

NO CHANGES ARE TO BE MADE TO THIS DRAWING WITHOUT WRITTEN PERMISSION OF HARRIS KOCHER SMITH.

LEGAL DESCRIPTION

LOT 1,
FOUNDERS VILLAGE FILING NO. 24, AMENDMENT NO. 1,
COUNTY OF DOUGLAS,
STATE OF COLORADO

GENERAL NOTES

1. ALL MATERIALS, WORKMANSHIP, AND CONSTRUCTION OF PUBLIC IMPROVEMENTS SHALL MEET OR EXCEED THE STANDARDS AND SPECIFICATIONS SET FORTH IN THE TOWN OF CASTLE ROCK (TCR) MUNICIPAL CODE, TCR TECHNICAL MANUALS, AND APPLICABLE STATE AND FEDERAL REGULATIONS. WHERE THERE IS CONFLICT BETWEEN THESE PLANS AND THE TECHNICAL MANUAL OR ANY APPLICABLE STANDARDS, THE MORE STRINGENT STANDARD SHALL APPLY. ALL WORK SHALL BE INSPECTED AND APPROVED BY THE TCR CONSTRUCTION INSPECTOR.

2. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED UPON AS BEING EXACT OR COMPLETE.

3. THE CONTRACTOR MUST CALL THE LOCAL UTILITY LOCATION CENTER AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATIONS OF THE UTILITIES. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL VERIFY PERTINENT LOCATIONS AND ELEVATIONS, ESPECIALLY AT CONNECTION POINTS AND AT POTENTIAL UTILITY CONFLICTS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES THAT CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THESE PLANS.

4. THE CONTRACTOR SHALL COORDINATE AND COOPERATE WITH THE TOWN AND ALL UTILITY COMPANIES INVOLVED WITH REGARD TO RELOCATIONS OR ADJUSTMENTS OF EXISTING UTILITIES DURING CONSTRUCTION AND TO ASSURE THAT THE WORK IS ACCOMPLISHED IN A TIMELY FASHION AND WITH A MINIMUM DISRUPTION OF SERVICE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING ALL PARTIES AFFECTED BY ANY DISRUPTION OF ANY UTILITY SERVICE.

5. CONTRACTOR SHALL PROVIDE A MINIMUM SEVENTY-TWO (72) HOURS NOTICE TO THE ON-SITE TCR CONSTRUCTION INSPECTOR, (720) 733-2200, PRIOR TO MAKING ANY CONNECTIONS/TIE-INS TO EXISTING WATER, SANITARY SEWER, AND/OR STORM SEWER SYSTEMS PROVIDED THAT THE UTILITY TIE-IN DOES NOT DISRUPT SERVICE TO EXISTING OR WATER CUSTOMERS. IF THE TIE-IN WILL DISRUPT UTILITY SERVICE, THEN CONTRACTOR SHALL PROVIDE A MINIMUM OF THREE (3) WEEKS NOTICE TO THE TCR CONSTRUCTION INSPECTOR TO ALLOW TIME FOR CR WATER TO PROVIDE WRITTEN NOTIFICATION TO EXISTING CUSTOMERS AFFECTED BY THE TIE-IN. ALL TOWN UTILITY TIE-INS MUST BE APPROVED BY CR WATER PRIOR TO COMMENCING WORK.

6. THE CONTRACTOR SHALL HAVE ONE (1) SIGNED COPY OF THE APPROVED PLANS, ONE (1) COPY OF THE APPROPRIATE CRITERIA AND SPECIFICATIONS, AND A COPY OF ANY PERMITS AND EXTENSION AGREEMENTS NEEDED FOR THE JOB ON-SITE AT ALL TIMES.

7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ASPECTS OF SAFETY INCLUDING, BUT NOT LIMITED TO, EXCAVATION, TRENCHING, SHORING, TRAFFIC CONTROL, AND SECURITY.

8. IF DURING THE CONSTRUCTION PROCESS CONDITIONS ARE ENCOUNTERED WHICH COULD INDICATE A SITUATION THAT IS NOT IDENTIFIED IN THE PLANS OR SPECIFICATIONS, THE CONTRACTOR SHALL CONTACT THE TCR CONSTRUCTION INSPECTOR IMMEDIATELY.

9. ALL REFERENCES TO ANY PUBLISHED STANDARDS SHALL REFER TO THE LATEST REVISION OF SAID STANDARD UNLESS SPECIFICALLY STATED OTHERWISE.

10. THE CONTRACTOR SHALL SUBMIT A TRAFFIC CONTROL PLAN IN ACCORDANCE WITH MUTCD TO THE APPROPRIATE RIGHT-OF-WAY AUTHORITY (TOWN, COUNTY OR STATE) FOR APPROVAL PRIOR TO ANY CONSTRUCTION ACTIVITIES WITHIN OR AFFECTING THE RIGHT-OF-WAY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ANY AND ALL TRAFFIC CONTROL DEVICES AS MAY BE REQUIRED BY THE CONSTRUCTION ACTIVITIES.

11. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL LABOR AND MATERIALS NECESSARY FOR THE COMPLETION OF THE INTENDED IMPROVEMENTS SHOWN ON THESE DRAWINGS OR AS DESIGNATED TO BE PROVIDED, INSTALLED, OR CONSTRUCTED UNLESS SPECIFICALLY NOTED OTHERWISE.

12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RECORDING AS-BUILT INFORMATION ON A SET OF RECORD DRAWINGS KEPT ON THE CONSTRUCTION SITE AND AVAILABLE TO THE TCR CONSTRUCTION INSPECTOR AT ALL TIMES.

13. DIMENSIONS FOR LAYOUT AND CONSTRUCTION ARE NOT TO BE SCALED FROM ANY DRAWING. IF PERTINENT DIMENSIONS ARE NOT SHOWN, CONTACT THE CONSULTANT ENGINEER FOR CLARIFICATION AND ANNOTATE THE DIMENSION ON THE AS-BUILT RECORD DRAWINGS.

14. ALL INITIAL SEDIMENT CONTROL MEASURES SHALL BE INSTALLED PER THE TEMPORARY EROSION & SEDIMENT CONTROL (TESC) PLAN PRIOR TO ANY EARTH-DISTURBING ACTIVITY. ALL EROSION AND SEDIMENT CONTROL PRACTICES MUST BE MAINTAINED IN EFFECTIVE OPERATING CONDITION AT ALL TIMES. REMOVAL OF CONTROL MEASURES SHALL NOT OCCUR WITHOUT THE APPROVAL OF THE STORMWATER INSPECTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING ROADWAYS FREE AND CLEAR OF ALL CONSTRUCTION DEBRIS AND DIRT TRACKED FROM THE SITE. THE CONTRACTOR SHALL ALSO COMPLY WITH ALL TERMS AND CONDITIONS OF THE COLORADO CONSTRUCTION GENERAL PERMIT FOR STORMWATER DISCHARGES.

15. THE CONTRACTOR SHALL PROVIDE AN ACTION PLAN IMMEDIATELY FOLLOWING THE PRE-CONSTRUCTION MEETING DETAILING SUFFICIENT MEANS TO MITIGATE DUST ON SITE DURING OVERLOT GRADING, ROCK CRUSHING OR OTHER EARTHWORK ACTIVITIES. IF THE CONTRACTOR FAILS TO CONTROL DUST, ALL EARTH DISTURBING ACTIVITIES SHALL BE STOPPED UNTIL SUFFICIENT MEASURES ARE TAKEN TO THE TOWN'S SATISFACTION. THE CONTRACTOR SHALL ALSO COMPLY WITH ALL TERMS AND CONDITIONS OF THE COLORADO AIR QUALITY REGULATIONS FOR LAND DEVELOPMENT, AS REQUIRED.

16. THE CONTRACTOR SHALL SEQUENCE INSTALLATION OF UTILITIES IN SUCH A MANNER AS TO MINIMIZE POTENTIAL UTILITY CONFLICTS. IN GENERAL, STORM SEWER AND SANITARY SEWER SHOULD BE CONSTRUCTED PRIOR TO INSTALLATION OF THE WATER LINES AND DRY UTILITIES.

17. THERE SHALL BE NO SITE CONSTRUCTION ACTIVITIES ON SATURDAYS UNLESS SPECIFICALLY APPROVED BY THE TCR CONSTRUCTION INSPECTOR AND NO SITE CONSTRUCTION ACTIVITIES ON SUNDAYS OR HOLIDAYS UNLESS THERE IS PRIOR WRITTEN APPROVAL BY THE PUBLIC WORKS DIRECTOR.

18. NO SOLID OBJECT (EXCLUDING FIRE HYDRANTS AND TRAFFIC CONTROL DEVICES AND TRAFFIC SIGNS) EXCEEDING THIRTY (30) INCHES IN HEIGHT ABOVE THE FLOWLINE ELEVATION OF THE ADJACENT STREET, INCLUDING BUT NOT LIMITED TO BUILDINGS, UTILITY CABINETS, WALLS, FENCES, LANDSCAPE PLANTINGS, CROPS, CUT SLOPES, AND BERMS, SHALL BE PLACED WITHIN SIGHT DISTANCE LINES AND SIGHT DISTANCE EASEMENTS.

19. THIS PROPERTY IS LOCATED WITHIN ZONE X AS PER FEMA FIRM PANEL NO. 0306G DATED 03-16-2016.

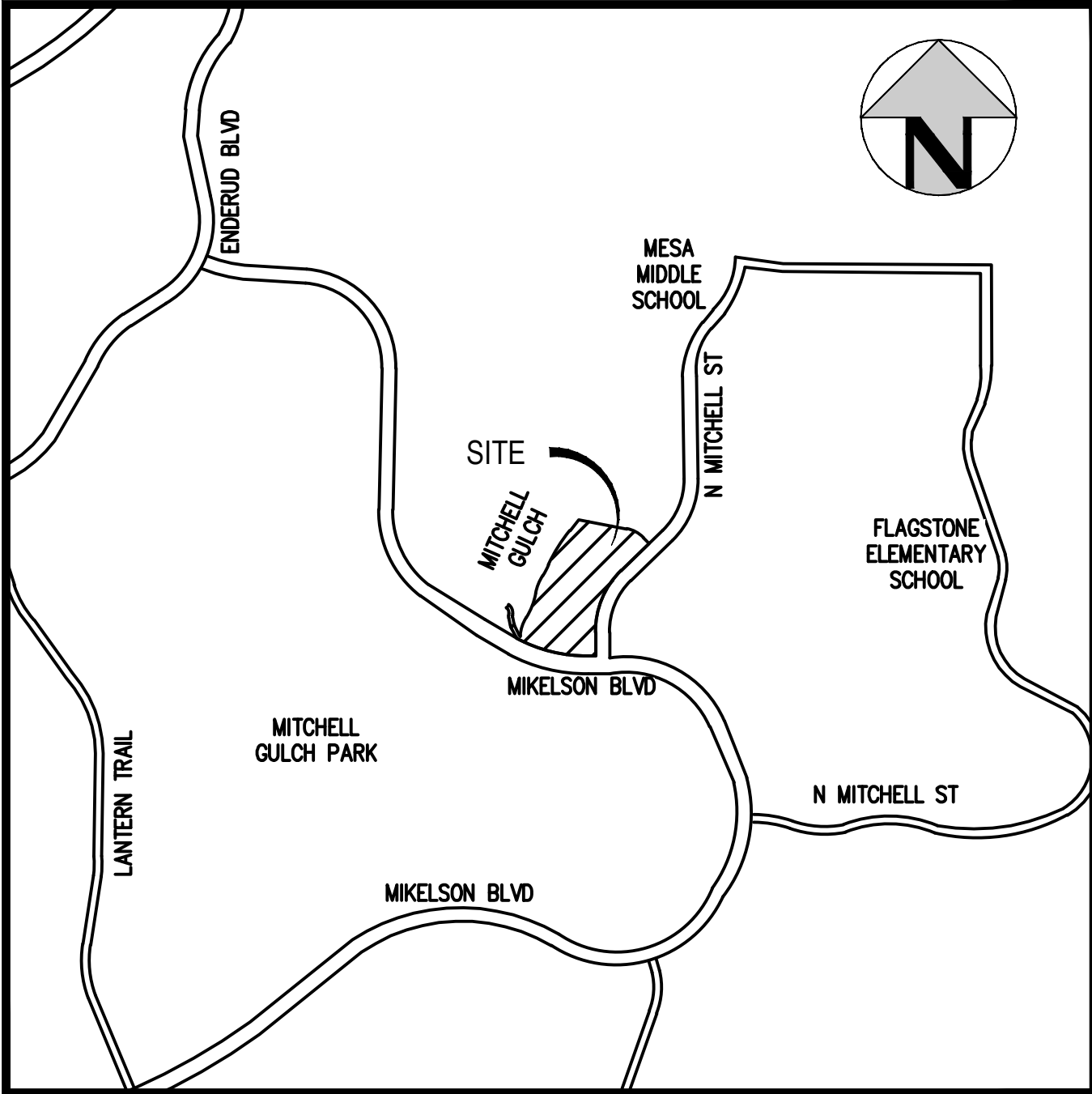
20. **BENCHMARK:** DOUGLAS COUNTY GIS CONTROL MONUMENT NO. 4.015020 MONUMENTED BY A 3-1/4" DIAMETER ALUMINUM CAPPED MONUMENT BEING NORTH OF THE EAST ¼ CORNER OF SECTION 8 AS MONUMENTED BY 2-1/2" ALUMINUM CAPPED MONUMENT STAMPED "LS28656". NAVD 88 ELEVATION=6572.29

21. **BASIS OF BEARINGS:** BEARINGS ARE BASED ON THE NORTH LINE OF THE NORTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 8, AS MONUMENTED AT THE EAST CORNER BY A #6 REBAR WITH A 3.25" ALUMINUM CAP STAMPED: SURVCON 2008 PLS 30289 AND AT THE CENTER-EAST SIXTEENTH CORNER BY A 2.5" PIPE WITH A 3.5" ALUMINUM CAP STAMPED: 1986 PLS 22100, AS BEARING SOUTH 88°58'05" WEST, PER THE PLAT OF FOUNDERS VILLAGE FILING NO. 24 AMENDMENT NO. 1.

PUBLIC IMPROVEMENT CONSTRUCTION PLANS

AVILLA FOUNDERS VILLAGE

SOUTHEAST 1/4 OF SECTION 8, TOWNSHIP 8 SOUTH, RANGE 66 WEST OF THE 6TH P.M.,
TOWN OF CASTLE ROCK, COUNTY OF DOUGLAS, STATE OF COLORADO
TOWN OF CASTLE ROCK PROJECT NO. CD22-0035



VICINITY MAP
SCALE: 1" = 1000'

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LEGEND

	EXISTING	PROPOSED
PROPERTY BOUNDARY	---	---
RIGHT-OF-WAY	---	---
UTILITY EASEMENT	---	---
ACCESS EASEMENT	---	---
ACCESSIBLE ROUTE	---	---
SANITARY SEWER W/ MANHOLE	SS	SS
SANITARY SERVICE W/CLEANOUT	---	---
WATER LINE AND GATE VALVE	W	W
WATER SERVICE	---	---
STORM SEWER W/ MANHOLE & INLETS	ST	ST
WATER METER MANHOLE	---	---
FIRE HYDRANT	---	---
STREET LIGHT	---	---
SIGN	---	---
FENCE	---	---
TRANSFORMER	---	---

PROFESSIONAL ENGINEER CERTIFICATION

I HEREBY AFFIRM THAT THESE FINAL CONSTRUCTION PLANS WERE PREPARED UNDER MY DIRECT SUPERVISION, IN ACCORDANCE WITH ALL APPLICABLE TOWN OF CASTLE ROCK AND STATE OF COLORADO STANDARDS AND STATUTES, RESPECTIVELY; AND THAT I AM FULLY RESPONSIBLE FOR ALL DESIGN AND REVISIONS RELATIVE TO SAID PLANS.

PRELIMINARY
NOT FOR
CONSTRUCTION

RACHEL C PATTON, P.E. #54450 DATE

INDEMNIFICATION AND ADHERENCE TO STANDARDS STATEMENTS

THESE PLANS HAVE BEEN REVIEWED BY THE TOWN OF CASTLE ROCK FOR CONCEPT ONLY. THE REVIEW DOES NOT IMPLY RESPONSIBILITY BY THE REVIEWING DEPARTMENT, THE TOWN ENGINEER, OR THE TOWN OF CASTLE ROCK FOR ACCURACY AND CORRECTNESS OF THE CALCULATIONS. FURTHERMORE, THE REVIEW DOES NOT IMPLY THAT QUANTITIES OF ITEMS ON THE PLANS ARE THE FINAL QUANTITIES REQUIRED. THE REVIEW SHALL NOT BE CONSTRUED FOR ANY REASON AS ACCEPTANCE OF FINANCIAL RESPONSIBILITY BY THE TOWN FOR ADDITIONAL QUANTITIES OF ITEMS SHOWN THAT MAY BE REQUIRED DURING THE CONSTRUCTION PHASE.

ALL WORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE TOWN OF CASTLE ROCK MUNICIPAL CODE, TECHNICAL MANUALS AND/OR OTHER TOWN-APPROVED APPLICABLE STANDARDS.

TOWN OF CASTLE ROCK PUBLIC WORK DEPARTMENT

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ISSUE DATE: 08-11-2022 PROJECT #: 210431	
DATE	REVISION COMMENTS
10-31-2022	PER TOWN OF CASTLE ROCK COMMENTS



Know what's below.
Call before you dig.

NO CHANGES ARE TO BE MADE TO THIS DRAWING WITHOUT WRITTEN PERMISSION OF HARRIS KOCHER SMITH.

STREET CONSTRUCTION NOTES

1. ALL STREET CONSTRUCTION IS SUBJECT TO THE GENERAL NOTES ON THE COVER SHEET OF THESE PLANS AS WELL AS THE STREET CONSTRUCTION NOTES LISTED HERE.
2. A PAVING SECTION DESIGN, SIGNED AND SEALED BY A COLORADO REGISTERED PROFESSIONAL ENGINEER, MUST BE SUBMITTED TO THE TCR PUBLIC WORKS DEPARTMENT FOR APPROVAL PRIOR TO ANY STREET CONSTRUCTION ACTIVITY (FULL-DEPTH ASPHALT SECTIONS ARE NOT PERMITTED AT A DEPTH GREATER THAN 8" ASPHALT). THE JOB MIX SHALL BE SUBMITTED FOR APPROVAL PRIOR TO PLACEMENT OF ANY ASPHALT.
3. WHERE PROPOSED PAVING ADJOINS EXISTING ASPHALT, THE EXISTING ASPHALT SHALL BE SAW CUT A MINIMUM DISTANCE OF 12" FROM THE EXISTING EDGE TO CREATE A CLEAN CONSTRUCTION JOINT. THE DEVELOPER SHALL BE REQUIRED TO REMOVE EXISTING PAVEMENT TO A DISTANCE WHERE A CLEAN CONSTRUCTION JOINT CAN BE MADE.
4. STREET SUBGRADES SHALL BE SCARIFIED TO A MINIMUM DEPTH OF 12" AND RE-COMPACTED PRIOR TO SUB-BASE INSTALLATION. NO BASE MATERIAL SHALL BE LAID UNTIL THE SUBGRADE HAS BEEN INSPECTED AND APPROVED BY THE TCR CONSTRUCTION INSPECTOR.
5. VALVE BOXES ARE TO BE BROUGHT UP TO GRADE AT THE TIME OF PAVEMENT PLACEMENT OR OVERLAY. VALVE BOX ADJUSTING RINGS ARE NOT ALLOWED.

SIGNAGE AND STRIPING NOTES

1. ALL SIGNAGE AND STRIPING IS SUBJECT TO THE GENERAL NOTES ON THE COVER SHEET OF THESE PLANS AS WELL AS THE SIGNAGE AND STRIPING NOTES LISTED HERE.
2. ALL PAINT SHALL BE 15 MIL THICK UPON INSTALLATION AND 8 MIL THICK WHEN DRY.
3. ALL PERMANENT LONGITUDINAL PAVEMENT STRIPING ON ASPHALT SURFACES (CENTERLINES, LANE LINES, BAY LINES, ETC.) SHALL BE INSTALLED USING AN APPROVED REFLECTIVE TRAFFIC PAINT OR PAVEMENT MARKING TAPE. REFLECTIVE BEADS SHALL BE APPLIED IN ACCORDANCE WITH CDOT'S STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND THE MANUFACTURER'S REQUIREMENTS. WHEN TAPE IS USED ON AN ASPHALT STREET, IT SHALL BE ROLLED INTO THE FINAL LIFT. ON CONCRETE SURFACES TAPE SHALL BE UTILIZED WITH A CONTRASTING BLACK EDGE AND GROOVED INTO THE PAVEMENT.
4. THERMO-PLASTIC APPLICATIONS SHALL BE AS SPECIFIED IN THE PLANS AND/OR PER TOWN CRITERIA.
5. ALL SURFACES THAT ACCEPT PAINT/THERMO-PLASTIC STRIPING OR PRE-FORMED MARKINGS SHALL BE FIRST SANDBLASTED AND THOROUGHLY CLEANED PRIOR TO INSTALLATION OF STRIPING OR MARKINGS.
6. ALL ARROW MARKINGS SHALL BE PRE-FORMED TAPE, THERMO-PLASTIC OR EPOXY-PAINTED.
7. STOP BARS SHALL BE 90 MIL THERMO-PLASTIC.
8. ALL ROADWAY SIGNAGE SHALL CONFORM TO THE MUTCD AND/OR THE TOWN'S CRITERIA.
9. ALL SIGNPOSTS SHALL UTILIZE BREAKAWAY ASSEMBLIES AND FASTENERS, PER THE TCR STANDARD DETAIL.

FIRE NOTES

1. IT IS THE RESPONSIBILITY OF THE PROPERTY OWNER TO MAINTAIN DRIVE LANES FOR EMERGENCY VEHICLE INGRESS AND EGRESS, INCLUDING SNOW REMOVAL.
2. EMERGENCY VEHICLE ACCESS ROAD IS REQUIRED TO ALLOW ACCESS WITHIN 150' OF ALL EXTERIOR OF THE BUILDING BY AN APPROVED ROUTE.
3. FIRE APPARATUS ACCESS ROADS SHALL BE DESIGNED AND MAINTAINED TO SUPPORT THE IMPOSED LOADS OF FIRES APPARATUS AND SHALL BE PROVIDED WITH A SURFACE SO AS TO PROVIDE ALL-WEATHER DRIVING CAPABILITIES. ACCESS ROAD SHALL BE EITHER CONCRETE, ASPHALT, OR OTHER APPROVED ALTERNATIVE MATERIAL ACCOMPANIED WITH AN ENGINEER'S STAMP STATING THE MATERIAL WILL SUPPORT A 75,000 POUND IMPOSED LOAD.
4. FIRE HYDRANT(S) ARE REQUIRED TO BE INSTALLED AND MADE SERVICEABLE PRIOR TO COMBUSTIBLE MATERIALS BEING BROUGHT ONTO THE SITE AND DURING THE TIME OF VERTICAL CONSTRUCTION.
5. NO PARKING FIRE LANE SIGNS ARE REQUIRED IN AREAS THAT MEET THE FOLLOWING CRITERIA AND IN AREAS DESIGNATED BY THE FIRE PREVENTION BUREAU. SIGNS SHALL BE POSTED ON BOTH SIDES OF FIRE DEPARTMENT ACCESS ROADWAYS, PUBLIC OR PRIVATE ROADWAYS AND DRIVEWAYS LESS THAN 26 FEET WIDE. SIGNS SHALL BE POSTED ON ONE SIDE ONLY OF FIRE DEPARTMENT ACCESS ROADWAYS, PUBLIC OR PRIVATE ROADWAYS OR DRIVEWAYS BETWEEN 26 FEET WIDE AND 32 FEET WIDE. NO SIGNAGE IS REQUIRED FOR ACCESS ROADWAY FIRE DEPARTMENT ACCESS ROADWAYS, PUBLIC OR PRIVATE ROADWAYS OR DRIVEWAYS EXCEEDING 32 FEET WIDE.
6. WHEN FIRE APPARATUS ACCESS ROADS OR A WATER SUPPLY FOR FIRE PROTECTION IS REQUIRED TO BE INSTALLED, SUCH PROTECTION SHALL BE INSTALLED AND MADE SERVICEABLE PRIOR TO COMBUSTIBLE MATERIALS BEING BROUGHT ONTO THE SITE AND THE BUILDING CONSTRUCTION GOING VERTICAL.
7. TRACER WIRE SHALL BE INSTALLED ON ALL FIRE SERVICE LINES AND AT ALL FIRE HYDRANTS. REFER TO TOWN OF CASTLE ROCK STANDARD DETAILS, THE WATER LINE CONSTRUCTION NOTES, AND THE TRACER WIRE INSTALLATION NOTES LISTED HEREIN.

WATER LINE CONSTRUCTION NOTES

1. ALL WATER LINE CONSTRUCTION IS SUBJECT TO THE GENERAL NOTES ON THE COVER SHEET OF THESE PLANS AS WELL AS THE WATER LINE CONSTRUCTION NOTES LISTED HEREIN.
2. ALL WATER LINES SHALL BE: 1) DUCTILE IRON PIPE (DIP), CONFORMING TO THE REQUIREMENTS OF AWWA C150, CL350 (6"-12"), CL250 (16" AND 20"), CL200 (>24"), WITH PUSH-ON GASKETED JOINTS OR MECHANICAL JOINT ENDS, IN CONFORMANCE WITH AWWA C111. PIPE SHALL BE CEMENT-LINED IN ACCORDANCE WITH AWWA C104, AND AN EXTERIOR COATING IN ACCORDANCE WITH C151; OR 2) PVC PIPE, CONFORMING TO AWWA C900 FOR PIPE SIZES 8" AND 12", CL305 (DR14) AND AWWA C905 FOR PIPE SIZE OF 16", CL235 (DR18). MINIMUM DISTRIBUTION MAIN SIZE SHALL BE 8". WATER LINES THAT ARE 10", 14", AND 18" IN DIAMETER ARE NOT PERMITTED.
3. WATER LINE FITTINGS SHALL BE DIP CONFORMING TO AWWA C153 OR C110 AND SHALL HAVE A PRESSURE RATING NOT LESS THAN THE PIPE. ALL FITTINGS SHALL BE MECHANICAL JOINT, UNLESS APPROVED BY CASTLE ROCK WATER.
4. ALL DIP AND FITTINGS SHALL BE ENCASED IN POLYETHYLENE TO PREVENT CORROSION. POLYETHYLENE WRAP, TAPE AND INSTALLATION SHALL MEET THE REQUIREMENTS OF AWWA C105.
5. GATE VALVES SHALL BE DESIGNED AND MANUFACTURED IN ACCORDANCE WITH AWWA C509-1 AND AWWA C515-01, AS APPROPRIATE, AND SHALL BE DUCTILE IRON BODY AND BONNET, RESILIENT-SEATED WEDGE GATE, NON-RISING STEM TYPE, O-RING SEALS, AND SLIP-ON CONNECTIONS (TAPPING VALVES, WHERE ALLOWED, SHALL BE FLANGE X MJ). VALVE ENDS SHALL BE MECHANICAL JOINT, UNLESS OTHERWISE SPECIFIED IN THE PLANS. THE VALVES SHALL BE SUITABLE FOR A WORKING PRESSURE OF 200 PSI. THEY SHALL BE CLOSED BY TURNING CLOCKWISE AND SHALL HAVE TWO-INCH SQUARE CAST IRON OPERATING NUTS WITH AN ARROW CAST IN THE NUT INDICATING THE DIRECTION OF OPENING. VALVES SHALL BE POLYETHYLENE WRAPPED IN ACCORDANCE WITH AWWA C105. THEY SHALL BE OF SUCH DESIGN AS TO MAINTAIN THE FULL AREA OF THE PIPE THROUGH THE VALVE WHEN OPEN AND SHALL BE DESIGNED TO TAKE FULL PRESSURE ON EITHER FACE. VALVE SHALL HAVE TYPE 304 STAINLESS STEEL BONNET BOLTS AND NUTS AND TYPE 304 STAINLESS STEEL O-RING GLAND BOLTS AND NUTS. VALVES SHALL BE MANUFACTURED BY AMERICAN FLOW CONTROL, KENNEDY OR MUELLER AND SHALL HAVE THE MANUFACTURER'S NAME OR INITIALS AND THE PRESSURE RATING CAST ON THE BODY.
6. ALL FIRE HYDRANTS SHALL BE PACER WB67-250"BY WATEROUS CO. OR SUPER CENTURION 250"BY MUELLER CO., OPENING TO THE LEFT. REFER TO TCR STANDARD DETAIL W-11.
7. ALL WATER LINES SHALL BE BURIED AN ABSOLUTE MINIMUM OF 5 FEET FROM FINAL GRADE TO THE TOP OF THE WATER MAIN. THE MAXIMUM BURY DEPTH SHALL BE 6 FEET, UNLESS ADDITIONAL DEPTH IS REQUIRED FOR UTILITY CROSSINGS OR OTHER CONFLICTS. WHEREVER SUCH CROSSINGS OR CONFLICTS OCCUR, THE TCR STANDARD DETAIL W-17 SHALL BE USED.
8. ALL WATER LINES SHALL BE BEDDED IN ACCORDANCE WITH TCR STANDARD DETAIL W-21.
9. CONTRACTOR SHALL MAINTAIN A MINIMUM 18-INCH VERTICAL CLEARANCE AND 10-FOOT HORIZONTAL CLEARANCE EDGE-TO-EDGE BETWEEN ALL WATER LINES AND ANY OTHER PIPED UTILITIES.
10. ALL BENDS, TEES, FIRE HYDRANTS AND PLUGS AT DEAD-END MAINS SHALL BE RESTRAINED FROM THRUST BY USING METALLIC RESTRAINTS PER TCR STANDARD DETAIL W-18 IN COMBINATION WITH CONCRETE THRUST BLOCKS PER TCR STANDARD DETAIL W-22.
11. CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING ALL FIRE HYDRANTS AND VALVE BOXES TO FINISH GRADE IN ACCORDANCE WITH TCR STANDARD DETAILS W-10 AND W-11.
12. PRIOR TO CONNECTING TO THE TOWN'S EXISTING WATER SYSTEM, ALL NEW WATERLINES AND/OR SEGMENTS OF WATERLINES SHALL BE DISINFECTED, PRESSURE TESTED, AND BACTERIOLOGICALLY TESTED IN ACCORDANCE WITH SECTION 450.5 OF THE TOWN OF CASTLE ROCK CONSTRUCTION METHODOLOGY AND MATERIALS MANUAL; AWWA C651-14 AND C800-5-2; AND DETAILS W-35A AND/OR W-35B. PLEASE NOTE THAT THIS DISINFECTION AND TESTING WILL BE PERFORMED WHILE THE NEW WATERLINES AND/OR SEGMENTS OF WATERLINES ARE NOT PHYSICALLY CONNECTED TO THE TOWN'S EXISTING WATER SYSTEM. TOWN AND CONTRACTOR SHALL FURNISH MATERIALS AS SHOWN ON DETAILS W-35A AND/OR W-35B. CONTRACTOR SHALL PERFORM ALL PROCEDURES FOR TESTING, FLUSHING AND DISINFECTING OF ALL WATER LINES. TESTING SHALL BE DONE IN THE PRESENCE OF THE TCR CONSTRUCTION INSPECTOR. CONTRACTOR SHALL PROVIDE A MINIMUM SEVENTY-TWO (72) HOUR NOTICE TO, AND OBTAIN APPROVAL FROM THE ON-SITE TCR CONSTRUCTION INSPECTOR, (720)733-2200, PRIOR TO DISINFECTION, PRESSURE TESTING, AND BACTERIOLOGICAL TESTING OF ANY NEW WATERLINES AND/OR SEGMENTS OF WATERLINES.
13. DISTANCES FOR WATER LINES ARE HORIZONTAL DISTANCE FROM THE CENTER OF THE FITTING TO CENTER OF THE FITTING. THEREFORE, DISTANCES SHOWN ON THE PLANS ARE APPROXIMATE AND COULD VARY DUE TO VERTICAL ALIGNMENT AND FITTING DIMENSIONS.
14. ALL DOMESTIC WATER SERVICE LINES SHALL BE TYPE K COPPER INSULATED WITH POLYWRAP. FROM THE MAIN TO THE METER, THE WATER METER SHALL BE SUPPLIED BY THE TOWN AND INSTALLED BY THE CONTRACTOR. THE WATER METER WILL BE AVAILABLE FOR PICK UP AT CASTLE ROCK WATER. THE INDIVIDUAL PICKING UP THE WATER METER MUST HAVE PROOF OF A PERMIT AND MUST HAVE PAID ALL FEES ASSOCIATED WITH THE WATER METER.
15. WATER LINE TRENCHES SHALL BE SLOPED OR BRACED AND SHEETED AS NECESSARY FOR THE SAFETY OF THE WORKERS AND THE PROTECTION OF OTHER UTILITIES, IN COMPLIANCE WITH ALL APPLICABLE STATE AND FEDERAL REQUIREMENTS. FOR ALL EXCAVATION OPERATIONS, SAFETY IS THE RESPONSIBILITY OF THE CONTRACTOR.
16. WATER LINES SHALL BE ALIGNED 6 FEET OFF THE NORTH AND EAST GUTTER FLOW LINES OF PUBLIC STREETS WHEREVER POSSIBLE. SEE DETAIL W-13.
17. WHERE WATER LINE IMPROVEMENTS ARE DIFFICULT TO LOCATE ON THE SURFACE, THE CONTRACTOR SHALL BE REQUIRED TO INSTALL PERMANENT WATER LINE MARKERS, IN ACCORDANCE WITH TCR STANDARD DETAIL W-23, OR AT THE DISCRETION OF THE TCR CONSTRUCTION INSPECTOR.
18. TRACER WIRE SHALL BE USED ON ALL DIP AND PVC WATER MAINS, AND WARNING TAPE SHALL BE PLACED 1 FOOT ABOVE ALL DIP AND PVC PIPE. REFER TO TOWN OF CASTLE ROCK STANDARD TRACER WIRE REQUIREMENTS, IN THESE GENERAL NOTES. TEST STATIONS SHALL BE

CONSTRUCTED PER STANDARD DETAIL W-28.

19. THE MINIMUM DISTANCE BETWEEN TEES, CROSSES, VALVES, AND BENDS SHALL BE 10 FEET WHEREVER POSSIBLE.
20. MAXIMUM DEFLECTION FOR WATER MAINS SHALL NOT EXCEED ONE-HALF OF THE MANUFACTURER'S MAXIMUM ALLOWABLE DEFLECTION OR 2.5 DEGREES, WHICHEVER IS LESS.
21. ALL RESIDENTIAL WATER SERVICE LINES SHALL BE CONSTRUCTED PERPENDICULAR TO THE FRONT PROPERTY LINE IN CONFORMANCE WITH THE TOWN OF CASTLE ROCK WATER SYSTEM DESIGN CRITERIA MANUAL AND WATER DETAILS.
22. THE MAXIMUM DEFLECTION OF DOMESTIC WATER SERVICE LINES AND IRRIGATION LINES SHALL NOT EXCEED THE MANUFACTURER'S MAXIMUM ALLOWABLE DEFLECTION.
23. THE SIZE OF THE IRRIGATION TAP, LINE, METER AND BACKFLOW PREVENTION ASSEMBLY SHALL BE THE SAME TO A MINIMUM DISTANCE OF 10 PIPE DIAMETERS PAST THE WINTERIZATION TEE.
24. THE MINIMUM HORIZONTAL SEPARATION BETWEEN UTILITY LINES CARRYING THE SAME MATERIAL (E.G., WATER AND WATER) SHALL BE 5 FEET.
25. WHEN INSTALLING CUT IN TEES OR OTHER APPURTENANCES ON/IN AN EXISTING WATER LINE, THE PIPE MATERIAL BETWEEN THE EXISTING WATER LINE AND THE CUT IN TEE OR OTHER APPURTENANCE SHALL REMAIN CONSISTENT.
26. CONTRACTOR IS RESPONSIBLE TO PROVIDE BACKFLOW PREVENTION DOWNSTREAM OF THE METER. ACCEPTABLE BACKFLOW PREVENTION ASSEMBLIES ARE AS FOLLOWS:
- COMMERCIAL POTABLE WATER SERVICE: REDUCED PRESSURE ASSEMBLY.
 - RESIDENTIAL POTABLE WATER SERVICE: DOUBLE CHECK VALVE ASSEMBLY, REDUCED PRESSURE ASSEMBLY.
 - COMMERCIAL FIRE SERVICE: REDUCED PRESSURE DETECTOR ASSEMBLY, DOUBLE CHECK VALVE DETECTOR ASSEMBLY.
 - RESIDENTIAL FIRE SERVICE: REDUCED PRESSURE DETECTOR ASSEMBLY, DOUBLE CHECK VALVE DETECTOR ASSEMBLY.
 - COMMERCIAL AND MULTIFAMILY IRRIGATION WATER SERVICE: REDUCED PRESSURE ASSEMBLY.

THE DOUBLE CHECK DETECTOR ASSEMBLY (DCDA) IS THE ONLY BACK FLOW PREVENTION DEVICE RATED FOR HORIZONTAL OR VERTICAL INSTALLATION.

STORM DRAINAGE CONSTRUCTION NOTES

1. ALL STORM DRAINAGE CONSTRUCTION IS SUBJECT TO THE GENERAL NOTES ON THE COVER SHEET OF THESE PLANS AS WELL AS THE STORM DRAINAGE CONSTRUCTION NOTES LISTED HERE.
2. ALL STORM DRAINAGE PIPES SHALL BE REINFORCED CONCRETE PIPE (RCP) PER ASTM C76, CL III INSTALLED WITH FLEXIBLE PLASTIC (BITUMEN) GASKETS, ACCORDING TO THE MANUFACTURER'S INSTALLATION GUIDELINES. ANY STORM DRAINAGE PIPE UNDER A PROPOSED OR FUTURE TRAFFIC AREA SHALL BE RCP CL III AS A MINIMUM. RCP TO BE JACKED SHALL BE CL-V AS A MINIMUM.
3. ALL STORM DRAINAGE PIPES SHALL HAVE A MINIMUM COVER OF 24" UNLESS LOAD CALCULATIONS ARE PROVIDED. UNDER NO CIRCUMSTANCES WILL ANY PIPE HAVE LESS THAN 18" COVER FROM THE FINISH SURFACE TO THE OUTSIDE WALL OF THE PIPE.
4. ALL STORM DRAINAGE PIPES SHALL BE BEDDED IN ACCORDANCE WITH TCR STANDARD DETAIL SD-2.
5. ALL STORM DRAINAGE TRENCHES SHALL BE SLOPED OR BRACED AND SHEETED AS NECESSARY FOR THE SAFETY OF THE WORKERS AND THE PROTECTION OF OTHER UTILITIES AND IN COMPLIANCE WITH ALL APPLICABLE STATE AND FEDERAL REQUIREMENTS. ALL EXCAVATION OPERATION SAFETY IS THE RESPONSIBILITY OF THE CONTRACTOR.
6. ALL MANHOLE RIM ELEVATIONS GIVEN ON THESE PLANS ARE TO BE CONSIDERED APPROXIMATE. THE CONTRACTOR SHALL SET THE FINAL RIM ELEVATION BASED ON THE COMPLETED FINISH SURFACE.
7. ALL STORM DRAINAGE PIPES SHALL HAVE A MINIMUM HORIZONTAL SEPARATION OF 10' FROM ALL WATER LINES. WHERE LINES CROSS, THERE SHALL BE A MINIMUM OF 18" CLEAR VERTICAL SEPARATION.
8. ALL INLETS AND MANHOLES SHALL BE PLACED ON A MINIMUM OF 1' OF ¾" WASH ROCK. IF ADDITIONAL SUBGRADE IS DISTURBED, EXCAVATION SHALL BE BACKFILLED WITH ¾" WASH ROCK OR OTHER APPROVED STRUCTURAL SOIL COMPACTED TO 95% OF ASTM D698 UNLESS OTHERWISE INSTRUCTED BY THE INSPECTOR.

SANITARY SEWER CONSTRUCTION NOTES

1. ALL SANITARY SEWER CONSTRUCTION IS SUBJECT TO THE GENERAL NOTES ON THE COVER SHEET OF THESE PLANS AS WELL AS THE SANITARY SEWER CONSTRUCTION NOTES LISTED HEREIN.
2. ALL SANITARY SEWER PIPELINES SHALL BE PVC, SDR-35, IN ACCORDANCE WITH ASTM D-3034, BELL AND SPIGOT WITH ELASTOMERIC SEAL.
3. ALL SANITARY SEWER PIPELINES SHALL HAVE A MINIMUM COVER OF 5 FEET AND MAXIMUM COVER OF 20 FEET.
4. ALL SANITARY SEWER PIPELINES SHALL BE BEDDED IN ACCORDANCE WITH TCR STANDARD DETAIL SS-8.
5. ALL MANHOLE RIM ELEVATIONS GIVEN ON THESE PLANS ARE CONSIDERED APPROXIMATE. THE CONTRACTOR SHALL SET THE FINAL RIM ELEVATION BASED ON THE COMPLETE FINISH SURFACE AND PER TCR STANDARD DETAIL SS-3.
6. SANITARY SEWER PIPELINE SHALL BE ALIGNED 6 FEET OFF THE SOUTH AND WEST GUTTER FLOW LINES OF PUBLIC STREETS WHEREVER POSSIBLE.
7. ALL SEWER LINES SHALL HAVE A MINIMUM HORIZONTAL SEPARATION OF 10 FEET EDGE-TO-EDGE FROM ALL WATER LINES. WHERE LINES CROSS, THERE SHALL BE A MINIMUM OF 18" CLEAR VERTICAL SEPARATION.
8. ALL SANITARY SEWER LINES MUST BE TESTED IN ACCORDANCE WITH SECTION 450.6 OF THE TOWN OF CASTLE ROCK CONSTRUCTION METHODOLOGY AND MATERIALS MANUAL IN THE PRESENCE OF A TCR CONSTRUCTION INSPECTOR.
9. ALL SANITARY SEWER LINE TRENCHES SHALL BE SLOPED OR BRACED AND SHEETED AS NECESSARY FOR THE SAFETY OF THE WORKERS AND THE PROTECTION OF OTHER UTILITIES, IN COMPLIANCE WITH ALL APPLICABLE STATE AND FEDERAL REQUIREMENTS. ALL EXCAVATION OPERATION SAFETY IS THE RESPONSIBILITY OF THE CONTRACTOR.
10. SANITARY SEWER SERVICES SHALL BE CONNECTED A MINIMUM OF 5 FEET OUTSIDE OF MANHOLES WITH A WYE CONNECTION IN ACCORDANCE WITH TCR STANDARD DETAIL SS-2.
11. MINIMUM COVER FOR SANITARY SEWER SERVICE LINES SHALL BE 5 FEET AND THE MINIMUM SLOPE SHALL BE 2.0%.
12. ALL SANITARY SEWER SERVICE LINES SHALL BE CONSTRUCTED ALONG THE SHORTEST AND STRAIGHTEST ROUTE POSSIBLE IN CONFORMANCE WITH THE TOWN OF CASTLE ROCK WASTEWATER SYSTEM DESIGN CRITERIA MANUAL.
13. THE MINIMUM HORIZONTAL SEPARATION BETWEEN UTILITY LINES CARRYING THE SAME MATERIAL (E.G., WASTEWATER AND WASTEWATER) SHALL BE 5 FEET.
14. THE PLUM CREEK WASTEWATER AUTHORITY MUST APPROVE OIL AND GREASE INTERCEPTORS FOR COMMERCIAL INSTALLATIONS.
15. ALL MANHOLES SHALL BE PLACED ON A MINIMUM OF 1' OF ¾" WASH ROCK. IF ADDITIONAL SUBGRADE IS DISTURBED, EXCAVATION SHALL BE BACKFILLED WITH ¾" WASH ROCK OR OTHER APPROVED STRUCTURAL SOIL COMPACTED TO 95% OF ASTM D698 UNLESS OTHERWISE INSTRUCTED BY THE INSPECTOR.

LANDSCAPE NOTES

1. NON-IRRIGATED NATIVE SEED AREAS SHALL BE INSTALLED USING THE TOWN OF CASTLE ROCK GRADING EROSION AND SEDIMENT CONTROL MANUAL (GESCO) STANDARD DETAIL #17.
2. NO TURF AND/OR OVERHEAD IRRIGATION ON SLOPES 3:1.
3. NO SLOPES GREATER THAN 3:1 ARE PERMITTED.
4. TOP SOIL, IF DISTURBED SHALL BE STOCK PILED AND REUSED ON THE SITE.
5. NO MORE THAN SIXTY PERCENT OF THE TOTAL COMMERCIAL LANDSCAPE AREA SHALL INCLUDE IRRIGATED TURF GRASS.
6. NO INDIVIDUAL PLANT MAY HAVE SUPPLEMENTAL WATER DEMAND GREATER THAN 15" PER GROWING SEASON.

IRRIGATION NOTES

1. THE IRRIGATION SYSTEM SHALL BE EQUIPPED WITH A BACKFLOW PREVENTION ASSEMBLY APPROVED BY THE TOWN OF CASTLE ROCK.
2. IRRIGATION TAP, LINE, METER AND BACKFLOW PREVENTION ASSEMBLY MUST BE THE SAME SIZE FROM THE TAP TO A MINIMUM DISTANCE OF 10 PIPE DIAMETERS PAST THE BACKFLOW PREVENTION ASSEMBLY AND WINTERIZATION TEE.
3. WATER WASTE IS NOT ALLOWED PER THE TOWN OF CASTLE ROCK'S WATER USE MANAGEMENT PLAN. THEREFORE, ALL NOZZLES ARE TO BE FINE TUNE/ADJUSTED SO THAT OVERSPRAY ONTO HARD SURFACES IS ELIMINATED.
4. IRRIGATION IS NOT PERMITTED ON 3:1 SLOPES.
5. VELOCITY SHALL NOT EXCEED 7.5 FPS THROUGH THE WATER METER.
6. NO OVERHEAD IRRIGATION IN AREAS LESS THAN 10 FEET WIDE.
7. THERE IS TO BE NEITHER PLANT MATERIAL NOR IRRIGATION IN AREAS LESS THAN 4 FEET WIDE.

TRACER WIRE INSTALLATION NOTES

1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH CURRENT TOWN OF CASTLE ROCK STANDARD NOTES, DETAILS AND SPECIFICATIONS.
2. TRACER WIRE IS REQUIRED ON ALL UNDERGROUND PIPE. A MAINLINE TRACER WIRE MUST BE INSTALLED WITH ALL SERVICE LATERAL TRACER WIRES PROPERLY CONNECTED TO ENSURE FULL LOCATING CAPABILITIES FROM A SINGLE CONNECTION POINT.
3. TRACER WIRE COLORS FOR STORM SEWER, DRAIN LINES, SANITARY SEWER, AND WATER MAINS SHALL BE IN ACCORDANCE WITH AMERICAN PUBLIC WORKS ASSOCIATION (APWA) UNIFORM COLOR CODE. ALL GROUNDING WIRE SHALL BE RED OR BLACK.
4. "OPEN TRENCH" TRACER WIRE SHALL BE #8 OR #10 AWG COPPER SOLID OR #12 AWG COPPER CLAD HIGH STRENGTH WITH MINIMUM 30-MIL HDPE INSULATION THICKNESS COMPLYING WITH ASTM D-1248, AND A MINIMUM AVERAGE TENSILE BREAK LOAD OF 450 LBS.
5. TRACER WIRE SHALL BE SECURED EVERY 5 FEET TO THE TOP OF THE PIPE AND TO THE SIDES OF MANHOLES AND INLETS USING TAPE, PLASTIC TIES, OR APPROVED ADHESIVE AT 5-FOOT INTERVALS.
6. TRACER WIRE SHALL BE SECURELY BONDED TOGETHER AT ALL WIRE JOINTS WITH LOCKABLE, CORROSION PROOF, WATERTIGHT CONNECTORS SPECIFICALLY DESIGNED FOR DIRECT BURIAL, AND FILLED WITH NON-HARDENING DIELECTRIC SILICONE SEALANT.
7. ANY DAMAGE OCCURRING DURING INSTALLATION OF THE TRACER WIRE MUST BE IMMEDIATELY REPAIRED BY REMOVING THE DAMAGED WIRE AND INSTALLING A NEW SECTION OF WIRE WITH APPROVED CONNECTORS. TAPING AND/OR SPRAY COATING IS NOT ALLOWED.
8. A MINIMUM OF 2 FEET OF EXCESS/SLACK WIRE IS REQUIRED IN ALL TRACER WIRE TEST STATIONS, MANHOLES, AND INLETS AFTER MEETING FINAL ELEVATION.
9. TRACER WIRE MUST BE PROPERLY GROUNDED AT ALL DEAD ENDS (MANHOLES, INLETS, OUTFALLS, FUTURE CONNECTIONS, ETC.) USING A MAGNESIUM GROUND ROD. THE GROUND ROD WILL BE CONNECTED TO 12- OR 14-AWG COPPER-CLAD STEEL WIRE WITH 30 MIL HDPE INSULATION AND RATED FOR DIRECT BURY USE AT 30 VOLTS WITH 21% CONDUCTIVITY.
10. TEST STATIONS SHALL PROVIDE PROTECTED ACCESS FOR A DIRECT CONNECTION TO THE TRACER WIRE SYSTEM AT GROUND SURFACE.
11. TRUNK LINE TRACER WIRE SHALL BE CONTINUOUS, AND PASS AROUND THE OUTSIDE OF VALVES AND OTHER STRUCTURES ON THE NORTH OR EAST SIDE.
12. THE CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS (EXCAVATION, CONCRETE, TRAFFIC CONTROL, ETC.) AND PROVIDE A MINIMUM TWENTY-FOUR (24) HOURS NOTICE TO THE ON-SITE TCR CONSTRUCTION INSPECTOR, (720) 733-2200, TO REQUEST A TRACER WIRE INSPECTION.
13. ALL NEW TRACER WIRE INSTALLATIONS SHALL BE TESTED AND LOCATED PRIOR TO ACCEPTANCE. TESTING AND LOCATING SHALL BE PERFORMED BY THE TCR CONSTRUCTION INSPECTOR AT THE COMPLETION OF ROUGH GRADING AND PRIOR TO FINAL ACCEPTANCE OF THE PROJECT. ANY DEFICIENCIES SHALL BE CORRECTED PRIOR TO FINAL ACCEPTANCE.

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CHECKED BY: RCP
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ISSUE DATE: 08-11-2022	
DATE	REVISION COMMENTS
10-31-2022	PER TOWN OF CASTLE ROCK COMMENTS



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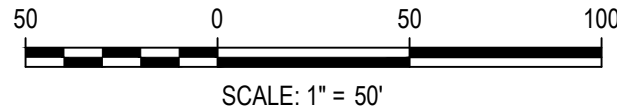
AVILLA FOUNDERS VILLAGE NOTES	
PROJECT #: 210431 SHEET NUMBER	2
2 OF 87	

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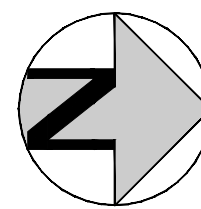
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ISSUE DATE: 08-11-2022	
DATE	REVISION COMMENTS
10-31-2022	PER TOWN OF CASTLE ROCK COMMENTS



AVILLA FOUNDERS VILLAGE
SITE PLAN

PROJECT #: 210431
SHEET NUMBER
4
4 OF 87



LEGEND:

	EXISTING	PROPOSED
PROPERTY BOUNDARY	—	—
RIGHT OF WAY	- - -	- - -
UTILITY EASEMENT	- - -	- - -
ACCESS EASEMENT	- - -	- - -
FIRE HYDRANT	⦿	⦿
SIGN	⦿	⦿
STREET LIGHT	⦿	⦿
STORM MANHOLE & INLET	⦿	⦿
SANITARY MANHOLE	⦿	⦿
WATER METER	⦿	⦿
TRANSFORMER	⦿	⦿

HORIZONTAL CONTROL

BEARINGS ARE BASED ON THE NORTH LINE OF THE NORTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 8, AS MONUMENTED AT THE EAST CORNER BY A #6 REBAR WITH A 3.25" ALUMINUM CAP STAMPED: SURVCON 2006 PLS 30289 AND AT THE CENTER-EAST SIXTEENTH CORNER BY A 2.5" PIPE WITH A 3.5" ALUMINUM CAP STAMPED: 1986 PLS 22100, AS BEARING SOUTH 88°58'05" WEST, PER THE PLAT OF FOUNDERS VILLAGE FILING NO. 24 AMENDMENT NO. 1.

VERTICAL DATUM

DOUGLAS COUNTY GIS CONTROL MONUMENT NO. 4.015020 MONUMENTED BY A 3-1/4" DIAMETER ALUMINUM CAPPED MONUMENT BEING NORTH OF THE EAST 1/4 CORNER OF SECTION 8 AS MONUMENTED BY 2-1/2" ALUMINUM CAPPED MONUMENT STAMPED "LS28656". NAVD 88 ELEVATION=6572.29

PROFESSIONAL ENGINEER CERTIFICATION

I HEREBY AFFIRM THAT THESE FINAL CONSTRUCTION PLANS WERE PREPARED UNDER MY DIRECT SUPERVISION, IN ACCORDANCE WITH ALL APPLICABLE TOWN OF CASTLE ROCK AND STATE OF COLORADO STANDARDS AND STATUTES, RESPECTIVELY; AND THAT I AM FULLY RESPONSIBLE FOR ALL DESIGN AND REVISIONS RELATIVE TO SAID PLANS.

PRELIMINARY
NOT FOR
CONSTRUCTION

RACHEL C PATTON, P.E. #54450

DATE

TOWN OF CASTLE ROCK APPROVAL

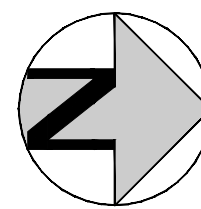
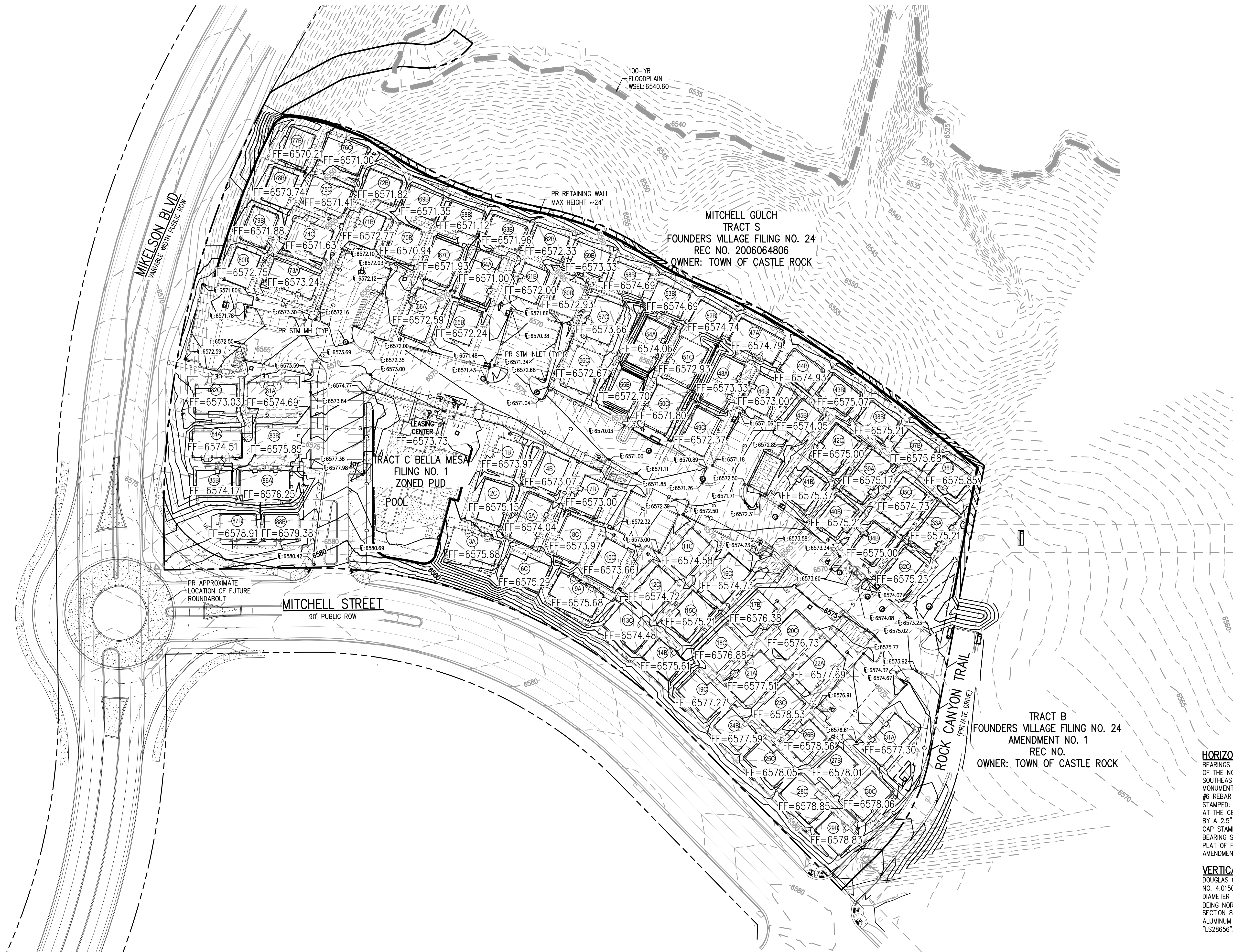
PLANS ARE HEREBY APPROVED FOR ONE YEAR FROM DATE OF DEVELOPMENT SERVICES APPROVAL

Approved By:

Development Services

Date

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HORIZONTAL CONTROL

BEARINGS ARE BASED ON THE NORTH LINE OF THE NORTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 8, AS MONUMENTED AT THE EAST CORNER BY A #6 REBAR WITH A 3.25" ALUMINUM CAP STAMPED: SURVCON 2006 PLS 30289 AND AT THE CENTER-EAST SIXTEENTH CORNER BY A 2.5" PIPE WITH A 3.5" ALUMINUM CAP STAMPED: 1986 PLS 22100, AS BEARING SOUTH 88°58'05" WEST, PER THE PLAT OF FOUNDERS VILLAGE FILING NO. 24 AMENDMENT NO. 1.

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PRELIMINARY
NOT FOR
CONSTRUCTION

RACHEL C. PATTON, P.E. #54450

DATE

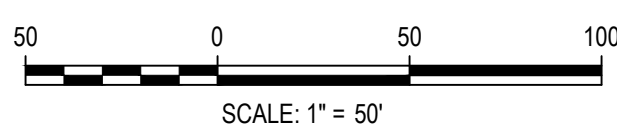
TOWN OF CASTLE ROCK APPROVAL

PLANS ARE HEREBY APPROVED FOR ONE YEAR FROM DATE OF DEVELOPMENT SERVICES APPROVAL

Approved By:

Development Services

Date



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DRAWN BY: <DRAWN>

ISSUE DATE: 08-11-2022

DATE	REVISION COMMENTS
10-31-2022	PER TOWN OF CASTLE ROCK COMMENTS



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AVILLA FOUNDERS VILLAGE
OVERALL GRADING PLAN

PROJECT #: 210431
SHEET NUMBER

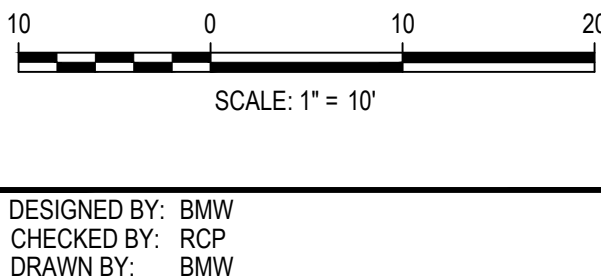
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5 OF 87

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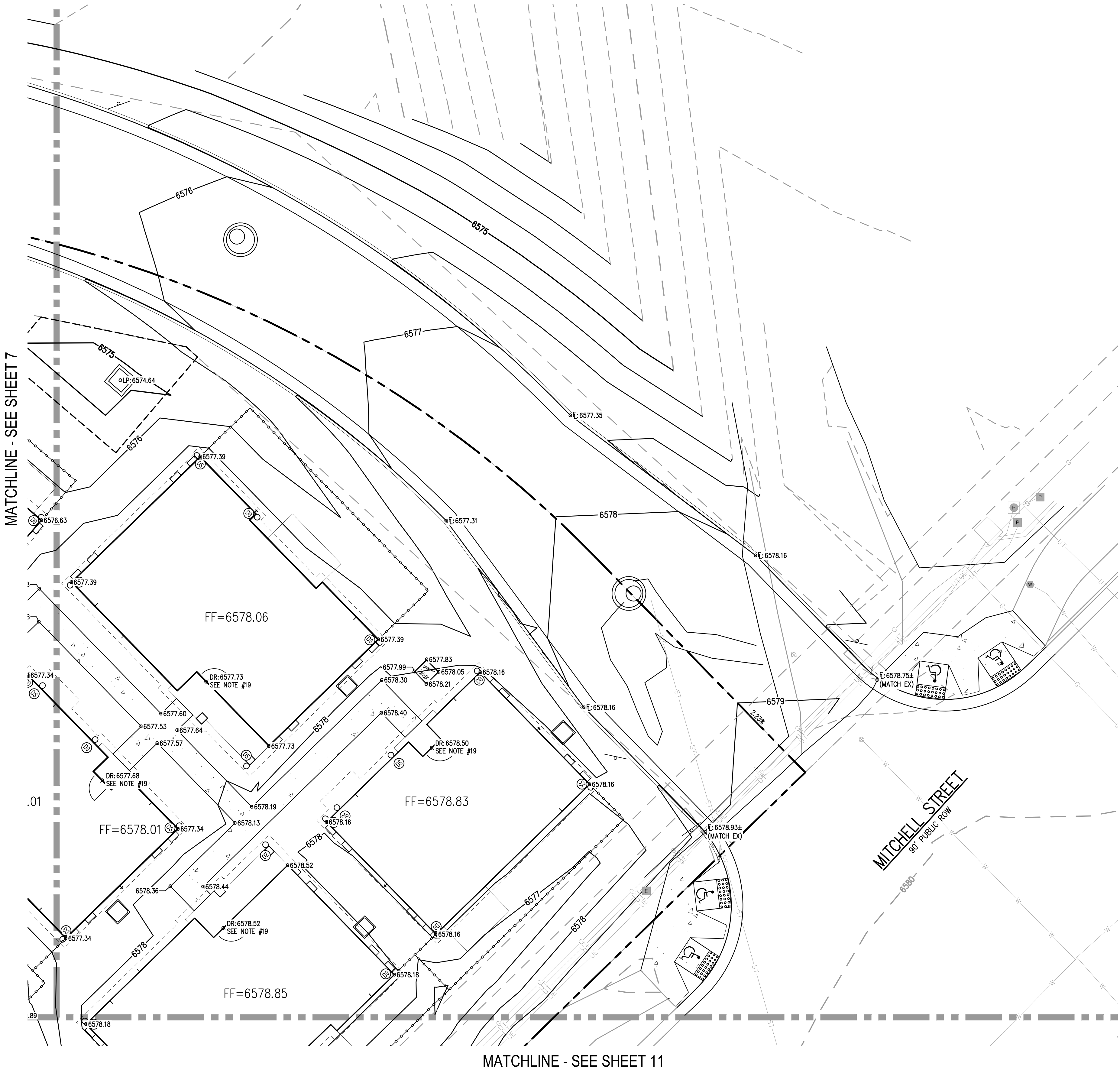


ISSUE DATE: 08-11-2022	
DATE	REVISION COMMENTS
10-31-2022	PER TOWN OF CASTLE ROCK COMMENTS



AVILLA FOUNDERS VILLAGE
DETAILED GRADING PLAN

PROJECT #: 210431
SHEET NUMBER
8
8 OF 87



GENERAL GRADING NOTES:

1. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT HANDRAILS, STAIRS, CURB RAMPS, AND RAMPS ARE INSTALLED IN CONFORMANCE WITH ALL APPLICABLE LOCAL STATE AND/OR FEDERAL REGULATIONS AND STANDARDS, INCLUDING BUT NOT LIMITED TO, THE AMERICANS WITH DISABILITIES ACT (ADA), THE FAIR HOUSING ACT (FHA) AND THE AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI).
2. CROSS SLOPES ALONG THE ACCESSIBLE ROUTE OR AT LANDINGS SHALL NOT EXCEED 2% IN ANY DIRECTION.
3. LONGITUDINAL SLOPES ALONG THE ACCESSIBLE ROUTE SHALL NOT EXCEED 5%. LONGITUDINAL SLOPES ON RAMPS SHALL NOT EXCEED 8.33%. RAMPS, EXCEPT CURB RAMPS, SHALL HAVE HANDRAILS ON BOTH SIDES.
4. GUTTER SLOPES AT THE CURB RAMPS SHALL NOT EXCEED 5%.
5. GUTTER PANS SURROUNDING HANDICAP SPACES SHALL MATCH THE SLOPE OF THE ADJACENT PAVEMENT WITH A MAXIMUM 2% SLOPE IN ALL DIRECTIONS.
6. ALL GRADES ARE FINISHED GRADE, UNLESS OTHERWISE NOTED.
7. ROCK MULCH, IF PLACED UPSTREAM OF CONCRETE FLATWORK OR GRASSED AREA, SHALL BE PLACED ON TOP OF FINISHED GRADE SHOWN ON THESE PLANS. ROCK MULCH AREAS SHALL BE DESIGNED AND CONSTRUCTED TO ADEQUATELY DRAIN AND NOT RETAIN WATER. ALL LANDSCAPE EDGE MATERIALS SHALL NOT PREVENT DRAINAGE TO PASS THROUGH.
8. ALL GRADES ADJACENT TO THE BUILDING SHALL BE AT MINIMUM 8-INCHES BELOW FINISHED FLOOR ELEVATION, UNLESS OTHERWISE NOTED.
9. NON-PAVED GRADES ADJACENT TO BUILDINGS SHALL SLOPE AWAY FROM ALL BUILDINGS AT A MINIMUM OF 10% FOR 10-FT. ALL PAVED GRADES ATTACHED TO BUILDINGS SHALL SLOPE AWAY FROM ALL BUILDINGS AT A MINIMUM OF 1%, UNLESS OTHERWISE NOTED.
10. ALL GRADES FOR WALLS ARE FINISHED GRADE ELEVATIONS AT BOTTOM OF FRONT FACE (BW) AND TOP-BACK OF WALL (TW). THE WALL ELEVATIONS DO NOT INDICATE FOUNDATION DEPTHS OR ELEVATIONS. RETAINING WALL DETAILS SHALL BE PROVIDED BY OTHERS.
11. REFER TO STRUCTURAL PLANS FOR BUILDING FOUNDATION STEP LOCATIONS WHEN APPLICABLE.
12. PORTIONS OF STAIRS THAT DO NOT MEET THE MINIMUM 4-INCH RISER HEIGHT (DUE TO AN ADJACENT SLOPING PUBLIC WAY) SHALL HAVE A DISTINCTIVE MARKING STRIPE, 1-INCH TO 2-INCHES IN WIDTH, WITH A SLIP-RESISTANT SURFACE, IN ACCORDANCE WITH CURRENT INTERNATIONAL BUILDING CODE REGULATIONS.
13. SEE LANDSCAPE ARCHITECT PLANS FOR HEIGHT AND TOP OF COURTYARD AMENITIES (PLANTER CURBS, SEAT WALLS, BENCHES, FIRE WALL, MEDIA WALL, BARS, AND GRILLS).
14. TOP STEP ELEVATIONS FOR STOOPS AND PATIOS ARE SHOWN FOR REFERENCE ONLY. TOP OF STEPS AND PATIO ELEVATIONS SHALL BE COORDINATED WITH ARCHITECTURAL PLANS/DETAILS AND AS-BUILT STOOP/PATIO ELEVATIONS.
15. ELECTRICAL TRANSFORMER PADS AND AC-UNIT PADS ARE TO BE SET A MINIMUM OF 2-INCHES ABOVE THE ADJACENT FINISHED GRADE AROUND THE PERIMETER OF THE PAD. CONTRACTOR SHALL PROVIDE A CONCRETE TURNDOWN AS NECESSARY. CONTRACTOR IS TO VERIFY POSITIVE DRAINAGE AWAY FROM, AND AROUND, ALL ELECTRICAL PADS AND AC-UNIT PADS.
16. SITE GRADING SHALL BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS, AND THE RECOMMENDATIONS SET FORTH IN THE GEOTECHNICAL ENGINEERING REPORT.
17. CONTRACTOR SHALL ENSURE ACCESSIBLE EXTERIOR DOORS AND GATES ARE CONSTRUCTED WITH ADEQUATE LANDING WIDTH AND DEPTH TO COMPLY WITH APPLICABLE AMERICANS WITH DISABILITIES ACT (ADA) AND AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI) MANEUVERING CLEARANCES AT DOOR REQUIREMENTS (BASED ON THE DIRECTION OF APPROACH OF THE SIDEWALK).
18. RETAINING WALLS, SECTIONS OF RETAINING WALLS 4- FEET IN HEIGHT OR HIGHER OR TIERED WALLS MUST BE DESIGNED BY A STRUCTURAL ENGINEER LICENSED IN THE STATE OF COLORADO AND MUST RECEIVE A BUILDING PERMIT FROM THE TOWN OF CASTLE ROCK PRIOR TO THE ISSUANCE OF THE PUBLIC WORKS PERMIT.
19. DOOR ELEVATION REPRESENTS BOTTOM OF 4" STEP AT DOOR THRESHOLD PER STRUCTURAL DRAWINGS. SEE STRUCTURAL FOUNDATION PLANS (BY OTHERS) FOR MORE INFORMATION.
20. ADJACENT BASE FLOOD ELEVATION IS 6540.60. ALL FINISHED FLOOR ELEVATIONS ARE A MINIMUM OF 2- FEET ABOVE BASE FLOOD ELEVATION.

HORIZONTAL CONTROL

BEARINGS ARE BASED ON THE NORTH LINE OF THE NORTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 8, AS MONUMENTED AT THE EAST CORNER BY A #6 REBAR WITH A 3.25" ALUMINUM CAP STAMPED: SURVCON 2006 PLS 30289 AND AT THE CENTER-EAST SIXTEENTH CORNER BY A 2.5" PIPE WITH A 3.5" ALUMINUM CAP STAMPED: 1986 PLS 22100, AS BEARING SOUTH 88°58'05" WEST, PER THE PLAT OF FOUNDERS VILLAGE FILING NO. 24 AMENDMENT NO. 1.

VERTICAL DATUM

DOUGLAS COUNTY GIS CONTROL MONUMENT NO. 4.015020 MONUMENTED BY A 3-1/4" DIAMETER ALUMINUM CAPPED MONUMENT BEING NORTH OF THE EAST 1/4 CORNER OF SECTION 8 AS MONUMENTED BY 2-1/2" ALUMINUM CAPPED MONUMENT STAMPED "LS28656". NAVD 88 ELEVATION=6572.29

PROFESSIONAL ENGINEER CERTIFICATION

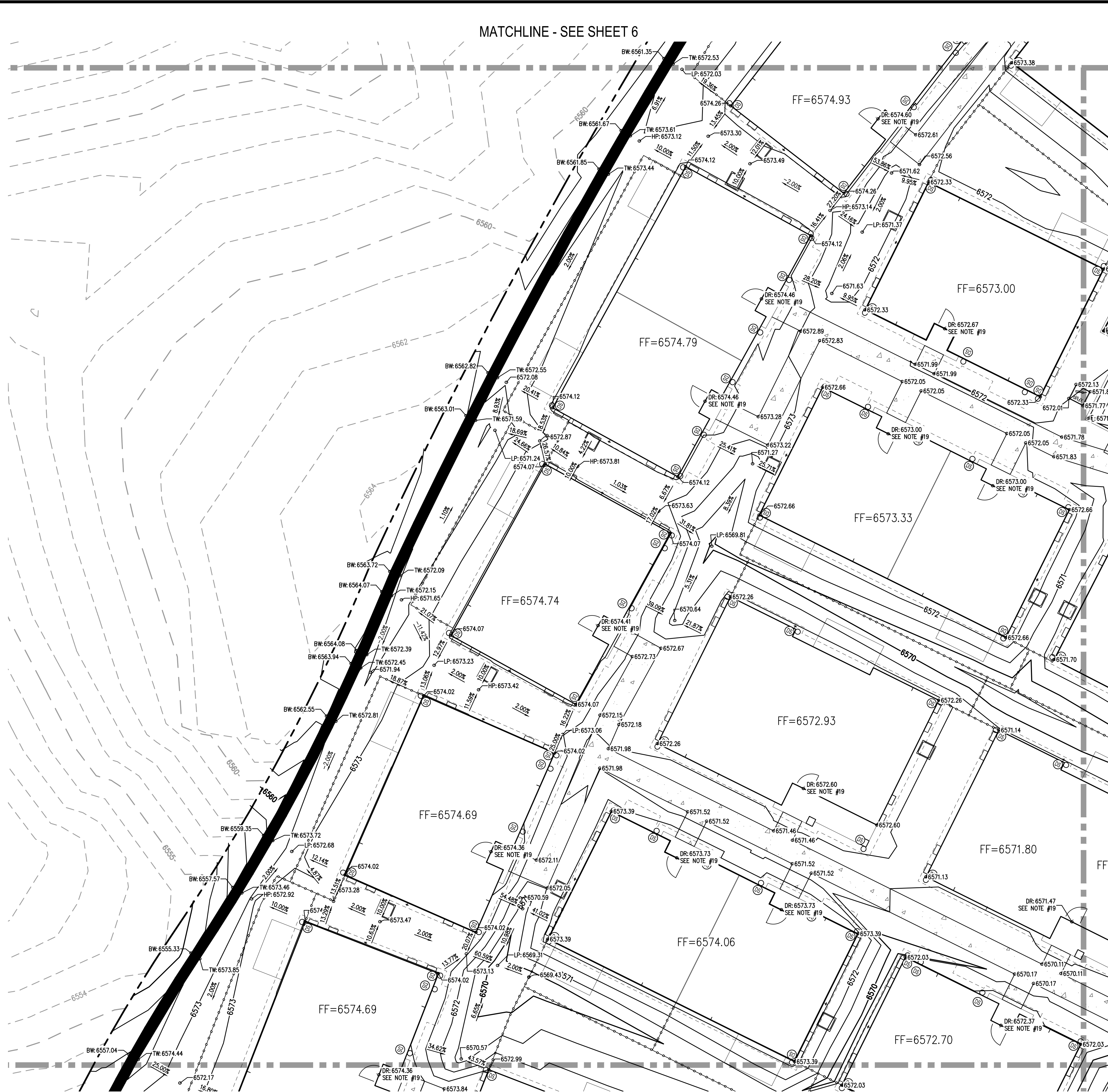
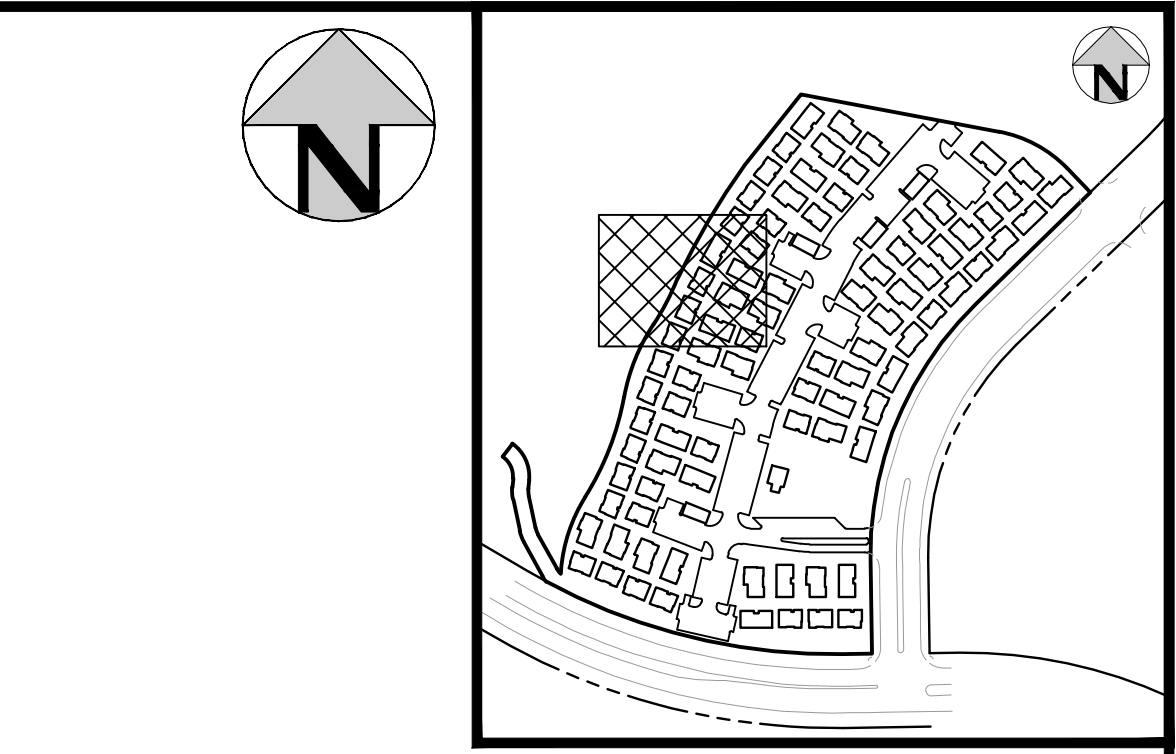
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PRELIMINARY
NOT FOR
CONSTRUCTION

RACHEL C. PATTON, P.E. #54450	DATE
TOWN OF CASTLE ROCK APPROVAL	
PLANS ARE HEREBY APPROVED FOR ONE YEAR FROM DATE OF DEVELOPMENT SERVICES APPROVAL	
Approved By:	
Development Services	Date

NO CHANGES ARE TO BE MADE TO THIS DRAWING WITHOUT WRITTEN PERMISSION OF HARRIS KOCHER SMITH.

FILE PATH: K:\210431\ENGINEERING\GRADING\CD - DETAILED GRADING PLAN.DWG LAYOUT LAYOUT1
DESIGNED BY: RCP
CHECKED BY: RCP
PLOTTED: MON 11/21/22 10:52:00A BY: JAMES SUSTAD



- GENERAL GRADING NOTES:**
1. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT HANDRAILS, STAIRS, CURB RAMPS, AND RAMPS ARE INSTALLED IN CONFORMANCE WITH ALL APPLICABLE LOCAL STATE AND/OR FEDERAL REGULATIONS AND STANDARDS, INCLUDING BUT NOT LIMITED TO, THE AMERICANS WITH DISABILITIES ACT (ADA), THE FAIR HOUSING ACT (FHA) AND THE AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI).
 2. CROSS SLOPES ALONG THE ACCESSIBLE ROUTE OR AT LANDINGS SHALL NOT EXCEED 2% IN ANY DIRECTION.
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 8. ALL GRADES ADJACENT TO THE BUILDINGS SHALL BE AT MINIMUM 8-INCHES BELOW FINISHED FLOOR ELEVATION, UNLESS OTHERWISE NOTED.
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PROFESSIONAL ENGINEER CERTIFICATION

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PRELIMINARY NOT FOR CONSTRUCTION

RACHEL C PATTON, P.E. #54450 DATE

TOWN OF CASTLE ROCK APPROVAL

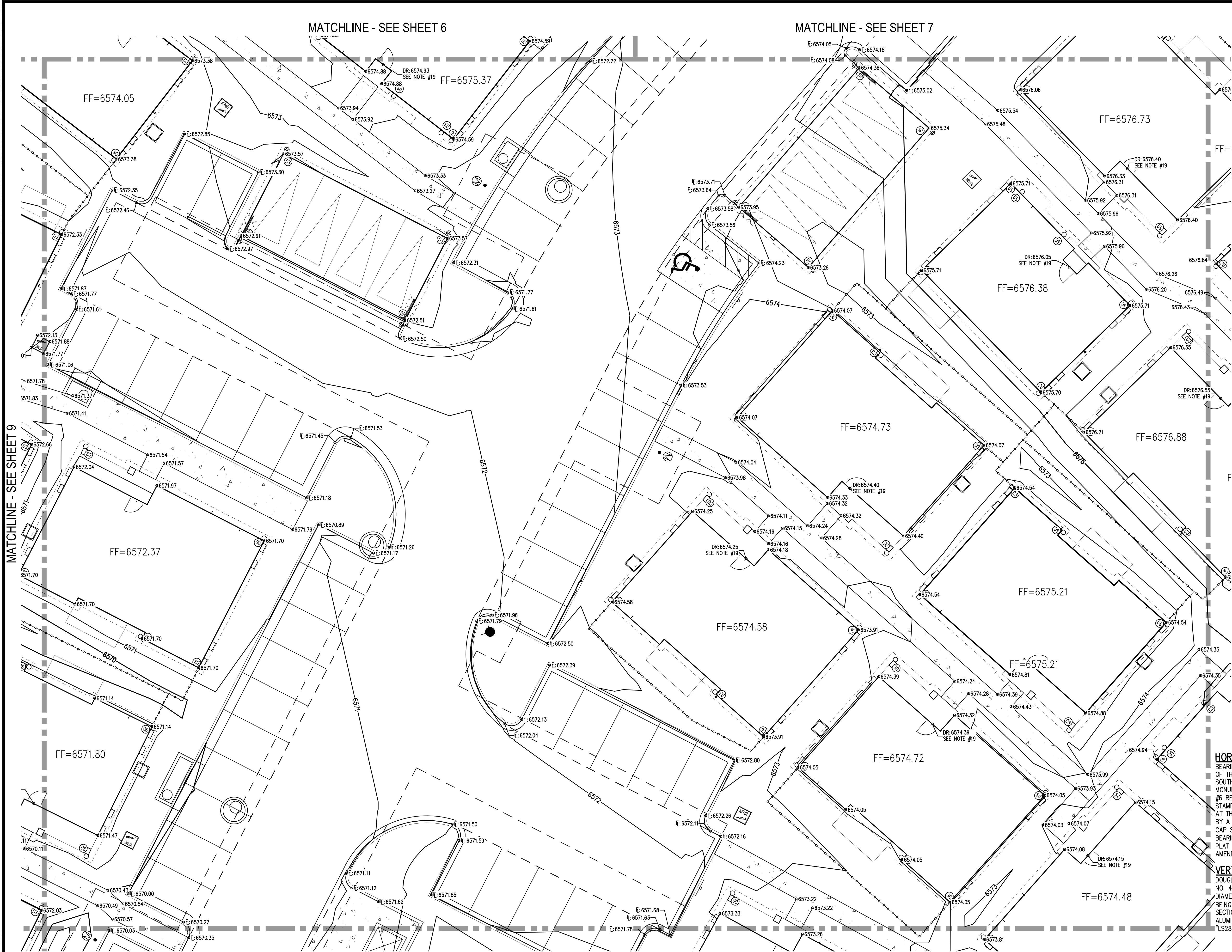
PLANS ARE HEREBY APPROVED FOR ONE YEAR FROM DATE OF DEVELOPMENT SERVICES APPROVAL

Approved By: _____

Development Services _____ Date _____

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FILE PATH: K:\210431\ENGINEERING\GRAVING\CD - DETAILED GRADING PLAN.DWG LAYOUT LAYOUTS
DESIGNED BY: BMW
CHECKED BY: RCP
PLOTTED: MON 11/21/22 10:52:05A BY: JAMES SUSTAD



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1. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT HANDRAILS, STAIRS, CURB RAMPS, AND RAMPS ARE INSTALLED IN CONFORMANCE WITH ALL APPLICABLE LOCAL STATE AND/OR FEDERAL REGULATIONS AND STANDARDS, INCLUDING BUT NOT LIMITED TO, THE AMERICANS WITH DISABILITIES ACT (ADA), THE FAIR HOUSING ACT (FHA) AND THE AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI).
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PROFESSIONAL ENGINEER CERTIFICATION

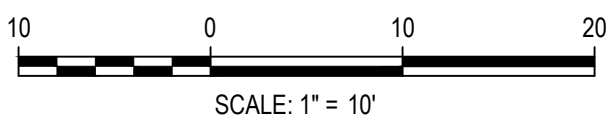
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RACHEL C. PATTON, P.E. #54450	DATE
TOWN OF CASTLE ROCK APPROVAL	
PLANS ARE HEREBY APPROVED FOR ONE YEAR FROM DATE OF DEVELOPMENT SERVICES APPROVAL	
Approved By:	Date
Development Services	Date



Know what's below.
Call before you dig.



DESIGNED BY: BMW
CHECKED BY: RCP
DRAWN BY: BMW

ISSUE DATE: 08-11-2022

DATE	REVISION COMMENTS
10-31-2022	PER TOWN OF CASTLE ROCK COMMENTS



1120 Lincoln Street, Suite 1000
Denver, Colorado 80203
P: 303.623.6300 F: 303.623.6311
HarrisKocherSmith.com



AVILLA FOUNDERS VILLAGE
DETAILED GRADING PLAN

PROJECT #: 210431
SHEET NUMBER

10

10 OF 87

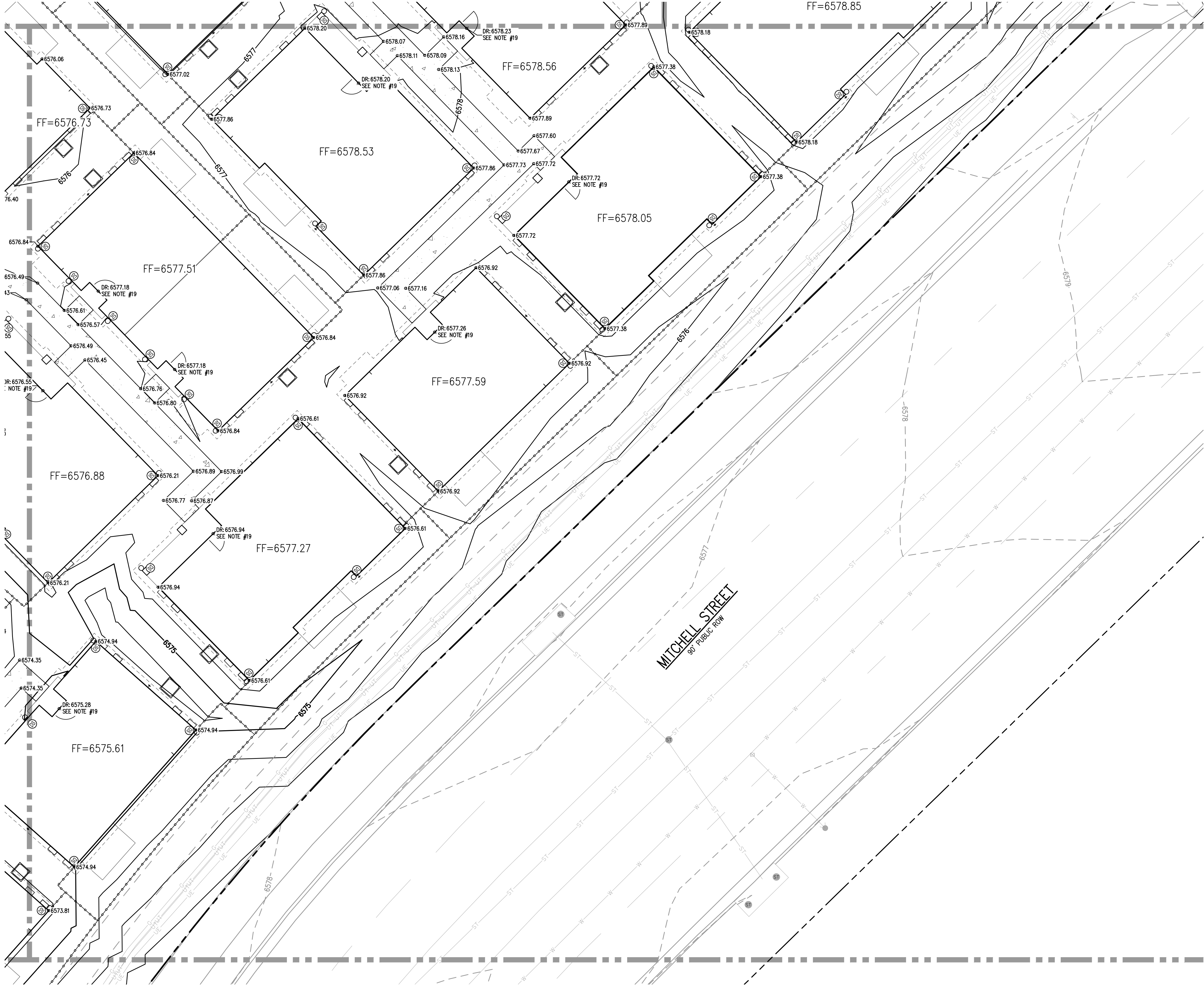
NO CHANGES ARE TO BE MADE TO THIS DRAWING WITHOUT WRITTEN PERMISSION OF HARRIS KOCHER SMITH.

FILEPATH: K:\210431\ENGINEERING\GRAINGOOD - DETAILED GRADING PLAN.DWG LAYOUT: LAYOUT6
DESIGNED BY: RCP
CHECKED BY: RCP
PLOTTED: MON 11/21/22 10:52:10A BY: JAMES SUSTAD

MATCHLINE - SEE SHEET 10

MATCHLINE - SEE SHEET 7

MATCHLINE - SEE SHEET 8
FF=6578.85



MATCHLINE - SEE SHEET 13

GENERAL GRADING NOTES:

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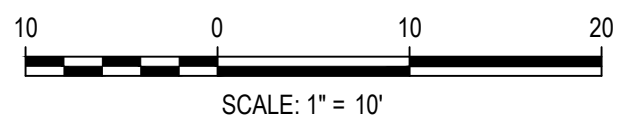
TOWN OF CASTLE ROCK APPROVAL

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Approved By:

Development Services

Date



DESIGNED BY: BMW
CHECKED BY: RCP
DRAWN BY: BMW

ISSUE DATE: 08-11-2022

DATE	REVISION COMMENTS
10-31-2022	PER TOWN OF CASTLE ROCK COMMENTS

HKS HARRIS KOCHER SMITH
1120 Lincoln Street, Suite 1000
Denver, Colorado 80203
P: 303.623.6300 F: 303.623.6311
HarrisKocherSmith.com

NEXmetro
Communities

AVILLA FOUNDERS VILLAGE
DETAILED GRADING PLAN

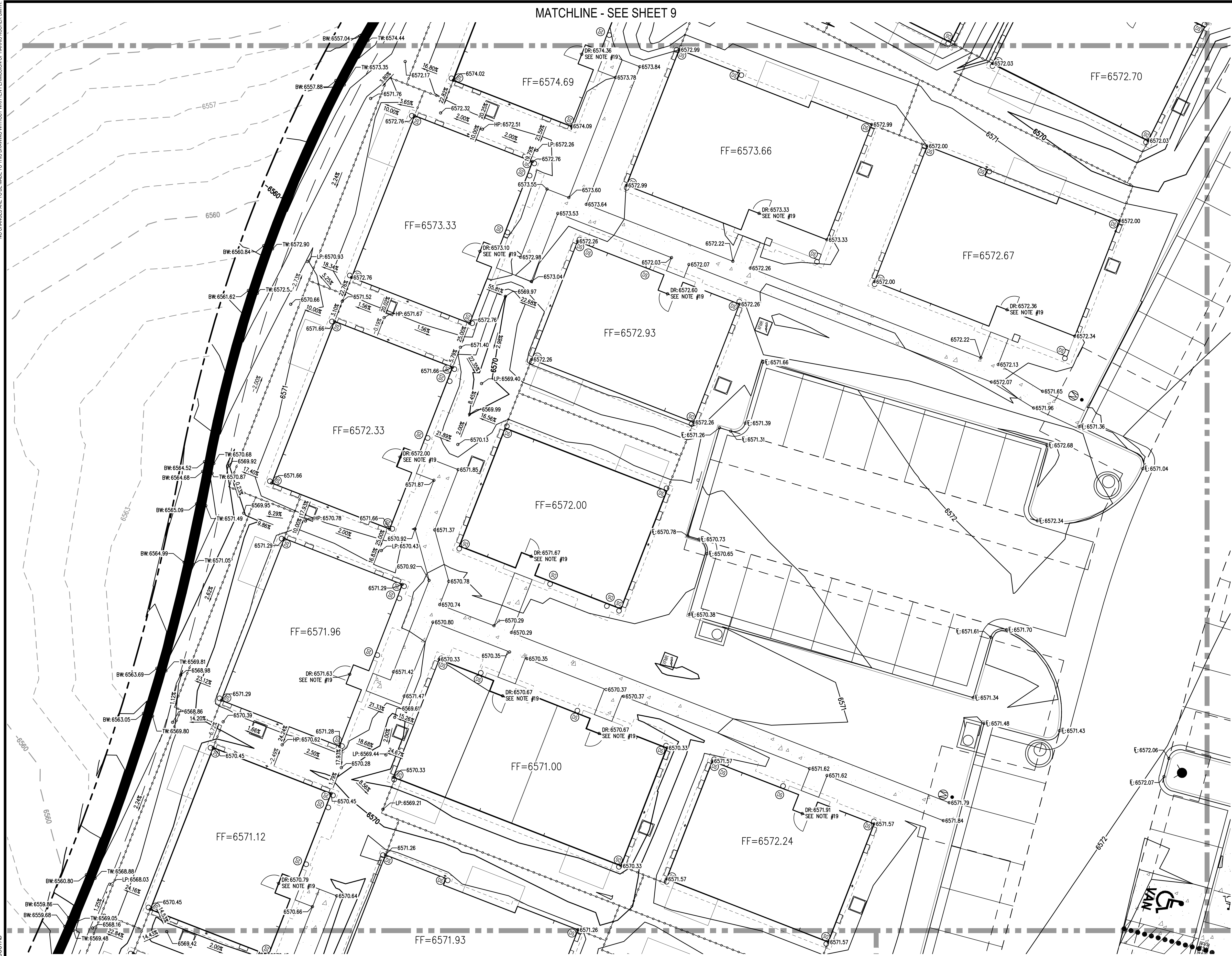
PROJECT #: 210431
SHEET NUMBER

11

11 OF 87

NO CHANGES ARE TO BE MADE TO THIS DRAWING WITHOUT WRITTEN PERMISSION OF HARRIS KOCHER SMITH.

FILE PATH: K:\210431\ENGINEERING\GRAINDG-03- DETAILED GRADING PLAN\2.DWG LAYOUT\ LAYOUT1
PLOT DATE: MON 11/21/22 10:52:24A BY: MILES SUSTAD



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9. NON-PAVED GRADES ADJACENT TO BUILDINGS SHALL SLOPE AWAY FROM ALL BUILDINGS AT A MINIMUM OF 10% FOR 10-FT. ALL PAVED GRADES ATTACHED TO BUILDINGS SHALL SLOPE AWAY FROM ALL BUILDINGS AT A MINIMUM OF 1%. UNLESS OTHERWISE NOTED.
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11. REFER TO STRUCTURAL PLANS FOR BUILDING FOUNDATION STEP LOCATIONS WHEN APPLICABLE.
12. PORTIONS OF STAIRS THAT DO NOT MEET THE MINIMUM 4-INCH RISER HEIGHT (DUE TO AN ADJACENT SLOPING PUBLIC WAY) SHALL HAVE A DISTINCTIVE MARKING STRIPE, 1-INCH TO 2-INCHES IN WIDTH, WITH A SLIP-RESISTANT SURFACE, IN ACCORDANCE WITH CURRENT INTERNATIONAL BUILDING CODE REGULATIONS.
13. SEE LANDSCAPE ARCHITECT PLANS FOR HEIGHT AND TOP OF COURTYARD AMENITIES (PLANTER CURBS, SEAT WALLS, BENCHES, FIRE WALL, MEDIA WALL, BARS, AND GRILLS).
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16. SITE GRADING SHALL BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS, AND THE RECOMMENDATIONS SET FORTH IN THE GEOTECHNICAL ENGINEERING REPORT.
17. CONTRACTOR SHALL ENSURE ACCESSIBLE EXTERIOR DOORS AND GATES ARE CONSTRUCTED WITH ADEQUATE LANDING WIDTH AND DEPTH TO COMPLY WITH APPLICABLE AMERICANS WITH DISABILITIES ACT (ADA) AND AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI) MANEUVERING CLEARANCES AT DOOR REQUIREMENTS (BASED ON THE DIRECTION OF APPROACH OF THE SIDEWALK).
18. RETAINING WALLS, SECTIONS OF RETAINING WALLS 4- FEET IN HEIGHT OR HIGHER OR TIERED WALLS MUST BE DESIGNED BY A STRUCTURAL ENGINEER LICENSED IN THE STATE OF COLORADO AND MUST RECEIVE A BUILDING PERMIT FROM THE TOWN OF CASTLE ROCK PRIOR TO THE ISSUANCE OF THE PUBLIC WORKS PERMIT.
19. DOOR ELEVATION REPRESENTS BOTTOM OF 4" STEP AT DOOR THRESHOLD PER STRUCTURAL DRAWINGS. SEE STRUCTURAL FOUNDATION PLANS (BY OTHERS) FOR MORE INFORMATION.
20. ADJACENT BASE FLOOD ELEVATION IS 6540.60. ALL FINISHED FLOOR ELEVATIONS ARE A MINIMUM OF 2- FEET ABOVE BASE FLOOD ELEVATION.

HORIZONTAL CONTROL

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VERTICAL DATUM

DOUGLAS COUNTY GIS CONTROL MONUMENT NO. 4.015020 MONUMENTED BY A 3-1/4" DIAMETER ALUMINUM CAPPED MONUMENT BEING NORTH OF THE EAST 1/4 CORNER OF SECTION 8 AS MONUMENTED BY 2-1/2" ALUMINUM CAPPED MONUMENT STAMPED "LS28656". NAVD 88 ELEVATION=6572.29

PROFESSIONAL ENGINEER CERTIFICATION

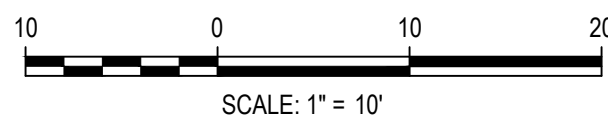
I HEREBY AFFIRM THAT THESE FINAL CONSTRUCTION PLANS WERE PREPARED UNDER MY DIRECT SUPERVISION, IN ACCORDANCE WITH ALL APPLICABLE TOWN OF CASTLE ROCK AND STATE OF COLORADO STANDARDS AND STATUTES, RESPECTIVELY; AND THAT I AM FULLY RESPONSIBLE FOR ALL DESIGN AND REVISIONS RELATIVE TO SAID PLANS.

