEER PRIOR TO CONSTRUCTION.
- CONTRACTOR TO COORDINATE WITH PRIVATE UTILITY PROVIDERS (CABLE TELEVISION, TELEPHONE, GAS, ELECTRIC) REGARDING ROUTING AND SLEEVE REQUIREMENTS PRIOR TO CONSTRUCTION.
- REFER TO ELECTRICAL DRAWINGS FOR ALL ON-SITE ELECTRICAL LINE ROUTING.
- ALL NECESSARY INSPECTIONS AND/OR CERTIFICATIONS REQUIRED BY CODES AND/OR UTILITY SERVICE COMPANIES SHALL BE PERFORMED PRIOR TO SUBSTANTIAL COMPLETION.
- ALL NEW UNDERGROUND FACILITIES, INCLUDING LATERALS UP TO THE BUILDING BEING SERVED, MUST BE ELECTRONICALLY LOCATABLE WHEN INSTALLED.

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TOWN OF PARKER APPROVAL

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

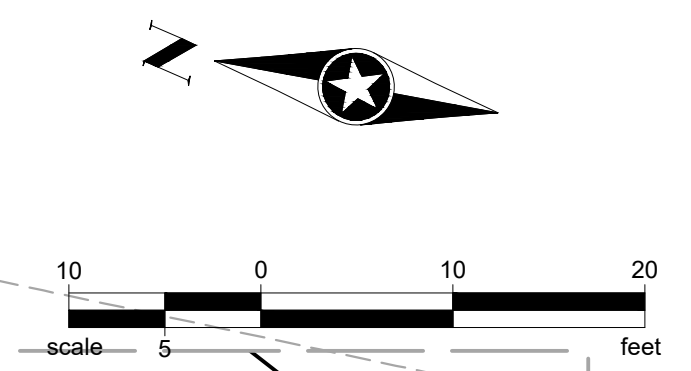
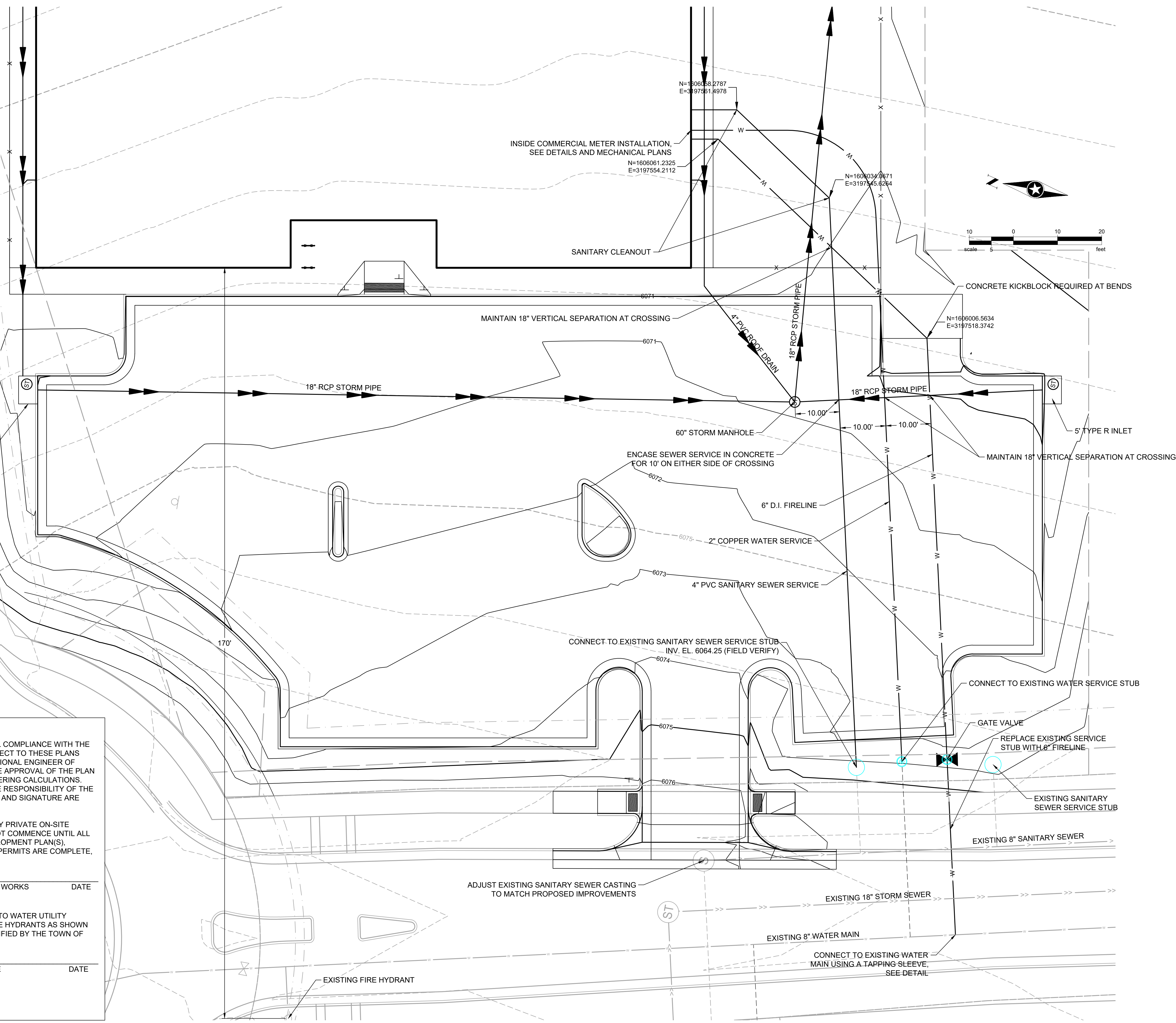
THIS REVIEW DOES NOT CONSTITUTE APPROVAL OF ANY PRIVATE ON-SITE IMPROVEMENTS WHICH MAY BE CONSTRUCTION CANNOT COMMENCE UNTIL ALL REQUIRED DRAINAGE/TRAFFIC REPORT(S), FINAL DEVELOPMENT PLAN(S), SPECIAL REVIEW(S), GRADING PERMIT, AND/OR OTHER PERMITS ARE COMPLETE, APPROVED AND ON FILE WITH THE TOWN OF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

TOWN OF PARKER, DIRECTOR OF ENGINEERING/PUBLIC WORKS DATE

FIRE/LIFE SAFETY 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.

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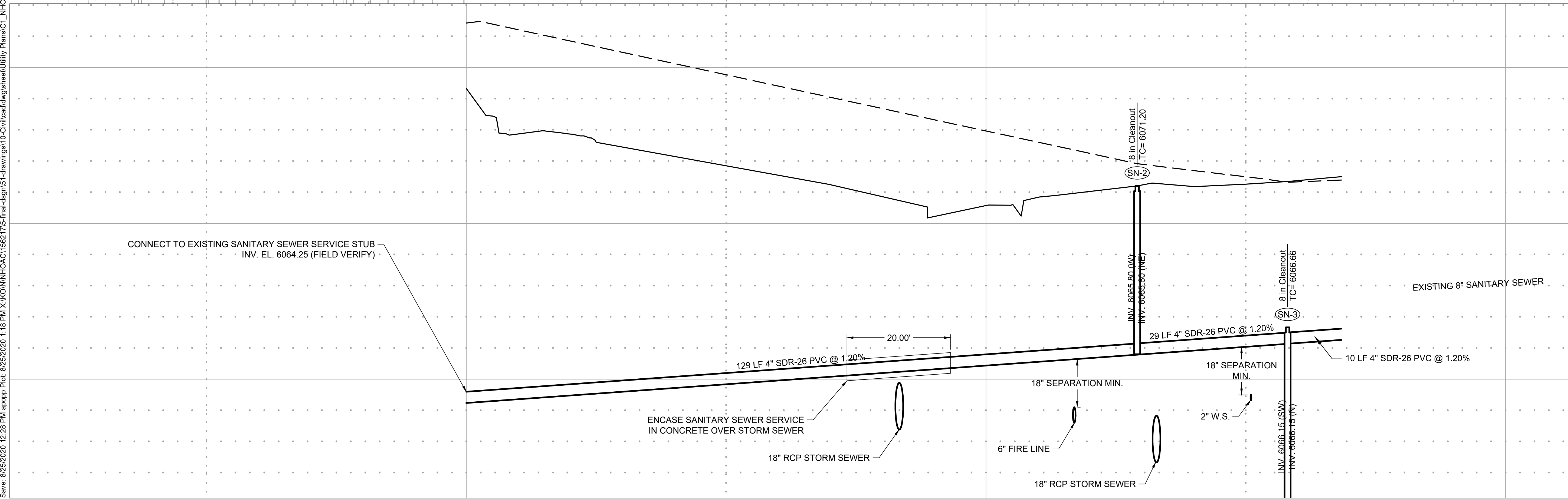
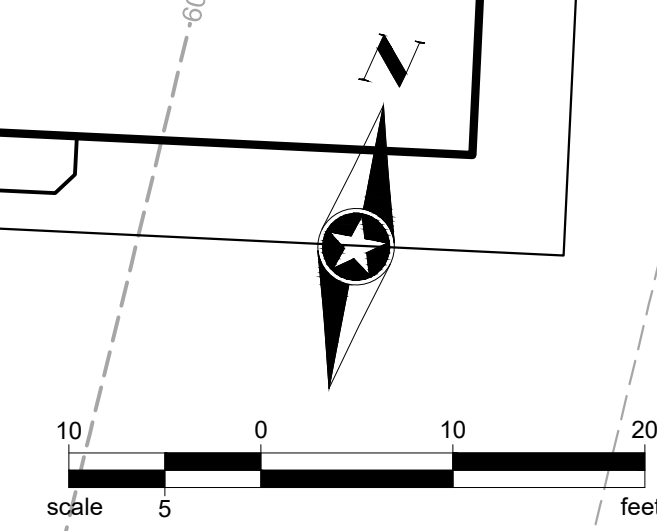
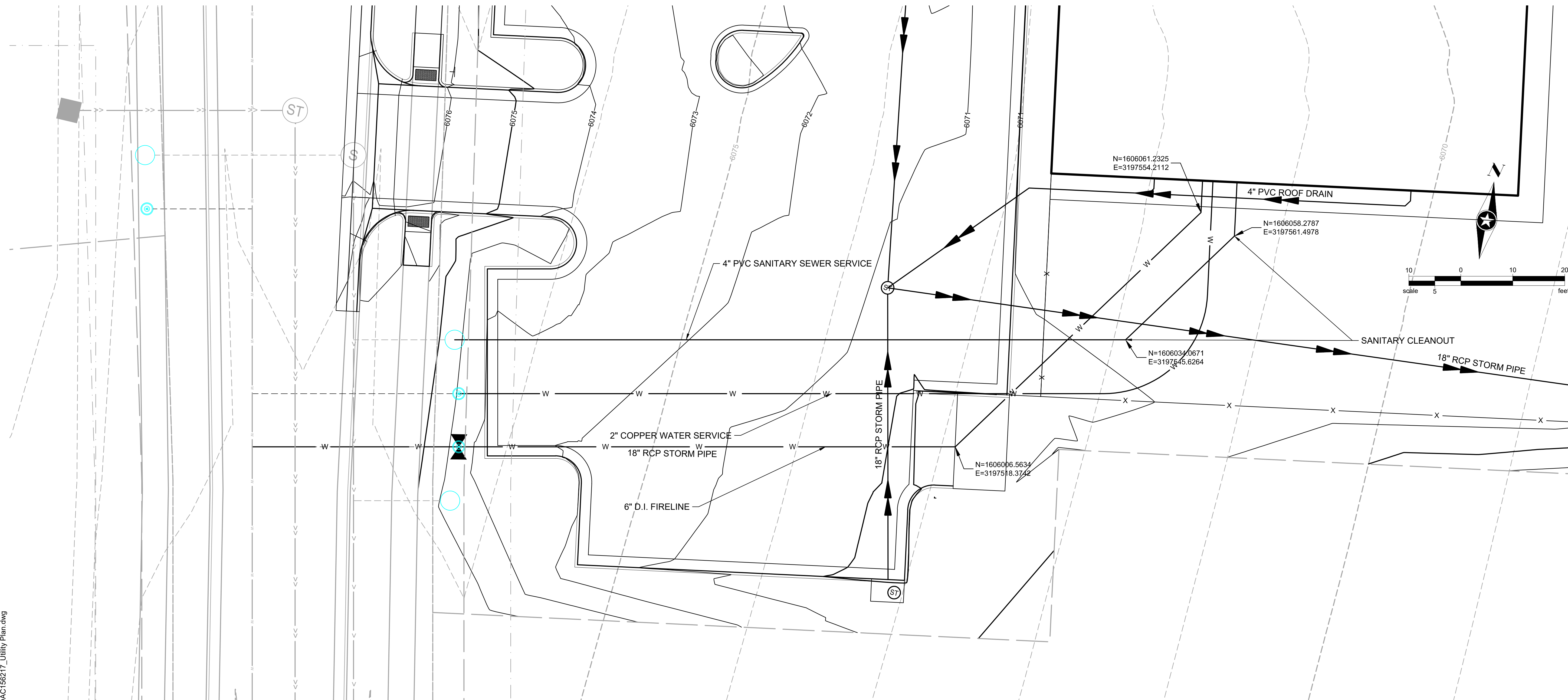
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SANITARY SERVICE PLAN & PROFILE

C1.1

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CONNECT TO EXISTING SANITARY SEWER SERVICE STUB
INV. EL. 6064.25 (FIELD VERIFY)

ENCASE SANITARY SEWER SERVICE
IN CONCRETE OVER STORM SEWER

129 LF 4" SDR-26 PVC @ 1.20%

18" RCP STORM SEWER

18" SEPARATION MIN.

6" FIRE LINE

18" SEPARATION MIN.

2" W.S.