PRELIMINARY
NOT FOR
CONSTRUCTION

RACHEL C. PATTON, P.E. #54450	DATE
TOWN OF CASTLE ROCK APPROVAL	
PLANS ARE HEREBY APPROVED FOR ONE YEAR FROM DATE OF DEVELOPMENT SERVICES APPROVAL	
Approved By:	Date
Development Services	Date



Know what's below.
Call before you dig.



DESIGNED BY: MJS
CHECKED BY: RCP
DRAWN BY: MJS

ISSUE DATE: 08-11-2022	
DATE	REVISION COMMENTS
10-31-2022	PER TOWN OF CASTLE ROCK COMMENTS



AVILLA FOUNDERS VILLAGE
DETAILED GRADING PLAN

PROJECT #: 210431
SHEET NUMBER

12

12 OF 87

MATCHLINE - SEE SHEET 10

GENERAL GRADING NOTES:

1. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT HANDRAILS, STAIRS, CURB RAMPS, AND RAMPS ARE INSTALLED IN CONFORMANCE WITH ALL APPLICABLE LOCAL STATE AND/OR FEDERAL REGULATIONS AND STANDARDS, INCLUDING BUT NOT LIMITED TO, THE AMERICANS WITH DISABILITIES ACT (ADA), THE FAIR HOUSING ACT (FHA) AND THE AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI).
2. CROSS SLOPES ALONG THE ACCESSIBLE ROUTE OR AT LANDINGS SHALL NOT EXCEED 2% IN ANY DIRECTION.
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4. GUTTER SLOPES AT THE CURB RAMPS SHALL NOT EXCEED 5%.
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VERTICAL DATUM

DOUGLAS COUNTY GIS CONTROL MONUMENT NO. 4.015020 MONUMENTED BY A 3-1/4" DIAMETER ALUMINUM CAPPED MONUMENT BEING NORTH OF THE EAST 1/4 CORNER OF SECTION 8 AS MONUMENTED BY 2-1/2" ALUMINUM CAPPED MONUMENT STAMPED "LS28656". NAVD 88 ELEVATION=6572.29

PROFESSIONAL ENGINEER CERTIFICATION

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PRELIMINARY
NOT FOR
CONSTRUCTION

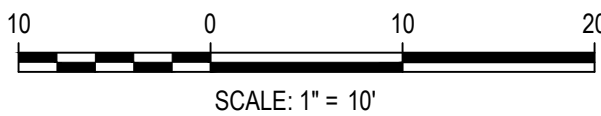
RACHEL C. PATTON, P.E. #54450	DATE
TOWN OF CASTLE ROCK APPROVAL	
PLANS ARE HEREBY APPROVED FOR ONE YEAR FROM DATE OF DEVELOPMENT SERVICES APPROVAL	
Approved By:	
Development Services	Date

MATCHLINE - SEE SHEET 12

MATCHLINE - SEE SHEET 15



Know what's below.
Call before you dig.



DESIGNED BY: MJS
CHECKED BY: RCP
DRAWN BY: MJS

ISSUE DATE: 08-11-2022	
DATE	REVISION COMMENTS
10-31-2022	PER TOWN OF CASTLE ROCK COMMENTS

HKS HARRIS KOCHER SMITH
1120 Lincoln Street, Suite 1000
Denver, Colorado 80203
P: 303.623.6300 F: 303.623.6311
HarrisKocherSmith.com

NEXmetro
Communities

AVILLA FOUNDERS VILLAGE
DETAILED GRADING PLAN

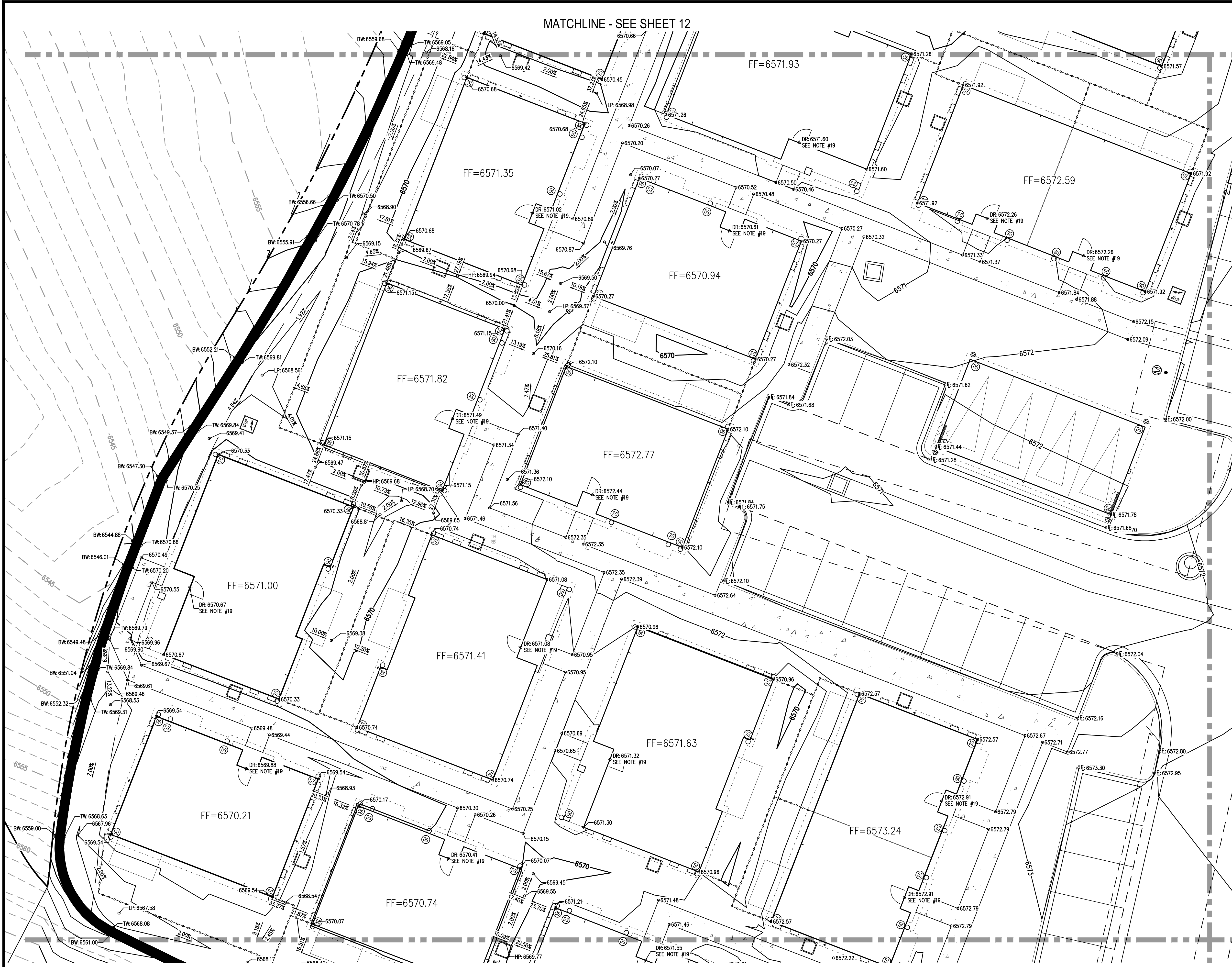
PROJECT #: 210431
SHEET NUMBER

13

13 OF 87

NO CHANGES ARE TO BE MADE TO THIS DRAWING WITHOUT WRITTEN PERMISSION OF HARRIS KOCHER SMITH.

FILE: K:\210431\ENGINEERING\GRAVING\CD - DETAILED GRADING PLAN\2.DWG LAYOUT\3
NO SCALE
PLOTTED: MON 11/21/22 10:52:36A BY: MILES SUSTAD



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PRELIMINARY
NOT FOR
CONSTRUCTION

RACHEL C. PATTON, P.E. #54450 DATE

TOWN OF CASTLE ROCK APPROVAL

PLANS ARE HEREBY APPROVED FOR ONE YEAR FROM DATE OF DEVELOPMENT SERVICES APPROVAL

Approved By:

Development Services

DATE

TOWN OF CASTLE ROCK APPROVAL

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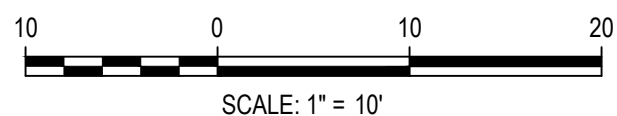
Approved By:

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DATE



Know what's below.
Call before you dig.



DESIGNED BY: MJS
CHECKED BY: RCP
DRAWN BY: MJS

ISSUE DATE: 08-11-2022

DATE	REVISION COMMENTS
10-31-2022	PER TOWN OF CASTLE ROCK COMMENTS



1120 Lincoln Street, Suite 1000
Denver, Colorado 80203
P: 303.623.6300 F: 303.623.6311
HarrisKocherSmith.com



AVILLA FOUNDERS VILLAGE
DETAILED GRADING PLAN

PROJECT #: 210431
SHEET NUMBER

14

14 OF 87

NO CHANGES ARE TO BE MADE TO THIS DRAWING WITHOUT WRITTEN PERMISSION OF HARRIS KOCHER SMITH.

MATCHLINE - SEE SHEET 14

MATCHLINE - SEE SHEET 13

MATCHLINE - SEE SHEET 17

GENERAL GRADING NOTES:

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PRELIMINARY
NOT FOR
CONSTRUCTION

RACHEL C. PATTON, P.E. #54450 DATE

TOWN OF CASTLE ROCK APPROVAL

PLANS ARE HEREBY APPROVED FOR ONE YEAR FROM DATE OF DEVELOPMENT SERVICES APPROVAL

Approved By:

Development Services

DATE

PROJECT #: 210431

SHEET NUMBER

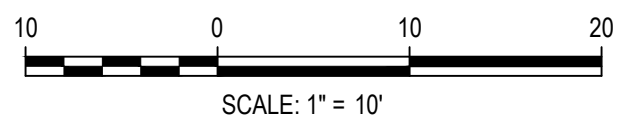
15

15 OF 87

FILE PATH: K:\210431\ENGINEERING\GRAVING\CD - DETAILED GRADING PLAN\2.DWG LAYOUT LAYOUT14
DRAWN BY: MJS
CHECKED BY: RCP
PLOTTED: MON 11/21/2022 10:52:41A BY: MILES SUSTAD



Know what's below.
Call before you dig.



DESIGNED BY: MJS
CHECKED BY: RCP
DRAWN BY: MJS

ISSUE DATE: 08-11-2022

DATE	REVISION COMMENTS
10-31-2022	PER TOWN OF CASTLE ROCK COMMENTS

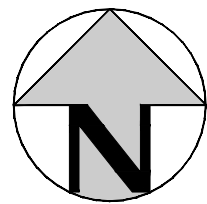
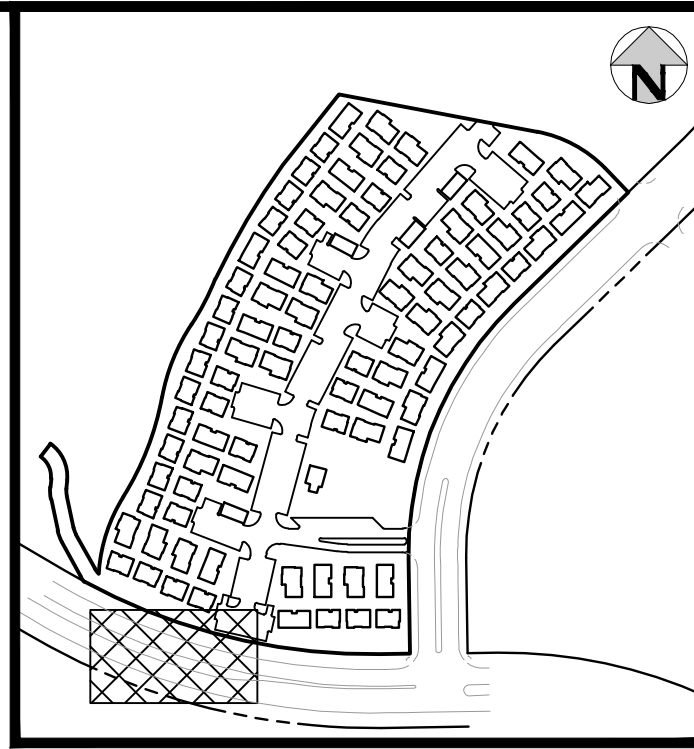


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AVILLA FOUNDERS VILLAGE
DETAILED GRADING PLAN

NO CHANGES ARE TO BE MADE TO THIS DRAWING WITHOUT WRITTEN PERMISSION OF HARRIS KOCHER SMITH.



MATCHLINE - SEE SHEET 14

MATCHLINE - SEE SHEET 17

GENERAL GRADING NOTES:

1. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT HANDRAILS, STAIRS, CURB RAMPS, AND RAMPS ARE INSTALLED IN CONFORMANCE WITH ALL APPLICABLE LOCAL STATE AND/OR FEDERAL REGULATIONS AND STANDARDS, INCLUDING BUT NOT LIMITED TO, THE AMERICANS WITH DISABILITIES ACT (ADA), THE FAIR HOUSING ACT (FHA) AND THE AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI).
2. CROSS SLOPES ALONG THE ACCESSIBLE ROUTE OR AT LANDINGS SHALL NOT EXCEED 2% IN ANY DIRECTION.
3. LONGITUDINAL SLOPES ALONG THE ACCESSIBLE ROUTE SHALL NOT EXCEED 5%. LONGITUDINAL SLOPES ON RAMPS SHALL NOT EXCEED 8.33%. RAMPS, EXCEPT CURB RAMPS, SHALL HAVE HANDRAILS ON BOTH SIDES.
4. GUTTER SLOPES AT THE CURB RAMPS SHALL NOT EXCEED 5%.
5. GUTTER PANS SURROUNDING HANDICAP SPACES SHALL MATCH THE SLOPE OF THE ADJACENT PAVEMENT WITH A MAXIMUM 2% SLOPE IN ALL DIRECTIONS.
6. ALL GRADES ARE FINISHED GRADE, UNLESS OTHERWISE NOTED.
7. ROCK MULCH, IF PLACED UPSTREAM OF CONCRETE FLATWORK OR GRASSED AREA, SHALL BE PLACED ON TOP OF FINISHED GRADE SHOWN ON THESE PLANS. ROCK MULCH AREAS SHALL BE DESIGNED AND CONSTRUCTED TO ADEQUATELY DRAIN AND NOT RETAIN WATER. ALL LANDSCAPE EDGE MATERIALS SHALL NOT PREVENT DRAINAGE TO PASS THROUGH.
8. ALL GRADES ADJACENT TO THE BUILDINGS SHALL BE AT MINIMUM 8-INCHES BELOW FINISHED FLOOR ELEVATION, UNLESS OTHERWISE NOTED.
9. NON-PAVED GRADES ADJACENT TO BUILDINGS SHALL SLOPE AWAY FROM ALL BUILDINGS AT A MINIMUM OF 10% FOR 10-FT. ALL PAVED GRADES ATTACHED TO BUILDINGS SHALL SLOPE AWAY FROM ALL BUILDINGS AT A MINIMUM OF 1% UNLESS OTHERWISE NOTED.
10. ALL GRADES FOR WALLS ARE FINISHED GRADE ELEVATIONS AT BOTTOM OF FRONT FACE (BW) AND TOP-BACK OF WALL (TW). THE WALL ELEVATIONS DO NOT INDICATE FOUNDATION DEPTHS OR ELEVATIONS. RETAINING WALL DETAILS SHALL BE PROVIDED BY OTHERS.
11. REFER TO STRUCTURAL PLANS FOR BUILDING FOUNDATION STEP LOCATIONS WHEN APPLICABLE.
12. PORTIONS OF STAIRS THAT DO NOT MEET THE MINIMUM 4-INCH RISER HEIGHT (DUE TO AN ADJACENT SLOPING PUBLIC WAY) SHALL HAVE A DISTINCTIVE MARKING STRIPE, 1-INCH TO 2-INCHES IN WIDTH, WITH A SLIP-RESISTANT SURFACE, IN ACCORDANCE WITH CURRENT INTERNATIONAL BUILDING CODE REGULATIONS.
13. SEE LANDSCAPE ARCHITECT PLANS FOR HEIGHT AND TOP OF COURTYARD AMENITIES (PLANTER CURBS, SEAT WALLS, BENCHES, FIRE WALL, MEDIA WALL, BARS, AND GRILLS).
14. TOP STEP ELEVATIONS FOR STOOPS AND PATIOS ARE SHOWN FOR REFERENCE ONLY. TOP OF STEPS AND PATIO ELEVATIONS SHALL BE COORDINATED WITH ARCHITECTURAL PLANS/DETAILS AND AS-BUILT STOOP/PATIO ELEVATIONS.
15. ELECTRICAL TRANSFORMER PADS AND AC-UNIT PADS ARE TO BE SET A MINIMUM OF 2-INCHES ABOVE THE ADJACENT FINISHED GRADE AROUND THE PERIMETER OF THE PAD. CONTRACTOR SHALL PROVIDE A CONCRETE TURNDOWN AS NECESSARY. CONTRACTOR IS TO VERIFY POSITIVE DRAINAGE AWAY FROM, AND AROUND, ALL ELECTRICAL PADS AND AC-UNIT PADS.
16. SITE GRADING SHALL BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS, AND THE RECOMMENDATIONS SET FORTH IN THE GEOTECHNICAL ENGINEERING REPORT.
17. CONTRACTOR SHALL ENSURE ACCESSIBLE EXTERIOR DOORS AND GATES ARE CONSTRUCTED WITH ADEQUATE LANDING WIDTH AND DEPTH TO COMPLY WITH APPLICABLE AMERICANS WITH DISABILITIES ACT (ADA) AND AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI) MANEUVERING CLEARANCES AT DOOR REQUIREMENTS (BASED ON THE DIRECTION OF APPROACH OF THE SIDEWALK).
18. RETAINING WALLS, SECTIONS OF RETAINING WALLS 4- FEET IN HEIGHT OR HIGHER OR TIERED WALLS MUST BE DESIGNED BY A STRUCTURAL ENGINEER LICENSED IN THE STATE OF COLORADO AND MUST RECEIVE A BUILDING PERMIT FROM THE TOWN OF CASTLE ROCK PRIOR TO THE ISSUANCE OF THE PUBLIC WORKS PERMIT.
19. DOOR ELEVATION REPRESENTS BOTTOM OF 4" STEP AT DOOR THRESHOLD PER STRUCTURAL DRAWINGS. SEE STRUCTURAL FOUNDATION PLANS (BY OTHERS) FOR MORE INFORMATION.
20. ADJACENT BASE FLOOD ELEVATION IS 6540.60. ALL FINISHED FLOOR ELEVATIONS ARE A MINIMUM OF 2- FEET ABOVE BASE FLOOD ELEVATION.

HORIZONTAL CONTROL

BEARINGS ARE BASED ON THE NORTH LINE OF THE NORTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 8, AS MONUMENTED AT THE EAST CORNER BY A #6 REBAR WITH A 3.25" ALUMINUM CAP STAMPED: SURVCON 2006 PLS 30289 AND AT THE CENTER-EAST SIXTEENTH CORNER BY A 2.5" PIPE WITH A 3.5" ALUMINUM CAP STAMPED: 1986 PLS 22100, AS BEARING SOUTH 88°58'05" WEST, PER THE PLAT OF FOUNDERS VILLAGE FILING NO. 24 AMENDMENT NO. 1.

VERTICAL DATUM

DOUGLAS COUNTY GIS CONTROL MONUMENT NO. 4.015020 MONUMENTED BY A 3-1/4" DIAMETER ALUMINUM CAPPED MONUMENT BEING NORTH OF THE EAST 1/4 CORNER OF SECTION 8 AS MONUMENTED BY 2-1/2" ALUMINUM CAPPED MONUMENT STAMPED "LS28656". NAVD 88 ELEVATION=6572.29

PROFESSIONAL ENGINEER CERTIFICATION

I HEREBY AFFIRM THAT THESE FINAL CONSTRUCTION PLANS WERE PREPARED UNDER MY DIRECT SUPERVISION, IN ACCORDANCE WITH ALL APPLICABLE TOWN OF CASTLE ROCK AND STATE OF COLORADO STANDARDS AND STATUTES, RESPECTIVELY; AND THAT I AM FULLY RESPONSIBLE FOR ALL DESIGN AND REVISIONS RELATIVE TO SAID PLANS.

PRELIMINARY
NOT FOR
CONSTRUCTION

RACHEL C. PATTON, P.E. #54450

DATE

TOWN OF CASTLE ROCK APPROVAL

PLANS ARE HEREBY APPROVED FOR ONE YEAR FROM DATE OF DEVELOPMENT SERVICES APPROVAL

Approved By:

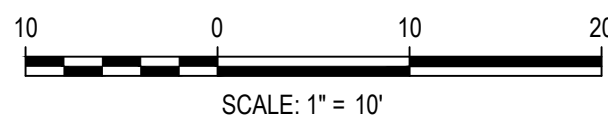
Development Services

Date

PROJECT #: 210431
SHEET NUMBER

16

16 OF 87



DESIGNED BY: MJS
CHECKED BY: RCP
DRAWN BY: MJS

ISSUE DATE: 08-11-2022

DATE	REVISION COMMENTS
10-31-2022	PER TOWN OF CASTLE ROCK COMMENTS



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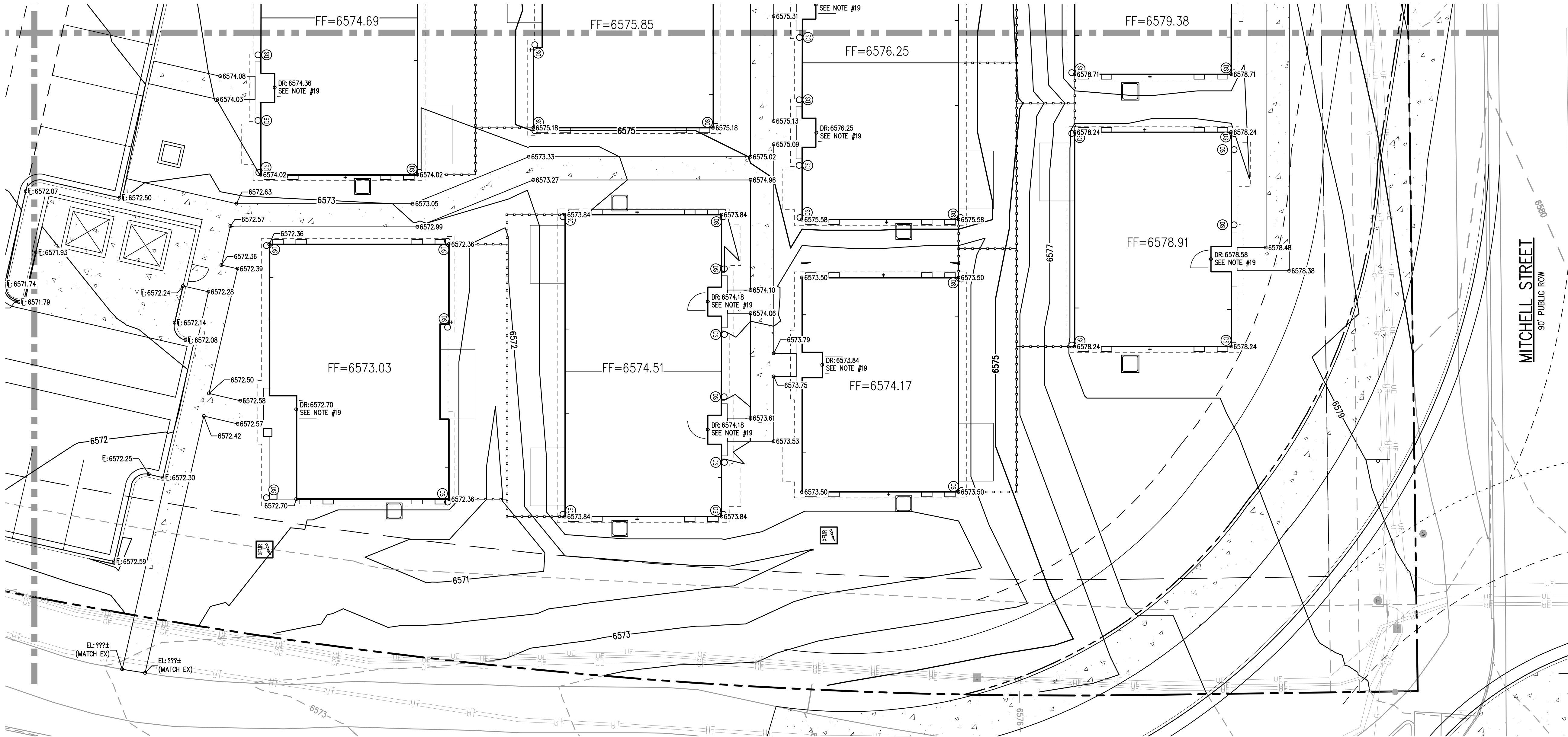
AVILLA FOUNDERS VILLAGE
DETAILED GRADING PLAN

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FILE PATH: K:\210431\ENGINEERING\GRAVING\CD - DETAILED GRADING PLAN\2.DWG LAYOUT LAYOUT16
PLOT DATE: MON 11/21/22 10:52:51A BY: MILES SUSTAD

MATCHLINE - SEE SHEET 16

MATCHLINE - SEE SHEET 15



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VERTICAL DATUM

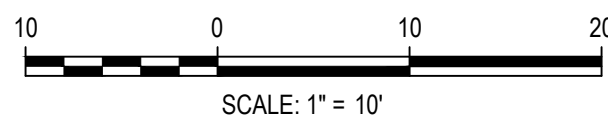
DOUGLAS COUNTY GIS CONTROL MONUMENT NO. 4.015020 MONUMENTED BY A 3-1/4" DIAMETER ALUMINUM CAPPED MONUMENT BEING NORTH OF THE EAST 1/4 CORNER OF SECTION 8 AS MONUMENTED BY 2-1/2" ALUMINUM CAPPED MONUMENT STAMPED "LS28656". NAVD 88 ELEVATION=6572.29

PROFESSIONAL ENGINEER CERTIFICATION

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PRELIMINARY
NOT FOR
CONSTRUCTION

RACHEL C PATTON, P.E. #54450	DATE
TOWN OF CASTLE ROCK APPROVAL	
PLANS ARE HEREBY APPROVED FOR ONE YEAR FROM DATE OF DEVELOPMENT SERVICES APPROVAL	
Approved By:	
Development Services	Date



DESIGNED BY: MJS
CHECKED BY: RCP
DRAWN BY: MJS

ISSUE DATE: 08-11-2022

DATE	REVISION COMMENTS
10-31-2022	PER TOWN OF CASTLE ROCK COMMENTS

HKS HARRIS KOCHER SMITH
1120 Lincoln Street, Suite 1000
Denver, Colorado 80203
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HarrisKocherSmith.com

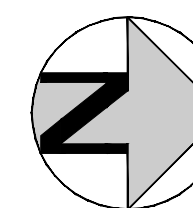
NEXmetro
Communities

AVILLA FOUNDERS VILLAGE
DETAILED GRADING PLAN

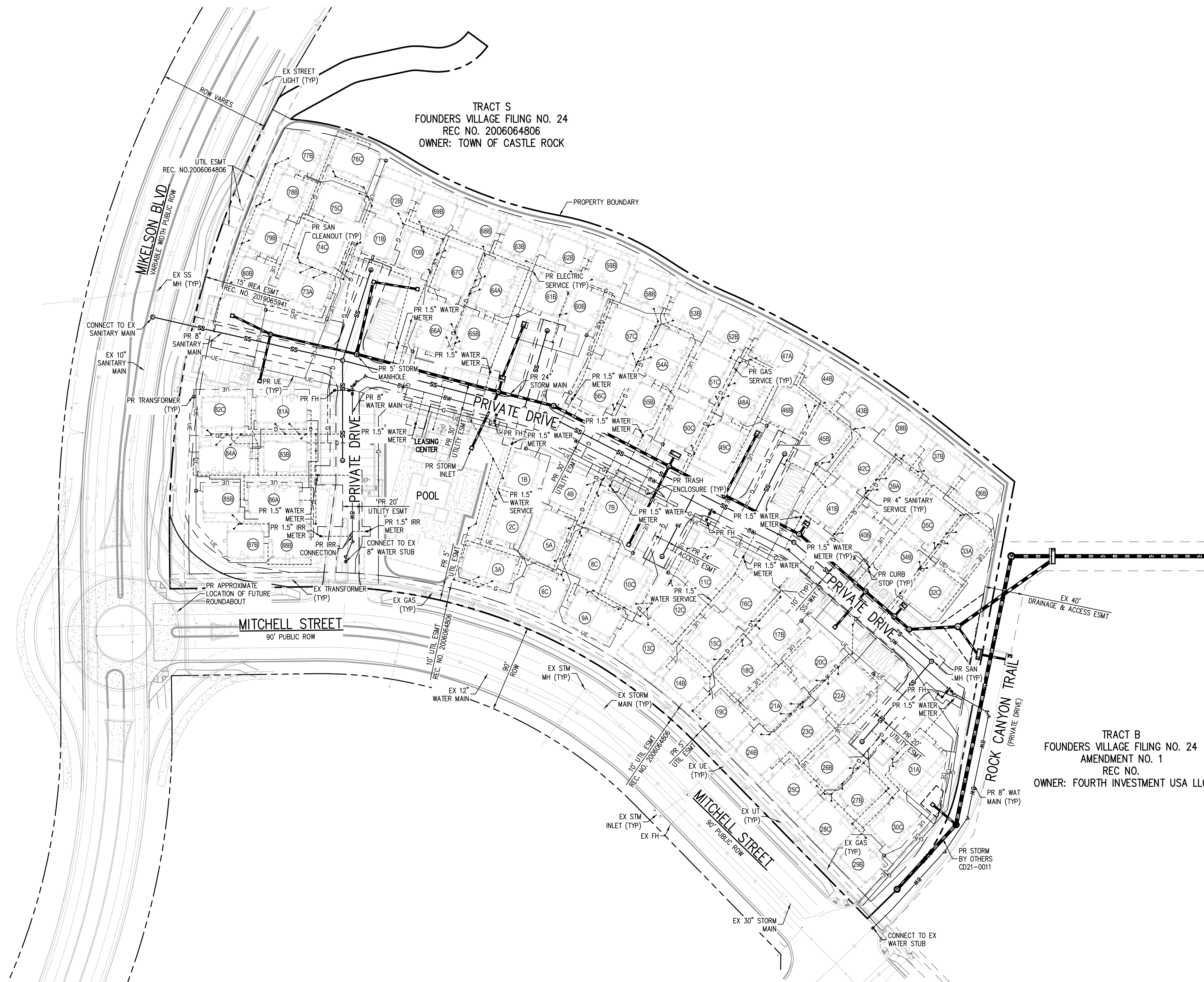
PROJECT #: 210431
SHEET NUMBER

17

17 OF 87



TRACT S
FOUNDERS VILLAGE FILING NO. 24
REC NO. 2006064806
OWNER: TOWN OF CASTLE ROCK



LEGEND

	EXISTING	PROPOSED
PROPERTY BOUNDARY		
RIGHT-OF-WAY		
UTILITY EASEMENT		
SANITARY SEWER W/ MANHOLE		
SANITARY SERVICE W/CLEANOUT		
WATER LINE AND GATE VALVE		
WATER SERVICE		
STORM SEWER W/ MANHOLE & INLETS		
WATER METER MANHOLE		
FIRE HYDRANT		
STREET LIGHT		

NOTES:

1. CONTRACTOR SHALL PROVIDE A MINIMUM SEVENTY TWO (72) HOURS' NOTICE TO THE ON-SITE TOR CONSTRUCTION INSPECTOR, (720) 733--2200, PRIOR TO MAKING ANY CONNECTIONS OR TIE-INS TO EXISTING WATER, SANITARY SEWER, AND/OR STORM SEWER SYSTEMS PROVIDED THAT THE UTILITY TIE-IN DOES NOT DISRUPT SERVICE TO EXISTING OR WATER CUSTOMERS. IF THE TIE-IN WILL DISRUPT UTILITY SERVICE, THEN THE CONTRACTOR SHALL PROVIDE A MINIMUM OF THREE (3) WEEKS' NOTICE TO THE TOR CONSTRUCTION INSPECTOR TO ALLOW TIME FOR OR WATER TO PROVIDE WRITTEN NOTIFICATION TO EXISTING CUSTOMERS AFFECTED BY THE TIE-IN. ALL TOWN UTILITY TIE-INS MUST BE APPROVED BY OR WATER PRIOR TO COMMENCING WORK.
2. CONTRACTOR SHALL NOT CAST, ROLL, OR WORK WITH ANY WORK THAT REQUIRES SHUTDOWN OR INTERRUPTION OF SERVICE OF EXISTING WATER MAINS. THEREFORE, PRIOR TO THE PROPOSED SHUTDOWN OR INTERRUPTION UNLESS OTHERWISE APPROVED BY CASTLE ROCK WATER.

HORIZONTAL CONTROL

HORIZONTAL CONTROL
BEARINGS ARE BASED ON THE NORTH LINE
OF THE NORTHEAST QUARTER OF THE
SOUTHEAST QUARTER OF SECTION 8, AS
MONUMENTED AT THE EAST CORNER BY A
#6 REBAR WITH A 3.25" ALUMINUM CAP
STAMPED: SURVCON 2006 PL3 30289 AND
AT THE CENTER-EAST SIXTEENTH CORNER
BY A 2.5" PIPE WITH A 3.5" ALUMINUM
CAP STAMPED: 1986 PL25 22100, AS
BEARING SOUTH 88°58'05" WEST, PER THE
PLAT OF FOUNDERS VILLAGE FILING NO. 24
AMENDMENT NO. 1.

VERTICAL DATUM

VERTICAL DATUM
DOUGLAS COUNTY GIS CONTROL MONUMENT
NO. 4.015020 MONUMENTED BY A 3-1/4"
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RACHEL C PATTON, P.E. #54450

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Development Services

DAT

ROCK APPROVAL

FOR ONE YEAR FROM DATE OF
SERVICES APPROVAL

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PROJECT #:	210431
SHEET NUMBER	

18

18 OF 87



Know what's below.
Call before you dig.

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DRAWN BY: MJS

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AVILLA FOUNDERS VILLAGE OVERALL UTILITY PLAN

PROJECT #: 210431

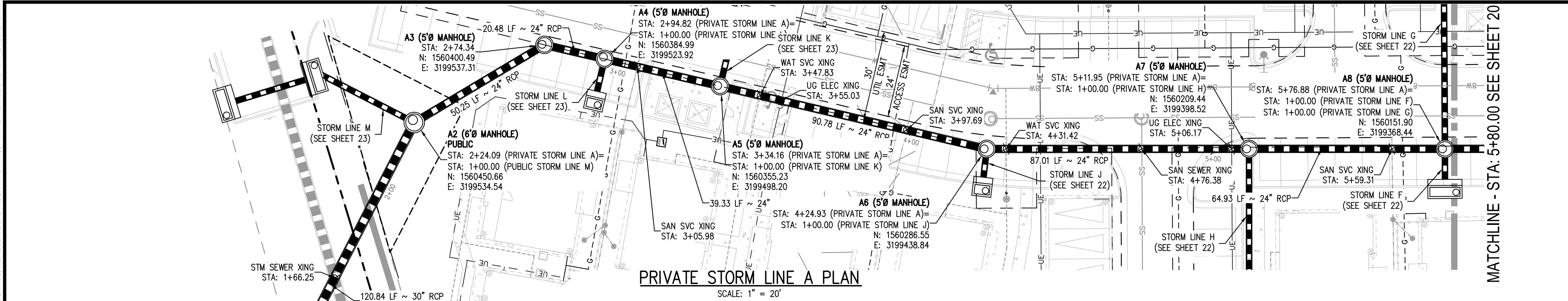
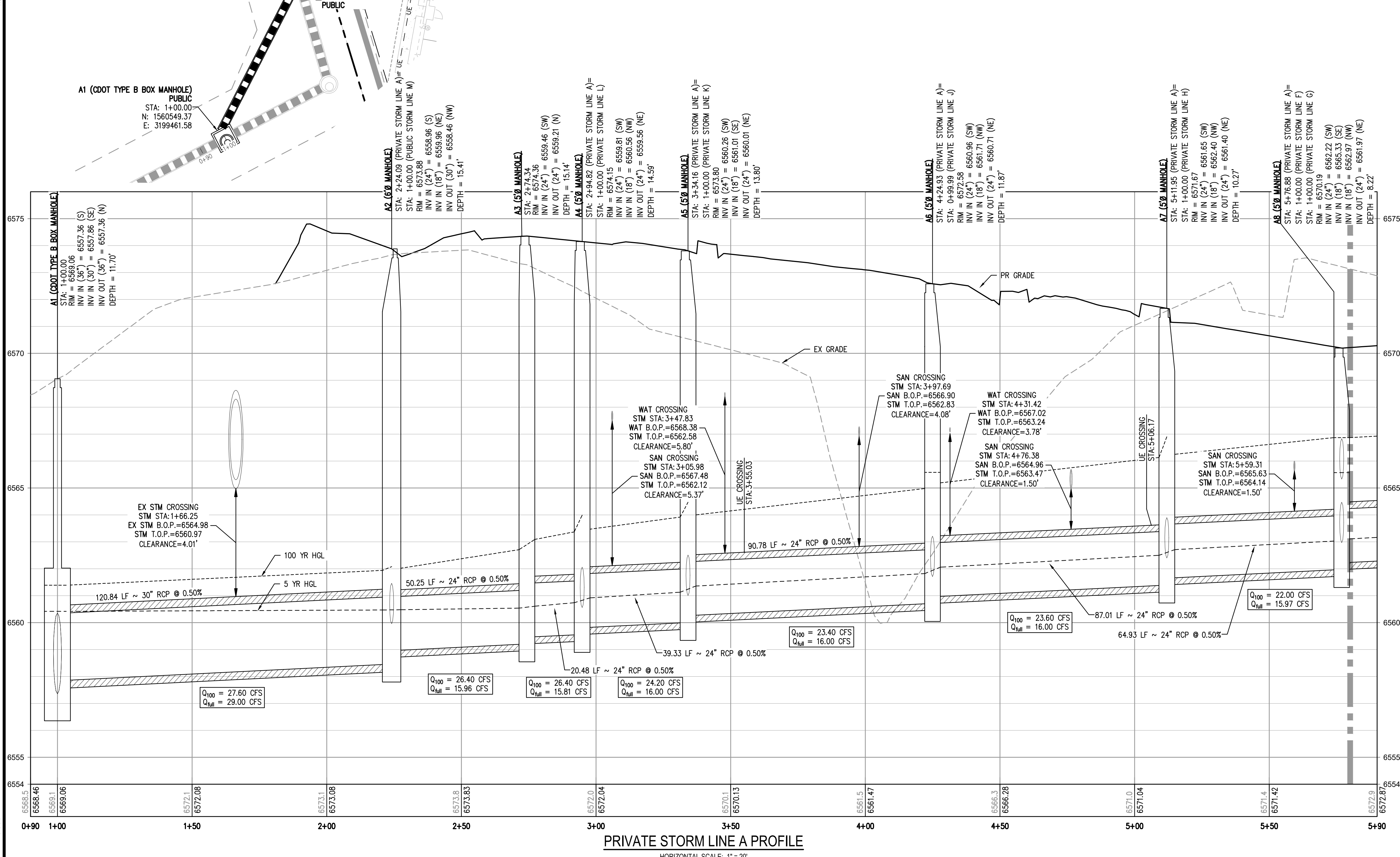
PROJECT #:	210431
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18

18 OF 87

NO CHANGES ARE TO BE MADE TO THIS DRAWING WITHOUT WRITTEN PERMISSION OF HARRIS KOCHER SMITH.

FILE PATH: K:\210431\ENGINEERING\UTILITIES\STORM\CD - STORM P&P\DWG LAYOUT - LAYOUT
DESIGNED BY: RCP
CHECKED BY: RCP
PLOTTED: MON 11/21/22 10:53:52A BY: MILES SUSTAD



LEGEND

EXISTING	PROPOSED
UTILITY EASEMENT	STORM SEWER W/ MANHOLE AND INLET
SANITARY SEWER W/ MANHOLE AND FLOW DIRECTION	SANITARY SERVICE W/ CLEANOUT
WATER LINE W/ MANHOLE	WATER SERVICE
FIRE HYDRANT	WATER FITTINGS AND APPURTENANCES
GATE VALVE	STREET LIGHT
ELECTRICAL TRANSFORMER	A/C UNIT
RETAINING WALL	HANDICAP RAMP
SIGN	HANDICAP PARKING

GENERAL STORM NOTES:

1. THE CONTRACTOR SHALL NOTIFY COLORADO 811 PRIOR TO EXCAVATION, IN ACCORDANCE WITH COLORADO STATE STATUTES.
2. THE LOCATION OF EXISTING UNDERGROUND UTILITIES IS APPROXIMATE AND SHOWN ACCORDING TO THE BEST INFORMATION AVAILABLE, AS SUPPLIED BY THE UTILITY OWNERS. PRIOR TO EXCAVATION, THE CONTRACTOR SHALL VERIFY EXISTENCE, SIZE, AND LOCATION OF EXISTING UTILITIES AND IMMEDIATELY NOTIFY HARRIS KOCHER SMITH OF ANY DISCREPANCIES. THE CONTRACTOR IS RESPONSIBLE FOR ANY AND ALL DAMAGES TO EXISTING UNDERGROUND FACILITIES.
3. PIPE LENGTHS ARE MEASURED FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE FOR CYLINDRICAL MANHOLES AND TO THE INSIDE FACE OF INLETS AND OTHER BOX STRUCTURES. PIPE LENGTHS ARE MEASURED TO THE END OF THE STRUCTURE FOR ALL FLARED END SECTIONS.
4. STATIONING OF INLETS SHOWN IN STORM SEWER PROFILES IS AT CENTER OF STRUCTURE.
5. ALL COORDINATES ARE AT THE CENTER OF THE STRUCTURE UNLESS OTHERWISE INDICATED.
6. CONTRACTOR SHALL USE RCP, PVC, PP, OR HDPE PIPES FOR THE MAIN LINES, BUT SHALL NOTIFY THE JURISDICTIONAL UTILITY PROVIDER AND THE ENGINEER, PRIOR TO INSTALLATION, FOR APPROVAL. REGARDLESS OF PIPE MATERIAL, ALL STORM SEWER SHALL UTILIZE WATER-TIGHT JOINTS.
7. FOR ALL NON-CONCENTRIC MANHOLES, MANHOLE RINGS/COVERS AND STEPS LIDS SHALL BE ROTATED AS SHOWN IN PLAN VIEW.
8. ALL TYPE C & D INLETS SHALL HAVE CLOSE MESH GRATES.
9. ALL LATERAL PIPE-TO-PIPE CONNECTIONS SHALL BE MADE USING KOR-N-TEE CONNECTORS OR ENGINEER APPROVED EQUIVALENT.
10. CONTRACTOR SHALL ADJUST ALL EXISTING RIM ELEVATIONS TO MATCH THE PROPOSED GRADE.
11. CONTRACTOR SHALL MODIFY INLET BASES AS NEEDED IN ORDER TO ENSURE ALL STORM PIPES CONNECT PROPERLY TO THE INLET. CONTRACTOR SHALL PROVIDE SHOP DRAWINGS FOR REVIEW AND APPROVAL BY ENGINEER, OWNER, AND CITY/COUNTY PRIOR TO INSTALLATION.
12. CONTRACTOR SHALL PROVIDE ENGINEERED SHOP DRAWINGS, DESIGNED BY A LICENSED ENGINEER, DETAILING THE STRUCTURAL DESIGN OF ALL POND IMPROVEMENTS (FOREBAY, ENERGY DISSIPATING Baffles, OUTLET STRUCTURE, ETC.) FOR REVIEW AND APPROVAL BY ENGINEER, OWNER, AND CITY/COUNTY PRIOR TO INSTALLATION.
13. ANY SUBSURFACE DETENTION AND/OR WATER QUALITY SYSTEM DESIGNS SHOWN ON THESE PLANS (IF APPLICABLE) ARE SPECIFICALLY LIMITED TO ELEVATIONS, GRADES AND STORMWATER DETENTION AND/OR WATER QUALITY DESIGN VOLUMES AND RELEASE RATES. THE DESIGN AND PROFESSIONAL ENGINEER'S SEAL SPECIFICALLY EXCLUDES STRUCTURAL DESIGN (INCLUDING, BUT NOT LIMITED TO, BUOYANCY CALCULATIONS AND CONSTRUCTION, TRAFFIC, OR OTHER LOADING), DEWATERING, EXCAVATION, SHORING, AND MATERIALS AND BACKFILL SPECIFICATIONS. IF THE PROPOSED SYSTEM UTILIZES A PROPRIETARY AND/OR PRE-MANUFACTURED DETENTION AND/OR WATER QUALITY SYSTEM, THE OWNER OR CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL REQUIRED SYSTEM DESIGN, CALCULATIONS, MATERIALS AND BACKFILL SPECIFICATIONS WITH THE UNDERGROUND DETENTION AND/OR WATER QUALITY SYSTEM MANUFACTURER AND/OR SUPPLIER. CONSTRUCTION OBSERVATION BY THE MANUFACTURER'S REPRESENTATIVE IS ESSENTIAL FOR PROPER INSTALLATION OF UNDERGROUND DETENTION AND/OR WATER QUALITY SYSTEMS. AT A MINIMUM, THE INSTALLATION SHOULD BE INSPECTED BY THE MANUFACTURER'S REPRESENTATIVE DURING CONSTRUCTION AND ANY DEFICIENCIES OF THE INSTALLATION IDENTIFIED BY THE MANUFACTURER'S INSPECTION SHOULD BE CORRECTED IMMEDIATELY.
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VERTICAL DATUM

DOUGLAS COUNTY GIS CONTROL MONUMENT NO. 4.015020 MONUMENTED BY A 3-1/4" DIAMETER ALUMINUM CAPPED MONUMENT BEING NORTH OF THE EAST 1/4 CORNER OF SECTION 8 AS MONUMENTED BY 2-1/2" ALUMINUM CAPPED MONUMENT STAMPED "LS28656". NAVD 88 ELEVATION=6572.29

PROFESSIONAL ENGINEER CERTIFICATION

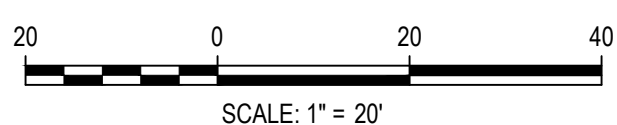
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PRELIMINARY
NOT FOR
CONSTRUCTION

RACHEL C. PATTON, P.E. #54450	DATE
TOWN OF CASTLE ROCK APPROVAL	
PLANS ARE HEREBY APPROVED FOR ONE YEAR FROM DATE OF DEVELOPMENT SERVICES APPROVAL	
Approved By:	
Development Services	Date



Know what's below.
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DESIGNED BY: <DESIGNER>
CHECKED BY: <REVIEWER>
DRAWN BY: <DRAWN>

ISSUE DATE: 08-11-2022

DATE	REVISION COMMENTS
10-31-2022	PER TOWN OF CASTLE ROCK COMMENTS



AVILLA FOUNDERS VILLAGE
STORM LINE A PLAN & PROFILE

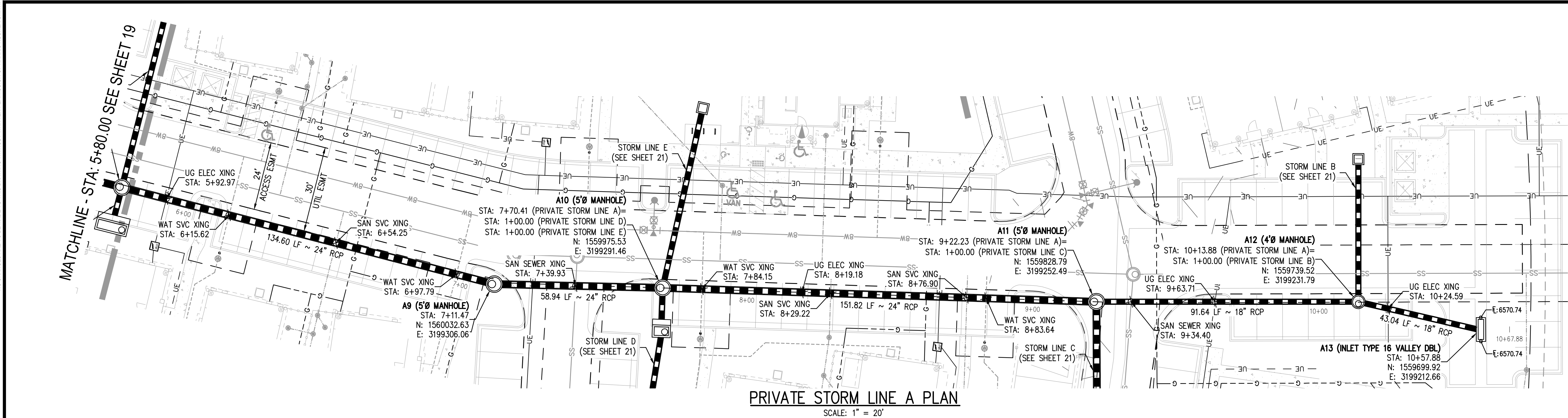
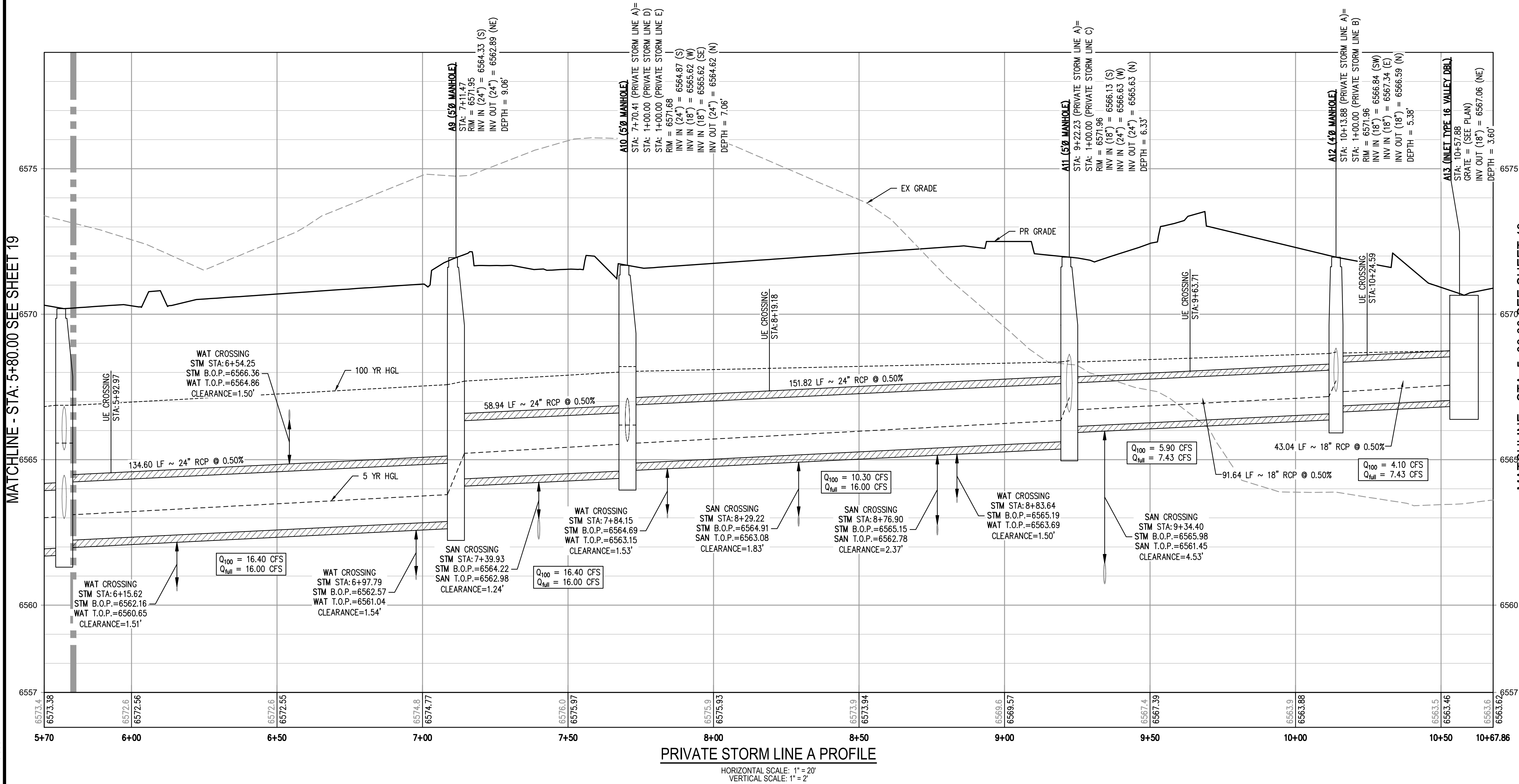
PROJECT #: 210431
SHEET NUMBER

19

19 OF 87

NO CHANGES ARE TO BE MADE TO THIS DRAWING WITHOUT WRITTEN PERMISSION OF HARRIS KOCHER SMITH.

FILE PATH: K:\210431\ENGINEERING\UTILITIES\STORM\CD - STORM P&P\DWG LAYOUT\LAYOUT2
DESIGNED BY: CHECKED BY: PLOTTED: MON 11/21/22 10:54:00A BY: MILES SUSTAD



LEGEND

EXISTING	PROPOSED
UTILITY EASEMENT	ST
STORM SEWER W/ MANHOLE AND INLET	SS
SANITARY SEWER W/ MANHOLE AND FLOW DIRECTION	SW
SANITARY SERVICE W/ CLEANOUT	SW
WATER LINE W/ MANHOLE	W
WATER SERVICE	W
FIRE HYDRANT	FD
WATER FITTINGS AND APPURTENANCES	WF
GATE VALVE	GV
STREET LIGHT	SL
ELECTRICAL TRANSFORMER	ET
A/C UNIT	AC
RETAINING WALL	RW
HANDICAP RAMP	HR
SIGN	S
HANDICAP PARKING	HP

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3. PIPE LENGTHS ARE MEASURED FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE FOR CYLINDRICAL MANHOLES AND TO THE INSIDE FACE OF INLETS AND OTHER BOX STRUCTURES. PIPE LENGTHS ARE MEASURED TO THE END OF THE STRUCTURE FOR ALL FLARED END SECTIONS.
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PROFESSIONAL ENGINEER CERTIFICATION

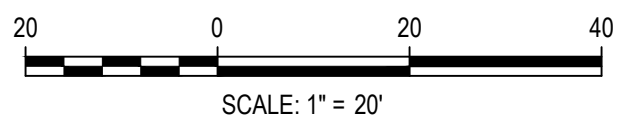
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PRELIMINARY
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CONSTRUCTION

RACHEL C. PATTON, P.E. #54450	DATE
TOWN OF CASTLE ROCK APPROVAL	
PLANS ARE HEREBY APPROVED FOR ONE YEAR FROM DATE OF DEVELOPMENT SERVICES APPROVAL	
Approved By:	Date
Development Services	Date



Know what's below.
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DESIGNED BY: <DESIGNER>
CHECKED BY: <REVIEWER>
DRAWN BY: <DRAWN>

ISSUE DATE: 08-11-2022	REVISION COMMENTS
DATE	PER TOWN OF CASTLE ROCK COMMENTS
10-31-2022	

HKS HARRIS KOCHER SMITH
1120 Lincoln Street, Suite 1000
Denver, Colorado 80203
P: 303.623.6300 F: 303.623.6311
HarrisKocherSmith.com

NEXmetro
Communities

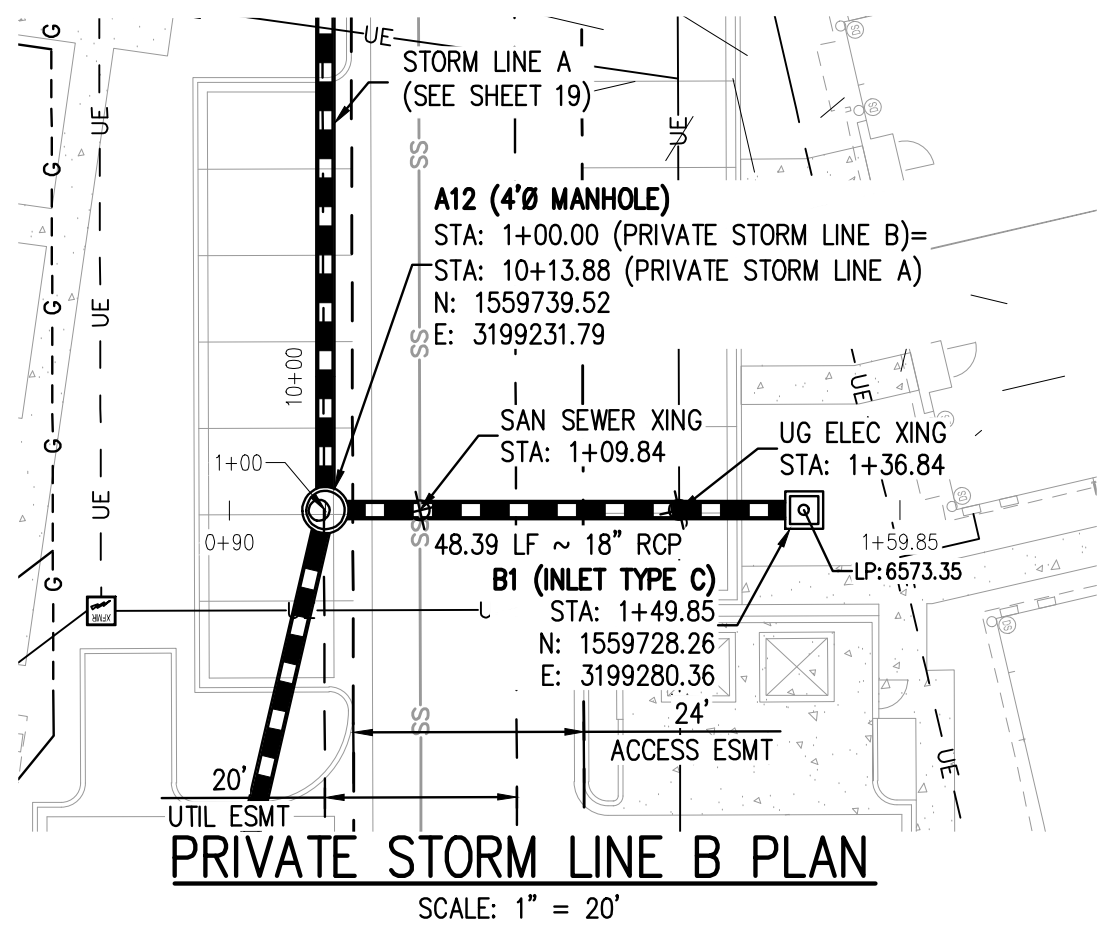
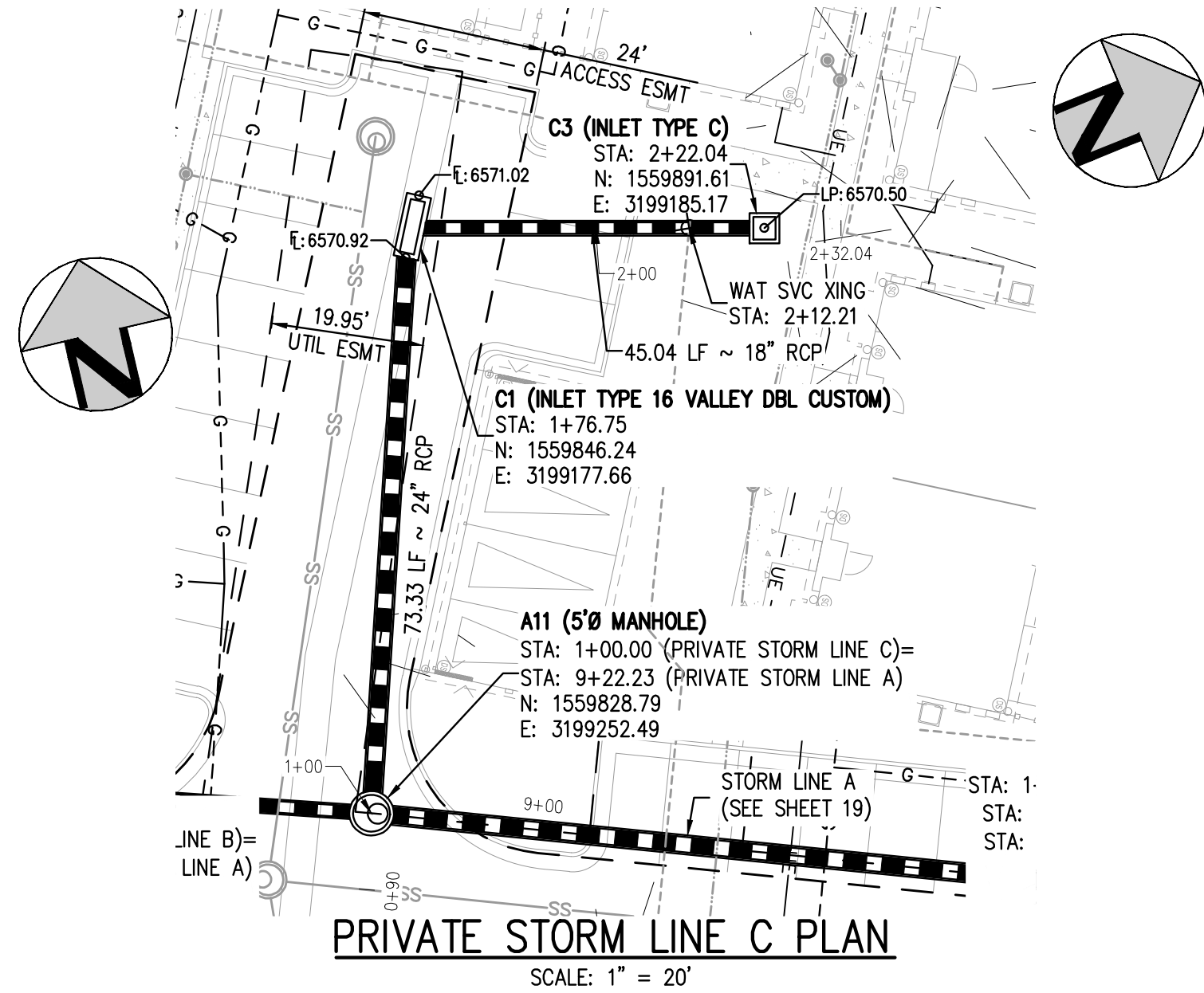
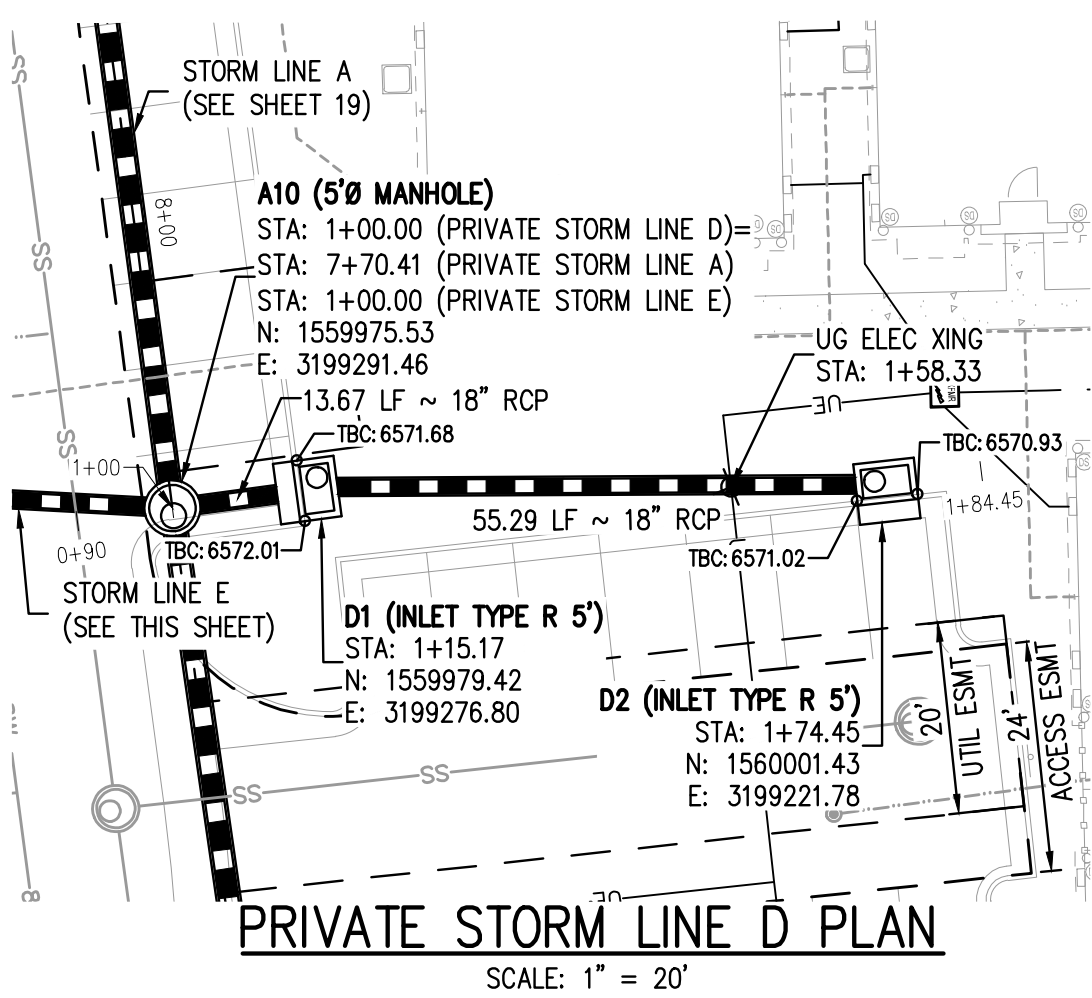
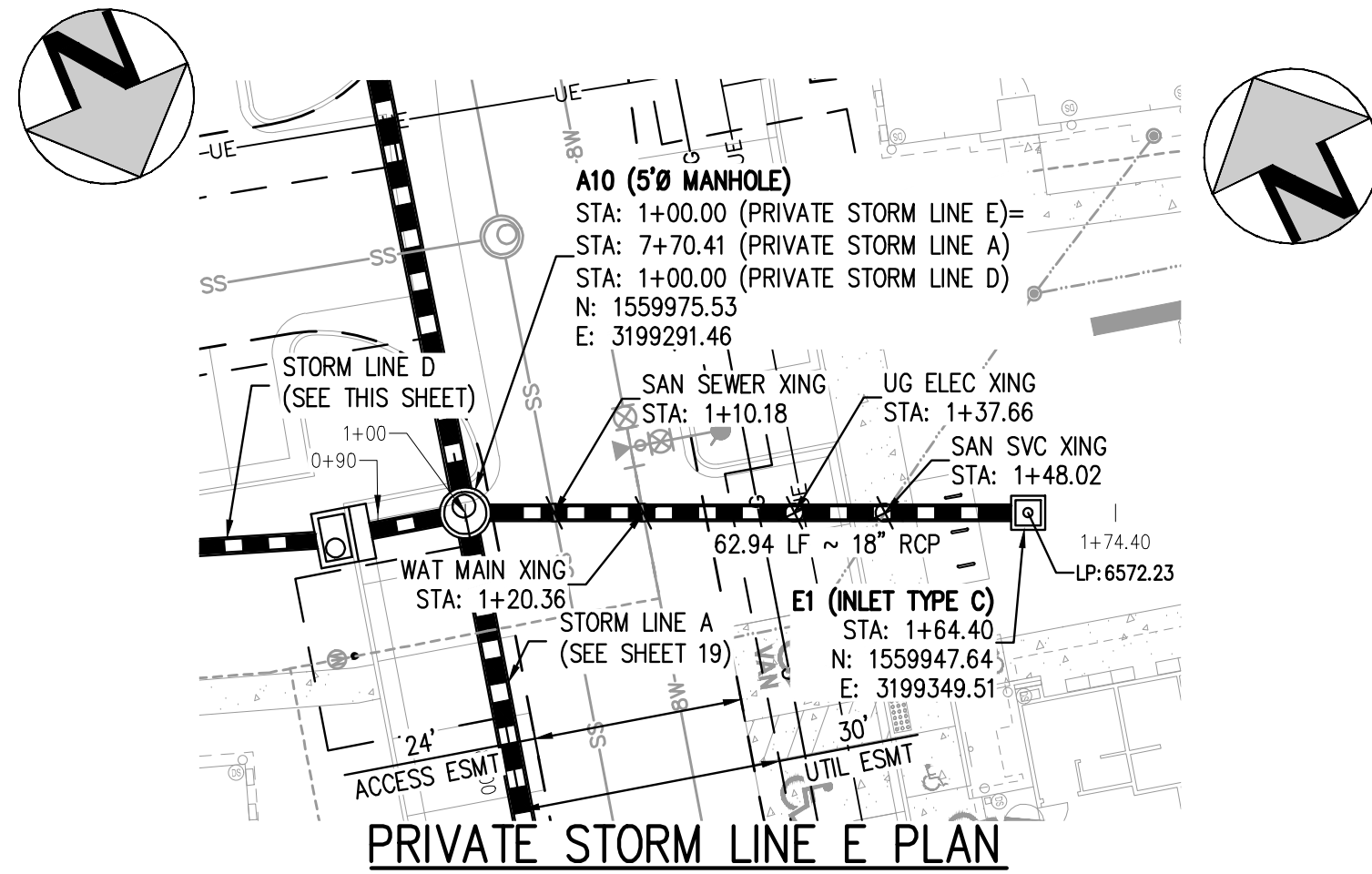
AVILLA FOUNDERS VILLAGE
STORM LINE A PLAN & PROFILE

PROJECT #: 210431
SHEET NUMBER

20

20 OF 87

NO CHANGES ARE TO BE MADE TO THIS DRAWING WITHOUT WRITTEN PERMISSION OF HARRIS KOCHER SMITH.



LEGEND

EXISTING	PROPOSED
UTILITY EASEMENT	STORM SEWER W/ MANHOLE AND INLET
SANITARY SEWER W/ MANHOLE	AND FLOW DIRECTION
SANITARY SERVICE W/ CLEANOUT	WATER LINE W/ MANHOLE
WATER SERVICE	FIRE HYDRANT
WATER FITTINGS AND APPURTENANCES	GATE VALVE
STREET LIGHT	ELECTRICAL TRANSFORMER
A/C UNIT	RETAINING WALL
HANDICAP RAMP	HANDICAP PARKING
SIGN	

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VERTICAL DATUM

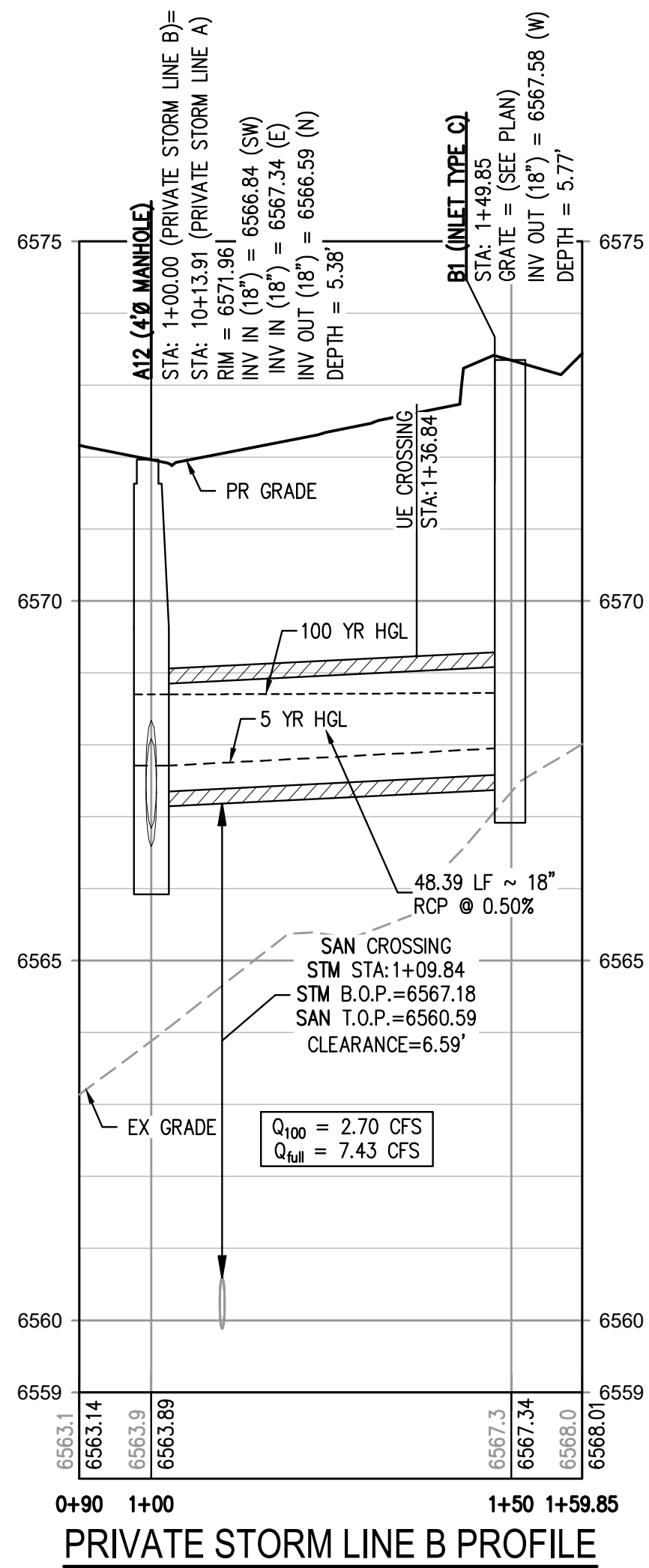
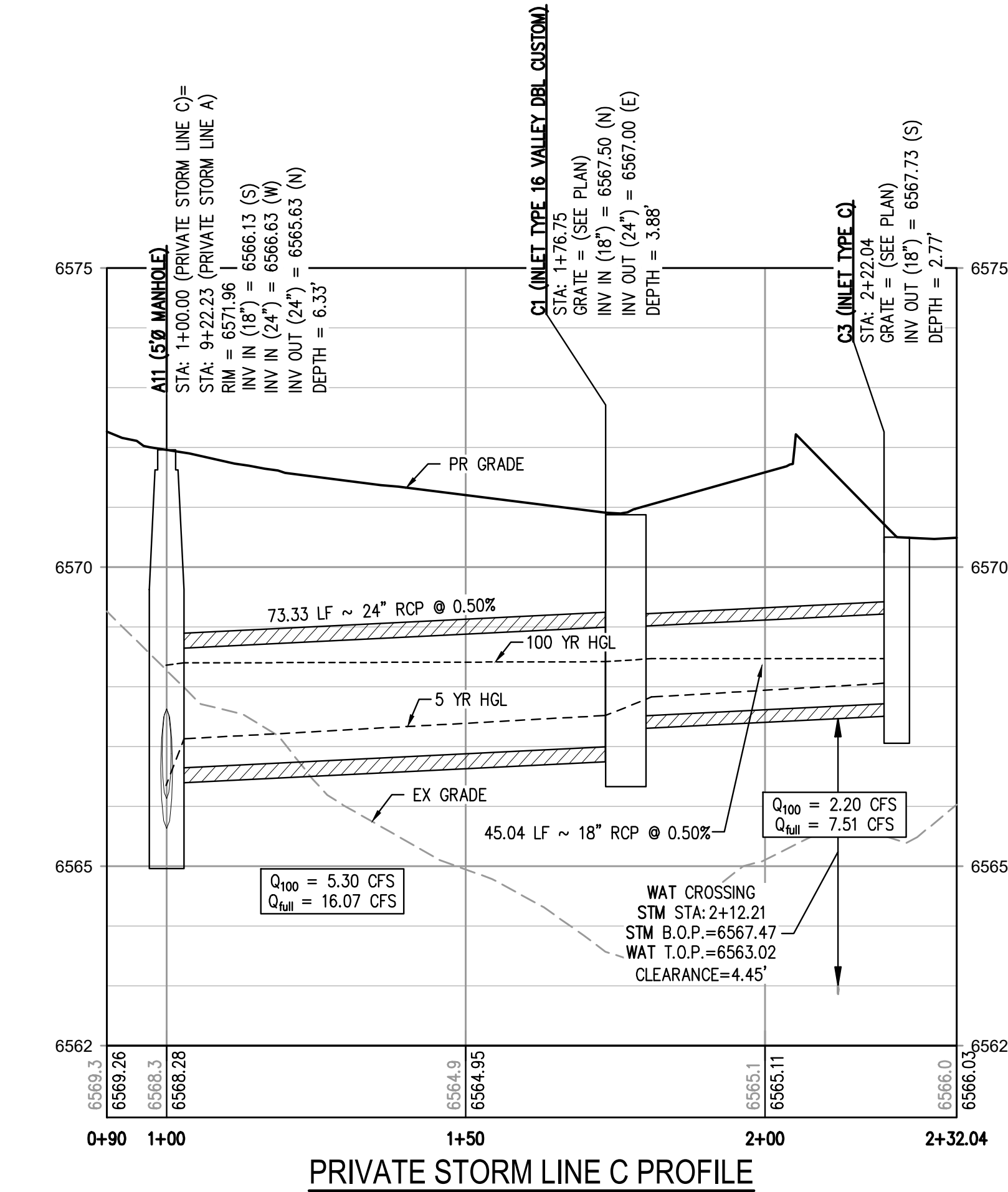
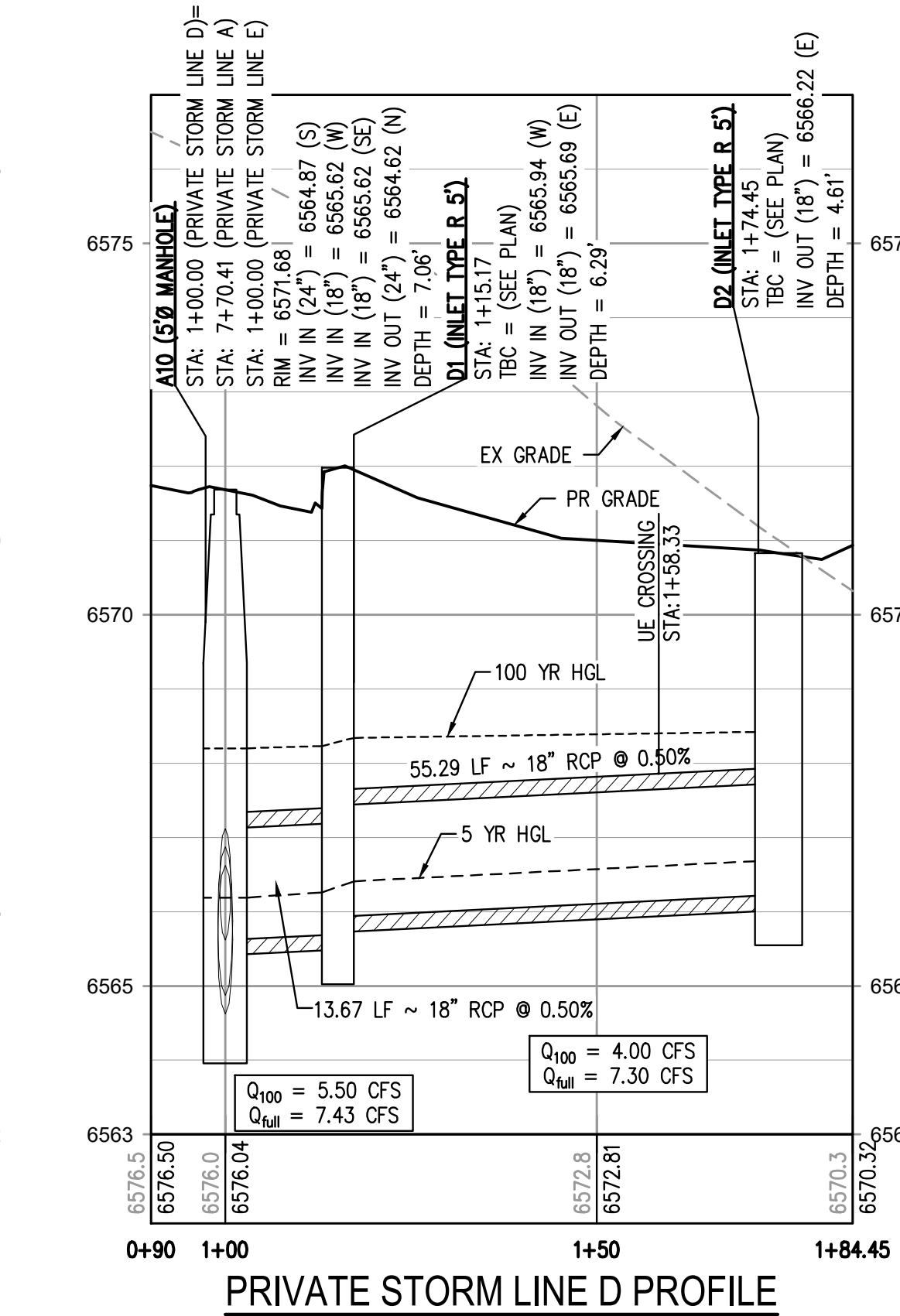
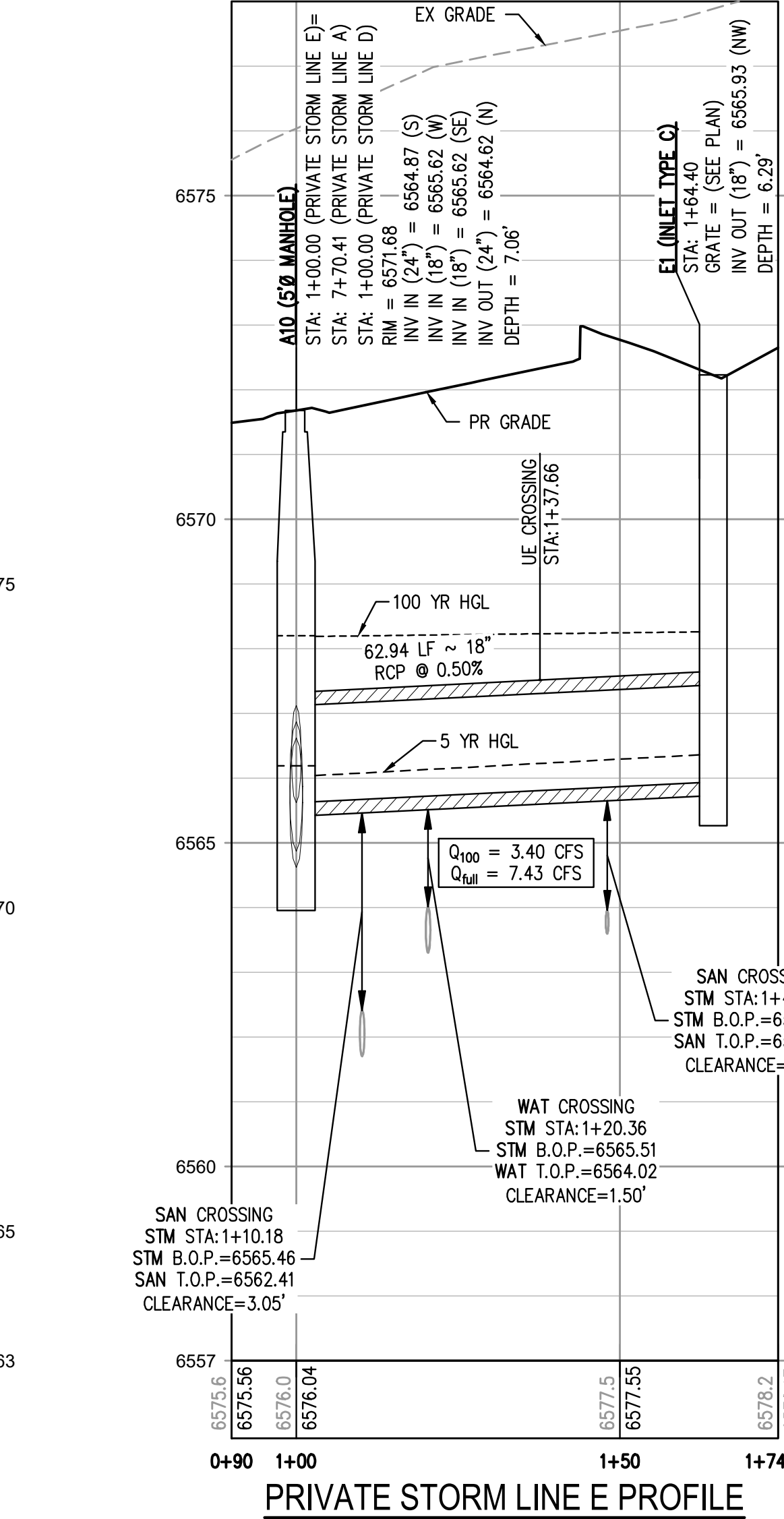
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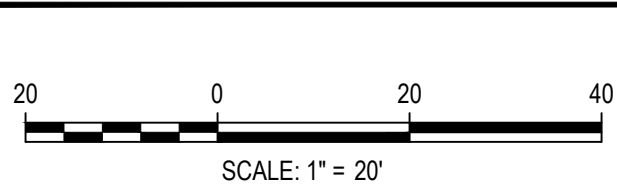
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PLANS ARE HEREBY APPROVED FOR ONE YEAR FROM DATE OF DEVELOPMENT SERVICES APPROVAL	
Approved By:	Date
Development Services	Date



Know what's below.
Call before you dig.



DESIGNED BY: <DESIGNER>
CHECKED BY: <REVIEWER>
DRAWN BY: <DRAWN>

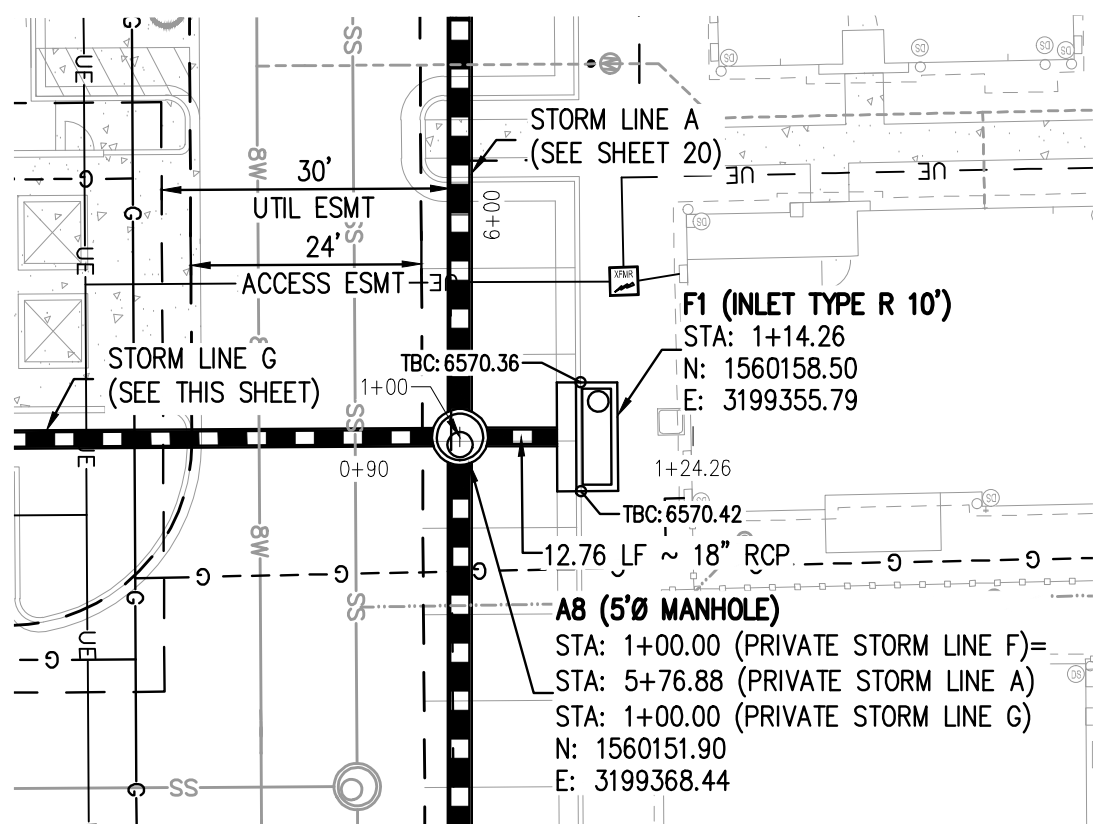
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DATE	PER TOWN OF CASTLE ROCK COMMENTS
10-31-2022	



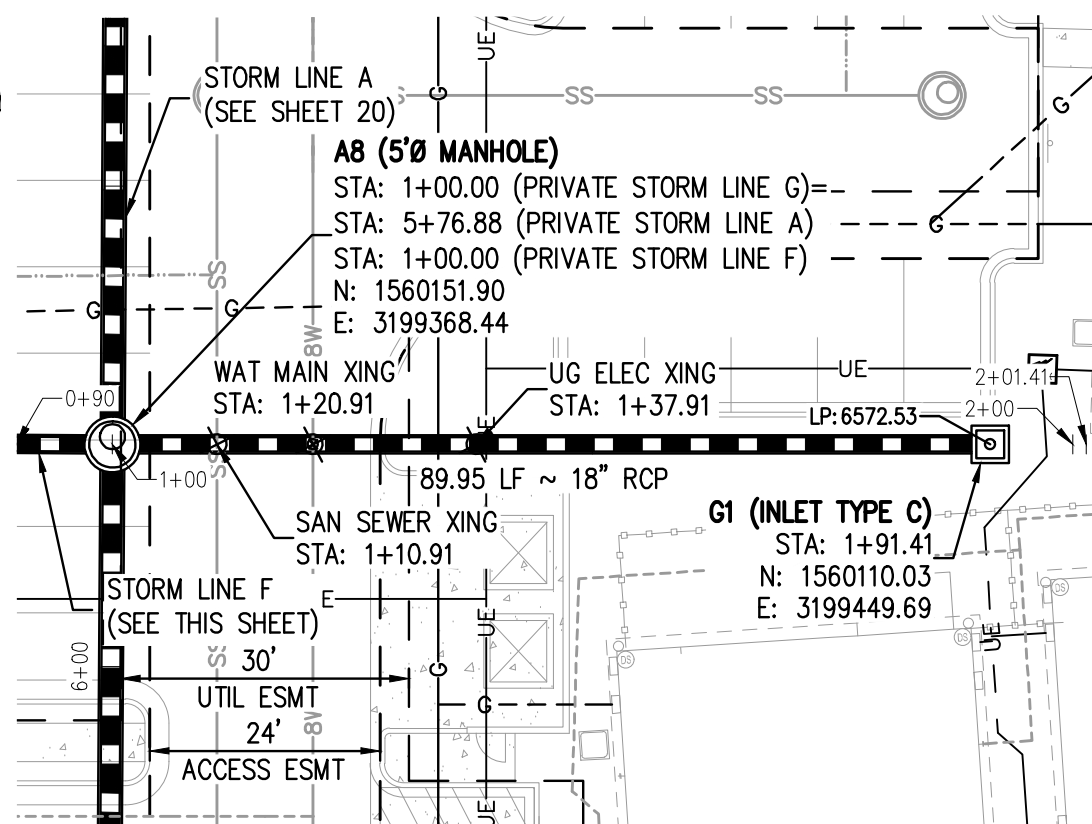
AVILLA FOUNDERS VILLAGE
STORM LINES B, C, D, & E PLANS & PROFILES

PROJECT #: 210431
SHEET NUMBER
21
21 OF 87

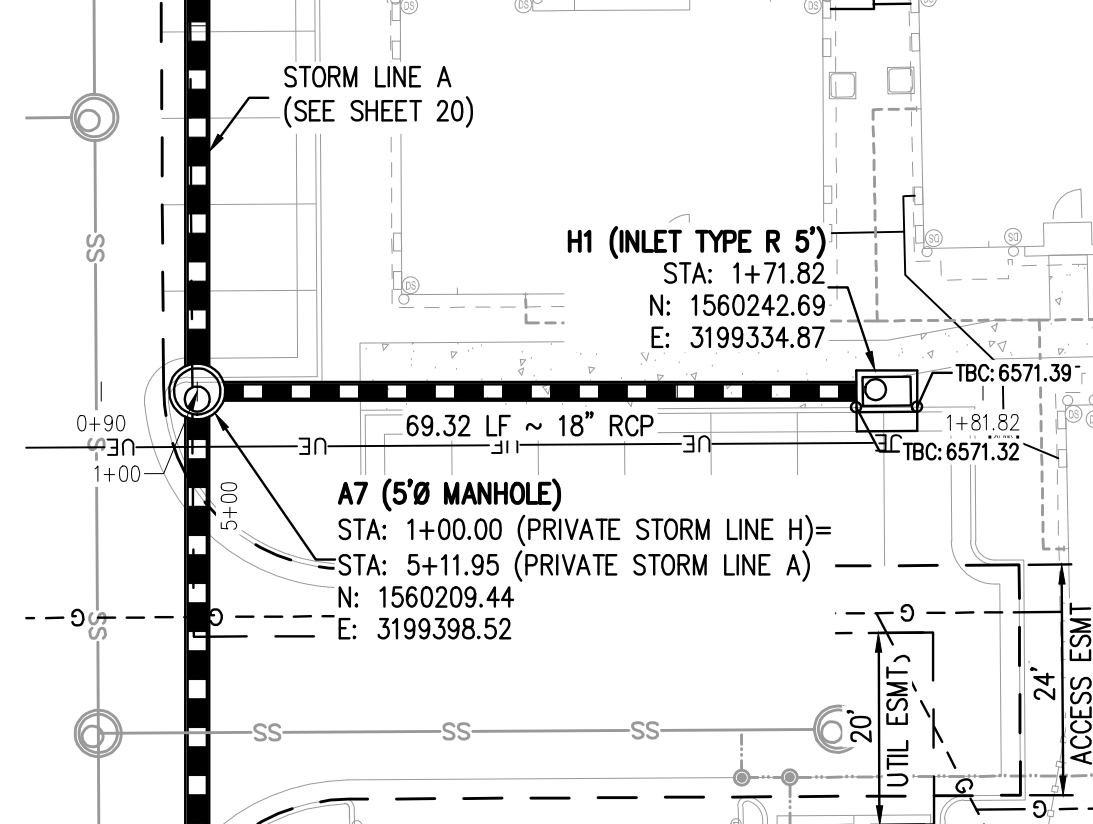
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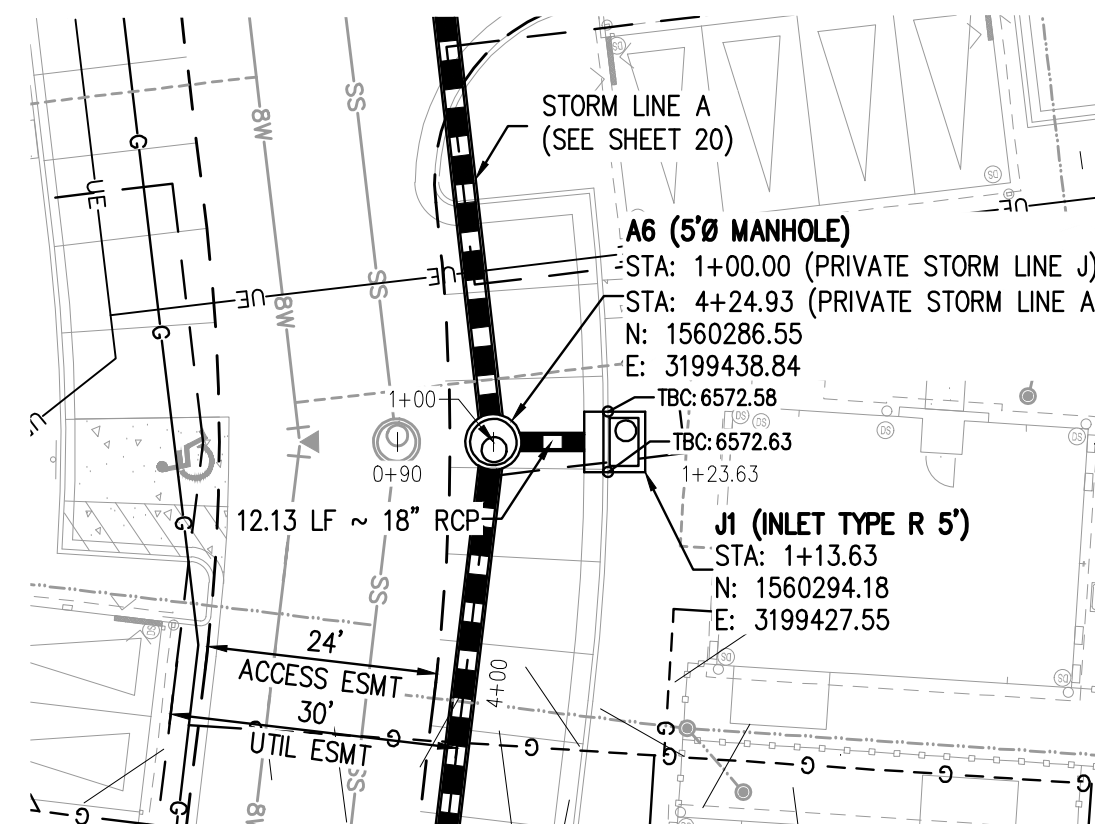
PRIVATE STORM LINE F PLAN
SCALE: 1" = 20'



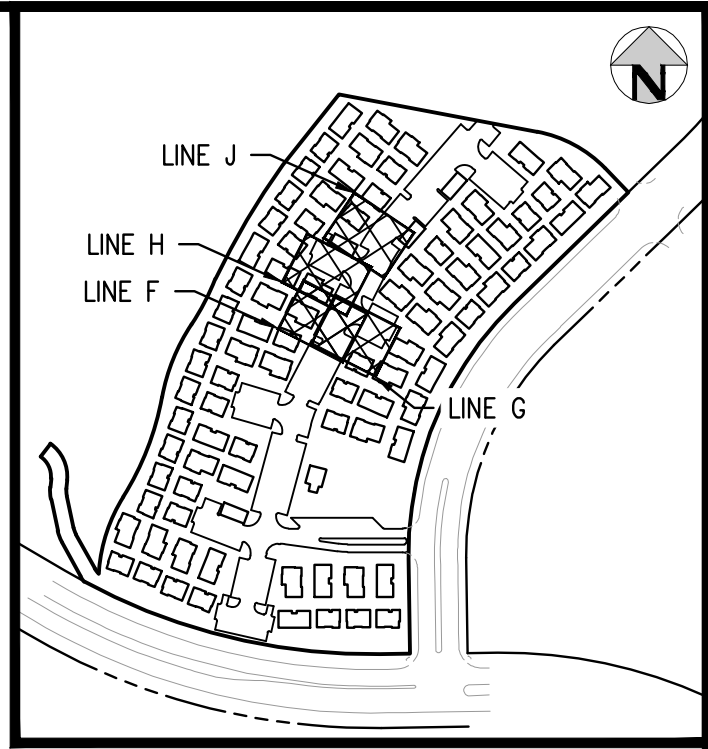
PRIVATE STORM LINE G PLAN
SCALE: 1" = 20'



PRIVATE STORM LINE H PLAN
SCALE: 1" = 20'



PRIVATE STORM LINE J PLAN
SCALE: 1" = 20'



LEGEND

EXISTING	PROPOSED
UTILITY EASEMENT	STORM SEWER W/ MANHOLE AND INLET
SANITARY SEWER W/ MANHOLE	SANITARY SERVICE W/ CLEANOUT
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10. CONTRACTOR SHALL ADJUST ALL EXISTING RIM ELEVATIONS TO MATCH THE PROPOSED GRADE.
11. CONTRACTOR SHALL MODIFY INLET BASES AS NEEDED IN ORDER TO ENSURE ALL STORM PIPES CONNECT PROPERLY TO THE INLET. CONTRACTOR SHALL PROVIDE SHOP DRAWINGS FOR REVIEW AND APPROVAL BY ENGINEER, OWNER, AND CITY/COUNTY PRIOR TO INSTALLATION.
12. CONTRACTOR SHALL PROVIDE ENGINEERED SHOP DRAWINGS, DESIGNED BY A LICENSED ENGINEER, DETAILING THE STRUCTURAL DESIGN OF ALL POND IMPROVEMENTS (FOREBAY, ENERGY DISSIPATING Baffles, OUTLET STRUCTURE, ETC.) FOR REVIEW AND APPROVAL BY ENGINEER, OWNER, AND CITY/COUNTY PRIOR TO INSTALLATION.
13. ANY SUBSURFACE DETENTION AND/OR WATER QUALITY SYSTEM DESIGNS SHOWN ON THESE PLANS (IF APPLICABLE) ARE SPECIFICALLY LIMITED TO ELEVATIONS, GRADES AND STORMWATER DETENTION AND/OR WATER QUALITY DESIGN DESIGN AND RELEASE RATES. THE DESIGN AND PROFESSIONAL ENGINEER'S SEAL SPECIFICALLY EXCLUDES STRUCTURAL DESIGN (INCLUDING, BUT NOT LIMITED TO, BUOYANCY CALCULATIONS AND CONSTRUCTION, TRAFFIC, OR OTHER LOADING), DEWATERING, EXCAVATION, SHORING, AND MATERIALS AND BACKFILL SPECIFICATIONS. IF THE PROPOSED SYSTEM UTILIZES A PROPRIETARY AND/OR PRE-MANUFACTURED DETENTION AND/OR WATER QUALITY SYSTEM, THE OWNER OR CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL REQUIRED SYSTEM DESIGN, CALCULATIONS, MATERIALS AND BACKFILL SPECIFICATIONS WITH THE UNDERGROUND DETENTION AND/OR WATER QUALITY SYSTEM MANUFACTURER AND/OR SUPPLIER. CONSTRUCTION OBSERVATION BY THE MANUFACTURER'S REPRESENTATIVE IS ESSENTIAL FOR PROPER INSTALLATION OF UNDERGROUND DETENTION AND/OR WATER QUALITY SYSTEMS. AT A MINIMUM, THE INSTALLATION SHOULD BE INSPECTED BY THE MANUFACTURER'S REPRESENTATIVE DURING CONSTRUCTION AND ANY DEFICIENCIES OF THE INSTALLATION IDENTIFIED BY THE MANUFACTURER'S INSPECTION SHOULD BE CORRECTED IMMEDIATELY.
14. CONTRACTOR SHALL PROVIDE A MINIMUM SEVENTY TWO (72) HOURS' NOTICE TO THE ON-SITE TCR CONSTRUCTION INSPECTOR, (720) 733-2200, PRIOR TO MAKING ANY CONNECTIONS OR TIE-INS TO EXISTING WATER, SANITARY SEWER, AND/OR STORM SEWER SYSTEMS PROVIDED THAT THE UTILITY TIE-IN DOES NOT DISRUPT SERVICE TO EXISTING OR WATER CUSTOMERS. IF THE TIE-IN WILL DISRUPT UTILITY SERVICE, THEN THE CONTRACTOR SHALL PROVIDE A MINIMUM OF THREE (3) WEEKS' NOTICE TO THE TCR CONSTRUCTION INSPECTOR TO ALLOW TIME FOR OR WATER TO PROVIDE WRITTEN NOTIFICATION TO EXISTING CUSTOMERS AFFECTED BY THE TIE-IN. ALL TOWN UTILITY TIE-INS MUST BE APPROVED BY OR WATER PRIOR TO COMMENCING WORK.