10 LF 4" SDR-26 PVC @ 1.20%

EXISTING 8" SANITARY SEWER

8 in. Cleanout
INV. 6065.80 (W)
TC= 6071.20
(SN-2)

8 in. Cleanout
INV. 6066.15 (W)
TC= 6066.66
(SN-3)

INV. 6065.80 (W)
INV. 6065.80 (W)

INV. 6066.15 (W)
INV. 6066.15 (W)

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Mechanical Engineer

Electrical Engineer

**NEW HORIZON ACADEMY -
DOUGLAS XXX FILING, NO. X
PARKER, CO**

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SEH Project: NHOAC 156217
Checked By: DRH
Drawn By: AMP

Project Status: TOWN REVIEW
Issue Date: 8/26/2020

Revision Issue

SANITARY SEWER DETAILS

INSPECTION POLICY:

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

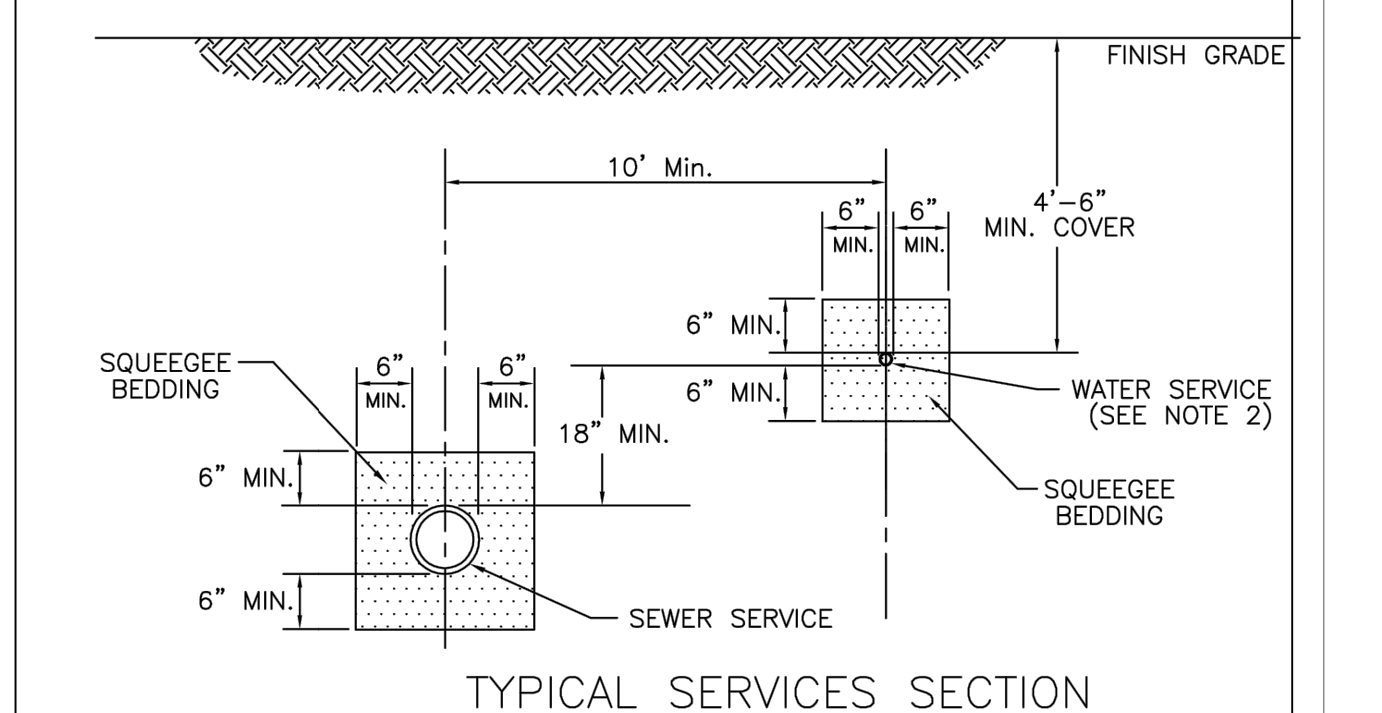
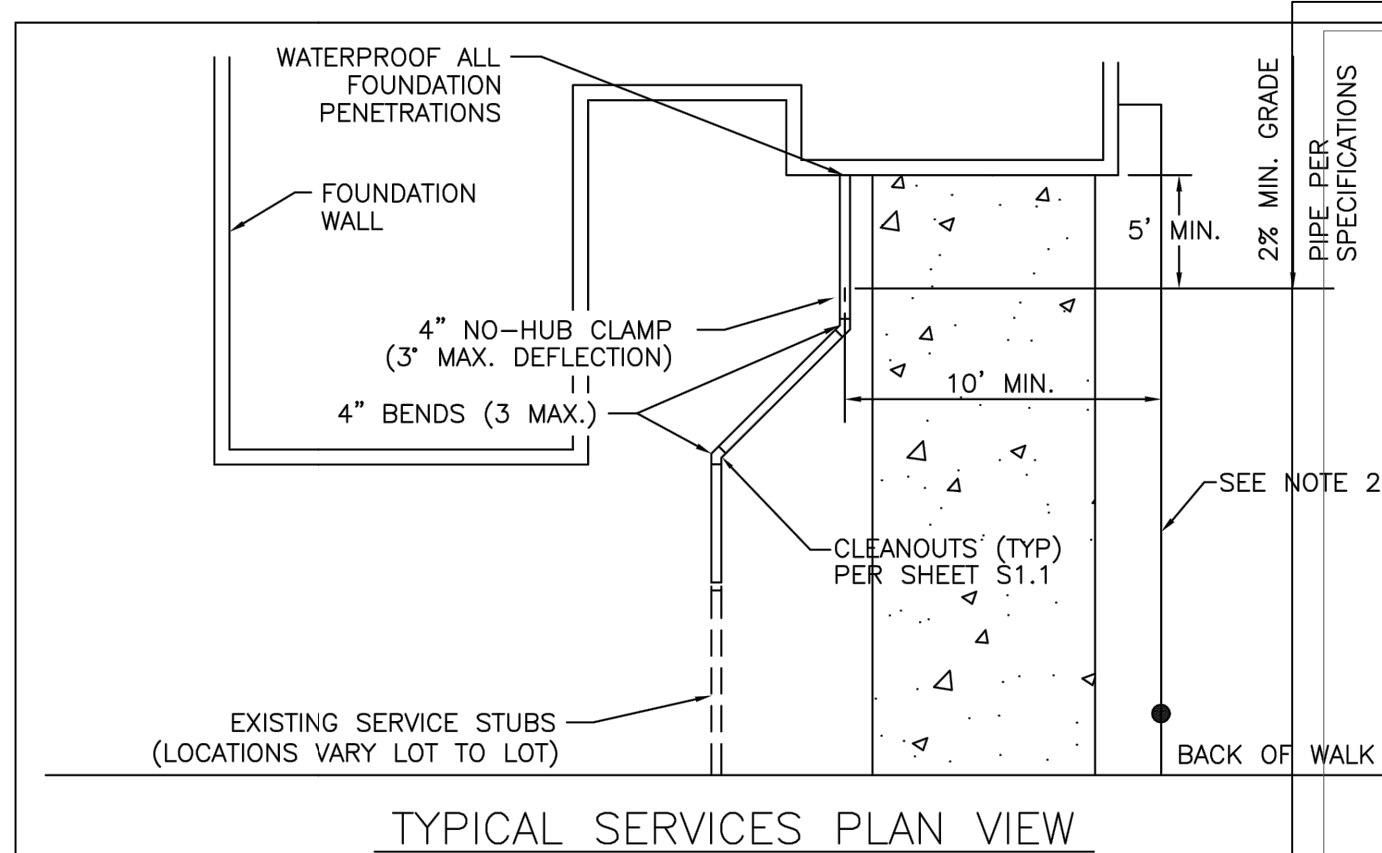
INSTALLATION NOTES:

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

PARKER WATER & SANITATION DISTRICT	
DISTRICT POLICIES & INSTALLATION NOTES FOR SEWER SERVICES	
SCALE: NONE	DATE: 2/96
APPROVED: PVR	01/02 10/16 1/08 1/16
DIRECTOR OF ENGINEERING	

2016 REVISION

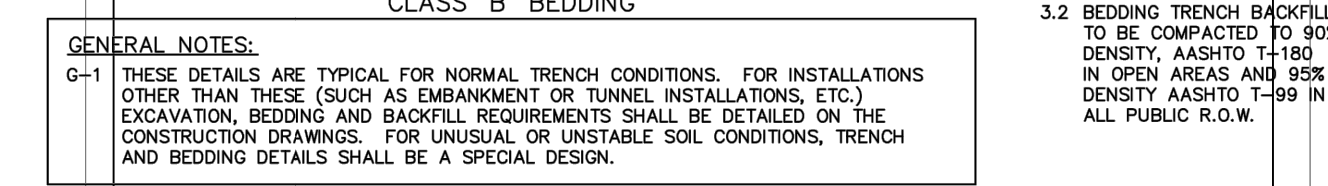
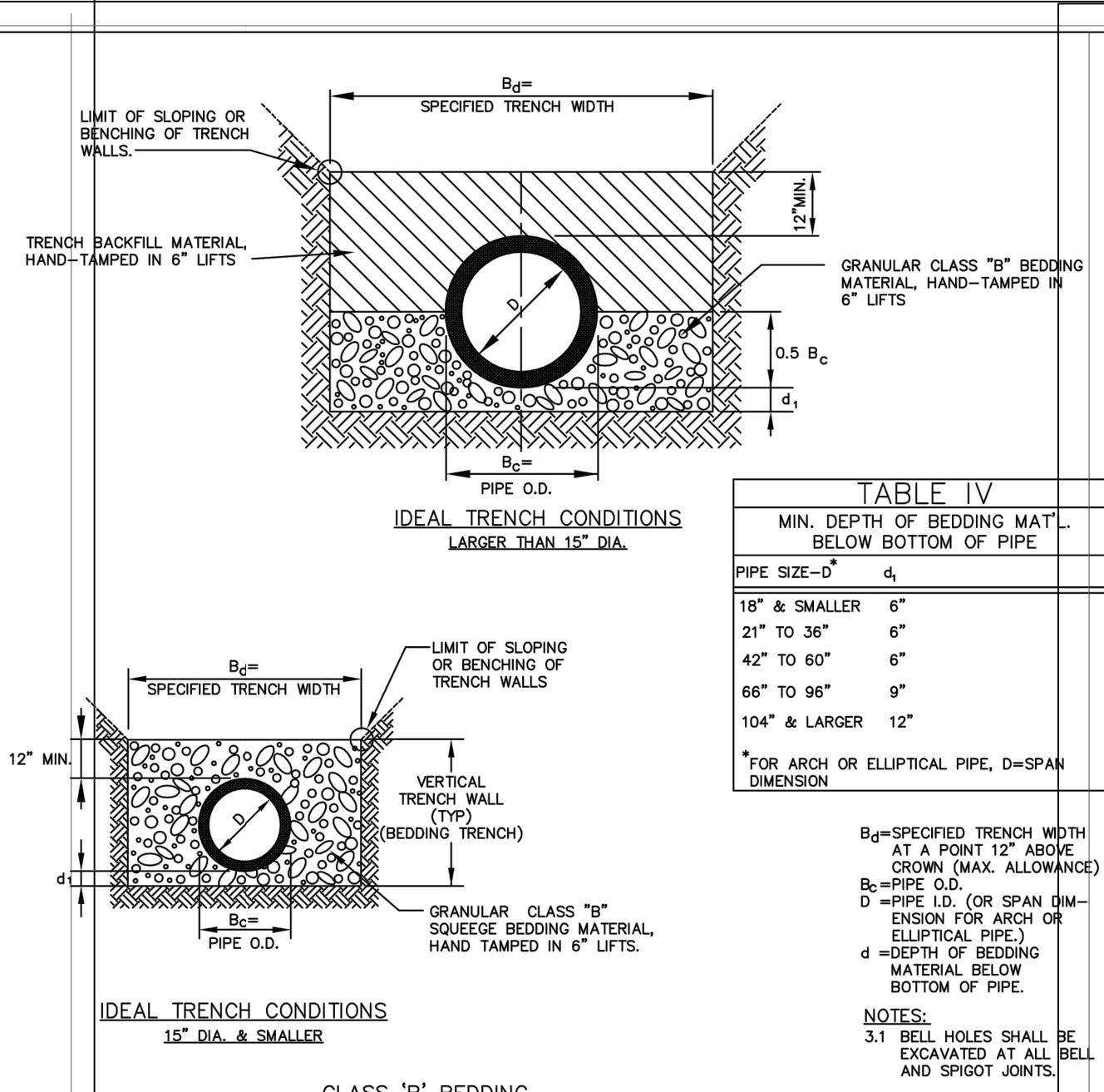
SHEET S1.1



PARKER WATER & SANITATION DISTRICT	
TYPICAL SEWER SERVICES	
SCALE: NONE	DATE: 2/96
APPROVED: PVR	2/00 5/98 01/02 1/16 10/16
DIRECTOR OF ENGINEERING	