HORIZONTAL CONTROL

BEARINGS ARE BASED ON THE NORTH LINE OF THE NORTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 8, AS MONUMENTED AT THE EAST CORNER BY A #6 REBAR WITH A 3.25" ALUMINUM CAP STAMPED: SURVCON 2006 PLS 30289 AND AT THE CENTER-EAST SIXTEENTH CORNER BY A 2.5" PIPE WITH A 3.5" ALUMINUM CAP STAMPED: 1986 PLS 22100, AS BEARING SOUTH 88°58'05" WEST, PER THE PLAT OF FOUNDERS VILLAGE FILING NO. 24 AMENDMENT NO. 1.

VERTICAL DATUM

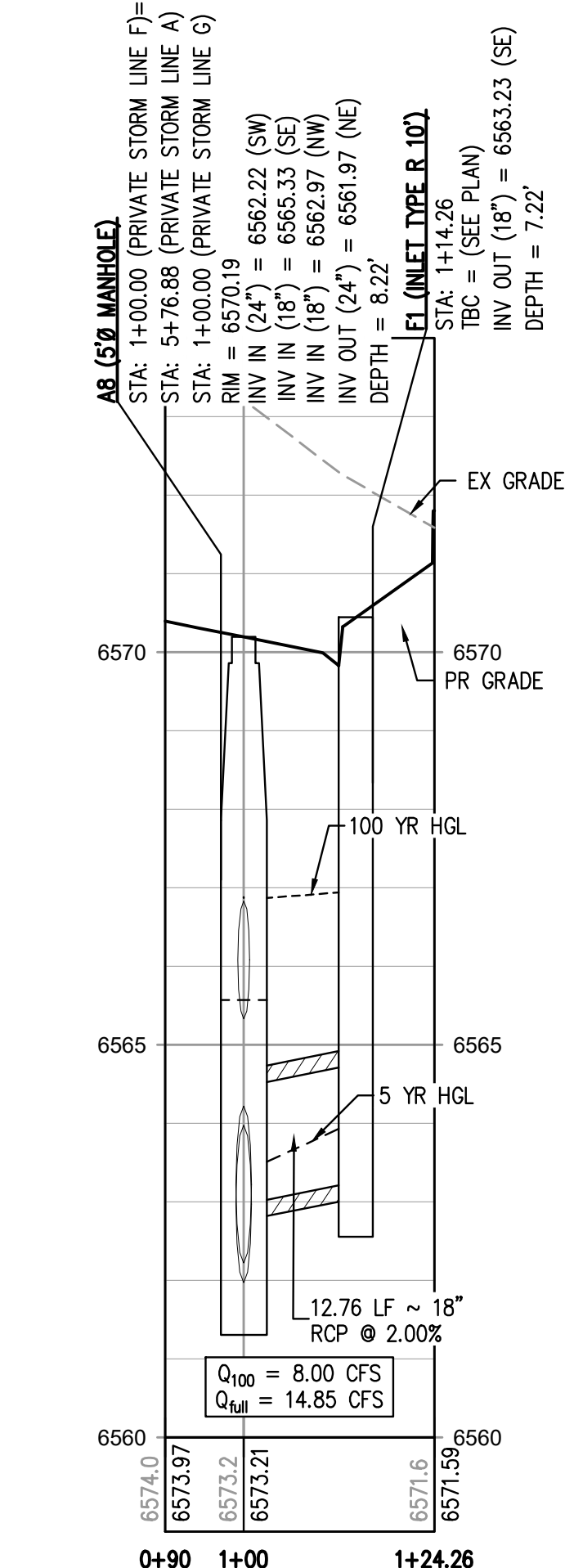
DOUGLAS COUNTY GIS CONTROL MONUMENT NO. 4.015020 MONUMENTED BY A 3-1/4" DIAMETER ALUMINUM CAPPED MONUMENT BEING NORTH OF THE EAST 1/4 CORNER OF SECTION 8 AS MONUMENTED BY 2-1/2" ALUMINUM CAPPED MONUMENT STAMPED "LS28656". NAVD 88 ELEVATION=6572.29

PROFESSIONAL ENGINEER CERTIFICATION

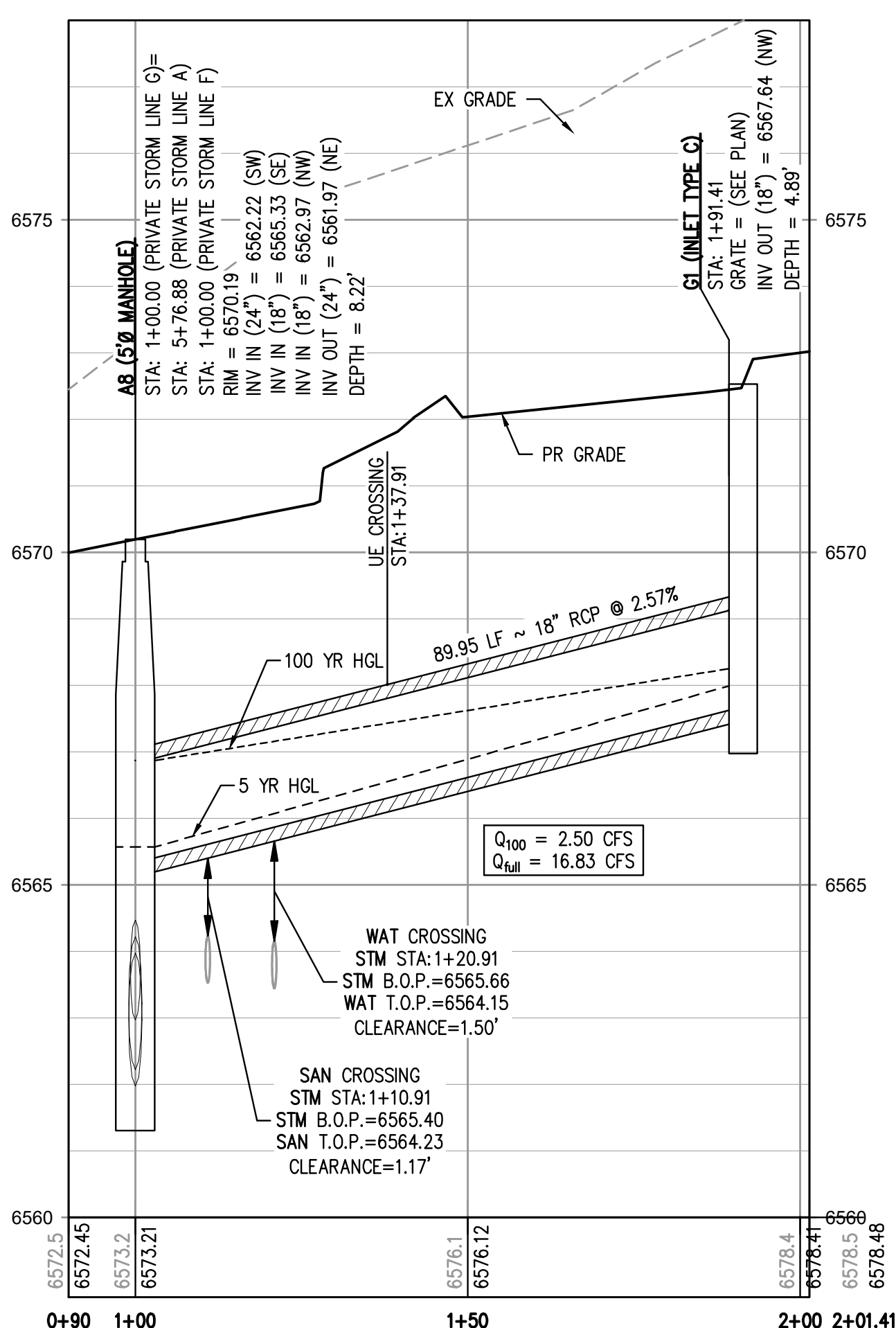
I HEREBY AFFIRM THAT THESE FINAL CONSTRUCTION PLANS WERE PREPARED UNDER MY DIRECT SUPERVISION, IN ACCORDANCE WITH ALL APPLICABLE TOWN OF CASTLE ROCK AND STATE OF COLORADO STANDARDS AND STATUTES, RESPECTIVELY; AND THAT I AM FULLY RESPONSIBLE FOR ALL DESIGN AND REVISIONS RELATIVE TO SAID PLANS.

PRELIMINARY
NOT FOR
CONSTRUCTION

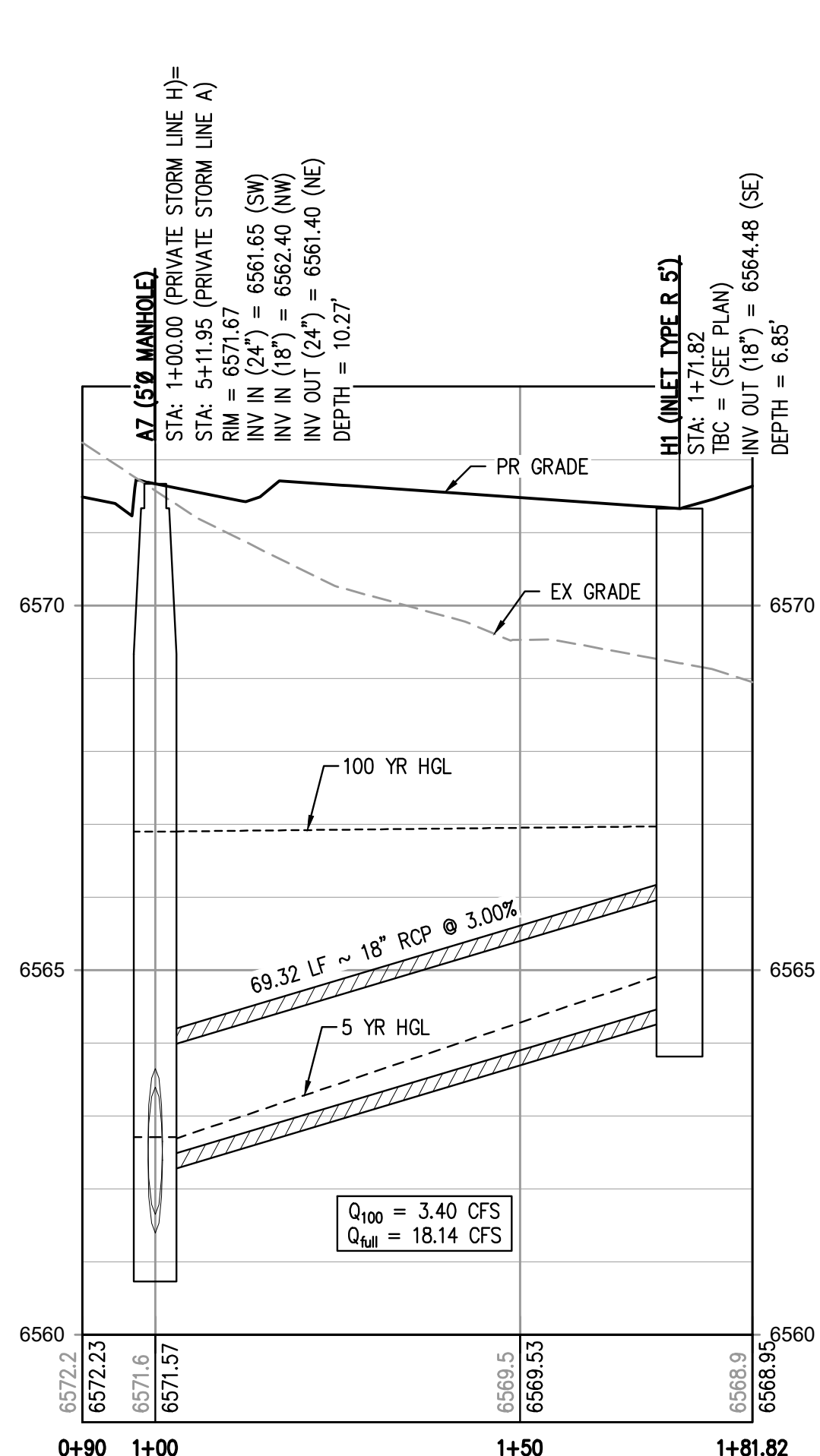
RACHEL C. PATTON, P.E. #54450	DATE
TOWN OF CASTLE ROCK APPROVAL	
PLANS ARE HEREBY APPROVED FOR ONE YEAR FROM DATE OF DEVELOPMENT SERVICES APPROVAL	
Approved By:	Date
Development Services	Date



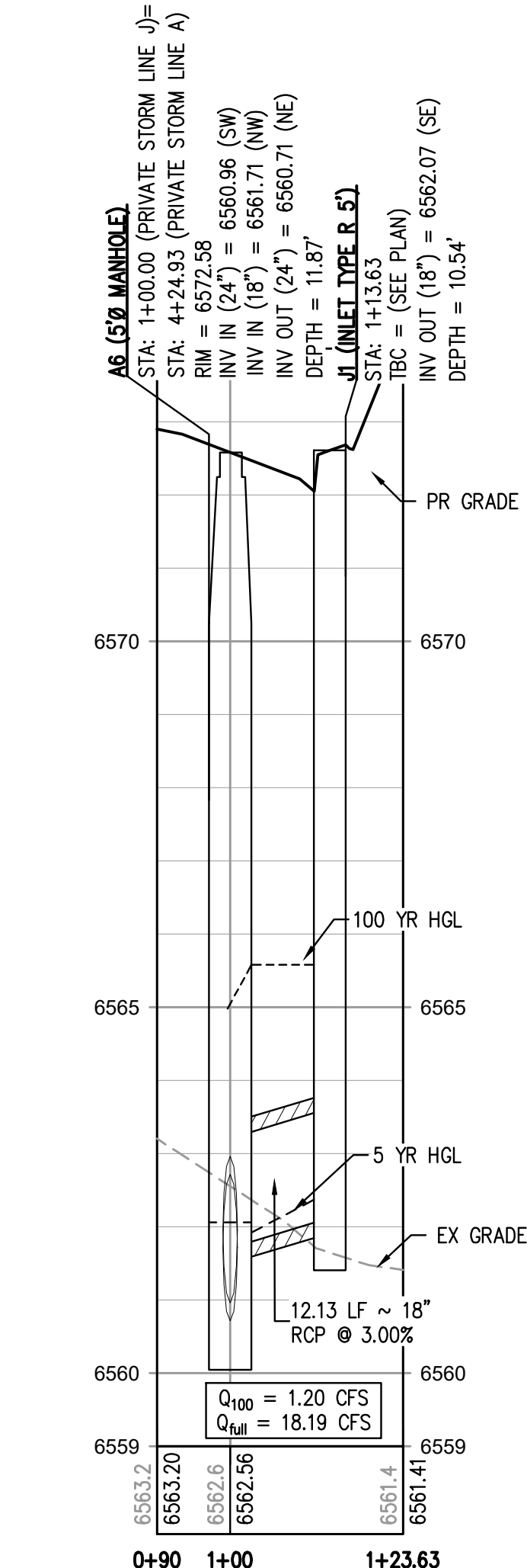
PRIVATE STORM LINE F PROFILE
HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 2'



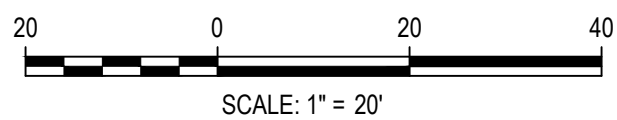
PRIVATE STORM LINE G PROFILE
HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 2'



PRIVATE STORM LINE H PROFILE
HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 2'



PRIVATE STORM LINE J PROFILE
HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 2'



DESIGNED BY: <DESIGNER>
CHECKED BY: <REVIEWER>
DRAWN BY: <DRAWN>

ISSUE DATE: 08-11-2022	REVISION COMMENTS
DATE	PER TOWN OF CASTLE ROCK COMMENTS
10-31-2022	



AVILLA FOUNDERS VILLAGE
STORM LINES F, G, H, & J PLANS & PROFILES

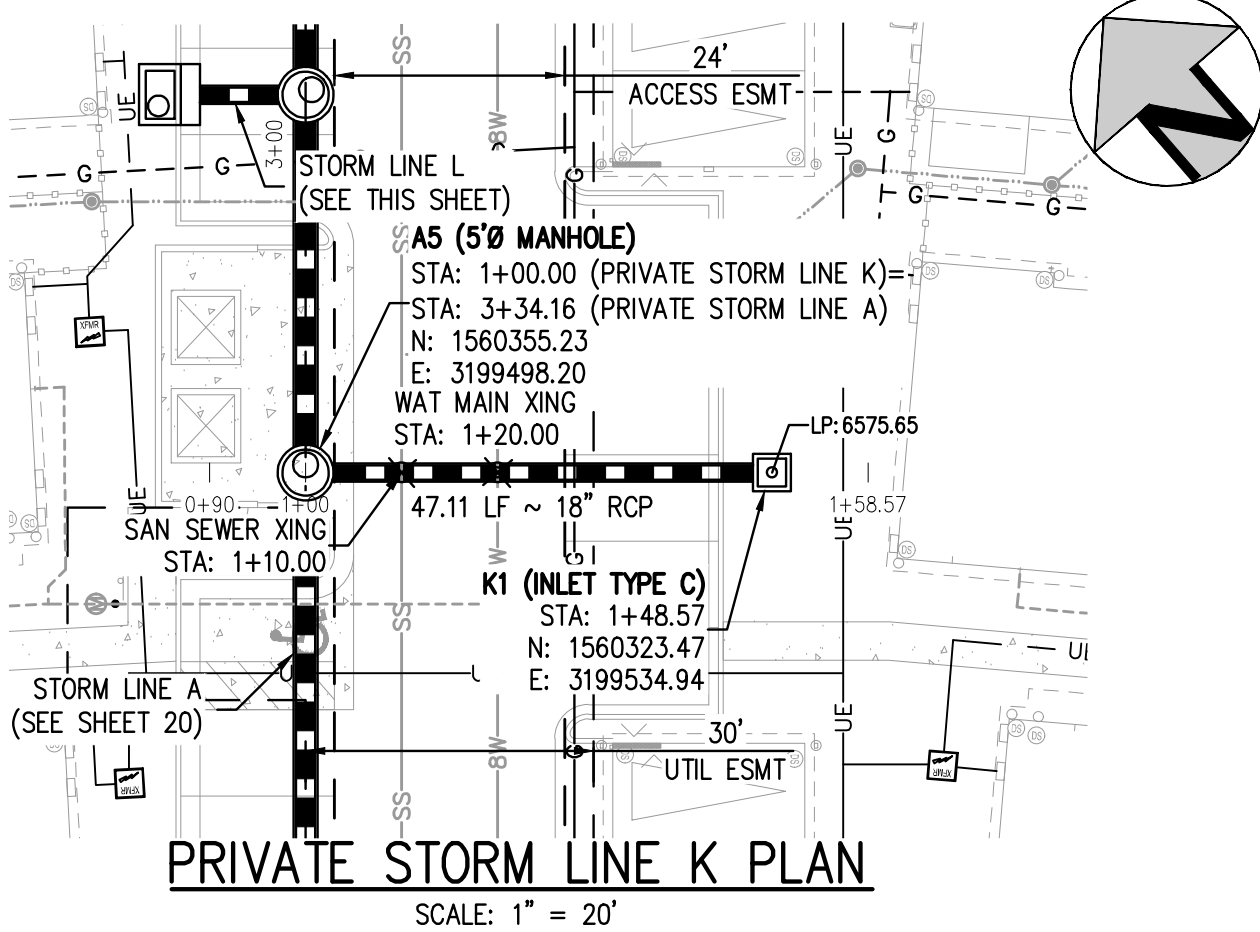
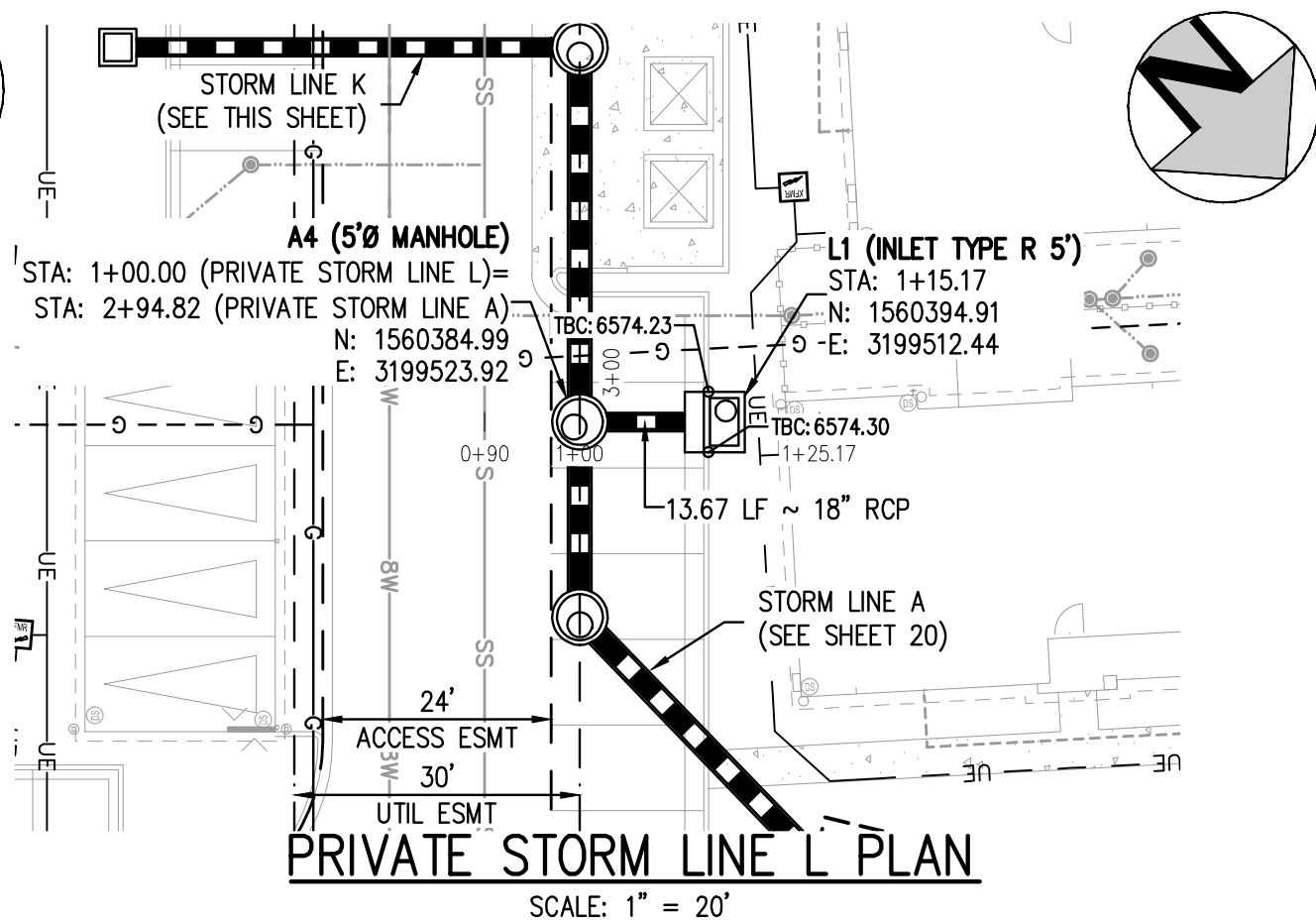
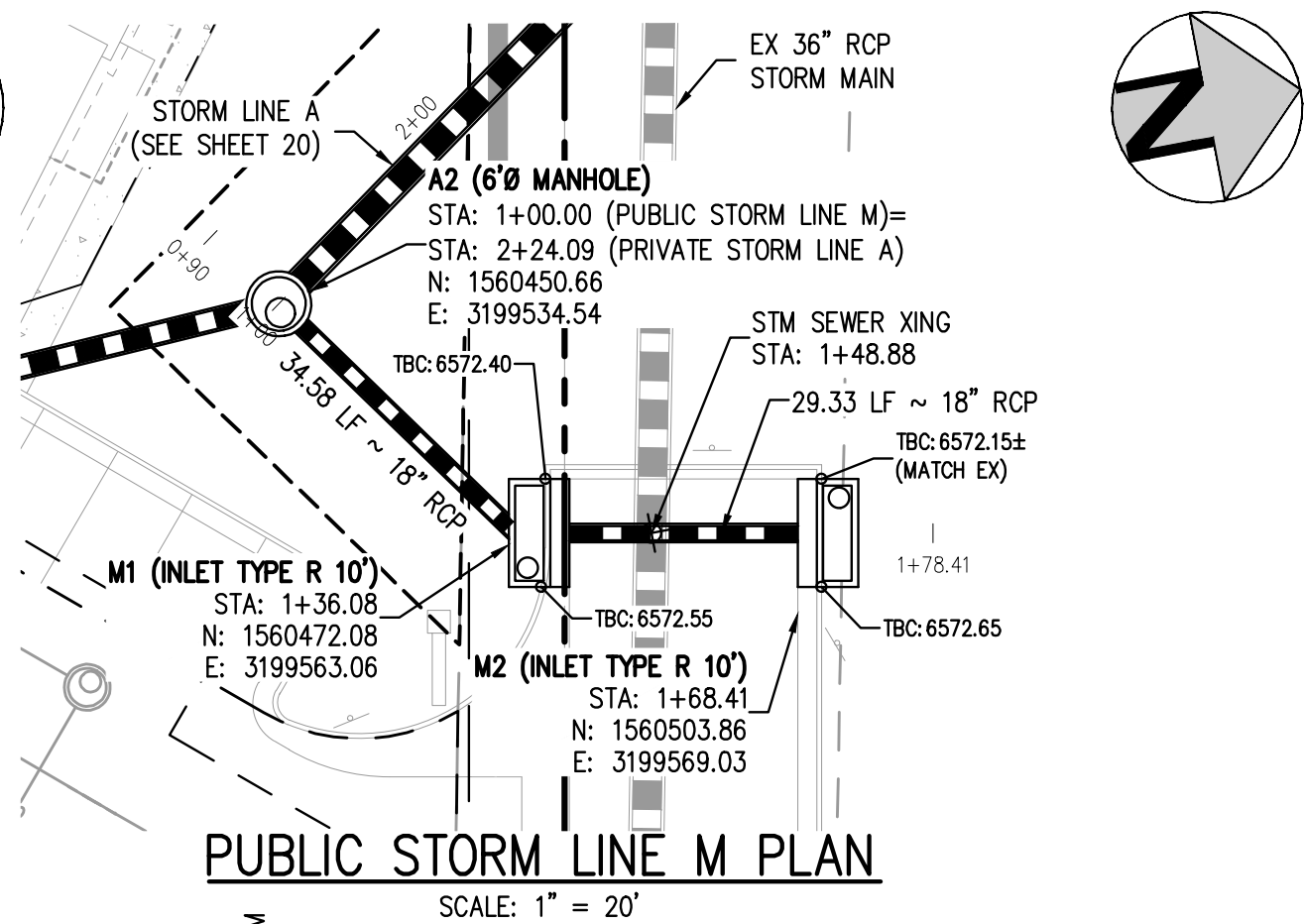
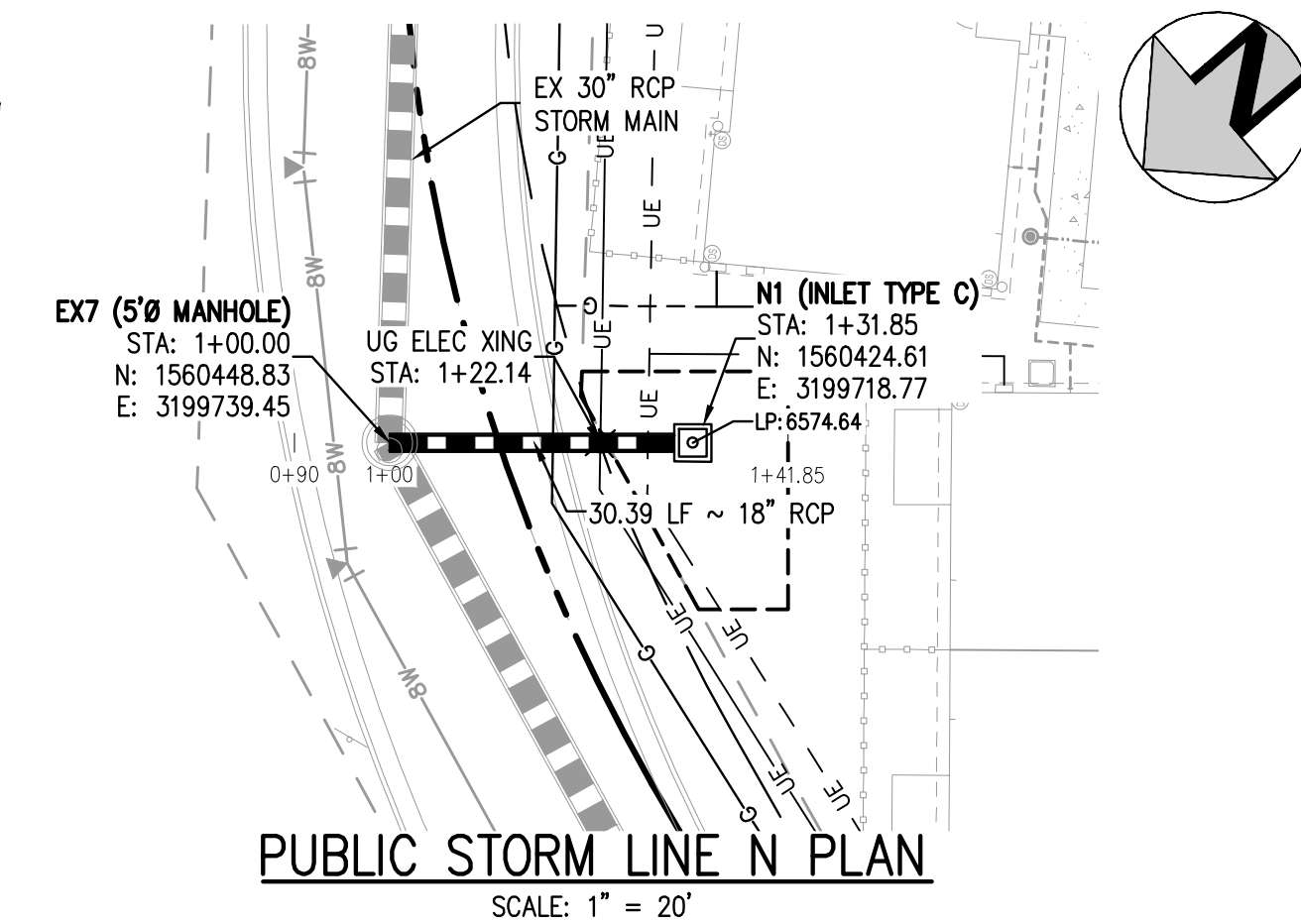
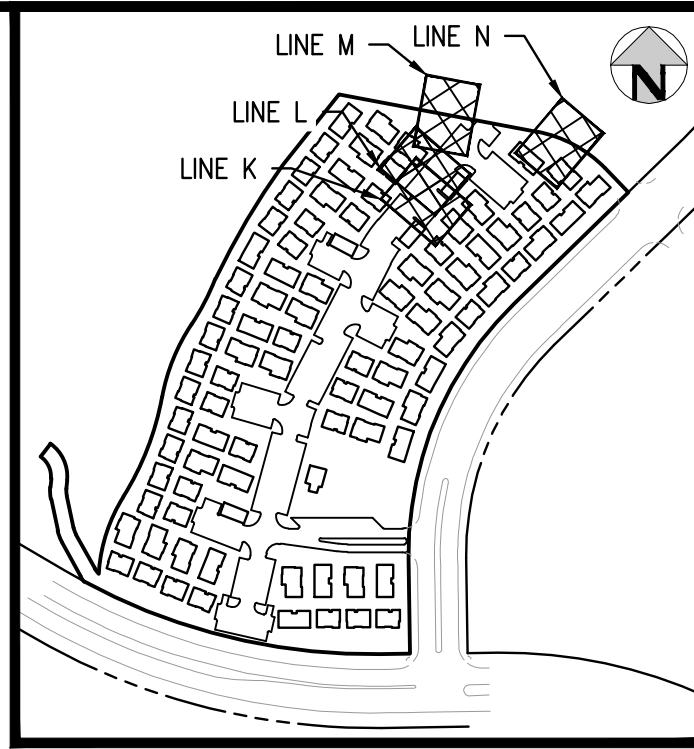
PROJECT #: 210431
SHEET NUMBER

22

22 OF 87

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PLOT DATE: MON 11/21/2022 10:55:16A BY: MILES SUSTAD

NO CHANGES ARE TO BE MADE TO THIS DRAWING WITHOUT WRITTEN PERMISSION OF HARRIS KOCHER SMITH.



LEGEND

EXISTING	PROPOSED
UTILITY EASEMENT	STORM SEWER W/ MANHOLE AND INLET
STORM SEWER W/ MANHOLE AND FLOW DIRECTION	SANITARY SEWER W/ MANHOLE
SANITARY SERVICE W/ CLEANOUT	WATER LINE W/ MANHOLE
WATER SERVICE	FIRE HYDRANT
WATER FITTINGS AND APPURTENANCES	GATE VALVE
STREET LIGHT	ELECTRICAL TRANSFORMER
A/C UNIT	RETAINING WALL
HANDICAP RAMP	HANDICAP PARKING
SIGN	

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- STATIONING OF INLETS SHOWN IN STORM SEWER PROFILES IS AT CENTER OF STRUCTURE.
- ALL COORDINATES ARE AT THE CENTER OF THE STRUCTURE UNLESS OTHERWISE INDICATED.
- CONTRACTOR SHALL USE RCP, PVC, PP, OR HDPE PIPES FOR THE MAIN LINES, BUT SHALL NOTIFY THE JURISDICTIONAL UTILITY PROVIDER AND THE ENGINEER, PRIOR TO INSTALLATION, FOR APPROVAL. REGARDLESS OF PIPE MATERIAL, ALL STORM SEWER SHALL UTILIZE WATER-TIGHT JOINTS.
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VERTICAL DATUM

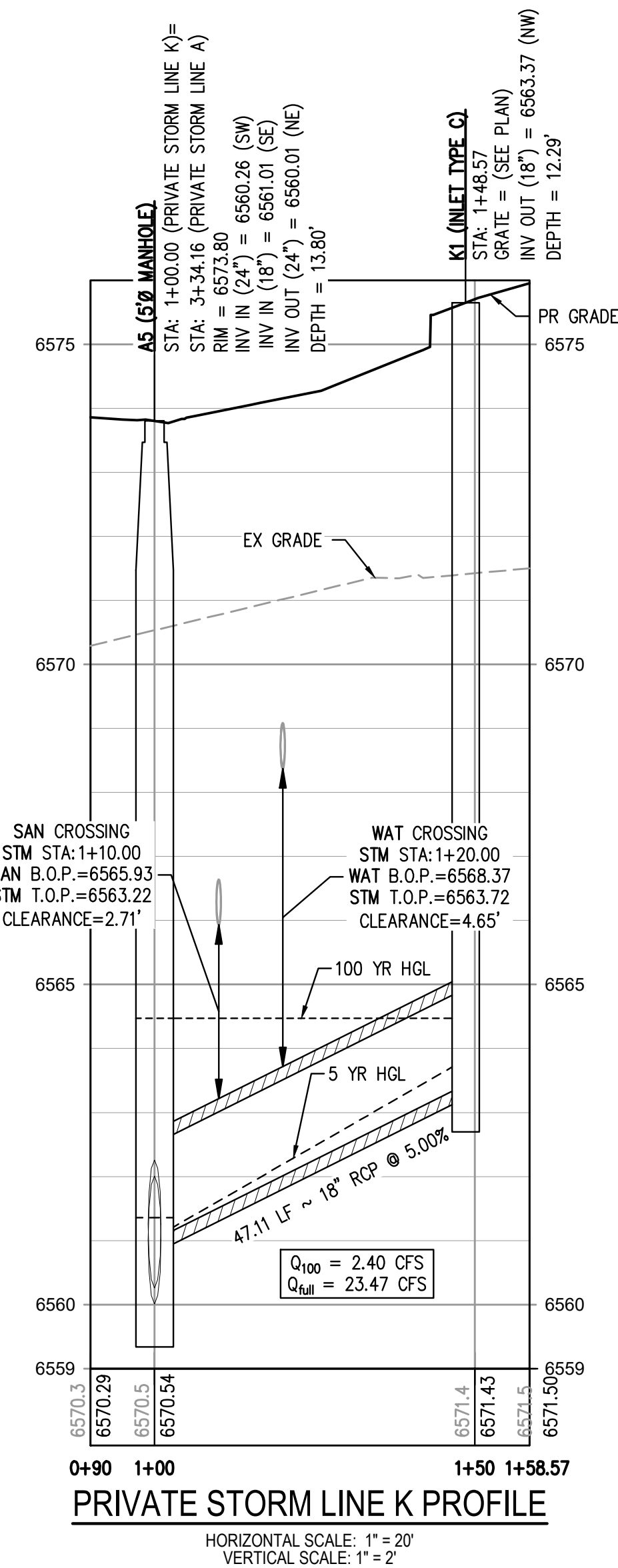
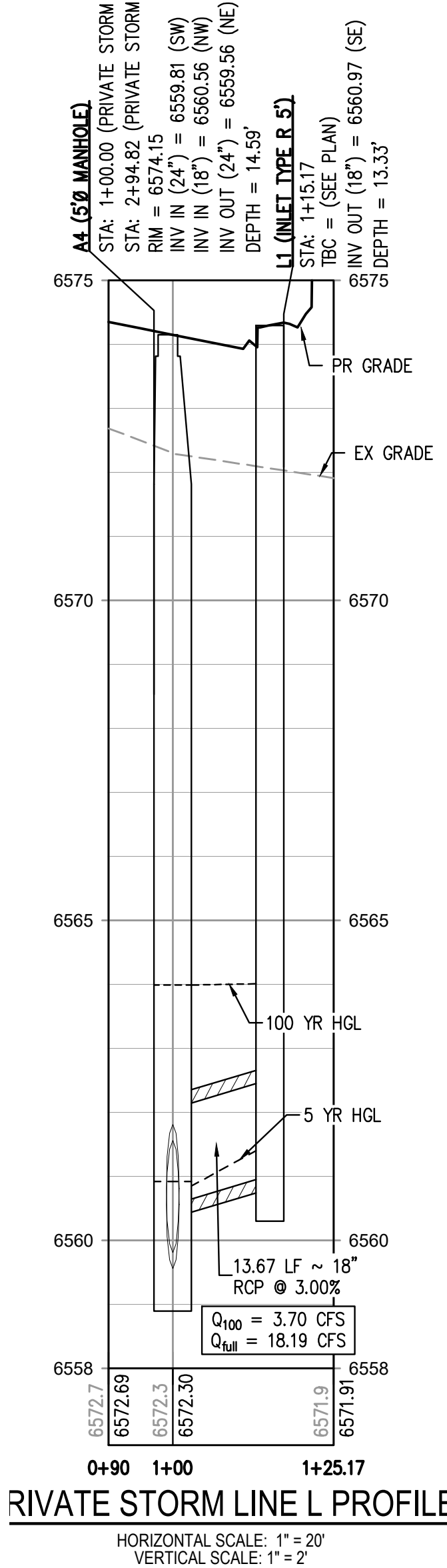
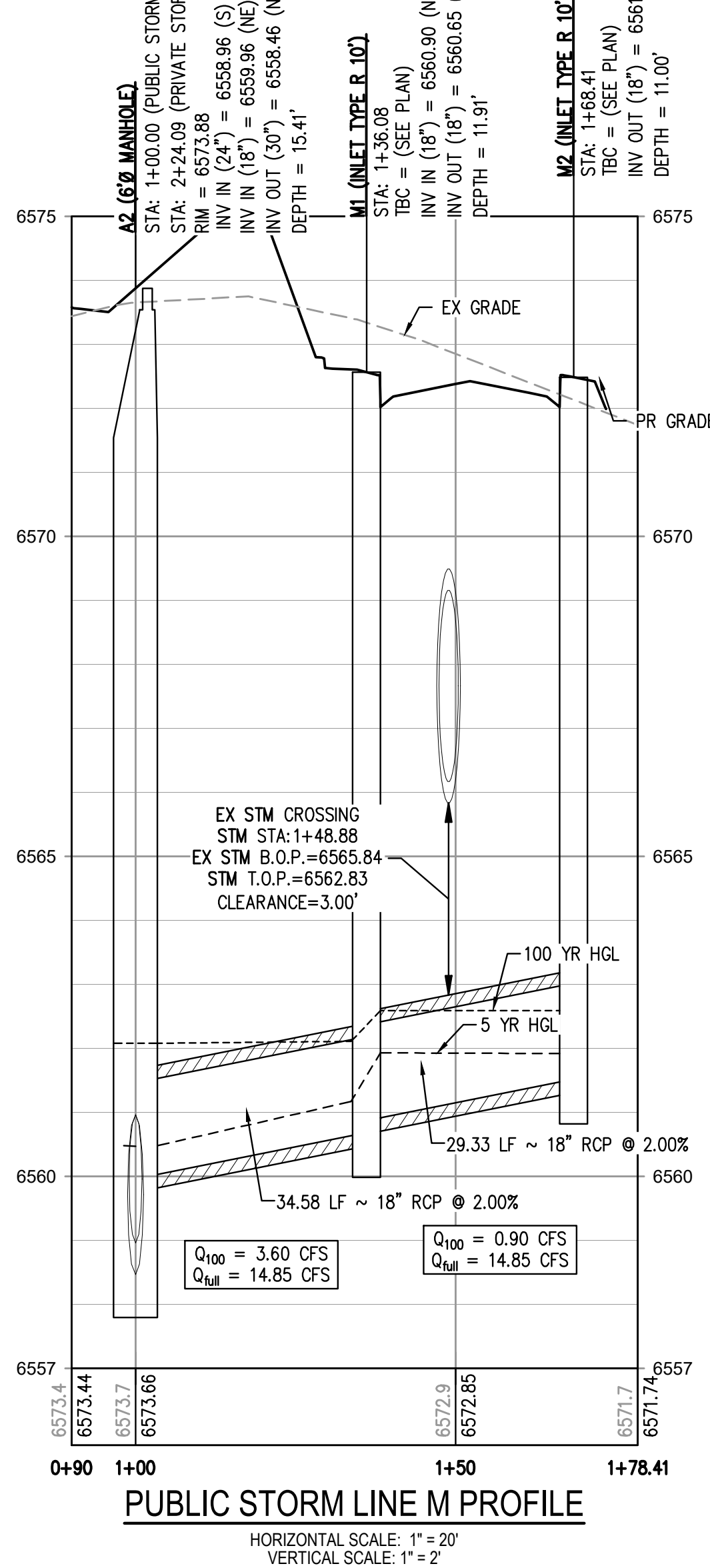
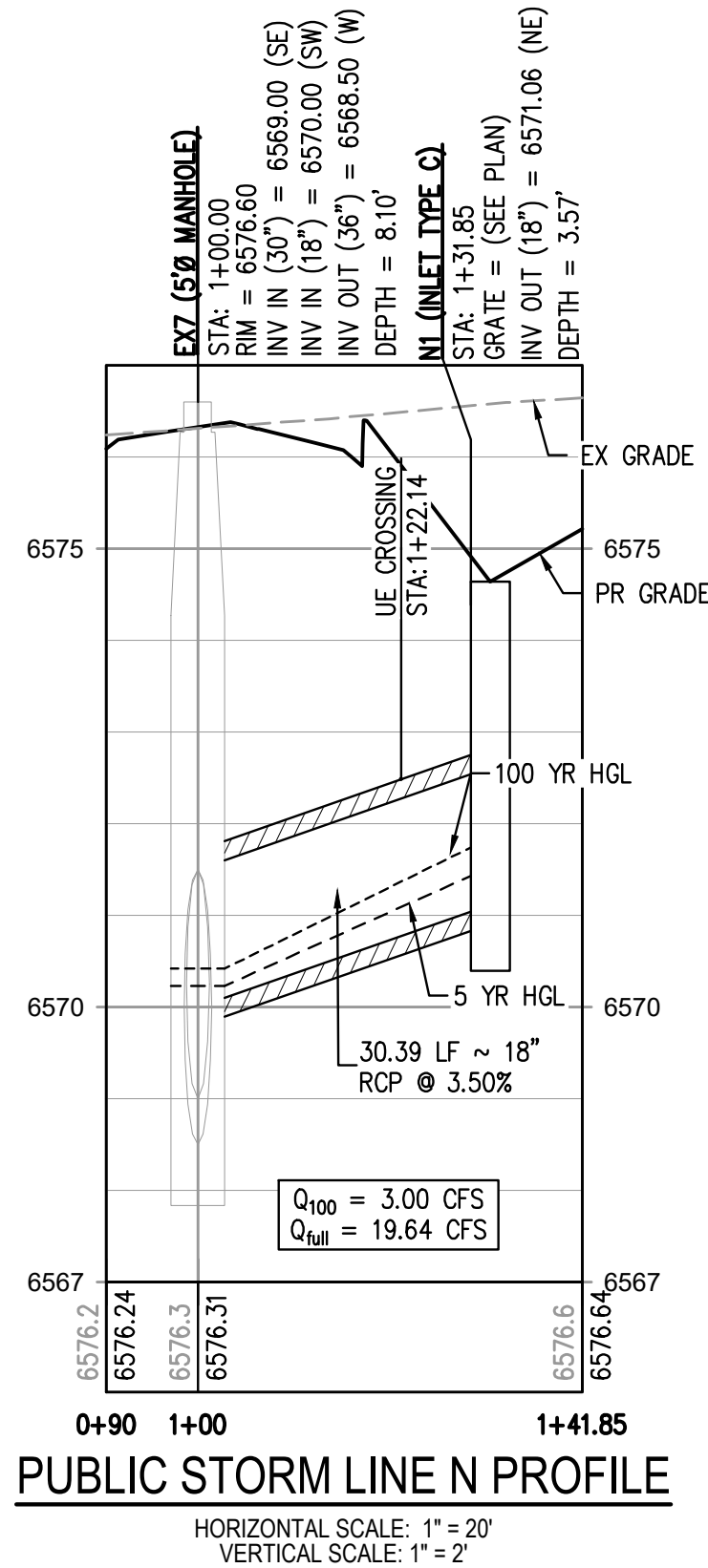
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PROFESSIONAL ENGINEER CERTIFICATION

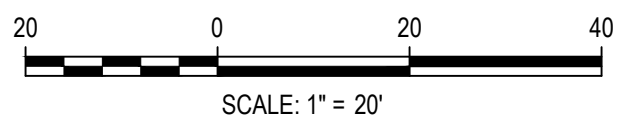
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PRELIMINARY
NOT FOR
CONSTRUCTION

RACHEL C. PATTON, P.E. #54450	DATE
TOWN OF CASTLE ROCK APPROVAL	
PLANS ARE HEREBY APPROVED FOR ONE YEAR FROM DATE OF DEVELOPMENT SERVICES APPROVAL	
Approved By:	Date
Development Services	Date



Know what's below.
Call before you dig.



DESIGNED BY: <DESIGNER>
CHECKED BY: <REVIEWER>
DRAWN BY: <DRAWN>

ISSUE DATE: 08-11-2022	REVISION COMMENTS
DATE	
10-31-2022	PER TOWN OF CASTLE ROCK COMMENTS

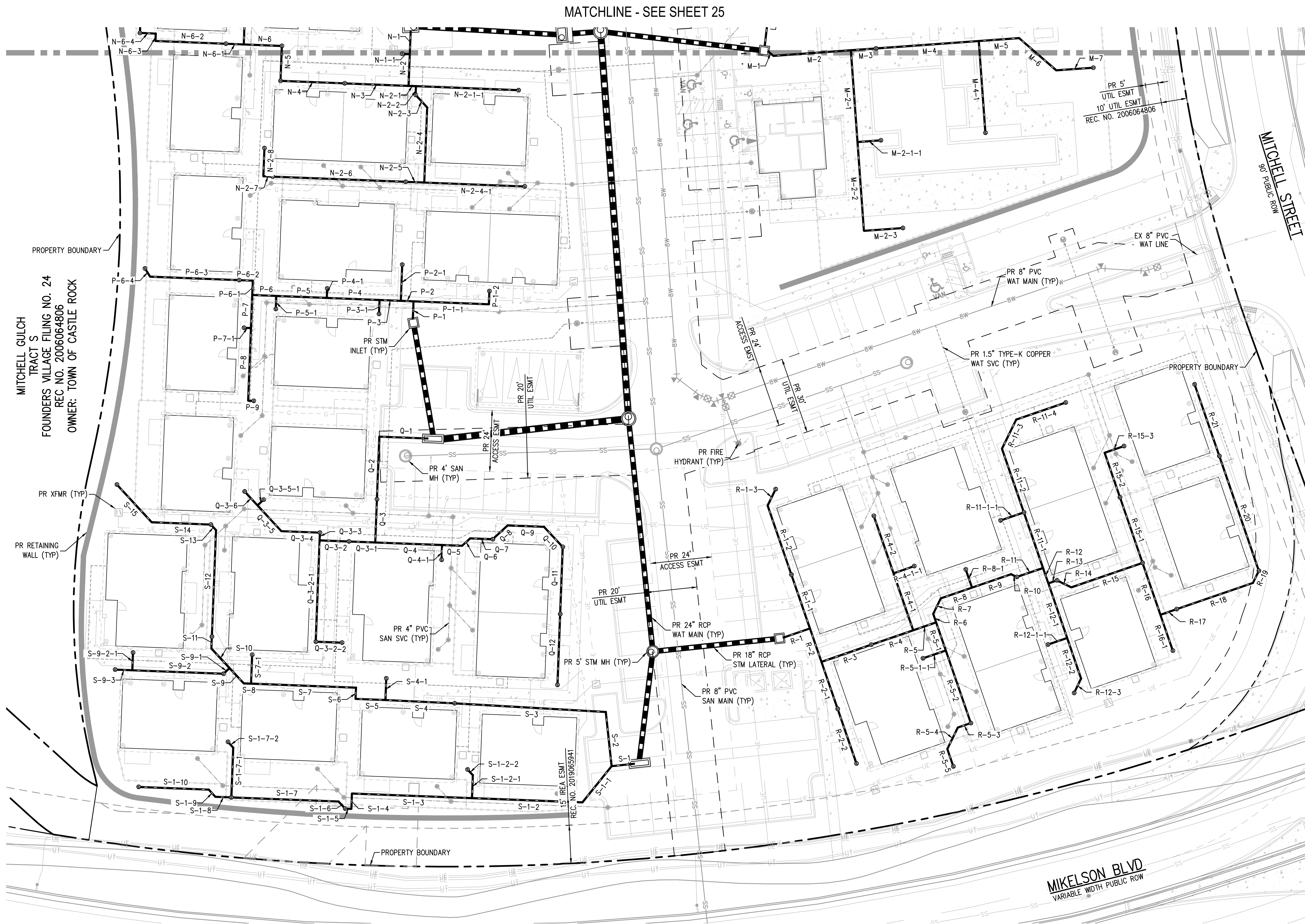
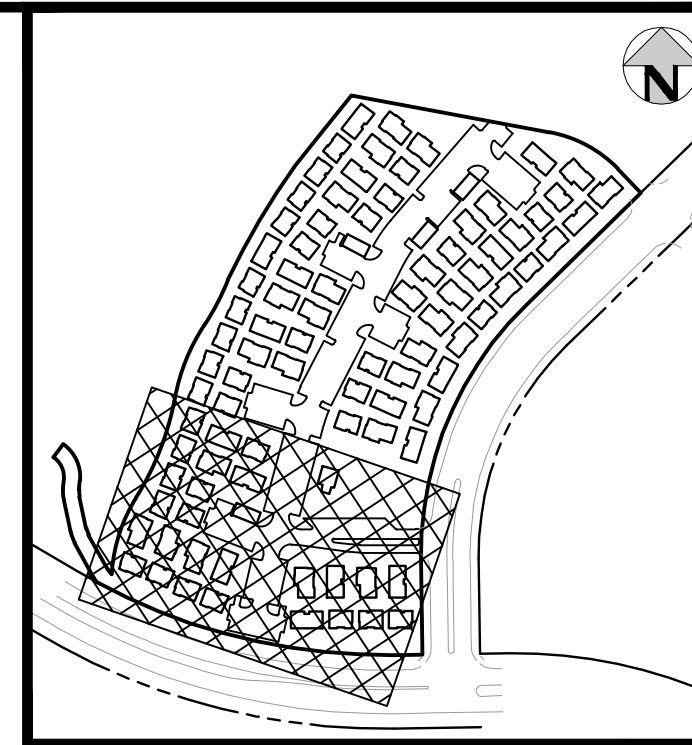


AVILLA FOUNDERS VILLAGE
STORM LINES K, L, M, & N PLANS & PROFILES

PROJECT #: 210431
SHEET NUMBER

23

23 OF 87



LEGEND

UTILITY EASEMENT
LANDSCAPE DRAIN

STORM SEWER W/ MANHOLE AND INLET
SANITARY SEWER W/ MANHOLE
AND FLOW DIRECTION
SANITARY SERVICE W/ CLEANOUT
WATER LINE W/ MANHOLE
WATER SERVICE
FIRE HYDRANT
WATER FITTINGS AND APPURTENANCES
GATE VALVE
STREET LIGHT
ELECTRICAL TRANSFORMER
A/C UNIT
RETAINING WALL
HANDICAP RAMP
SIGN

HANDICAP PARKING

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PRELIMINARY
NOT FOR
CONSTRUCTION

RACHEL C PATTON, P.E. #54450

DAT

TOWN OF CASTLE ROCK APPROVAL

PLANS ARE HEREBY APPROVED FOR ONE YEAR FROM DATE OF
DEVELOPMENT SERVICES APPROVAL

Approved By:

Development Services

PROJECT #: 210431

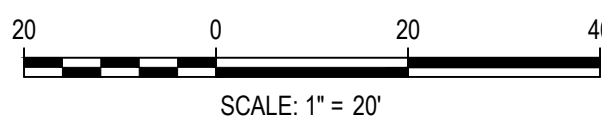
SHEET NUMBER

24

24 OF 87



Know what's below.
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DESIGNED BY: CLH
CHECKED BY: RCP
DRAWN BY: CLH

ISSUE DATE: 08-11-2022

DATE	REVISION COMMENTS
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10-31-2022	PER TOWN OF CASTLE ROCK COMMENTS
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1120 Lincoln Street, Suite 1000
Denver, Colorado 80203
P: 303.623.6300 F: 303.623.6311
HarrisKocherSmith.com

NEXmetro
Communities

AVILLA FOUNDERS VILLAGE

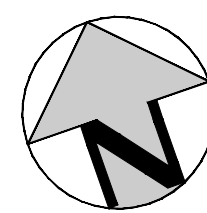
LANDSCAPE DRAIN PLAN

PROJECT #: 210431

SHEET NUMBER

24

24 OF 87

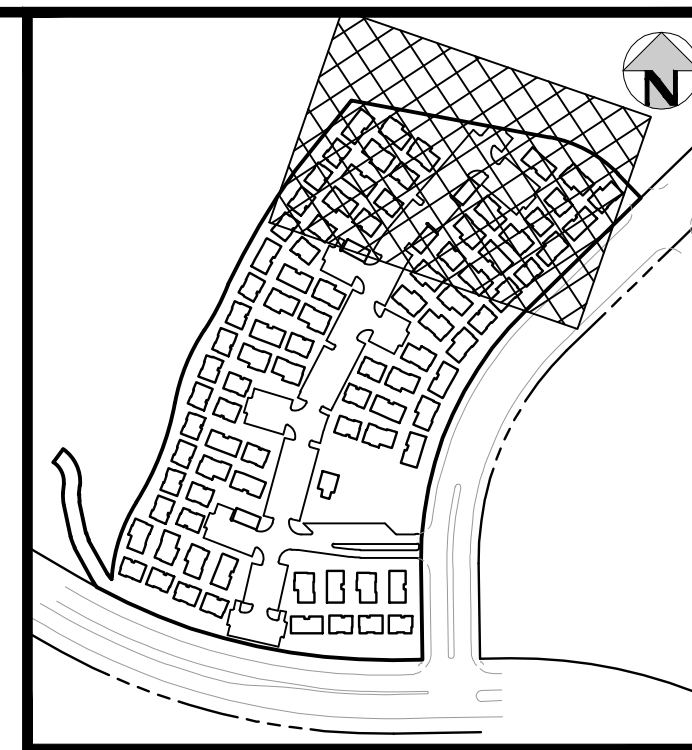


MATCHLINE - SEE SHEET 24

PR RETAINING

25 OF 87





RACHEL C PATTON, P.E. #54450 DATE

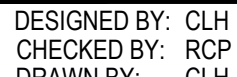
TOWN OF CASTLE ROCK APPROVAL

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DEVELOPMENT SERVICES APPROVAL

Approved By:

Development Services Date

26 OF 87



PIPE TABLE			PIPE TABLE			PIPE TABLE			PIPE TABLE			PIPE TABLE			PIPE TABLE			PIPE TABLE			PIPE TABLE			PIPE TABLE			PIPE TABLE		
NAME	SIZE	LENGTH	NAME	SIZE	LENGTH	NAME	SIZE	LENGTH	NAME	SIZE	LENGTH	NAME	SIZE	LENGTH	NAME	SIZE	LENGTH	NAME	SIZE	LENGTH	NAME	SIZE	LENGTH	NAME	SIZE	LENGTH	NAME	SIZE	LENGTH
A-1	6"	15.74'	C-2-1	6"	4.04'	D-9-12	6"	5.55'	E-13-1	6"	8.89'	G-9	6"	66.43'	K-4-1	6"	5.84'	N-2-1	6"	2.90'	P-3-1	6"	5.48'	R-5-1-1	6"	9.50'	S-2	6"	21.32'
A-1-1	6"	20.35'	C-2-2	6"	5.11'	D-9-13	6"	19.66'	E-14-1	6"	17.11'	H-1	6"	5.13'	K-4-1-1	6"	3.75'	N-2-1-1	6"	40.15'	P-4	6"	20.64'	R-5-2	6"	30.03'	S-3	6"	59.22'
A-1-2	6"	20.81'	C-3	6"	39.67'	D-10	6"	8.99'	E-14-1	6"	8.91'	H-2	6"	7.06'	K-4-2	6"	7.69'	N-2-2	6"	3.44'	P-4-1	6"	3.71'	R-5-3	6"	5.39'	S-4	6"	27.08'
A-1-3	6"	36.56'	C-4	6"	15.27'	D-11	6"	8.35'	E-15-1	6"	2.46'	H-3	6"	48.85'	K-4-2-1	6"	9.87'	N-2-3	6"	6.65'	P-5	6"	19.78'	R-5-4	6"	9.35'	S-4-1	6"	8.46'
A-2	6"	12.92'	C-5	6"	33.62'	D-12	6"	12.99'	E-16	6"	27.13'	H-4	6"	64.08'	K-4-3	6"	24.50'	N-2-4	6"	29.42'	P-5-1	6"	5.13'	R-5-5	6"	7.22'	S-5	6"	11.69'
A-2-1	6"	17.93'	C-6	6"	20.40'	D-12-1	6"	38.68'	E-16-1	6"	12.17'	J-1	6"	3.65'	K-4-4	6"	6.71'	N-2-4-1	6"	39.29'	P-6	6"	9.40'	R-6	6"	3.54'	S-6	6"	4.40'
A-2-2	6"	12.56'	C-7	6"	29.56'	D-13	6"	6.67'	E-17	6"	3.50'	J-2	6"	7.57'	K-4-5	6"	6.52'	N-2-5	6"	7.29'	P-6-1	6"	5.61'	R-7	6"	6.72'	S-7	6"	41.08'
A-2-3	6"	38.45'	C-8	6"	9.00'	D-14	6"	10.70'	E-18	6"	17.05'	J-3	6"	17.04'	K-5	6"	29.75'	N-2-6	6"	52.08'	P-6-2	6"	5.36'	R-8	6"	12.92'	S-7-1	6"	11.29'
A-3	6"	11.24'	C-9	6"	13.02'	D-14-1	6"	11.86'	E-19	6"	15.72'	J-4	6"	5.98'	K-5-1	6"	10.00'	N-2-7	6"	3.60'	P-6-3	6"	34.83'	R-8-1	6"	7.54'	S-8	6"	2.88'
A-4	6"	6.19'	D-1	6"	18.51'	D-14-1-1	6"	4.86'	E-19-1	6"	16.55'	J-5	6"	3.65'	K-6	6"	19.15'	N-2-8	6"	11.02'	P-6-4	6"	3.80'	R-9	6"	16.15'	S-9	6"	8.13'
A-5	6"	7.87'	D-1-1	6"	5.07'	D-14-2	6"	24.54'	E-20	6"	6.25'	J-5-1	6"	5.71'	K-7	6"	5.44'	N-3	6"	25.01'	P-7	6"	12.95'	R-10	6"	2.51'	S-9-1	6"	3.25'
A-5-1	6"	48.17'	D-2	6"	8.37'	D-14-3	6"	21.59'	E-21	6"	9.77'	J-5-2	6"	8.56'	K-7-1	6"	19.14'	N-4	6"	25.11'	P-7-1	6"	2.74'	R-11	6"	10.85'	S-9-2	6"	35.68'
A-5-1-1	6"	6.57'	D-3	6"	8.39'	D-14-4	6"	2.12'	E-22	6"	5.51'	J-6	6"	38.86'	K-7-2	6"	3.77'	N-5	6"	13.67'	P-8	6"	28.44'	R-11-1	6"	22.98'	S-9-2-1	6"	6.92'
A-5-1-2	6"	11.55'	D-4	6"	33.06'	D-14-5	6"	8.38'	F-1	6"	2.97'	J-6-1	6"	8.92'	K-7-3	6"	42.67'	N-6	6"	14.92'	P-9	6"	2.17'	R-11-1-1	6"	9.67'	S-9-3	6"	6.74'
A-5-2	6"	2.79'	D-4-1	6"	11.13'	D-14-6	6"	37.36'	F-2	6"	10.76'	J-6-2	6"	27.00'	K-7-4	6"	9.94'	N-6-1	6"	7.00'	Q-1	6"	19.09'	R-11-2	6"	26.35'	S-10	6"	10.47'
A-5-3	6"	10.93'	D-5	6"	11.27'	D-14-7	6"	3.76'	F-2-1	6"	9.53'	J-7	6"	5.90'	K-7-5	6"	24.86'	N-6-2	6"	27.57'	Q-2	6"	24.51'	R-11-3	6"	12.69'	S-11	6"	4.66'
A-5-4	6"	35.00'	D-6	6"	7.66'	D-15	6"	31.82'	F-3	6"	6.96'	J-7-1	6"	6.64'	K-8	6"	5.82'	N-6-3	6"	2.91'	Q-3	6"	16.92'	R-11-4	6"	20.46'	S-12	6"	41.67'
A-5-4-1	6"	2.79'	D-7	6"	18.52'	D-15-1	6"	28.33'	F-4	6"	37.41'	J-8	6"	27.97'	K-9	6"	33.40'	N-6-4	6"	6.19'	Q-3-1	6"	10.34'	R-12	6"	6.37'	S-13	6"	2.97'
A-5-5	6"	3.03'	D-7-1	6"	8.38'	D-15-2	6"	2.81'	F-4-1	6"	15.50'	J-8-1	6"	5.64'	K-9-1	6"	4.14'	N-6-5	6"	45.52'	Q-3-2	6"	11.45'	R-12-1	6"	22.60'	S-14	6"	23.16'
A-5-6	6"	35.84'	D-8	6"	17.92'	D-15-3	6"	8.52'	F-4-2	6"	8.27'	J-9	6"	15.89'	K-9-2	6"	9.86'	N-6-6	6"	4.59'	Q-3-2-1	6"	39.67'	R-12-1-1	6"	7.95'	S-15	6"	20.07'
A-6	6"	8.25'	D-9	6"	10.59'	D-16	6"	3.42'	F-4-3	6"	13.59'	J-9-1	6"	3.65'	K-9-3	6"	13.33'	N-7	6"	35.21'	Q-3-2-2	6"	10.29'	R-12-2	6"	16.76'			
A-6-1	6"	5.50'	D-9-1	6"	30.73'	D-17	6"	10.74'	F-5	6"	7.18'	J-10	6"	5.67'	K-10	6"	14.75'	N-7-1	6"	5.87'	Q-3-3	6"	3.03'	R-12-3	6"	6.27'			
A-7	6"	11.84'	D-9-1-1	6"	7.44'	D-17-1	6"	9.45'	F-5-1	6"	7.46'	J-10-1	6"	6.11'	K-11	6"	3.06'	N-7-2	6"	10.86'	Q-3-4	6"	15.09'	R-13	6"	3.59'			
A-7-1	6"	9.00'	D-9-2	6"	13.68'	D-18	6"	41.09'	F-6	6"	34.95'	J-11	6"	6.99'	K-12	6"	22.77'	N-7-3	6"	31.54'	Q-3-5	6"	13.75'	R-14	6"	6.23'			
A-7-2	6"	24.08'	D-9-2-1	6"	6.00'	D-18-1	6"	9.89'	F-6-1	6"	7.08'	J-11-1	6"	23.86'	L-1	6"	15.71'	N-8	6"	5.68'	Q-3-5-1	6"	3.27'	R-15	6"	29.45'			
A-7-3	6"	24.09'	D-9-2-2	6"	16.32'	D-19	6"	5.26'	F-7	6"	18.73'	J-11-2	6"	8.03'	L-2	6"	20.23'	N-9	6"	37.67'	Q-3-6	6"	7.43'	R-15-1	6"	27.08'			
A-8	6"	14.55'	D-9-2-3	6"	15.02'	D-20	6"	6.84'	F-8	6"	7.44'	J-12	6"	12.35'	L-2-1	6"	67.18'	N-9-1	6"	12.90'	Q-4	6"	26.17'	R-15-2	6"	18.47'			
A-9	6"	13.29'	D-9-2-4	6"	32.45'	D-21	6"	32.91'	F-9	6"	13.17'	J-13	6"	34.56'	L-2-1-1	6"	3.72'	N-9-1-1	6"	7.00'	Q-4-1	6"	5.80'	R-15-3	6"	8.01'			
A-10	6"	25.14'	D-9-3	6"	49.10'	D-22	6"	16.98'	F-9-1	6"	2.53'	J-14	6"	38.97'	L-2-2	6"	13.07'	N-9-1-2	6"	29.79'	Q-5	6"	7.82'	R-16	6"	21.48'			
A-11	6"	10.64'	D-9-4	6"	5.52'	D-23	6"	3.90'	F-10	6"	15.27'	J-15	6"	4.97'	L-2-3	6"	14.07'	N-9-1-3	6"	7.92'	Q-6	6"	4.29'	R-16-1	6"	14.84'			
A-12	6"	10.60'	D-9-4-1	6"	2.73'	E-1	6"	6.72'	F-11	6"	37.01'	K-1	6"	3.87'	L-3	6"	12.22'	N-9-2	6"	4.46'	Q-7	6"	8.81'	R-17	6"	6.71'			
A-13	6"	6.74'	D-9-4-2	6"	4.92'	E-1-1	6"	2.31'	F-12	6"	7.62'	K-1-1	6"	55.24'	L-4	6"	2.63'	N-9-3	6"	11.17'	Q-8	6"	7.95'	R-18	6"	31.55'			
A-14	6"	32.68'	D-9-4-3	6"	41.63'	E-2	6"	9.38'	G-1	6"	3.22'	K-1-2	6"	6.13'	L-5	6"	37.71'	N-9-4	6"	37.58'	Q-9	6"	14.24'	R-19	6"	5.28'			
B-1	6"	24.26'	D-9-5	6"	27.05'	E-3	6"	18.34'	G-2	6"	2.89'	K-1-3	6"	6.41'	L-6	6"	33.34'	N-10	6"	6.00'	Q-10	6"	10.77'	R-20	6"	47.49'			
B-2	6"	3.03'	D-9-6	6"	12.45'	E-4	6"	47.43'	G-2-1	6"	6.48'	K-1-3-1	6"	3.85'	L-7	6"	7.14'	N-11	6"	7.04'	Q-11	6"	26.26'	R-21	6"	29.67'			
B-3	6"	4.88'	D-9-6-1	6"	26.07'	E-5	6"	47.95'	G-3	6"	15.89'	K-1-4	6"	27.22'	M-1	6"	2.85'	N-11-1	6"	11.46'	Q-12	6"	27.76'	S-1	6"	9.02'			
B-4	6"	5.74'	D-9-6-2	6"	28.49'	E-5-1	6"	27.39'	G-3-1	6"	3.76'	K-1-5	6"	4.71'	M-2	6"	30.38'	N-12	6"	26.47'	R-1	6"	11.14'	S-1-1	6"	18.17'			
B-5	6"	22.29'	D-9-6-3	6"	7.04'	E-5-2	6"	5.73'	G-4	6"	10.77'	K-1-5-1	6"	6.71'	M-2-1	6"	36.00'	N-13	6"	5.66'	R-1-1	6"	22.29'	S-1-2	6"	43.25'			
B-5-1	6"	16.06'	D-9-7	6"	4.06'	E-6	6"	3.44'	G-4-1	6"	5.67'	K-1-5-2	6"	19.89'	M-2-1-1	6"	9.16'	N-14	6"	10.22'	R-1-2	6"	28.55'	S-1-2-1	6"	8.98'			
B-6	6"	16.01'	D-9-7-1	6"	10.39'	E-7	6"	12.13'	G-5	6"	28.55'	K-1-6	6"	4.71'	M-2-2	6"	34.84'	N-14-1	6"	5.78'	R-1-3	6"	7.15'	S-1-2-2	6"	3.03'			
B-7	6"	6.45'	D-9-7-2	6"	33.57'	E-8	6"	9.76'	G-5-1	6"	6.87'	K-1-7	6"	7.46'	M-2-3	6"	15.28'	N-15	6"	10.08'	R-2	6"	13.82'	S-1-3	6"	46.97'			
B-8	6"	1.58'	D-9-7-3	6"	5.02'	E-8-1	6"	16.95'	G-5-2	6"	6.82'	K-1-7-1	6"	2.16'	M-3	6"	9.82'	N-15-1	6"	8.88'	R-2-1	6"	19.42'	S-1-4	6"	6.02'			
B-9	6"	30.98'	D-9-7-3-1	6"	10.97'	E-8-2	6"	3.64'	G-5-3	6"	5.07'	K-1-8	6"	27.52'	M-4	6"	40.33'	N-16	6"	45.23'	R-2-2	6"	22.63'	S-1-5	6"	2.41'			
B-10	6"	19.74'	D-9-7-4	6"	2.32'	E-8-3	6"	16.66'	G-6	6"	15.09'	K-1-8-1	6"	10.12'	M-4-1	6"	36.01'	N-17	6"	5.76'	R-3	6"	20.61'	S-1-6	6"	3.83'			
B-10-1	6"	4.54'	D-9-7-5	6"	42.32'	E-8-4	6"	8.60'	G-7	6"	6.30'	K-1-9	6"	14.87'	M-5	6"	15.80'	P-1	6"	7.00'	R-4	6"	17.33'	S-1-7	6"	41.96'			
B-11	6"	8.26'	D-9-8	6"	23.65'	E-9	6"	5.92'	G-7-1	6"	8.53'	K-1-10	6"	3.75'	M-6	6"	19.26'	P-1-1	6"	29.49'	R-4-1	6"	23.59'	S-1-7-1	6"	19.48'			
B-12	6"	6.32'	D-9-9	6"	8.84'	E-10	6"	3.96'	G-7-2	6"	20.79'	K-2	6"	4.70'	M-7	6"	14.49'	P-1-2	6"	5.12'	R-4-1-1	6"	8.55'	S-1-7-2	6"	3.03'			
B-13	6"	8.05'	D-9-9-1	6"	9.52'	E-11	6"	7.76'	G-7-3	6"	31.77'	K-2-1	6"	29.84'	N-1	6"	9.17'	P-2	6"	4.97'	R-4-2	6"	23.73'	S-1-8	6"	6.24'			
C-1	6"	6.27'	D-9-10	6"	18.00'	E-12	6"	11.28'	G-8	6"	42.25'	K-3	6"	23.65'	N-1-1	6"	2.98'	P-2-1	6"	14.17'	R-5	6"	9.50'	S-1-9	6"	3.83'			
C-2	6"	3.94'	D-9-11	6"	7.67'	E-13	6"	2.20'	G-8-1	6"	10.78'	K-4	6"	26.13'	N-2	6"	12.44'	P-3	6"	8.33'	R-5-1	6"	11.62'	S-1-10	6"	27.46'			

GENERAL STORM NOTES:

1. THE CONTRACTOR SHALL NOTIFY COLORADO 811 PRIOR TO EXCAVATION, IN ACCORDANCE WITH COLORADO STATE STATUTES.
2. THE LOCATION OF EXISTING UNDERGROUND UTILITIES IS APPROXIMATE AND SHOWN ACCORDING TO THE BEST INFORMATION AVAILABLE, AS SUPPLIED BY THE UTILITY OWNERS. PRIOR TO EXCAVATION, THE CONTRACTOR SHALL VERIFY EXISTENCE, SIZE, AND LOCATION OF EXISTING UTILITIES AND IMMEDIATELY NOTIFY HARRIS KOCHER SMITH OF ANY DISCREPANCIES. THE CONTRACTOR IS RESPONSIBLE FOR ANY AND ALL DAMAGES TO EXISTING UNDERGROUND FACILITIES.
3. PIPE LENGTHS ARE MEASURED FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE FOR CYLINDRICAL MANHOLES AND TO THE END OF THE FACE OF THE OTHER BOX STRUCTURES. PIPE LENGTHS ARE MEASURED TO THE END OF THE STRUCTURE FOR ALL FLARED END SECTIONS.
4. STATIONING OF INLETS SHOWN IN STORM SEWER PROFILES IS AT CENTER OF STRUCTURE.
5. ALL COORDINATES ARE AT THE CENTER OF THE STRUCTURE UNLESS OTHERWISE INDICATED.
6. CONTRACTOR SHALL USE RCP, PVC, PP, OR HDPE PIPES FOR THE MAIN LINES, BUT SHALL NOTIFY THE JURISDICTIONAL UTILITY PROVIDER AND THE ENGINEER, PRIOR TO INSTALLATION, FOR APPROVAL. REGARDLESS OF PIPE MATERIAL, ALL STORM SEWER SHALL UTILIZE WATER-TIGHT JOINTS.
7. FOR ALL NON-CONCENTRIC MANHOLES, MANHOLE RINGS/COVERS AND STEPS LIDS SHALL BE ROTATED AS SHOWN IN PLAN VIEW.
8. ALL TYPE C & INLETS SHALL HAVE CLOSE MESSE GRATES.
9. ALL LATERAL PIPE-TO-PIPE CONNECTIONS SHALL BE MADE USING KORN-TEE CONNECTORS OR ENGINEER APPROVED EQUIVALENT.
10. CONTRACTOR SHALL ADJUST ALL EXISTING RISE ELEVATIONS TO MATCH THE PROPOSED GRADE.
11. CONTRACTOR SHALL MODIFY INLET BASINS AS NEEDED IN ORDER TO ENSURE ALL STORM PIPES CONNECT PROPERLY TO THE INLET. CONTRACTOR SHALL PROVIDE SHOP DRAWINGS FOR REVIEW AND APPROVAL BY ENGINEER, OWNER, AND CITY/COUNTY PRIOR TO INSTALLATION.
12. CONTRACTOR SHALL PROVIDE ENGINEERED SHOP DRAWINGS, DESIGNED BY A LICENSED ENGINEER, DRAINING, DETENTION, AND STRUCTURAL DESIGN OF ALL POND IMPROVEMENTS (FOREBAY, ENERGY DISSIPATING BAFFLES, OUTLET STRUCTURE, ETC.) FOR REVIEW AND APPROVAL BY ENGINEER, OWNER, AND CITY/COUNTY PRIOR TO INSTALLATION.
13. ANY SUBSURFACE DETENTION AND/OR WATER QUALITY SYSTEM DESIGNS SHOWN ON THESE PLANS (IF APPLICABLE) ARE SPECIFICALLY LIMITED TO ELEVATIONS, GRADES AND STORMWATER DETENTION AND/OR WATER QUALITY DESIGN VOLUMES AND RELEASE RATES. THE DESIGN AND PROFESSIONAL ENGINEER'S SEAL SPECIFICALLY EXCLUDES STRUCTURAL DESIGN (INCLUDING, BUT NOT LIMITED TO, BUOYANCY CALCULATIONS AND CONSTRUCTION, TRAFFIC, OR OTHER LOADING), DEWATERING, EXCAVATION, SHORING, AND MATERIALS AND BACKFILL SPECIFICATIONS. IF THE PROPOSED SYSTEM UTILIZES A POND, THE CONTRACTOR SHALL PROVIDE A DETENTION AND/OR WATER QUALITY SYSTEM. THE OWNER OR CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL REQUIRED SYSTEM DESIGN, CALCULATIONS, MATERIALS AND BACKFILL SPECIFICATIONS WITH THE UNDERGROUND DETENTION AND/OR WATER QUALITY SYSTEM MANUFACTURER AND/OR SUPPLIER. CONSTRUCTION OBSERVATION BY THE MANUFACTURER'S REPRESENTATIVE IS ESSENTIAL FOR PROPER INSTALLATION OF UNDERGROUND DETENTION AND/OR WATER QUALITY SYSTEMS. AT A MINIMUM, THE INSTALLATION SHOULD BE INSPECTED BY THE MANUFACTURER'S REPRESENTATIVE DURING CONSTRUCTION AND ANY DEFICIENCIES OF THE INSTALLATION IDENTIFIED BY THE MANUFACTURER'S INSPECTION SHOULD BE CORRECTED IMMEDIATELY.
14. CONTRACTOR SHALL PROVIDE A MINIMUM SEVENTY TWO (72) HOURS NOTICE TO THE ON-SITE TCR CONSTRUCTION INSPECTOR, (720) 733-2280, PRIOR TO MAKING ANY CONNECTIONS OR TIE-INS TO EXISTING WATER, SANITARY SEWER, AND/OR STORM SEWER. THE TCR CONSTRUCTION INSPECTOR PROVIDES THAT THE UTILITY TIE-IN DOES NOT DISRUPT SERVICE TO EXISTING OR WATER CUSTOMERS. IF THE TIE-IN WILL DISRUPT UTILITY SERVICE, THEN THE CONTRACTOR SHALL PROVIDE A MINIMUM OF THREE (3) WEEKS' NOTICE TO THE TCR CONSTRUCTION INSPECTOR TO ALLOW TIME FOR TCR OR WATER TO PROVIDE WRITTEN NOTIFICATION TO EXISTING CUSTOMERS AFFECTED BY THE TIE-IN. ALL TOWN UTILITY TIE-INS MUST BE APPROVED BY TCR WATER PRIOR TO COMMENCING WORK.

HORIZONTAL CONTROL

BEARINGS ARE BASED ON THE NORTH LINE OF THE NORTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 8, AS MONUMENTED AT THE EAST CORNER BY A 6" REBAR WITH A 3.25" ALUMINUM CAP STAMPED: SURVCON 2006 PLUM 30289 AND AT THE CENTER-EAST SIXTEENTH CORNER BY A 2.5" PIPE WITH A 3.5" ALUMINUM CAP STAMPED: 1986 PLUM 22100, AS CLEARLY MARKED BY A 58°50'05" WEST, PER THE PLAT OF FOUNDER VILLAGE FILING NO. 24 AMENDMENT NO. 1.

VERTICAL DATUM

DOUGLAS COUNTY GIS CONTROL MONUMENT NO. 4015020 MONUMENTED BY A 3-1/4" DIAMETER ALUMINUM CAPPED MONUMENT BEING NORTH OF THE EAST 1/4 CORNER OF SECTION 8 AS MONUMENTED BY 2-1/2" "L528656". NAVD 88 ELEVATION=6572.29

PROFESSIONAL ENGINEER CERTIFICATION

I HEREBY AFFIRM THAT THESE FINAL CONSTRUCTION PLANS WERE PREPARED UNDER MY DIRECT SUPERVISION, IN ACCORDANCE WITH ALL APPLICABLE TOWN OF CASTLE ROCK AND STATE OF COLORADO STANDARDS AND STATUTES, RESPECTIVELY; AND THAT I AM FULLY RESPONSIBLE FOR ALL DESIGN AND REVISIONS RELATIVE TO SAID PLANS.