2016 REVISION

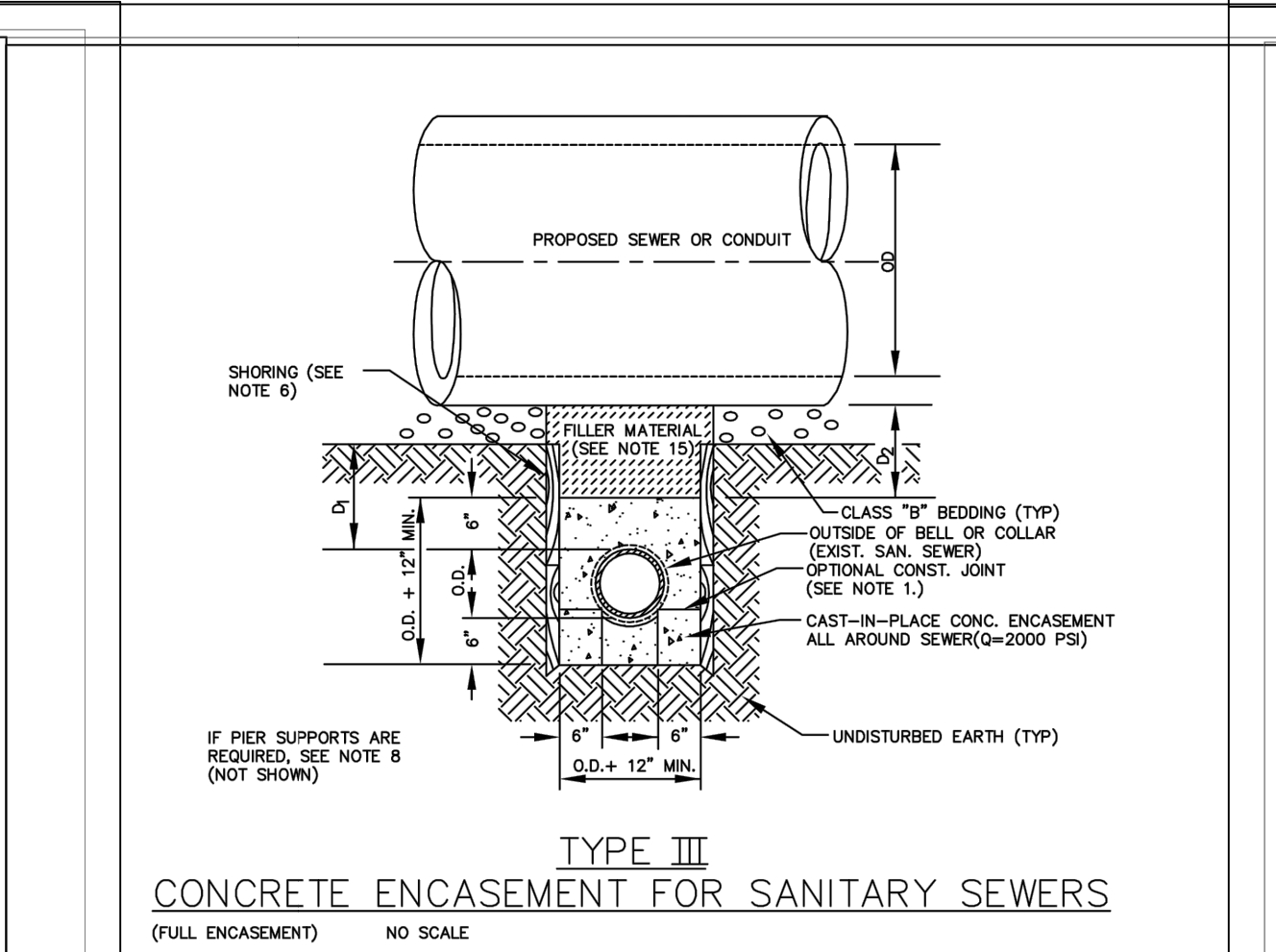
SHEET S1.2



PARKER WATER & SANITATION DISTRICT	
TRENCHING AND BEDDING CLASS \"B\"	
SCALE: NONE	DATE: 2/96
APPROVED: PVR	5/98 2/00 1/16 10/16
DIRECTOR OF ENGINEERING	

2016 REVISION

SHEET S4.3

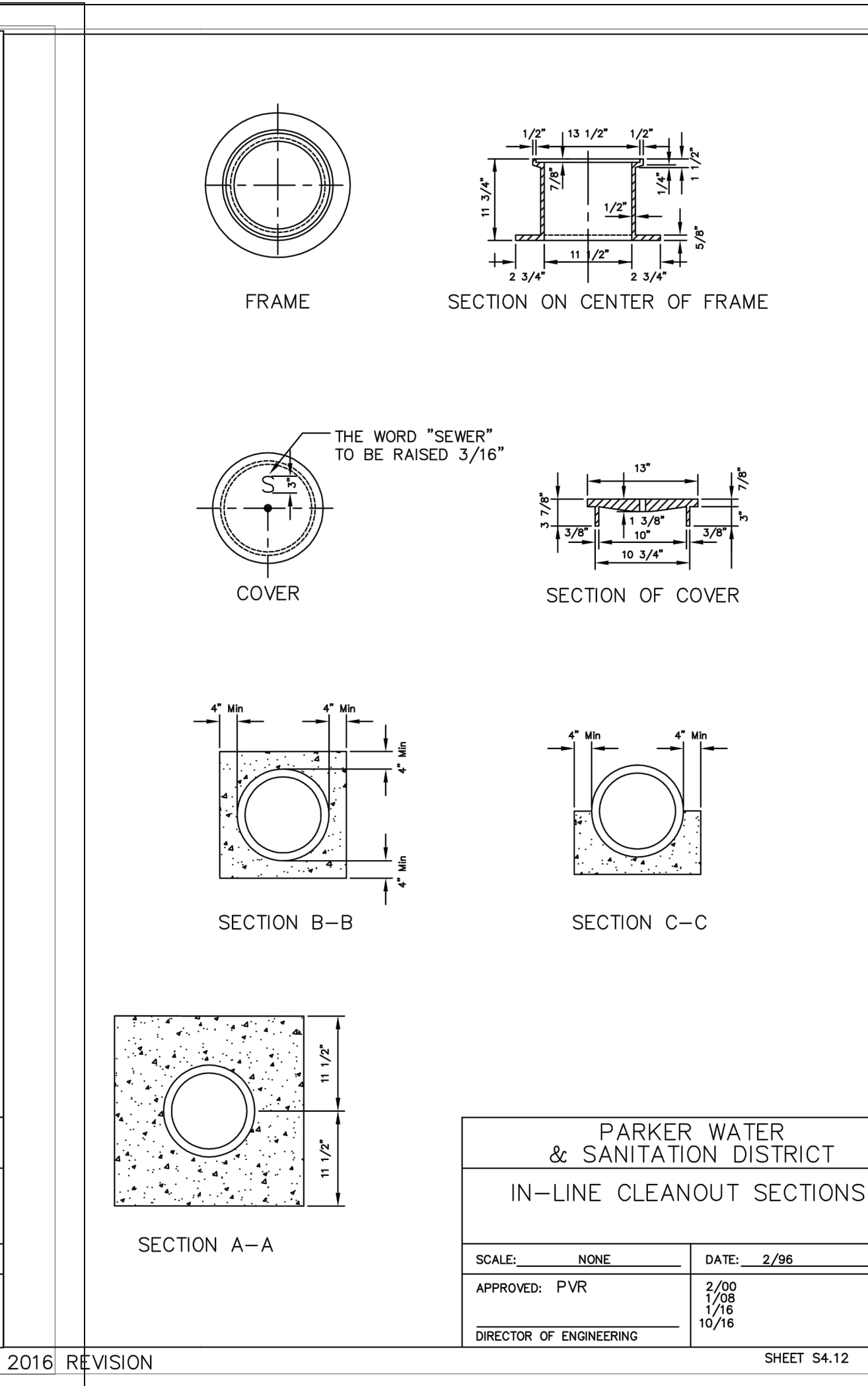


- GENERAL NOTES FOR TYPE I, II & III ENCASUREMENT**
1. CONCRETE TO BE CAST AGAINST UNDISTURBED SOIL OR SHORING. IF OPTIMAL CONSTRUCTION JOINT IS USED & BOTTOM HALF OF ENCASEMENT IS PLURED SEPARATELY, A ONE INCH LAYER OF SAND OR MORTAR SHALL BE PLACED BETWEEN BOTTOM OF SANITARY SEWER AND TOP OF CONCRETE.
 2. LENGTH OF ENCASUREMENT FOR:
 - (a) TYPE I & TYPE II ENCASEMENT SHALL EXTEND FULL TRENCH WIDTH EXCAVATED FOR PROPOSED SEWER OR CONDUIT.
 - (b) TYPE III ENCASEMENT SHALL EXTEND AT LEAST 10 FEET EACH SIDE OF WATER MAIN.
 3. 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.
 4. TYPE I, II OR III ENCASEMENTS ARE REQUIRED UNDER FOLLOWING CONDITIONS:
 - (a) TYPE I OR TYPE II IF $D_1 \leq 18"$ ($D_2 \leq 12"$) EXCEPT FOR SANITARY SEWER CROSSING OVER OR UNDER WATER MAINS.
 - (b) TYPE II IS REQUIRED FOR SANITARY SEWERS CROSSING UNDER WATER MAINS AND $D_1 \leq 24"$ ($D_2 \leq 18"$).
 - (c) TYPE III IS REQUIRED FOR SANITARY SEWERS CROSSING OVER TOP OF WATER MAINS, REGARDLESS OF DIMENSION D_1 .
 - (d) EXCEPT FOR UNUSUAL CIRCUMSTANCES, WATER MAIN CROSSINGS, OR WHERE UNSTABLE SOIL CONDITIONS ARE ENCOUNTERED, TYPE I ENCASEMENT WILL NORMALLY BE SATISFACTORY.
 - (e) IF THE SANITARY SEWER IS REPLACED OR CONSTRUCTED OF SUCTILE IRON PIPE (AWWA C-150 OR C-151), CONCRETE ENCASEMENT MAY NOT BE REQUIRED.
 5. FILLER MATERIAL BETWEEN CONDUITS TO BE:
 - (a) APPROVED COMPRESSIBLE MATERIAL SUCH AS STYROFOAM, ETC.
 - (b) COMPACTED CLASS \"B\" BEDDING IF D_1 & $D_2 > 6"$ IF $D_1 > 6"$ FOR TYPE III ENCASEMENT POUR CONCRETE IN UNDISTURBED SOIL.
 6. SHORING OR SHEETING, IF USED, TO BE CUT OFF AT TOP OF ENCASEMENT.
 7. THESE ENCASUREMENT DETAILS MAY ALSO BE APPLICABLE FOR CONDUITS OTHER THAN STORM OR SANITARY SEWER INSTALLATIONS.
 8. IN CERTAIN SITUATIONS WHERE CONDUIT DIAMETER \"D\" IS EXTREMELY LARGE, PIER 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.
 9. CONCRETE ENCASED PIPING SHALL BE LINED WITH FELT LAYER.