PRELIMINARY
NOT FOR
CONSTRUCTION

RACHEL C PATTON, P.E. #54450 DATE _____

TOWN OF CASTLE ROCK APPROVAL

PLANS ARE HEREBY APPROVED FOR ONE YEAR FROM DATE OF
DEVELOPMENT SERVICES APPROVAL

Approved By: _____

Development Services Date _____



Know what's below.
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DESIGNED BY: CLH
CHECKED BY: RCP
DRAWN BY: CLH

[illegible]

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AVILLA FOUNDERS VILLAGE

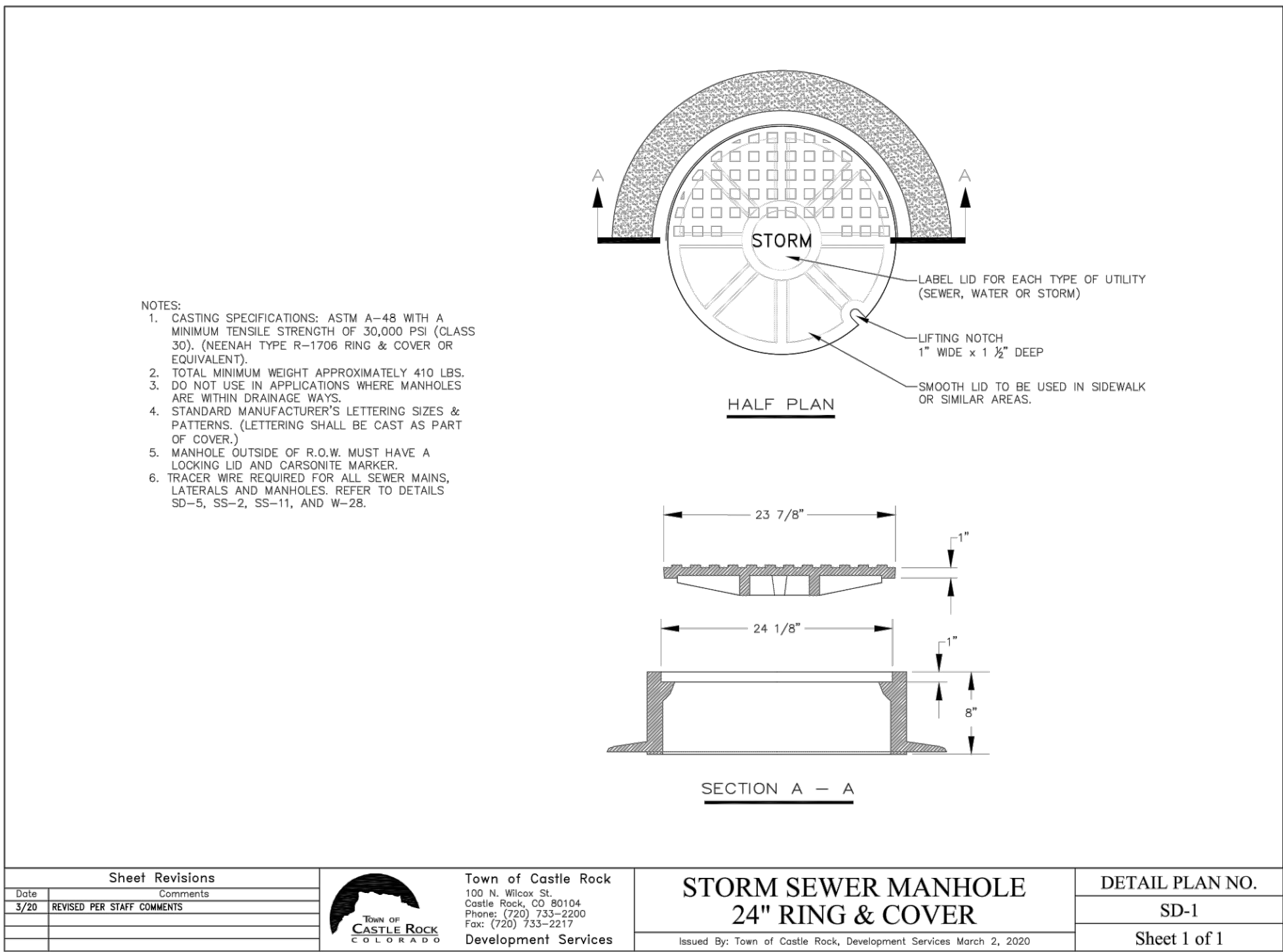
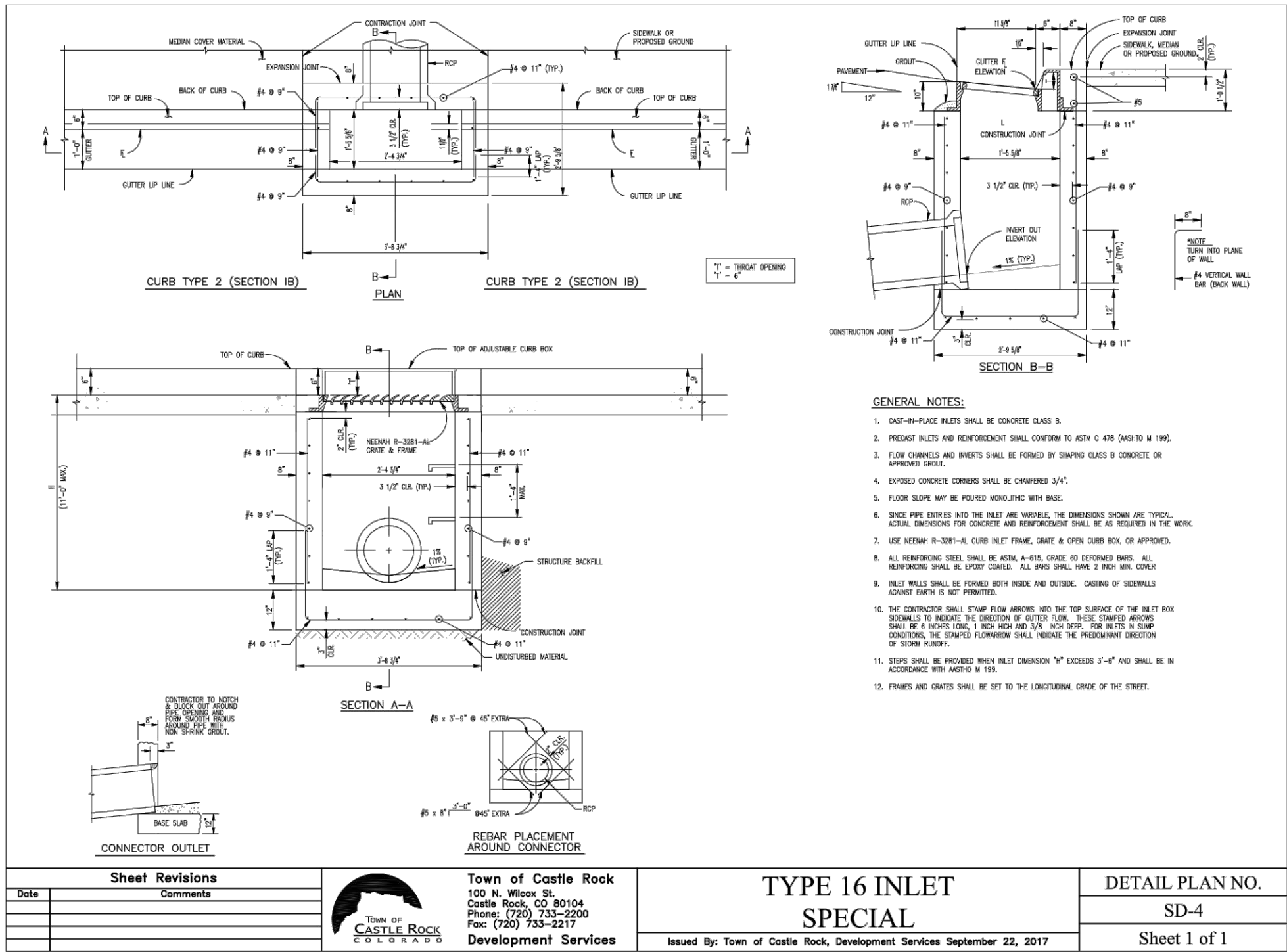
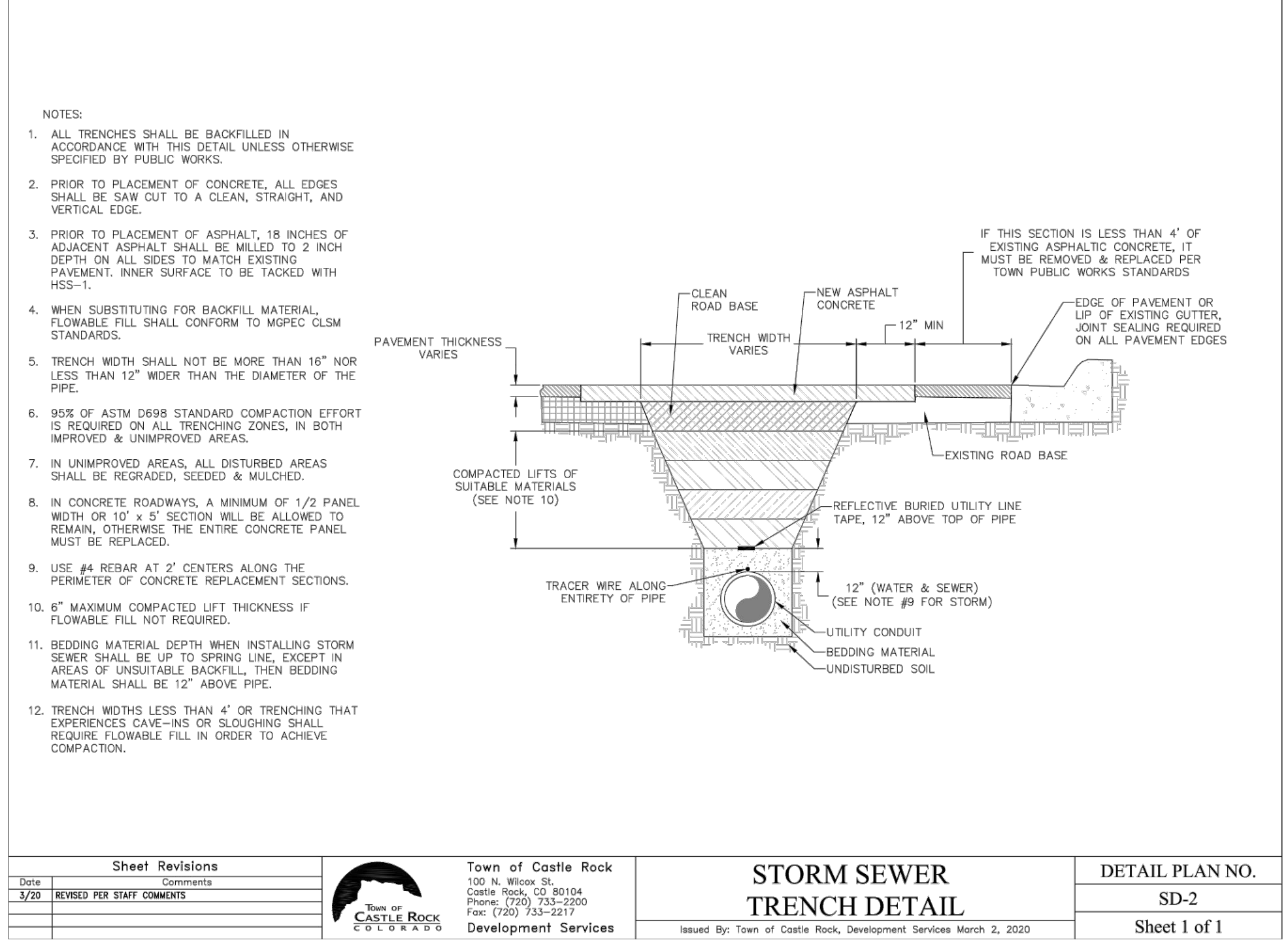
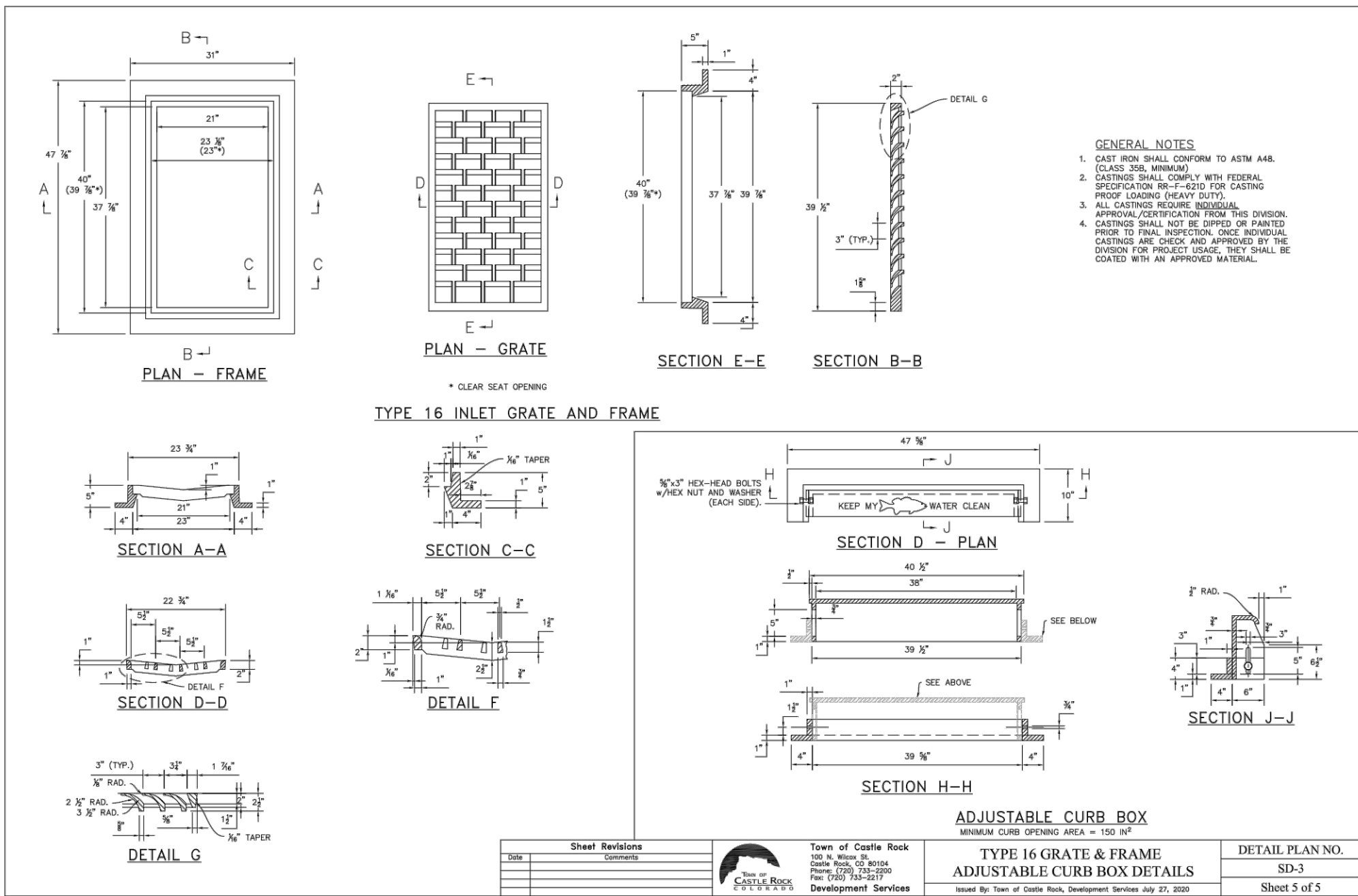
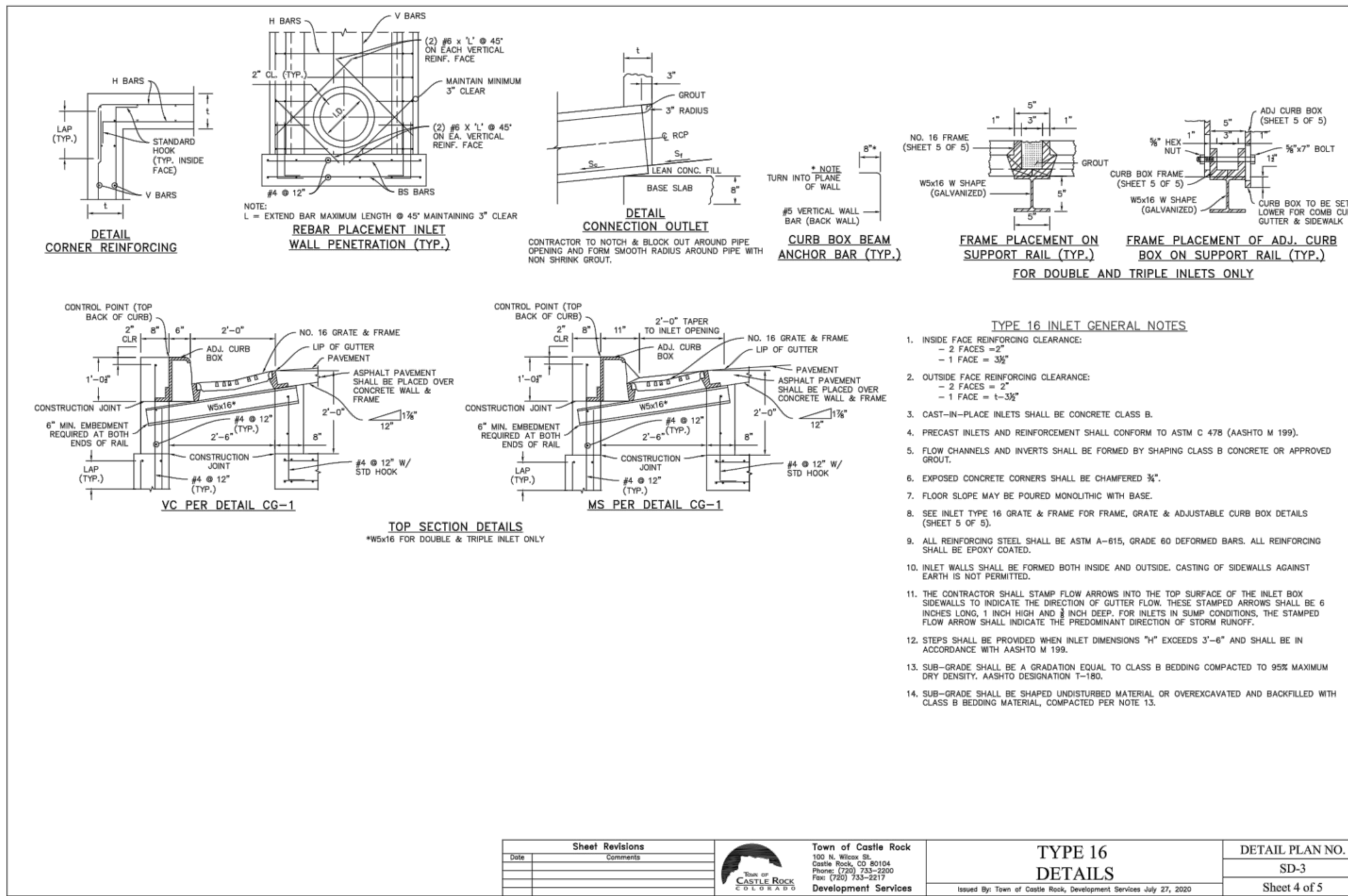
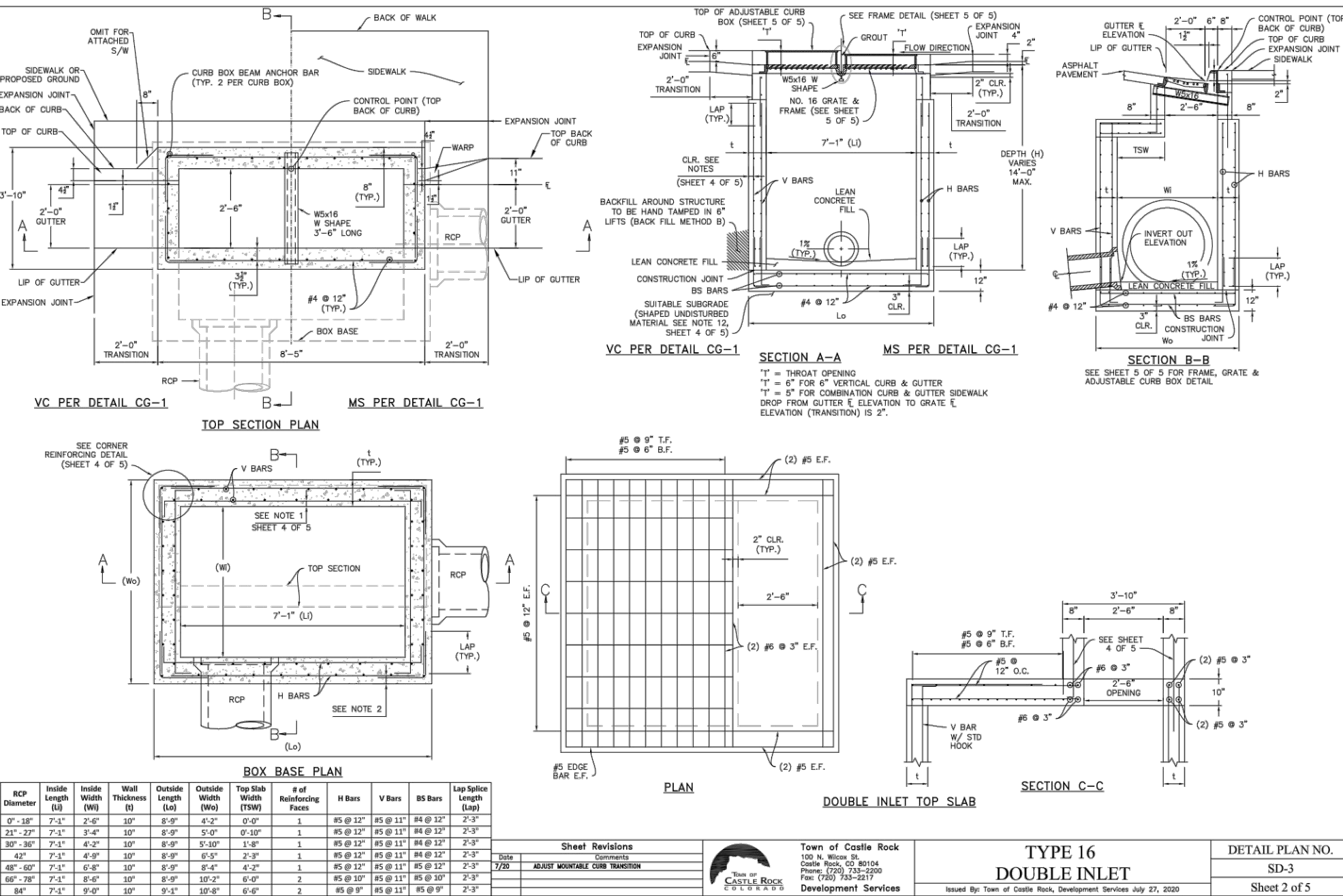
LANDSCAPE DRAIN PIPE TABLES

PROJECT #: 210431
SHEET NUMBER

27

27 OF 87

NO CHANGES ARE TO BE MADE TO THIS DRAWING WITHOUT WRITTEN PERMISSION OF HARRIS-KOCHER SMITH.



FILE PATH: K:\210431\ENGINEERING\UTILITIES\STORM\CD - STORM DETAILS.DWG LAYOUT LAYOUT1
DRAWN BY: MILES SUSTAD
PLOTTED: MON 11/21/22 10:56:45A BY: MILES SUSTAD



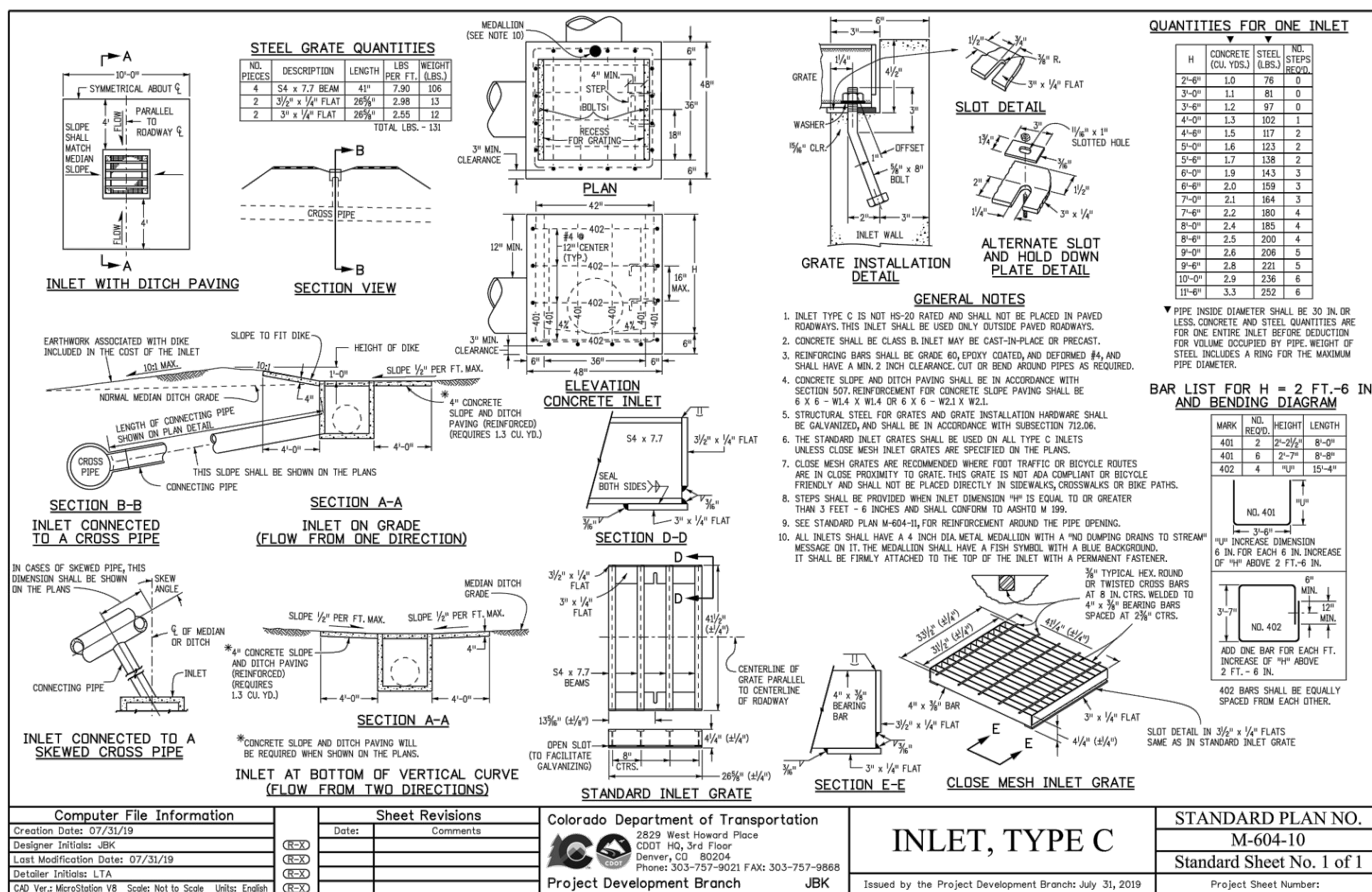
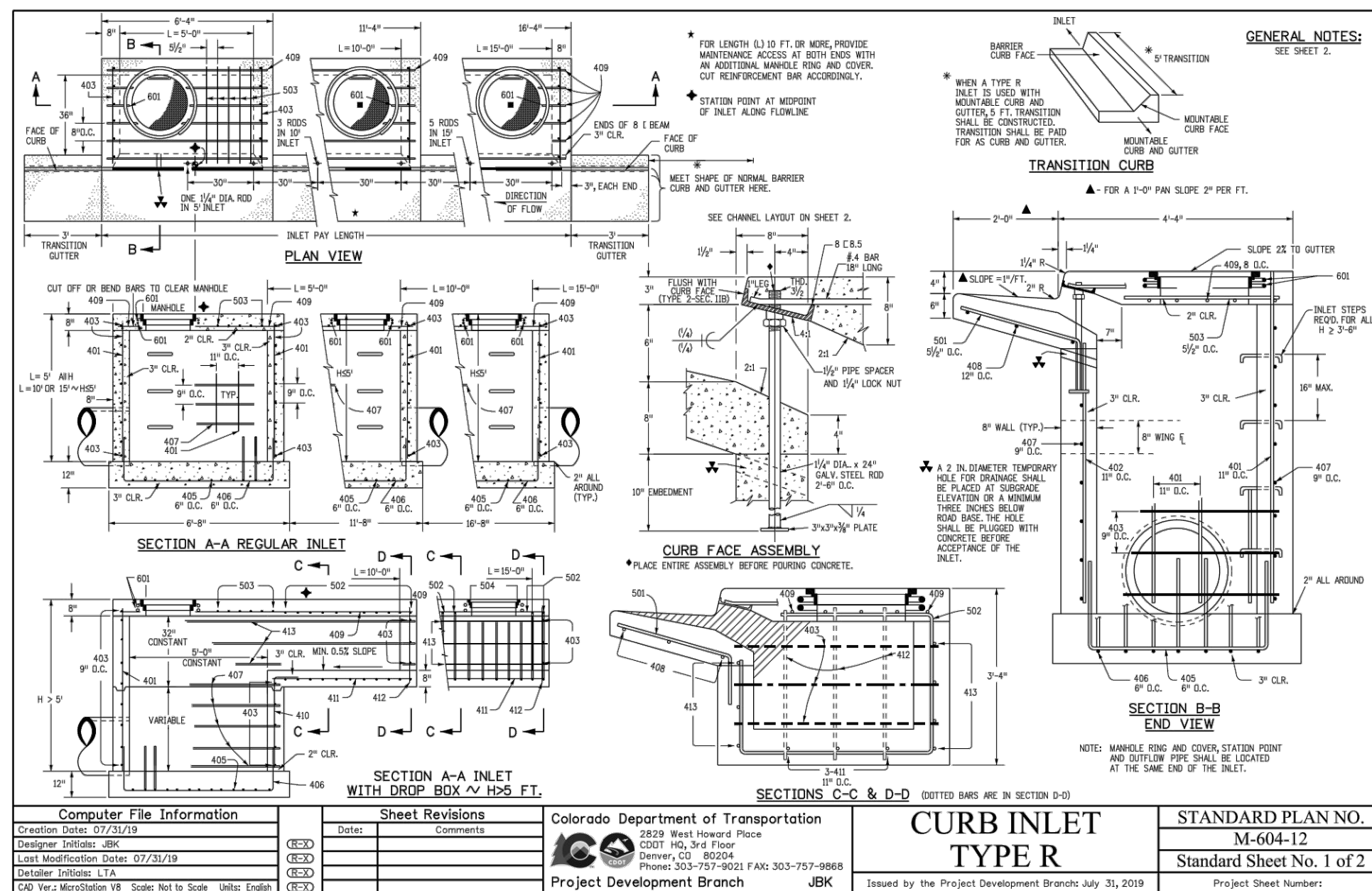
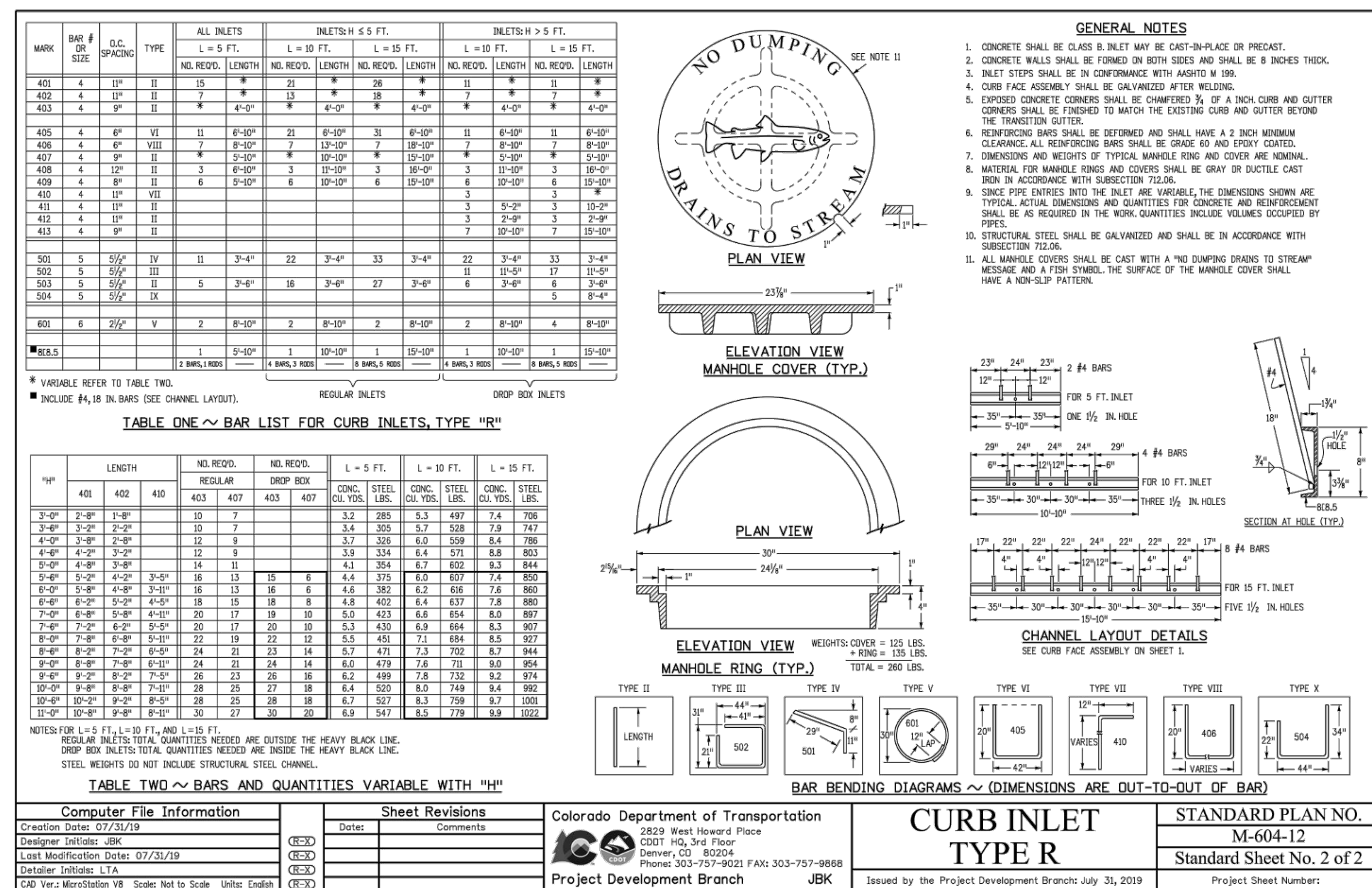
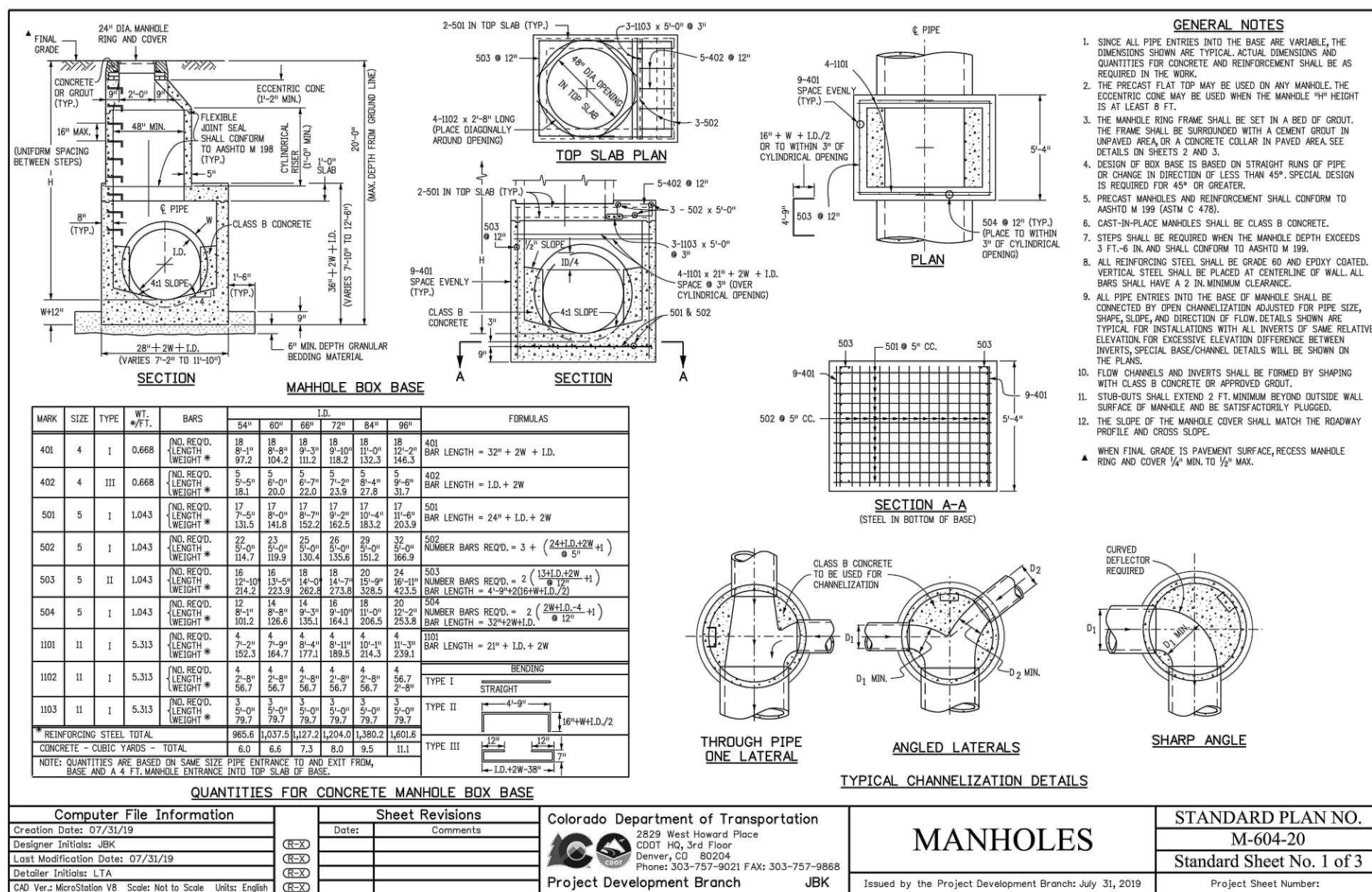
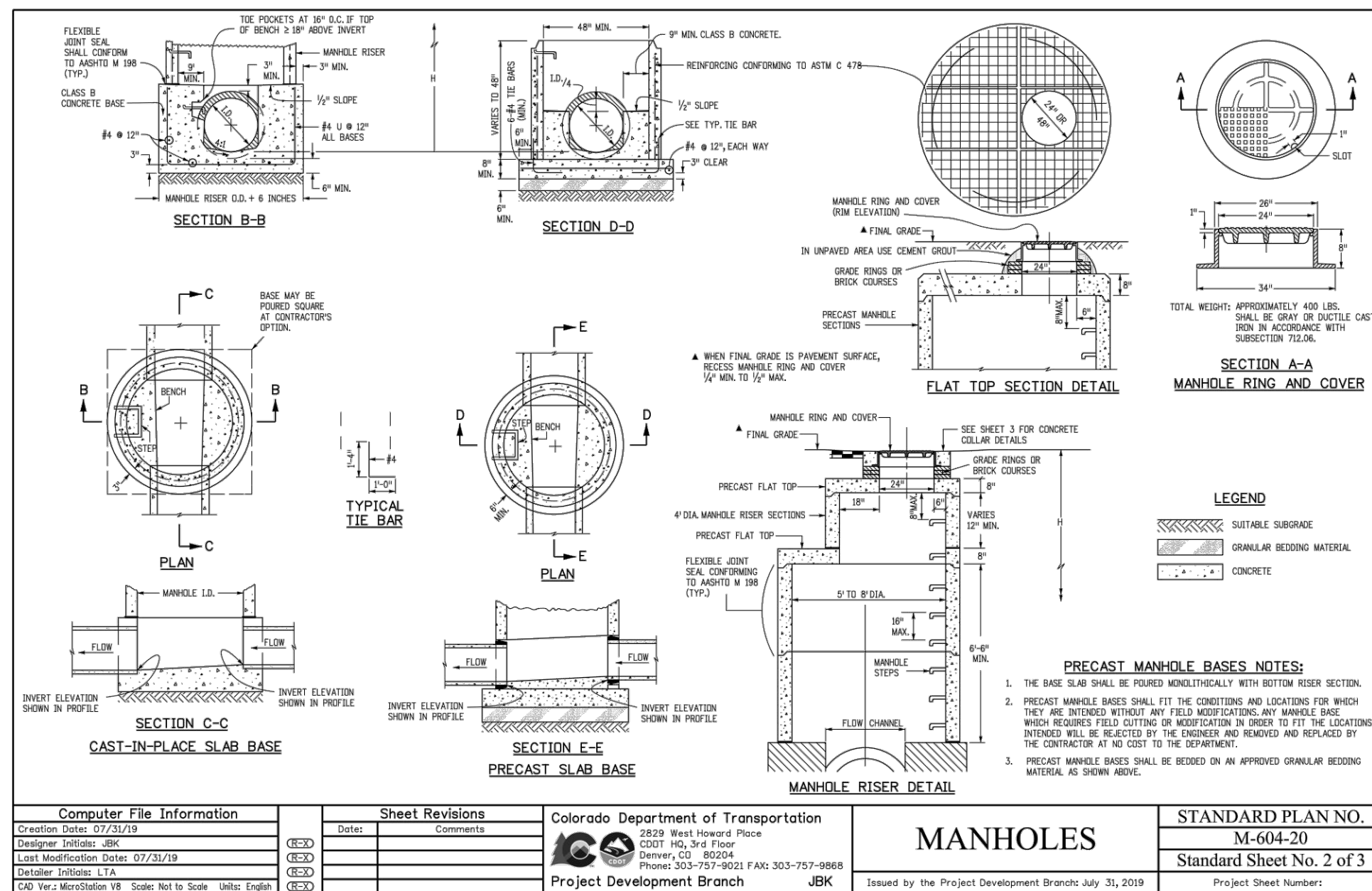
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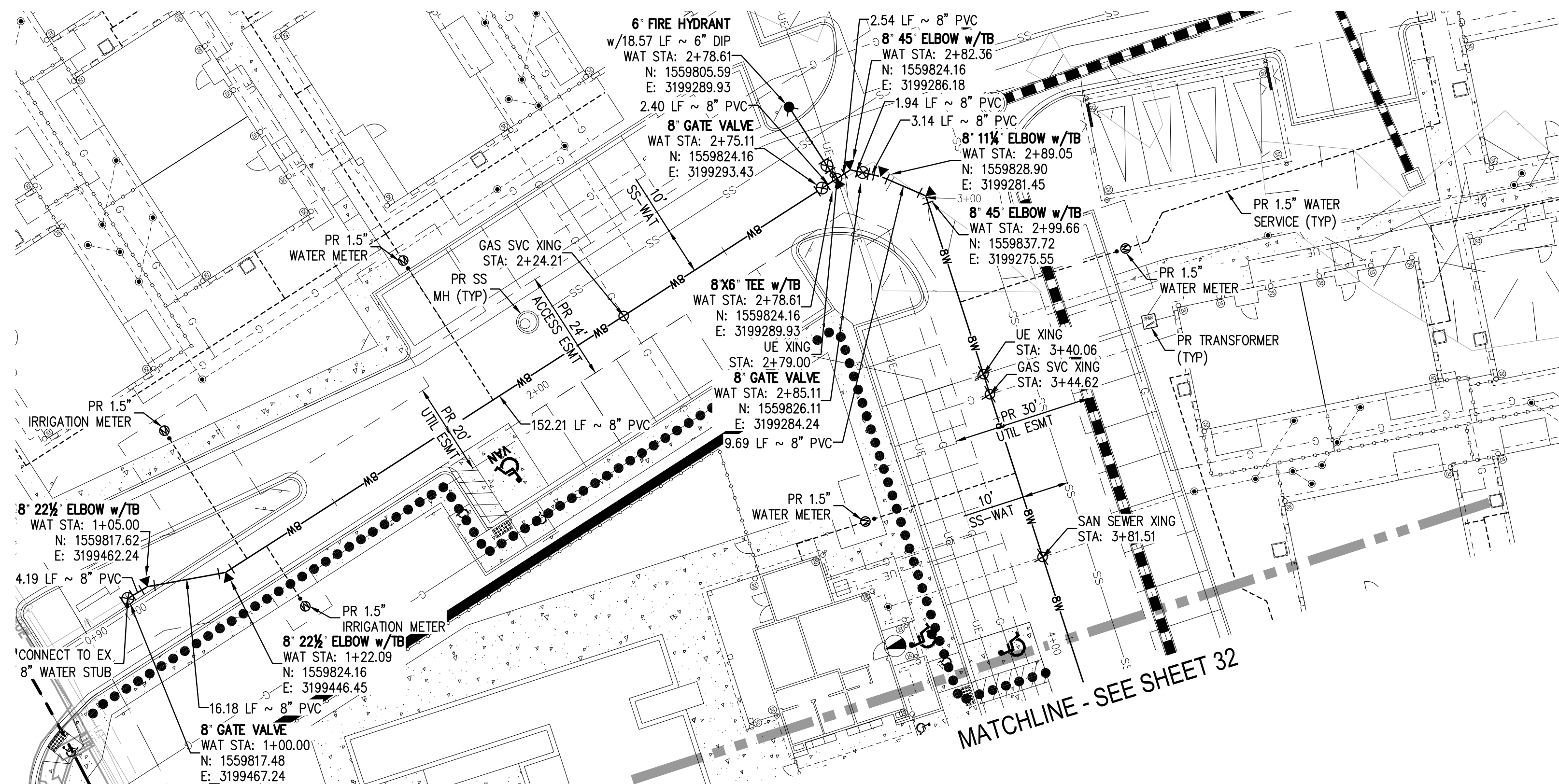
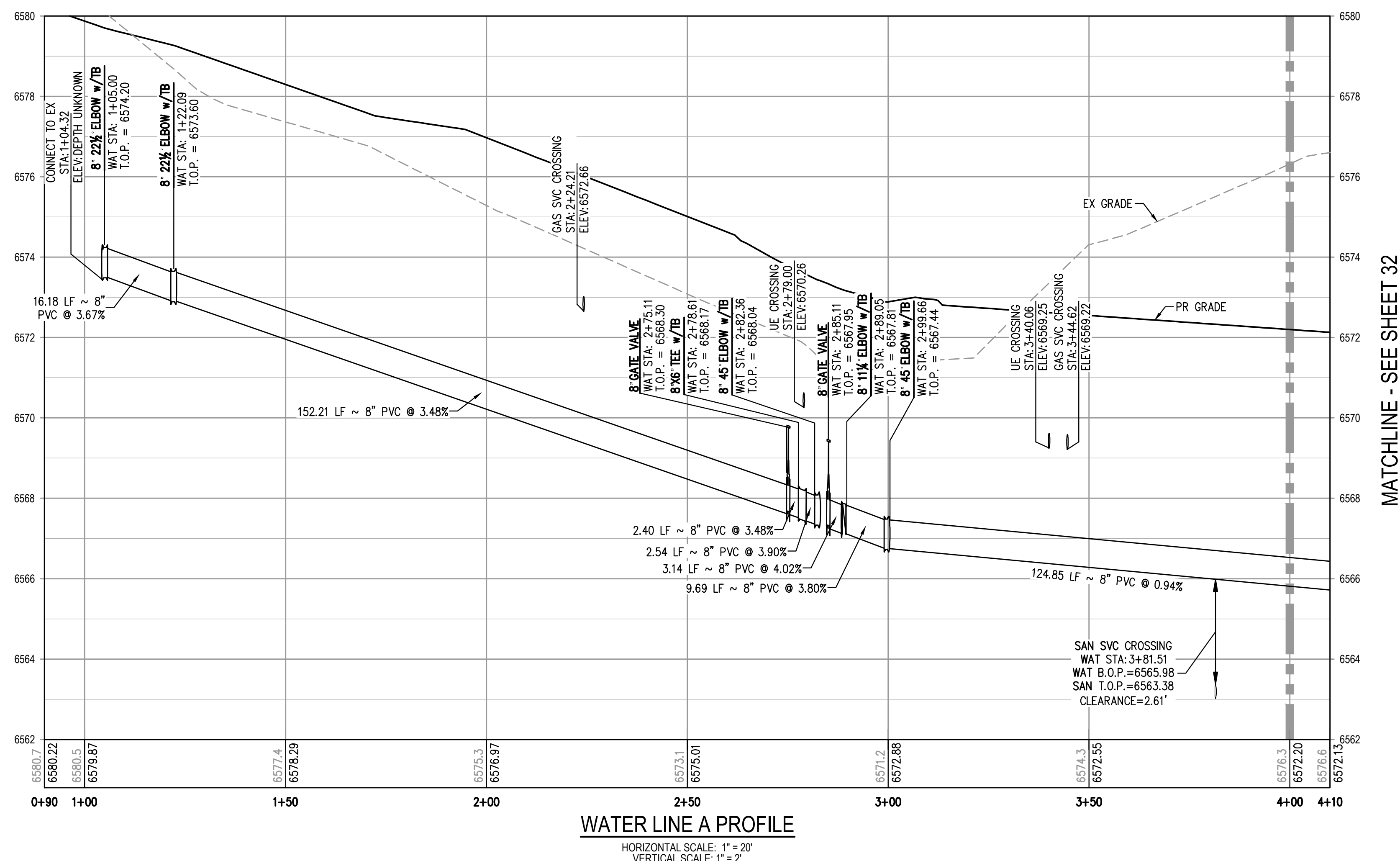
DATE	REVISION COMMENTS
10-31-2022	PER TOWN OF CASTLE ROCK COMMENTS



AVILLA FOUNDERS VILLAGE
STORM DETAILS

PROJECT #: 210431
SHEET NUMBER
29
29 OF 87





NOTES:

1. THE CONTRACTOR SHALL NOTIFY 811 PRIOR TO EXCAVATION, IN ACCORDANCE WITH COLORADO STATE STATUTES.
2. THE LOCATION OF EXISTING UNDERGROUND UTILITIES IS APPROXIMATE AND SHOWN ACCORDING TO THE BEST INFORMATION AVAILABLE, AS SUPPLIED BY THE UTILITY OWNERS. PRIOR TO EXCAVATION, THE CONTRACTOR SHALL VERIFY EXISTENCE, SIZE AND LOCATION OF EXISTING UTILITIES AND IMMEDIATELY NOTIFY HARRIS KOCHER OF ANY DISCREPANCIES. THE CONTRACTOR IS RESPONSIBLE FOR ANY AND ALL DAMAGES TO EXISTING UNDERGROUND UTILITIES.
3. WHERE WATER MAINS ARE CONSTRUCTED IN FILL AREAS, ALL FILL MATERIALS SHALL BE PLACED AND COMPACTED TO FINAL GRADE PRIOR TO THE INSTALLATION OF THE WATER MAIN AND APPURTENANCES. ALL FILL MATERIAL SHALL MEET THE TOWN'S STANDARDS AND BE APPROVED BY CASTLE ROCK WATER. WATER MAINS WITHIN FILL AREAS SHALL HAVE RESTRAINED JOINTS IN ACCORDANCE WITH STANDARD DETAIL W-18.
4. CONTRACTOR SHALL PROVIDE A MINIMUM SEVENTY TWO (72) HOURS' NOTICE TO THE ON-SITE TCR CONSTRUCTION INSPECTOR, (720) 733-2200, PRIOR TO MAKING ANY CONNECTIONS OR TIE-INS TO EXISTING WATER, SANITARY SEWER, AND/OR STORM SEWER SYSTEMS PROVIDED THAT THE UTILITY TIE-IN DOES NOT DISRUPT SERVICE TO EXISTING OR WATER CUSTOMERS. IF THE TIE-IN WILL DISRUPT UTILITY SERVICE, THEN THE CONTRACTOR SHALL PROVIDE A MINIMUM OF THREE (3) WEEKS' NOTICE TO THE TCR CONSTRUCTION INSPECTOR TO ALLOW TIME FOR CR WATER TO PROVIDE WRITTEN NOTIFICATION TO EXISTING CUSTOMERS AFFECTED BY THE TIE-IN. ALL TOWN UTILITY TIE-INS MUST BE APPROVED BY CR WATER PRIOR TO COMMENCING WORK.
5. CONTRACTOR SHALL SHUT DOWN CASTLE ROCK WATER OF ANY WORK THAT REQUIRES SHUTDOWN OR INTERRUPTION OF SERVICE OF EXISTING WATER MAINS THREE WEEKS PRIOR TO THE PROPOSED SHUTDOWN OR INTERRUPTION UNLESS OTHERWISE APPROVED BY CASTLE ROCK WATER.

HORIZONTAL CONTROL

HORIZONTAL CONTROL
BEARINGS ARE BASED ON THE NORTH LINE OF THE NORTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 8, AS MONUMENTED AT THE EAST CORNER BY A #6 REBAR WITH A 3.25" ALUMINUM CAP STAMPED: SURVCON 2006 PLS 30289 AND AT THE CENTER-EAST SIXTEENTH CORNER BY A 2.5" PIPE WITH A 3.5" ALUMINUM CAP STAMPED: 1986 PLS 22100, AS BEARING SOUTH 88°58'05" WEST, PER THE PLAT OF FOUNDERS VILLAGE FILING NO. 24 AMENDMENT NO. 1.

VERTICAL DATUM

DOUGLAS COUNTY GIS CONTROL MONUMENT
NO. 4.015020 MONUMENTED BY A 3-1/4"
DIAMETER ALUMINUM CAPPED MONUMENT
BEING NORTH OF THE EAST 1/4 CORNER OF
SECTION 8 AS MONUMENTED BY 2-1/2"
ALUMINUM CAPPED MONUMENT STAMPED
"LS28656". NAVD 88 ELEVATION=6572.29

PROFESSIONAL ENGINEER CERTIFICATION

I HEREBY AFFIRM THAT THESE FINAL CONSTRUCTION PLANS WERE PREPARED UNDER MY DIRECT SUPERVISION, IN ACCORDANCE WITH ALL APPLICABLE TOWN OF CASTLE ROCK AND STATE OF COLORADO STANDARDS AND STATUTES, RESPECTIVELY; AND THAT I AM FULLY RESPONSIBLE FOR ALL DESIGN AND REVISIONS RELATIVE TO SAID PLANS.

RACHEL C PATTON, P.E. #54450

DATE _____

TOWN OF CASTLE ROCK APPROVAL

PLANS ARE HEREBY APPROVED FOR ONE YEAR FROM DATE OF DEVELOPMENT SERVICES APPROVAL

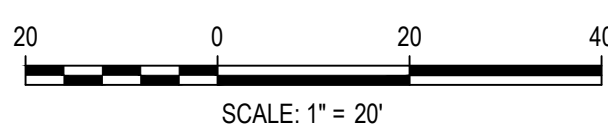
Approved By:

Development Services

Date _____



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CHECKED BY: RCP
DRAWN BY: BMW

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Denver, Colorado 80203
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AVILLA FOUNDERS VILLAGE

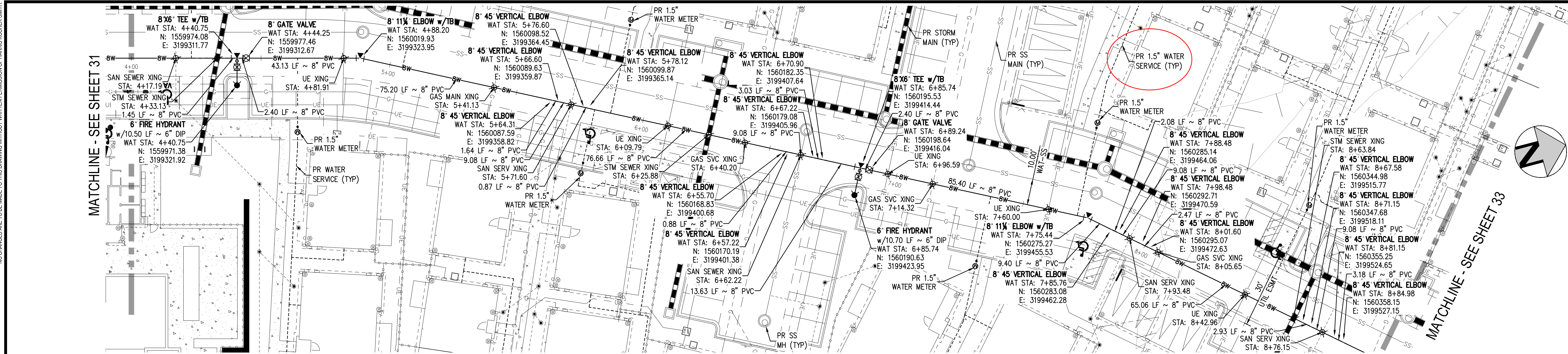
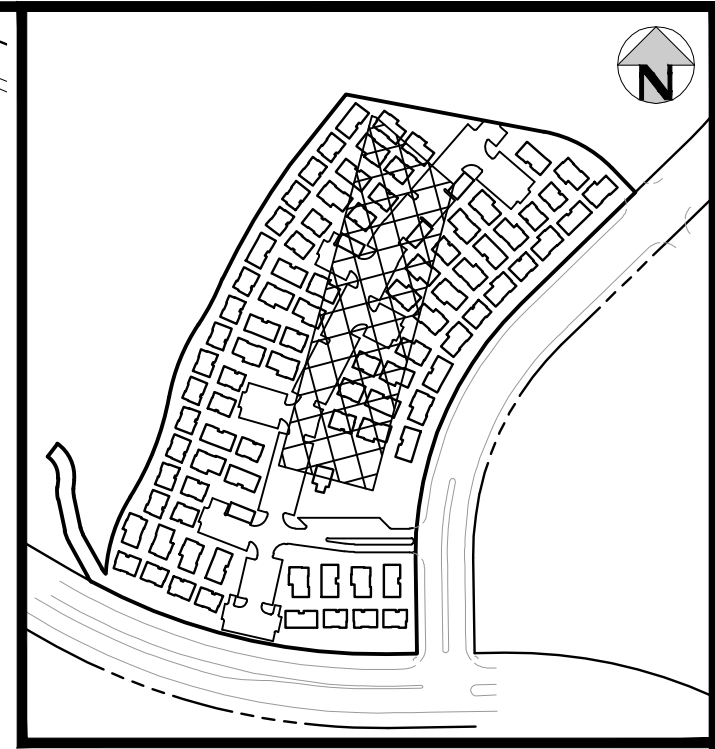
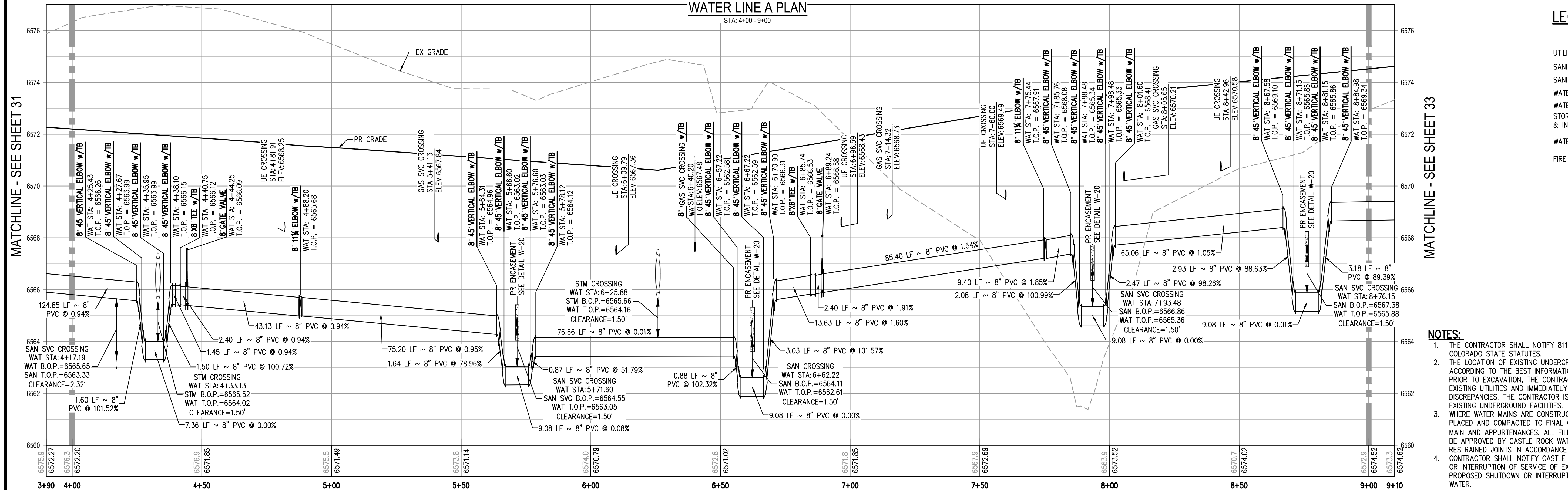
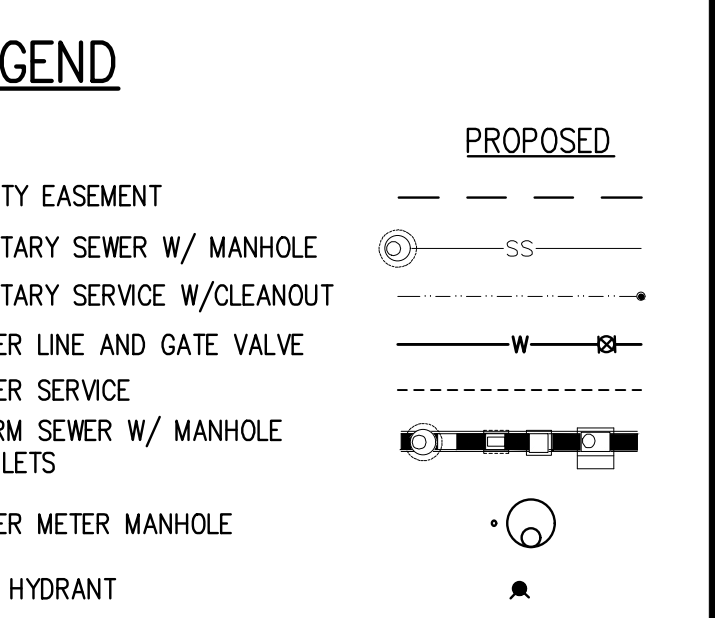
WATER LINE A PLAN & PROFILE

PROJECT #:	210431
SHEET NUMBER	

3'

31 OF 87

NO CHANGES ARE TO BE MADE TO THIS DRAWING WITHOUT WRITTEN PERMISSION OF HARRIS KOCHER SMITH.



- NOTES:**
1. THE CONTRACTOR SHALL NOTIFY B11 PRIOR TO EXCAVATION, IN ACCORDANCE WITH COLORADO STATE STATUTES.
 2. THE LOCATION OF EXISTING UNDERGROUND UTILITIES IS APPROXIMATE AND SHOWN ACCORDING TO THE BEST INFORMATION AVAILABLE, AS SUPPLIED BY THE UTILITY OWNERS. PRIOR TO EXCAVATION, THE CONTRACTOR SHALL VERIFY EXISTENCE, SIZE AND LOCATION OF EXISTING UTILITIES AND IMMEDIATELY NOTIFY HARRIS KOCHER SMITH OF ANY DISCREPANCIES. THE CONTRACTOR IS RESPONSIBLE FOR ANY AND ALL DAMAGES TO EXISTING UNDERGROUND FACILITIES.
 3. WHERE WATER MAINS ARE CONSTRUCTED IN FILL AREAS, ALL FILL MATERIALS SHALL BE PLACED AND COMPACTED TO FINAL GRADE PRIOR TO THE INSTALLATION OF THE WATER MAIN AND APPURTENANCES. ALL FILL MATERIAL SHALL MEET THE TOWN'S STANDARDS AND BE APPROVED BY CASTLE ROCK WATER. WATER MAINS WITHIN FILL AREAS SHALL HAVE RESTRAINED JOINTS IN ACCORDANCE WITH STANDARD DETAIL W-18.
 4. CONTRACTOR SHALL NOTIFY CASTLE ROCK WATER OF ANY WORK THAT REQUIRES SHUTDOWN OR INTERRUPTION OF SERVICE OF EXISTING WATER MAINS THREE WEEKS PRIOR TO THE PROPOSED SHUTDOWN OR INTERRUPTION UNLESS OTHERWISE APPROVED BY CASTLE ROCK WATER.

HORIZONTAL CONTROL
BEARINGS ARE BASED ON THE NORTH LINE OF THE NORTHEAST QUARTER OF SECTION 8, AS SOUTHEAST QUARTER OF SECTION 8, AS MONUMENTED AT THE EAST CORNER BY A #6 REBAR WITH A 3.25" ALUMINUM CAP STAMPED: SURVCON 2006 PLS 30289 AND AT THE CENTER-EAST SIXTEENTH CORNER BY A 2.5" PIPE WITH A 3.5" ALUMINUM CAP STAMPED: 1986 PLS 22100, AS BEARING SOUTH 88°58'05" WEST, PER THE PLAT OF FOUNDERS VILLAGE FILING NO. 24 AMENDMENT NO. 1.

VERTICAL DATUM
DOUGLAS COUNTY GIS CONTROL MONUMENT NO. 4.015020 MONUMENTED BY A 3-1/4" DIAMETER ALUMINUM CAPPED MONUMENT BEING NORTH OF THE EAST 1/4 CORNER OF SECTION 8 AS MONUMENTED BY 2-1/2" ALUMINUM CAPPED MONUMENT STAMPED "LS28656". NAVD 88 ELEVATION=6572.29

PROFESSIONAL ENGINEER CERTIFICATION
I HEREBY AFFIRM THAT THESE FINAL CONSTRUCTION PLANS WERE PREPARED UNDER MY DIRECT SUPERVISION, IN ACCORDANCE WITH ALL APPLICABLE TOWN OF CASTLE ROCK AND STATE OF COLORADO STANDARDS AND STATUTES, RESPECTIVELY; AND THAT I AM FULLY RESPONSIBLE FOR ALL DESIGN AND REVISIONS RELATIVE TO SAID PLANS.

PRELIMINARY
NOT FOR
CONSTRUCTION

RACHEL C PATTON, P.E. #54450	DATE
TOWN OF CASTLE ROCK APPROVAL	
PLANS ARE HEREBY APPROVED FOR ONE YEAR FROM DATE OF DEVELOPMENT SERVICES APPROVAL	
Approved By:	Date
Development Services	Date

FILEPATH: K:\210431\ENGINEERING\UTILITIES\WATER\CD - WATER PLAN & PROFILE.DWG LAYOUT - LAYOUT2
5/15/2022 10:58:01 AM
PLOTTED: MON 11/21/22 10:58:01 AM BY: MILES SUSTAD



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DESIGNED BY: BMW
CHECKED BY: RCP
DRAWN BY: BMW

ISSUE DATE: 08-11-2022
DATE: 10-31-2022
REVISION COMMENTS: PER TOWN OF CASTLE ROCK COMMENTS

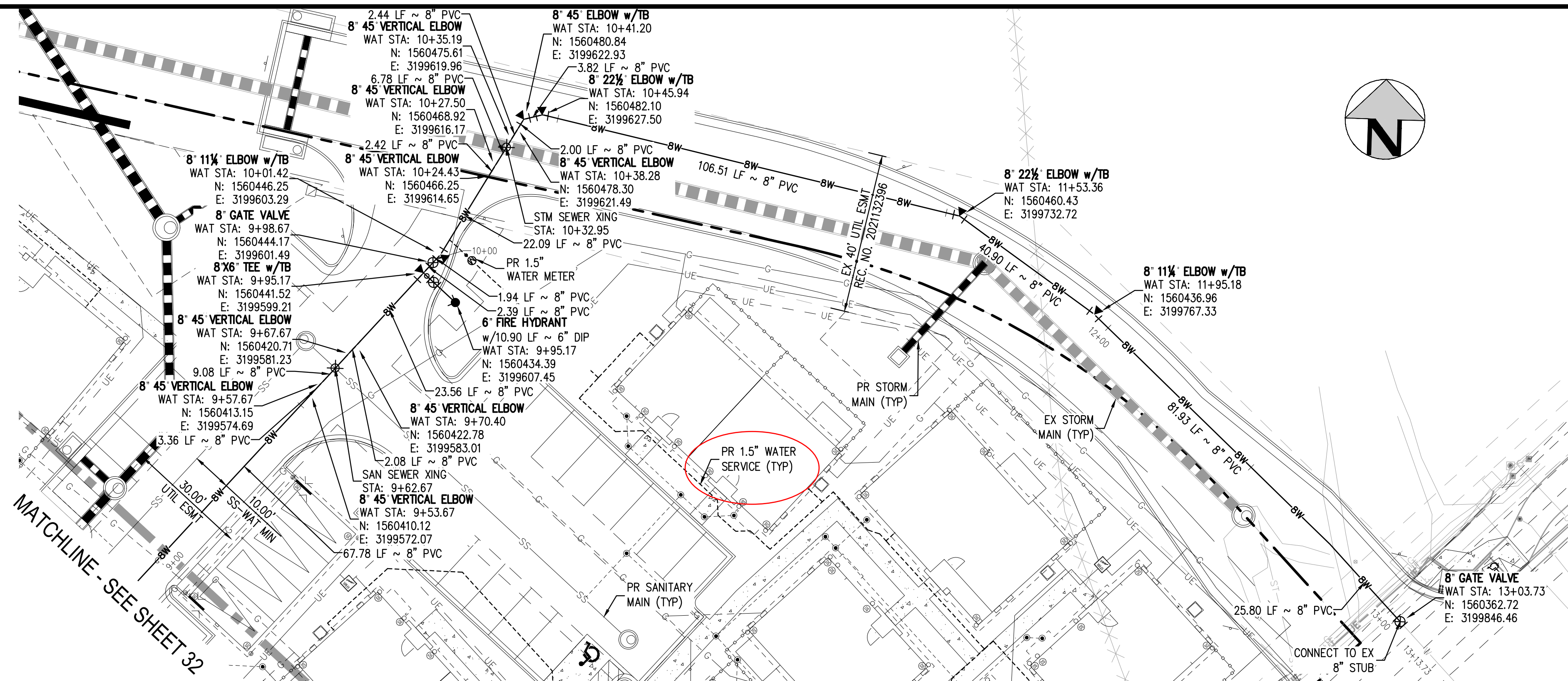
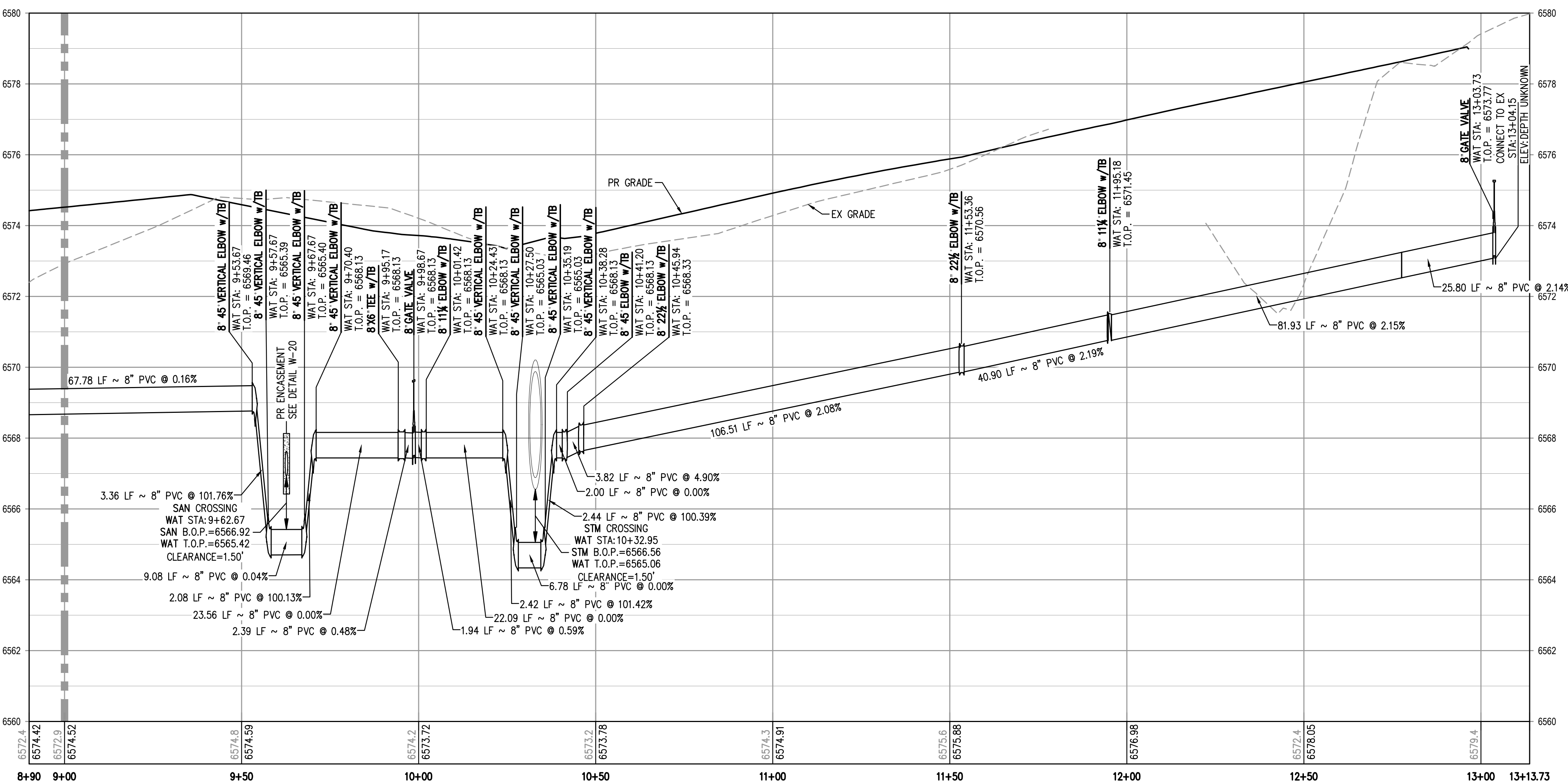


HARRIS KOCHER SMITH
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Denver, Colorado 80203
P: 303.623.6300 F: 303.623.6311
HarrisKocherSmith.com



AVILLA FOUNDERS VILLAGE
WATER LINE A PLAN & PROFILE

PROJECT #: 210431
SHEET NUMBER
32
32 OF 87



LEGEND

- UTILITY EASEMENT
- SANITARY SEWER W/ MANHOLE
- SANITARY SERVICE W/CLEANOUT
- WATER LINE AND GATE VALVE
- WATER SERVICE
- STORM SEWER W/ MANHOLE
& INLETS
- WATER METER MANHOLE
- FIRE HYDRANT

PROPOSED

- NOTES:

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HORIZONTAL CONTROL

BEARINGS ARE BASED ON THE NORTH LINE OF THE NORTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 8, AS MONUMENTED AT THE EAST CORNER BY A #6 REBAR WITH A 3.25" ALUMINUM CAP STAMPED: SURVCON 2006 PLS 30289 AND AT THE CENTER-EAST SIXTEENTH CORNER BY A 2.5" PIPE WITH A 3.5" ALUMINUM CAP STAMPED: 1986 PLS 22100, AS BEARING SOUTH 88°58'05" WEST, PER THE PLAT OF FOUNDERS VILLAGE FILING NO. 24 AMENDMENT NO. 1.

VERTICAL DATUM

DOUGLAS COUNTY GIS CONTROL MONUMENT
NO. 4.015020 MONUMENTED BY A 3-1/4"
DIAMETER ALUMINUM CAPPED MONUMENT
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ALUMINUM CAPPED MONUMENT STAMPED
"1S28656". NAVD 88 ELEVATION=6572.29

PROFESSIONAL ENGINEER CERTIFICATION

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RACHEL C PATTON, P.E. #54450

DATE _____

TOWN OF CASTLE ROCK APPROVAL

PLANS ARE HEREBY APPROVED FOR ONE YEAR FROM DATE OF
DEVELOPMENT SERVICES APPROVAL

Approved By:

Development Services

PROJECT #: 210431

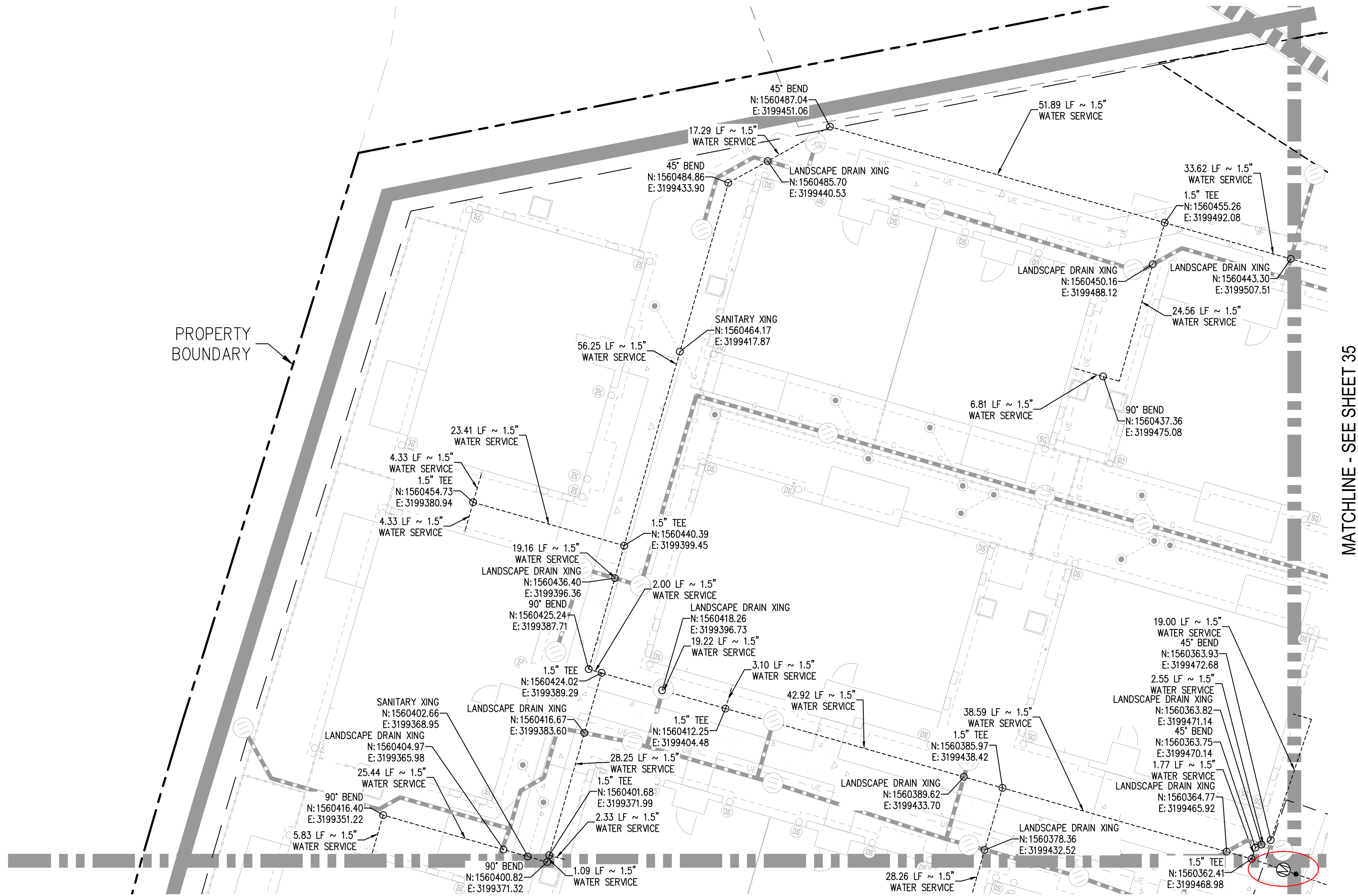
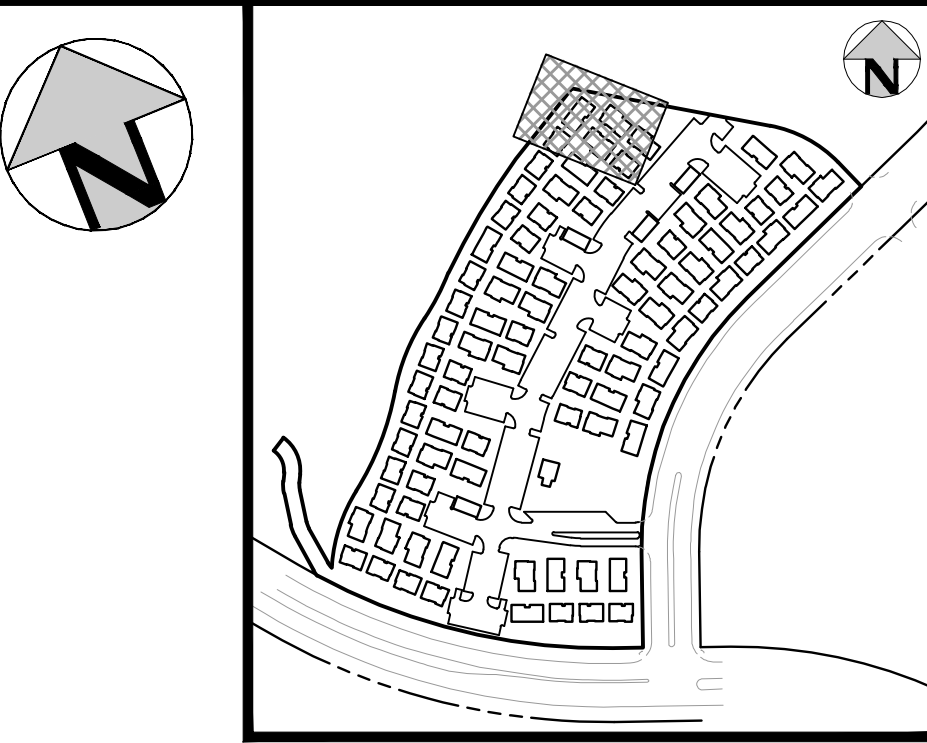
SHEET NUMBER

33

33 OF 87

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FILE PATH: K:\210431\ENGINEERING\UTILITIES\WATERCD - WATER SERVICE PLANDWG LAYOUT: LAYOUT1
DRAWN BY: RCP
PLOTTED: MON 11/21/22 10:58:42A BY: MILES SUSTAD



NOTES:

1. THE CONTRACTOR SHALL NOTIFY 811 PRIOR TO EXCAVATION, IN ACCORDANCE WITH COLORADO STATE STATUTES.
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4. ALL UNITS ARE FIRE SPRINKLER PROTECTED WITH NFPA 13-D SYSTEM.
5. PIPE MATERIALS SHALL BE IN ACCORDANCE WITH TOWN OF CASTLE ROCK WATER APPROVED MATERIALS LIST.

HORIZONTAL CONTROL
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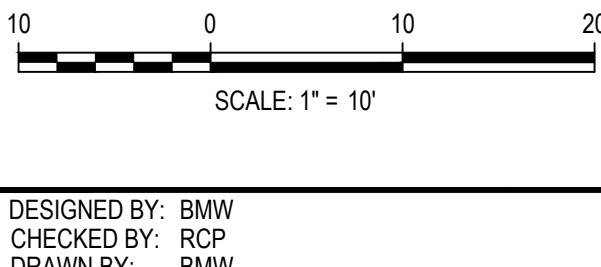
VERTICAL DATUM
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TOWN OF CASTLE ROCK APPROVAL
PLANS ARE HEREBY APPROVED FOR ONE YEAR FROM DATE OF DEVELOPMENT SERVICES APPROVAL.

Approved By: _____ Date: _____

Development Services _____ Date: _____



ISSUE DATE: 08-11-2022	
DATE	REVISION COMMENTS
10-31-2022	PER TOWN OF CASTLE ROCK COMMENTS

HKS HARRIS KOCHER SMITH
1120 Lincoln Street, Suite 1000
Denver, Colorado 80203
P: 303.623.6300 F: 303.623.6311
HarrisKocherSmith.com



AVILLA FOUNDERS VILLAGE
WATER SERVICES PLAN

PROJECT #: 210431
SHEET NUMBER
34
34 OF 87

NO CHANGES ARE TO BE MADE TO THIS DRAWING WITHOUT WRITTEN PERMISSION OF HARRIS KOCHER SMITH.

MATCHLINE - SEE SHEET 34

MATCHLINE - SEE SHEET 37

NOTES:

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CONSTRUCTION

RACHEL C. PATTON, P.E. #54450

DATE

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Approved By:

Development Services

Date

PROJECT #: 210431

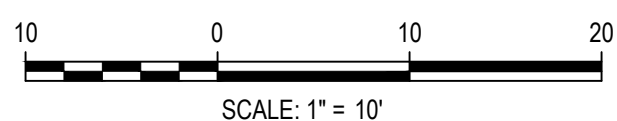
SHEET NUMBER

35

35 OF 87



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DESIGNED BY: BMW
CHECKED BY: RCP
DRAWN BY: BMW

ISSUE DATE: 08-11-2022

DATE	REVISION COMMENTS
10-31-2022	PER TOWN OF CASTLE ROCK COMMENTS



1120 Lincoln Street, Suite 1000
Denver, Colorado 80203
P: 303.623.6300 F: 303.623.6311
HarrisKocherSmith.com



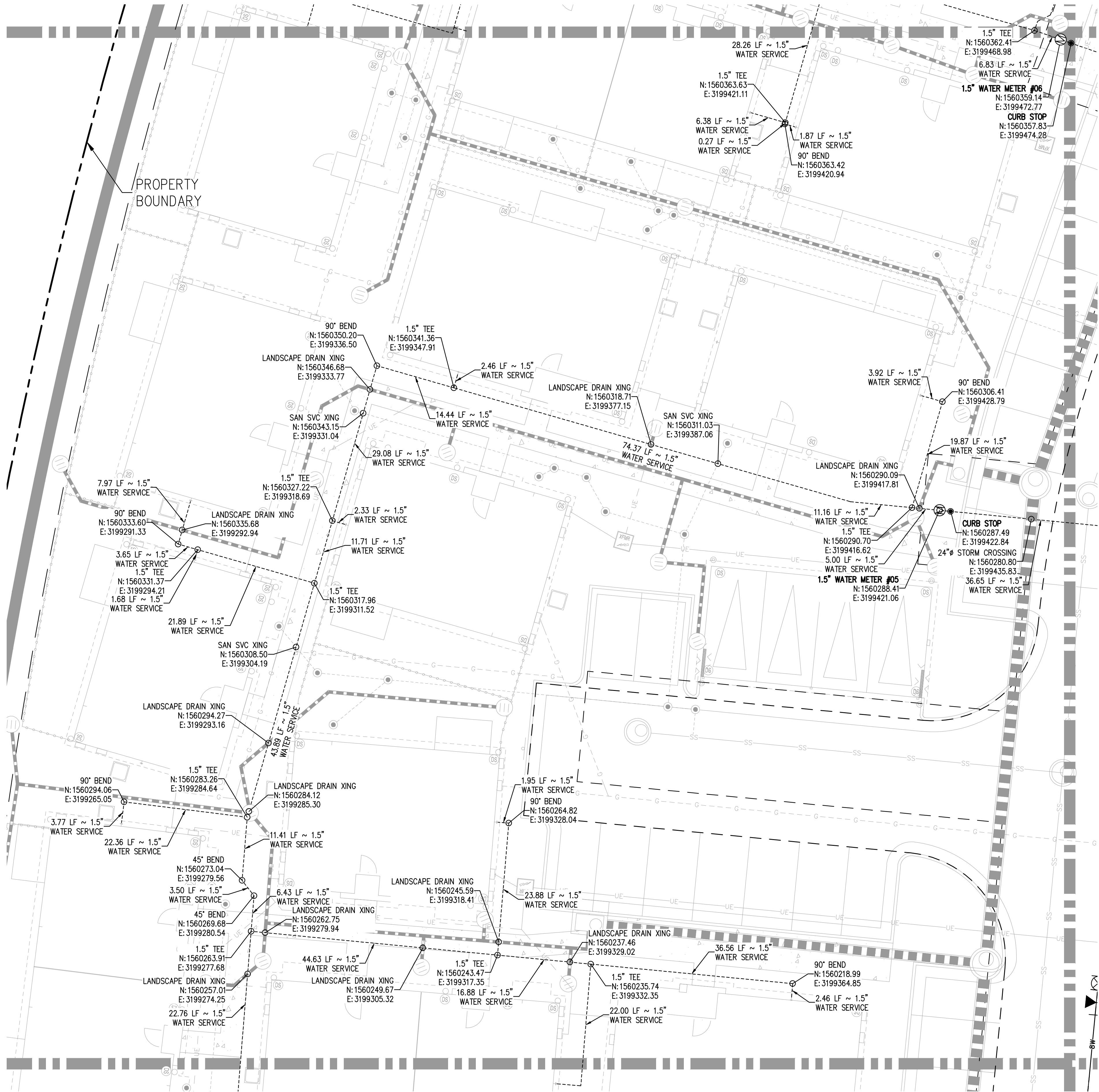
AVILLA FOUNDERS VILLAGE
WATER SERVICES PLAN

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PLOT DATE: 11/21/2022 10:58:50A BY: MILES SUSTAD

NO CHANGES ARE TO BE MADE TO THIS DRAWING WITHOUT WRITTEN PERMISSION OF HARRIS KOCHER SMITH.

FILE PATH: K:\210431\ENGINEERING\UTILITIES\WATERCD - WATER SERVICE PLANDWG LAYOUT- LAYOUT3
NO SCALE
PLOTTED: MON 11/21/22 10:59:02A BY: MILES SUSTAD

MATCHLINE - SEE SHEET 34



MATCHLINE - SEE SHEET 37

NOTES:

1. THE CONTRACTOR SHALL NOTIFY 811 PRIOR TO EXCAVATION, IN ACCORDANCE WITH COLORADO STATE STATUTES.
2. THE LOCATION OF EXISTING UNDERGROUND UTILITIES IS APPROXIMATE AND SHOWN ACCORDING TO THE BEST INFORMATION AVAILABLE. AS SUPPLIED BY THE UTILITY OWNERS. PRIOR TO EXCAVATION, THE CONTRACTOR SHALL VERIFY EXISTENCE, SIZE AND LOCATION OF EXISTING UTILITIES AND IMMEDIATELY NOTIFY HARRIS KOCHER SMITH OF ANY DISCREPANCIES. THE CONTRACTOR IS RESPONSIBLE FOR ANY AND ALL DAMAGES TO EXISTING UNDERGROUND FACILITIES.
3. CONTRACTOR SHALL NOTIFY CASTLE ROCK WATER OF ANY WORK THAT REQUIRES SHUTDOWN OR INTERRUPTION OF SERVICE OF EXISTING WATER MAINS THREE WEEKS PRIOR TO THE PROPOSED SHUTDOWN OR INTERRUPTION UNLESS OTHERWISE APPROVED BY CASTLE ROCK WATER.
4. ALL UNITS ARE FIRE SPRINKLER PROTECTED WITH NFPA 13-D SYSTEM.
5. PIPE MATERIALS SHALL BE IN ACCORDANCE WITH TOWN OF CASTLE ROCK WATER APPROVED MATERIALS LIST.

HORIZONTAL CONTROL

BEARINGS ARE BASED ON THE NORTH LINE OF THE NORTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 8, AS MONUMENTED AT THE EAST CORNER BY A #6 REBAR WITH A 3.25" ALUMINUM CAP STAMPED: SURVCON 2006 PLS 30289 AND AT THE CENTER-EAST SIXTEENTH CORNER BY A 2.5" PIPE WITH A 3.5" ALUMINUM CAP STAMPED: 1986 PLS 22100, AS BEARING SOUTH 88°58'05" WEST, PER THE PLAT OF FOUNDERS VILLAGE FILING NO. 24 AMENDMENT NO. 1.

VERTICAL DATUM

DOUGLAS COUNTY GIS CONTROL MONUMENT NO. 4.015020 MONUMENTED BY A 3-1/4" DIAMETER ALUMINUM CAPPED MONUMENT BEING NORTH OF THE EAST 1/4 CORNER OF SECTION 8 AS MONUMENTED BY 2-1/2" ALUMINUM CAPPED MONUMENT STAMPED "LS28656". NAVD 88 ELEVATION=6572.29

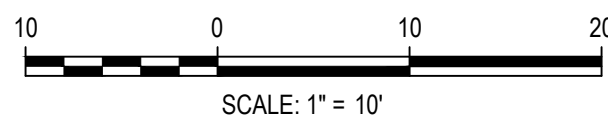
PROFESSIONAL ENGINEER CERTIFICATION

I HEREBY AFFIRM THAT THESE FINAL CONSTRUCTION PLANS WERE PREPARED UNDER MY DIRECT SUPERVISION, IN ACCORDANCE WITH ALL APPLICABLE TOWN OF CASTLE ROCK AND STATE OF COLORADO STANDARDS AND STATUTES, RESPECTIVELY; AND THAT I AM FULLY RESPONSIBLE FOR ALL DESIGN AND REVISIONS RELATIVE TO SAID PLANS.

RACHEL C. PATTON, P.E. #54450	DATE
TOWN OF CASTLE ROCK APPROVAL	
PLANS ARE HEREBY APPROVED FOR ONE YEAR FROM DATE OF DEVELOPMENT SERVICES APPROVAL	
Approved By:	
Development Services	Date



Know what's below.
Call before you dig.



DESIGNED BY: BMW
CHECKED BY: RCP
DRAWN BY: BMW

ISSUE DATE: 08-11-2022

DATE	REVISION COMMENTS
10-31-2022	PER TOWN OF CASTLE ROCK COMMENTS



AVILLA FOUNDERS VILLAGE
WATER SERVICES PLAN

PROJECT #: 210431
SHEET NUMBER

36

36 OF 87

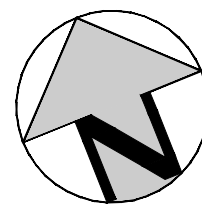
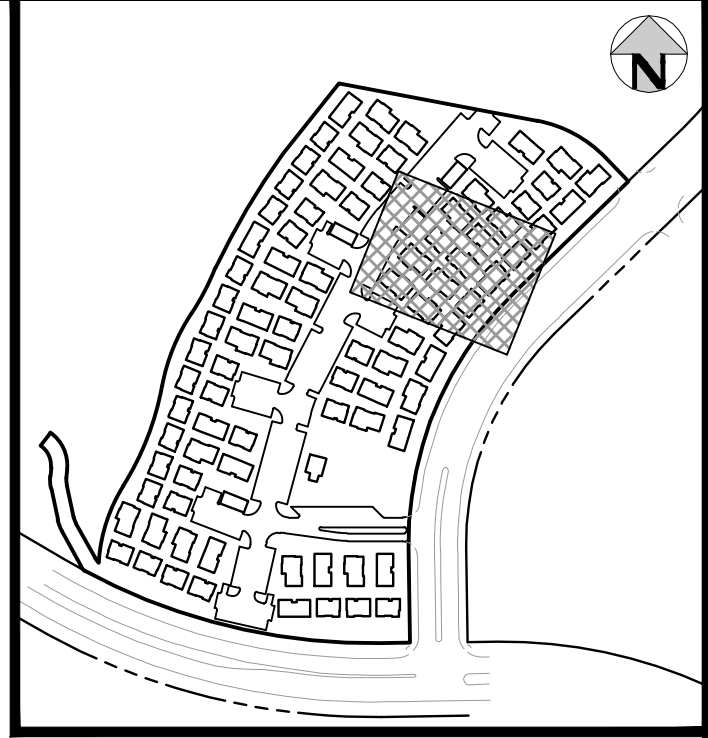
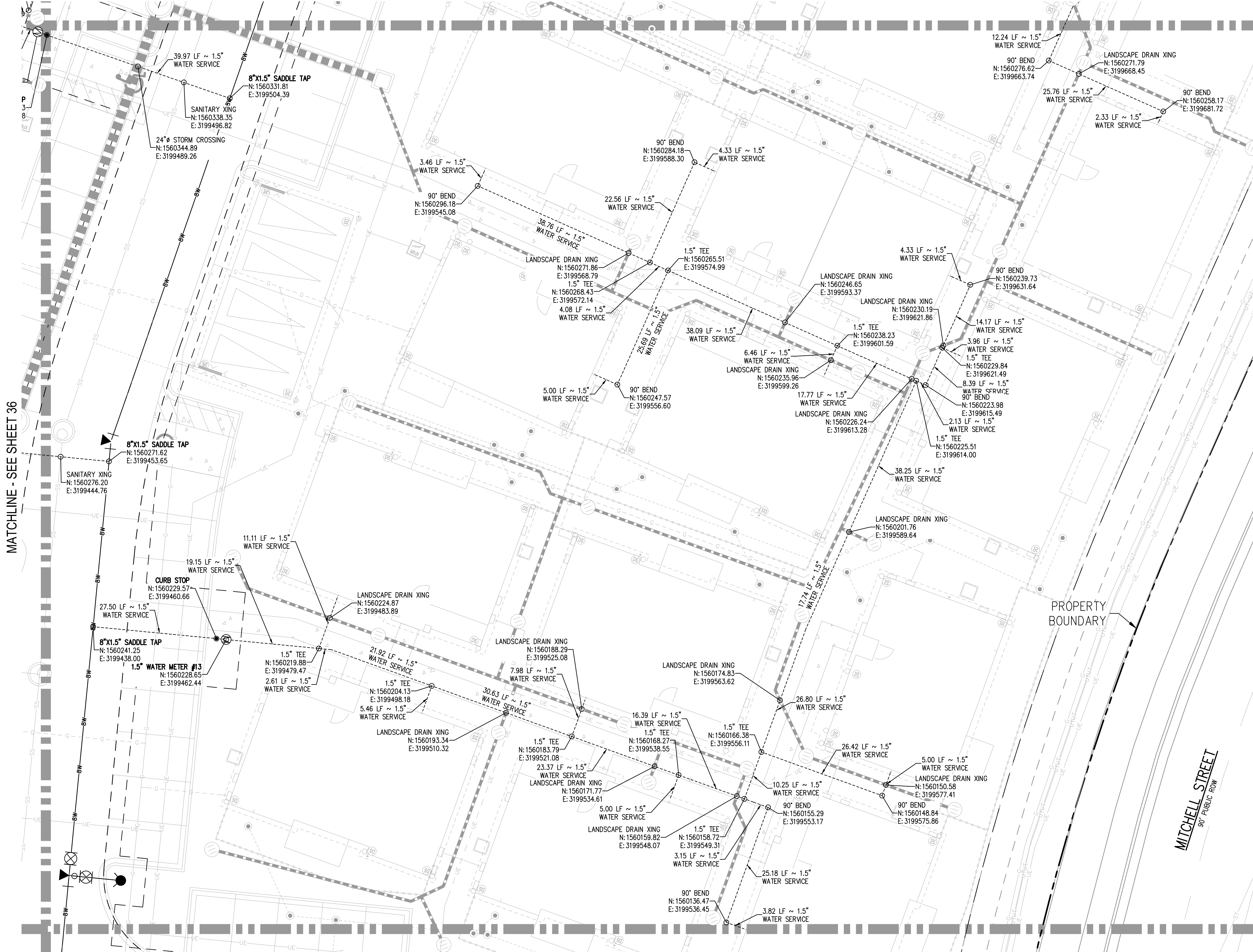
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NO SCALE
PLOTTED: MON 11/21/22 10:59:12A BY: MILES SUSTAD

MATCHLINE - SEE SHEET 35

MATCHLINE - SEE SHEET 36

MATCHLINE - SEE SHEET 38



NOTES:

1. THE CONTRACTOR SHALL NOTIFY 811 PRIOR TO EXCAVATION, IN ACCORDANCE WITH COLORADO STATE STATUTES.
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HORIZONTAL CONTROL

BEARINGS ARE BASED ON THE NORTH LINE OF THE NORTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 8, AS MONUMENTED AT THE EAST CORNER BY A #6 REBAR WITH A 3.25" ALUMINUM CAP STAMPED: SURVCON 2006 PLS 30289 AND AT THE CENTER-EAST SIXTEENTH CORNER BY A 2.5" PIPE WITH A 3.5" ALUMINUM CAP STAMPED: 1986 PLS 22100, AS BEARING SOUTH 88°58'06" WEST, PER THE PLAT OF FOUNDERS VILLAGE FILING NO. 24 AMENDMENT NO. 1.

VERTICAL DATUM

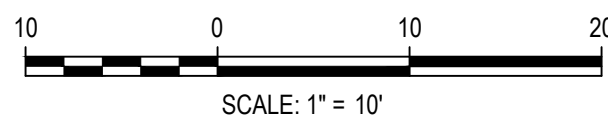
DOUGLAS COUNTY GIS CONTROL MONUMENT NO. 4.015020 MONUMENTED BY A 3-1/4" DIAMETER ALUMINUM CAPPED MONUMENT BEING NORTH OF THE EAST 1/4 CORNER OF SECTION 8 AS MONUMENTED BY 2-1/2" ALUMINUM CAPPED MONUMENT STAMPED "LS28656". NAVD 88 ELEVATION=6572.29

PROFESSIONAL ENGINEER CERTIFICATION

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PRELIMINARY
NOT FOR
CONSTRUCTION

RACHEL C. PATTON, P.E. #54450	DATE
TOWN OF CASTLE ROCK APPROVAL	
PLANS ARE HEREBY APPROVED FOR ONE YEAR FROM DATE OF DEVELOPMENT SERVICES APPROVAL	
Approved By:	
Development Services	Date



DESIGNED BY: BMW
CHECKED BY: RCP
DRAWN BY: BMW

ISSUE DATE: 08-11-2022	
DATE	REVISION COMMENTS
10-31-2022	PER TOWN OF CASTLE ROCK COMMENTS

HKS HARRIS KOCHER SMITH
1120 Lincoln Street, Suite 1000
Denver, Colorado 80203
P: 303.623.6300 F: 303.623.6311
HarrisKocherSmith.com

NEXmetro
Communities

AVILLA FOUNDERS VILLAGE
WATER SERVICES PLAN

PROJECT #: 210431
SHEET NUMBER

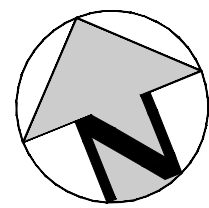
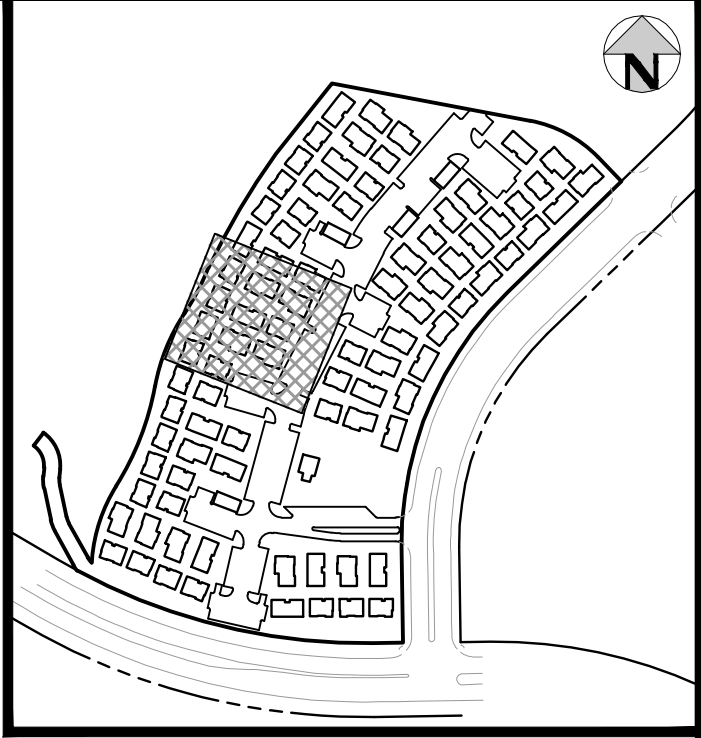
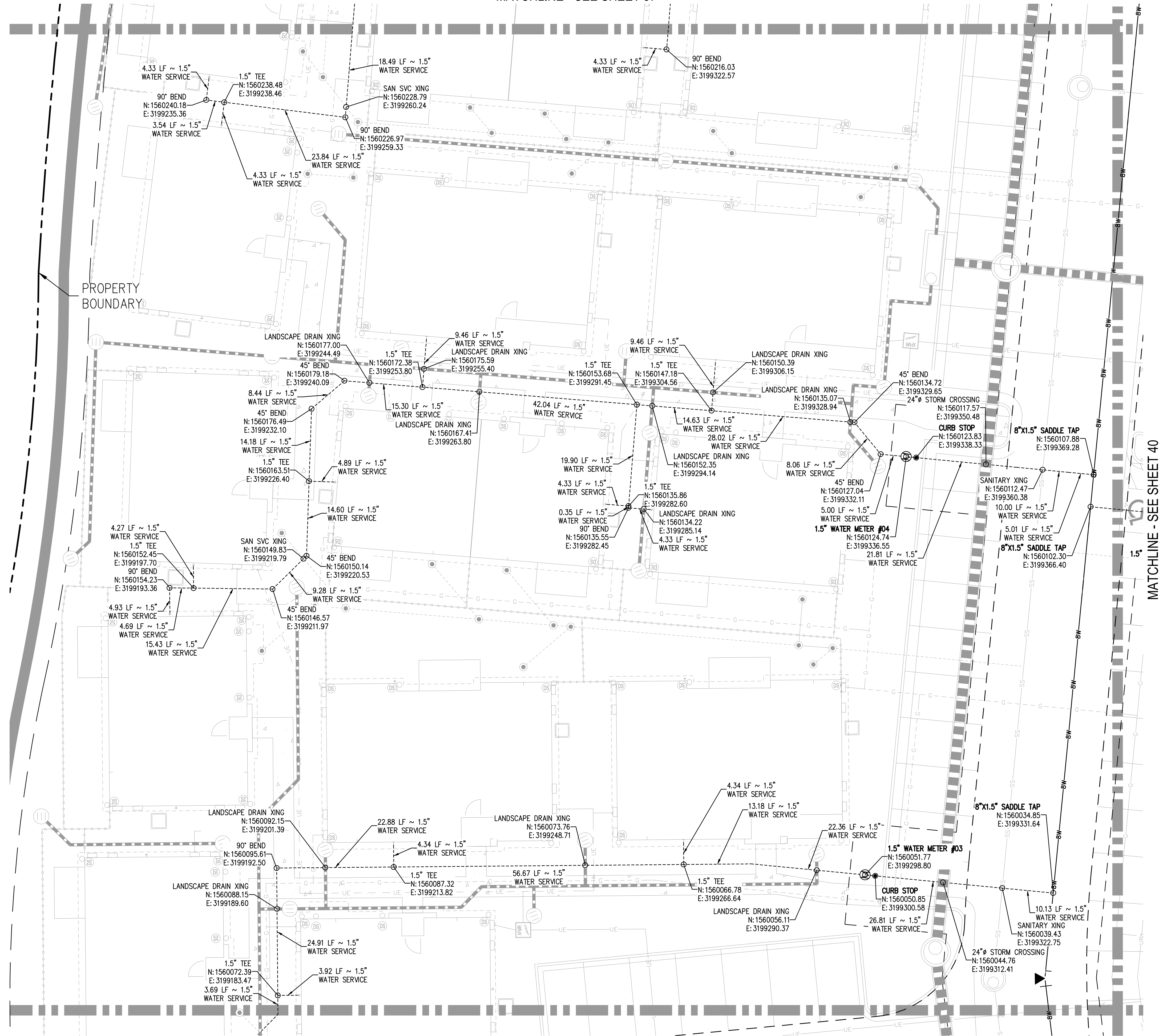
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37 OF 87

NO CHANGES ARE TO BE MADE TO THIS DRAWING WITHOUT WRITTEN PERMISSION OF HARRIS KOCHER SMITH.

FILE PATH: K:\210431\ENGINEERING\UTILITIES\WATERCD - WATER SERVICE PLANDWG LAYOUT- LAYOUTS
DRAWN BY: RCP
PLOTTED: MON 11/21/22 10:59:22A BY: MILES SUSTAD

MATCHLINE - SEE SHEET 37



MATCHLINE - SEE SHEET 40

MATCHLINE - SEE SHEET 41

NOTES:

1. THE CONTRACTOR SHALL NOTIFY 811 PRIOR TO EXCAVATION, IN ACCORDANCE WITH COLORADO STATE STATUTES.
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5. PIPE MATERIALS SHALL BE IN ACCORDANCE WITH TOWN OF CASTLE ROCK WATER APPROVED MATERIALS LIST.