PARKER WATER & SANITATION DISTRICT	
CONCRETE ENCASUREMENT TYPE III	
SCALE: NONE	DATE: 2/96
APPROVED: PVR	5/98 1/16 10/16
DIRECTOR OF ENGINEERING	

2016 REVISION

SHEET S4.6



PARKER WATER & SANITATION DISTRICT	
IN-LINE CLEANOUT SECTIONS	
SCALE: NONE	DATE: 2/96
APPROVED: PVR	2/00 1/08 1/16 10/16
DIRECTOR OF ENGINEERING	

2016 REVISION

SHEET S4.12

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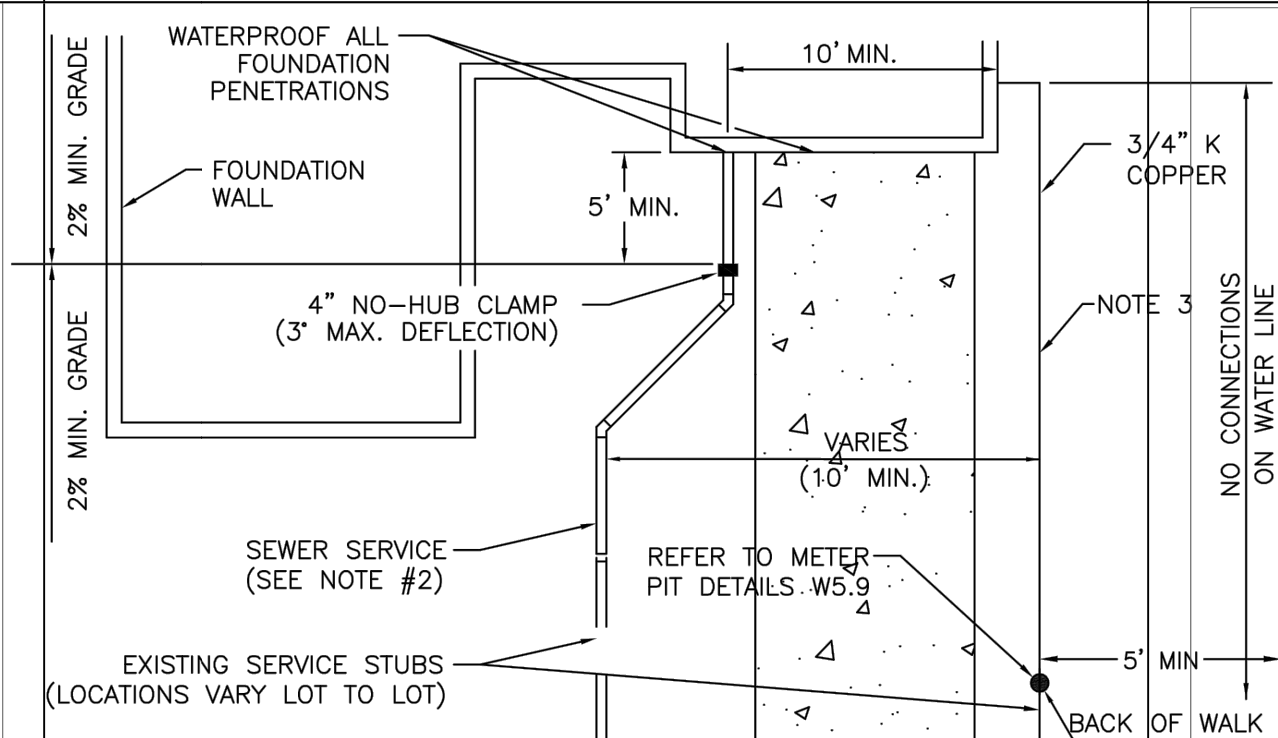
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INSPECTION POLICY:

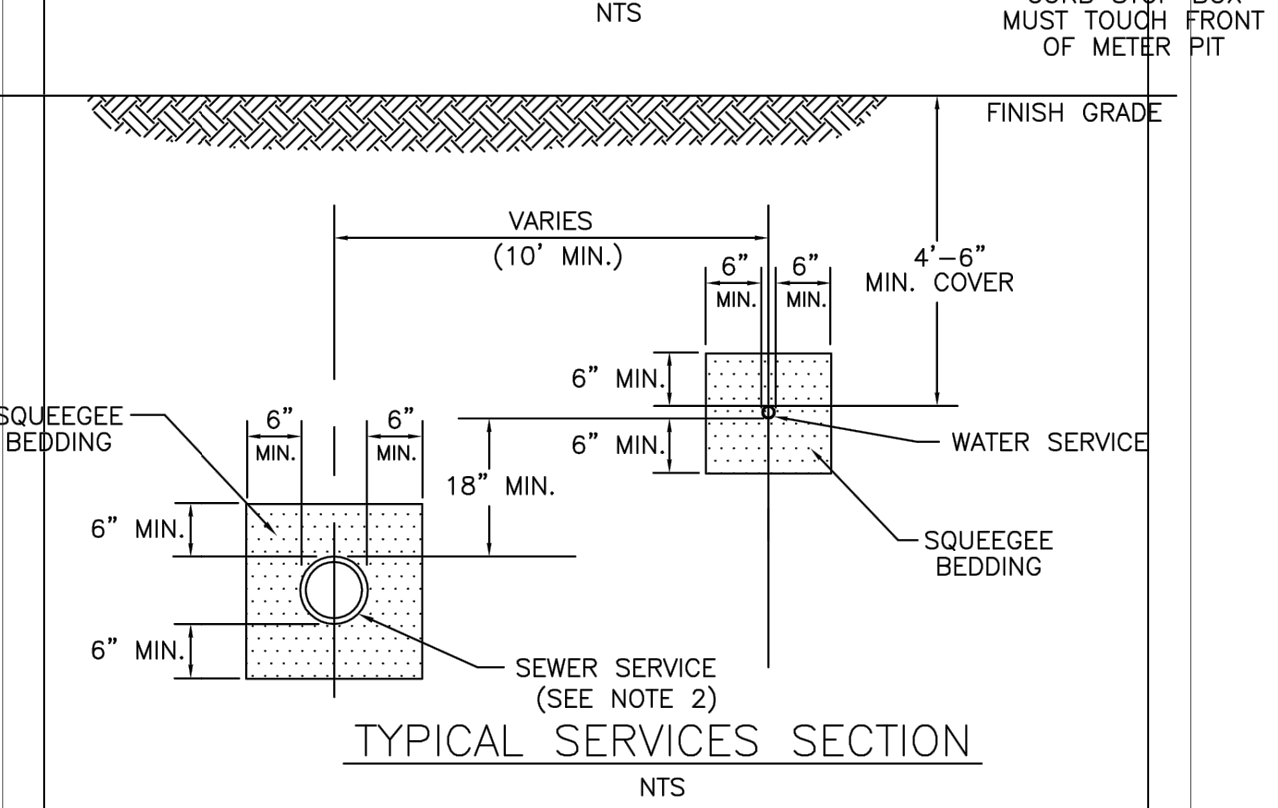
- ALL SERVICE INSPECTIONS MUST BE SCHEDULED AT LEAST 24 HOURS IN ADVANCE OF THE REQUESTED INSPECTION.
- SERVICE INSPECTIONS WILL OCCUR BETWEEN 1:00 P.M. AND 3:00 P.M. SPECIFIC INSPECTION TIMES ARE NOT AVAILABLE.
- IF THE CONTRACTOR IS NOT READY FOR INSPECTION WHEN THE INSPECTOR ARRIVES AT THE SITE OR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