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VERTICAL DATUM

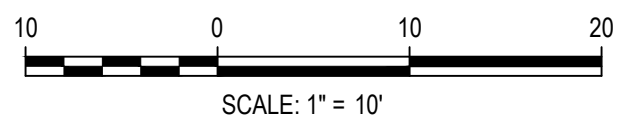
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PROFESSIONAL ENGINEER CERTIFICATION

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PRELIMINARY
NOT FOR
CONSTRUCTION

RACHEL C. PATTON, P.E. #54450		DATE
TOWN OF CASTLE ROCK APPROVAL		
PLANS ARE HEREBY APPROVED FOR ONE YEAR FROM DATE OF DEVELOPMENT SERVICES APPROVAL		
Approved By:		
Development Services	Date	



DESIGNED BY: BMW
CHECKED BY: RCP
DRAWN BY: BMW

ISSUE DATE: 08-11-2022	
DATE	REVISION COMMENTS
10-31-2022	PER TOWN OF CASTLE ROCK COMMENTS



AVILLA FOUNDERS VILLAGE
WATER SERVICES PLAN

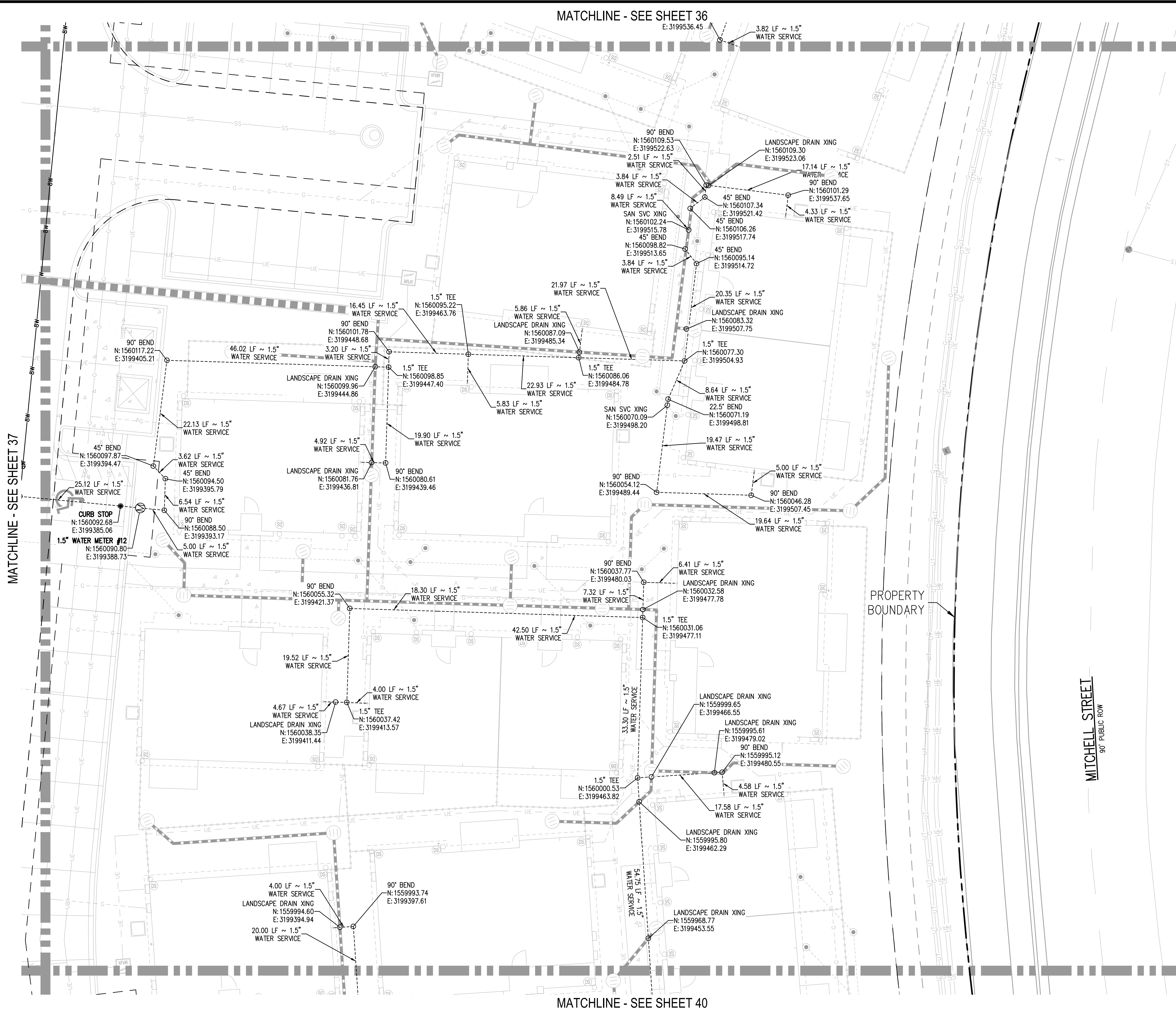
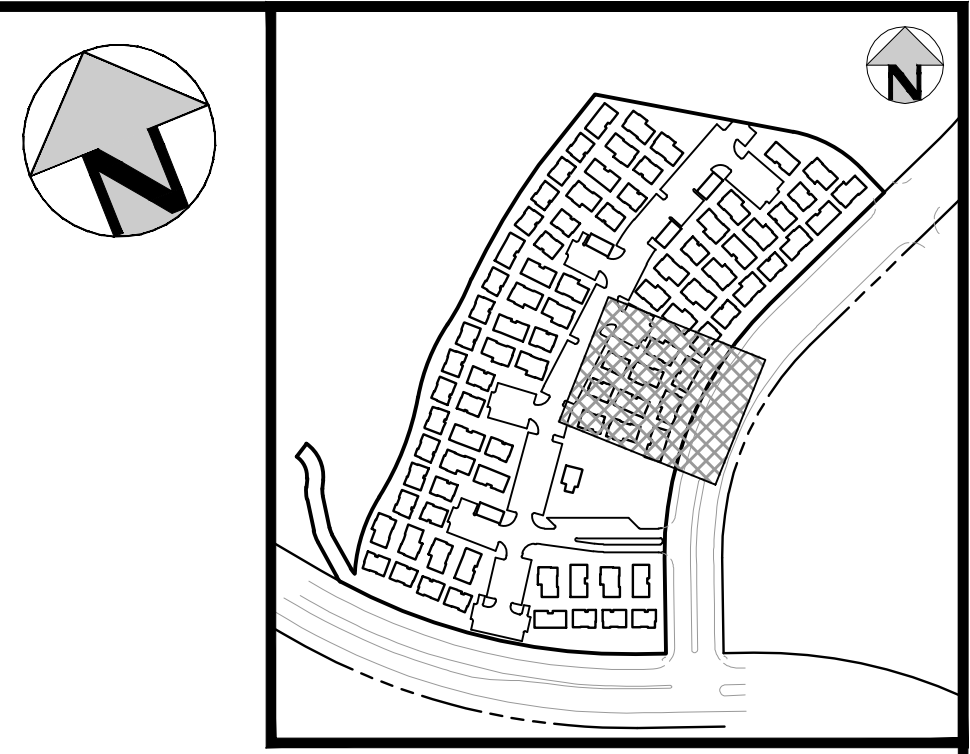
PROJECT #: 210431
SHEET NUMBER

38

38 OF 87

NO CHANGES ARE TO BE MADE TO THIS DRAWING WITHOUT WRITTEN PERMISSION OF HARRIS KOCHER SMITH.

FILE PATH: K:\210431\ENGINEERING\UTILITIES\WATERCD - WATER SERVICE PLANDWG LAYOUT- LAYOUTS
NO SCALE
PLOTTED: MON 11/21/22 10:59:32A BY: MILES SUSTAD



NOTES:

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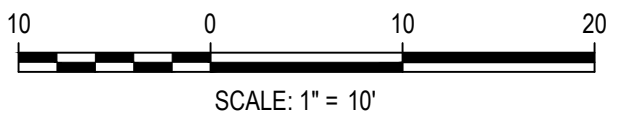
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TOWN OF CASTLE ROCK APPROVAL
PLANS ARE HEREBY APPROVED FOR ONE YEAR FROM DATE OF DEVELOPMENT SERVICES APPROVAL.

Approved By: _____ Date: _____
Development Services Date



Know what's below.
Call before you dig.



DESIGNED BY: BMW
CHECKED BY: RCP
DRAWN BY: BMW

ISSUE DATE: 08-11-2022	
DATE	REVISION COMMENTS
10-31-2022	PER TOWN OF CASTLE ROCK COMMENTS



HARRIS KOCHER SMITH
1120 Lincoln Street, Suite 1000
Denver, Colorado 80203
P: 303.623.6300 F: 303.623.6311
HarrisKocherSmith.com



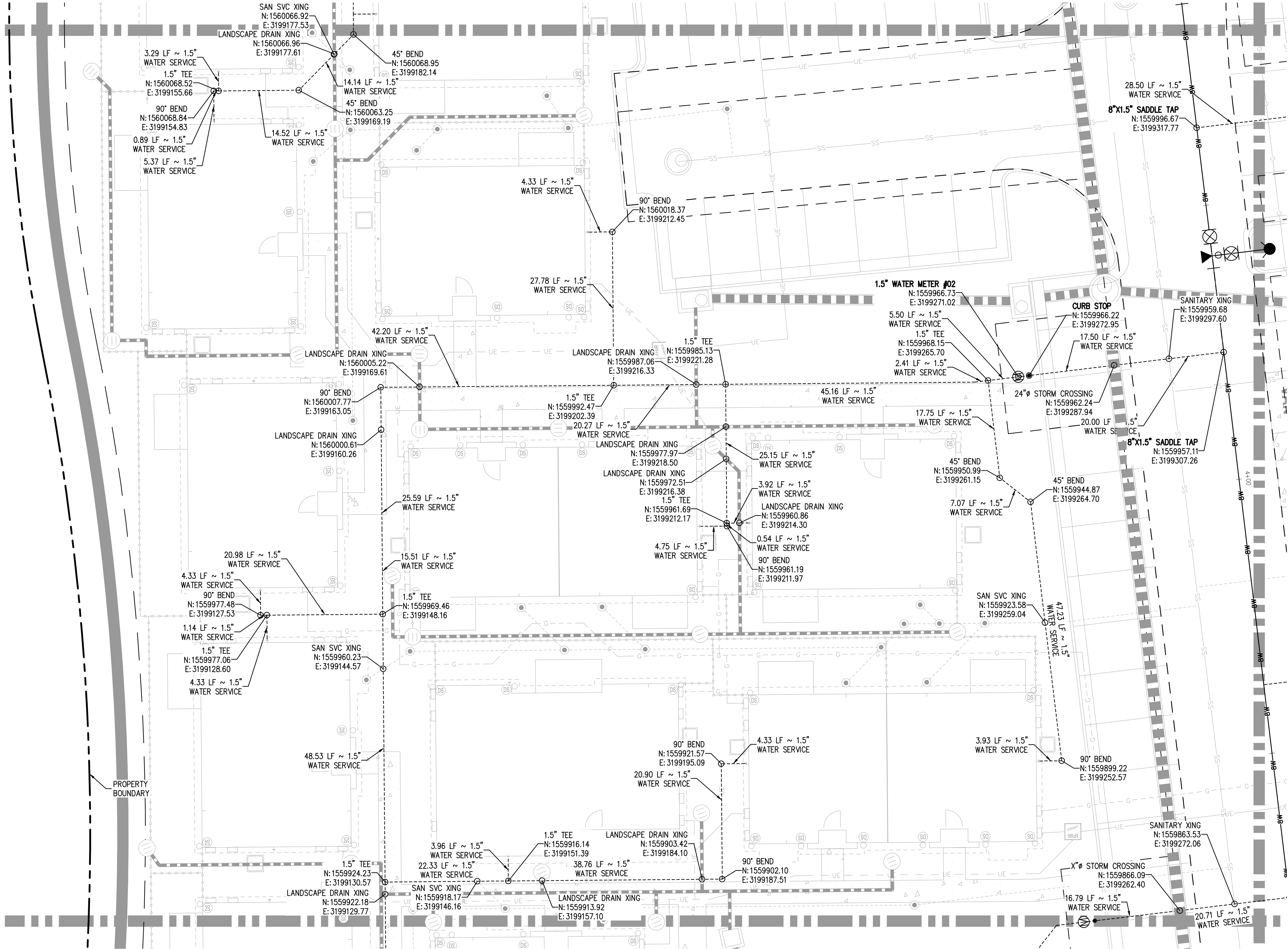
AVILLA FOUNDERS VILLAGE
WATER SERVICES PLAN

PROJECT #: 210431
SHEET NUMBER
39
39 OF 87

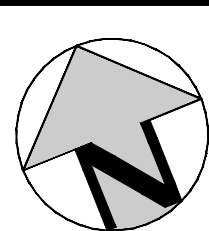
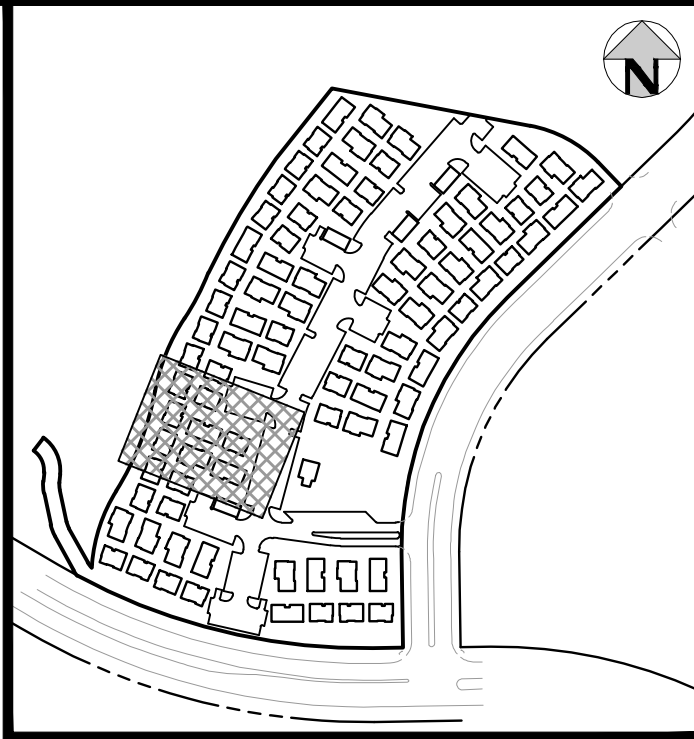
NO CHANGES ARE TO BE MADE TO THIS DRAWING WITHOUT WRITTEN PERMISSION OF HARRIS KOCHER SMITH.

FILE PATH: K:\210431\ENGINEERING\UTILITIES\WATERCD - WATER SERVICE PLAN\2.DWG LAYOUT: LAYOUT1
DRAWN BY: RCP
PLOTTED: MON 11/21/22 10:59:53A BY: MILES SUSTAD

MATCHLINE - SEE SHEET 39



MATCHLINE - SEE SHEET 42



MATCHLINE - SEE SHEET 41

NOTES:

1. THE CONTRACTOR SHALL NOTIFY 811 PRIOR TO EXCAVATION, IN ACCORDANCE WITH COLORADO STATE STATUTES.
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VERTICAL DATUM

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PROFESSIONAL ENGINEER CERTIFICATION

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PRELIMINARY NOT FOR CONSTRUCTION

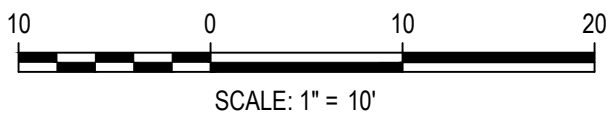
RACHEL C. PATTON, P.E. #54450 DATE: _____

TOWN OF CASTLE ROCK APPROVAL

PLANS ARE HEREBY APPROVED FOR ONE YEAR FROM DATE OF DEVELOPMENT SERVICES APPROVAL

Approved By: _____ Date: _____

Development Services Date: _____



DESIGNED BY: BMW
CHECKED BY: RCP
DRAWN BY: BMW

ISSUE DATE: 08-11-2022

DATE	REVISION COMMENTS
10-31-2022	PER TOWN OF CASTLE ROCK COMMENTS

HKS HARRIS KOCHER SMITH

1120 Lincoln Street, Suite 1000
Denver, Colorado 80203
P: 303.623.6300 F: 303.623.6311
HarrisKocherSmith.com

NEXmetro
Communities

AVILLA FOUNDERS VILLAGE
WATER SERVICES PLAN

PROJECT #: 210431
SHEET NUMBER

40

40 OF 87

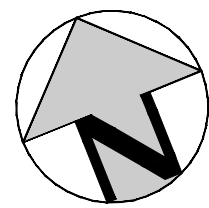
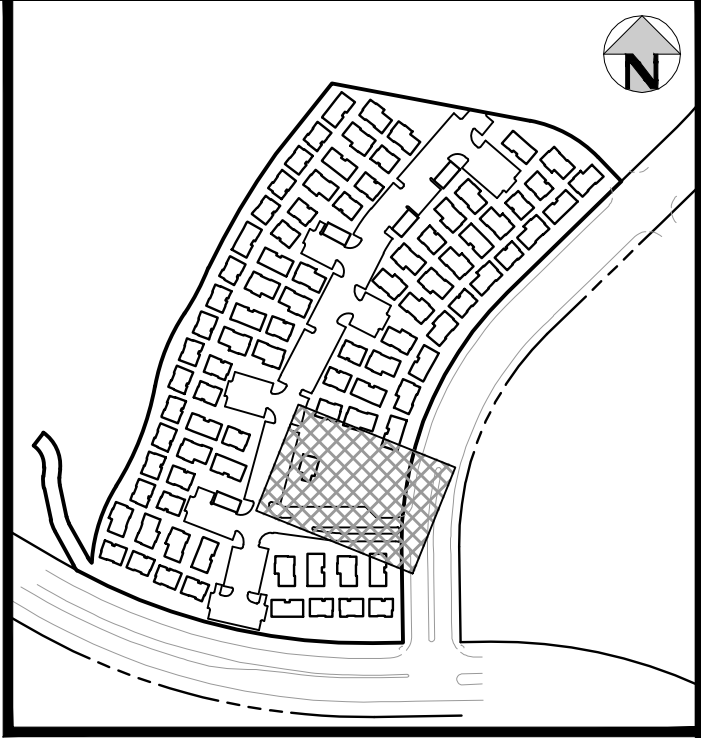
NO CHANGES ARE TO BE MADE TO THIS DRAWING WITHOUT WRITTEN PERMISSION OF HARRIS KOCHER SMITH.

FILE PATH: K:\210431\ENGINEERING\UTILITIES\WATERCD - WATER SERVICE PLAN\2.DWG LAYOUT: LAYOUT2
NO SCALE: PLOTTED: MON 11/21/22 11:00:01A BY: MILES SUSTAD

MATCHLINE - SEE SHEET 40

MATCHLINE - SEE SHEET 38

MATCHLINE - SEE SHEET 43



NOTES:

1. THE CONTRACTOR SHALL NOTIFY 811 PRIOR TO EXCAVATION, IN ACCORDANCE WITH COLORADO STATE STATUTES.
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DATE

TOWN OF CASTLE ROCK APPROVAL

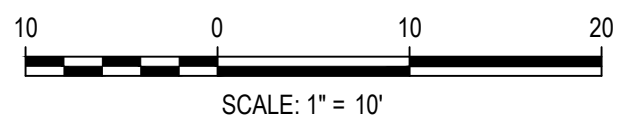
PLANS ARE HEREBY APPROVED FOR ONE YEAR FROM DATE OF DEVELOPMENT SERVICES APPROVAL

Approved By:

Development Services

Date

PRELIMINARY
NOT FOR
CONSTRUCTION



DESIGNED BY: BMW
CHECKED BY: RCP
DRAWN BY: BMW

ISSUE DATE: 08-11-2022

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HKS HARRIS KOCHER SMITH
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NEXmetro
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AVILLA FOUNDERS VILLAGE
WATER SERVICES PLAN

PROJECT #: 210431
SHEET NUMBER

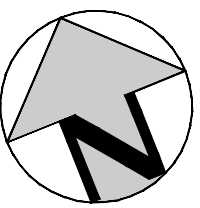
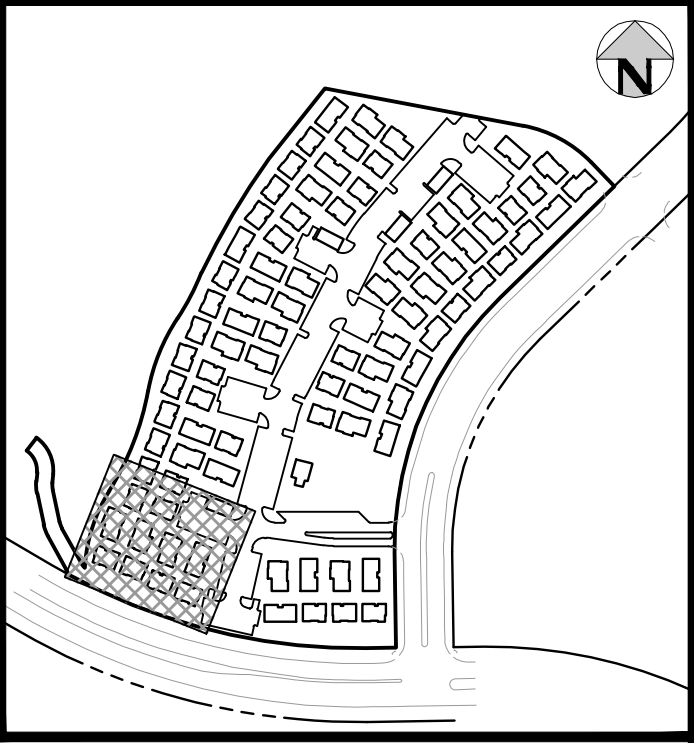
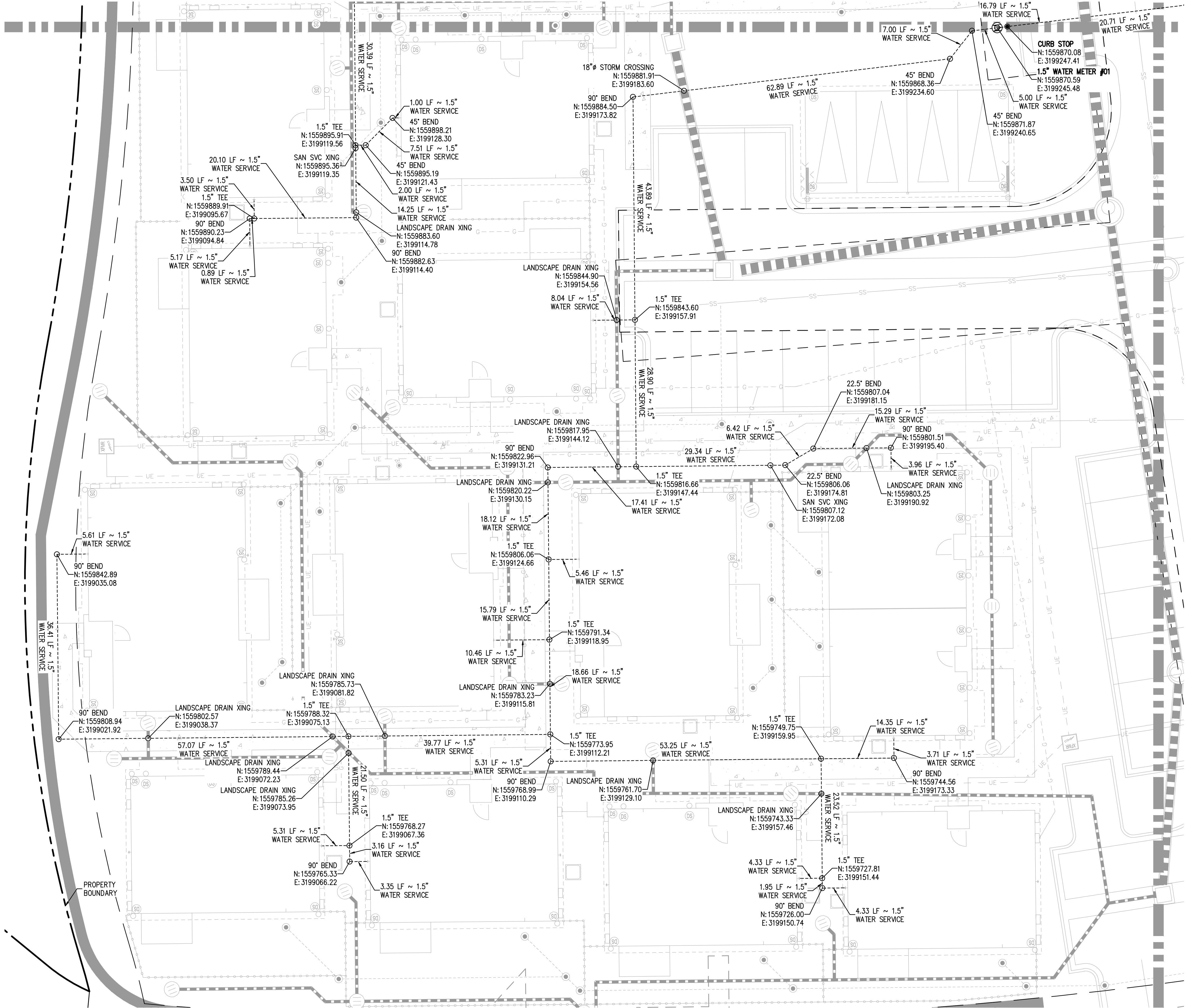
41

41 OF 87

NO CHANGES ARE TO BE MADE TO THIS DRAWING WITHOUT WRITTEN PERMISSION OF HARRIS KOCHER SMITH.

FILE PATH: K:\210431\ENGINEERING\UTILITIES\WATERCD - WATER SERVICE PLAN\2.DWG LAYOUT LAYOUT3
NO SCALE
PLOTTED: MON 11/21/22 11:00:00A BY: MILES SUSTAD

MATCHLINE - SEE SHEET 40



MATCHLINE - SEE SHEET 43

NOTES:

1. THE CONTRACTOR SHALL NOTIFY 811 PRIOR TO EXCAVATION, IN ACCORDANCE WITH COLORADO STATE STATUTES.
2. THE LOCATION OF EXISTING UNDERGROUND UTILITIES IS APPROXIMATE AND SHOWN ACCORDING TO THE BEST INFORMATION AVAILABLE. AS SUPPLIED BY THE UTILITY OWNERS. PRIOR TO EXCAVATION, THE CONTRACTOR SHALL VERIFY EXISTENCE, SIZE AND LOCATION OF EXISTING UTILITIES AND IMMEDIATELY NOTIFY HARRIS KOCHER SMITH OF ANY DISCREPANCIES. THE CONTRACTOR IS RESPONSIBLE FOR ANY AND ALL DAMAGES TO EXISTING UNDERGROUND FACILITIES.
3. CONTRACTOR SHALL NOTIFY CASTLE ROCK WATER OF ANY WORK THAT REQUIRES SHUTDOWN OR INTERRUPTION OF SERVICE OF EXISTING WATER MAINS THREE WEEKS PRIOR TO THE PROPOSED SHUTDOWN OR INTERRUPTION UNLESS OTHERWISE APPROVED BY CASTLE ROCK WATER.
4. ALL UNITS ARE FIRE SPRINKLER PROTECTED WITH NFPA 13-D SYSTEM.
5. PIPE MATERIALS SHALL BE IN ACCORDANCE WITH TOWN OF CASTLE ROCK WATER APPROVED MATERIALS LIST.

HORIZONTAL CONTROL

BEARINGS ARE BASED ON THE NORTH LINE OF THE NORTHEAST QUARTER OF SECTION 8, AS MONUMENTED AT THE EAST CORNER BY A #6 REBAR WITH A 3.25" ALUMINUM CAP STAMPED: SURVCON 2006 PLS 30289 AND AT THE CENTER-EAST SIXTEENTH CORNER BY A 2.5" PIPE WITH A 3.5" ALUMINUM CAP STAMPED: 1986 PLS 22100, AS BEARING SOUTH 88°58'05" WEST, PER THE PLAT OF FOUNDERS VILLAGE FILING NO. 24 AMENDMENT NO. 1.

VERTICAL DATUM

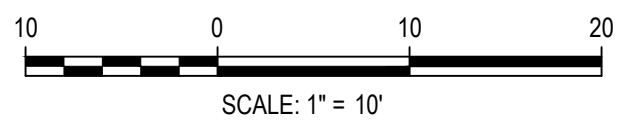
DOUGLAS COUNTY GIS CONTROL MONUMENT NO. 4.015020 MONUMENTED BY A 3-1/4" DIAMETER ALUMINUM CAPPED MONUMENT BEING NORTH OF THE EAST 1/4 CORNER OF SECTION 8 AS MONUMENTED BY 2-1/2" ALUMINUM CAPPED MONUMENT STAMPED "LS28656". NAVD 88 ELEVATION=6572.29

PROFESSIONAL ENGINEER CERTIFICATION

I HEREBY AFFIRM THAT THESE FINAL CONSTRUCTION PLANS WERE PREPARED UNDER MY DIRECT SUPERVISION, IN ACCORDANCE WITH ALL APPLICABLE TOWN OF CASTLE ROCK AND STATE OF COLORADO STANDARDS AND STATUTES, RESPECTIVELY; AND THAT I AM FULLY RESPONSIBLE FOR ALL DESIGN AND REVISIONS RELATIVE TO SAID PLANS.

PRELIMINARY
NOT FOR
CONSTRUCTION

RACHEL C. PATTON, P.E. #54450	DATE
TOWN OF CASTLE ROCK APPROVAL	
PLANS ARE HEREBY APPROVED FOR ONE YEAR FROM DATE OF DEVELOPMENT SERVICES APPROVAL	
Approved By:	
Development Services	Date



DESIGNED BY: BMW
CHECKED BY: RCP
DRAWN BY: BMW

ISSUE DATE: 08-11-2022

DATE	REVISION COMMENTS
10-31-2022	PER TOWN OF CASTLE ROCK COMMENTS



AVILLA FOUNDERS VILLAGE
WATER SERVICES PLAN

PROJECT #: 210431
SHEET NUMBER

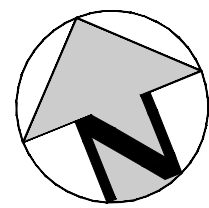
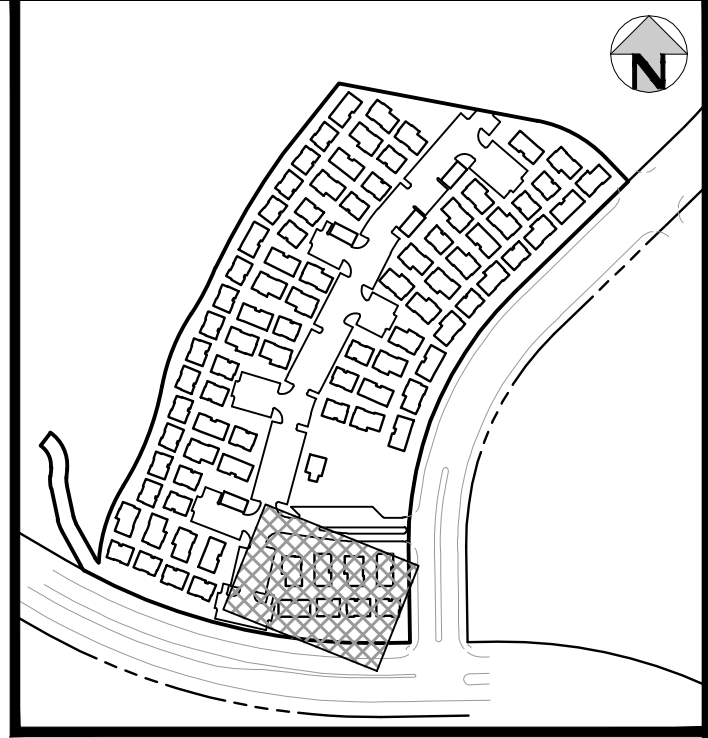
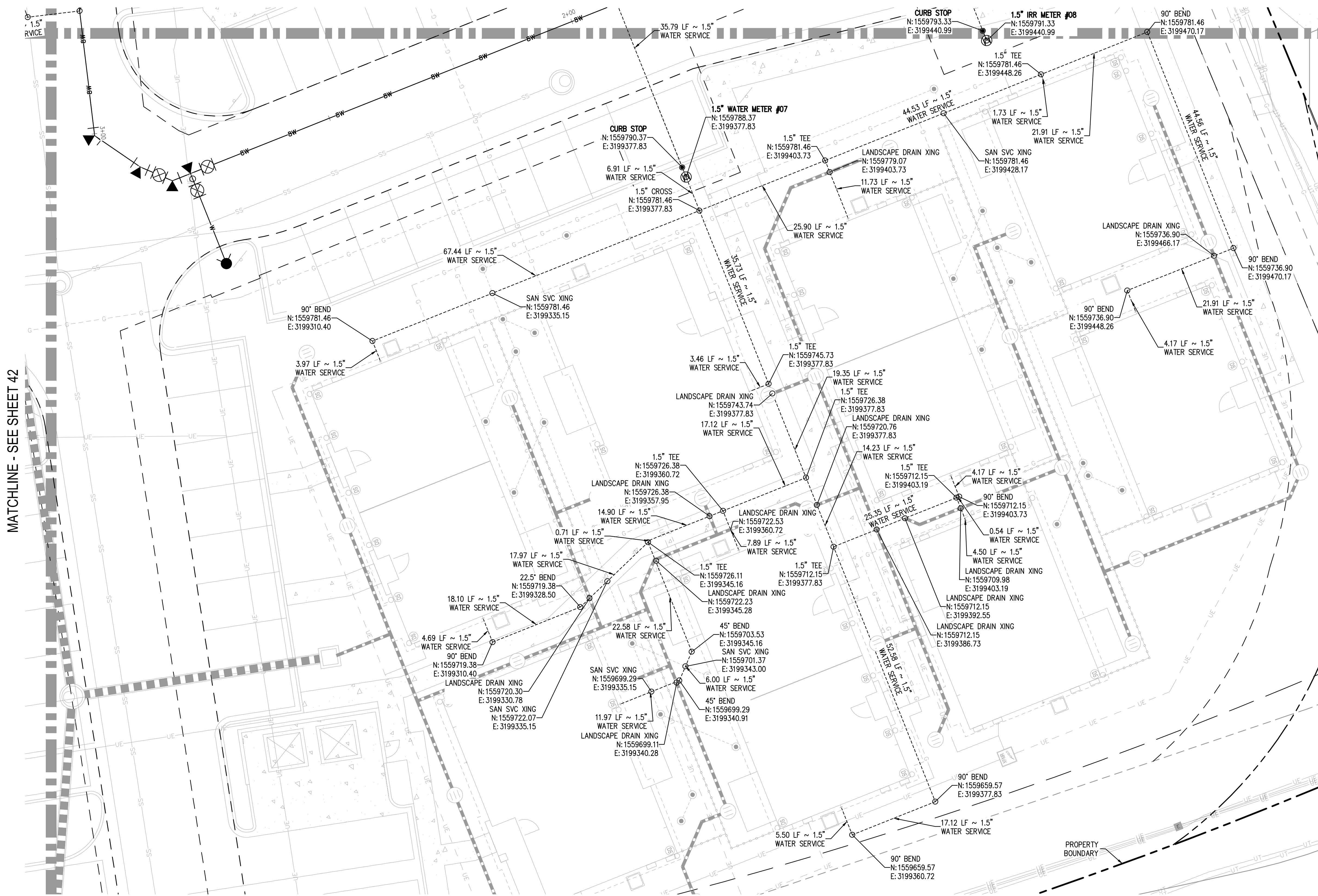
42

42 OF 87

NO CHANGES ARE TO BE MADE TO THIS DRAWING WITHOUT WRITTEN PERMISSION OF HARRIS KOCHER SMITH.

MATCHLINE - SEE SHEET 42

MATCHLINE - SEE SHEET 41



NOTES:

1. THE CONTRACTOR SHALL NOTIFY 811 PRIOR TO EXCAVATION, IN ACCORDANCE WITH COLORADO STATE STATUTES.
2. THE LOCATION OF EXISTING UNDERGROUND UTILITIES IS APPROXIMATE AND SHOWN ACCORDING TO THE BEST INFORMATION AVAILABLE. AS SUPPLIED BY THE UTILITY OWNERS. PRIOR TO EXCAVATION, THE CONTRACTOR SHALL VERIFY EXISTENCE, SIZE AND LOCATION OF EXISTING UTILITIES AND IMMEDIATELY NOTIFY HARRIS KOCHER SMITH OF ANY DISCREPANCIES. THE CONTRACTOR IS RESPONSIBLE FOR ANY AND ALL DAMAGES TO EXISTING UNDERGROUND FACILITIES.
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5. PIPE MATERIALS SHALL BE IN ACCORDANCE WITH TOWN OF CASTLE ROCK WATER APPROVED MATERIALS LIST.

HORIZONTAL CONTROL

BEARINGS ARE BASED ON THE NORTH LINE OF THE NORTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 8, AS MONUMENTED AT THE EAST CORNER BY A #6 REBAR WITH A 3.25" ALUMINUM CAP STAMPED: SURVCON 2006 PLS 30289 AND AT THE CENTER-EAST SIXTEENTH CORNER BY A 2.5" PIPE WITH A 3.5" ALUMINUM CAP STAMPED: 1986 PLS 22100, AS BEARING SOUTH 88°58'06" WEST, PER THE PLAT OF FOUNDERS VILLAGE FILING NO. 24 AMENDMENT NO. 1.

VERTICAL DATUM

DOUGLAS COUNTY GIS CONTROL MONUMENT NO. 4.015020 MONUMENTED BY A 3-1/4" DIAMETER ALUMINUM CAPPED MONUMENT BEING NORTH OF THE EAST 1/4 CORNER OF SECTION 8 AS MONUMENTED BY 2-1/2" ALUMINUM CAPPED MONUMENT STAMPED "LS28656". NAVD 88 ELEVATION=6572.29

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PRELIMINARY NOT FOR CONSTRUCTION

RACHEL C PATTON, P.E. #54450 DATE

TOWN OF CASTLE ROCK APPROVAL

PLANS ARE HEREBY APPROVED FOR ONE YEAR FROM DATE OF DEVELOPMENT SERVICES APPROVAL

Approved By: Development Services Date

FILE PATH: K:\210431\ENGINEERING\UTILITIES\WATERCD - WATER SERVICE PLAN2.DWG LAYOUT: LAYOUT4
PLOT DATE: 11/21/2023 11:00:20A BY: MILES SUSTAD

811

Know what's below.
Call before you dig.

10 0 10 20

SCALE: 1" = 10'

DESIGNED BY: BMW
CHECKED BY: RCP
DRAWN BY: BMW

ISSUE DATE: 08-11-2022	
DATE	REVISION COMMENTS
10-31-2022	PER TOWN OF CASTLE ROCK COMMENTS

HKS HARRIS KOCHER SMITH

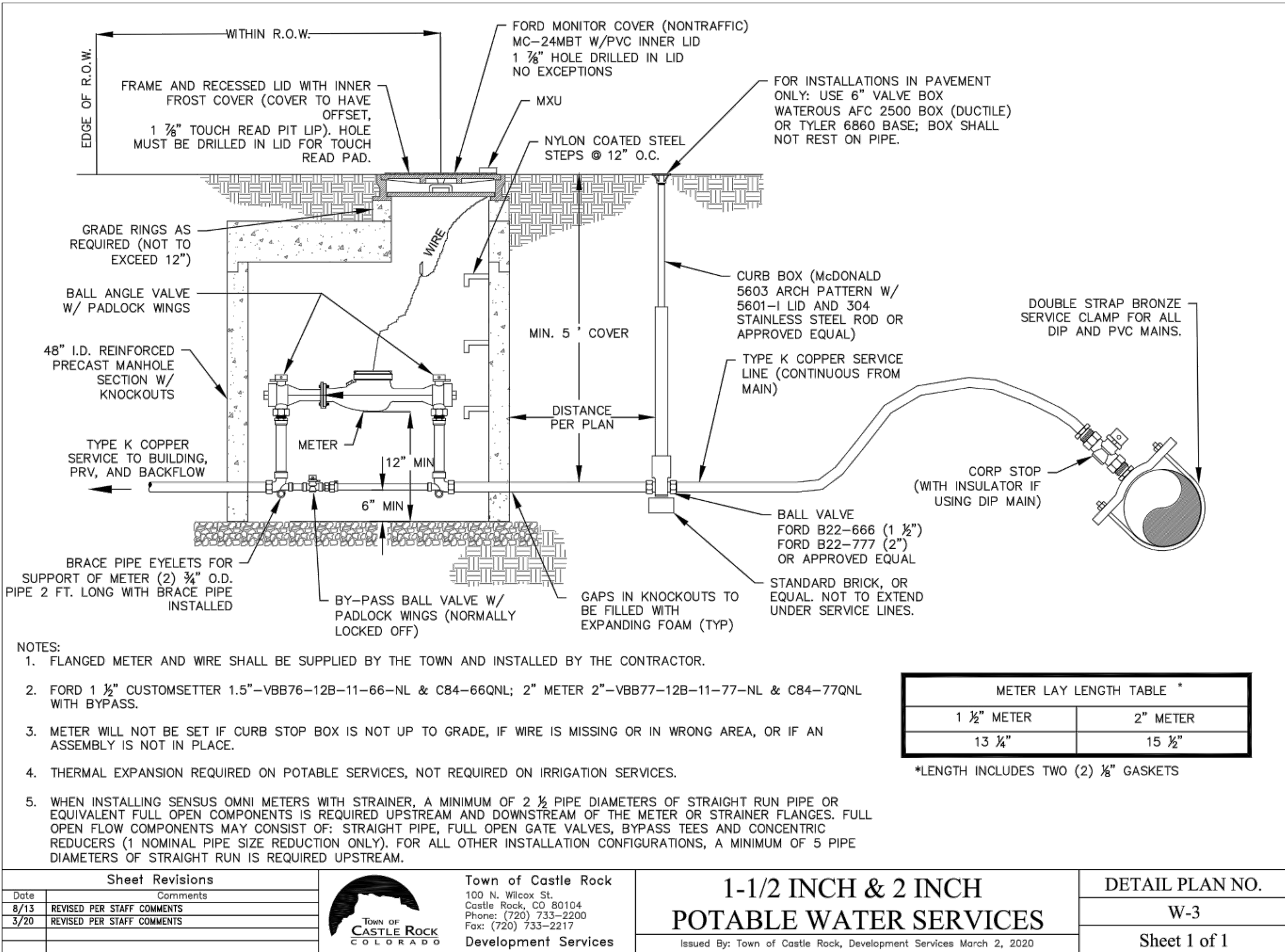
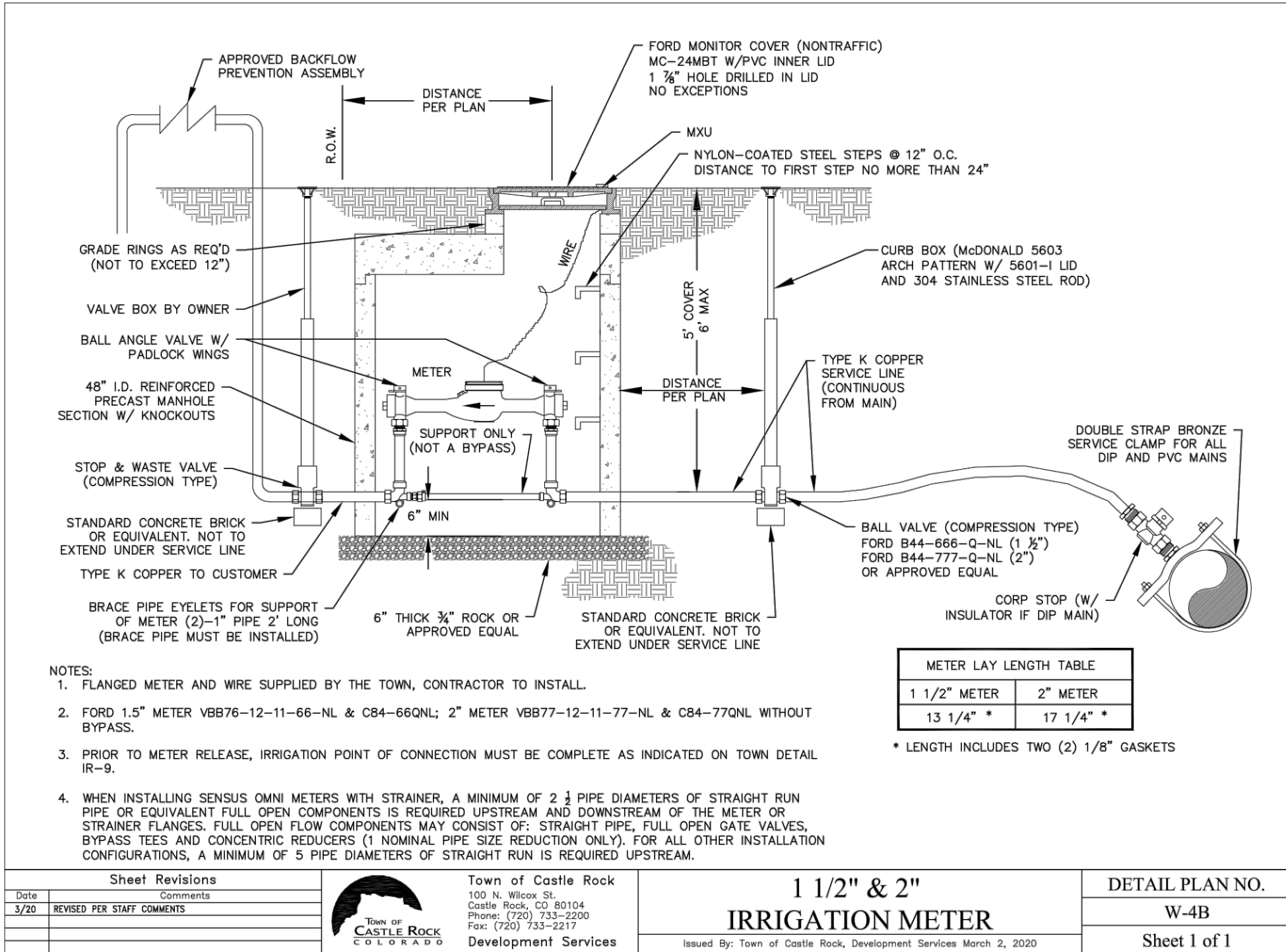
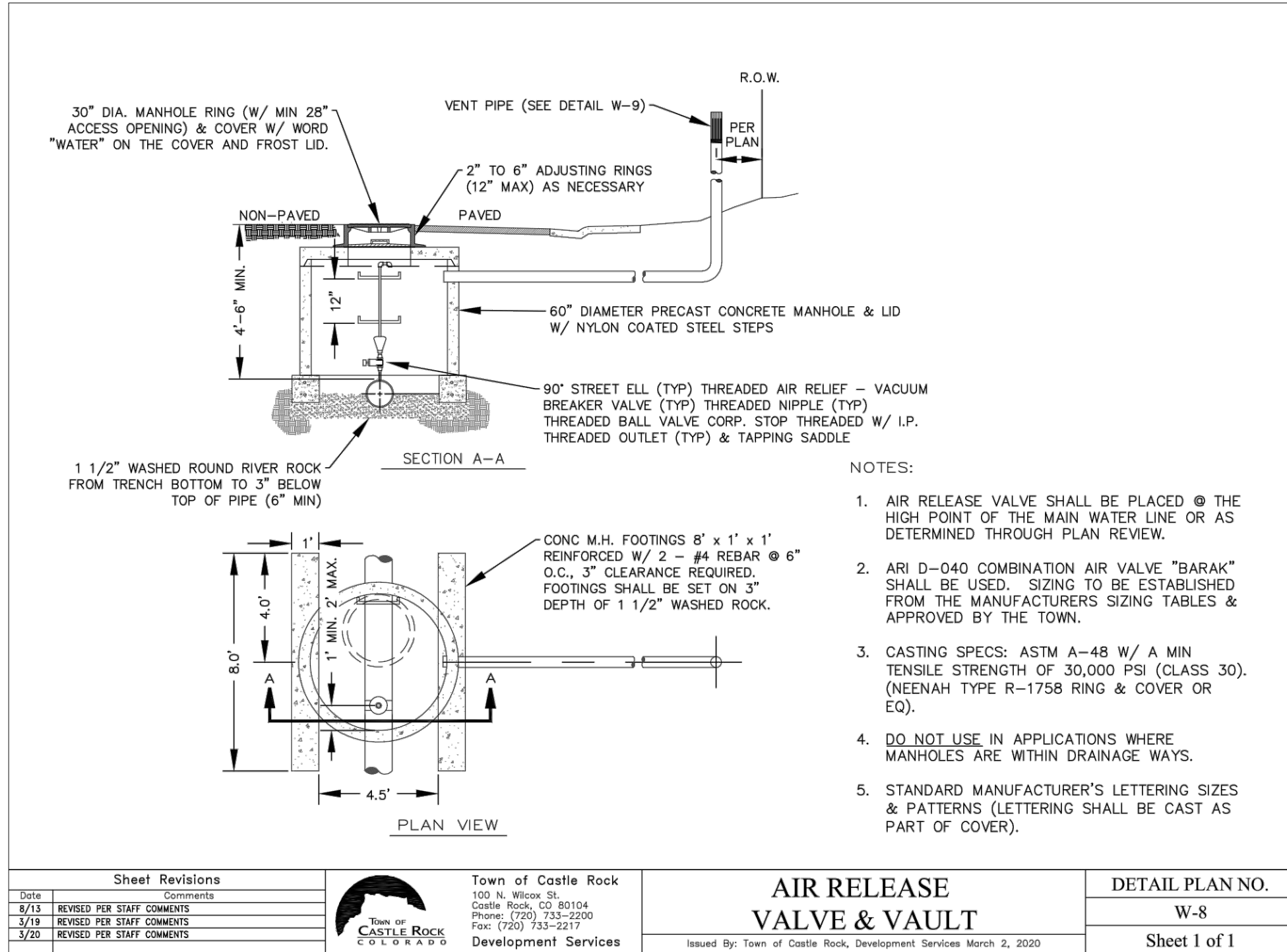
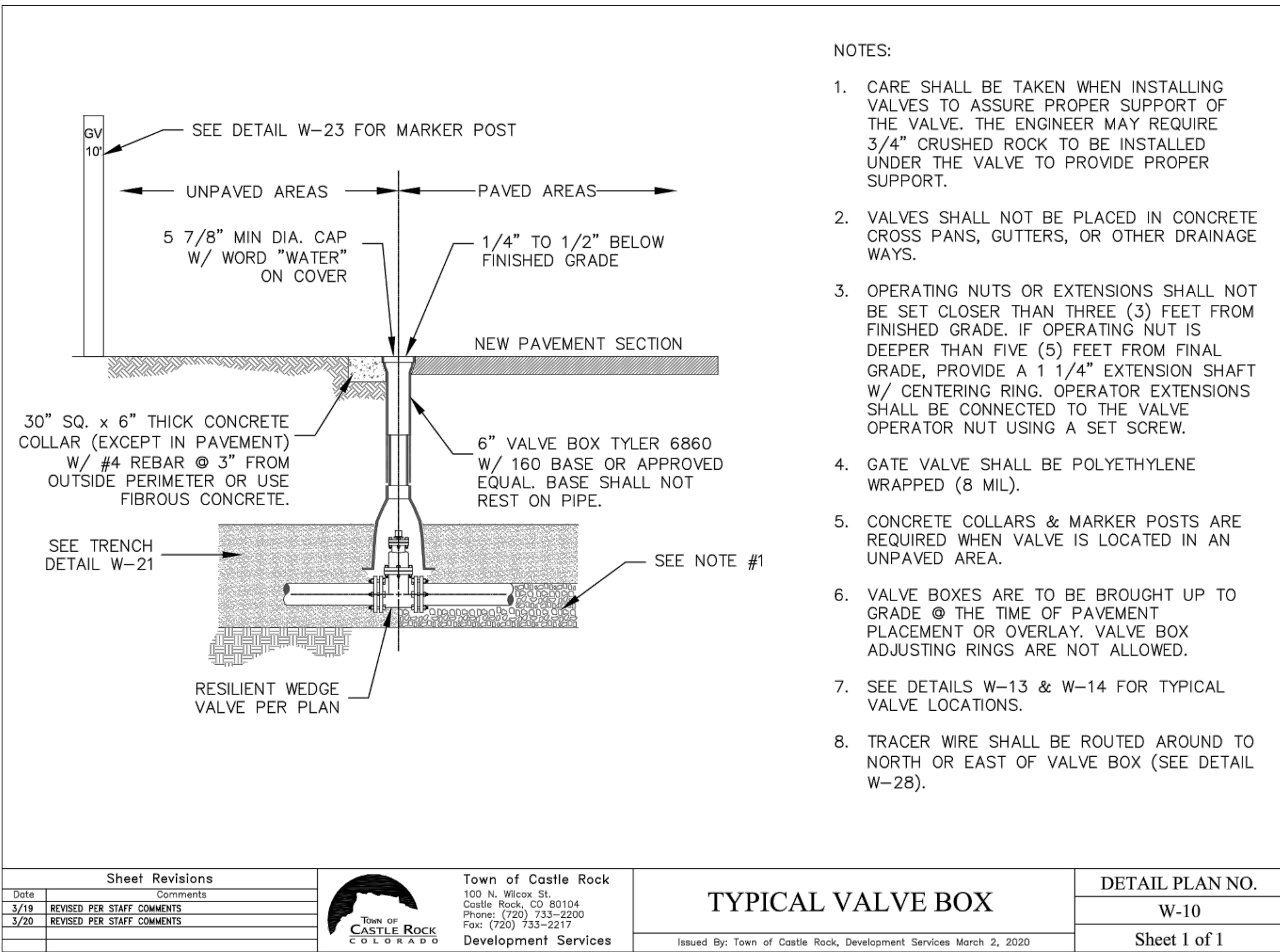
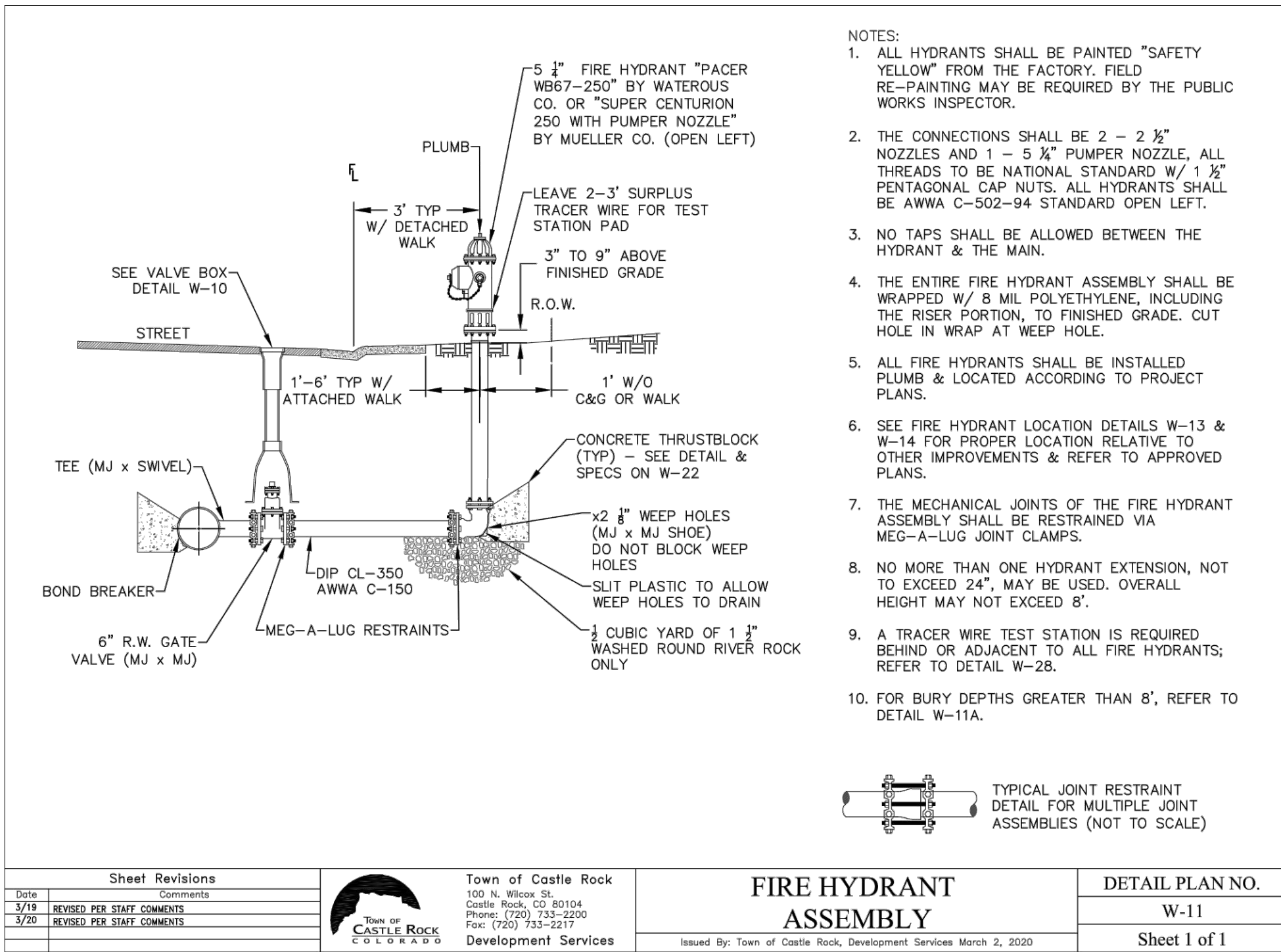
1120 Lincoln Street, Suite 1000
Denver, Colorado 80203
P: 303.623.6300 F: 303.623.6311
HarrisKocherSmith.com

NEXmetro
Communities

AVILLA FOUNDERS VILLAGE
WATER SERVICES PLAN

PROJECT #: 210431
SHEET NUMBER
43
43 OF 87

NO CHANGES ARE TO BE MADE TO THIS DRAWING WITHOUT WRITTEN PERMISSION OF HARRIS KOCHER SMITH.



HORIZONTAL CONTROL
BEARINGS ARE BASED ON THE NORTH LINE OF THE NORTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 8, AS MONUMENTED AT THE EAST CORNER BY A #6 REBAR WITH A 3.25\"/>

VERTICAL DATUM
DOUGLAS COUNTY GIS CONTROL MONUMENT NO. 4.015020 MONUMENTED BY A 3-1/4\"/>

PROFESSIONAL ENGINEER CERTIFICATION
I HEREBY AFFIRM THAT THESE FINAL CONSTRUCTION PLANS WERE PREPARED UNDER MY DIRECT SUPERVISION, IN ACCORDANCE WITH ALL APPLICABLE TOWN OF CASTLE ROCK AND STATE OF COLORADO STANDARDS AND STATUTES, RESPECTIVELY; AND THAT I AM FULLY RESPONSIBLE FOR ALL DESIGN AND REVISIONS RELATIVE TO SAID PLANS.

PRELIMINARY
NOT FOR
CONSTRUCTION

RACHEL C PATTON, P.E. #54450 DATE
TOWN OF CASTLE ROCK APPROVAL
PLANS ARE HEREBY APPROVED FOR ONE YEAR FROM DATE OF DEVELOPMENT SERVICES APPROVAL
Approved By: Development Services Date



DESIGNED BY: MJS
CHECKED BY: RCP
DRAWN BY: MJS

ISSUE DATE: 08-11-2022	
DATE	REVISION COMMENTS
10-31-2022	PER TOWN OF CASTLE ROCK COMMENTS



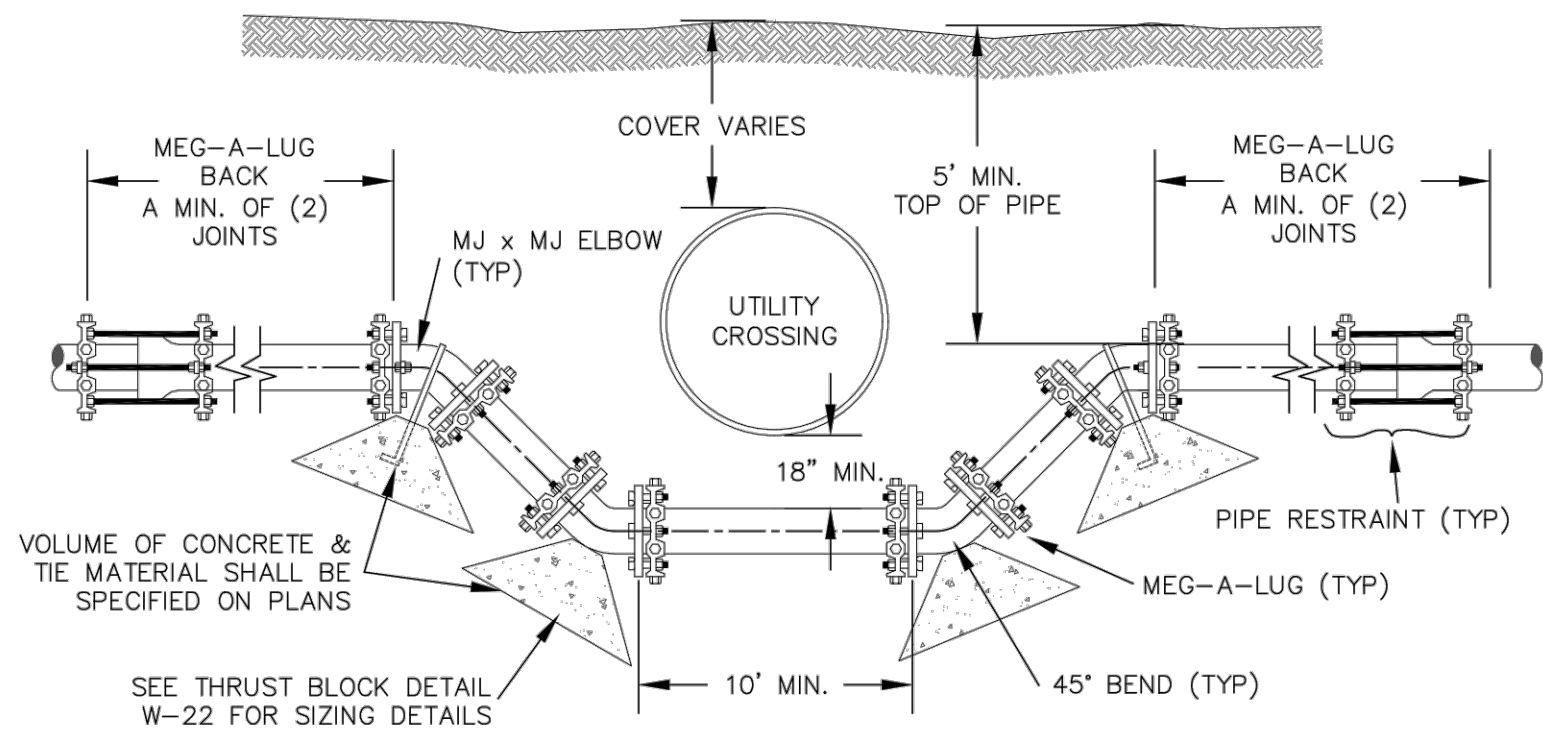
AVILLA FOUNDERS VILLAGE
WATER DETAILS

PROJECT #: 210431
SHEET NUMBER

44

NOTES:

- WHERE WATER LINE COVER EXCEEDS 7'-6" AT THE LOW POINT OF THE CONDUIT CROSSING, VERTICAL BENDS ARE REQUIRED. WHEN COVER IS LESS THAN 7'-6", PIPE JOINTS MAY BE DEFLECTED 1/2 THE MANUFACTURER'S RECOMMENDED DEFLECTION IN LIEU OF VERTICAL BENDS. THE LIMITS OF THE DEPRESSED AREA SHALL BE DOCUMENTED ON THE "AS-BUILT" DRAWINGS.
- IF UTILITY CROSSING IS SANITARY SEWER & IS OVER A RAW OR POTABLE WATER LINE, ALL UTILITY CROSSING JOINTS WITHIN 10' SHALL BE ENCASED 1' BOTH SIDES OF THE JOINT W/ CONCRETE. SEE ENCASEMENT DETAIL W-20.
- MULTIPLE JOINTS BETWEEN MEG-A-LUG FITTINGS SHALL BE RESTRAINED.
- SEE PIPE RESTRAINT TABLE (DETAIL W-18) FOR SPECIFICATIONS.
- NO TEES, SERVICE CONNECTIONS, VALVES, OR FIRE HYDRANT CONNECTIONS ARE ALLOWED IN LOWERING.
- PIPE MATERIAL IN LOWERED SECTION SHALL MATCH THE MAIN LINE.



Sheet Revisions			Town of Castle Rock 100 N. Wilson St. Castle Rock, CO 80104 Phone: (720) 733-2200 Fax: (720) 733-2217 Development Services	WATER LOWERING	Issued By: Town of Castle Rock, Development Services March 2, 2020	DETAIL PLAN NO.	
Date	Comments					W-17	
3/19	REVISED PER STAFF COMMENTS					Sheet 1 of 1	
3/20	REVISED PER STAFF COMMENTS						

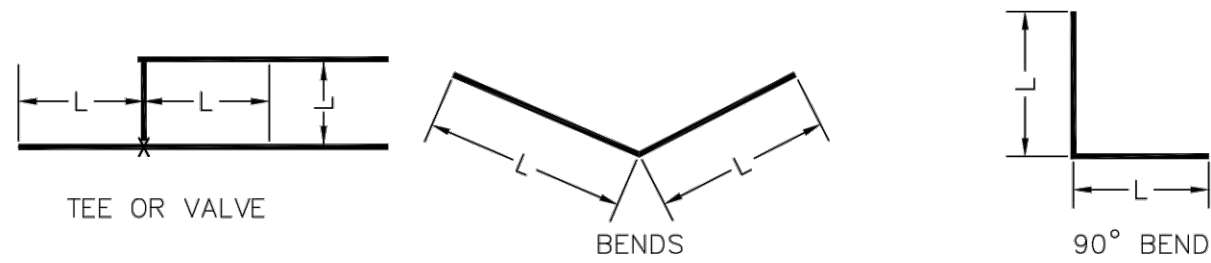
LENGTH OF RESTRAINED PIPE

PIPE SIZE	4"	6"	8"	12"	16"	20"	24"
FITTING	L	L	L	L	L	L	L
90° BEND, TEE, PLUG OR VALVE	30'	45'	60'	86'	108'	132'	155'
45° BEND	M1	13'	18'	25'	32'	39'	45'
22 1/2" BEND	M1	M1	M1	M1	M1	M1	M1
11 1/4" BEND	--	--	M1	M1	M1	M1	M1

LEGEND

L = LENGTH

M1 = MINIMUM OF 1 FULL LENGTH OF PIPE



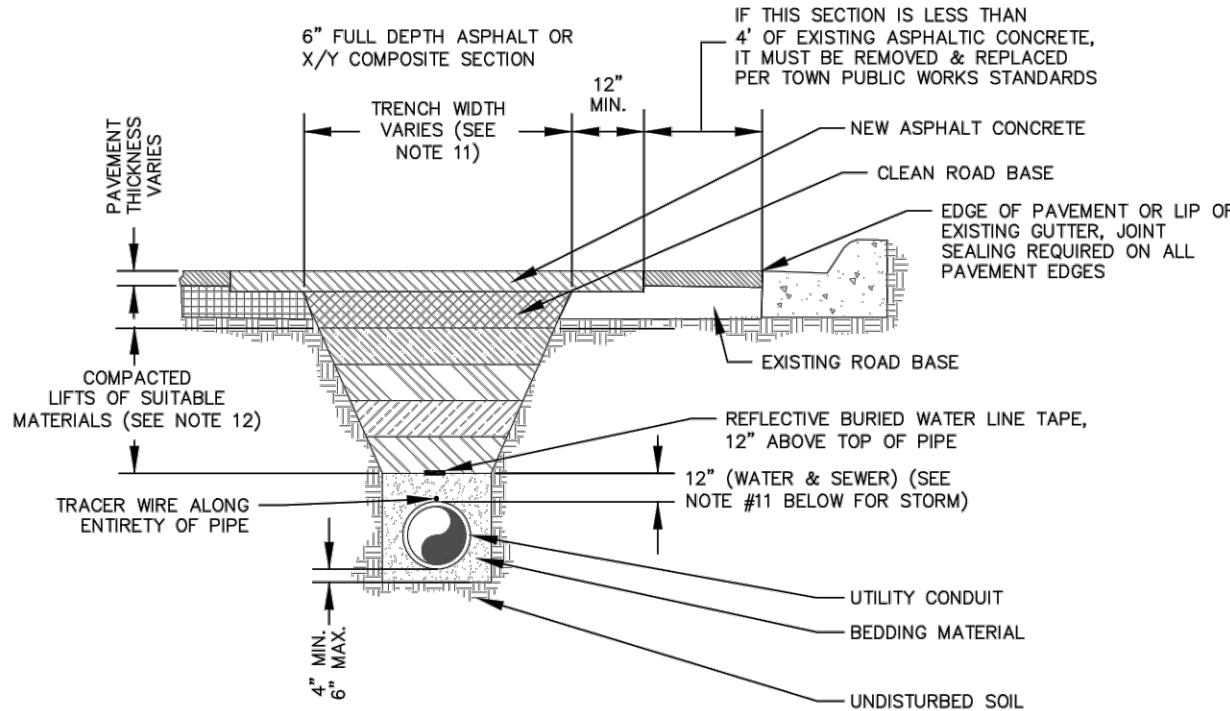
NOTES:

- LENGTH OF RESTRAINED PIPE MEASURED EACH WAY FROM VALVES & BENDS.
- MINIMUM 5' GROUND COVER REQUIRED.
- ALL FITTINGS SHALL BE FITTED WITH MEG-A-LUGS.
- PIPE RESTRAINTS SHALL BE AS FOLLOWS:
 - D.I.P. - RESTRAINTS FOR STD. MECHANICAL JOINTS SHALL BE OF HIGH STRENGTH DUCTILE IRON CONFORMING TO ASTM A536, GRADE 65-45-12. MECH. JOINTS SHALL HAVE A WATER WORKING PRESSURE OF 100 P.S.I. MINIMUM AND SHALL BE EBBA IRON INC., MEG-A-LUG SERIES 1100, FORD METER BOX CO., UNI-FLANGE 1400 OR APPROVED EQUAL.
 - PVC - RESTRAINT DEVICES SHALL BE MANUFACTURED OF HIGH STRENGTH DUCTILE IRON, ASTM A536, GRADE 65-45-12 IN 2" - 24" SIZES, ASTM A36 IN SIZES 30" - 36". FULL RATED PRESSURE OF THE PVC PIPE AND SHALL BE EBBA IRON INC., MEG-A-LUG SERIES 1100 FORD METER BOX, UNI-FLANGE 1400 OR APPROVED EQUAL.

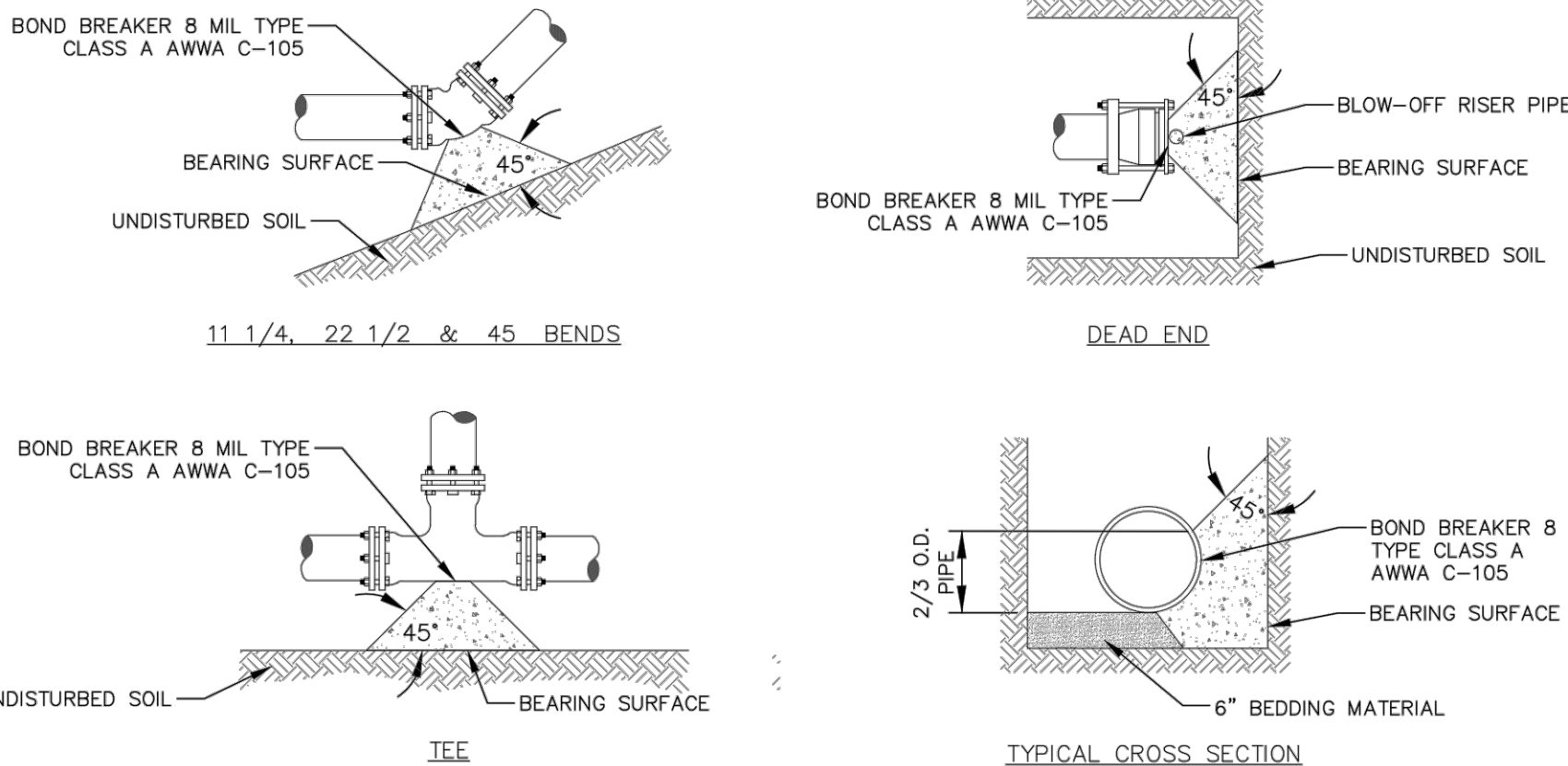
Sheet Revisions			Town of Castle Rock 100 N. Wilson St. Castle Rock, CO 80104 Phone: (720) 733-2200 Fax: (720) 733-2217 Development Services	PIPE RESTRAINT TABLE	Issued By: Town of Castle Rock, Development Services March 2, 2020	DETAIL PLAN NO.	
Date	Comments					W-18	
3/19	REVISED PER STAFF COMMENTS					Sheet 1 of 1	
3/20	REVISED PER STAFF COMMENTS						

NOTES:

- ALL TRENCHES SHALL BE BACKFILLED IN ACCORDANCE WITH THIS DETAIL UNLESS OTHERWISE SPECIFIED BY PUBLIC WORKS.
- PRIOR TO PLACEMENT OF CONCRETE, ALL EDGES SHALL BE SAW CUT TO A CLEAN, STRAIGHT, AND VERTICAL EDGE.
- PRIOR TO PLACEMENT OF ASPHALT, 18 INCHES OF ADJACENT ASPHALT SHALL BE MILLED TO 2 INCH DEPTH ON ALL SIDES TO MATCH EXISTING PAVEMENT. INNER SURFACE TO BE TACKED WITH HSS-1.
- WHEN SUBSTITUTING FOR BACKFILL MATERIAL, FLOWABLE FILL SHALL CONFORM TO MPOEC CLSM STANDARDS.
- TRENCH WIDTH SHALL NOT BE MORE THAN 16" NOR LESS THAN 12" WIDER THAN THE DIAMETER OF THE PIPE.
- 95% OF ASTM D698 STANDARD COMPACTION EFFORT IS REQUIRED ON ALL TRENCHING ZONES, IN BOTH IMPROVED & UNIMPROVED AREAS.
- IN UNIMPROVED AREAS, ALL DISTURBED AREAS SHALL BE REGRADDED, SEEDING & MULCHED.
- IN CONCRETE ROADWAYS, A MINIMUM OF 1/2 PANEL WIDTH OR 10' x 5' SECTION WILL BE ALLOWED TO REMAIN, OTHERWISE THE ENTIRE CONCRETE PANEL MUST BE REPLACED.
- USE #4 REBAR AT 2' CENTERS ALONG THE PERIMETER OF CONCRETE REPLACEMENT SECTIONS.
- 6" MAXIMUM COMPACTED LIFT THICKNESS IF FLOWABLE FILL NOT REQUIRED.
- BEDDING MATERIAL DEPTH WHEN INSTALLING STORM SEWER SHALL BE UP TO SPRING LINE. EXCEPT IN AREAS OF UNSUITABLE BACKFILL, THEN BEDDING MATERIAL SHALL BE 12" ABOVE PIPE.
- TRENCH WIDTHS LESS THAN 4' OR TRENCHING THAT EXPERIENCES CAVE-INS OR SLOUGHING SHALL REQUIRE FLOWABLE FILL IN ORDER TO ACHIEVE COMPACTION.



Sheet Revisions			Town of Castle Rock 100 N. Wilson St. Castle Rock, CO 80104 Phone: (720) 733-2200 Fax: (720) 733-2217 Development Services	WATER TRENCH DETAIL	Issued By: Town of Castle Rock, Development Services March 2, 2020	DETAIL PLAN NO.	
Date	Comments					W-21	
3/19	REVISED PER STAFF COMMENTS					Sheet 1 of 1	
3/20	REVISED PER STAFF COMMENTS						



NOTES:

- BEARING AREAS SHOWN ON THE CHART ARE MINIMUM AREAS & ARE DESIGNED USING THE FOLLOWING CRITERIA:
 - INTERNAL WORKING PRESSURE OF 150 PSI.
 - TRANSIENT (WATER HAMMER) PRESSURE OF 120 PSI FOR 4", 6" & 8" DIAMETER LINES, 110 PSI FOR 12" LINES, & 70 PSI FOR 20" LINES.
 - THRUSTBLOCK CONCRETE SHALL HAVE A MINIMUM STRENGTH OF 3000 PSI.
- ALL SIZES OF BENDS, TEES & DEAD ENDS SHALL HAVE CONCRETE THRUSTBLOCKS.
- THRUSTBLOCKS ARE NOT A SUBSTITUTE FOR JOINT RESTRAINT.

MINIMUM BEARING SURFACE AREA
(IN SQUARE FEET)

SIZE OF PIPE	11 1/4"	22 1/2"	45"	90"	TEE OR DEAD END
6"	2.00	2.00	2.25	4.25	3.50
8"	2.00	2.00	4.00	8.00	5.25
12"	2.00	4.25	8.25	12.00	11.00
16"	3.50	6.50	12.50	23.00	16.50
20"	5.00	10.00	19.50	35.50	25.00

Sheet Revisions			Town of Castle Rock 100 N. Wilson St. Castle Rock, CO 80104 Phone: (720) 733-2200 Fax: (720) 733-2217 Development Services	HORIZONTAL BEND THRUSTBLOCKS	Issued By: Town of Castle Rock, Development Services March 2, 2020	DETAIL PLAN NO.	
Date	Comments					W-22	
3/19	REVISED PER STAFF COMMENTS					Sheet 1 of 1	
3/20	REVISED PER STAFF COMMENTS						

HORIZONTAL CONTROL

BEARINGS ARE BASED ON THE NORTH LINE OF THE NORTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 8, AS MONUMENTED AT THE EAST CORNER BY A #6 REBAR WITH A 3.25" ALUMINUM CAP STAMPED: SURVCON 2006 PLS 30289 AND AT THE CENTER-EAST SIXTEENTH CORNER BY A 2.5" PIPE WITH A 3.5" ALUMINUM CAP STAMPED: 1986 PLS 22100, AS BEARING SOUTH 88°58'05" WEST, PER THE PLAT OF FOUNDERS VILLAGE FILING NO. 24 AMENDMENT NO. 1.

VERTICAL DATUM

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RACHEL C PATTON, P.E. #54450	DATE
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Approved By:	
Development Services	Date



DESIGNED BY: MJS
CHECKED BY: RCP
DRAWN BY: MJS

ISSUE DATE: 08-11-2022	
DATE	REVISION COMMENTS
10-31-2022	PER TOWN OF CASTLE ROCK COMMENTS

HKS HARRIS KOCHER SMITH
1120 Lincoln Street, Suite 1000
Denver, Colorado 80203
P: 303.623.6300 F: 303.623.6311
HarrisKocherSmith.com

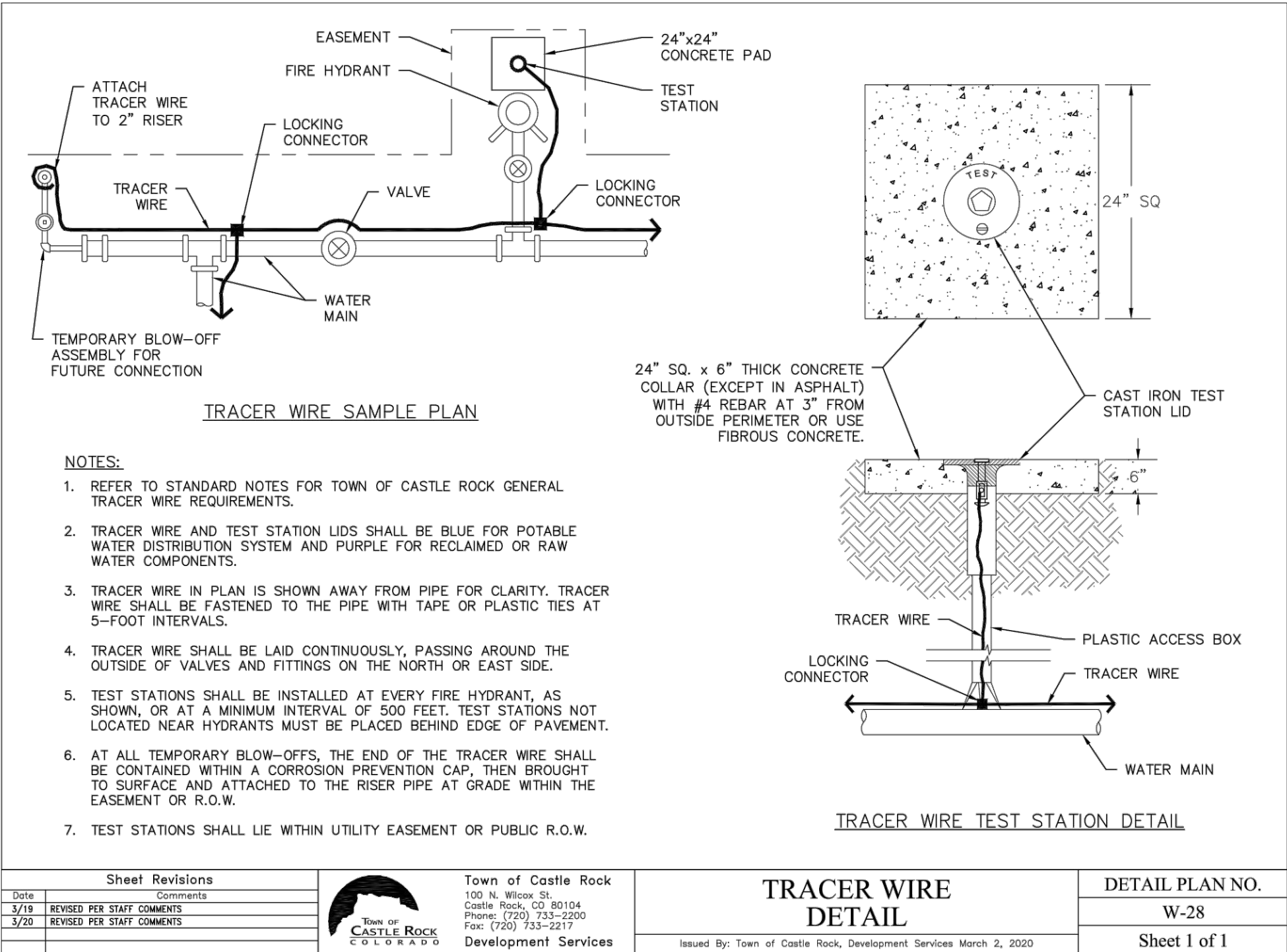
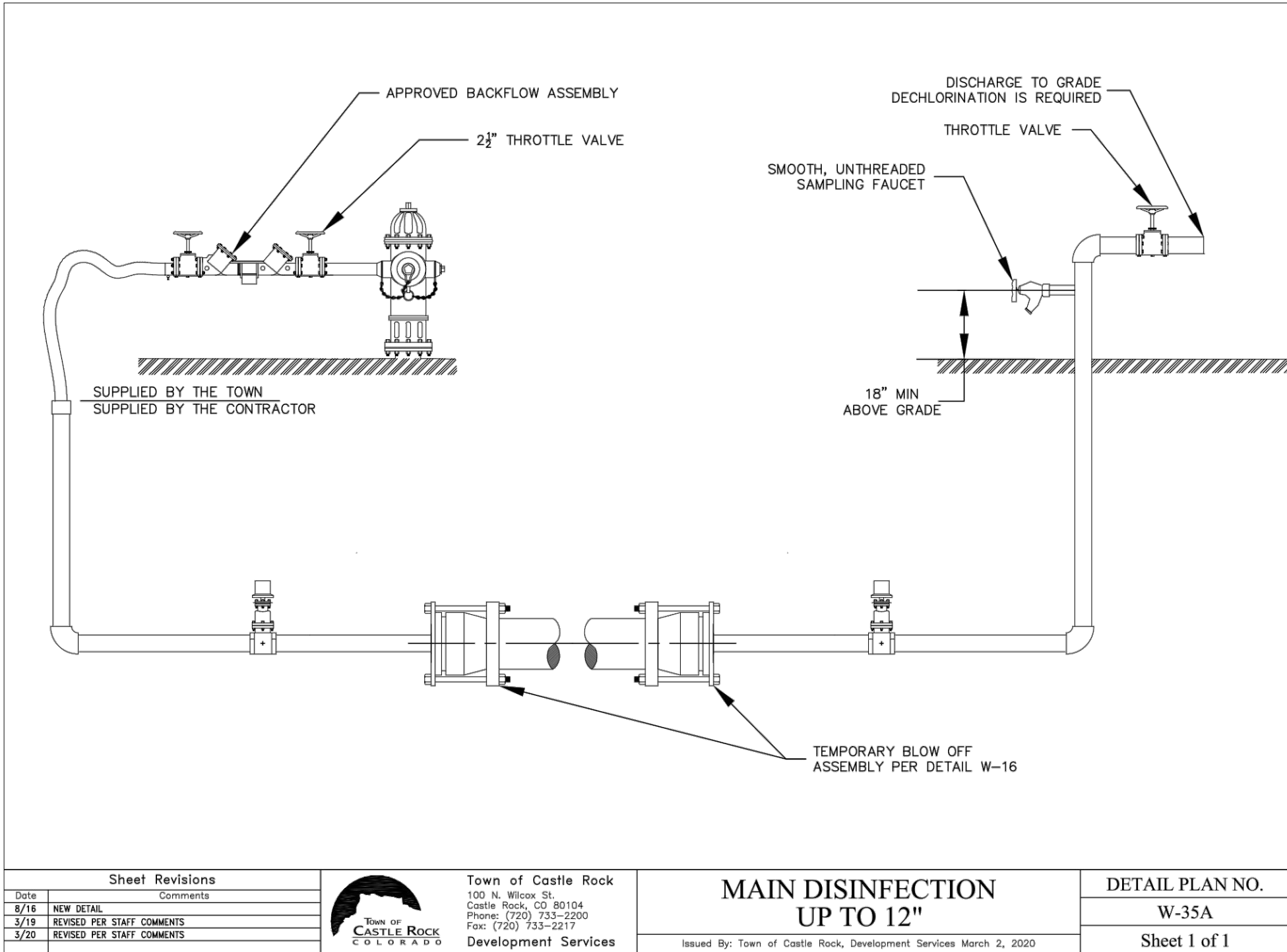
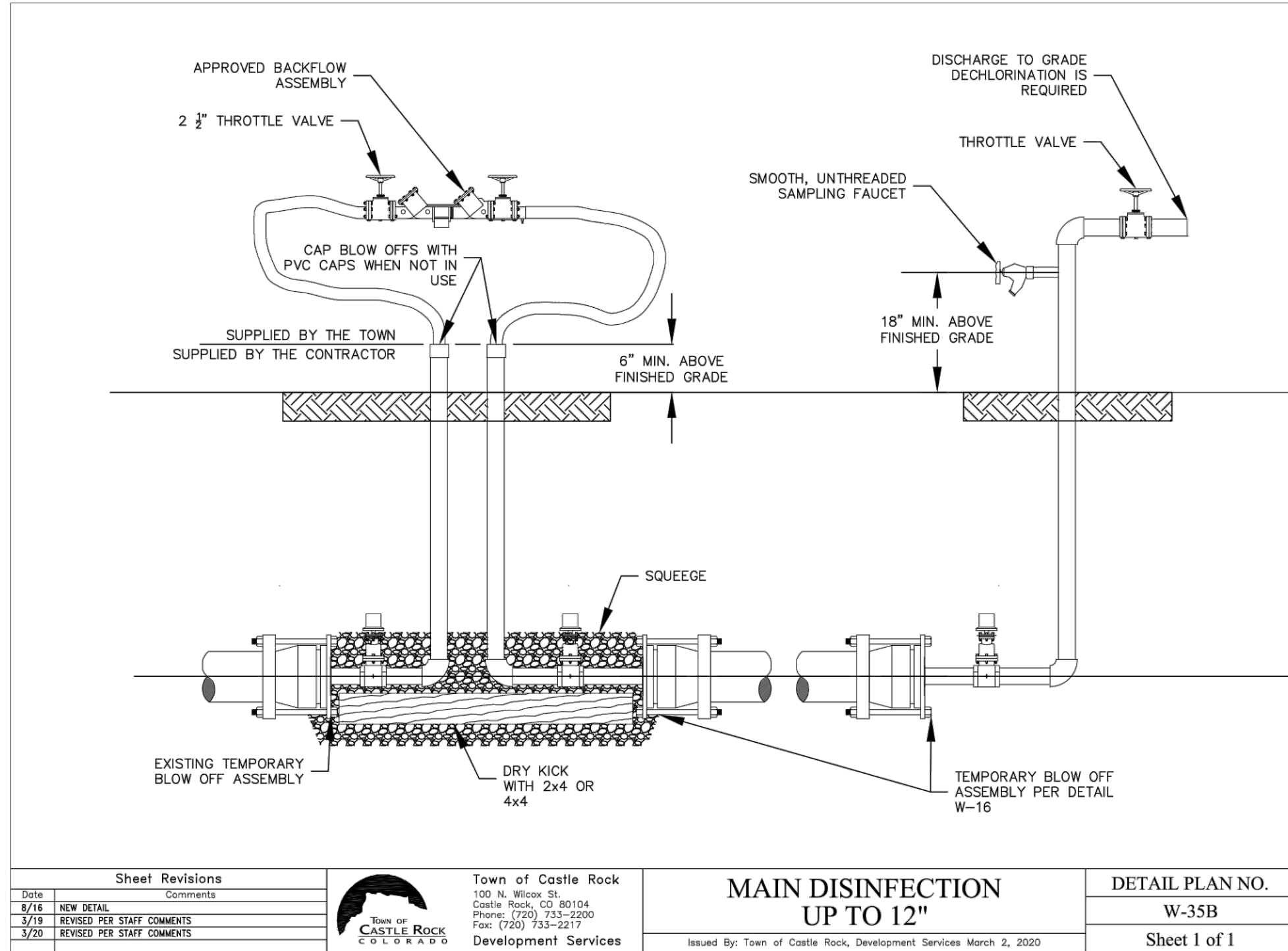
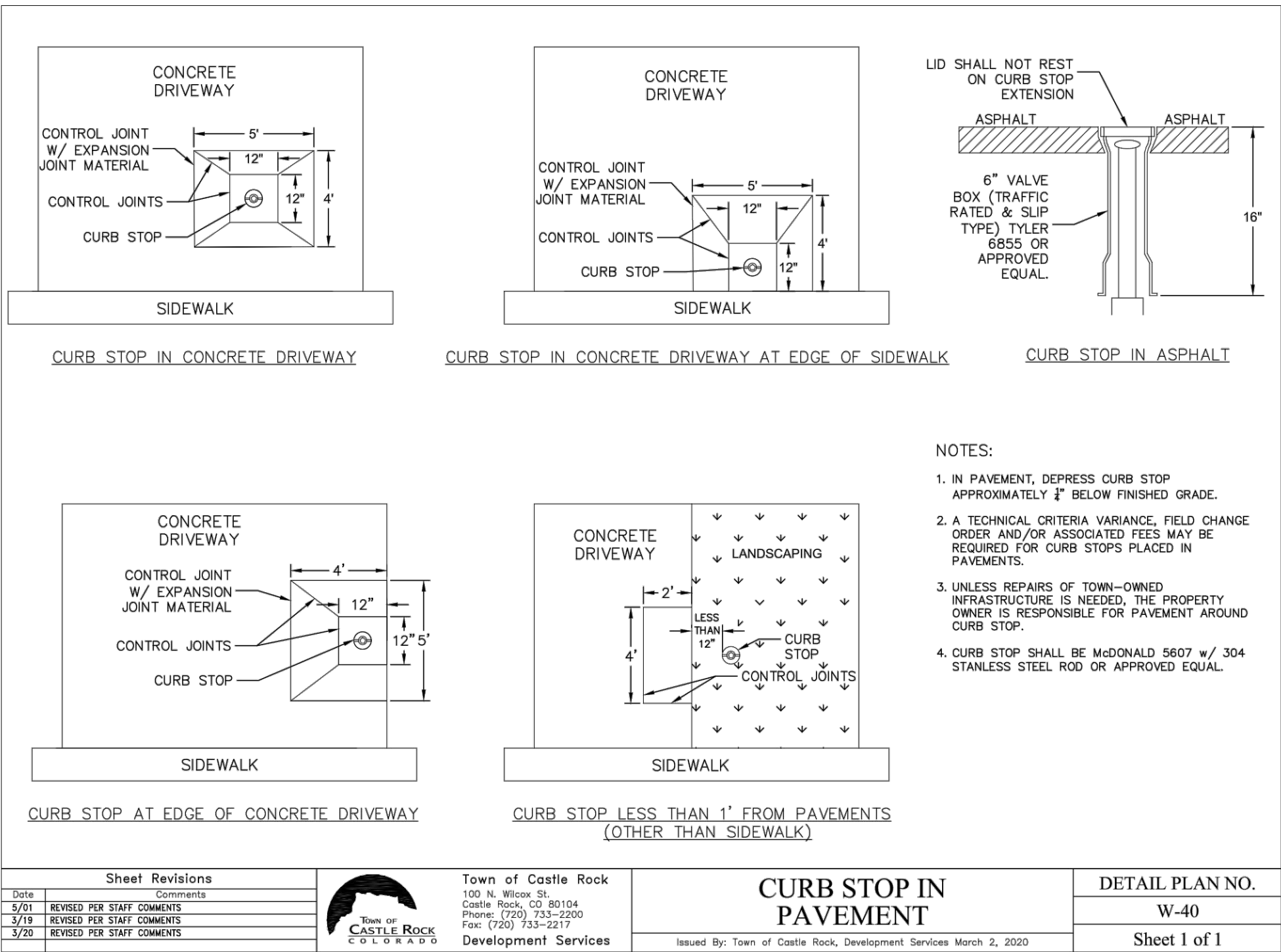


AVILLA FOUNDERS VILLAGE
WATER DETAILS

PROJECT #: 210431
SHEET NUMBER

45

NO CHANGES ARE TO BE MADE TO THIS DRAWING WITHOUT WRITTEN PERMISSION OF HARRIS KOCHER SMITH.



HORIZONTAL CONTROL

BEARINGS ARE BASED ON THE NORTH LINE OF THE NORTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 8, AS MONUMENTED AT THE EAST CORNER BY A #6 REBAR WITH A 3.25" ALUMINUM CAP STAMPED: SURVCON 2006 PLS 30289 AND AT THE CENTER-EAST SIXTEENTH CORNER BY A 2.5" PIPE WITH A 3.5" ALUMINUM CAP STAMPED: 1986 PLS 22100, AS BEARING SOUTH 88°58'05" WEST, PER THE PLAT OF FOUNDERS VILLAGE FILING NO. 24 AMENDMENT NO. 1.

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PRELIMINARY
NOT FOR
CONSTRUCTION

RACHEL C PATTON, P.E. #54450

DATE

TOWN OF CASTLE ROCK APPROVAL

PLANS ARE HEREBY APPROVED FOR ONE YEAR FROM DATE OF DEVELOPMENT SERVICES APPROVAL

Approved By:

Development Services

Date



Know what's below.
Call before you dig.