INSTALLATION NOTES:

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



TYPICAL SERVICES PLAN VIEW



TYPICAL SERVICES SECTION

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

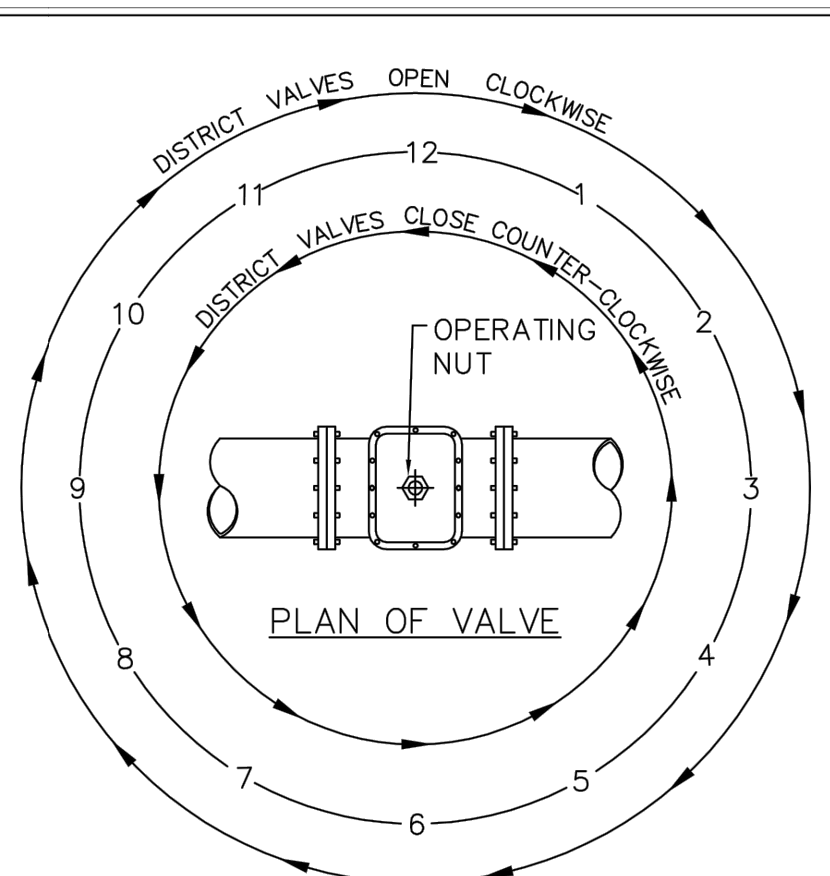
SCALE: NONE DATE: 2/96

APPROVED: 1/04 1/16 10/16
PVR
DIRECTOR OF ENGINEERING

PARKER WATER & SANITATION DISTRICT
TYPICAL WATER SERVICES

SCALE: NONE DATE: 2/96

APPROVED: 1/04 10/16 06/05 12/07 1/16
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PLAN OF VALVE

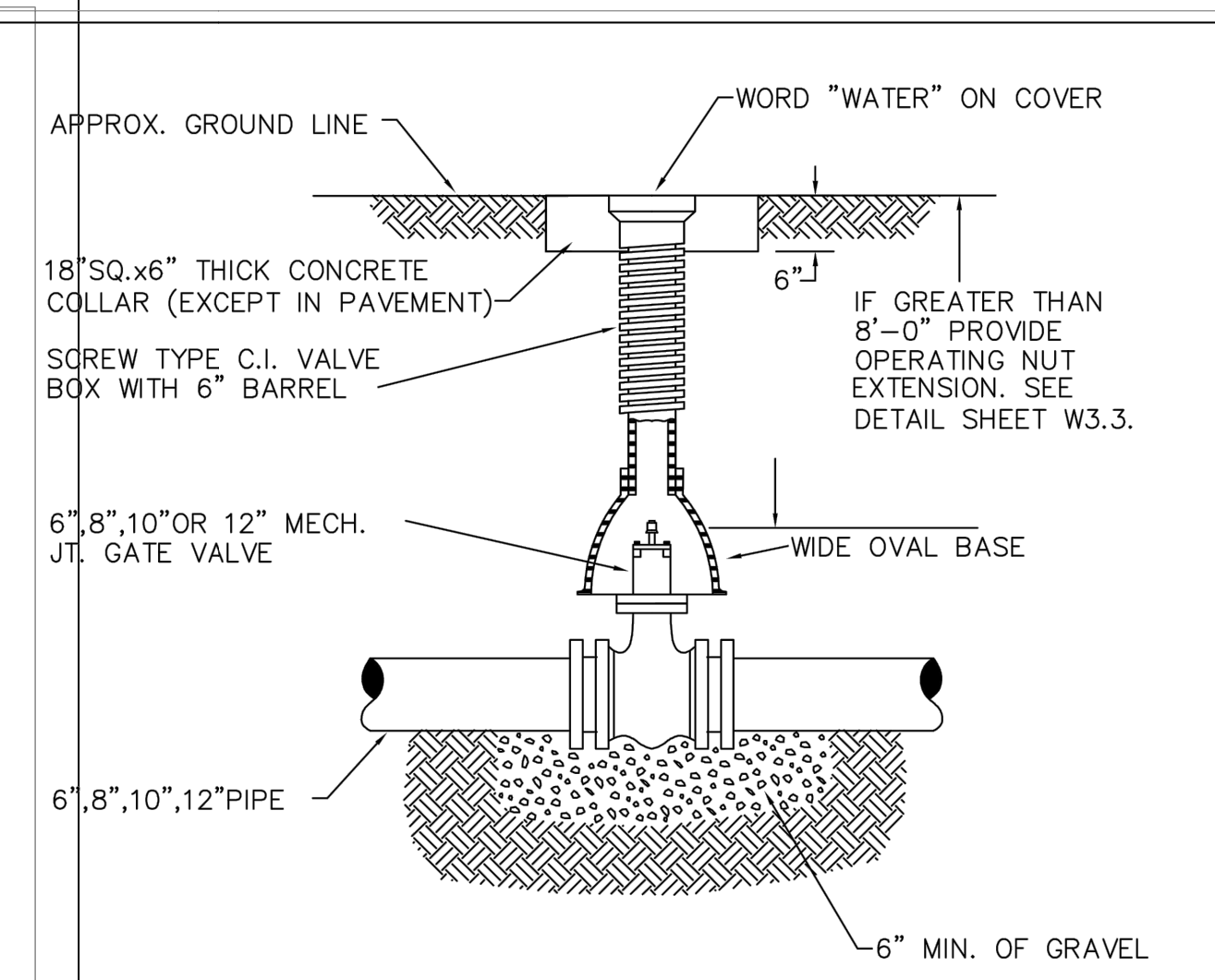
NOTE: ONLY RIGHT HAND OPENING VALVES ALLOWED.