DESIGNED BY: MJS
CHECKED BY: RCP
DRAWN BY: MJS

ISSUE DATE: 08-11-2022

DATE	REVISION COMMENTS
10-31-2022	PER TOWN OF CASTLE ROCK COMMENTS



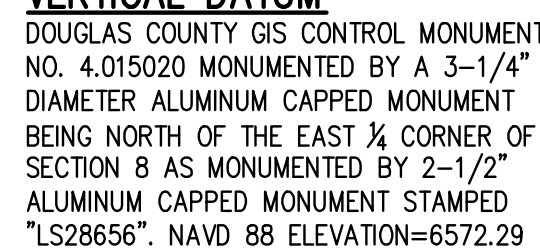
AVILLA FOUNDERS VILLAGE
WATER DETAILS

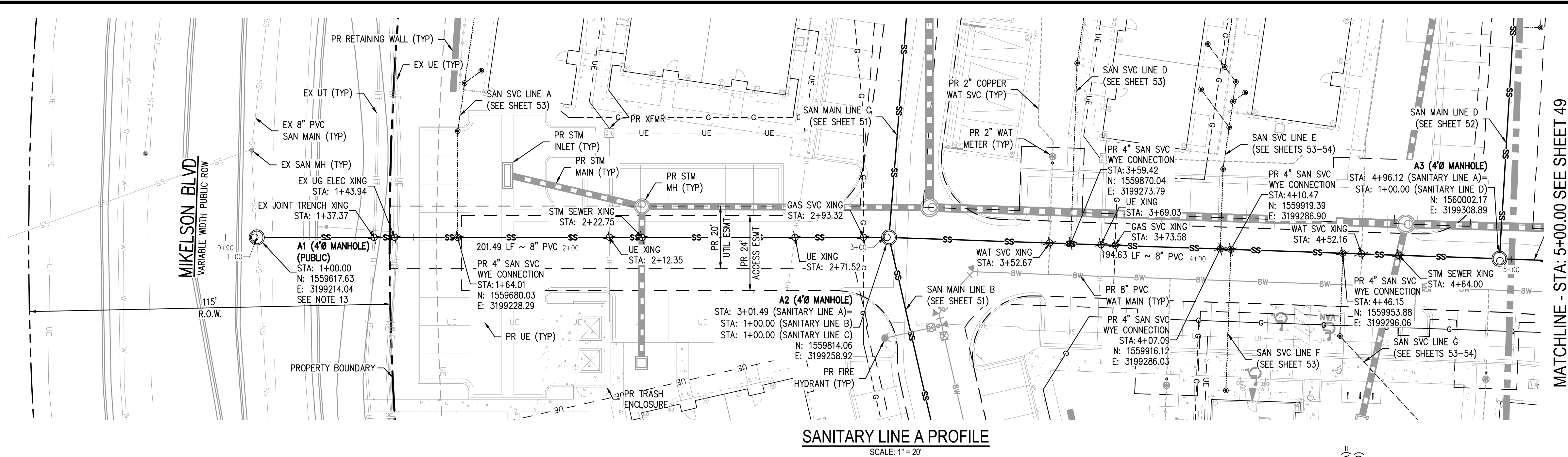
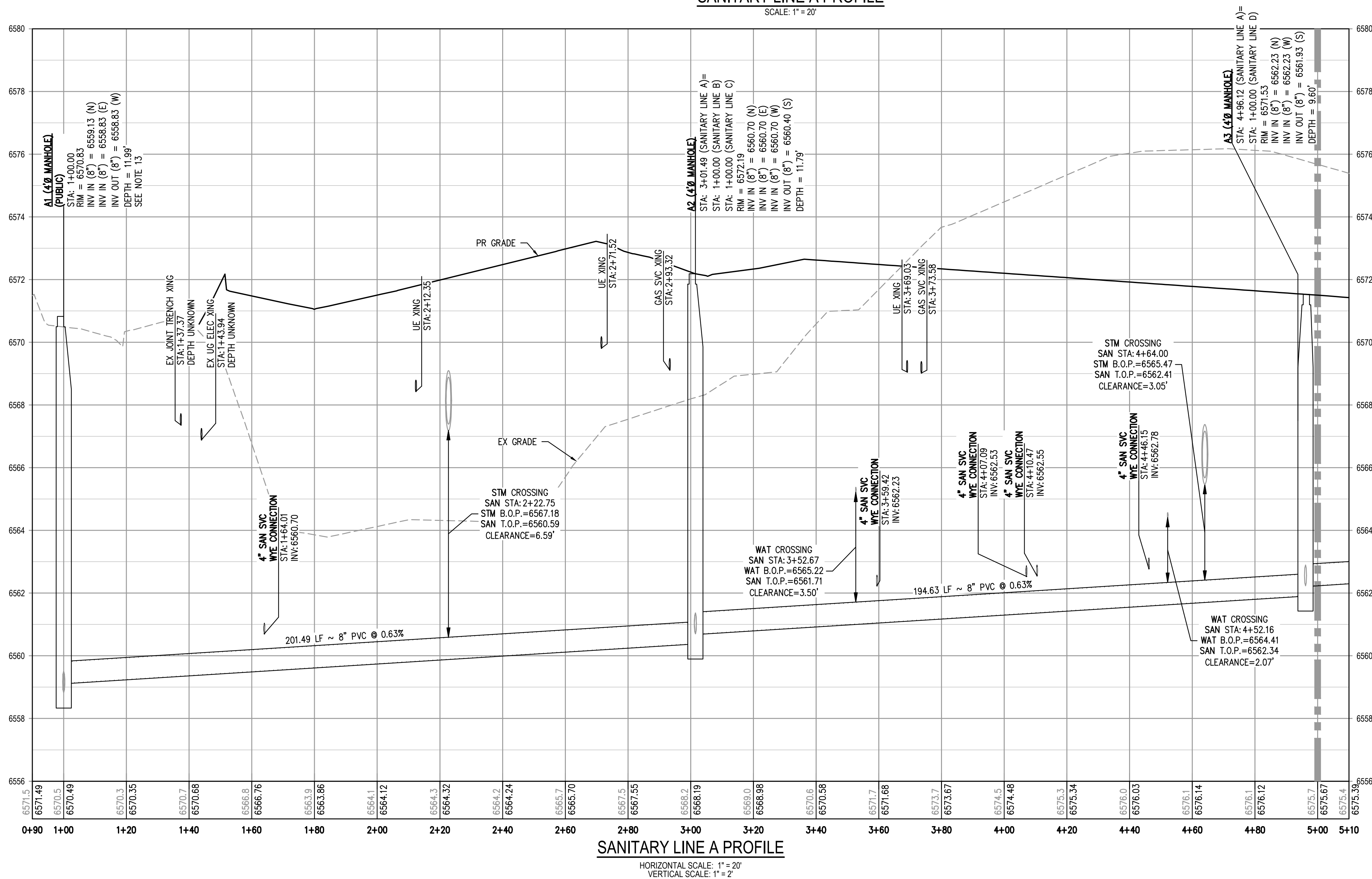
PROJECT #: 210431
SHEET NUMBER

46

46 OF 87

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PLOTTED: MCN 11/21/2022 11:00:40A

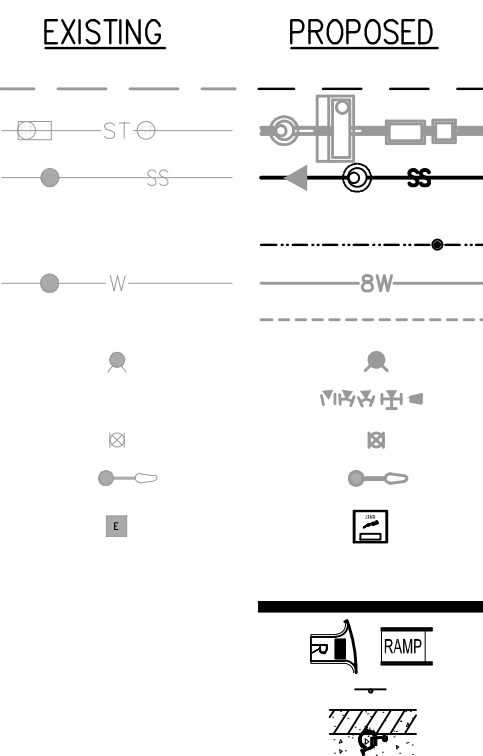




LEGEND

- UTILITY EASEMENT
STORM SEWER W/ MANHOLE AND INLET
SANITARY SEWER W/ MANHOLE
AND FLOW DIRECTION
SANITARY SERVICE W/ CLEANOUT
WATER LINE W/ MANHOLE
WATER SERVICE
FIRE HYDRANT
WATER FITTINGS AND APPURTENANCES
GATE VALVE
STREET LIGHT
ELECTRICAL TRANSFORMER
A/C UNIT
RETAINING WALL
HANDICAP RAMP
SIGN

HANDICAP PARKING



GENERAL SANITARY NOTES:

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NO. 4.015020 MONUMENTED BY A 3-1/4"
DIAMETER ALUMINUM CAPPED MONUMENT
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ALUMINUM CAPPED MONUMENT STAMPED
"LS28656". NAVD 88 ELEVATION=6572.29

PROFESSIONAL ENGINEER CERTIFICATION

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PRELIMINARY
NOT FOR
CONSTRUCTION

RACHEL C PATTON, P.E. #54450

DATE _____

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PLANS ARE HEREBY APPROVED FOR ONE YEAR FROM DATE OF
DEVELOPMENT SERVICES APPROVAL

Approved By

Development Services

PROJECT #: 210431

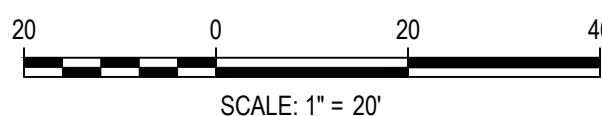
SHEET NUMBER

48

48 OF 87



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DESIGNED BY: MJS
CHECKED BY: RCP
DRAWN BY: MJS

ISSUE DATE: 08-11-2022

DATE	REVISION COMMENTS
10-31-2022	PER TOWN OF CASTLE ROCK COMMENTS

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1120 Lincoln Street, Suite 1000
Denver, Colorado 80203
P: 303.623.6300 F: 303.623.6311
HarrisKocherSmith.com



AVILLA FOUNDERS VILLAGE

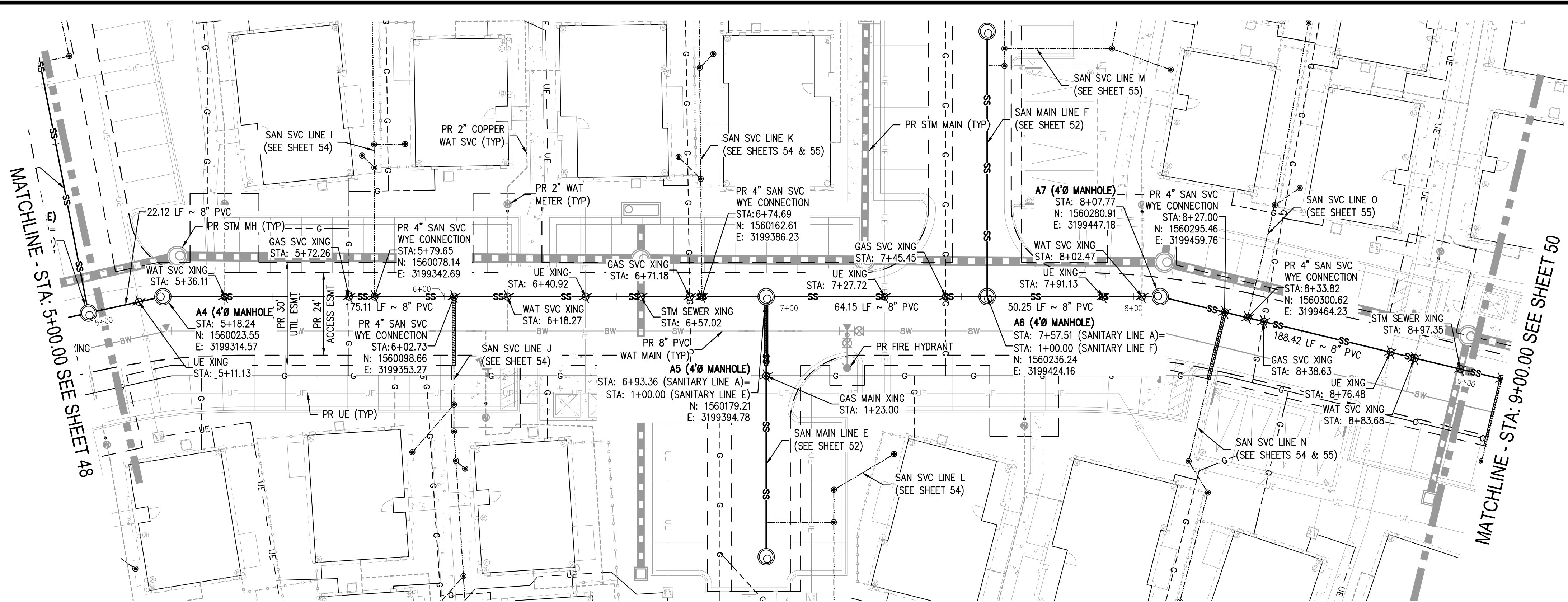
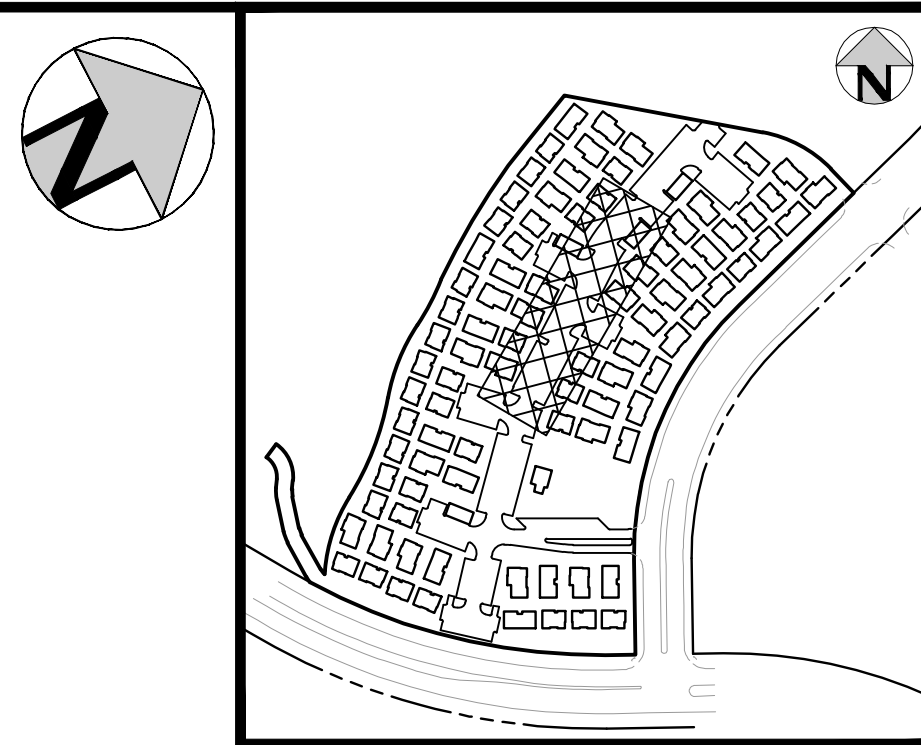
SANITARY LINE A PLAN & PROFILE

PROJECT #: 210431

SHEET NUMBER

48

48 OF 87



LEGEND

- UTILITY EASEMENT
STORM SEWER W/ MANHOLE AND INLET
SANITARY SEWER W/ MANHOLE
AND FLOW DIRECTION
SANITARY SEWER W/ CLEANOUT
WATER LINE W/ MANHOLE
WATER SERVICE
FIRE HYDRANT
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Approved By:

Development Services

DATE _____

PROJECT #: 210431

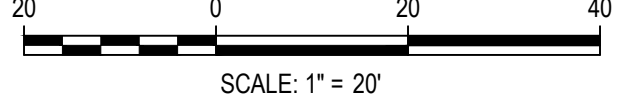
SHEET NUMBER

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49 OF 87



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DESIGNED BY: MJS
CHECKED BY: RCP
DRAWN BY: MJS

ISSUE DATE: 08-11-2022	
DATE	REVISION COMMENTS
10-31-2022	PER TOWN OF CASTLE ROCK COMMENTS



1120 Lincoln Street, Suite 1000
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AVILLA FOUNDERS VILLAGE

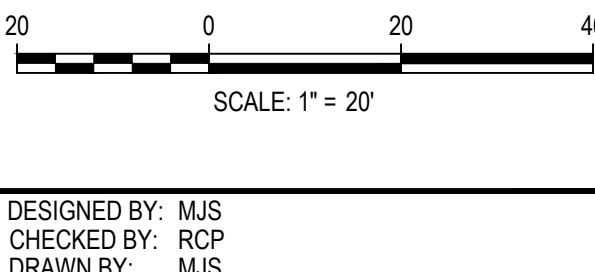
SANITARY LINE A PLAN & PROFILE

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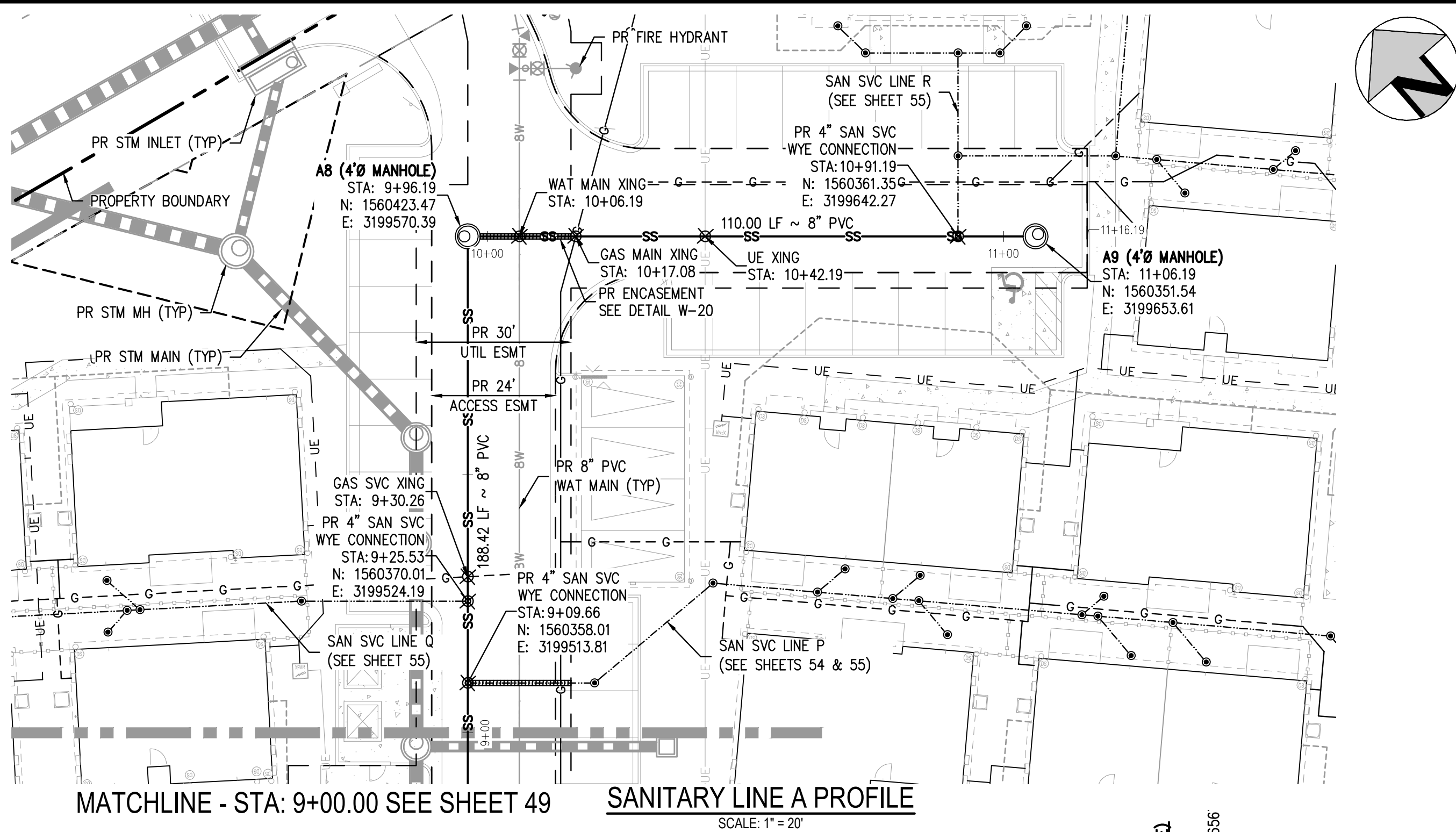
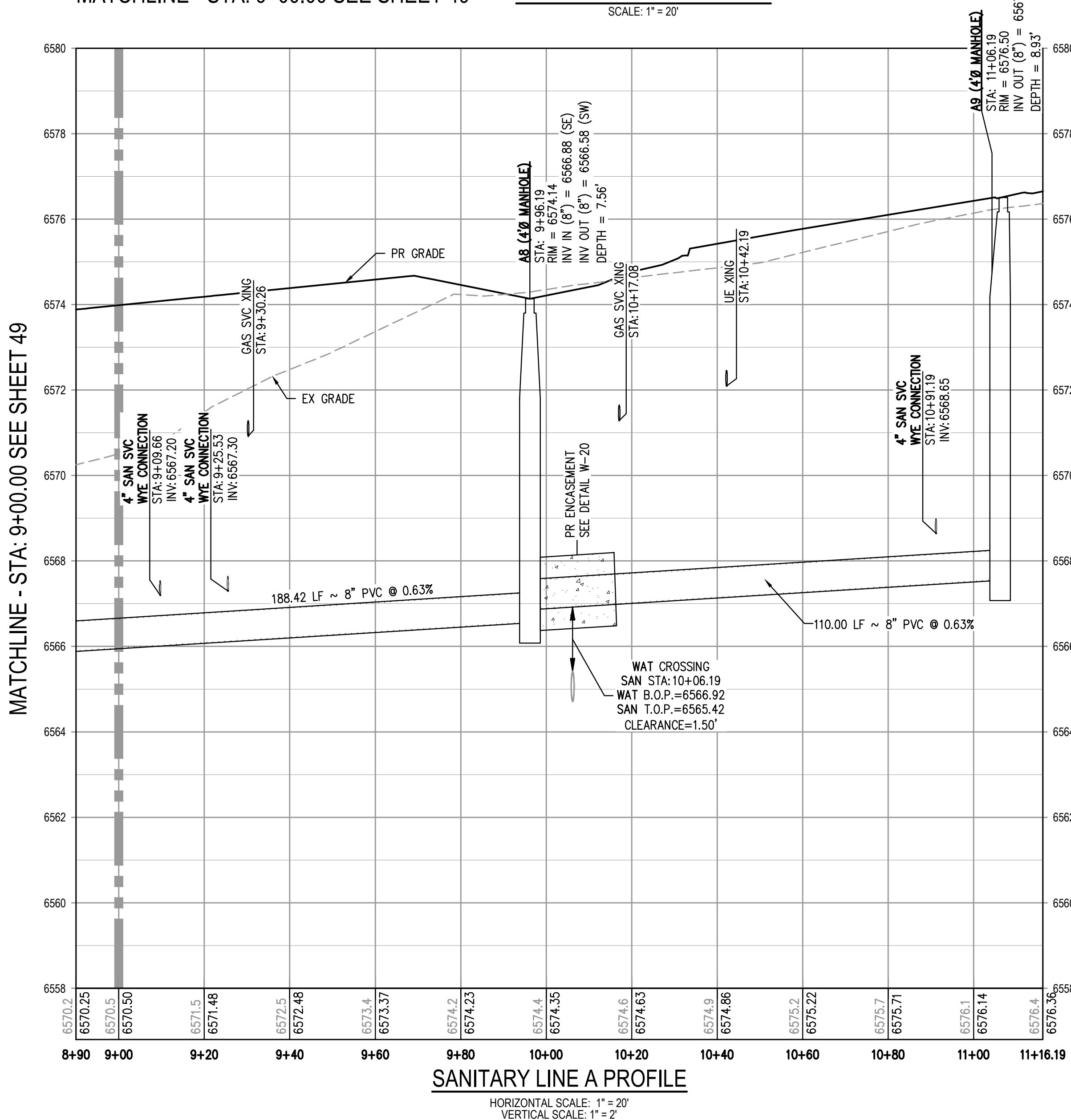


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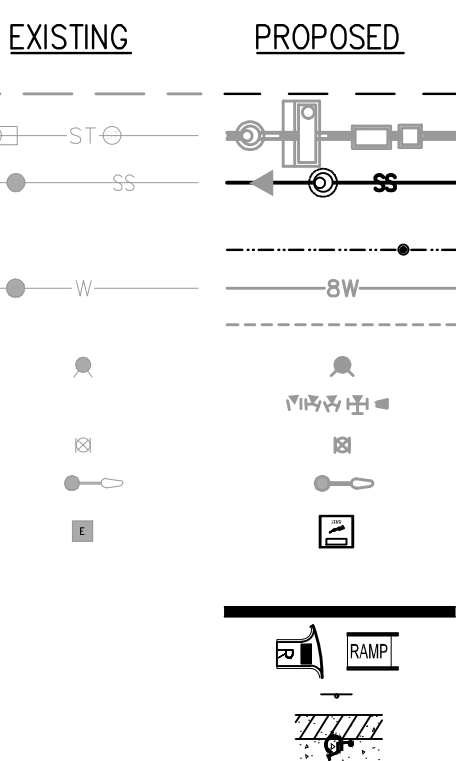
AVILLA FOUNDERS VILLAGE
SANITARY LINE A PLAN & PROFILE

PROJECT #: 210431
SHEET NUMBER
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50 OF 87



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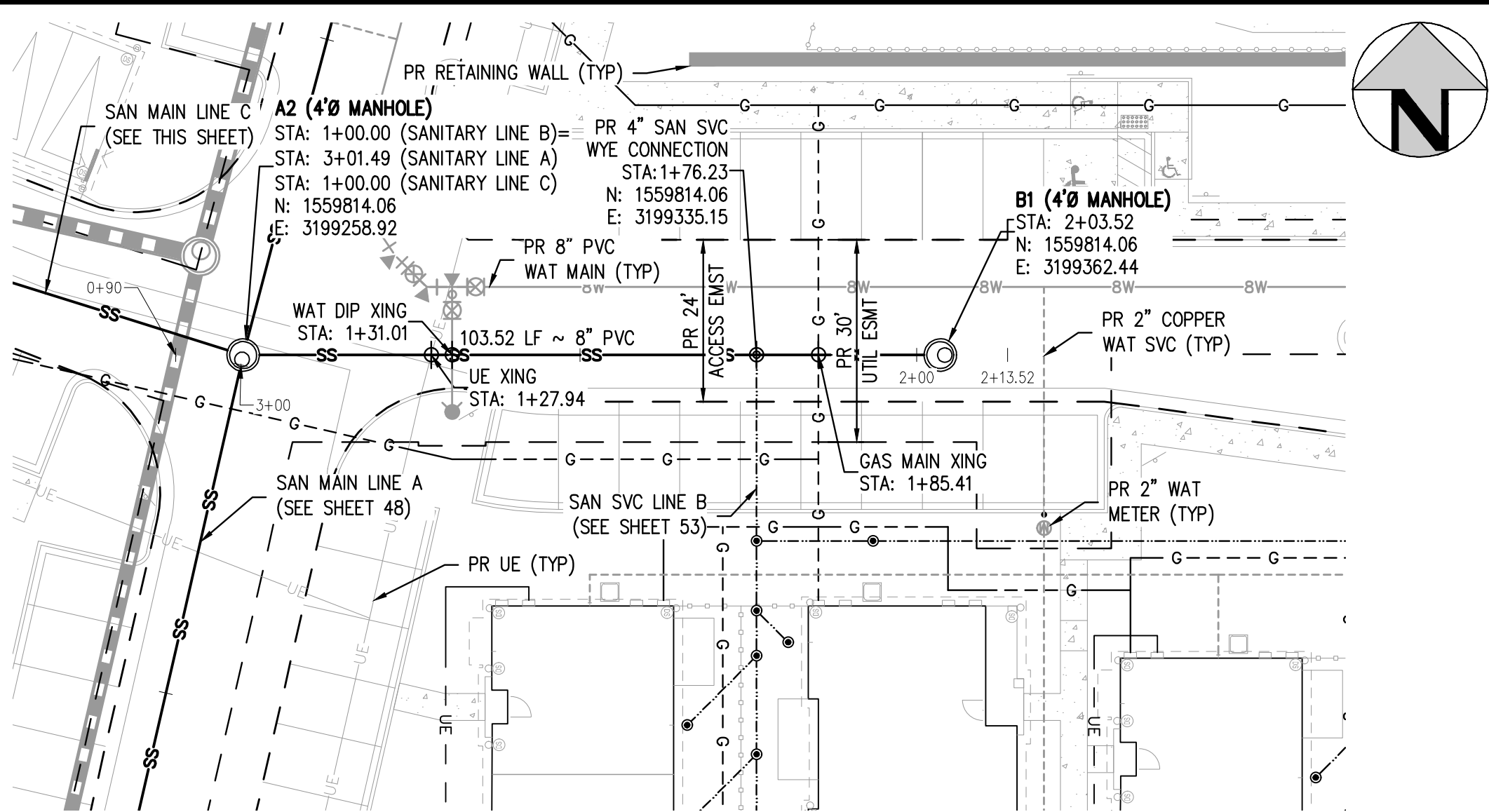
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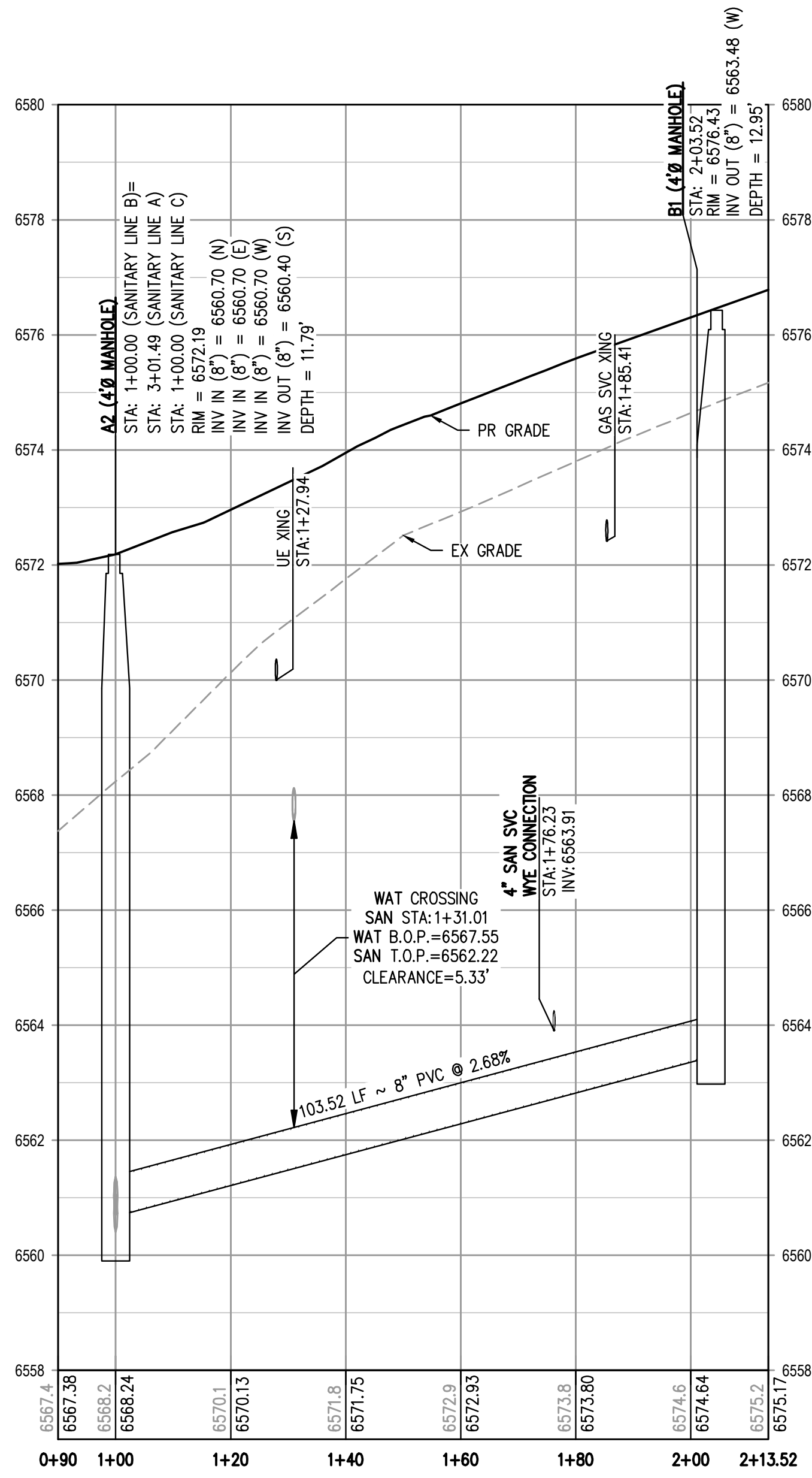
RACHEL C. PATTON, P.E. #64450	DATE
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Development Services	Date

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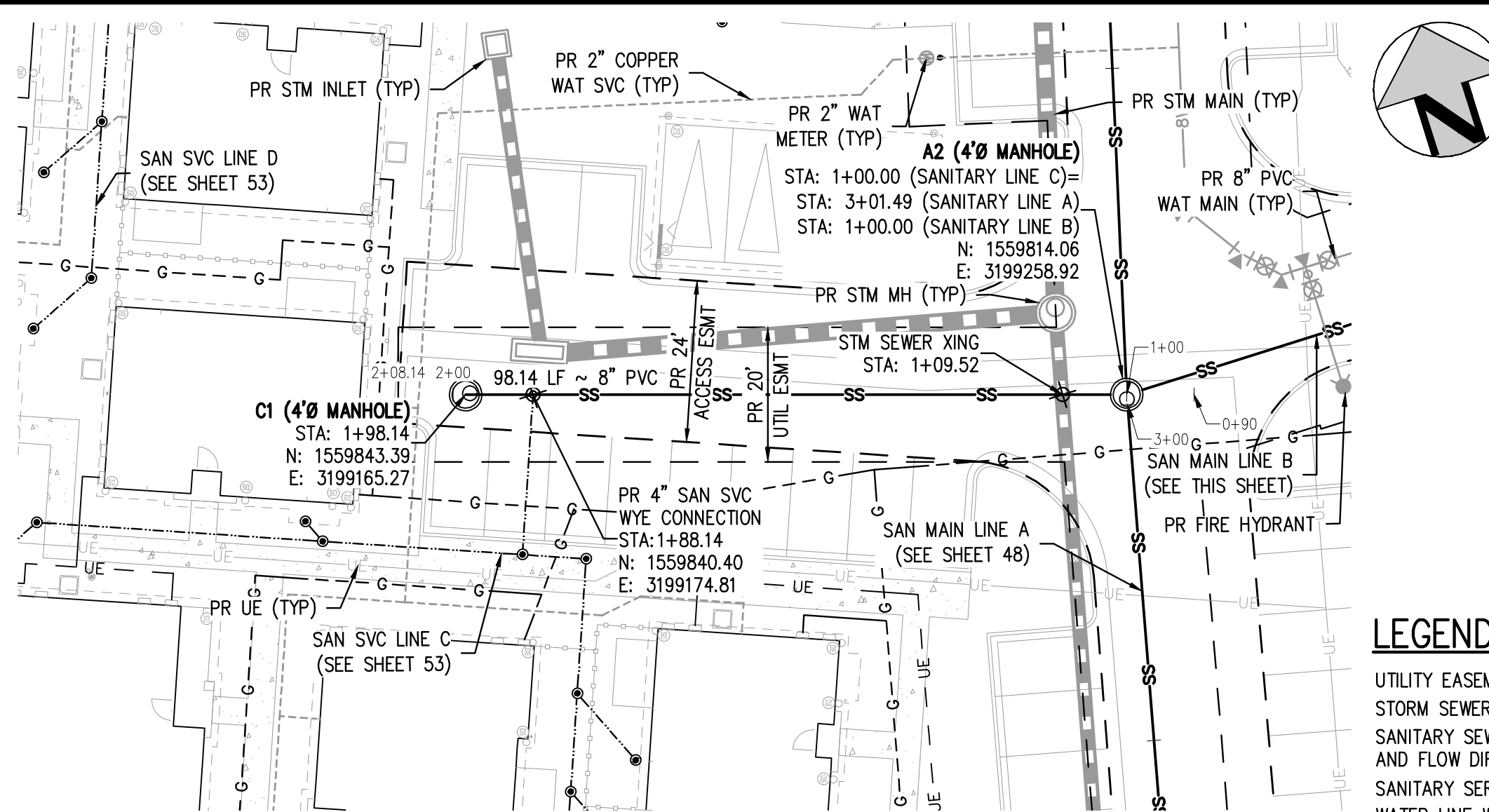
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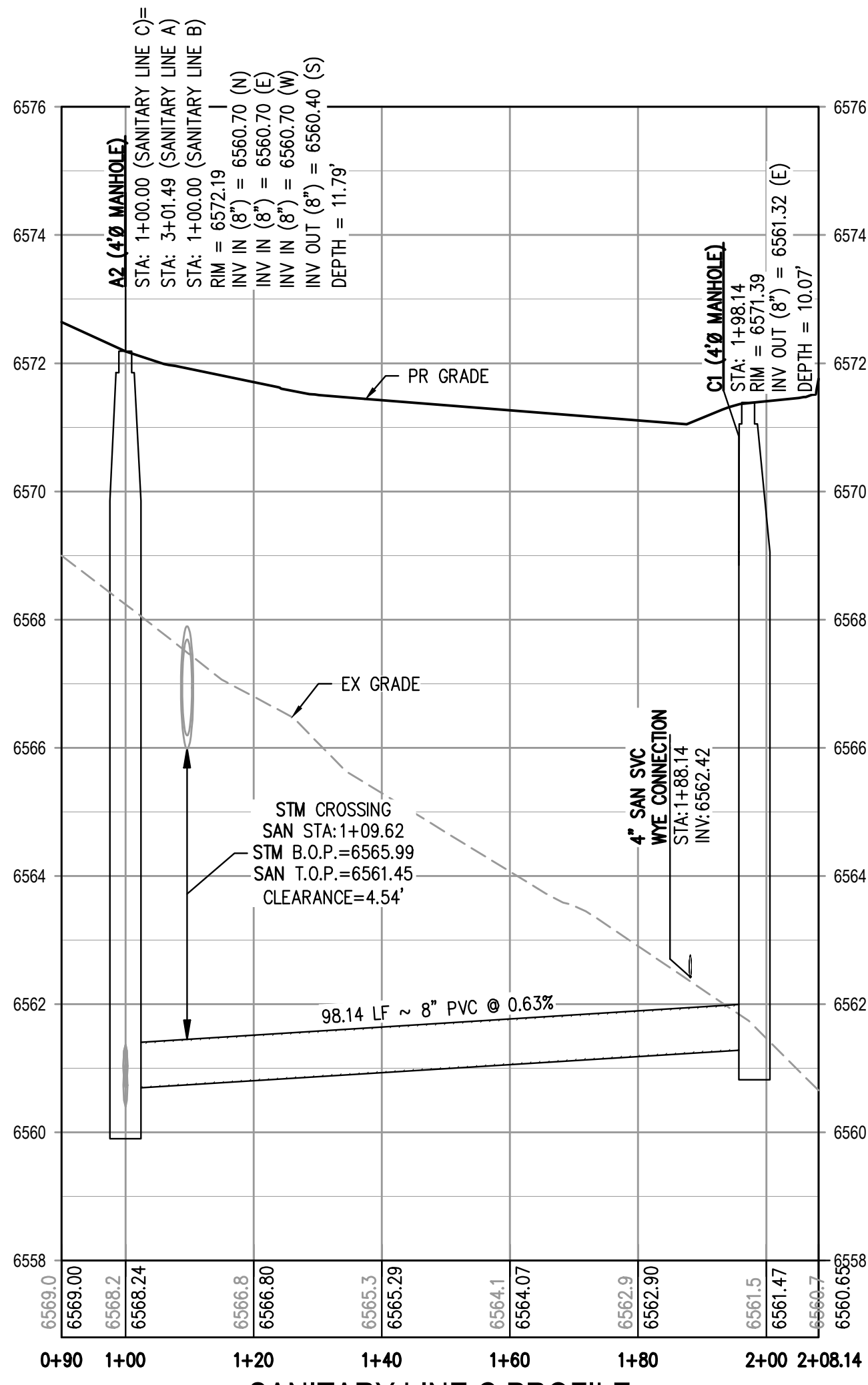
SANITARY LINE B PROFILE
SCALE: 1" = 20'



SANITARY LINE B PROFILE
HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 2'



SANITARY LINE C PROFILE
SCALE: 1" = 20'



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HORIZONTAL SCALE: 1" = 20'
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LEGEND

EXISTING	PROPOSED
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SANITARY SEWER W/ MANHOLE AND FLOW DIRECTION	SANITARY SEWER W/ MANHOLE AND FLOW DIRECTION
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VERTICAL DATUM

DOUGLAS COUNTY GIS CONTROL MONUMENT NO. 4.015020 MONUMENTED BY A 3-1/4" DIAMETER ALUMINUM CAPPED MONUMENT BEING NORTH OF THE EAST 1/4 CORNER OF SECTION 8 AS MONUMENTED BY 2-1/2" ALUMINUM CAPPED MONUMENT STAMPED "LS28656". NAVD 88 ELEVATION=6572.29

PROFESSIONAL ENGINEER CERTIFICATION

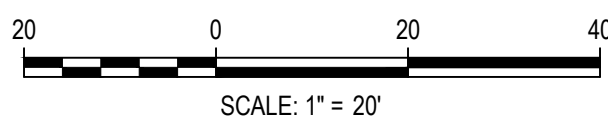
I HEREBY AFFIRM THAT THESE FINAL CONSTRUCTION PLANS WERE PREPARED UNDER MY DIRECT SUPERVISION, IN ACCORDANCE WITH ALL APPLICABLE TOWN OF CASTLE ROCK AND STATE OF COLORADO STANDARDS AND STATUTES, RESPECTIVELY; AND THAT I AM FULLY RESPONSIBLE FOR ALL DESIGN AND REVISIONS RELATIVE TO SAID PLANS.

PRELIMINARY
NOT FOR
CONSTRUCTION

RACHEL C. PATTON, P.E. #64450	DATE
TOWN OF CASTLE ROCK APPROVAL	
PLANS ARE HEREBY APPROVED FOR ONE YEAR FROM DATE OF DEVELOPMENT SERVICES APPROVAL	
Approved By:	Date
Development Services	Date



Know what's below.
Call before you dig.



DESIGNED BY: MJS
CHECKED BY: RCP
DRAWN BY: MJS

ISSUE DATE: 08-11-2022	REVISION COMMENTS
DATE	PER TOWN OF CASTLE ROCK COMMENTS
10-31-2022	

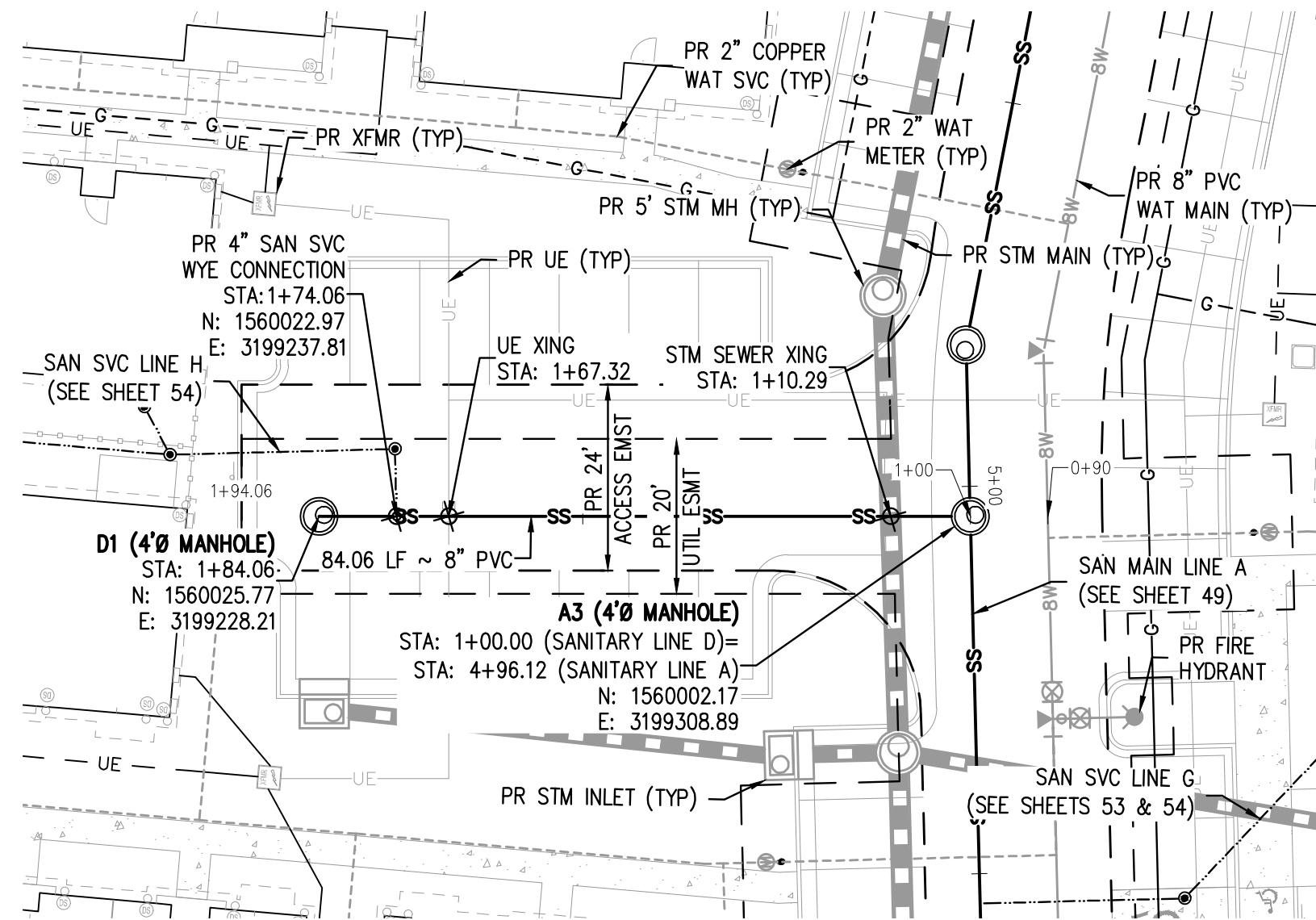


AVILLA FOUNDERS VILLAGE
SANITARY LINES B & C PLAN & PROFILE

PROJECT #: 210431
SHEET NUMBER

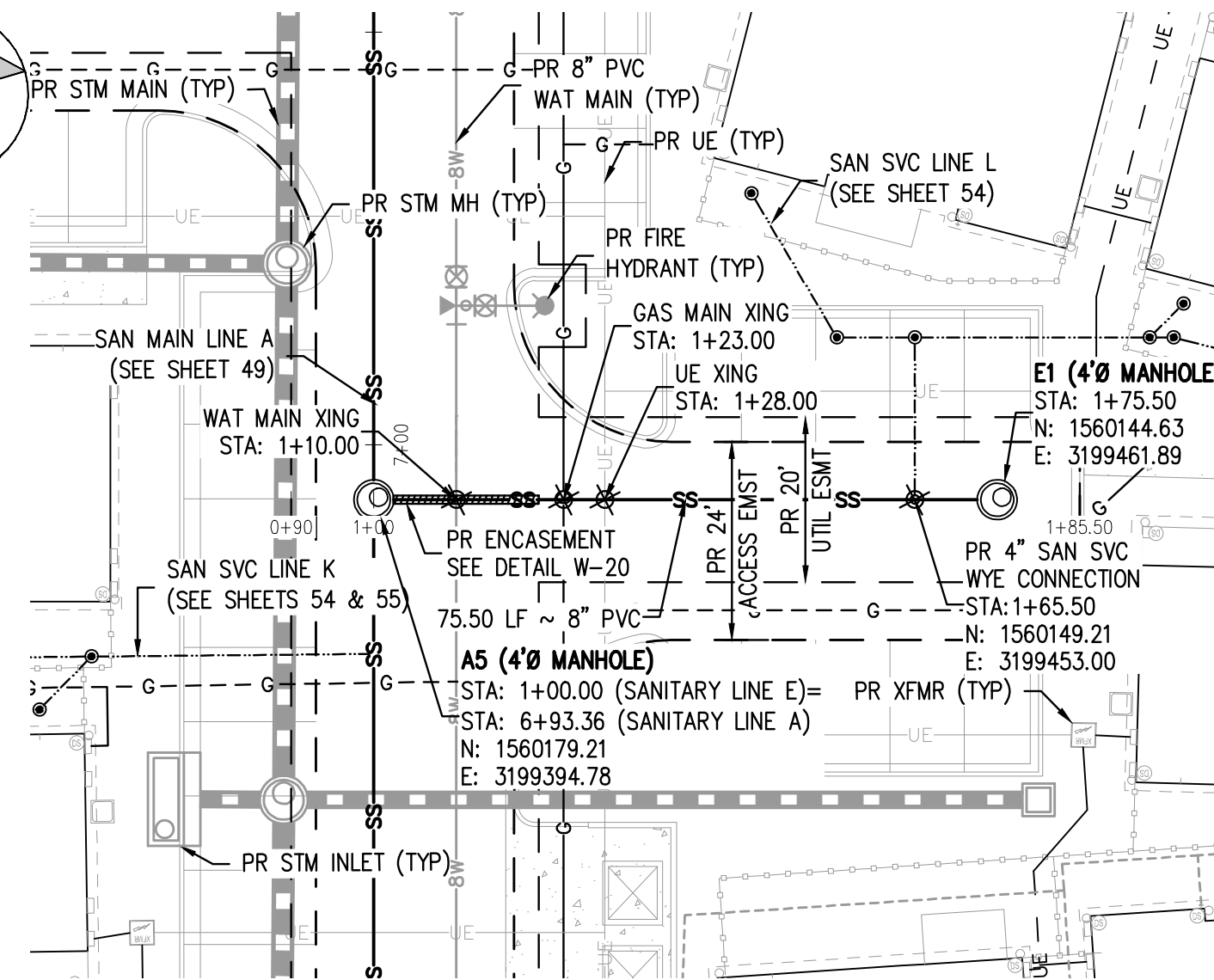
51

51 OF 87



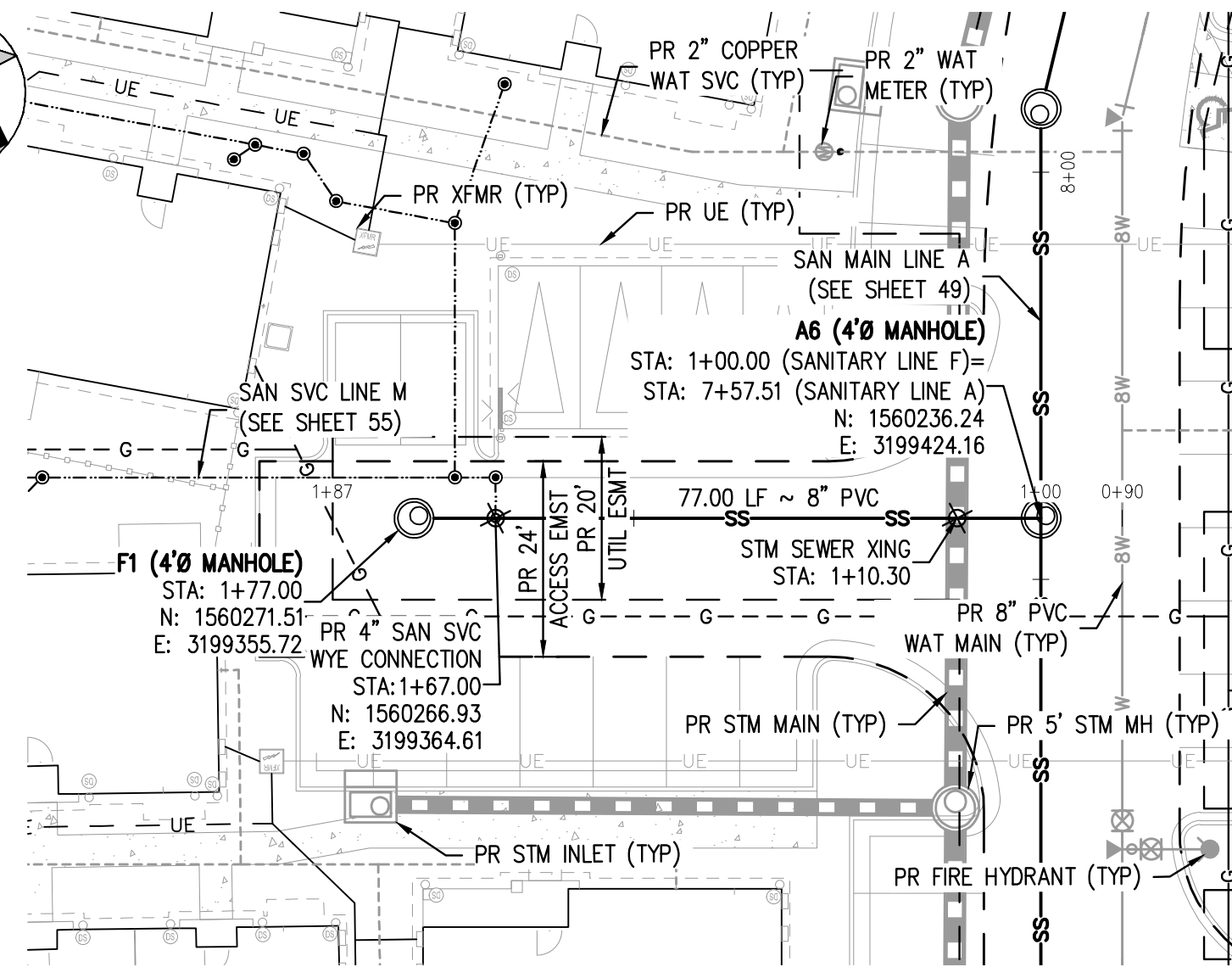
SANITARY LINE D PROFILE

SCALE: 1" = 20'

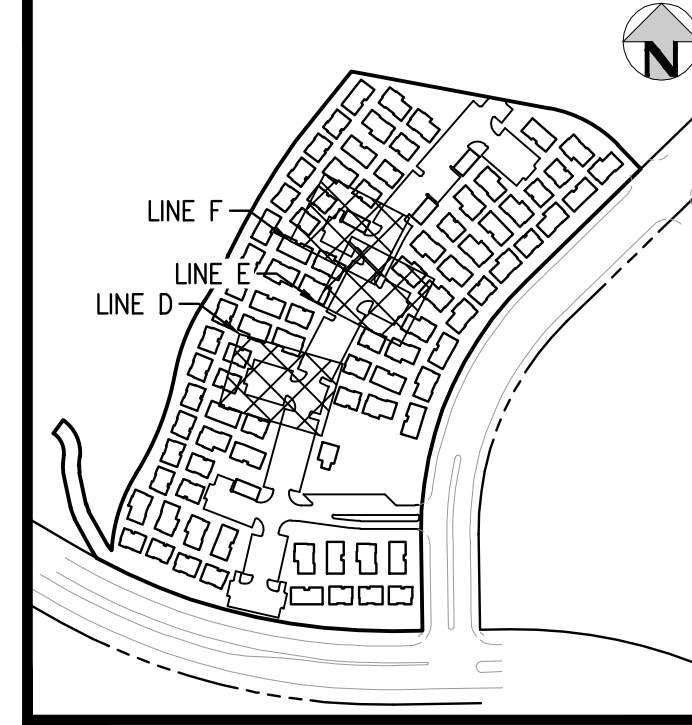


SANITARY LINE E PROFILE

SCALE: 1" = 20'



SANITARY LINE F PROFILE



LEGEND

- UTILITY EASEMENT
STORM SEWER W/ MANHOLE AND INLET
SANITARY SEWER W/ MANHOLE
AND FLOW DIRECTION
SANITARY SERVICE W/ CLEANOUT
WATER LINE W/ MANHOLE
WATER SERVICE
FIRE HYDRANT
WATER FITTINGS AND APPURTENANCES
GATE VALVE
STREET LIGHT
ELECTRICAL TRANSFORMER
A/C UNIT
RETAINING WALL
HANDICAP RAMP
SIGN
HANDICAP PARKING

-
- EXISTING**
- ST
- W
- PROPOSED**
- W
- RAMP
- Legend:
- RAMP
 - W

GENERAL SANITARY NOTES:

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NOT FOR
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ALUMINUM CAPPED MONUMENT STAMPED
"LS28656". NAVD 88 ELEVATION=6572.29

RACHEL C PATTON, P.E. #54450

TOWN OF CASTLE ROCK APPROVAL

PLANS ARE HEREBY APPROVED FOR ONE YEAR FROM DATE OF
DEVELOPMENT SERVICES APPROVAL

Approved By:

Development Services

DATE _____

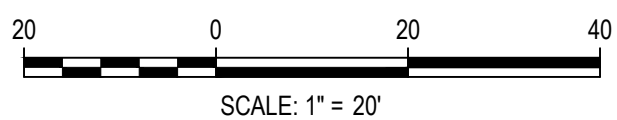
WORK APPROVAL

 ONE YEAR FROM DATE OF
 APPROVAL

Date _____



Know what's below.
Call before you dig



DESIGNED BY: <DESIGNER>
CHECKED BY: <REVIEWER>
DRAWN BY: <DRAWN>

ISSUE DATE: 08-11-2022	
DATE	REVISION COMMENTS
10-31-2022	PER TOWN OF CASTLE ROCK COMMENTS



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Denver, Colorado 80203
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HarrisKocherSmith.com

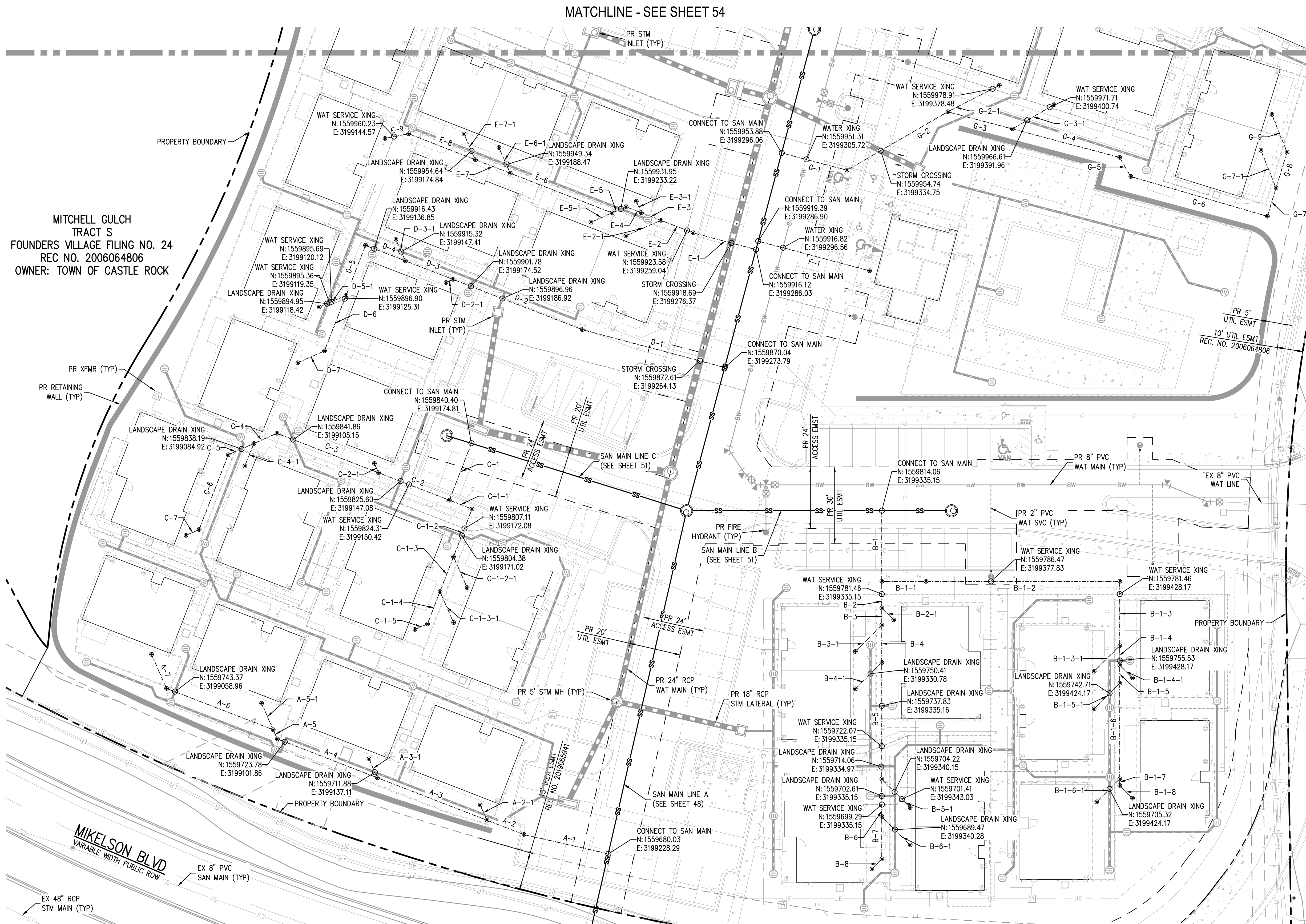
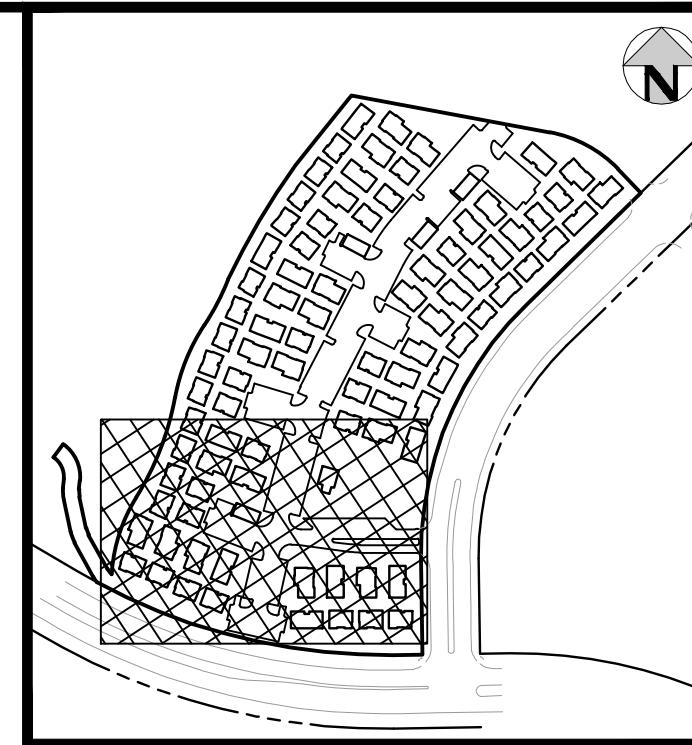


AVILLA FOUNDERS VILLAGE SANITARY LINES D, E, & F PLAN & PROFILE

PROJECT #:	210431
SHEET NUMBER	

52

52 OF 87



LEGEND

- UTILITY EASEMENT
- STORM SEWER W/ MANHOLE AND INLET
- SANITARY SEWER W/ MANHOLE
AND FLOW DIRECTION
- SANITARY SERVICE W/ CLEANOUT
- WATER LINE W/ MANHOLE
WATER SERVICE
- FIRE HYDRANT
- WATER FITTINGS AND APPURTENANCES
- GATE VALVE
- STREET LIGHT
- ELECTRICAL TRANSFORMER
- A/C UNIT
- RETAINING WALL
- HANDICAP RAMP
- SIGN
- HANDICAP PARKING

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RACHEL C PATTON, P.E. #54450

TOWN OF CASTLE ROCK APPROVAL

PLANS ARE HEREBY APPROVED FOR ONE YEAR FROM DATE OF
DEVELOPMENT SERVICES APPROVAL

Approved By:

Development Services

PROJECT #	210431
-----------	--------

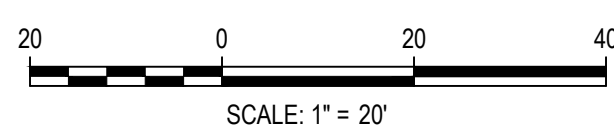
SHEET NUMBER

53

53 OF 87



Know what's below.
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DESIGNED BY: CLH
CHECKED BY: RCP
DRAWN BY: CLH

ISSUE DATE: 08-11-2022

DATE	REVISION COMMENTS
10-31-2022	PER TOWN OF CASTLE ROCK COMMENTS

--	--



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Denver, Colorado 80203
P: 303.623.6300 F: 303.623.6311
HarrisKocherSmith.com

NEXmetro
Communities

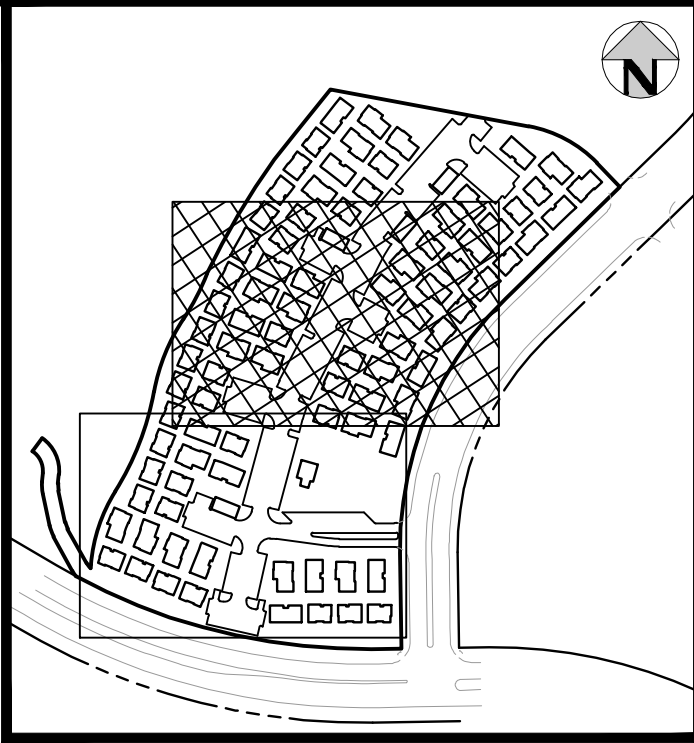
AVILLA FOUNDERS VILLAGE SANITARY SERVICES PLAN

PROJECT #	210431
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SHEET NUMBER

53

53 OF 87

PR RETAINING
WALL (TYP)

UTILITY EASEMENT
STORM SEWER W/ MANHOLE AND INLET
SANITARY SEWER W/ MANHOLE
AND FLOW DIRECTION
SANITARY SERVICE W/ CLEANOUT
WATER LINE W/ MANHOLE
WATER SERVICE
FIRE HYDRANT
WATER FITTINGS AND APPURTENANCES
GATE VALVE
STREET LIGHT
ELECTRICAL TRANSFORMER
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RETAINING WALL
HANDICAP RAMP
SIGN

HANDICAP PARKING

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RACHEL C PATTON, P.E. #54450 DATE _____

TOWN OF CASTLE ROCK APPROVAL

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Approved By: _____

Development Services Date _____

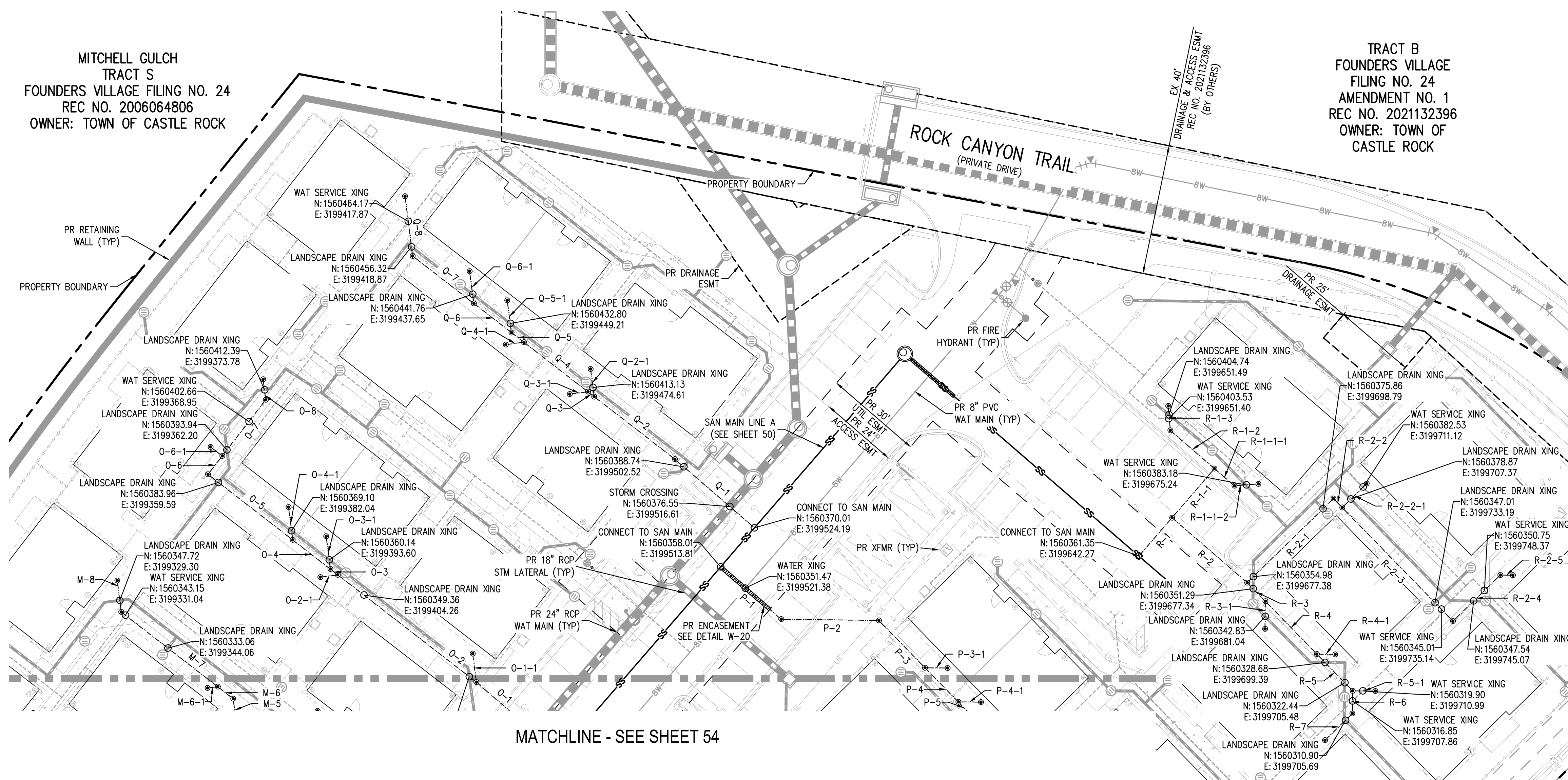
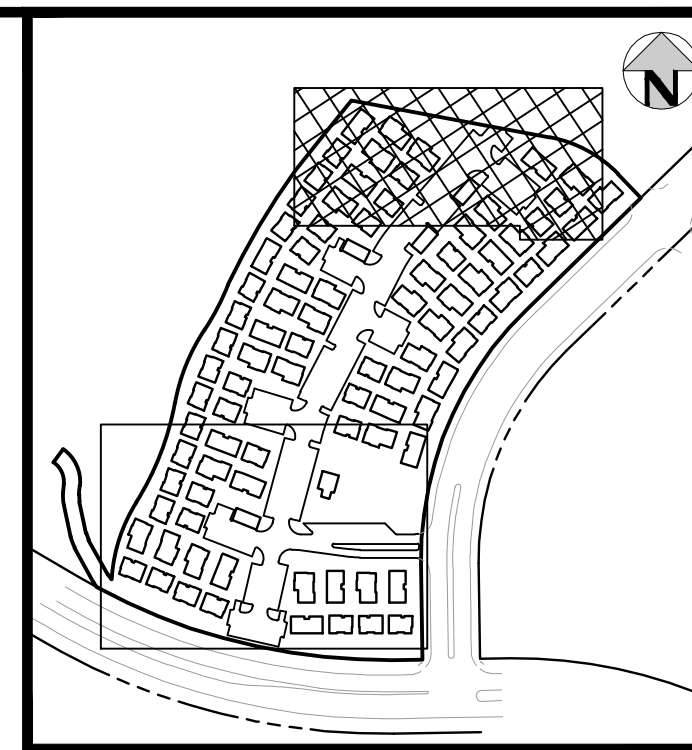
20 0 20 40
SCALE: 1" = 20'

**HKS HARRIS
KOCHER
SMITH**
1120 Lincoln Street, Suite 1000
Denver, Colorado 80203
P: 303.623.6300 F: 303.623.6311
HarrisKocherSmith.com

AVILLA FOUNDERS VILLAGE

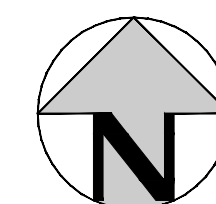
SANITARY SERVICES PLAN

54 OF 87



MITCHELL GULCH
TRACT S
FOUNDERS VILLAGE FILING NO. 24
REC NO. 2006064806
OWNER: TOWN OF CASTLE ROCK

TRACT B
FOUNDERS VILLAGE
FILING NO. 24
AMENDMENT NO. 1
REC NO. 2021132396
OWNER: TOWN OF
CASTLE ROCK



LEGEND

UTILITY EASEMENT

STORM SEWER W/ MANHOLE AND INLET

SANITARY SEWER W/ MANHOLE AND FLOW DIRECTION

SANITARY SERVICE W/ CLEANOUT

WATER LINE W/ MANHOLE

WATER SERVICE

FIRE HYDRANT

WATER FITTINGS AND APPURTENANCES

GATE VALVE

STREET LIGHT

ELECTRICAL TRANSFORMER

A/C UNIT

RETAINING WALL

HANDICAP RAMP

SIGN

HANDICAP PARKING

The legend is organized into two columns. The left column lists various utility features and easements, while the right column displays their corresponding symbols. The symbols include: a storm sewer with manhole and inlet (line with 'ST' and a circle), a sanitary sewer with manhole and flow direction (line with 'SS' and a circle with an arrow), a sanitary service with cleanout (line with a circle and 'W'), a water line with manhole (line with a circle and 'W'), a water service (line with a circle), a fire hydrant (circle with a cross), water fittings and appurtenances (various small symbols like valves and tees), a gate valve (circle with 'G'), a street light (square with a cross), an electrical transformer (square with a cross), an A/C unit (square with a cross), a retaining wall (thick line), a handicap ramp (rectangle with 'RAMP'), a sign (rectangle with 'X'), and handicap parking (rectangle with 'H').

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5. ALL WORK, INCLUDING CORRECTION WORK, SHALL BE INSPECTED BY THE UTILITY PROVIDER'S REPRESENTATIVE WHO SHALL HAVE THE AUTHORITY TO HALT CONSTRUCTION WHEN THERE IS A LACK OF ADHERENCE TO STANDARD CONSTRUCTION PRACTICES.
6. MAINTAIN A MINIMUM OF TEN FEET OF HORIZONTAL SEPARATION BETWEEN ALL SANITARY SEWER AND DOMESTIC WATER MAINS AND SERVICES IN ACCORDANCE WITH STATE OF COLORADO AND JURISDICTIONAL UTILITY PROVIDER SPECIFICATIONS.
7. FOR ALL NON-CONCENTRIC MANHOLES, MANHOLE RINGS/COVERS AND STEPS LIDS SHALL BE ROTATED AS SHOWN IN PLAN VIEW.
8. CONTRACTOR SHALL ADJUST ALL EXISTING RIR ELEVATIONS TO MATCH THE PROPOSED GRADE.
9. ALL SANITARY SERVICE CLEANOUTS LOCATED ADJACENT TO A BUILDING SHALL BE TWO-WAY CLEANOUTS.
10. THE CONTRACTOR IS RESPONSIBLE FOR:
 - a. OBTAINING ALL APPLICABLE LICENSES, BONDS, PERMITS, STANDARDS AND SPECIFICATIONS FOR SEWER MAIN INSTALLATION.
 - b. VERIFYING THE LOCATION AND DEPTH OF EXISTING UTILITIES AND NOTIFYING THE ENGINEER OF ANY DISCREPANCIES.
 - c. RESTORING ALL DISTURBED AREAS TO ORIGINAL CONDITION, OR AS INDICATED ON THE PLANS.
- d.
11. CONTRACTOR SHALL PROVIDE A MINIMUM SEVENTY TWO (72) HOURS' NOTICE TO THE ON-SITE TCR CONSTRUCTION INSPECTOR, (720) 733-2200, PRIOR TO MAKING ANY CONNECTIONS OR TIE-INS TO EXISTING WATER, SANITARY SEWER, OR STORM SEWER SYSTEMS. PROVIDED THAT THE UTILITY TIE-IN DOES NOT DISRUPT SERVICE TO EXISTING OR WATER CUSTOMERS. IF THE TIE-IN WILL DISRUPT UTILITY SERVICE, THEN THE CONTRACTOR SHALL PROVIDE A MINIMUM OF THREE (3) WEEKS' NOTICE TO THE TCR CONSTRUCTION INSPECTOR TO ALLOW TIME FOR CR WATER TO PROVIDE WRITTEN NOTIFICATION TO EXISTING CUSTOMERS' AFFECTED BY THE TIE-IN. ALL TOWN UTILITY TIE-INS MUST BE APPROVED BY CR WATER PRIOR TO COMMENCING WORK.
12. WHERE SANITARY SEWER MAINS ARE CONSTRUCTED IN FILL AREAS, ALL FILL MATERIALS SHALL BE PLACED AND COMPACTED TO FINAL GRADE PRIOR TO THE INSTALLATION OF THE SEWER MAIN AND APPURTENANCES. ALL FILL MATERIAL SHALL MEET THE TOWN'S STANDARDS AND BE APPROVED BY CASTLE ROCK WATER. SEWER MAINS IN THIN FILL AREAS SHALL HAVE RESTRAINED JOINTS IN ACCORDANCE WITH STANDARD DETAIL W-18.
13. CONTRACTOR SHALL PROVIDE BYPASS PLAN AND DETAILS TO THE TOWN OF CASTLEROCK AT THE PRE-CONSTRUCTION MEETING FOR THE INSTALLATION OF MANHOLE A1.

HORIZONTAL CONTROL

BEARINGS ARE BASED ON THE NORTH LINE OF THE NORTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 8, AS MONUMENTED AT THE EAST CORNER BY A #6 REBAR WITH A 3.25" ALUMINUM CAP STAMPED: SURVCON 2006 PLS 30289 AND AT THE CENTER-EAST SIXTEENTH CORNER BY A 2.5" PIPE WITH A 3.5" ALUMINUM CAP STAMPED: 1986 PLS 22100, AS BEARING SOUTH 88°58'05" WEST, PER THE PLAT OF FOUNDERS VILLAGE FILING NO. 24 AMENDMENT NO. 1.

VERTICAL DATUM

DOUGLAS COUNTY GIS CONTROL MONUMENT
NO. 4.015020 MONUMENTED BY A 3-1/4"
DIAMETER ALUMINUM CAPPED MONUMENT
BEING NORTH OF THE EAST 1/4 CORNER OF
SECTION 8 AS MONUMENTED BY 2-1/2"
ALUMINUM CAPPED MONUMENT STAMPED
"LS28656". NAVD 88 ELEVATION=6572.29

PROFESSIONAL ENGINEER CERTIFICATION

I HEREBY AFFIRM THAT THESE FINAL CONSTRUCTION PLANS WERE PREPARED UNDER MY DIRECT SUPERVISION, IN ACCORDANCE WITH ALL APPLICABLE TOWN OF CASTLE ROCK AND STATE OF COLORADO STANDARDS AND STATUTES, RESPECTIVELY; AND THAT I AM FULLY RESPONSIBLE FOR ALL DESIGN AND REVISIONS RELATIVE TO SAID PLANS.

PRELIMINARY
NOT FOR
CONSTRUCTION

RACHEL C PATTON, P.E. #54450

DATE

TOWN OF CASTLE ROCK APPROVAL

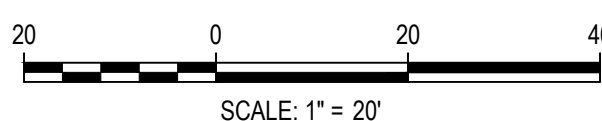
PLANS ARE HEREBY APPROVED FOR ONE YEAR FROM DATE OF
DEVELOPMENT SERVICES APPROVAL

Approved By:

Development Services Date



Know what's below.
Call before you dig



DESIGNED BY: CLH
CHECKED BY: RCP
DRAWN BY: CLH

[illegible]

1120 Lincoln Street, Suite 1000
Denver, Colorado 80203
P: 303.623.6300 F: 303.623.6311
HarrisKocherSmith.com



AVILLA FOUNDERS VILLAGE

SANITARY SERVICES PLAN

PROJECT #:	210431
SHEET NUMBER	

55

55 OF 87

PIPE TABLE						
NAME	SIZE	LENGTH	SLOPE	MATERIAL	INV. UP	INV. DOWN
A-1	4"	33.87'	2.00%	PVC	6561.38	6560.70
A-2	4"	15.45'	2.00%	PVC	6561.69	6561.38
A-2-1	4"	6.55'	2.00%	PVC	6561.82	6561.69
A-3	4"	45.93'	2.00%	PVC	6562.60	6561.69
A-3-1	4"	8.06'	2.00%	PVC	6562.76	6562.60
A-4	4"	41.94'	2.00%	PVC	6563.44	6562.60
A-5	4"	3.91'	2.00%	PVC	6563.52	6563.44
A-5-1	4"	11.31'	2.00%	PVC	6563.75	6563.52
A-6	4"	44.73'	2.00%	PVC	6564.42	6563.52
A-7	4"	14.53'	2.00%	PVC	6564.71	6564.42
B-1	4"	27.60'	2.00%	PVC	6564.46	6563.91
B-1-1	4"	17.28'	2.00%	PVC	6564.81	6564.46
B-1-2	4"	75.73'	2.00%	PVC	6566.32	6564.81
B-1-3	4"	25.13'	2.00%	PVC	6566.83	6566.32
B-1-3-1	4"	14.14'	2.00%	PVC	6567.11	6566.83
B-1-4	4"	7.60'	2.00%	PVC	6566.98	6566.83
B-1-4-1	4"	7.07'	2.00%	PVC	6567.12	6566.98
B-1-5	4"	7.02'	2.00%	PVC	6567.12	6566.98
B-1-5-1	4"	14.14'	2.00%	PVC	6567.40	6567.12
B-1-6	4"	37.39'	2.00%	PVC	6567.87	6567.12
B-1-6-1	4"	12.73'	2.00%	PVC	6568.12	6567.87
B-1-7	4"	2.59'	2.00%	PVC	6567.92	6567.87
B-1-8	4"	7.07'	2.00%	PVC	6568.06	6567.92
B-2	4"	10.38'	2.00%	PVC	6564.67	6564.46
B-2-1	4"	6.62'	2.00%	PVC	6564.80	6564.67
B-3	4"	6.67'	2.00%	PVC	6564.80	6564.67
B-3-1	4"	14.60'	2.00%	PVC	6565.09	6564.80
B-4	4"	14.63'	2.00%	PVC	6565.10	6564.80
B-4-1	4"	14.60'	2.00%	PVC	6565.39	6565.10
B-5	4"	45.56'	2.00%	PVC	6566.01	6565.10
B-5-1	4"	15.74'	2.00%	PVC	6566.32	6566.01
B-6	4"	14.63'	2.00%	PVC	6566.30	6566.01
B-6-1	4"	15.74'	2.00%	PVC	6566.61	6566.30
B-7	4"	16.57'	2.00%	PVC	6566.63	6566.30
B-8	4"	5.48'	2.00%	PVC	6566.74	6566.63
C-1	4"	23.82'	2.00%	PVC	6562.90	6562.42
C-1-1	4"	9.48'	2.00%	PVC	6563.09	6562.90
C-1-2	4"	20.02'	2.00%	PVC	6563.49	6563.09
C-1-2-1	4"	13.19'	2.00%	PVC	6563.75	6563.49
C-1-3	4"	14.62'	2.00%	PVC	6563.78	6563.49
C-1-3-1	4"	13.20'	2.00%	PVC	6564.04	6563.78
C-1-4	4"	13.53'	2.00%	PVC	6564.05	6563.78
C-1-5	4"	5.42'	2.00%	PVC	6564.16	6564.05
C-2	4"	29.71'	2.00%	PVC	6563.49	6562.90
C-2-1	4"	3.94'	2.00%	PVC	6563.57	6563.49
C-3	4"	42.57'	2.00%	PVC	6564.34	6563.49
C-4	4"	9.86'	2.00%	PVC	6564.54	6564.34
C-4-1	4"	9.47'	2.00%	PVC	6564.73	6564.54
C-5	4"	10.98'	2.00%	PVC	6564.76	6564.54
C-6	4"	31.29'	2.00%	PVC	6565.39	6564.76
C-7	4"	5.67'	2.00%	PVC	6565.50	6565.39
D-1	4"	57.59'	2.00%	PVC	6563.38	6562.23
D-2	4"	54.16'	2.00%	PVC	6564.47	6563.38
D-2-1	4"	3.06'	2.00%	PVC	6564.53	6564.47
D-3	4"	20.01'	2.00%	PVC	6564.87	6564.47

PIPE TABLE						
NAME	SIZE	LENGTH	SLOPE	MATERIAL	INV. UP	INV. DOWN
D-3-1	4"	9.19'	2.00%	PVC	6565.05	6564.87
D-4	4"	16.72'	2.00%	PVC	6565.20	6564.87
D-5	4"	20.98'	2.00%	PVC	6565.62	6565.20
D-5-1	4"	11.42'	2.00%	PVC	6565.85	6565.62
D-6	4"	23.28'	2.00%	PVC	6566.09	6565.62
D-7	4"	11.43'	2.00%	PVC	6566.32	6566.09
E-1	4"	25.46'	2.00%	PVC	6563.04	6562.53
E-2	4"	13.47'	2.00%	PVC	6563.31	6563.04
E-2-1	4"	15.00'	2.00%	PVC	6563.61	6563.31
E-3	4"	8.22'	2.00%	PVC	6563.48	6563.31
E-3-1	4"	4.87'	2.00%	PVC	6563.58	6563.48
E-4	4"	6.40'	2.00%	PVC	6563.60	6563.48
E-5	4"	5.93'	2.00%	PVC	6563.72	6563.60
E-5-1	4"	9.07'	2.00%	PVC	6563.90	6563.72
E-6	4"	42.74'	2.00%	PVC	6564.58	6563.72
E-6-1	4"	10.96'	2.00%	PVC	6564.80	6564.58
E-7	4"	14.62'	2.00%	PVC	6564.87	6564.58
E-7-1	4"	10.96'	2.00%	PVC	6565.09	6564.87
E-8	4"	27.98'	2.00%	PVC	6565.43	6564.87
E-9	4"	9.46'	2.00%	PVC	6565.62	6565.43
F-1	4"	45.00'	4.73%	PVC	6564.68	6562.55
G-1	4"	26.41'	2.00%	PVC	6563.31	6562.78
G-2	4"	45.54'	2.00%	PVC	6564.22	6563.31
G-2-1	4"	22.63'	2.00%	PVC	6564.67	6564.22
G-3	4"	26.09'	2.00%	PVC	6564.74	6564.22
G-3-1	4"	18.87'	2.00%	PVC	6565.12	6564.74
G-4	4"	43.38'	2.00%	PVC	6565.61	6564.74
G-5	4"	8.62'	2.00%	PVC	6565.78	6565.61
G-6	4"	55.61'	2.00%	PVC	6566.89	6565.78
G-7	4"	11.61'	2.00%	PVC	6567.12	6566.89
G-7-1	4"	15.88'	2.00%	PVC	6567.44	6567.12
G-8	4"	14.63'	2.00%	PVC	6567.42	6567.12
G-9	4"	15.88'	2.00%	PVC	6567.73	6567.42
H-1	4"	8.69'	2.00%	PVC	6564.04	6563.86
H-2	4"	29.02'	2.00%	PVC	6564.62	6564.04
H-2-1	4"	7.01'	2.00%	PVC	6564.76	6564.62
H-3	4"	23.70'	2.00%	PVC	6565.09	6564.62
H-3-1	4"	5.36'	2.00%	PVC	6565.20	6565.09
H-4	4"	15.77'	2.00%	PVC	6565.41	6565.09
H-4-1	4"	10.88'	2.00%	PVC	6565.63	6565.41
H-4-1-1	4"	8.81'	2.00%	PVC	6565.59	6565.41
H-4-2	4"	9.58'	2.00%	PVC	6565.82	6565.63
H-5	4"	52.64'	2.00%	PVC	6565.46	6565.41
I-1	4"	37.50'	2.00%	PVC	6566.89	6566.14
I-1-1	4"	4.95'	2.00%	PVC	6566.99	6566.89
I-2	4"	6.67'	2.00%	PVC	6567.02	6566.89
I-2-1	4"	9.00'	2.00%	PVC	6567.20	6567.02
I-3	4"	44.67'	2.00%	PVC	6567.92	6567.02
I-3-1	4"	12.16'	2.00%	PVC	6568.16	6567.92
I-4	4"	3.39'	2.00%	PVC	6567.99	6567.92
I-4-1	4"	14.14'	2.00%	PVC	6568.27	6567.99
I-5	4"	14.62'	2.00%	PVC	6568.28	6567.99
I-5-1	4"	14.14'	2.00%	PVC	6568.56	6568.28
I-6	4"	26.11'	2.00%	PVC	6568.80	6568.28
I-6-1	4"	19.34'	2.00%	PVC	6569.19	6568.80

PIPE TABLE						
NAME	SIZE	LENGTH	SLOPE	MATERIAL	INV. UP	INV. DOWN
I-7	4"	6.08'	2.00%	PVC	6568.92	6568.80
I-8	4"	13.58'	2.00%	PVC	6569.19	6568.92
J-1	4"	31.33'	2.00%	PVC	6565.00	6564.37
J-1-1	4"	18.40'	2.00%	PVC	6565.37	6565.00
J-2	4"	7.81'	2.00%	PVC	6565.15	6565.00
J-3	4"	8.50'	2.00%	PVC	6565.32	6565.15
J-3-1	4"	3.54'	2.00%	PVC	6565.39	6565.32
J-4	4"	33.59'	2.00%	PVC	6565.99	6565.32
J-4-1	4"	16.97'	2.00%	PVC	6566.33	6565.99
J-5	4"	10.87'	2.00%	PVC	6566.21	6565.99
J-5-1	4"	4.24'	2.00%	PVC	6566.29	6566.21
J-6	4"	25.72'	2.00%	PVC	6566.73	6566.21
J-6-1	4"	16.97'	2.00%	PVC	6567.07	6566.73
J-7	4"	22.31'	2.00%	PVC	6567.17	6566.73
J-8	4"	6.27'	2.00%	PVC	6567.30	6567.17
K-1	4"	34.20'	2.00%	PVC	6566.12	6565.43
K-1-1	4"	9.01'	2.00%	PVC	6566.30	6566.12
K-2	4"	32.22'	2.00%	PVC	6566.76	6566.12
K-2-1	4"	5.66'	2.00%	PVC	6566.87	6566.76
K-3	4"	24.21'	2.00%	PVC	6567.24	6566.76
K-3-1	4"	9.39'	2.00%	PVC	6567.43	6567.24
K-4	4"	8.26'	2.00%	PVC	6567.41	6567.24
K-4-1	4"	6.52'	2.00%	PVC	6567.54	6567.41
K-5	4"	14.63'	2.00%	PVC	6567.70	6567.41
K-5-1	4"	6.52'	2.00%	PVC	6567.83	6567.70
K-6	4"	26.23'	2.00%	PVC	6568.23	6567.70
K-6-1	4"	10.89'	2.00%	PVC	6568.44	6568.23
K-6-2	4"	8.96'	2.00%	PVC	6568.62	6568.44
K-7	4"	11.13'	2.00%	PVC	6568.45	6568.23
K-7-1	4"	6.35'	2.00%	PVC	6568.58	6568.45
K-8	4"	38.25'	2.00%	PVC	6569.21	6568.45
K-9	4"	4.04'	2.00%	PVC	6569.29	6569.21
L-1	4"	19.66'	2.00%	PVC	6566.04	6565.65
L-1-1	4"	9.43'	2.00%	PVC	6566.23	6566.04
L-1-2	4"	20.30'	2.00%	PVC	6566.64	6566.23
L-2	4"	28.44'	2.00%	PVC	6566.61	6566.04
L-2-1	4"	5.78'	2.00%	PVC	6566.73	6566.61
L-3	4"	2.91'	2.00%	PVC	6566.67	6566.61
L-4	4"	26.95'	2.00%	PVC	6567.21	6566.67
L-4-1	4"	16.55'	2.00%	PVC	6567.54	6567.21
L-5	4"	7.81'	2.00%	PVC	6567.36	6567.21
L-5-1	4"	16.91'	2.00%	PVC	6567.70	6567.36
L-6	4"	10.68'	2.00%	PVC	6567.58	6567.36
L-7	4"	18.82'	2.00%	PVC	6567.95	6567.58
L-7-1	4"	6.47'	2.00%	PVC	6568.08	6567.95
L-8	4"	36.59'	2.00%	PVC	6568.69	6567.95
L-9	4"	6.47'	2.00%	PVC	6568.82	6568.69
M-1	4"	5.00'	1.99%	PVC	6566.61	6566.51
M-2	4"	5.00'	2.00%	PVC	6566.71	6566.61
M-2-1	4"	50.68'	2.00%	PVC	6567.72	6566.71
M-2-1-1	4"	12.76'	2.00%	PVC	6567.98	6567.72
M-2-2	4"	12.78'	2.00%	PVC	6567.98	6567.72
M-2-3	4"	10.89'	2.00%	PVC	6568.20	6567.98
M-3	4"	31.21'	2.00%	PVC	6567.33	6566.71
M-3-1	4"	18.15'	2.00%	PVC	6567.69	6567.33

PIPE TABLE						
NAME	SIZE	LENGTH	SLOPE	MATERIAL	INV. UP	INV. DOWN
M-4	4"	14.83'	2.00%	PVC	6567.63	6567.33
M-5	4"	7.07'	2.00%	PVC	6567.77	6567.63
M-6	4"	6.04'	2.00%	PVC	6567.89	6567.77
M-6-1	4"	3.18'	2.00%	PVC	6567.95	6567.89
M-7	4"	37.46'	2.00%	PVC	6568.64	6567.89
M-8	4"	9.75'	2.00%	PVC	6568.84	6568.64
N-1	4"	44.52'	2.00%	PVC	6567.57	6566.68
N-2	4"	10.64'	2.00%	PVC	6567.78	6567.57
N-3	4"	32.66'	2.00%	PVC	6568.43	6567.78
N-3-1	4"	8.48'	2.00%	PVC	6568.60	6568.43
N-4	4"	6.16'	2.00%	PVC	6568.56	6568.43
N-4-1	4"	5.23'	2.00%	PVC	6568.66	6568.56
N-5	4"	20.62'	2.00%	PVC	6568.97	6568.56
N-5-1	4"	5.82'	2.00%	PVC	6569.09	6568.97
N-6	4"	25.82'	2.00%	PVC	6569.49	6568.97
N-6-1	4"	12.00'	2.00%	PVC	6569.73	6569.49
N-7	4"	24.56'	2.00%	PVC	6569.98	6569.49
N-7-1	4"	6.37'	2.00%	PVC	6570.11	6569.98
N-8	4"	18.31'	2.00%	PVC	6570.34	6569.98
N-9	4"	24.70'	2.00%	PVC	6570.84	6570.34
N-10	4"	11.55'	2.00%	PVC	6571.07	6570.84
O-1	4"	33.61'	2.00%	PVC	6567.39	6566.72
O-1-1	4"	8.83'	2.00%	PVC	6567.57	6567.39
O-2	4"	53.83'	2.00%	PVC	6568.47	6567.39
O-2-1	4"	5.42'	2.00%	PVC	6568.58	6568.47
O-3	4"	2.89'	2.00%	PVC	6568.53	6568.47
O-3-1	4"	10.14'	2.00%	PVC	6568.73	6568.53
O-4	4"	14.63'	2.00%	PVC	6568.82	6568.53
O-4-1	4"	10.14'	2.00%	PVC	6569.02	6568.82
O-5	4"	32.90'	2.00%	PVC	6569.48	6568.82
O-6	4"	7.14'	2.00%	PVC	6569.62	6569.48
O-6-1	4"	4.53'	2.00%	PVC	6569.71	6569.62
O-7	4"	21.79'	2.00%	PVC	6570.06	6569.62
O-8	4"	6.36'	2.00%	PVC	6570.18	6570.06
P-1	4"	24.56'	2.00%	PVC	6567.69	6567.20
P-2	4"	30.00'	2.00%	PVC	6568.29	6567.69
P-3	4"	20.31'	2.00%	PVC	6568.70	6568.29
P-3-1	4"	6.95'	2.00%	PVC	6568.84	6568.70
P-4	4"	14.63'	2.00%	PVC	6568.99	6568.70
P-4-1	4"	6.95'	2.00%	PVC	6569.13	6568.99
P-5	4"	5.06'	2.00%	PVC	6569.09	6568.99
P-5-1	4"	8.60'	2.00%	PVC	6569.26	6569.09
P-6	4"	31.75'	2.00%	PVC	6569.72	6569.09
P-6-1	4"	5.54'	2.00%	PVC	6569.83	6569.72
P-7	4"	3.06'	2.00%	PVC	6569.79	6569.72
P-7-1	4"	10.02'	2.00%	PVC	6569.99	6569.79
P-8	4"	14.62'	2.00%	PVC	6570.08	6569.79
P-8-1	4"	10.01'	2.00%	PVC	6570.28	6570.08
P-9	4"	30.64'	2.00%	PVC	6570.69	6570.08
P-10	4"	8.36'	2.00%	PVC	6570.86	6570.69
Q-1	4"	32.27'	2.00%	PVC	6567.94	6567.30
Q-2	4"	31.35'	2.00%	PVC	6568.57	6567.94
Q-2-1	4"	8.55'	2.00%	PVC	6568.74	6568.57
Q-3	4"	2.46'	2.00%	PVC	6568.62	6568.57
Q-3-1	4"	5.62'	2.00%	PVC	6568.73	6568.62

PIPE TABLE						
NAME	SIZE	LENGTH	SLOPE	MATERIAL	INV. UP	INV. DOWN
Q-4	4"	24.85'	2.00%	PVC	6569.12	6568.62
Q-4-1	4"	5.61'	2.00%	PVC	6569.23	6569.12
Q-5	4"	4.82'	2.00%	PVC	6569.21	6569.12
Q-5-1	4"	9.97'	2.00%	PVC	6569.41	6569.21
Q-6	4"	14.63'	2.00%	PVC	6569.51	6569.21
Q-6-1	4"	9.97'	2.00%	PVC	6569.71	6569.51
Q-7	4"	23.79'	2.00%	PVC	6569.98	6569.51
Q-8	4"	18.53'	2.00%	PVC	6570.35	6569.98
R-1	4"	15.55'	2.00%	PVC	6568.96	6568.65
R-1-1	4"	19.95'	2.00%	PVC	6569.36	6568.96
R-1-1-1	4"	8.07'	2.00%	PVC	6569.52	6569.36
R-1-1-2	4"	7.37'	2.00%	PVC	6569.67	6569.52
R-1-2	4"	17.95'	2.00%	PVC	6569.72	6569.36
R-1-3	4"	7.51'	2.00%	PVC	6569.87	6569.72
R-2	4"	30.51'	2.00%	PVC	6569.57	6568.96
R-2-1	4"	37.00'	2.00%	PVC	6570.31	6569.57
R-2-2	4"	3.83'	2.00%	PVC	6570.39	6570.31
R-2-2-1	4"	10.50'	2.00%	PVC	6570.60	6570.39
R-2-3	4"	48.75'	2.00%	PVC	6571.36	6570.39
R-2-4	4"	20.27'	2.00%	PVC	6571.77	6571.36
R-2-5	4"	3.87'	2.00%	PVC	6571.84	6571.77
R-3	4"	7.99'	2.00%	PVC	6569.73	6569.57
R-3-1	4"	8.49'	2.00%	PVC	6569.90	6569.73
R-4	4"	22.67'	2.00%	PVC	6570.18	6569.73
R-4-1	4"	5.65'	2.00%	PVC	6570.29	6570.18
R-5	4"	15.74'	2.00%	PVC	6570.49	6570.18
R-5-1	4"	6.96'	2.00%	PVC	6570.63	6570.49
R-6	4"	6.97'	2.00%	PVC	6570.63	6570.49
R-7	4"	11.73'	2.00%	PVC	6570.87	6570.63

GENERAL SANITARY NOTES:

1. THE CONTRACTOR SHALL NOTIFY COLORADO 811 PRIOR TO EXCAVATION, IN ACCORDANCE WITH COLORADO STATE STATUTES.
2. THE LOCATION OF EXISTING UNDERGROUND UTILITIES IS APPROXIMATE AND SHOWN ACCORDING TO THE BEST INFORMATION AVAILABLE, AS SUPPLIED BY THE UTILITY OWNERS. PRIOR TO EXCAVATION, THE CONTRACTOR SHALL VERIFY EXISTENCE, SIZE, AND LOCATION OF EXISTING UTILITIES AND IMMEDIATELY NOTIFY HARRIS KOCHER SMITH OF ANY DISCREPANCIES. THE CONTRACTOR IS RESPONSIBLE FOR ANY AND ALL DAMAGES TO EXISTING UNDERGROUND FACILITIES.
3. LOCATION OF EXISTING UTILITIES SHALL BE VERIFIED BY CONTRACTOR PRIOR TO START OF CONSTRUCTION.
4. PIPE LENGTHS ARE MEASURED FROM CENTER OF MANHOLE TO CENTER OF MANHOLE. ALL COORDINATES ARE AT THE CENTER OF THE STRUCTURE UNLESS OTHERWISE INDICATED.
5. ALL WORK, INCLUDING CORRECTION WORK, SHALL BE INSPECTED BY THE UTILITY PROVIDER'S REPRESENTATIVE WHO SHALL HAVE THE AUTHORITY TO HALT CONSTRUCTION WHEN THERE IS A LACK OF ADHERENCE TO STANDARD CONSTRUCTION PRACTICES.
6. MAINTAIN A MINIMUM OF TEN FEET OF HORIZONTAL SEPARATION BETWEEN ALL SANITARY SEWER AND DOMESTIC WATER MAINS AND SERVICES IN ACCORDANCE WITH STATE OF COLORADO AND JURISDICTIONAL UTILITY PROVIDER SPECIFICATIONS.
7. FOR ALL NON-CONCENTRIC MANHOLES, MANHOLE RINGS/COVERS AND STEPS LIDS SHALL BE ROTATED AS SHOWN IN PLAN VIEW.
8. CONTRACTOR SHALL ADJUST ALL EXISTING RISE ELEVATIONS TO MATCH THE PROPOSED GRADE.
9. ALL SEWER SERVICE CLEANOUTS LOCATED ADJACENT TO A BUILDING SHALL BE TWO-WAY CLEANOUTS.
10. THE CONTRACTOR IS RESPONSIBLE FOR:
 - a. OBTAINING ALL APPLICABLE LICENSES, BONDS, PERMITS, STANDARDS AND SPECIFICATIONS FOR SEWER MAIN INSTALLATION.
 - b. VERIFYING THE LOCATION AND DEPTH OF EXISTING UTILITIES AND NOTIFYING THE ENGINEER OF ANY DISCREPANCIES.
 - c. RESTORING ALL DISTURBED AREAS TO ORIGINAL CONDITION, OR AS INDICATED ON THE PLANS.
11. CONTRACTOR SHALL PROVIDE A MINIMUM SEVENTY TWO (72) HOURS' NOTICE TO THE ON-SITE TOR CONSTRUCTION INSPECTOR, (720) 733-2200, PRIOR TO MAKING ANY CONNECTIONS OR TIE-INS TO EXISTING WATER, SANITARY SEWER, AND/OR STORM SEWER SYSTEMS PROVIDED THAT THE UTILITY TIE-IN DOES NOT DISRUPT SERVICE TO EXISTING OR WATER CUSTOMERS. IF THE TIE-IN WILL DISRUPT UTILITY SERVICE, THEN THE CONTRACTOR SHALL PROVIDE A MINIMUM OF THREE (3) WEEKS' NOTICE TO THE TOR CONSTRUCTION INSPECTOR TO ALLOW TIME FOR CR WATER TO PROVIDE WRITTEN NOTIFICATION TO EXISTING CUSTOMERS AFFECTED BY THE TIE-IN. ALL TOWN UTILITY TIE-INS MUST BE APPROVED BY CR WATER PRIOR TO COMMENCING WORK.
12. WHERE SANITARY SEWER MAINS ARE CONSTRUCTED IN FILL AREAS, ALL FILL MATERIALS SHALL BE PLACED AND COMPACTED TO FINAL GRADE PRIOR TO THE INSTALLATION OF THE SEWER MAIN AND APPURTENANCES.
13. THE FILL MATERIAL SHALL MEET THE TOWN'S STANDARDS AND BE APPROVED BY CASTLE ROCK WATER. SEWER MAINS WITHIN FILL AREAS SHALL HAVE RESTRAINED JOINTS IN ACCORDANCE WITH STANDARD DETAIL W-18.
13. CONTRACTOR SHALL PROVIDE BYPASS PLAN AND DETAILS TO THE TOWN OF CASTLEROCK AT THE PRE-CONSTRUCTION MEETING FOR THE INSTALLATION OF MANHOLE A1.

HORIZONTAL CONTROL

BEARINGS ARE BASED ON THE NORTH LINE OF THE NORTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 8, AS MONUMENTED AT THE EAST CORNER BY A #6 REBAR WITH A 3.25" ALUMINUM CAP STAMPED: SURVCON 2006 PLS 30289 AND AT THE CENTER-EAST SIXTEENTH CORNER BY A 2.5" PIPE WITH A 3.5" ALUMINUM CAP STAMPED: 1986 PLS 22100, AS BEARING SOUTH 88°58'05" WEST, PER THE PLAT OF FOUNDERS VILLAGE FILING NO. 24 AMENDMENT NO. 1.

VERTICAL DATUM

DOUGLAS COUNTY GIS CONTROL MONUMENT
NO. 4.015020 MONUMENTED BY A 3-1/4"
DIAMETER ALUMINUM CAPPED MONUMENT
BEING NORTH OF THE EAST 1/4 CORNER OF
SECTION 8 AS MONUMENTED BY 2-1/2"
ALUMINUM CAPPED MONUMENT STAMPED
"LS28656". NAVD 88 ELEVATION=6572.29

PROFESSIONAL ENGINEER CERTIFICATION

I HEREBY AFFIRM THAT THESE FINAL CONSTRUCTION PLANS WERE PREPARED UNDER MY DIRECT SUPERVISION, IN ACCORDANCE WITH ALL APPLICABLE TOWN OF CASTLE ROCK AND STATE OF COLORADO STANDARDS AND STATUTES, RESPECTIVELY; AND THAT I AM FULLY RESPONSIBLE FOR ALL DESIGN AND REVISIONS RELATIVE TO SAID PLANS.

PRELIMINARY
NOT FOR
CONSTRUCTION

RACHEL C PATTON, P.E. #54450

DATE

TOWN OF CASTLE ROCK APPROVAL

PLANS ARE HEREBY APPROVED FOR ONE YEAR FROM DATE OF
DEVELOPMENT SERVICES APPROVAL

Approved By:

Development Services

Date



Know what's below.
Call before you dig.

DESIGNED BY: CLH
CHECKED BY: RCP
DRAWN BY: CLH

ISSUE DATE: 08-11-2022	
DATE	REVISION COMMENTS
10-31-2022	PER TOWN OF CASTLE ROCK COMMENTS



1120 Lincoln Street, Suite 1000
Denver, Colorado 80203
P: 303.623.6300 F: 303.623.6311
HarrisKocherSmith.com

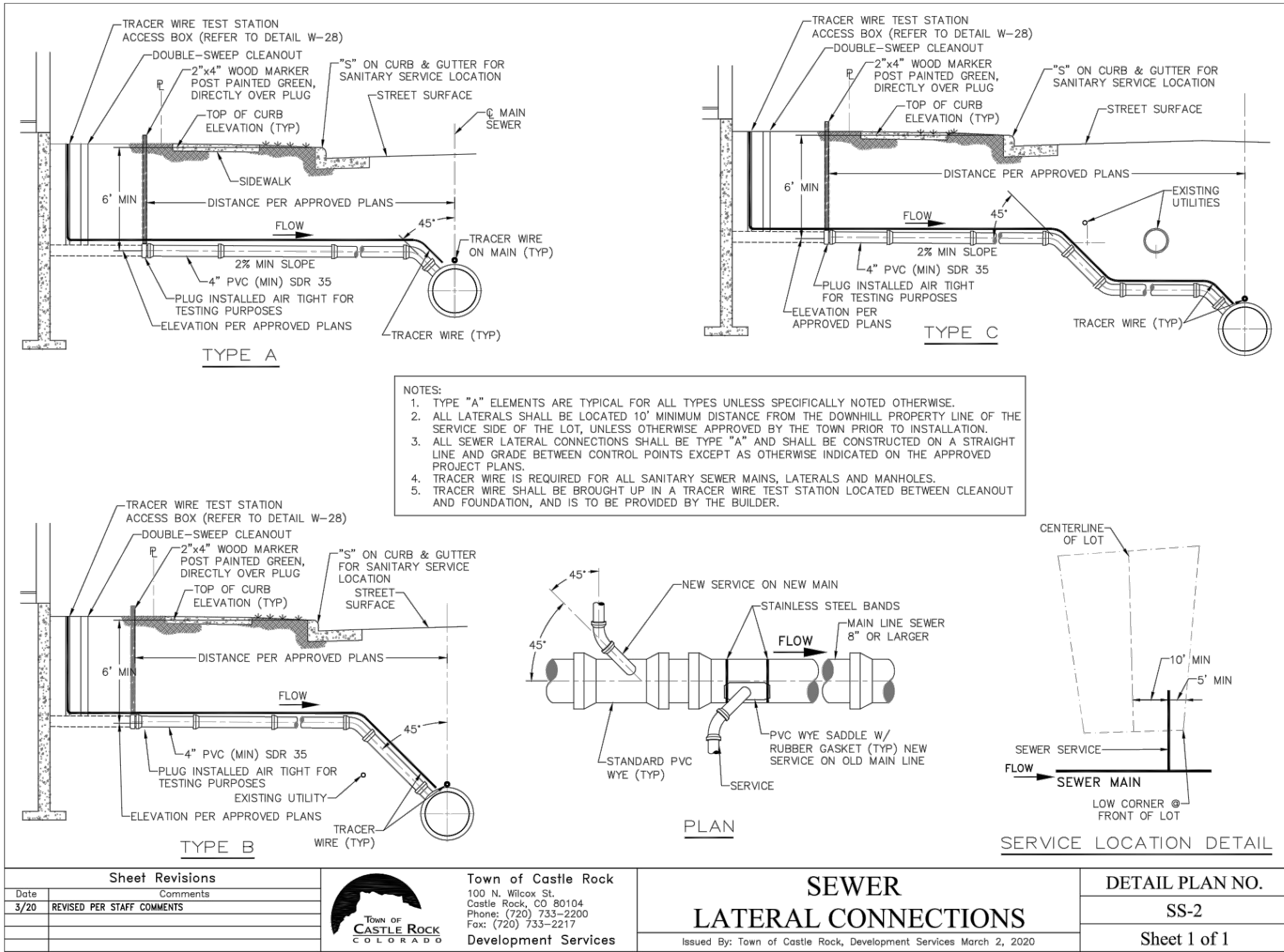
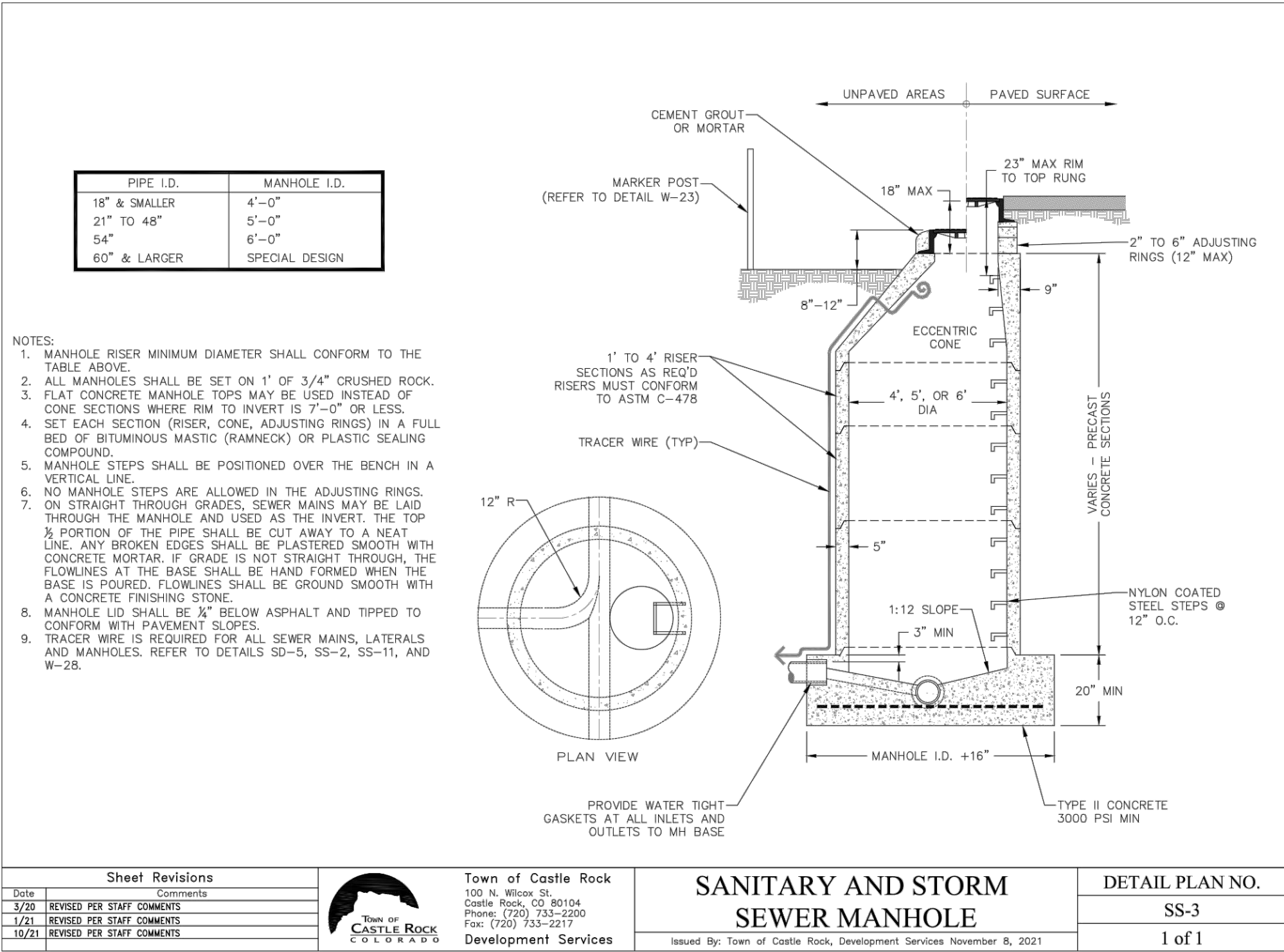
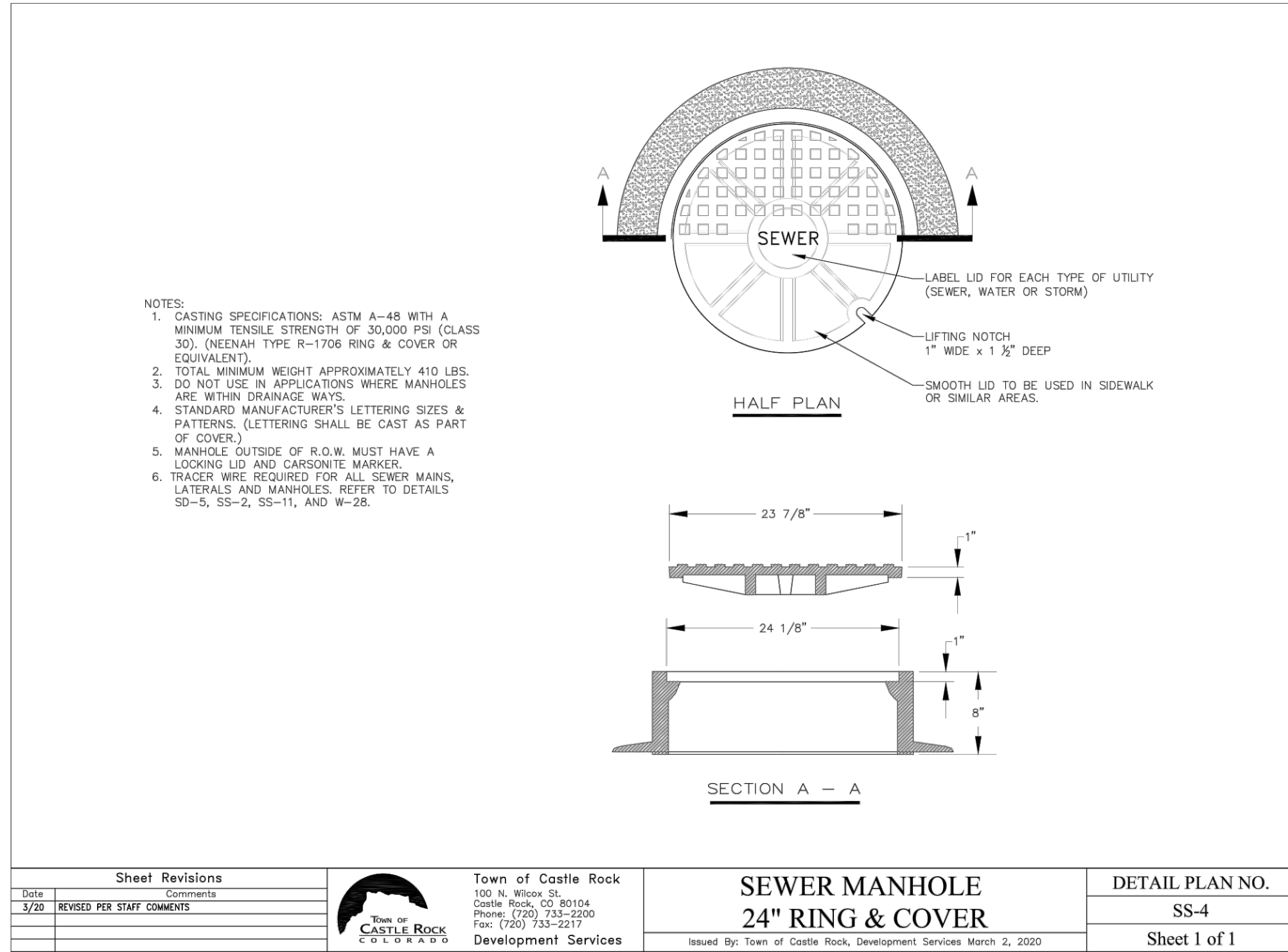
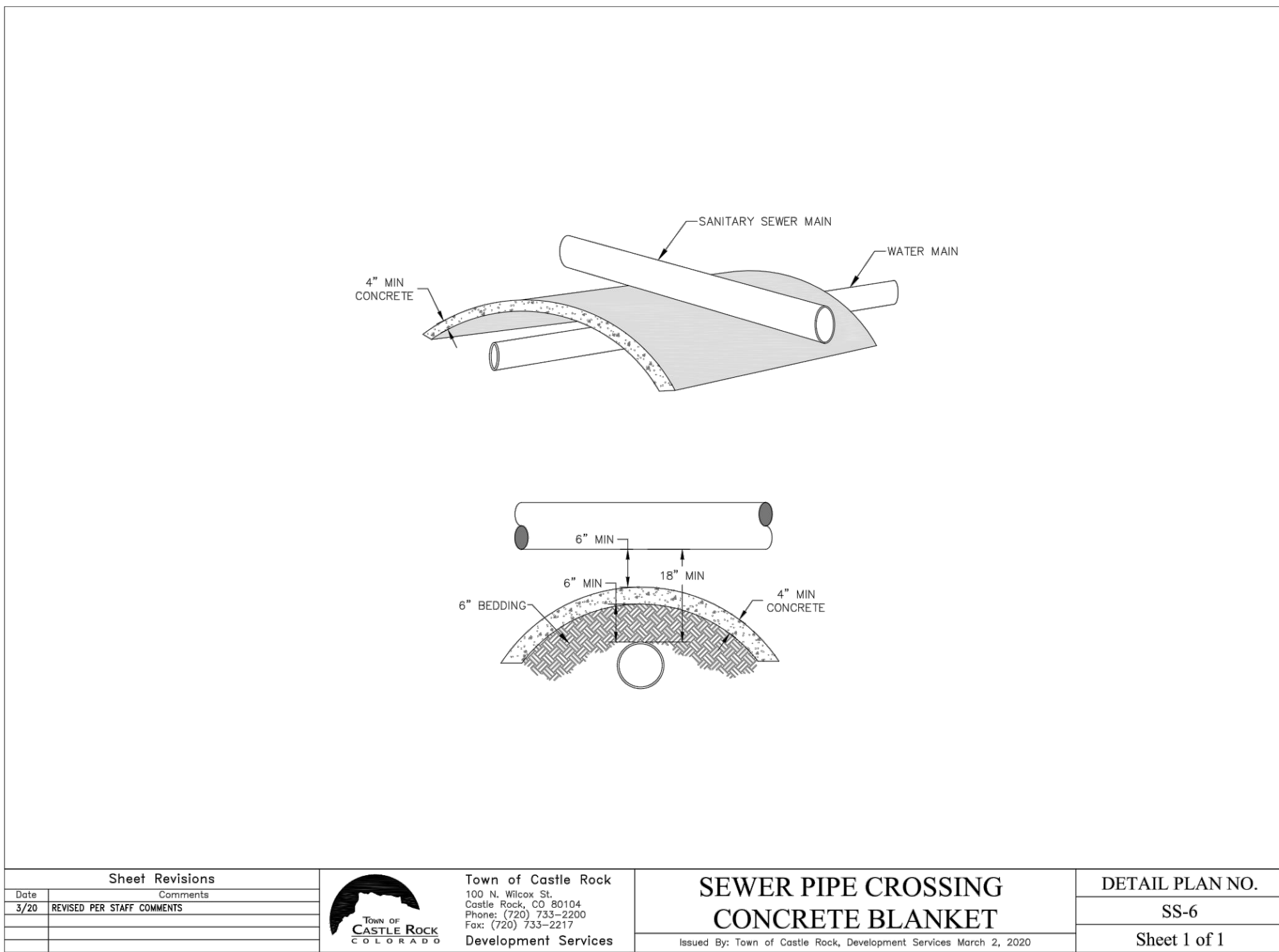
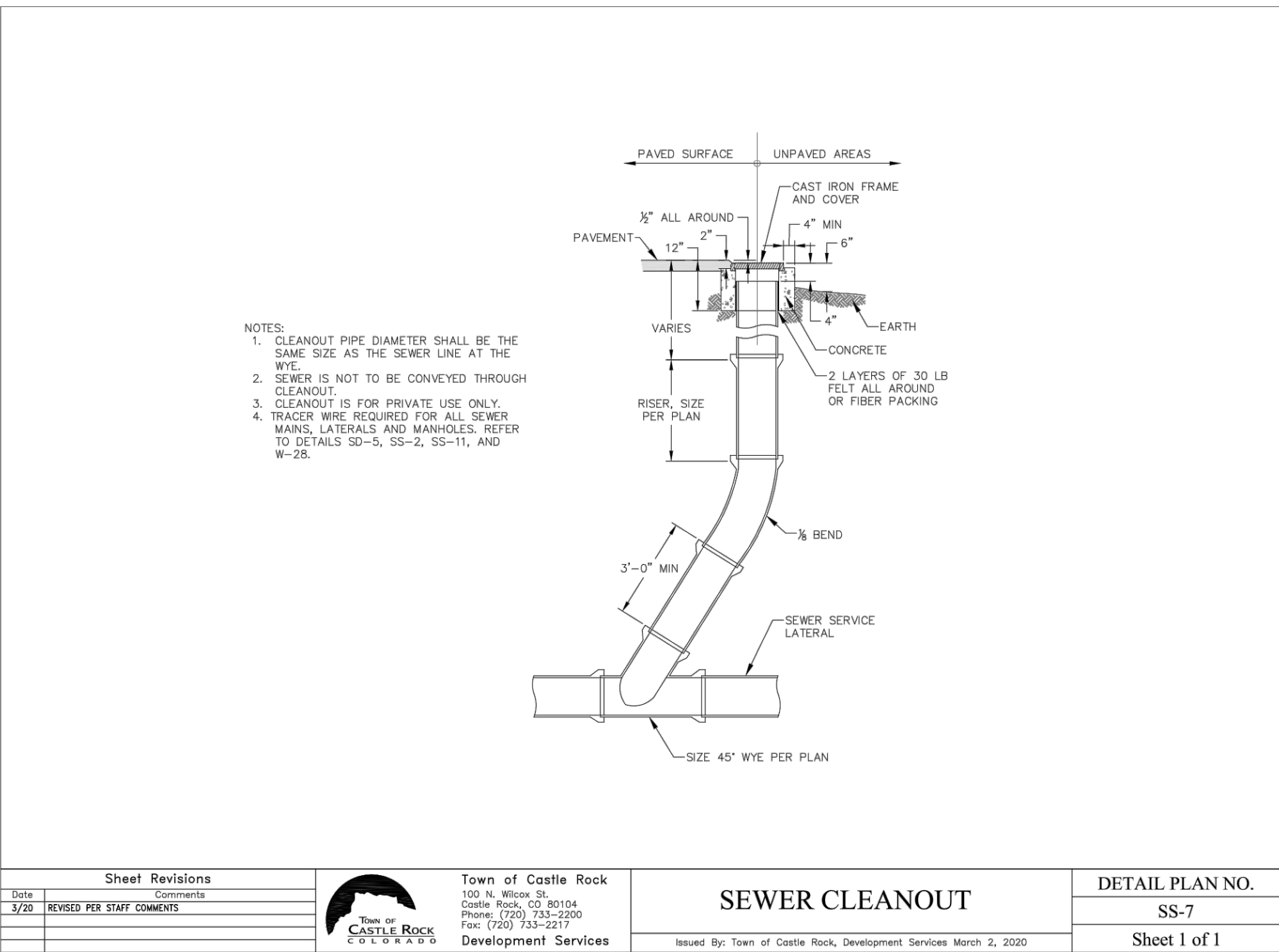


AVILLA FOUNDERS VILLAGE SANITARY SERVICE PIPE TABLES

PROJECT #: 210431
SHEET NUMBER

56

NO CHANGES ARE TO BE MADE TO THIS DRAWING WITHOUT WRITTEN PERMISSION OF HARRIS KOCHER SMITH.



HORIZONTAL CONTROL

BEARINGS ARE BASED ON THE NORTH LINE OF THE NORTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 8, AS MONUMENTED AT THE EAST CORNER BY A #6 REBAR WITH A 3.25" ALUMINUM CAP STAMPED: SURVCON 2006 PLS 30289 AND AT THE CENTER-EAST SIXTEENTH CORNER BY A 2.5" PIPE WITH A 3.5" ALUMINUM CAP STAMPED: 1986 PLS 22100, AS BEARING SOUTH 88°58'05" WEST, PER THE PLAT OF FOUNDERS VILLAGE FILING NO. 24 AMENDMENT NO. 1.

VERTICAL DATUM

DOUGLAS COUNTY GIS CONTROL MONUMENT NO. 4.015020 MONUMENTED BY A 3-1/4" DIAMETER ALUMINUM CAPPED MONUMENT BEING NORTH OF THE EAST 1/4 CORNER OF SECTION 8 AS MONUMENTED BY 2-1/2" ALUMINUM CAPPED MONUMENT STAMPED "LS28656". NAVD 88 ELEVATION=6572.29

PROFESSIONAL ENGINEER CERTIFICATION

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PRELIMINARY
NOT FOR
CONSTRUCTION

RACHEL C. PATTON, P.E. #64450	DATE
TOWN OF CASTLE ROCK APPROVAL	
PLANS ARE HEREBY APPROVED FOR ONE YEAR FROM DATE OF DEVELOPMENT SERVICES APPROVAL	
Approved By:	
Development Services	Date



Know what's below.
Call before you dig.

DESIGNED BY: RCP
CHECKED BY: CLH
DRAWN BY: CLH

ISSUE DATE: 08-11-2022	
DATE	REVISION COMMENTS
10-31-2022	PER TOWN OF CASTLE ROCK COMMENTS



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Denver, Colorado 80203
P: 303.623.6300 F: 303.623.6311
HarrisKocherSmith.com



AVILLA FOUNDERS VILLAGE
SANITARY DETAILS

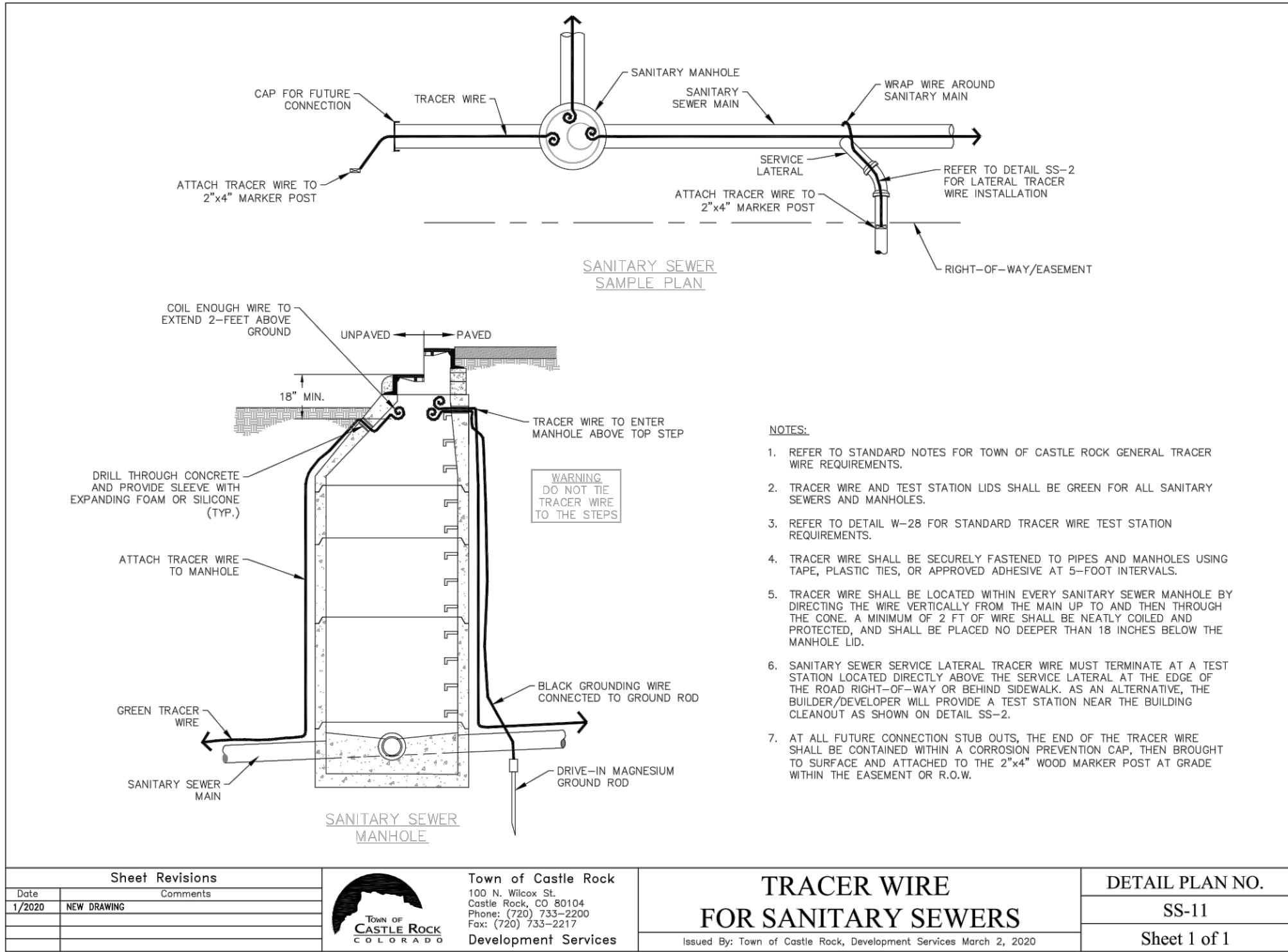
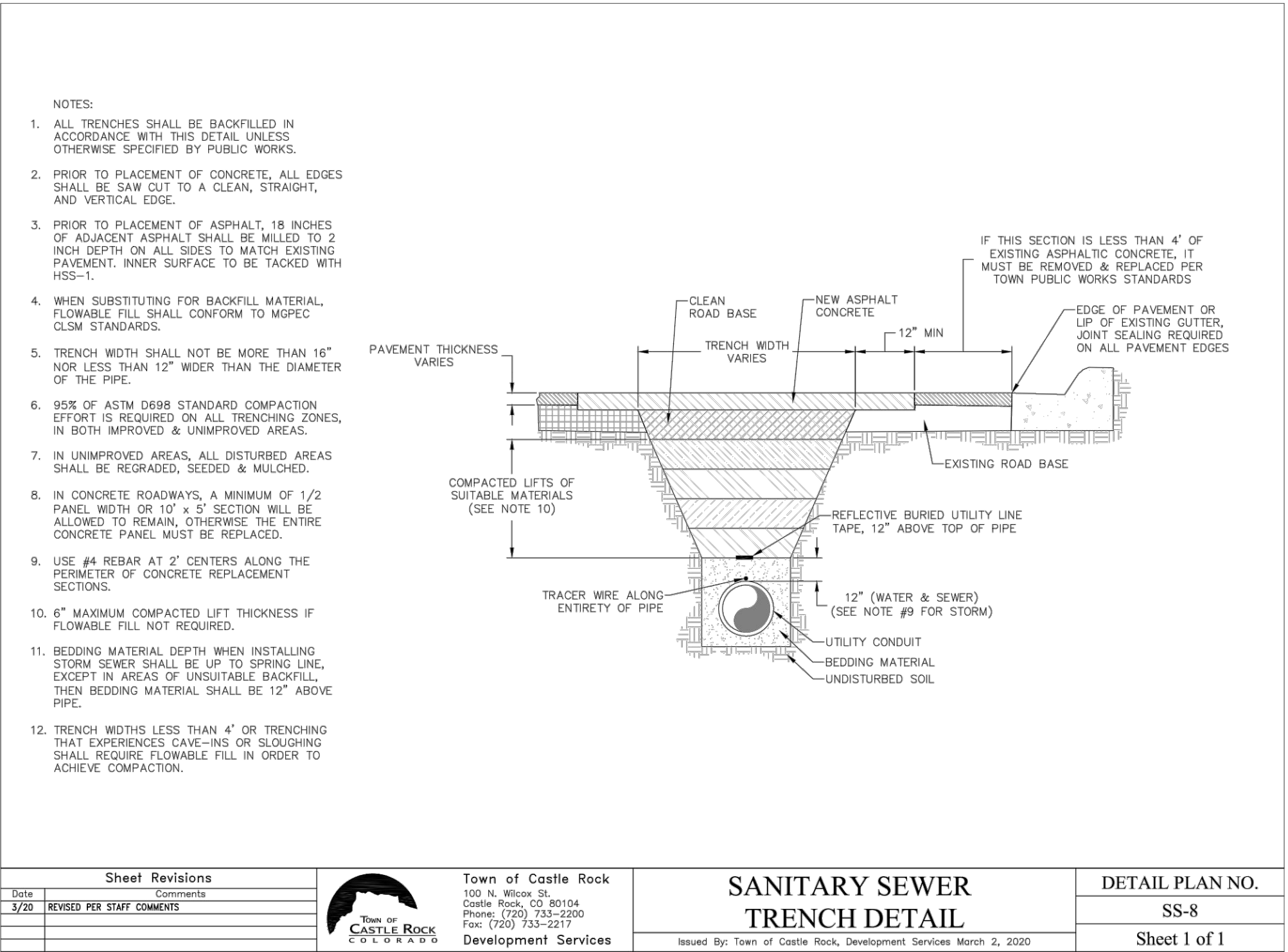
PROJECT #: 210431
SHEET NUMBER

57

57 OF 87

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PLOTTED: MON 11/21/22 11:03:37A BY: MILES SUSTAD

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HORIZONTAL CONTROL

BEARINGS ARE BASED ON THE NORTH LINE OF THE NORTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 8, AS MONUMENTED AT THE EAST CORNER BY A #6 REBAR WITH A 3.25" ALUMINUM CAP STAMPED: SURVCON 2006 PLS 30289 AND AT THE CENTER-EAST SIXTEENTH CORNER BY A 2.5" PIPE WITH A 3.5" ALUMINUM CAP STAMPED: 1986 PLS 22100, AS BEARING SOUTH 88°58'05" WEST, PER THE PLAT OF FOUNDERS VILLAGE FILING NO. 24 AMENDMENT NO. 1.

VERTICAL DATUM

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PROFESSIONAL ENGINEER CERTIFICATION

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PRELIMINARY
NOT FOR
CONSTRUCTION

RACHEL C. PATTON, P.E. #64450	DATE
TOWN OF CASTLE ROCK APPROVAL	
PLANS ARE HEREBY APPROVED FOR ONE YEAR FROM DATE OF DEVELOPMENT SERVICES APPROVAL	
Approved By:	
Development Services	Date



Know what's below.
Call before you dig.

DESIGNED BY: RCP
CHECKED BY: CLH
DRAWN BY: CLH

ISSUE DATE: 08-11-2022

DATE	REVISION COMMENTS
10-31-2022	PER TOWN OF CASTLE ROCK COMMENTS



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Denver, Colorado 80203
P: 303.623.6300 F: 303.623.6311
HarrisKocherSmith.com



AVILLA FOUNDERS VILLAGE
SANITARY DETAILS

PROJECT #: 210431

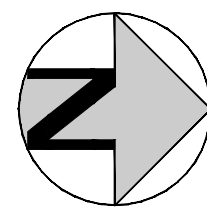
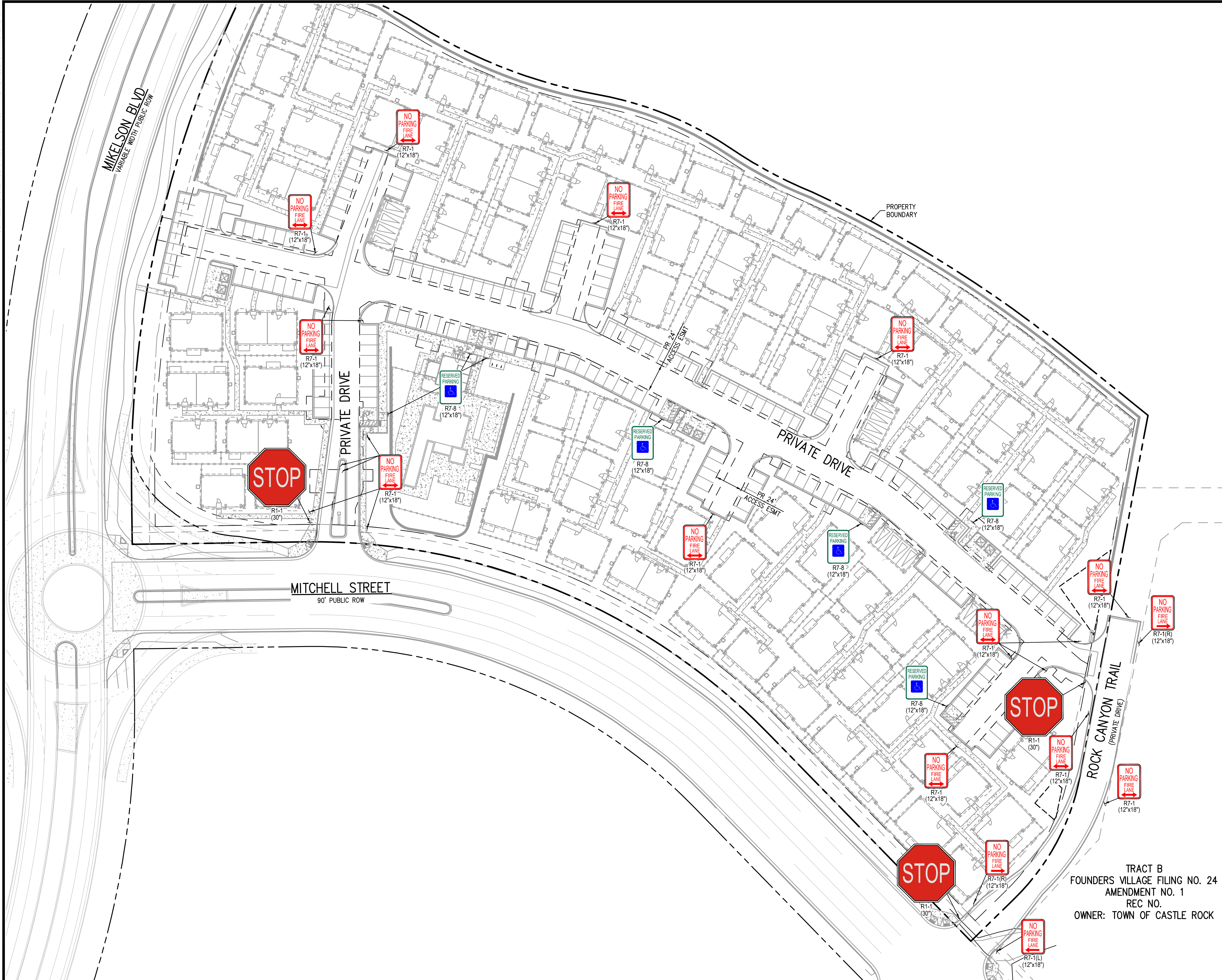
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58

58 OF 87

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HORIZONTAL CONTROL
BEARINGS ARE BASED ON THE NORTH LINE OF THE NORTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 8, AS MONUMENTED AT THE EAST CORNER BY A #6 REBAR WITH A 3.25" ALUMINUM CAP STAMPED: SURVCON 2006 PLS 30289 AND AT THE CENTER-EAST SIXTEENTH CORNER BY A 2.5" PIPE WITH A 3.5" ALUMINUM CAP STAMPED: 1986 PLS 22100, AS BEARING SOUTH 88°58'05" WEST, PER THE PLAT OF FOUNDERS VILLAGE FILING NO. 24 AMENDMENT NO. 1.

VERTICAL DATUM
DOUGLAS COUNTY GIS CONTROL MONUMENT NO. 4.015020 MONUMENTED BY A 3-1/4" DIAMETER ALUMINUM CAPPED MONUMENT BEING NORTH OF THE EAST 1/4 CORNER OF SECTION 8 AS MONUMENTED BY 2-1/2" ALUMINUM CAPPED MONUMENT STAMPED "LS28656". NAVD 88 ELEVATION=6572.29

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TOWN OF CASTLE ROCK APPROVAL
PLANS ARE HEREBY APPROVED FOR ONE YEAR FROM DATE OF DEVELOPMENT SERVICES APPROVAL.

Approved By: _____ Date: _____
Development Services

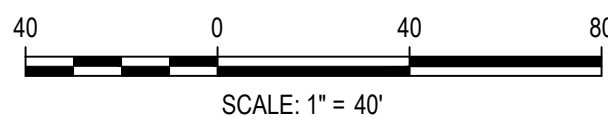
PRELIMINARY NOT FOR CONSTRUCTION

RACHEL C. PATTON, P.E. #54450

TRACT B
FOUNDERS VILLAGE FILING NO. 24
AMENDMENT NO. 1
REC NO.
OWNER: TOWN OF CASTLE ROCK

FILEPATH: K:\210431\ENGINEERING\ROADWAY\CD - SIGNAGE & STRIPING PLANNING\ LAYOUT LAYOUT 1
DESIGNED BY: MJS
CHECKED BY: RCP
PLOTTED: MON 11/21/22 11:03:51A BY: MILES SUSTAD

811
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DATE	REVISION COMMENTS
10-31-2022	PER TOWN OF CASTLE ROCK COMMENTS

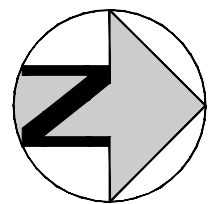
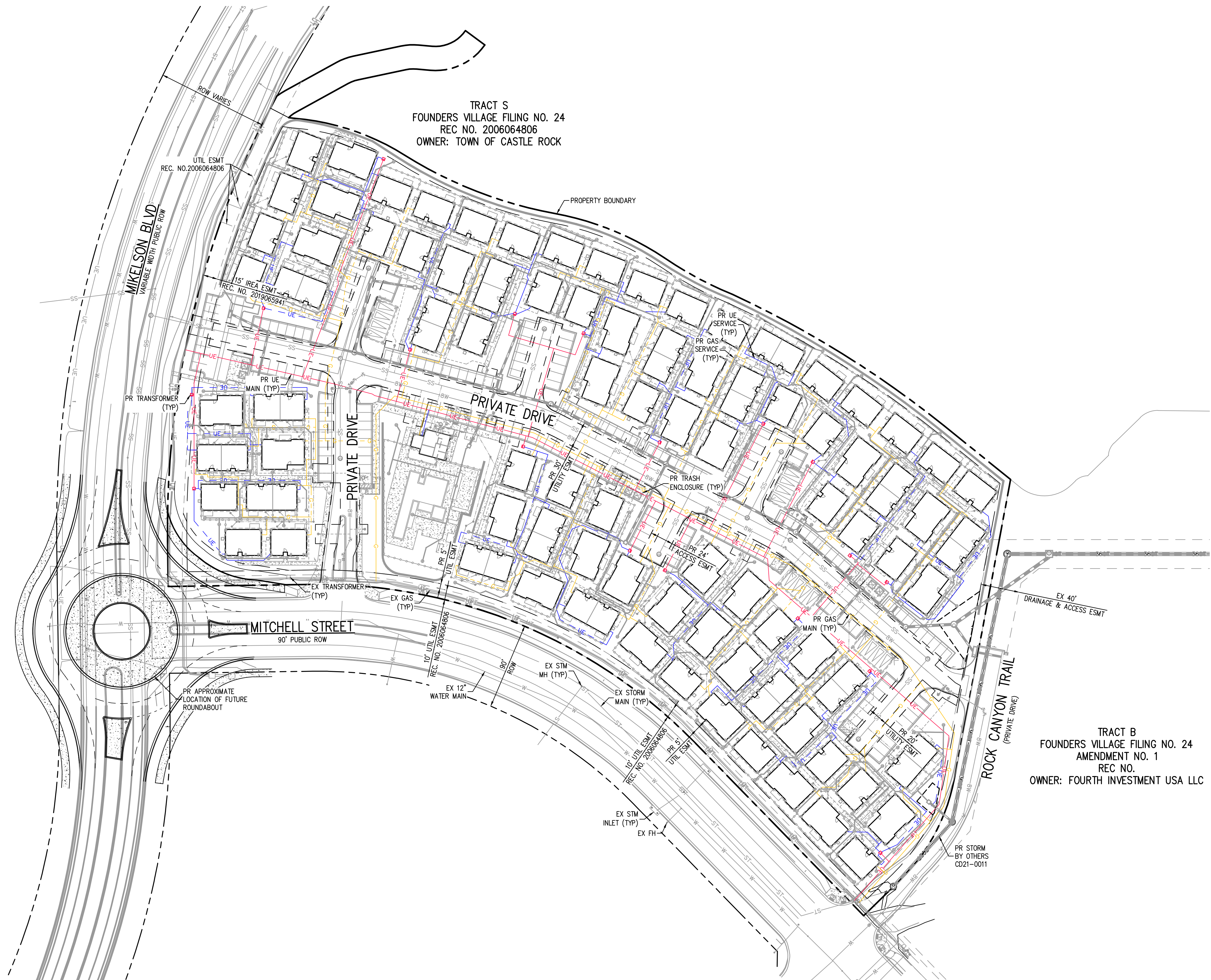
HKS HARRIS KOCHER SMITH
1120 Lincoln Street, Suite 1000
Denver, Colorado 80203
P: 303.623.6300 F: 303.623.6311
HarrisKocherSmith.com

NEXmetro
Communities

AVILLA FOUNDERS VILLAGE
SIGNAGE & STRIPING PLAN

PROJECT #: 210431
SHEET NUMBER
59
59 OF 87

NO CHANGES ARE TO BE MADE TO THIS DRAWING WITHOUT WRITTEN PERMISSION OF HARRIS KOCHER SMITH.



TRACT B
FOUNDERS VILLAGE FILING NO. 24
AMENDMENT NO. 1
REC NO.
OWNER: FOURTH INVESTMENT USA LLC

HORIZONTAL CONTROL

BEARINGS ARE BASED ON THE NORTH LINE OF THE NORTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 8, AS MONUMENTED AT THE EAST CORNER BY A #6 REBAR WITH A 3.25" ALUMINUM CAP STAMPED: SURVCON 2006 PLS 30289 AND AT THE CENTER-EAST SIXTEENTH CORNER BY A 2.5" PIPE WITH A 3.5" ALUMINUM CAP STAMPED: 1986 PLS 22100, AS BEARING SOUTH 88°58'05" WEST, PER THE PLAT OF FOUNDERS VILLAGE FILING NO. 24 AMENDMENT NO. 1.

VERTICAL DATUM

DOUGLAS COUNTY GIS CONTROL MONUMENT NO. 4.015020 MONUMENTED BY A 3-1/4" DIAMETER ALUMINUM CAPPED MONUMENT BEING NORTH OF THE EAST 1/4 CORNER OF SECTION 8 AS MONUMENTED BY 2-1/2" ALUMINUM CAPPED MONUMENT STAMPED "LS28656". NAVD 88 ELEVATION=6572.29

PROFESSIONAL ENGINEER CERTIFICATION

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PRELIMINARY
NOT FOR
CONSTRUCTION

RACHEL C. PATTON, P.E. #54450

DATE

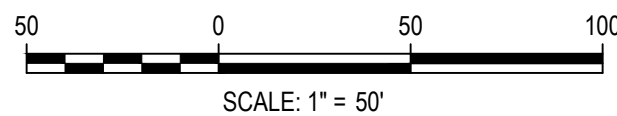
TOWN OF CASTLE ROCK APPROVAL

PLANS ARE HEREBY APPROVED FOR ONE YEAR FROM DATE OF DEVELOPMENT SERVICES APPROVAL

Approved By:

Development Services

Date



DESIGNED BY: TLW
CHECKED BY: RCP
DRAWN BY: TLW

ISSUE DATE: 08-11-2022

DATE	REVISION COMMENTS
10-31-2022	PER TOWN OF CASTLE ROCK COMMENTS



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Denver, Colorado 80203
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AVILLA FOUNDERS VILLAGE
DRY UTILITY PLAN

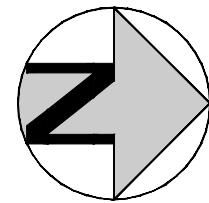
PROJECT #: 210431
SHEET NUMBER

60

60 OF 87

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PLOTTED: MON 11/27/22 11:04:24 BY: MILES SUSTAD

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TRACT S
FOUNDERS VILLAGE FILING NO. 24
REC NO. 2006064806
OWNER: TOWN OF CASTLE ROCK

MIKELSON BLVD
VARIABLE WIDTH PUBLIC ROW

MITCHELL STREET
90' PUBLIC ROW

ROCK CANYON TRAIL
(PRIVATE DRIVE)

TRACT B
FOUNDERS VILLAGE FILING NO. 24
AMENDMENT NO. 1
REC NO.
OWNER: FOURTH INVESTMENT USA LLC

AVILLA FOUNDERS VILLAGE PHASING MATRIX						
UNIT MIX	PHASE 1	PHASE 2	PHASE 3	PHASE 4	PHASE 5	SITE TOTAL
1 BR	6	6	12	4	6	34
2 BR	3	13	10	9	6	41
3 BR	2	4	9	9	6	30
TOTAL	11	23	31	22	18	105
CUMULATIVE TOTAL	11	34	65	87	105	-
PARKING						
GARAGE	0	4	4	4	4	16
HANDICAP	3	0	1	2	1	7
SURFACE	42	51	53	25	26	197
TOTAL BY PHASE	45	55	58	31	31	220
CUMULATIVE TOTAL	45	100	158	189	220	-
PARKING RATIO CUMULATIVE	4.09	2.9	2.4	2.2	2.1	2.1
PARKING RATIO BY PHASE	4.09	2.4	1.9	1.4	1.7	2.1

NOTES:

- ALL UTILITY MAINS, INCLUDING WATER MAIN, SANITARY SEWER MAIN, AND STORM SEWER MAIN, ARE TO BE COMPLETED IN PHASE 1.
- PAVING & ROCK CANYON TRAIL TO BE COMPLETED PRIOR TO FIRST PHASE TURN FOR EMERGENCY ACCESS.

LEGEND:

PHASE LINE -----

HORIZONTAL CONTROL

BEARINGS ARE BASED ON THE NORTH LINE OF THE NORTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 8, AS MONUMENTED AT THE EAST CORNER BY A #6 REBAR WITH A 3.25" ALUMINUM CAP STAMPED: SURVCON 2006 PLS 30289 AND AT THE CENTER-EAST SIXTEENTH CORNER BY A 2.5" PIPE WITH A 3.5" ALUMINUM CAP STAMPED: 1986 PLS 22100, AS BEARING SOUTH 88°58'05" WEST, PER THE PLAT OF FOUNDERS VILLAGE FILING NO. 24 AMENDMENT NO. 1.

VERTICAL DATUM

DOUGLAS COUNTY GIS CONTROL MONUMENT NO. 4.015020 MONUMENTED BY A 3-1/4" DIAMETER ALUMINUM CAPPED MONUMENT BEING NORTH OF THE EAST 1/4 CORNER OF SECTION 8 AS MONUMENTED BY 2-1/2" ALUMINUM CAPPED MONUMENT STAMPED "LS28656". NAVD 88 ELEVATION=6572.29

PROFESSIONAL ENGINEER CERTIFICATION

I HEREBY AFFIRM THAT THESE FINAL CONSTRUCTION PLANS WERE PREPARED UNDER MY DIRECT SUPERVISION, IN ACCORDANCE WITH ALL APPLICABLE TOWN OF CASTLE ROCK AND STATE OF COLORADO STANDARDS AND STATUTES, RESPECTIVELY; AND THAT I AM FULLY RESPONSIBLE FOR ALL DESIGN AND REVISIONS RELATIVE TO SAID PLANS.

PRELIMINARY
NOT FOR
CONSTRUCTION

RACHEL C PATTON, P.E. #54450

DATE

TOWN OF CASTLE ROCK APPROVAL

PLANS ARE HEREBY APPROVED FOR ONE YEAR FROM DATE OF DEVELOPMENT SERVICES APPROVAL

Approved By:

Development Services

Date



50 0 50 100
SCALE: 1" = 50'

DESIGNED BY: TLW
CHECKED BY: RCP
DRAWN BY: TLW

ISSUE DATE: 08-11-2022

DATE	REVISION COMMENTS
10-31-2022	PER TOWN OF CASTLE ROCK COMMENTS



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AVILLA FOUNDERS VILLAGE
PHASING PLAN

PROJECT #: 210431

SHEET NUMBER

61

61 OF 87

FILEPATH: K:\210431\ENGINEERING\CD\CD - PHASING PLAN.DWG LAYOUT: LAYOUT1
PLOTTED: MON 11/21/22 11:04:36A BY: MILES SUSTAD

NO CHANGES ARE TO BE MADE TO THIS DRAWING WITHOUT WRITTEN PERMISSION OF HARRIS KOCHER SMITH.

CURB RAMP GENERAL NOTES:

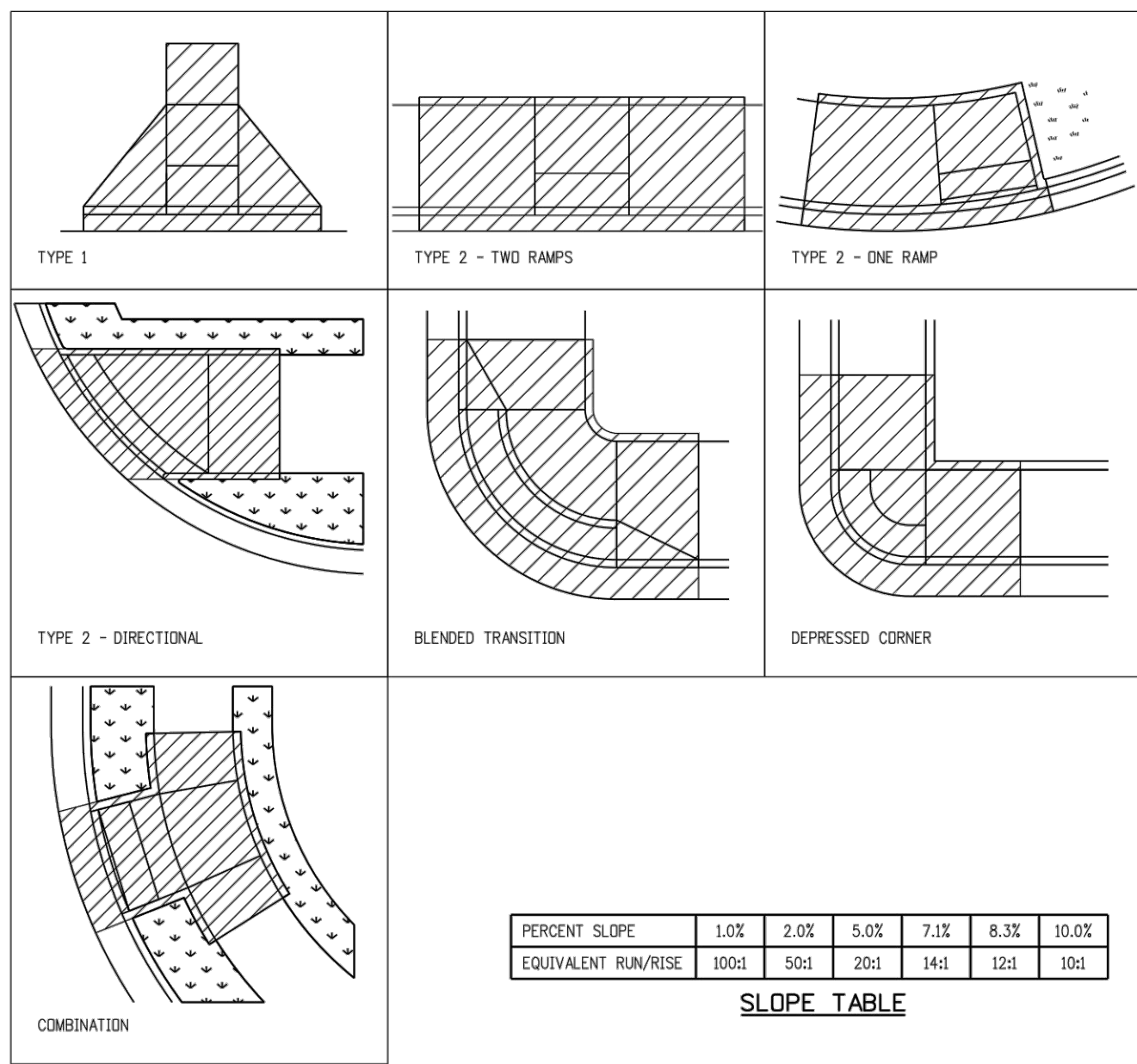
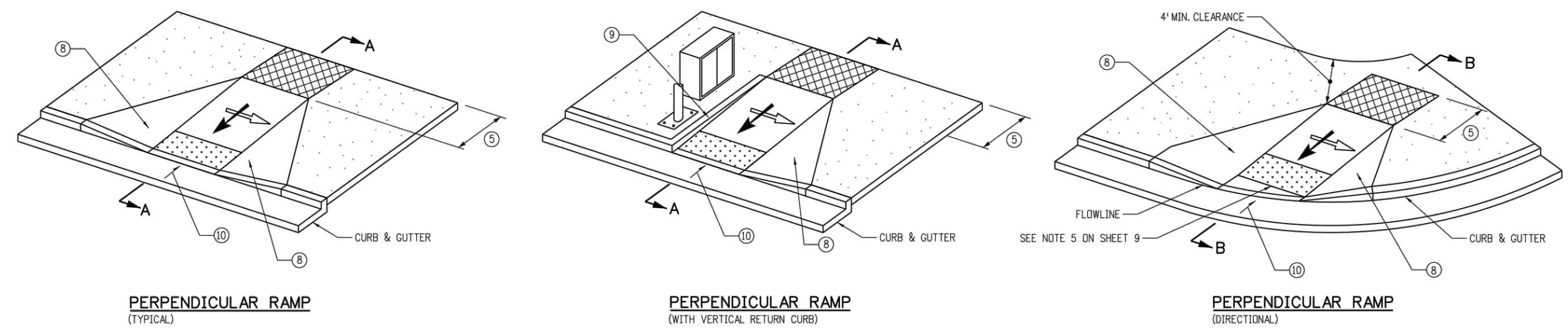
- IN NEW CONSTRUCTION OR FULL-DEPTH RECONSTRUCTION, PROVIDE A SEPARATE CURB RAMP FOR EACH MARKED OR UNMARKED PEDESTRIAN STREET CROSSING. CURB RAMP SHALL BE CONTAINED WHOLLY WITHIN THE WIDTH OF THE PEDESTRIAN STREET CROSSING OR CROSSWALK THEY SERVE, OR AS SHOWN ON THE CONTRACT PLANS.
- ALTERATIONS ARE DEFINED AS CHANGES TO AN EXISTING HIGHWAY THAT AFFECT PEDESTRIAN ACCESS, CIRCULATION, OR USE. ALTERATIONS INCLUDE, BUT ARE NOT LIMITED TO, RESURFACING, REHABILITATION, RECONSTRUCTION, CURB RAMP RETROFITS, OR CHANGES OR REARRANGEMENT TO STRUCTURAL PARTS OR ELEMENTS OF A PEDESTRIAN FACILITY.
- A WALKABLE SURFACE IS DEFINED AS A PAVED SURFACE ADJACENT TO A CURB RAMP OR TURNING SPACE, WITHOUT RAISED OBSTACLES, THAT COULD BE MISTAKENLY TRAVERSED BY A USER WHO IS VISUALLY IMPAIRED.
- IN ALTERATIONS, WHERE AN EXISTING PHYSICAL CONSTRAINT PREVENTS PROVIDING A SEPARATE CURB RAMP FOR EACH PEDESTRIAN STREET CROSSING, A SINGLE DIAGONAL RAMP OR THE REAR SHALL BE PERMITTED TO SERVE BOTH PEDESTRIAN STREET CROSSINGS. THE USE OF A SINGLE DIAGONAL RAMP SHALL BE APPROVED BY THE ENGINEER PRIOR TO CONSTRUCTION. DIAGONAL RAMP ARE NOT ACCEPTABLE IN NEW CONSTRUCTION OR FULL-DEPTH RECONSTRUCTION.
- DETECTABLE WARNING SURFACES (DWS) ARE INTENDED TO INDICATE THE BOUNDARY BETWEEN A PEDESTRIAN ROUTE AND VEHICULAR ROUTE WHERE THERE IS A FLUSH RATHER THAN CURVED CONNECTION. DWS ARE NOT INTENDED TO PROVIDE WAYFINDING. DWS SHALL BE PROVIDED AT THE FOLLOWING LOCATIONS:
 - CURB RAMP, BLENDED TRANSITIONS, AND DEPRESSED CORNERS AT PEDESTRIAN STREET CROSSINGS;
 - PEDESTRIAN REFUGE ISLANDS (6 FEET IN WIDTH OR GREATER);
 - BOARDING PLATFORMS AT TRANSIT STOPS WHERE THE EDGE OF THE PLATFORM IS NOT PROTECTED TO PEDESTRIAN CROSS TRAFFIC; AND
 - BOARDING AREAS AT SIDEWALK OR STREET LEVEL TRANSIT STOPS WHERE THE AREA IS NOT PROTECTED TO PEDESTRIAN CROSS TRAFFIC.
- DETECTABLE WARNING SURFACES SHALL CONTRAST VISUALLY WITH THE ADJACENT GUTTER, HIGHWAY, OR PEDESTRIAN ACCESS ROUTE SURFACE, EITHER LIGHT-ON-DARK OR DARK-ON-LIGHT. FEDERAL YELLOW COLOR IS PREFERRED, HOWEVER, OTHER COLORS MAY BE USED IF APPROVED BY THE ENGINEER.
- IN ALTERATIONS, TO AVOID CHASING GRADE INDEFINITELY ON STEEP ROADWAYS, A CURB RAMP LENGTH IS NOT REQUIRED TO EXCEED 15 FEET REGARDLESS OF THE RESULTING RAMP RUNNING SLOPE.
- ALL SLOPES ARE MEASURED WITH RESPECT TO A LEVEL PLANE.
- DRAINAGE STRUCTURES, TRAFFIC SIGNAL EQUIPMENT, OR OTHER OBSTRUCTIONS SHALL NOT BE INSTALLED ON THE CURB RAMP, OR TURNING SPACE AREAS.
- IN NEW CONSTRUCTION, PULL BOXES, METER BOXES, MAINTENANCE HOLE COVERS, VAULT LIDS, OR SIMILAR, SHALL NOT BE CONSTRUCTED WITHIN ANY PART OF CURB RAMP OR TURNING SPACE. IN ALTERATIONS, WHERE THESE ITEMS CANNOT BE RELOCATED OUTSIDE OF THE CURB RAMP OR TURNING SPACE, THEY MUST NOT CREATE A VERTICAL DISCONTINUITY GREATER THAN 1/2 INCH. ANY VERTICAL DISCONTINUITY BETWEEN 1/4 INCH AND 1/2 INCH SHALL BE BEVELED WITH A SLOPE NOT STEEPER THAN 1V:2H. THE BEVEL SHALL BE APPLIED ACROSS THE ENTIRE SURFACE DISCONTINUITY.
- CONSTRUCTION OF ANY REQUIRED PEDESTRIAN CURB SHALL BE INCLUDED IN THE BID PRICE OF THE CONCRETE CURB RAMP AND WILL NOT BE PAID FOR SEPARATELY.
- ALL CURB RAMP JOINTS AND GRADE BREAKS SHALL BE FLUSH (0°-1/8°). THE JOINT BETWEEN THE ROADWAY SURFACE AND THE GUTTER PAN SHALL BE FLUSH.
- THE CONTRACTOR SHALL VERIFY REMOVAL LIMITS ARE SUFFICIENT TO PROVIDE POSITIVE DRAINAGE, MAINTAIN EXISTING DRAINAGE PATTERNS, AND AVOID PONDING IN THE FINAL CONFIGURATION.
- FLARED SIDE SLOPES MAY EXCEED 10.0% ONLY WHERE THEY ABUT A NON-WALKABLE SURFACE, OR WHERE THE ADJACENT RAMP SURFACE IS BLOCKED TO PEDESTRIAN TRAFFIC.
- THE CHANGE IN GRADE AT THE BOTTOM OF THE CURB RAMP SHALL NOT EXCEED AN ALGEBRAIC DIFFERENCE OF 13.33% THE COUNTER SLOPE OF THE GUTTER AT THE FOOT OF A RAMP, TURNING SPACE, OR BLENDED TRANSITION SHALL NOT EXCEED 5.0%.
- GRADE BREAKS AT THE TOP AND BOTTOM OF RAMP RUNS SHALL BE PERPENDICULAR TO THE DIRECTION OF THE RAMP RUN. GRADE BREAKS SHALL NOT BE PERMITTED ON THE SURFACE OF THE RAMP RUN OR TURNING SPACE. SURFACE SLOPES THAT MEET AT GRADE BREAKS SHALL BE FLUSH.
- A BROAD FINISH, WITH SWEEPS PERPENDICULAR TO THE DIRECTION OF PEDESTRIAN TRAFFIC, SHALL BE APPLIED TO ALL RAMP AND TURNING SPACE SURFACES.
- IN ALTERATIONS, WHERE A RAMP OR TURNING SPACE MUST TIE INTO AN EXISTING GRADE THAT CANNOT BE ALTERED, THE RAMP OR TURNING SPACE MAY BE WARPED TO TRANSITION TO THE REQUIRED CROSS SLOPE. THE TRANSITION TO THE REQUIRED CROSS SLOPE SHALL BE SPREAD EVENLY OVER THE LENGTH OF THE RAMP OR TURNING SPACE TO MINIMIZE THE DEGREE OF WARPING. THE RATE OF CHANGE ON A RAMP OR TURNING SPACE SHALL NOT EXCEED 3% PER LINEAR FOOT.
- DESIGN AND CONSTRUCT CURB RAMP, TURNING SPACE, AND FLARE SLOPES WITH THE FLATTEST SLOPES POSSIBLE. THE SLOPES INDICATED IN THESE DETAILS SHOW THE MAXIMUM SLOPES ALLOWABLE. PREFERRED VALUES TO BE USED DURING DESIGN, LAYOUT, AND CONSTRUCTION ARE:
 - RAMP RUNNING SLOPE 7.5%
 - RAMP CROSS SLOPE 1.5%
 - TURNING SPACE RUNNING SLOPE 1.5%
 - TURNING SPACE CROSS SLOPE 1.5%
 - FLARE SLOPE 8.0-9.0%

GENERAL NOTES & PAY AREAS

- WHERE SNOW REMOVAL EQUIPMENT WILL BE USED TO CLEAR THE PEDESTRIAN ACCESS ROUTE, CONSULT THE ENGINEER PRIOR TO CONSTRUCTION TO ENSURE THE WIDTH AND THICKNESS OF CURB RAMP IS SUFFICIENT TO ACCOMMODATE SUCH EQUIPMENT.

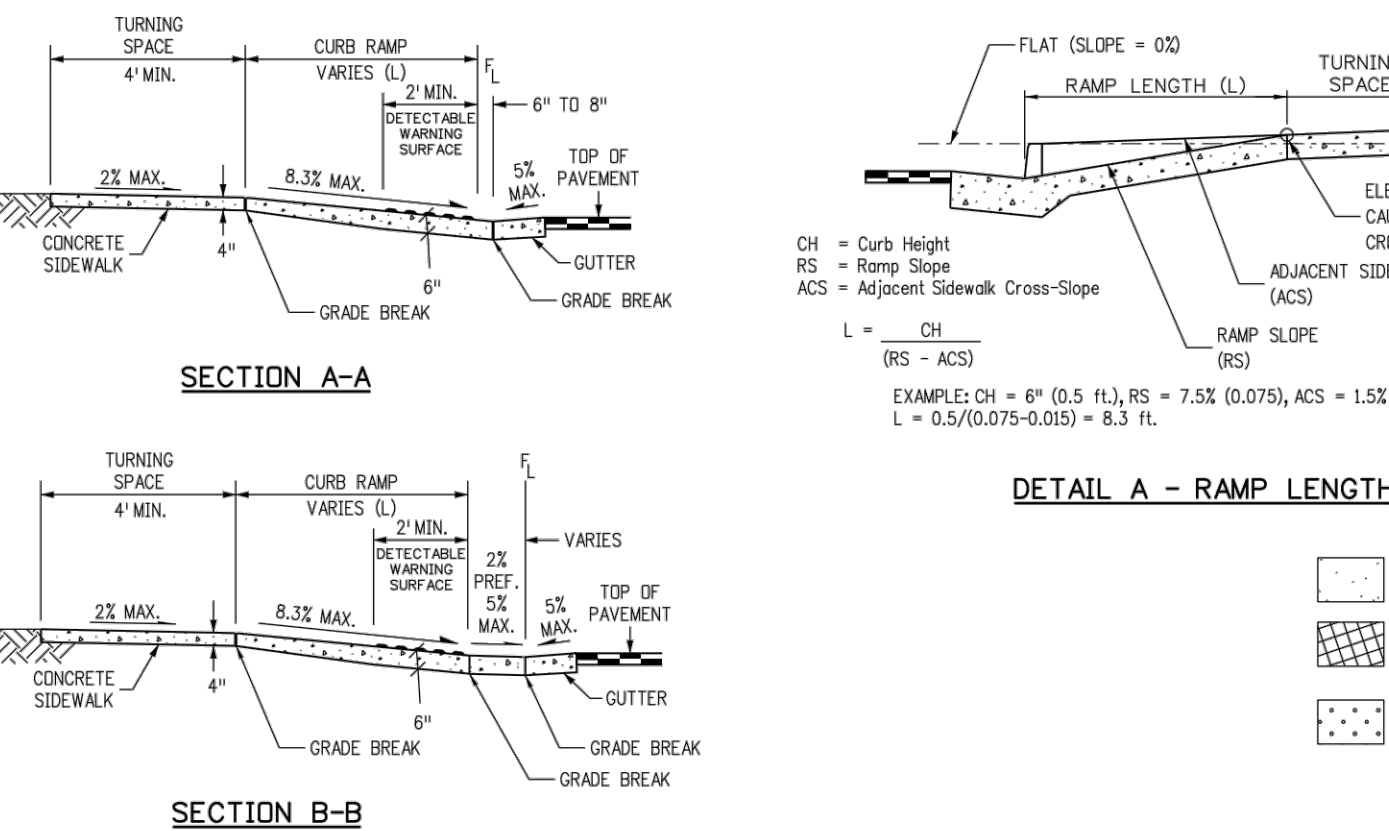
- PROVIDE EXPANSION JOINT MATERIAL 1/2" THICK WHERE CURB RAMP ADJUTS ANY RIGID PAVEMENT, OR STRUCTURE. THE TOP OF THE JOINT FILLER MATERIAL SHALL BE FLUSH WITH ADJOINING CONCRETE SURFACES. THE EXPANSION JOINT MATERIAL SHALL EXTEND FOR THE FULL DEPTH OF THE CONCRETE SURFACE.
- PROVIDE THE BAR REINFORCING BETWEEN INDEPENDENTLY POURED CONCRETE CURB RAMP OR TURNING SPACES AND CURB AND GUTTER. DRILL AND GROUT NO. 4-12 INCH LONG REINFORCEMENT BARS (EMPTY COATED) AT 18 INCHES CENTER TO CENTER MINIMUM.

CURB RAMP PAY AREAS



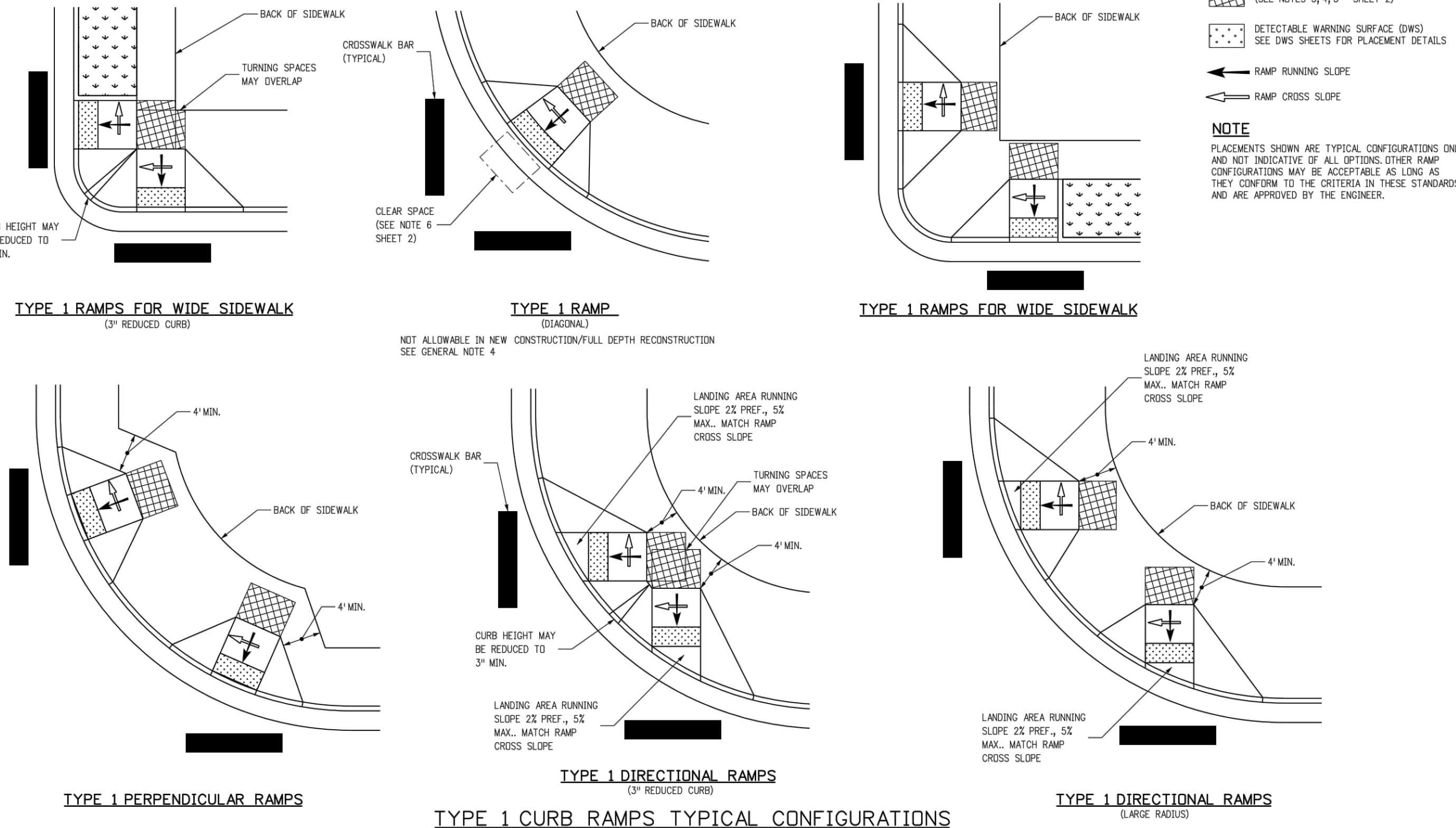
PERPENDICULAR RAMP NOTES

- RAMP WIDTH - PROVIDE 5 FT. OR GREATER WHERE POSSIBLE. IF SITE CONSTRAINTS DO NOT PERMIT, PROVIDE 4 FT. MINIMUM. RAMP SERVING SHARED USE PATHS SHALL MATCH THE WIDTH OF THE PATH.
- RAMP RUNNING SLOPE - 8.3% MAX.
- TURNING SPACE RUNNING SLOPE - 2.0% MAX. TURNING SPACE RUNNING SLOPE IS MEASURED IN THE SAME DIRECTION AS THE RAMP RUNNING SLOPE.
- RAMP AND TURNING SPACE CROSS SLOPE - 2.0% TYPICAL. AT CROSSINGS WITHOUT YIELD OR STOP CONTROL, OR WITH A SIGNAL WHERE VEHICLES CAN PROCEED THROUGH THE INTERSECTION WITHOUT SLOWING OR STOPPING, THE CROSS SLOPE OF RAMP AND TURNING SPACES MAY EQUAL THE HIGHWAY GRADE. AT MIDBLOCK PEDESTRIAN STREET CROSSINGS THE RAMP AND TURNING SPACE CROSS SLOPE MAY EQUAL THE HIGHWAY GRADE.
- TURNING SPACE DIMENSIONS - PROVIDE A TURNING SPACE AT THE TOP OF PERPENDICULAR RAMP WITH A WIDTH EQUAL TO THE WIDTH OF THE CURB RAMP. TURNING SPACE LENGTH MUST BE 4 FT. MINIMUM. MEASURED IN THE DIRECTION OF THE RAMP RUN WHEN A TURNING SPACE IS CONSTRAINED AT THE BACK OF SIDEWALK, INCREASE LENGTH TO 5 FT. MINIMUM IN THE DIRECTION OF THE RAMP RUN.
- RAMP ALIGNMENT - RAMP SHALL BE ALIGNED TO BE FULLY CONTAINED WITHIN THE CROSSWALK OR STREET CROSSING THEY SERVE. PROVIDE ONE RAMP FOR EACH STREET CROSSING DIRECTION. IN ALTERATIONS, WHERE EXISTING PHYSICAL CONSTRAINTS PREVENT PROVIDING ONE CURB RAMP FOR EACH CROSSING DIRECTION, A SINGLE DIAGONAL CURB RAMP ON THE ASPECT OF A CORNER SHALL BE PERMITTED TO SERVE BOTH PEDESTRIAN STREET CROSSINGS. IF A DIAGONAL RAMP IS USED, A CLEAR SPACE 4 FT. x 4 FT. MUST BE PROVIDED AT THE BASE OF THE RAMP. THE CLEAR SPACE MUST BE WITHIN BOTH CROSSWALKS AND WHOLLY OUTSIDE OF ANY ADJACENT VEHICULAR TRAVEL LINES. DIAGONAL RAMP ARE NOT ACCEPTABLE IN NEW CONSTRUCTION, OR FULL-DEPTH RECONSTRUCTION.
- RAMP LENGTH - PERPENDICULAR RAMP LENGTH IS DEPENDENT UPON THE RAMP SLOPE, HEIGHT OF CURB, AND ADJACENT SIDEWALK CROSS-SLOPE WHICH MUST BE INTERCEPTED. SEE DETAIL A FOR CALCULATING RAMP LENGTH WHEN CHASING SIDEWALK CROSS-SLOPE. WHERE TERRAIN IS SLOPING A RAMP IS NOT REQUIRED TO CHASE GRADE MORE THAN 15 FT. REGARDLESS OF THE RESULTING RAMP SLOPE.
- RAMP FLARES - WHERE A RAMP EDGE ABUTS A WALKABLE SURFACE, A FLARED SIDE SHALL BE PROVIDED. RAMP FLARE SLOPES SHALL NOT EXCEED 10.0%.
- VERTICAL CURB RETURNS - VERTICAL CURB RETURNS MAY BE USED ONLY WHERE A RAMP ABUTS A NON-WALKABLE SURFACE, OR WHERE A RAMP IS PROTECTED FROM PEDESTRIAN CROSS TRAFFIC (FOR EXAMPLE BY A SIGNAL CABINET OR UTILITY POLE WHICH BLOCKS PASSAGE).
- GUTTER COUNTER SLOPE - 5.0% MAX.



TYPE 1 PERPENDICULAR CURB RAMP

Computer File Information		Sheet Revisions		Colorado Department of Transportation		STANDARD PLAN NO.	
Creation Date: 07/31/19		Dates	Comments	2829 West Howard Place		M-608-1	
Designer Initials: JBK	(RCD)			CDOT HQ, 3rd Floor		Standard Sheet No. 1 of 10	
Last Modification Date: 07/31/19	(RCD)			Denver, CO 80204			
Detailer Initials: LTA	(RCD)			Phone: 303-757-9921 FAX: 303-757-9868			
CAD Ver: MicroStation V8	(RCD)			Project Development Branch	JBK		
Scale: Not to Scale				Issued by the Project Development Branch: July 31, 2019			
Units: English				Project Sheet Number:			



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Creation Date: 07/31/19		Dates	Comments	2829 West Howard Place		M-608-1	
Designer Initials: JBK	(RCD)			CDOT HQ, 3rd Floor		Standard Sheet No. 3 of 10	
Last Modification Date: 07/31/19	(RCD)			Denver, CO 80204			
Detailer Initials: LTA	(RCD)			Phone: 303-757-9921 FAX: 303-757-9868			
CAD Ver: MicroStation V8	(RCD)			Project Development Branch	JBK		
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HORIZONTAL CONTROL

BEARINGS ARE BASED ON THE NORTH LINE OF THE NORTHEAST QUARTER OF SECTION 8, AS MONUMENTED AT THE EAST CORNER BY A #6 REBAR WITH A 3.25" ALUMINUM CAP STAMPED: SURVCON 2006 PLS 30289 AND AT THE CENTER-EAST SIXTEENTH CORNER BY A 2.5" PIPE WITH A 3.5" ALUMINUM CAP STAMPED: 1986 PLS 22100, AS BEARING SOUTH 88°58'06" WEST, PER THE PLAT OF FOUNDERS VILLAGE FILING NO. 24 AMENDMENT NO. 1.

VERTICAL DATUM

DOUGLAS COUNTY GIS CONTROL MONUMENT NO. 4.015020 MONUMENTED BY A 3-1/4" DIAMETER ALUMINUM CAPPED MONUMENT BEING NORTH OF THE EAST 1/4 CORNER OF SECTION 8 AS MONUMENTED BY 2-1/2" ALUMINUM CAPPED MONUMENT STAMPED "LS28656". NAVD 88 ELEVATION=6572.29

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PRELIMINARY
NOT FOR
CONSTRUCTION

RACHEL C. PATTON, P.E. #54450	DATE
TOWN OF CASTLE ROCK APPROVAL	
PLANS ARE HEREBY APPROVED FOR ONE YEAR FROM DATE OF DEVELOPMENT SERVICES APPROVAL	
Approved By:	
Development Services	Date



Know what's below.
Call before you dig.

DESIGNED BY: TLW
CHECKED BY: RCP
DRAWN BY: TLW

ISSUE DATE: 08-11-2022	
DATE	REVISION COMMENTS
10-31-2022	PER TOWN OF CASTLE ROCK COMMENTS



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AVILLA FOUNDERS VILLAGE
RAMP DETAILS

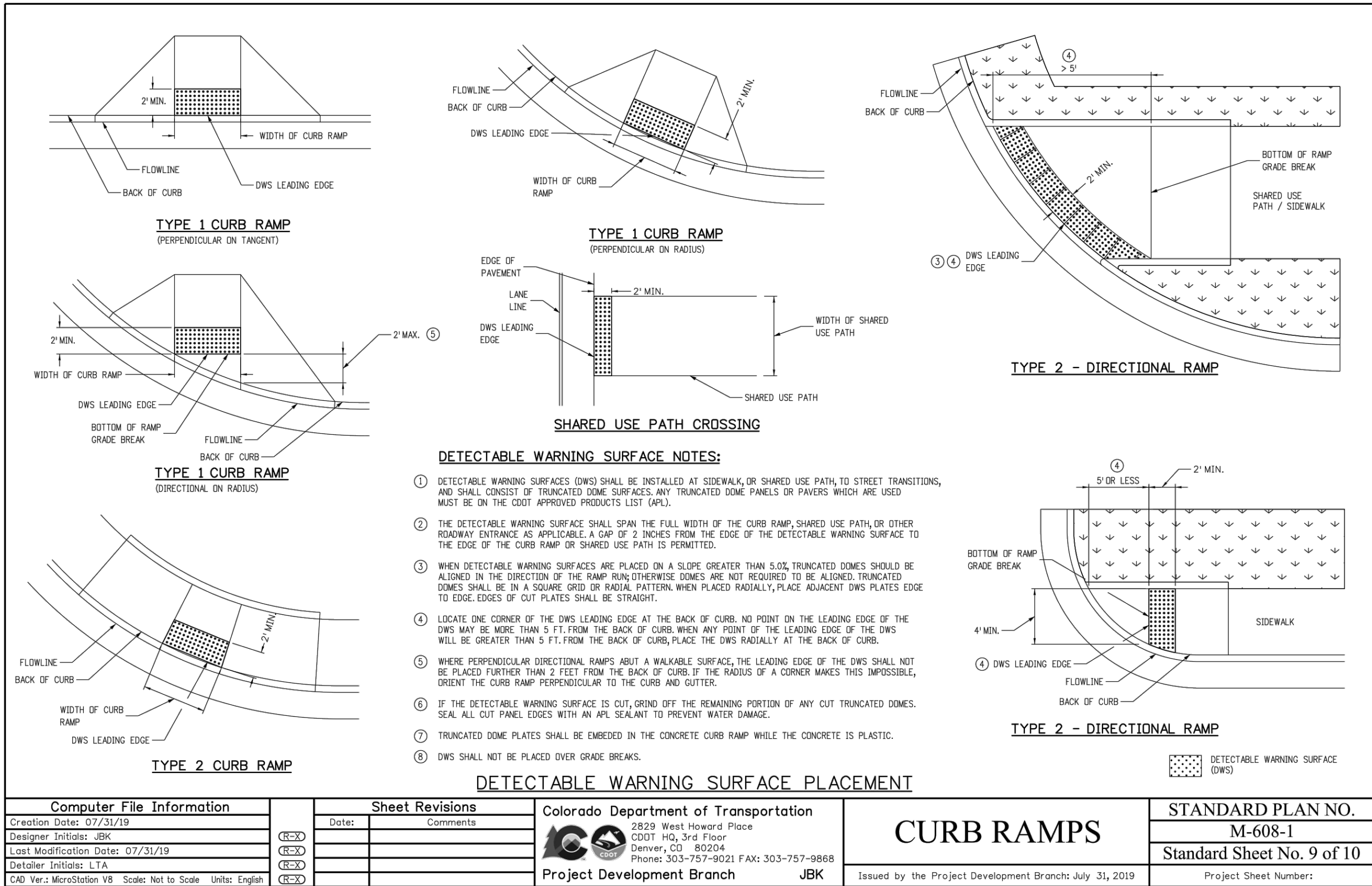
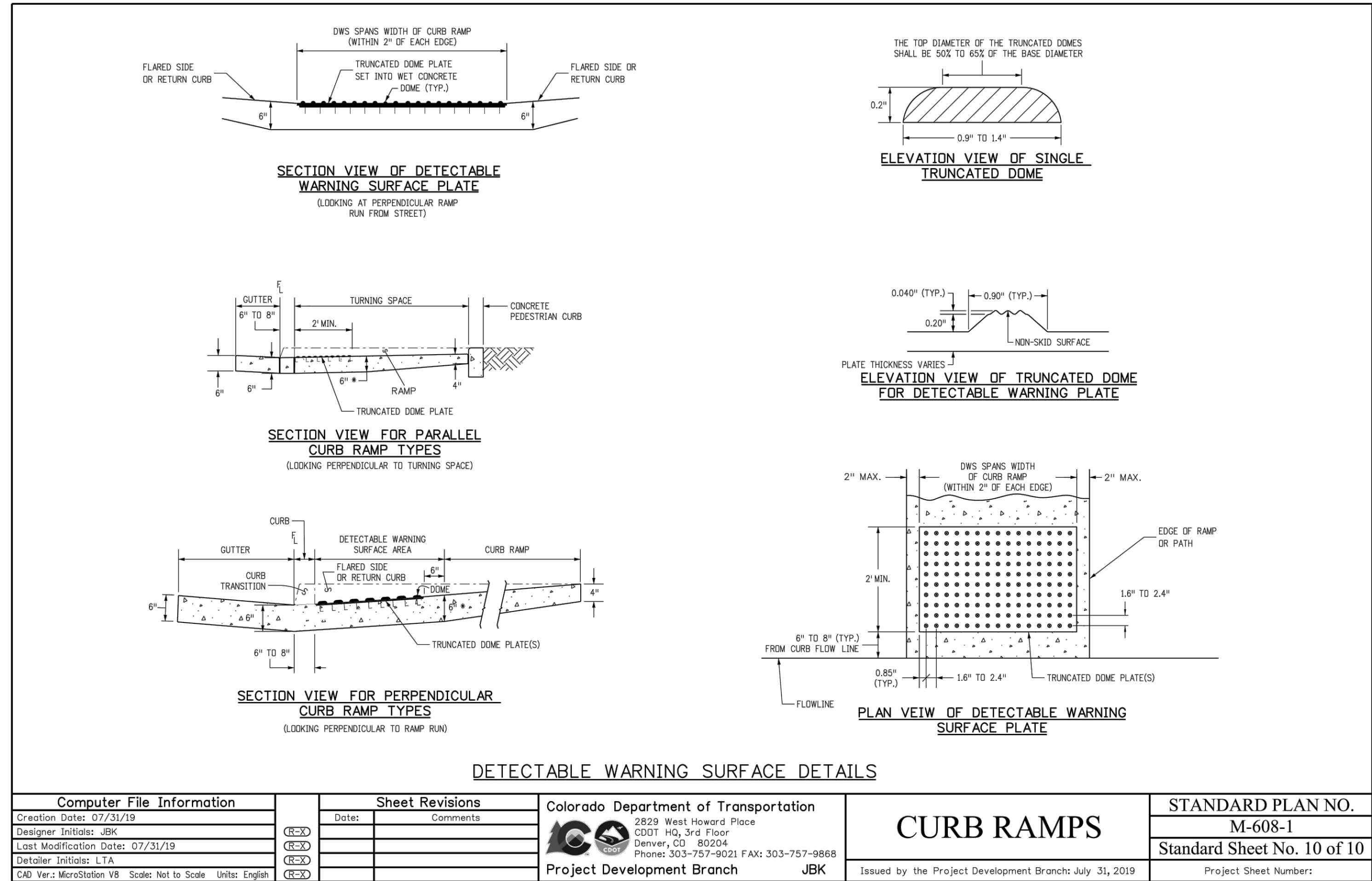
PROJECT #: 210431
SHEET NUMBER

62

62 OF 87

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PLOTTED: MON 11/21/2022 11:04:43A BY: MILES SUSTAD

NO CHANGES ARE TO BE MADE TO THIS DRAWING WITHOUT WRITTEN PERMISSION OF HARRIS KOCHER SMITH.



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PLANS ARE HEREBY APPROVED FOR ONE YEAR FROM DATE OF DEVELOPMENT SERVICES APPROVAL.	
Approved By:	
Development Services	Date



Know what's below.
Call before you dig.