VALVE OPENING & CLOSING PROCEDURE

PARKER WATER & SANITATION DISTRICT
VALVE OPERATION

SCALE: NONE DATE: 2/96

APPROVED: 1/16 10/16
PVR
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6-INCH VALVE BOXES
CHECK MATERIAL SPECIFICATIONS

NOTES:

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

PARKER WATER & SANITATION DISTRICT
VALVE BOX DETAIL

SCALE: NONE DATE: 2/96

APPROVED: 5/98 10/16 6/99 12/07 1/16
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PARKER WATER & SANITATION DISTRICT
LENGTH OF TIED PIPE

PIPE SIZE	4"			6"			8"			12"			16"			20"			24"					
	D	L	G	D	L	G	D	L	G	D	L	G	D	L	G	D	L	G	D	L	G			
TIE ROD VALVE	3/4"	6.0'	M.S.	3/4"	13.0'	M.S.	3/4"	20.0'	M.S.	3/4"	26.0'	M.S.	3/4"	32.0'	M.S.	3/4"	38.0'	M.S.	3/4"	44.0'	M.S.	3/4"	50.0'	M.S.
90° BEND	3/4"	6.0'	M.S.	3/4"	13.0'	M.S.	3/4"	20.0'	M.S.	3/4"	26.0'	M.S.	3/4"	32.0'	M.S.	3/4"	38.0'	M.S.	3/4"	44.0'	M.S.	3/4"	50.0'	M.S.
45° BEND	3/4"	2.0'	M.S.	3/4"	4.0'	M.S.	3/4"	6.0'	M.S.	3/4"	8.0'	M.S.	3/4"	10.0'	M.S.	3/4"	12.0'	M.S.	3/4"	14.0'	M.S.	3/4"	16.0'	M.S.
22-1/2° BEND	3/4"	1.0'	M.S.	3/4"	2.0'	M.S.	3/4"	3.0'	M.S.	3/4"	4.0'	M.S.	3/4"	5.0'	M.S.	3/4"	6.0'	M.S.	3/4"	7.0'	M.S.	3/4"	8.0'	M.S.
11-1/4° BEND	3/4"	0.0'	M.S.	3/4"	1.0'	M.S.	3/4"	1.0'	M.S.	3/4"	1.0'	M.S.	3/4"	1.0'	M.S.	3/4"	1.0'	M.S.	3/4"	1.0'	M.S.	3/4"	1.0'	M.S.

NOTES:

- LENGTH OF TIED PIPE MEASURED EACH WAY FROM VALVES AND BENDS.
- CLAMPS AND RODS NOT ALLOWED FOR 24" AND LARGER PIPES.
- D = DIAMETER, L = LENGTH, G = GRADE, M.S. = MILD STEEL, H.S. = HIGH STRENGTH
- MINIMUM 4.5' GROUND COVER REQUIRED.
- BASED ON 150 PSI INTERNAL PRESSURE.
- M.S. MEANS MILD STEEL ROD A.S.T.M. STANDARD DESIGNATION A-36.
- H.S. MEANS HIGH STRENGTH STEEL ROD A.S.T.M. STANDARD DESIGNATION A-193 GRADE B-7.
- SEE TIE ROD DETAIL DRAWINGS ALSO, THE ROD COUPLING DETAILS, CLAMP DETAILS AND SET CLAMP DETAILS.
- SEE TIE ROD DETAIL DRAWINGS ALSO, THE ROD COUPLING DETAILS, CLAMP DETAILS AND SET CLAMP DETAILS.
- LENGTH REFERS TO THE AMOUNT OF PIPE WHICH MUST BE TIED TOGETHER AND IS NOT NECESSARILY THE LENGTH OF THE RODS.
- STAR BOLTS NOT ALLOWED ON PIPE LARGER THAN 16".
- MINIMUM OF 4 RODS REQUIRED ON 16" PIPE IF STAR BOLTS ARE USED.
- TIES ARE TO BE RODDED ON BRANCH ONLY.

PARKER WATER & SANITATION DISTRICT
LENGTH OF TIED PIPE

SCALE: NONE DATE: 2/96

APPROVED: 4/01 1/16 10/16
PVR
DIRECTOR OF ENGINEERING

PARKER WATER & SANITATION DISTRICT
TIE ROD AND WASHER DETAILS

NOTES:

- SEE TIED JOINTS ROD DIMENSIONS SHEET.
- SEE CLAMP DETAILS AND DIMENSIONS (SHEET W3.15) FOR PROPER PLACEMENT OF WASHERS.

PARKER WATER & SANITATION DISTRICT
TIE ROD AND WASHER DETAILS

SCALE: NONE DATE: 2/96

APPROVED: 1/16 10/16
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PARKER WATER & SANITATION DISTRICT
TIE ROD COUPLING

NOTES:

- BLACK IRON PIPE = SCHEDULE 40.

PARKER WATER & SANITATION DISTRICT
TIE ROD COUPLING

SCALE: NONE DATE: 2/96

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

PARKER WATER & SANITATION DISTRICT
FLANGE LUG DETAIL

NOTES:

- M.S. MEANS MILD STEEL ROD A.S.T.M. STANDARD DESIGNATION A-36. (NUTS SHALL BE A.S.T.M. STANDARD DESIGNATION A-307 GRADE A OR B HEXAGON HEAVY SERIES).
- H.S. MEANS HIGH STRENGTH STEEL ROD A.S.T.M. STANDARD DESIGNATION A-193 GRADE B7. (NUTS SHALL BE A.S.T.M. STANDARD DESIGNATION A-194 GRADE 2H).
- FLANGE LUGS SHALL NOT BE USED ON VALVES.

PARKER WATER & SANITATION DISTRICT
FLANGE LUG DETAIL

SCALE: NONE DATE: 2/96

APPROVED: 1/16 10/16
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DIRECTOR OF ENGINEERING

NEW HORIZON ACADEMY - DOUGLAS XXX FILING, NO. X
PARKER, CO

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SEH Project Checked By Drawn By
NHOAC 156217 DRH AMP

Rev. #	Description	Date

WATER DETAILS

Project Status: TOWN REVIEW Issue Date: 8/26/2020

Save: 8/25/2020 12:28 PM apopp Plot: 8/25/2020 1:19 PM X:\KON\NHOC\156217\Final-dsgn\15-drawings\10-Civil\card.dwg:sheet\Utility Plans\C1_NHOAC\156217_Utility Plan.dwg



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for All of Us®

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New Horizon Academy

**NEW HORIZON ACADEMY -
DOUGLAS XXX FILING, NO. X**

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Checked By: DRH
Drawn By: AMP

Project Status: TOWN REVIEW
Issue Date: 8/26/2020

Revision Issue

Rev. # Description Date

WATER DETAILS

C1.5