DESIGNED BY: TLW
CHECKED BY: RCP
DRAWN BY: TLW

ISSUE DATE: 08-11-2022

DATE	REVISION COMMENTS
10-31-2022	PER TOWN OF CASTLE ROCK COMMENTS



AVILLA FOUNDERS VILLAGE
RAMP DETAILS

PROJECT #: 210431
SHEET NUMBER

63

63 OF 87

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FILEPATH: P:\AVILLA BELLA MESA - 0632-01-0007\DRAWINGS\CONSTRUCTION DOCUMENTS\AVILLA-FV-PLAN-CD.DWG LAYOUT: 7 LANDSCAPE NOTES
PLOTTED: THU 11/10/22 3:04:09P BY: JAMES RYMER

GENERAL LANDSCAPE NOTES

1. THE CONTRACTOR SHALL FOLLOW THE LANDSCAPE PLANS AND SPECIFICATIONS AS CLOSELY AS POSSIBLE. ANY SUBSTITUTION OR ALTERATION SHALL NOT BE ALLOWED WITHOUT APPROVAL OF THE OWNER'S REPRESENTATIVE. OVERALL PLANT QUANTITY AND QUALITY SHALL BE CONSISTENT WITH THE PLANS.
2. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL PLANT QUANTITIES. GRAPHIC QUANTITIES TAKES PRECEDENCE OVER WRITTEN QUANTITIES.
3. THE OWNER'S REPRESENTATIVE RESERVES THE RIGHT TO INSPECT AND TAG ALL PLANT MATERIAL PRIOR TO SHIPPING TO THE SITE. IN ALL CASES, THE OWNER'S REPRESENTATIVE MAY REJECT PLANT MATERIAL AT THE SITE IF MATERIAL IS DAMAGED, DISEASED, OR DECLINING IN HEALTH AT THE TIME OF ONSITE INSPECTIONS OR IF THE PLANT MATERIAL DOES NOT MEET THE MINIMUM SPECIFIED STANDARD IDENTIFIED ON THE PLANS AND IN THE SPECIFICATIONS. THE CONTRACTOR SHALL COORDINATE WITH THE OWNER'S REPRESENTATIVE FOR INSPECTION AND APPROVAL OF ALL MATERIALS AND PRODUCTS PRIOR TO INSTALLATION.
4. THE OWNER'S REPRESENTATIVE MAY ELECT TO UPSIZE PLANT MATERIAL AT THEIR DISCRETION BASED ON SELECTION, AVAILABILITY, OR TO ENHANCE SPECIFIC AREAS OF THE PROJECT. THE CONTRACTOR SHALL VERIFY PLANT MATERIAL SIZES WITH OWNER'S REPRESENTATIVE PRIOR TO PURCHASING, SHIPPING OR STOCKING OF PLANT MATERIALS. SUBMIT CHANGE ORDER REQUEST TO OWNER'S REPRESENTATIVE FOR APPROVAL IF ADDITIONAL COST IS REQUESTED BY THE CONTRACTOR PRIOR TO INSTALLATION. RE-STOCKING CHARGES WILL NOT BE APPROVED IF THE CONTRACTOR FAILS TO SUBMIT A REQUEST FOR MATERIAL CHANGES.
5. THE CONTRACTOR SHALL WARRANTY ALL CONTRACTED WORK AND MATERIALS FOR A PERIOD OF ONE YEAR AFTER SUBSTANTIAL COMPLETION HAS BEEN ISSUED BY THE OWNER'S REPRESENTATIVE FOR THE ENTIRE PROJECT UNLESS OTHERWISE SPECIFIED IN THE CONTRACT DOCUMENTS OR SPECIFICATIONS.
6. REFER TO IRRIGATION PLANS FOR LIMITS AND TYPES OF IRRIGATION DESIGNED FOR THE LANDSCAPE. IN NO CASE SHALL IRRIGATION BE EMITTED WITHIN THE MINIMUM DISTANCE FROM BUILDING OR WALL FOUNDATIONS AS STIPULATED IN THE GEOTECHNICAL REPORT. ALL IRRIGATION DISTRIBUTION LINES, HEADS AND EMITTERS SHALL BE KEPT OUTSIDE THE MINIMUM DISTANCE AWAY FROM ALL BUILDING AND WALL FOUNDATIONS AS STIPULATED IN THE GEOTECHNICAL REPORT.
7. LANDSCAPE MATERIAL LOCATIONS SHALL HAVE PRECEDENCE OVER IRRIGATION MAINLINE AND LATERAL LOCATIONS. COORDINATE INSTALLATION OF IRRIGATION EQUIPMENT SO THAT IT DOES NOT INTERFERE WITH THE PLANTING OF TREES OR OTHER LANDSCAPE MATERIAL.
8. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING POSITIVE DRAINAGE EXISTS IN ALL LANDSCAPE AREAS. SURFACE DRAINAGE ON LANDSCAPE AREAS SHALL NOT FLOW TOWARD STRUCTURES AND FOUNDATIONS. MAINTAIN SLOPE AWAY FROM FOUNDATIONS PER THE GEOTECHNICAL REPORT RECOMMENDATIONS. ALL LANDSCAPE AREAS BETWEEN WALKS AND CURBS SHALL DRAIN FREELY TO THE CURB UNLESS OTHERWISE IDENTIFIED ON THE GRADING PLAN. IN NO CASE SHALL THE GRADE, TURF THATCH, OR OTHER LANDSCAPE MATERIALS DAM WATER AGAINST WALKS. MINIMUM SLOPES ON LANDSCAPE AREAS SHALL BE 2%; MAXIMUM SLOPE SHALL BE 25% UNLESS SPECIFICALLY IDENTIFIED ON THE PLANS OR APPROVED BY THE OWNER'S REPRESENTATIVE.
9. PRIOR TO INSTALLATION OF PLANT MATERIALS, AREAS THAT HAVE BEEN COMPACTED OR DISTURBED BY CONSTRUCTION ACTIVITY SHALL BE THOROUGHLY LOOSENEED TO A DEPTH OF 8" - 12" AND AMENDED PER SPECIFICATIONS.
10. TREES SHALL NOT BE LOCATED IN DRAINAGE SWALES, DRAINAGE AREAS, OR UTILITY EASEMENTS. CONTACT OWNER'S REPRESENTATIVE FOR RELOCATION OF PLANTS IN QUESTIONABLE AREAS PRIOR TO INSTALLATION.
11. THE CENTER OF EVERGREEN TREES SHALL NOT BE PLACED CLOSER THAN 8' AND THE CENTER OF ORNAMENTAL TREES CLOSER THAN 6' FROM A SIDEWALK, STREET OR DRIVE LANE. EVERGREEN TREES SHALL NOT BE LOCATED ANY CLOSER THAN 15' FROM IRRIGATION ROTOR HEADS. NOTIFY OWNER'S REPRESENTATIVE IF TREE LOCATIONS CONFLICT WITH THESE STANDARDS FOR FURTHER DIRECTION.
12. ALL EVERGREEN TREES SHALL BE FULLY BRANCHED TO THE GROUND AND SHALL NOT EXHIBIT SIGNS OF ACCELERATED GROWTH AS DETERMINED BY THE OWNER'S REPRESENTATIVE.
13. ALL TREES ARE TO BE STAKED AND GUYED PER DETAILS FOR A PERIOD OF 1 YEAR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING STAKES AT THE END OF 1 YEAR FROM ACCEPTANCE OF LANDSCAPE INSTALLATION BY THE OWNER'S REPRESENTATIVE. OBTAIN APPROVAL BY OWNER'S REPRESENTATIVE PRIOR TO REMOVAL.
14. ALL TREES INSTALLED ABOVE RETAINING WALLS UTILIZING GEO-GRID MUST BE HAND DUG TO PROTECT GEO-GRID. IF GEO-GRID MUST BE CUT TO INSTALL TREES, APPROVAL MUST BE GIVEN BY OWNER'S REPRESENTATIVE PRIOR TO DOING WORK.
15. ALL TREES IN SEED OR TURF AREAS SHALL RECEIVE MULCH RINGS. OBTAIN APPROVAL FROM OWNER'S REPRESENTATIVE FOR ANY TREES THAT WILL NOT BE MULCHED FOR EXCESSIVE MOISTURE REASONS.
17. SHRUB, GROUND COVER AND PERENNIAL BEDS ARE TO BE CONTAINED BY 4" x 14 GAUGE GALVANIZED, ROLL TOP, INTERLOCKING TYPE EDGER, RYERSON OR EQUAL. EDGER IS NOT REQUIRED WHEN ADJACENT TO CURBS, WALLS, WALKS OR SOLID FENCES WITHIN 3' OF PRE-MULCHED FINAL GRADE. EDGER SHALL NOT BE REQUIRED TO SEPARATE MULCH TYPES UNLESS SPECIFIED ON THE PLANS.
18. ALL SHRUB BEDS ARE TO BE MULCHED WITH MIN. 3" DEPTH, ¾" LOCAL ANGULAR ROCK OR 1 ½" LOCAL RIVER ROCK (REFER TO PLANS FOR LOCATION) LANDSCAPE MULCH OVER SPECIFIED GEOTEXTILE WEED CONTROL FABRIC. ALL GROUND COVER AND PERENNIAL FLOWER BEDS SHALL BE MULCHED WITH 4" DEPTH GORILLA HAIR CEDAR LANDSCAPE MULCH. NO WEED CONTROL FABRIC IS REQUIRED IN GROUND COVER OR PERENNIAL AREAS.
19. AT SEED AREA BOUNDARIES ADJACENT TO EXISTING NATIVE AREAS, OVERLAP ABUTTING NATIVE AREAS BY THE FULL WIDTH OF THE SEEDER.
20. EXISTING TURF AREAS THAT ARE DISTURBED DURING CONSTRUCTION, ESTABLISHMENT AND THE MAINTENANCE PERIOD SHALL BE RESTORED WITH NEW SOD TO MATCH EXISTING TURF SPECIES. DISTURBED NATIVE AREAS WHICH ARE TO REMAIN SHALL BE OVER SEEDED AND RESTORED WITH SPECIFIED SEED MIX.
21. CONTRACTOR SHALL OVER SEED ALL MAINTENANCE OR SERVICE ACCESS BENCHES AND ROADS WITH SPECIFIED SEED MIX UNLESS OTHERWISE NOTED ON THE PLANS.
22. ALL SEEDED SLOPES EXCEEDING 25% IN GRADE (4:1) SHALL RECEIVE EROSION CONTROL BLANKETS. PRIOR TO INSTALLATION, NOTIFY OWNER'S REPRESENTATIVE FOR APPROVAL OF LOCATION AND ANY ADDITIONAL COST IF A CHANGE ORDER IS NECESSARY.
23. WHEN COMPLETE, ALL GRADES SHALL BE WITHIN +/- 1/8" OF FINISHED GRADES AS SHOWN ON THE PLANS.
24. CONTRACTOR SHALL PRUNE ALL DEAD BRANCHES FROM ALL EXISTING TREES TO REMAIN WITHIN THE LIMIT OF WORK SHOWN ON THE LANDSCAPE PLANS. CONTRACTOR SHALL ALSO REMOVE ANY DEAD SHRUBS WITHIN THE SAME LIMITS.
25. PER TOWN OF CASTLE ROCK SHRUBS ARE TO BE PLANTED IN SPACE AND QUANTITIES TO PROVIDE SEVENTY FIVE (75) PERCENT GROUND COVERAGE IN FIVE GROWING SEASONS.
26. PER TOWN OF CASTLE ROCK PERENNIALS ARE TO BE PLANTED IN SPACING AND QUANTITIES SUCH THAT THEY WILL PROVIDE SEVENTY FIVE (75) PERCENT GROUND COVERAGE IN THREE YEARS.



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CHECKED BY: JR, CM
DRAWN BY: JR, RN

ISSUE DATE: 08-11-2022	
DATE	REVISION COMMENTS
10-31-2022	PER TOWN OF CASTLE ROCK COMMENTS



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PLANT SCHEDULE

DECIDUOUS TREES	QTY	BOTANICAL NAME	COMMON NAME	ROOT	SIZE	WATER USE	HEIGHT
AC CO	15	ACER PLATANOIDES 'COLUMNARE'	COLUMNAR NORWAY MAPLE	B & B	2" CAL	MOD	40'-50'
AC FR	11	ACER X FREEMANNII 'JEFFERSRED'™	AUTUMN BLAZE FREEMAN MAPLE	B & B	2" CAL	MOD	40'-50'
CA SP	15	CATALPA SPECIOSA	NORTHERN CATALPA	B & B	2" CAL	LOW	40'-50'
CE OC	5	CELTIS OCCIDENTALIS	COMMON HACKBERRY	B & B	2" CAL	LOW	40'-50'
GL SH	10	GLEDITSIA TRIACANTHOS INERMIS 'SHADEMASTER'™	SHADEMASTER LOCUST	B & B	2" CAL	LOW	40'-50'
QU BI	10	QUERCUS BICOLOR	SWAMP WHITE OAK	B & B	2" CAL	LOW	40'-50'
QU RU	7	QUERCUS RUBRA	RED OAK	B & B	2" CAL	LOW	50'-80'
TI GR	12	TILIA CORDATA 'GREENSPIRE'	GREENSPIRE LITTLELEAF LINDEN	B & B	2" CAL	MOD	40'-50'

EVERGREEN TREES	QTY	BOTANICAL NAME	COMMON NAME	ROOT	SIZE	WATER USE	HEIGHT
PI PU	7	PICEA PUNGENS	COLORADO SPRUCE	B & B	6" HEIGHT	MOD	50'-80'
PI AR	5	PINUS ARISTATA	BRISTLECONE PINE	B & B	6" HEIGHT	LOW	25'-35'
PI ED	4	PINUS EDULIS	PINON PINE	B & B	6" HEIGHT	VERY LOW	25'-35'
PI PO	3	PINUS PONDEROSA	PONDEROSA PINE	B & B	6" HEIGHT	LOW	50'-80'
PS ME	10	PSEUDOTSUGA MENZIESII	DOUGLAS FIR	B & B	6" HEIGHT	MOD	40'-50'

ORNAMENTAL TREES	QTY	BOTANICAL NAME	COMMON NAME	ROOT	SIZE	WATER USE	HEIGHT
AC GR	19	ACER GRANDIDENTATUM ROCKY MOUNTAIN GLOW	ROCKY MOUNTAIN GLOW MAPLE	B & B	2" CAL.	MOD	25'-35'
AC TA	1	ACER TATARICUM	TATARIAN MAPLE	B & B	2" CAL.	MOD	15'-25'
CR CR	15	CRATAEGUS CRUS-GALLI INERMIS 'CRUSADER'	CRUSADER COCKSPUR HAWTHORN	B & B	2" CAL.	LOW	15'-25'
MA RA	5	MALUS X 'RADIANT'	RADIANT CRABAPPLE	B & B	2" CAL.	MOD	15'-25'
PR SH	7	PRUNUS VIRGINIANA 'SHUBERT'	CANADA RED CHERRY	B & B	2" CAL.	LOW	25'-35'
PT TR	4	PTELEA TRIFOLIATA	COMMON HOPTREE	B & B	2" CAL.	MOD	15'-25'
QU GA	2	QUERCUS GAMBELII	GAMBEL OAK	B & B	2" CAL.	VERY LOW	15'-25'

DECIDUOUS SHRUBS	QTY	BOTANICAL NAME	COMMON NAME	ROOT	SIZE	WATER USE	HEIGHT
AM AL	42	AMELANCHIER ALNIFOLIA	SASKATOON SERVICEBERRY	CONT.	#5	LOW	13'-15'
AM SO	3	AMELANCHIER ALNIFOLIA 'STANDING OVATION'™	STANDING OVATION SERVICEBERRY	CONT.	#5	MOD	9'-12'
AM NA	95	AMORPHA NANA	DWARF LEADPLANT	CONT.	#5	VERY LOW	1'-2'
AR ME	34	ARONIA MELANOCARPA	BLACK CHOKEBERRY	CONT.	#5	MOD	7'-8'
BE CP	66	BERBERIS THUNBERGII 'CRIMSON PYGMY'	CRIMSON PYGMY BARBERRY	CONT.	#5	LOW	1'-2'
CA DK	21	CARYOPTERIS X CLANDONENSIS 'DARK KNIGHT'	DARK KNIGHT BLUEBEARD	CONT.	#5	LOW	5'-6'
CH MI	48	CHAMAEBATIARIA MILLEFOLIUM	DESERT SWEET	CONT.	#5	VERY LOW	5'-6'
CH DB	45	CHRYSOTHAMNUS NAUSEOSUS 'DWARF BLUE'	DWARF RABBITBRUSH	CONT.	#5	VERY LOW	3'-4'
EP VI	14	EPHEDRA VIRIDIS	MORMON TEA	CONT.	#5	VERY LOW	3'-4'
HI RH	6	HIPPOPHAE RHAMNOIDES	SEA BUCKHORN	CONT.	#5	VERY LOW	9'-12'
HO DU	14	HOLODISCUS DUMOSUS	ROCK SPIREA	CONT.	#5	VERY LOW	7'-8'
JA AM	22	JAMESIA AMERICANA	WAXFLOWER	CONT.	#5	LOW	5'-6'
LI LO	60	LIGUSTRUM VULGARE 'LODENSE'	LODENSE PRIVET	CONT.	#5	MOD	5'-6'
LO CD	27	LONICERA X XYLOSTEOIDES 'CLAVEY'S DWARF'	CLAVEY'S DWARF HONEYSUCKLE	CONT.	#5	LOW	7'-8'
PE LS	95	PEROVSKIA ATRIPLICIFOLIA 'LITTLE SPIRE'™	LITTLE SPIRE RUSSIAN SAGE	CONT.	#5	VERY LOW	1'-2'
PH SN	2	PHILADELPHUS X 'SNOWBELLE'	SNOWBELL MOCK ORANGE	CONT.	#5	MOD	5'-6'
PR PB	51	PRUNUS BESSEYI PAWNEE BUTTES	CREEPING WESTERN SAND CHERRY	CONT.	#5	LOW	1'-2'
PR TO	26	PRUNUS TOMENTOSA	NANKING CHERRY	CONT.	#5	MOD	9'-12'
RH AU	51	RHUS TRILOBATA 'AUTUMN AMBER'	AUTUMN AMBER SUMAC	CONT.	#5	VERY LOW	1'-2'
RI AU	40	RIBES AUREUM	GOLDEN CURRANT	CONT.	#5	LOW	5'-6'
RO HA	63	ROSA X HARISONII	HARISON'S YELLOW ROSE	CONT.	#5	VERY LOW	5'-6'
SH CA	3	SHEPHERDIA CANADENSIS	RUSSETT BUFFALOBERY	CONT.	#5	VERY LOW	3'-4'
SP SN	12	SPIRAEA NIPPONICA 'SNOWMOUND'	SNOWMOUND SPIREA	CONT.	#5	LOW	5'-6'
SY AL	16	SYMPHORICARPOS ALBUS	COMMON WHITE SNOWBERRY	CONT.	#5	LOW	3'-4'
SY HA	57	SYMPHORICARPOS X CHENAUTII 'HANCOCK'	HANCOCK CORALBERRY	CONT.	#5	LOW	1'-2'
SY MK	78	SYRINGA PATULA 'MISS KIM'	MISS KIM LILAC	CONT.	#5	LOW	5'-6'

EVERGREEN SHRUBS	QTY	BOTANICAL NAME	COMMON NAME	ROOT	SIZE	WATER USE	HEIGHT
AR CH	29	ARCTOSTAPHYLOS X COLORADOENSIS 'CHIEFTAIN'	CHIEFTAIN MANZANITA	CONT.	#5	LOW	1'-2'
JU BP	7	JUNIPERUS CHINENSIS 'BLUE POINT'	BLUE POINT JUNIPER	CONT.	#5	VERY LOW	13'-15'
JU SP	56	JUNIPERUS CHINENSIS 'SPARTAN'	SPARTAN JUNIPER	CONT.	#5	VERY LOW	13'-15'
JU BH	54	JUNIPERUS HORIZONTALIS 'BAR HARBOR'	BAR HARBOR CREEPING JUNIPER	CONT.	#5	LOW	1'-2'
JU BC	45	JUNIPERUS HORIZONTALIS 'BLUE CHIP'	BLUE CHIP JUNIPER	CONT.	#5	LOW	1'-2'
JU CC	16	JUNIPERUS SABINA 'CALGARY CARPET'™	CALGARY CARPET JUNIPER	CONT.	#5	LOW	1'-2'
JU WB	48	JUNIPERUS SCOPULORUM 'WICHITA BLUE'	WICHITA BLUE JUNIPER	CONT.	#5	VERY LOW	13'-15'
JU GG	54	JUNIPERUS SCOPULORUM 'GRAY GLEAM'	GRAY GLEAM JUNIPER	CONT.	#5	VERY LOW	13'-15'
JU SK	56	JUNIPERUS VIRGINIANA 'SKYROCKET'	SKYROCKET EASTERN REDCEDAR	CONT.	#5	VERY LOW	1'-2'
TH HO	22	THUJA OCCIDENTALIS 'HOLMSTRUP'	HOLMSTRUP ARBORVITAE	CONT.	#5	MOD	9'-12'

ORNAMENTAL GRASSES	QTY	BOTANICAL NAME	COMMON NAME	ROOT	SIZE	WATER USE	HEIGHT
AN WI	142	ANDROPOGON GERARDII 'WINDWALKER'	WINDWALKER BIG BLUE STEM	CONT.	#1	VERY LOW	5'-6'
BO BA	368	BOUTELLOUA GRACILIS 'BLONDE AMBITION'	BLOND AMBITION BLUE GRAMA GRASS	CONT.	#1	VERY LOW	1'-2'
DE TU	180	DESCHAMPSIA CESPITOSA	TUFTED HAIR GRASS	CONT.	#1	LOW	3'-4'
FE EB	35	FESTUCA GLAUCA 'ELIJAH BLUE'	BLUE FESCUE	CONT.	#1	LOW	1'-2'
MI ML	245	MISCANTHUS SINENSIS 'MORNING LIGHT'	MORNING LIGHT MAIDEN GRASS	CONT.	#1	MOD	3'-4'
NA TE	51	NASSELLA TENUISSIMA	MEXICAN FEATHER GRASS	CONT.	#1	LOW	1'-2'
OR HY	27	ORYZOPSIS HYMENOIDES	INDIAN RICE GRASS	CONT.	#1	VERY LOW	1'-2'
PE HA	37	PENNISETUM ALOPECUROIDES 'HAMELN'	HAMELN FOUNTAIN GRASS	CONT.	#1	LOW	1'-2'
SC SC	67	SCHIZACHYRIUM SCOPARIUM 'BLAZE'	BLAZE LITTLE BLUESTEM	CONT.	#1	LOW	3'-4'
SO NU	335	SORGHASTRUM NUTANS	INDIAN GRASS	CONT.	#1	VERY LOW	5'-6'
SP HE	84	SPOROBOLUS HETEROLEPIS	PRAIRIE DROPSEED	CONT.	#1	LOW	3'-4'

PERENNIALS	QTY	BOTANICAL NAME	COMMON NAME	ROOT	SIZE	WATER USE	HEIGHT
AC MO	154	ACHILLEA X 'MOONSHINE'	MOONSHINE YARROW	CONT.	#1	VERY LOW	1'-2'
AG RU	65	AGASTACHE RUPESTRIS	THREADLEAF HYSSOP	CONT.	#1	LOW	3'-4'
AS LA	156	ASTER LAEVIS	SMOOTH ASTER	CONT.	#1	LOW	3'-4'
EC PU	187	ECHINACEA PURPUREA	PURPLE CONEFLOWER	CONT.	#1	LOW	3'-4'
GA AR	62	GAILLARDIA ARISTATA	NATIVE BLANKET FLOWER	CONT.	#1	LOW	1'-2'
LE SL	34	LEUCANTHEMUM X SUPERBUM 'SNOW LADY'	SNOW LADY SHASTA DAISY	CONT.	#1	MOD	1'-2'
PA QU	84	PARTHENOCISSUS QUINQUEFOLIA ENGELMANNII	ENGELMANN VIRGINIA CREEPER	CONT.	#1	LOW	
SE AJ	159	SEDUM X 'AUTUMN JOY'	AUTUMN JOY SEDUM	CONT.	#1	VERY LOW	1'-2'
SY NO	69	SYMPHYOTRICHUM NOVAE-ANGLIAE	NEW ENGLAND ASTER	CONT.	#1	MOD	3'-4'
TH PS	80	THYMUS PSEUDOLANUGINOSUS	WOOLLY THYME	CONT.	#1	LOW	1'-2'

CHECKED BY JARED CARLON, PLA 942

PROJECT #: 210431
SHEET NUMBER

COMPOSITE LANDSCAPE WATER USE RATING CHART

LANDSCAPE ZONE	LWU RATING RANGE
VERY LOW WATER USE	0.0 to 1.5
LOW WATER USE	+1.5 to 3.0
MODERATE WATER USE	+3.0 to 4.5
HIGH WATER USE	+4.5

NOTES:THE LWUR RATING RANGE IS BASED ON POST ESTABLISHMENT WATERING SCHEDULES.

IRRIGATION ZONE	PLANT NAME (COMMON)	APPLICATION RATE (INCHES/MONTH)		LANDSCAPE ZONE	% OF IRRIGATED AREA (TA)	IA (IRRIGATED AREA IN SQ FT FOR EACH ZONE)	LWUR (LANDSCAPE WATER USE RATING)	TOTAL AREA (TA)	CLWUR (LWUR X IA)/TA
SPRAY	IRRIGATED TURF (FESCUE TURF SEED MIX)	3.0	in./mo.	MODERATE	5%	5,746	3.0	125,240	0.14
DRIP	SHRUB BED	2.0	in./mo.	LOW	74%	93,104	2.0	125,240	1.49
SPRAY ROTORS	IRRIGATED NATIVE SEED	2.5	in./mo.	LOW	21%	26,390	2.5	125,240	0.53
TOTALS					100	125,240		125,240	2.15
							TOTAL OF THE CLWUR		2.15

STREETSCAPE REQUIREMENT TABLE

STREET	LINEAR FEET	TREES REQUIRED (1 TREE / 40 LF)	TREES PROVIDED	SHRUBS REQUIRED (4 SHRUBS / 1 REQUIRED TREE)	SHRUBS PROVIDED
MITCHELL ST.	617 LF	15	0	62	107

- NOTES:
- DUE TO UTILITY/EASEMENT CONFLICTS AND A FOUR FOOT RIGHT OF WAY WIDTH, TREE PLACEMENT ALONG MITCHELL STREET HAS BEEN OMITTED (TCV22-0077).

LANDSCAPE AREA TOTALS

LANDSCAPE TYPE	SQUARE FOOTAGE	PERCENTAGE
IRRIGATED TURF	5,746	4.2%
IRRIGATED NATIVE SEED	26,390	19.6%
RIPARIAN SEED MIX	9,671	7.2%
IRRIGATED BED	93,104	69.0%
TOTAL AREA LANDSCAPE	134,911	100.0%

MULTI-FAMILY LANDSCAPE SITE INVENTORY

GROSS SITE AREA (AREA IN SQ.FT.)	LANDSCAPE AREA (AREA IN SQ.FT.)	TURFGRASS (FESCUE SEED MIX) (AREA IN SQ. FT.)	NONLIVING ORNAMENTAL (AREA IN SQ. FT.)	NUMBER OF TREES REQUIRED	NUMBER OF TREES PROVIDED	NUMBER OF SHRUBS REQUIRED	NUMBER OF SHRUBS PROVIDED	SOIL PREP AMOUNT (IN CUBIC YRDS PER 1000 SQ.FT.)	SEPARATE IRRIGATION SERVICE CONNECTIONS
393,281	78,656	5,746	0	157 (85 LARGE DECIDUOUS CANOPY)	167	314	2957	4 CU.YDS PER 1000 SQ.FT.	YES
PARKING LOT (AREA IN SQ.FT.)	PARKING LOT LANDSCAPE AREA (SQ.FT.)	NUMBER OF PARKING SPACES	NONLIVING ORNAMENTAL (AREA IN SQ. FT.)	NUMBER OF INTERIOR LANDSCAPE ISLANDS	MINIMUM WIDTH OF INTERIOR LANDSCAPE ISLANDS	NUMBER OF TREES REQUIRED	NUMBER OF TREES PROVIDED	NUMBER OF SHRUBS REQUIRED	NUMBER OF SHRUBS PROVIDED
30,580	3,058	218	0	16	8'	6	17	12	21

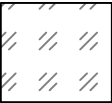
- NOTES:
- GROSS AREA MINIMUM LANDSCAPE AREA IS 20%. PARKING AREA MINIMUM LANDSCAPE AREA IS 10%..
 - REQUIRED TREES = 2 TREES PER 1,000 SF OF REQUIRED LANDSCAPE AREA.
 - REQUIRED SHRUBS = 4 SHRUBS PER 1,000 SF OF REQUIRED LANDSCAPE AREA.
 - PROPOSED PARKING LOT PLANT COUNTS ARE INCLUDED WITHIN THE PROPOSED SITE LANDSCAPE PLANT TOTALS.
 - 50% OF SITE TREES SHALL BE LARGE DECIDUOUS CANOPY TREES.
 - 75% OF SITE SHALL BE COVERED BY SHRUBS WITHIN FIVE GROWING SEASONS
 - 75% OF SITE SHALL BE COVERED BY PERENNIALS WITHIN THREE YEARS



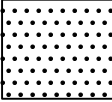
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	DESIGNED BY: JR, RN CHECKED BY: JR, CM DRAWN BY: JR, RN	ISSUE DATE: 08-11-2022		 1120 Lincoln Street, Suite 1000 Denver, Colorado 80203 P: 303.623.6300 F: 303.623.6311 HarrisKocherSmith.com		AVILLA FOUNDERS VILLAGE LANDSCAPE SCHEDULES	PROJECT # 210431
		DATE	REVISION COMMENTS				SHEET NUMBER
		10-31-2022	PER TOWN OF CASLIE ROCK COMMENTS				
65 OF 82							

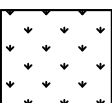
TURF AND SEED MIXES



NATIVE RIPARIAN MIX - NON-IRRIGATED		
SPECIES	% OF MIX	PLS/ACRE
NEBRASKA SEDGE	6.11	1.000
CLUSTERED FIELD SEDGE	3.05	0.500
THICKSPIKE WHEATGRASS	12.22	2.000
BALTIC RUSH	0.76	0.125
TORREY'S RUSH	0.76	0.125
SWITCHGRASS	18.32	3.000
WESTERN WHEATGRASS	36.64	6.000
THREESQUARE BULRUSH	12.22	2.000
SHOWY MILKWEED	6.11	1.000
CANADA GOLDENROD	0.76	0.125
BLUE VERVAIN	3.05	0.500
APPLY AT A RATE OF 16.375 PLS LBS. PER ACRE, DOUBLE FOR BROADCAST		



FESCUE TURF SEED MIX (LOW 2 - HYDROZONE)		
ARKANSAS VALLEY SEED		
SPECIES	% OF MIX	PLS/ ACRE
SR3000 HARD FESCUE	30	6
CHEWINGS FESCUE	30	6
CREEPING RED FESCUE	25	5
SR4000 PERENNIAL RYEGRASS	15	3
APPLY AT A RATE OF 20 PLS LBS. PER ACRE, DOUBLE FOR BROADCAST		



DRYLAND GRASS SEED MIX (LOW 2 - HYDROZONE)			
SPECIES	VARIETY	% OF MIX	PLS/ ACRE
BIG BLUESTEM	KAW	10	1.1
YELLOW INDIANGRASS	CHEYENNE	10	1
SWITCHGRASS	BLACKWELL	10	0.4
SIDEOATS GRAMA	VAUGHN	10	0.9
WESTERN WHEATGRASS	ARRIBA	10	1.6
BLUE GRAMA	HACHITA	10	0.3
THICKSPIKE WHEATGRASS	CRITANA	10	1
PRAIRIE SANDREED	GOSHEN	10	0.7
GREEN NEEDLEGRASS	LODORM	10	1
SLENDER WHEATGRASS	PRYOR	5	0.6
STREAMBANK WHEATGRASS	SODAR	5	0.6
APPLY AT A RATE OF 9.2 PLS LBS. PER ACRE DRILLED			

AMENITY SCHEDULE

ITEM	DESCRIPTION	MANUFACTURER	SIZE / DIMENSION	PRODUCT NAME	COLOR/FINISH	NOTES
1	BENCH	ANOVA	33" H X 25" W X 73" L	AL1980T	THERMORY SLATS, TEXTURED PEWTER FRAME	MOUNT PER MANUFACTURER SPECIFICATIONS
2	PICNIC TABLE	ANOVA	29" H X 64" W X 72" L	RCPWT63A	MAHOGANY PLASTIC SLATS, TEXTURED BLACK FRAME	MOUNT PER MANUFACTURER SPECIFICATIONS
3	BISTRO TABLE	ANOVA	31" H X 41" W X 42" L	T2267T	THERMORY SLATS, TEXTURED PEWTER FRAME	MOUNT PER MANUFACTURER SPECIFICATIONS
4	CHAIR	ANOVA	33" H X 20" W X 24" D	T2235T	THERMORY SLATS, TEXTURED PEWTER FRAME	MOUNT PER MANUFACTURER SPECIFICATIONS
5	TRASH RECEPTACLE	ANOVA	47" H X 26" W X 22" D	AE2645RCT	TEXTURED PEWTER LID, TEXTURED BLACK FRAME	MOUNT PER MANUFACTURER SPECIFICATIONS
6	PET PICK-UP STATION	DOG-ON-IT PARKS	73" H X 18" W X 10" D	7408R	GREEN POWDER-COATED ALUMINUM	MOUNT PER MANUFACTURER SPECIFICATIONS
7	BIKE RACK	ANOVA	33" H X 5" W X 13" L	AL19BR2	TEXTURED PEWTER	MOUNT PER MANUFACTURER SPECIFICATIONS

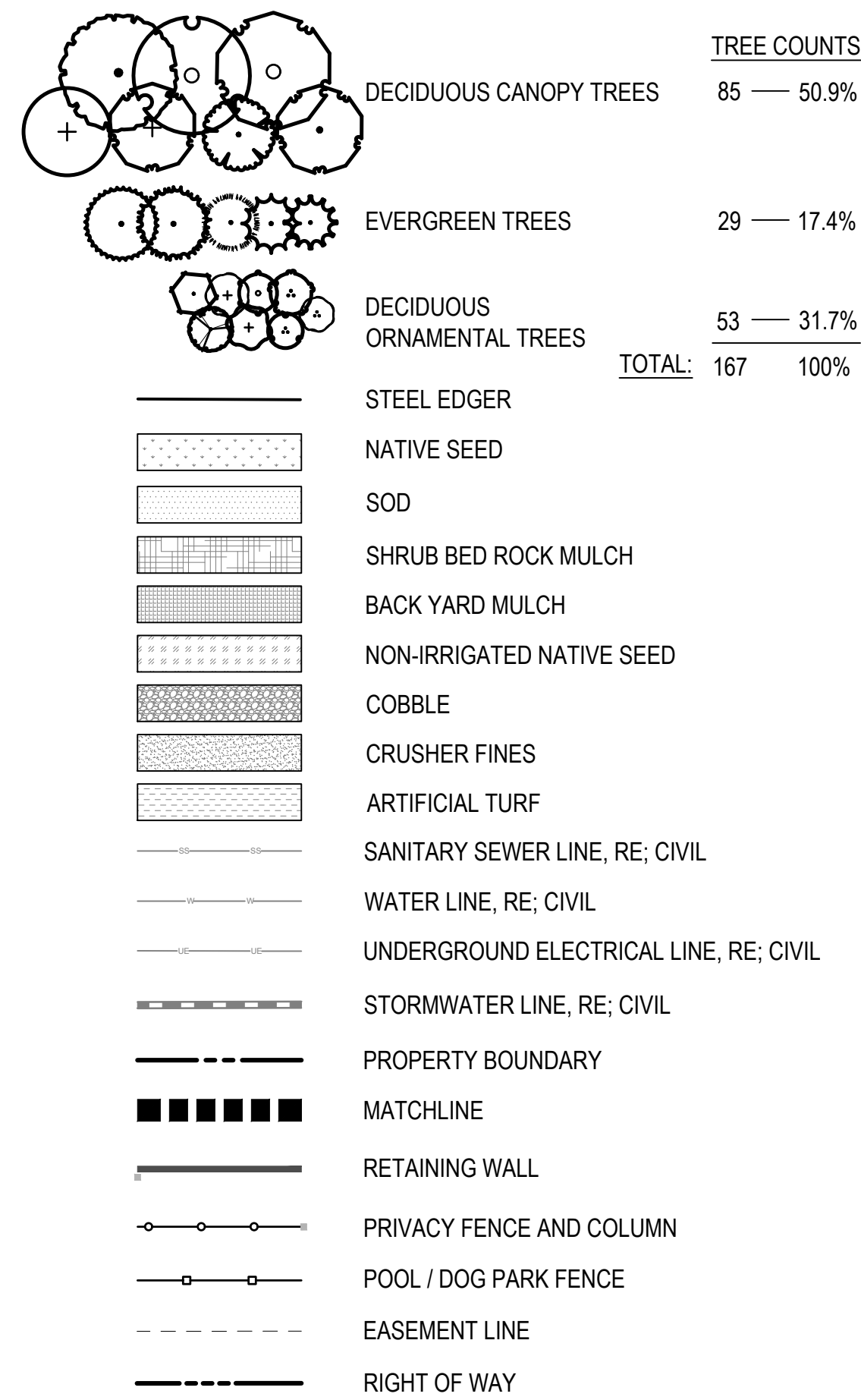
MATERIAL SCHEDULE (CONTRACTOR TO SUBMIT SAMPLES FOR ALL ITEMS IN MATERIAL SCHEDULE FOR OWNER / ARCHITECT REVIEW AND APPROVAL.)

ITEM	DESCRIPTION	MANUFACTURER	SIZE / DIMENSIONS	PRODUCT NAME	COLOR / FINISH	NOTES
A	CONCRETE FLATWORK	N/A	SEE PLANS FOR WALK WIDTHS	STANDARD CONCRETE FLATWORK	STANDARD GRAY, BROOM FINISH	INSTALL PER MANUFACTURER'S SPECIFICATIONS
B	ENHANCED PAVING (POOL DECK)	COLORADO HARDSLAPES OR APPROVED EQUAL	THICKNESS PER GEOTECH	SANDSCAPE TEXTURED COLORED CONCRETE	SANDY PEBBLE COLOR, SANDSCAPE FINISH	APPROVED EQUAL MAY BE USED.
C	COBBLE	PIONEER SAND	6" MINIMUM DEPTH WITH LANDSCAPE FABRIC	4"-6" RIVER COBBLE	RIVER COBBLE	INSTALL PER MANUFACTURER'S SPECIFICATIONS
D	SITE ROCK MULCH	PIONEER SAND	3" DEPTH, ¾" ROCK	¾" ANGULAR ROCK	LOCAL RIVER ROCK	INSTALL PER MANUFACTURER'S SPECIFICATIONS
E	CRUSHER FINES	PIONEER SAND	4" DEPTH, ¾" MINUS	GREY BREEZE	GREY	INSTALL PER MANUFACTURER'S SPECIFICATIONS
F	BACKYARD ROCK MULCH	PIONEER SAND	3" DEPTH, 1 ½" ROCK	1 ½" LOCAL RIVER ROCK	LOCAL RIVER ROCK	INSTALL PER MANUFACTURER'S SPECIFICATIONS
G	POOL COPING	COLORADO HARDSLAPES OR APPROVED EQUAL	SEE DETAILS FOR WIDTH, THICKNESS PER POOL CONTRACTOR	BROMANITE TEXTURED CONCRETE	WORN LIMESTONE INTEGRAL COLOR, COLORADO SANDSTONE PATTERN	APPROVED EQUAL MAY BE USED. MIXED COLOR FOR MANUFACTURER'S SPECIFICATIONS
H	POOL PLASTER	CL INDUSTRIES	THICKNESS PER POOL CONTRACTOR	HYDRAZZO	MEDITERRANEAN BLUE	REFER TO MANUFACTURER'S INSTRUCTIONS FOR INSTALLATION. OR APPROVED EQUAL.
I	POOL TILE	NATIONAL POOL TILE	2" X 4"	RUSHMORE RUS-BLUE2X4	BLUE QUARTZ 2" X 4"	REFER TO MANUFACTURER'S INSTRUCTIONS FOR INSTALLATION. OR APPROVED EQUAL.
J	STONE VENEER	ENVIRONMENTAL STONENETWORKS	SEE DETAILS FOR DIMENSIONS	CULTURED STONE VENEER TO MATCH ARCH.	NANTUCKET COBBLESTONE	REFER TO MANUFACTURER'S INSTRUCTIONS FOR INSTALLATION. OR APPROVED EQUAL.
K	CONCRETE CAP	DAVIS COLOR	SEE DETAILS FOR DIMENSIONS	INTEGRALLY COLORED PRECAST CONCRETE	PEBBLE 641 COLOR, SMOOTH FINISH	APPROVED EQUAL MAY BE USED. MIXED COLOR FOR MANUFACTURER'S SPECIFICATIONS
L	STUCCO	LA HABRA	SEE DETAILS LOCATIONS	ELITE WALL STUCCO SYSTEM	SILVERADO 820 (48) BASE 200 COLOR, ELASTOMETRIC COLOR COAT	APPROVED EQUAL MAY BE USED. MIXED COLOR FOR MANUFACTURER'S SPECIFICATIONS
M	POLISHED CONCRETE COUNTER TOP	COLORADO CONCRETE COUNTER TOPS, INC	2" THICK	COUNTER TOP	DOVE GRAY	REFER TO MANUFACTURER'S INSTRUCTIONS FOR INSTALLATION. OR APPROVED EQUAL.
N	BUILT-IN GAS GRILL	AMERICAN OUTDOOR GRILLS	32" WIDTH, 34" HEIGHT	24NBL	STAINLESS STEEL	REFERENCE GRILL - POOL DECK DETAIL
O	SPILL FEATURE	BOBE WATER & FIRE FEATURES	48" WIDTH	PF-48	STAINLESS STEEL	REFER TO MANUFACTURER'S INSTRUCTIONS FOR INSTALLATION. OR APPROVED EQUAL.
P	ARTIFICIAL TURF AT DOG PARK	FOREVER LAWN	REFER TO PLANS	K9GRASS CLASSIC PLUS	SUMMER GREEN	REFER TO MANUFACTURER'S INSTRUCTIONS FOR INSTALLATION. OR APPROVED EQUAL.

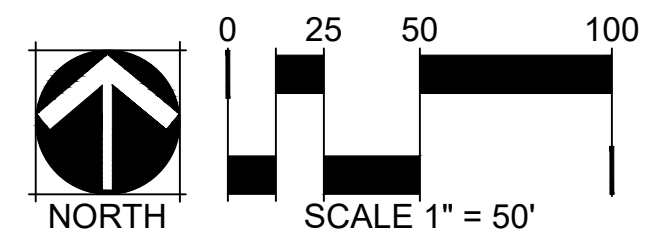
AFV PLAN CDDWG LAYOUT: 9 OVERALL



LEGEND




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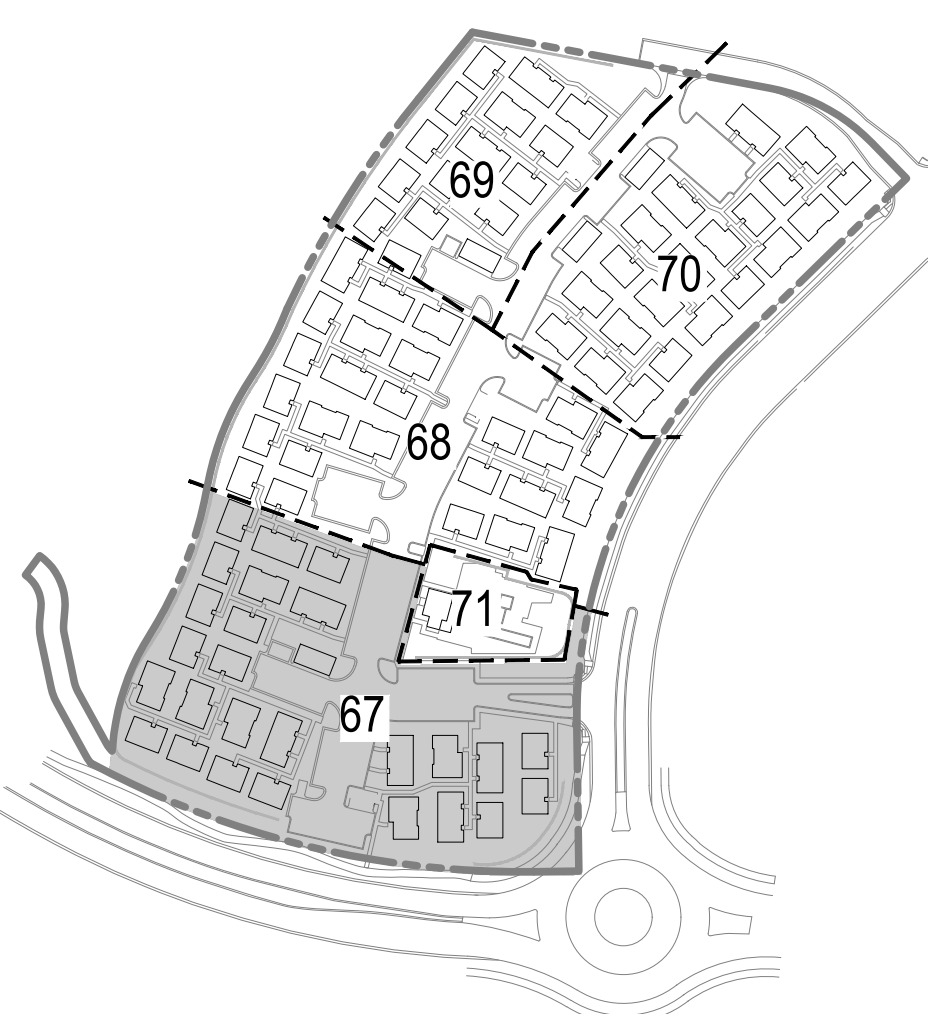
CHECKED BY JARED CARLON, PLA 942

 Know what's below. Call before you dig.	DESIGNED BY: JR, RN CHECKED BY: JR, CM DRAWN BY: JR, RN	ISSUE DATE: 08-11-2022	 1120 Lincoln Street, Suite 1000 Denver, Colorado 80203 P: 303.623.6300 F: 303.623.6311 HarrisKocherSmith.com		AVILLA FOUNDERS VILLAGE OVERALL LANDSCAPE PLAN	PROJECT #: 210431
		DATE: 10-31-2022 REVISION COMMENTS: PER TOWN OF CASLITE ROCK COMMENTS				SHEET NUMBER
						66 OF 82

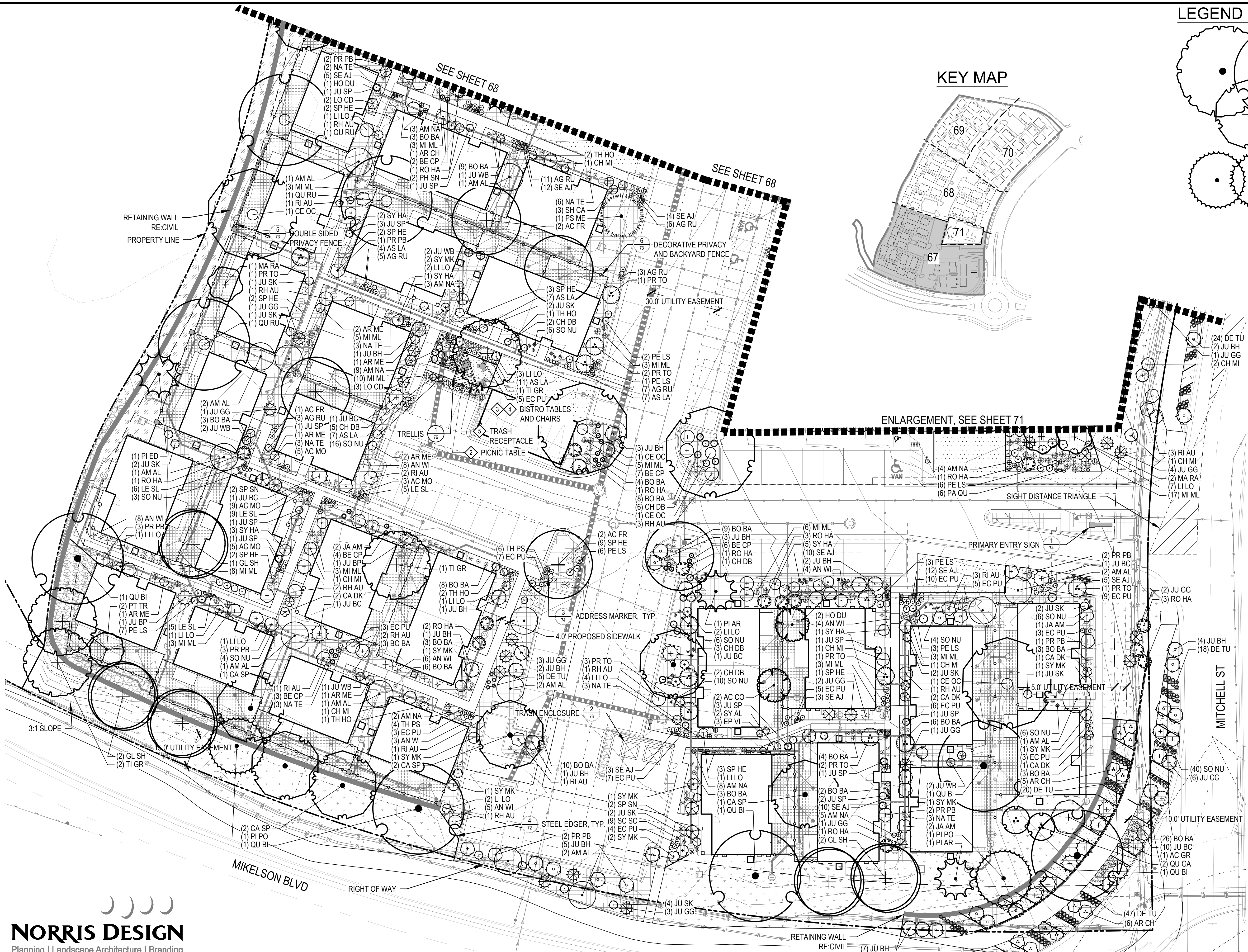
LEGEND

- DECIDUOUS CANOPY TREES, RE: SHEET 72- DETAIL 1
- EVERGREEN TREES, RE: SHEET 72- DETAIL 1
- DECIDUOUS ORNAMENTAL TREES, RE: SHEET 72- DETAIL 1
- EVERGREEN SHRUBS, RE: SHEET 72- DETAIL 2
- DECIDUOUS SHRUBS, RE: SHEET 72- DETAIL 2
- ORNAMENTAL GRASS
- PERENNIALS, RE: SHEET 72- DETAIL 3
- STEEL EDGER, RE: SHEET 72- DETAIL 4
- NATIVE SEED
- SOD
- SHRUB BED ROCK MULCH
- BACK YARD MULCH
- CRUSHER FINES
- NON-IRRIGATED NATIVE SEED
- COBBLE
- SANITARY SEWER LINE, RE: CIVIL
- WATER LINE, RE: CIVIL
- UNDERGROUND ELECTRICAL LINE, RE: CIVIL
- STORMWATER LINE, RE: CIVIL
- EASTMENT LINE, RE: CIVIL
- PROPERTY BOUNDARY / ROW
- MATCHLINE
- RETAINING WALL
- PRIVACY FENCE AND COLUMN, RE: SHEET 73, DETAILS 5 & 6
- POOL / DOG PARK FENCE, RE: SHEET 73- DETAILS 1 & 2
- ENTRY MONUMENTATION, RE: SHEET 73- DETAILS 1 & 2
- ADDRESS MARKER, RE: SHEET 74- DETAIL 3
- BENCH, RE: AMENITY SCHEDULE
- PICNIC TABLE, RE: AMENITY SCHEDULE
- BISTRO TABLE AND CHAIRS, RE: AMENITY SCHEDULE
- TRASH AND RECYCLING RECEPTACLES, RE: AMENITY SCHEDULE
- PET PICKUP STATION, RE: AMENITY SCHEDULE
- BIKE RACK, RE: AMENITY SCHEDULE

KEY MAP



ENLARGEMENT, SEE SHEET 71



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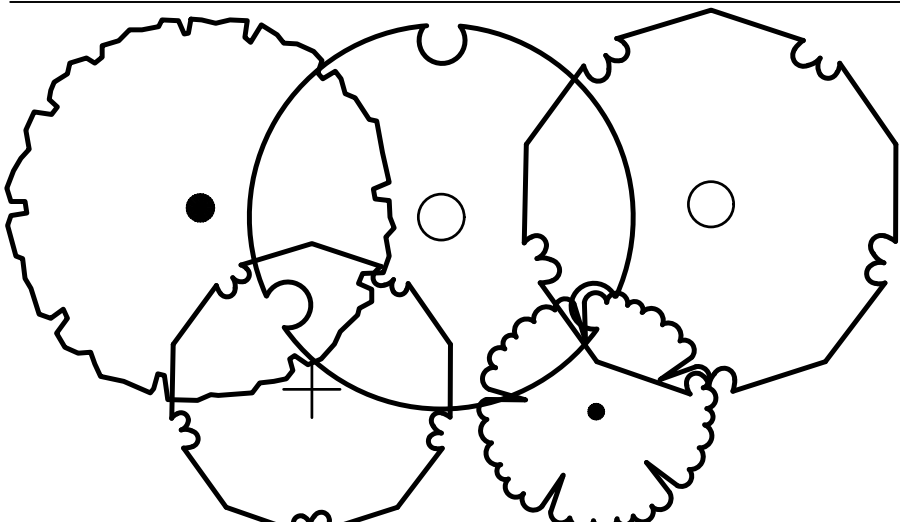
NEXmetro
Communities

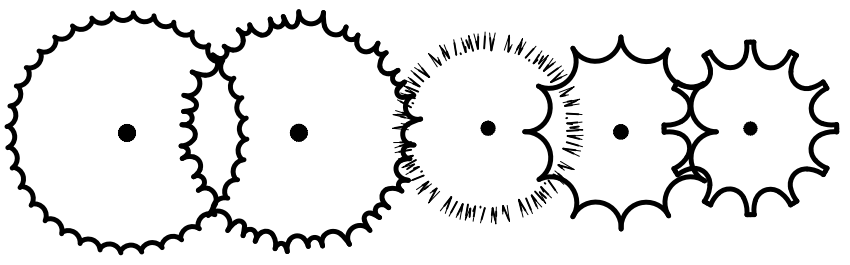
AVILLA FOUNDERS VILLAGE
LANDSCAPE
PLAN

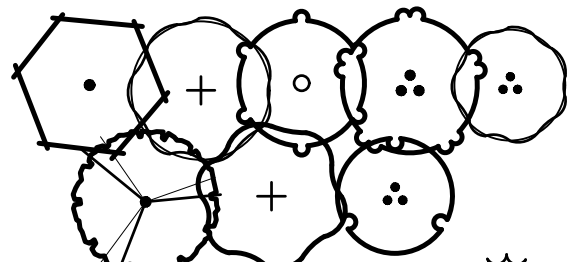
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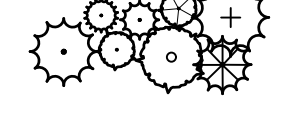
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SHEET NUMBER

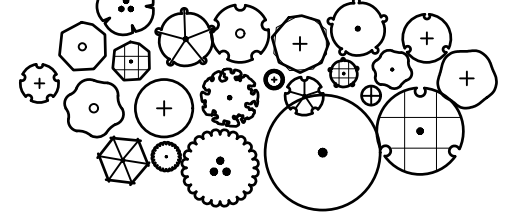
LEGEND

- 

DECIDUOUS CANOPY TREES,
RE: SHEET 72- DETAIL 1
- 

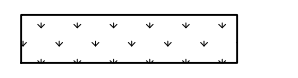
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RE: SHEET 72- DETAIL 1
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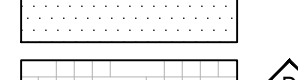
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RE: SHEET 72- DETAIL 1
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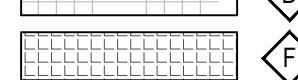
EVERGREEN SHRUBS,
RE: SHEET 72- DETAIL 2
- 

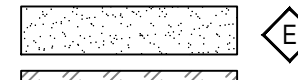
DECIDUOUS SHRUBS,
RE: SHEET 72- DETAIL 2
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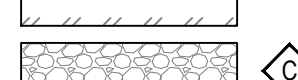
ORNAMENTAL GRASS
- 

PERENNIALS, RE: SHEET 72- DETAIL 3
- 

STEEL EDGER, RE: SHEET 72- DETAIL 4
- 

NATIVE SEED
- 

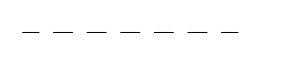
SOD
- 

SHRUB BED ROCK MULCH
- 

BACK YARD MULCH
- 

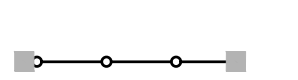
CRUSHER FINES
- 

NON-IRRIGATED NATIVE SEED
- 

COBBLE
- 

SANITARY SEWER LINE, RE: CIVIL
- 

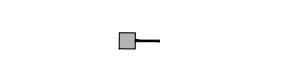
WATER LINE, RE: CIVIL
- 

UNDERGROUND ELECTRICAL LINE, RE: CIVIL
- 

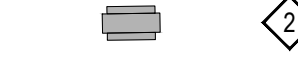
STORMWATER LINE, RE: CIVIL
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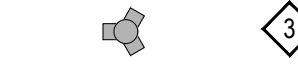
EASTMENT LINE, RE: CIVIL
- 

PROPERTY BOUNDARY / ROW
- 

MATCHLINE
- 

RETAINING WALL
- 

PRIVACY FENCE AND COLUMN,
RE: SHEET 73, DETAILS 5 & 6
- 

POOL / DOG PARK FENCE,
RE: SHEET 73- DETAILS 1 & 2
- 

ENTRY MONUMENTATION,
RE: SHEET 73- DETAILS 1 & 2
- 

ADDRESS MARKER, RE: SHEET 74- DETAIL 3
- 

BENCH, RE: AMENITY SCHEDULE
- 

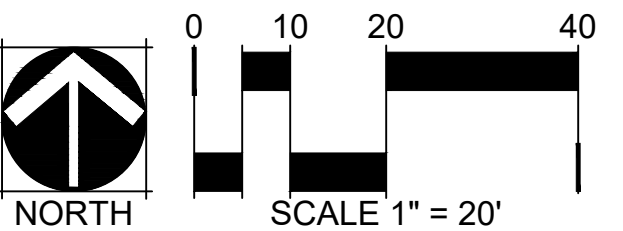
PICNIC TABLE, RE:
AMENITY SCHEDULE
- 

BISTRO TABLE AND CHAIRS,
RE: AMENITY SCHEDULE
- 

TRASH AND RECYCLING RECEPTACLES,
RE: AMENITY SCHEDULE
- 

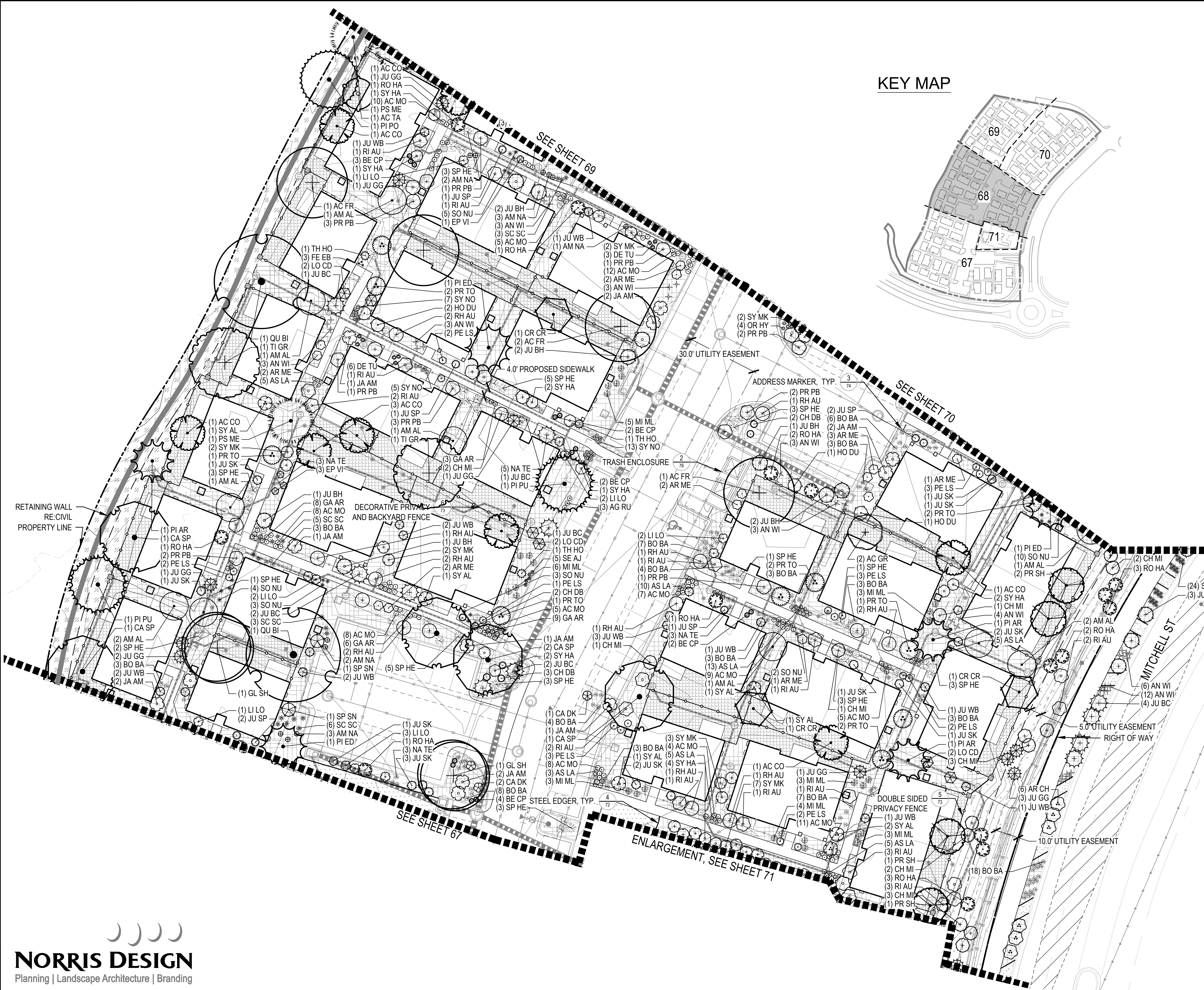
PET PICKUP STATION, RE: AMENITY
SCHEDULE
- 

BIKE RACK, RE: AMENITY SCHEDULE



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KEY MAP

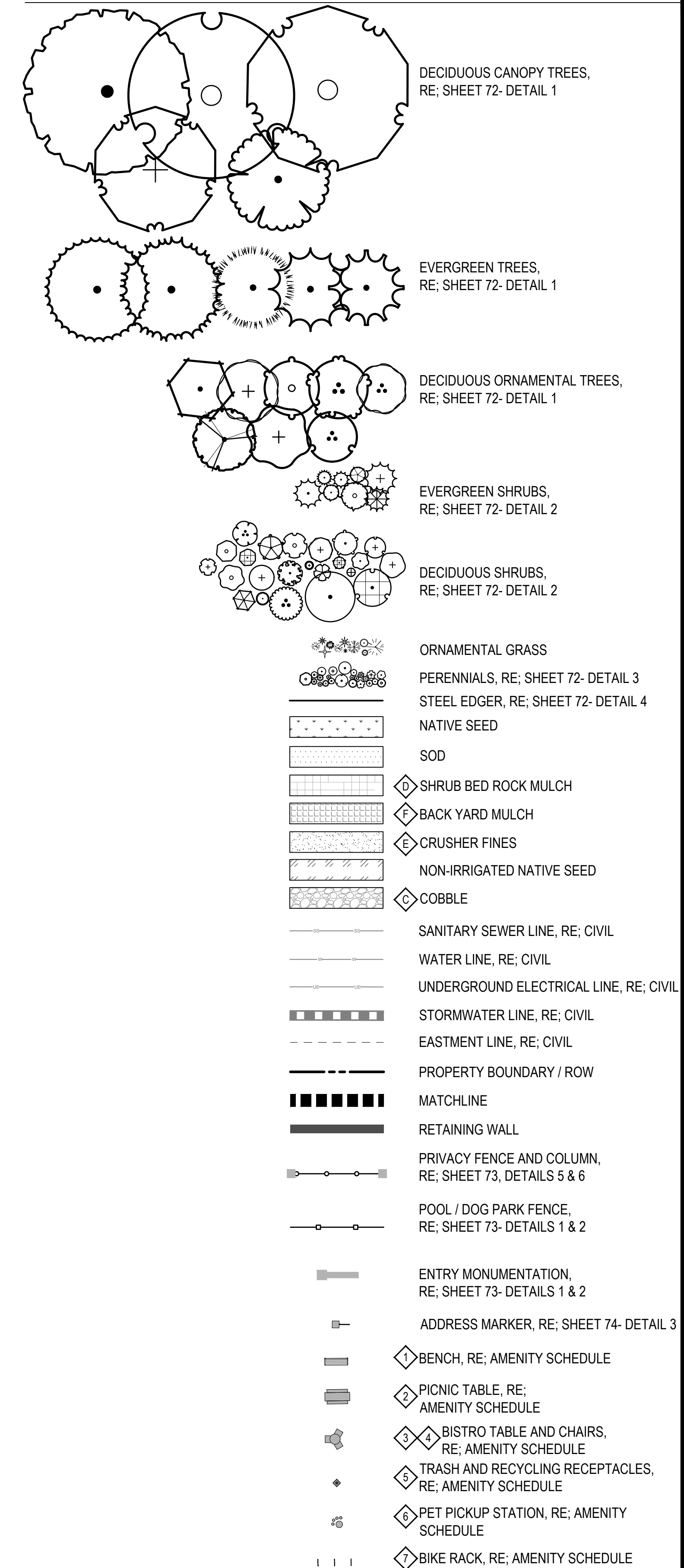




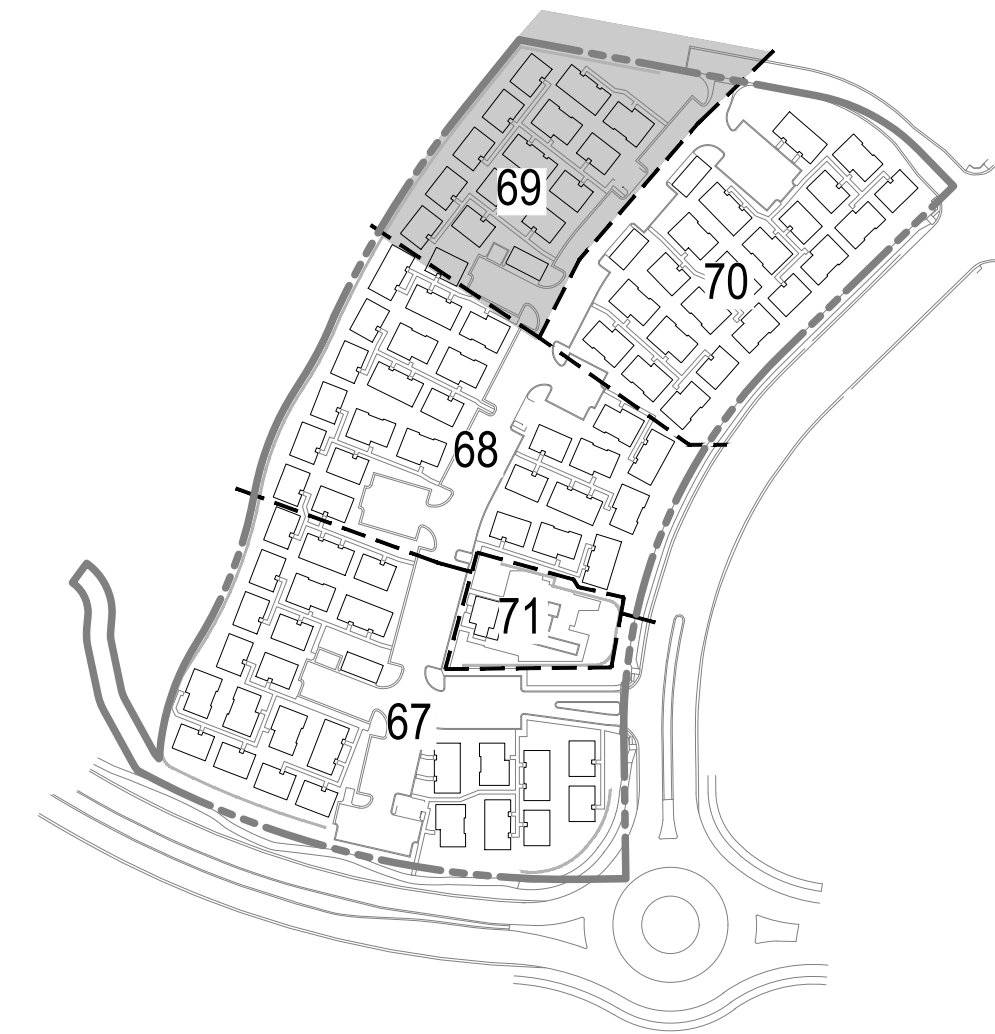
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		DATE					REVISION COMMENTS	SHEET NUMBER
		10-31-2022					PER TOWN OF CASTLE ROCK COMMENTS	
	DESIGNED BY: JR, RN CHECKED BY: JR, CM DRAWN BY: JR, RN						68 OF 82	

LEGEND



KEY MAP



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ISSUE DATE: 08-11-2022

DATE REVISION COMMENTS
10-31-2022 PER TOWN OF CASLIE ROCK COMMENTS

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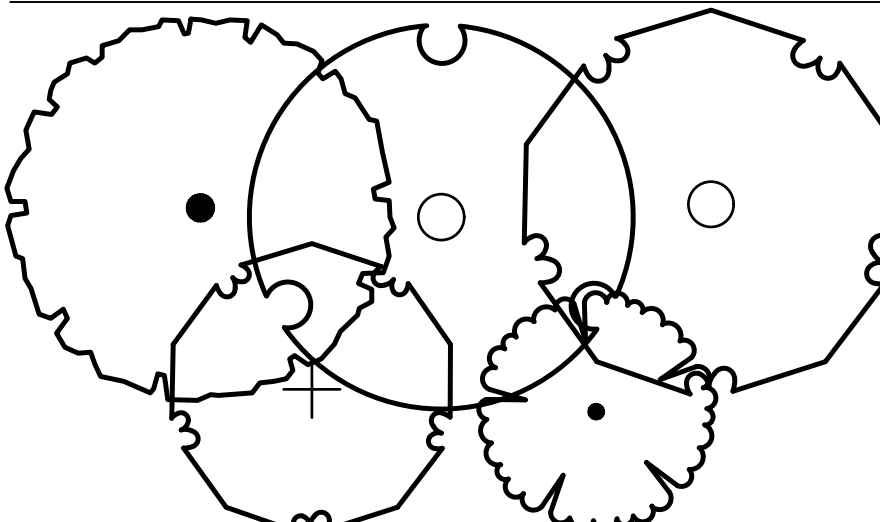
NEXmetro
Communities

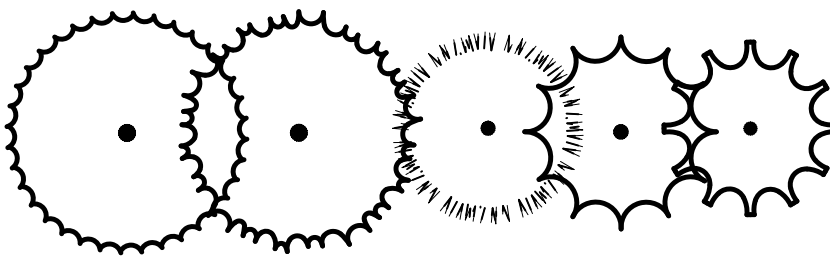
AVILLA FOUNDERS VILLAGE
LANDSCAPE
PLAN

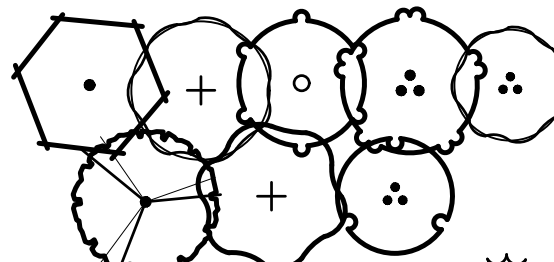
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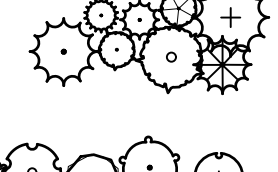
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SHEET NUMBER

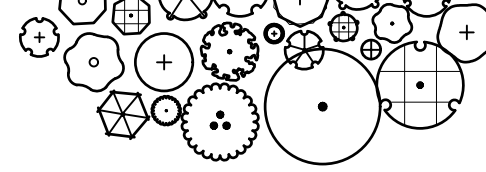
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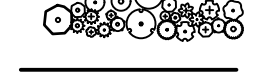
DECIDUOUS CANOPY TREES,
RE: SHEET 72- DETAIL 1
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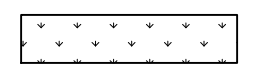
EVERGREEN TREES,
RE: SHEET 72- DETAIL 1
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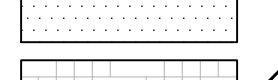
DECIDUOUS ORNAMENTAL TREES,
RE: SHEET 72- DETAIL 1
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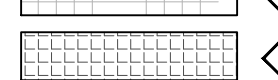
EVERGREEN SHRUBS,
RE: SHEET 72- DETAIL 2
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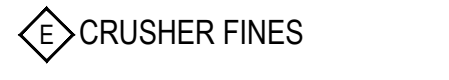
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RE: SHEET 72- DETAIL 2
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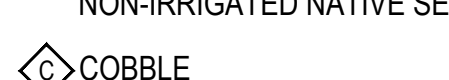
ORNAMENTAL GRASS
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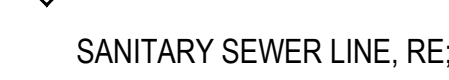
PERENNIALS, RE: SHEET 72- DETAIL 3
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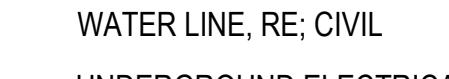
STEEL EDGER, RE: SHEET 72- DETAIL 4
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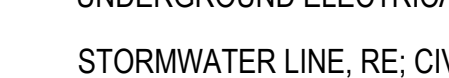
NATIVE SEED
- 

SOD
- 

SHRUB BED ROCK MULCH
- 

BACK YARD MULCH
- 

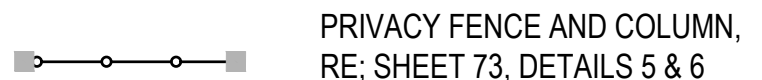
CRUSHER FINES
- 

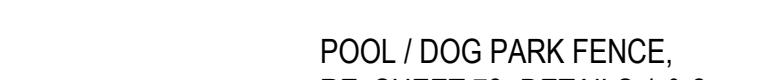
NON-IRRIGATED NATIVE SEED
- 

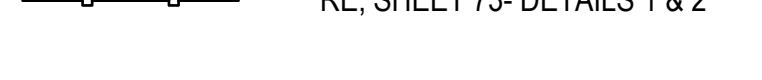
COBBLE
- 

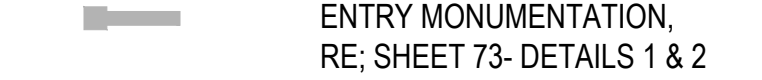
SANITARY SEWER LINE, RE: CIVIL
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WATER LINE, RE: CIVIL
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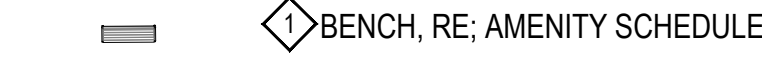
UNDERGROUND ELECTRICAL LINE, RE: CIVIL
- 

STORMWATER LINE, RE: CIVIL
- 

EASTMENT LINE, RE: CIVIL
- 

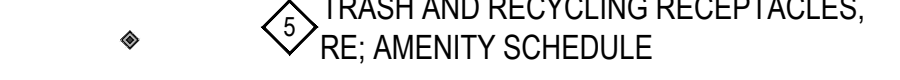
PROPERTY BOUNDARY / ROW
- 

MATCHLINE
- 

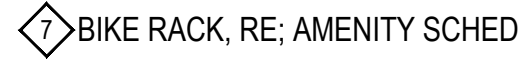
RETAINING WALL
- 

PRIVACY FENCE AND COLUMN,
RE: SHEET 73, DETAILS 5 & 6
- 

POOL / DOG PARK FENCE,
RE: SHEET 73- DETAILS 1 & 2
- 

ENTRY MONUMENTATION,
RE: SHEET 73- DETAILS 1 & 2
- 

ADDRESS MARKER, RE: SHEET 74- DETAIL 3
- 

BENCH, RE: AMENITY SCHEDULE
- 

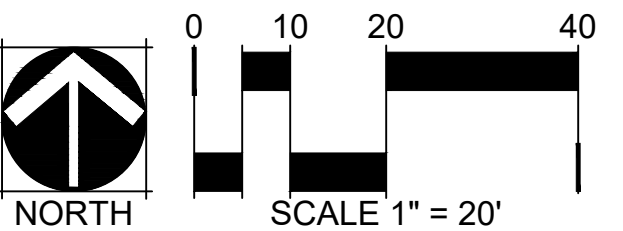
PICNIC TABLE, RE:
AMENITY SCHEDULE
- 

BISTRO TABLE AND CHAIRS,
RE: AMENITY SCHEDULE
- 

TRASH AND RECYCLING RECEPTACLES,
RE: AMENITY SCHEDULE
- 

PET PICKUP STATION, RE: AMENITY
SCHEDULE
- 

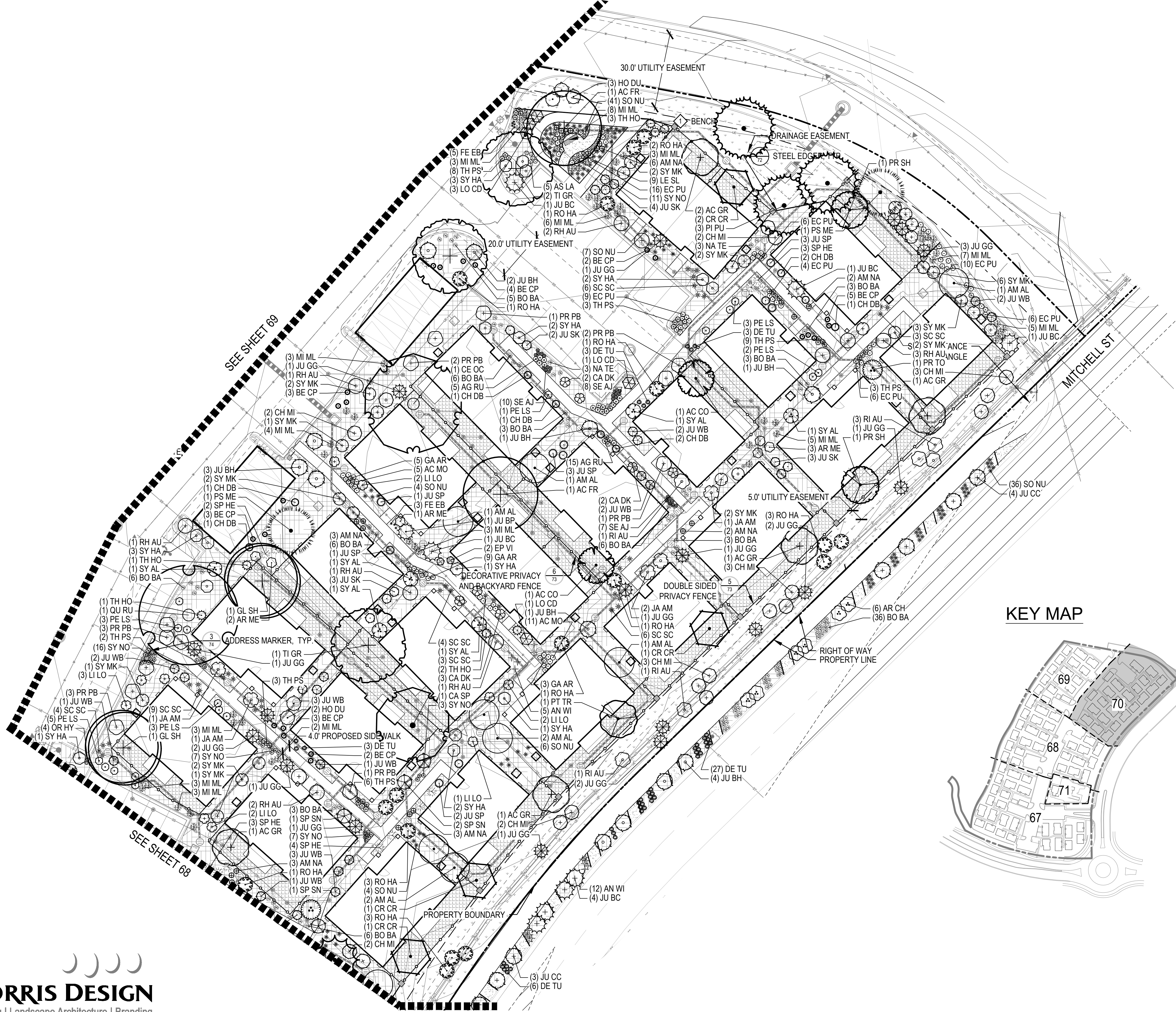
BIKE RACK, RE: AMENITY SCHEDULE



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KEY MAP



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AVILLA FOUNDERS VILLAGE
LANDSCAPE
PLAN

PROJECT #: 210431
SHEET NUMBER
70 OF 82

DECIDUOUS ORNAMENTAL TREES

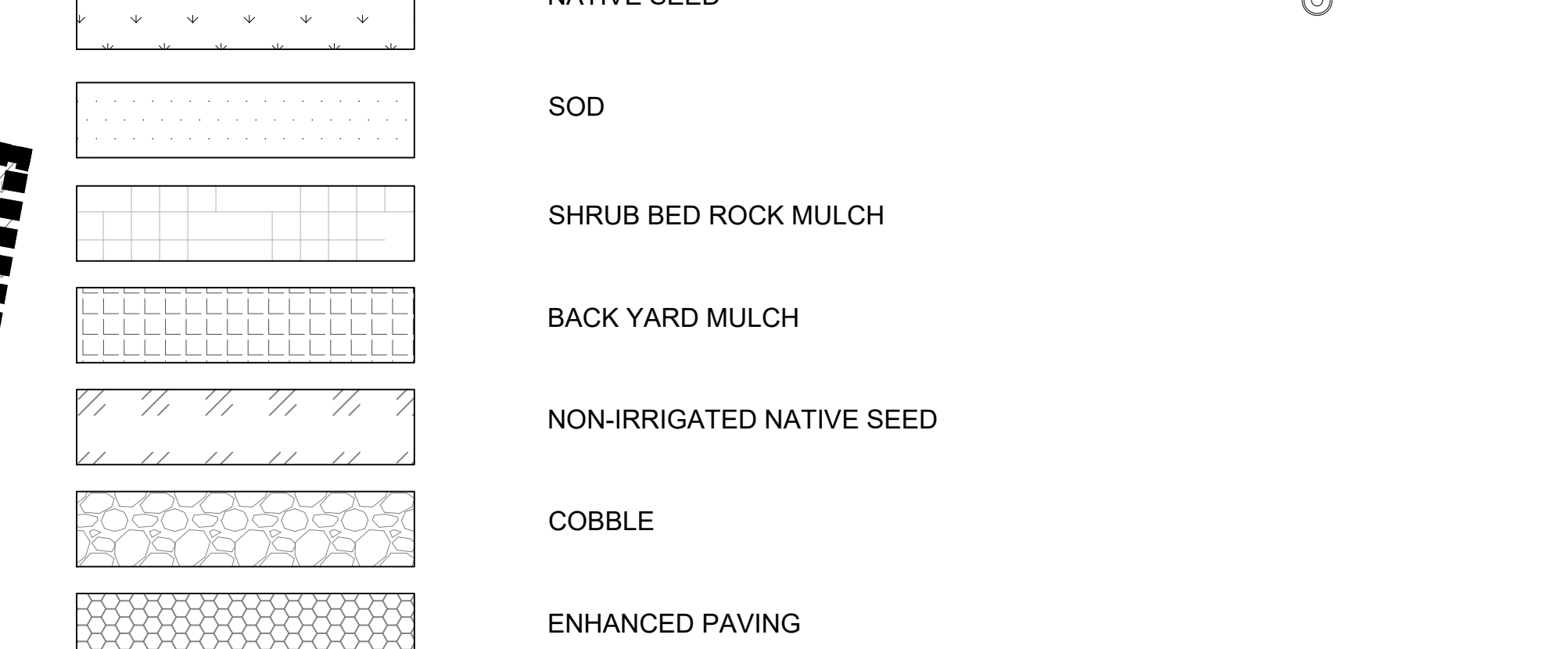
EVERGREEN SHRUBS

DECIDUOUS SHRUBS

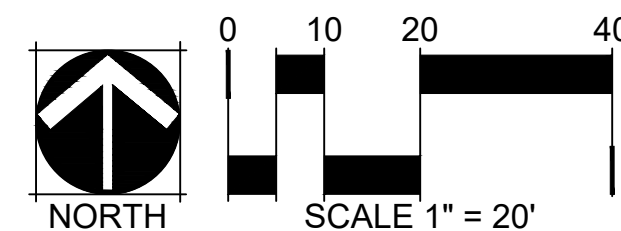
ORNAMENTAL GRASS

PERENNIALS

NATIVE SEED



A map of a residential area with numbered plots 67, 68, 69, 70, and 71. Plot 71 is highlighted with a thick black border. Dashed lines indicate boundaries between plots. A road with a roundabout is shown at the bottom right.

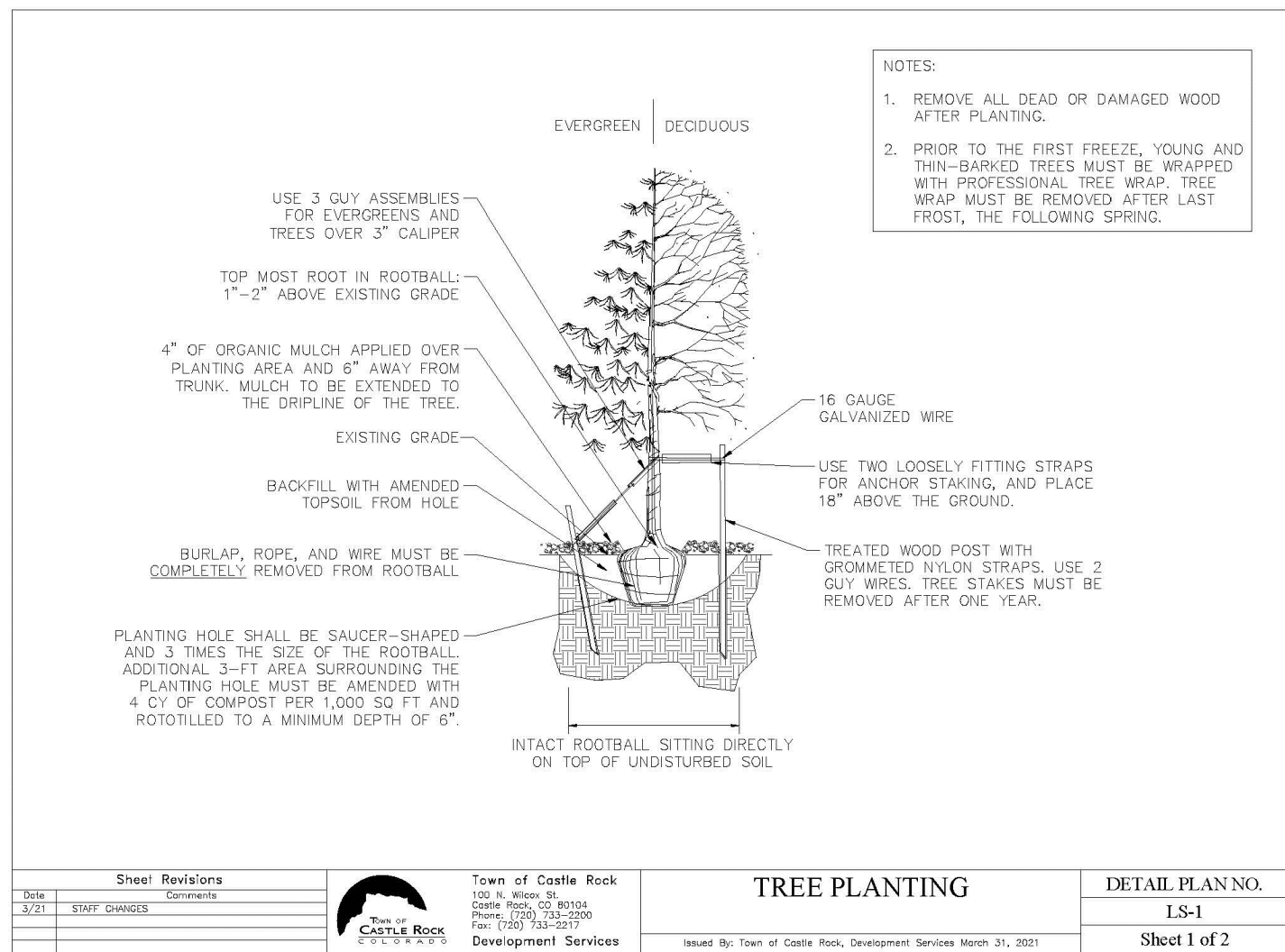
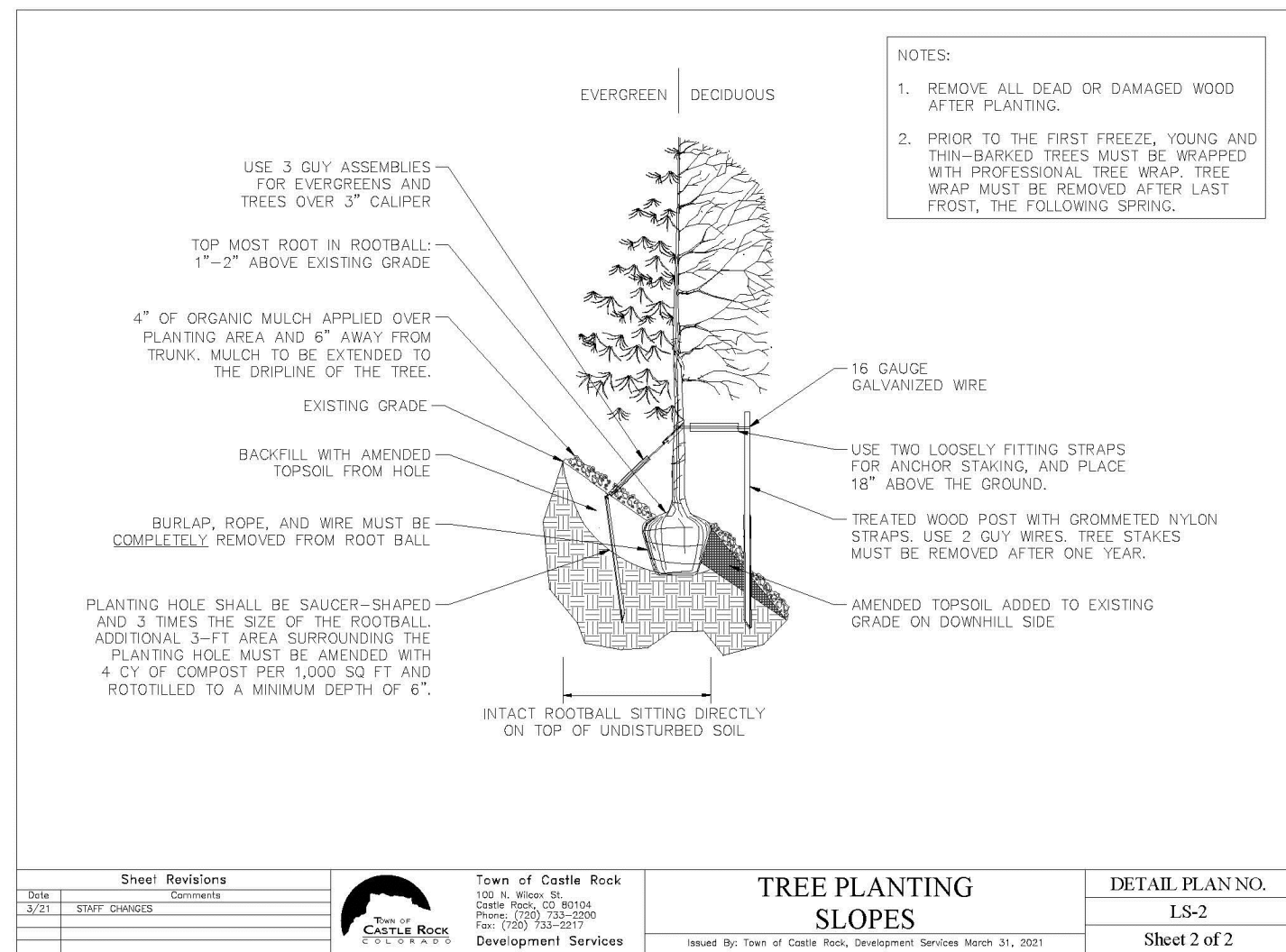
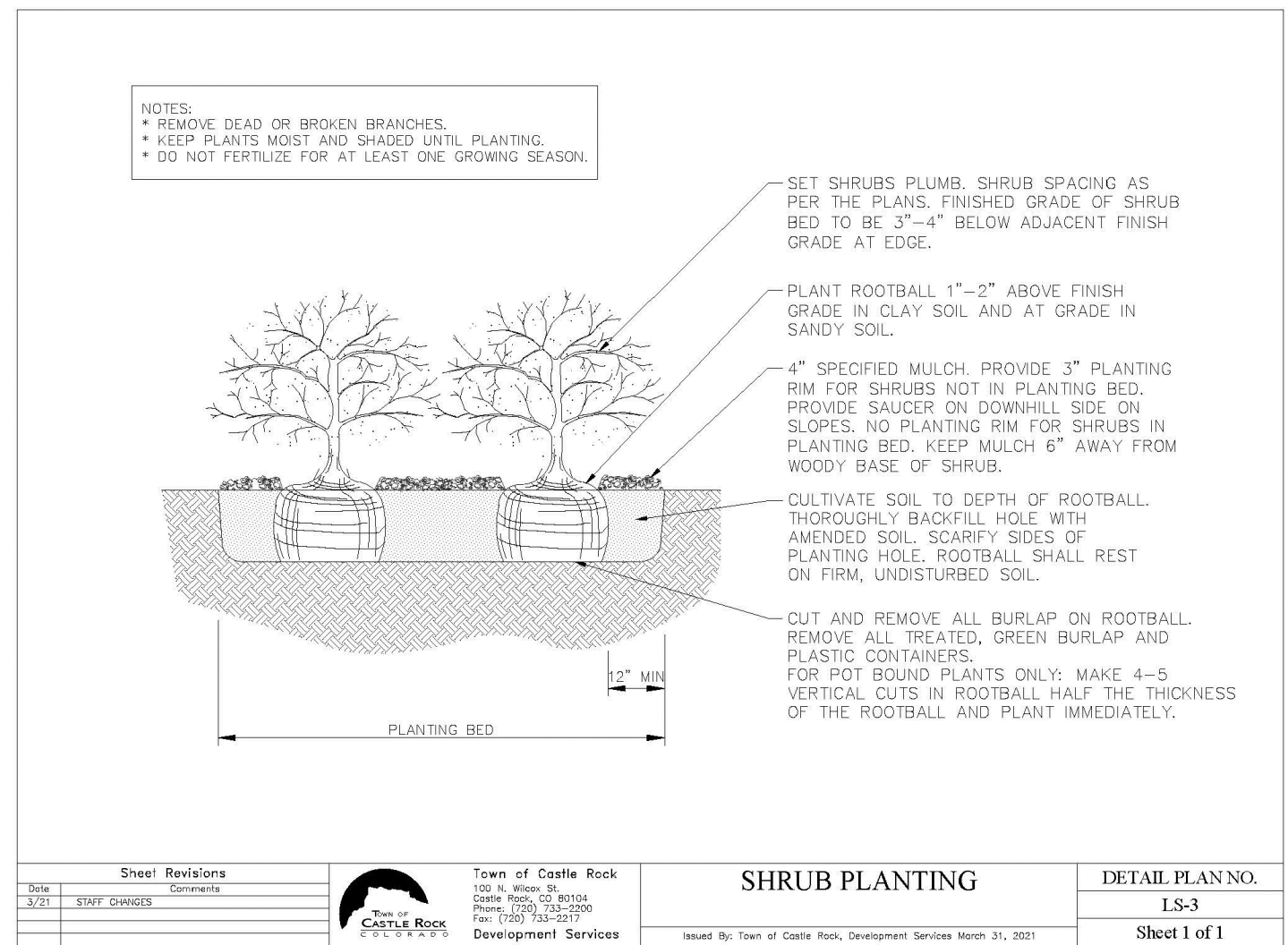


PROJECT #: 210431
SHEET NUMBER

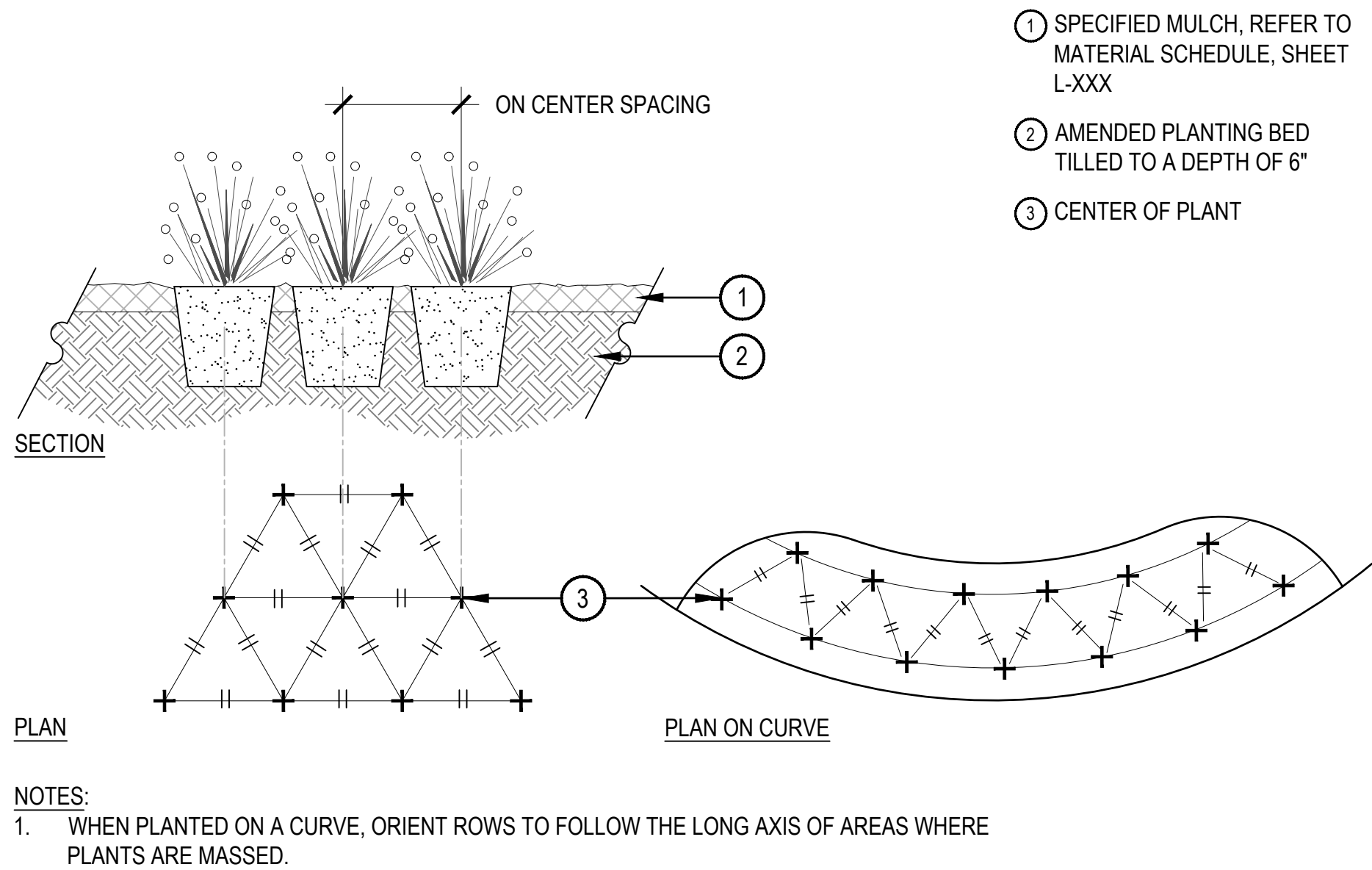


ISSUE DATE: 08-11-2022	
DATE	REVISION COMMENTS
10-31-2022	PER TOWN OF CASLTE ROCK COMMENTS



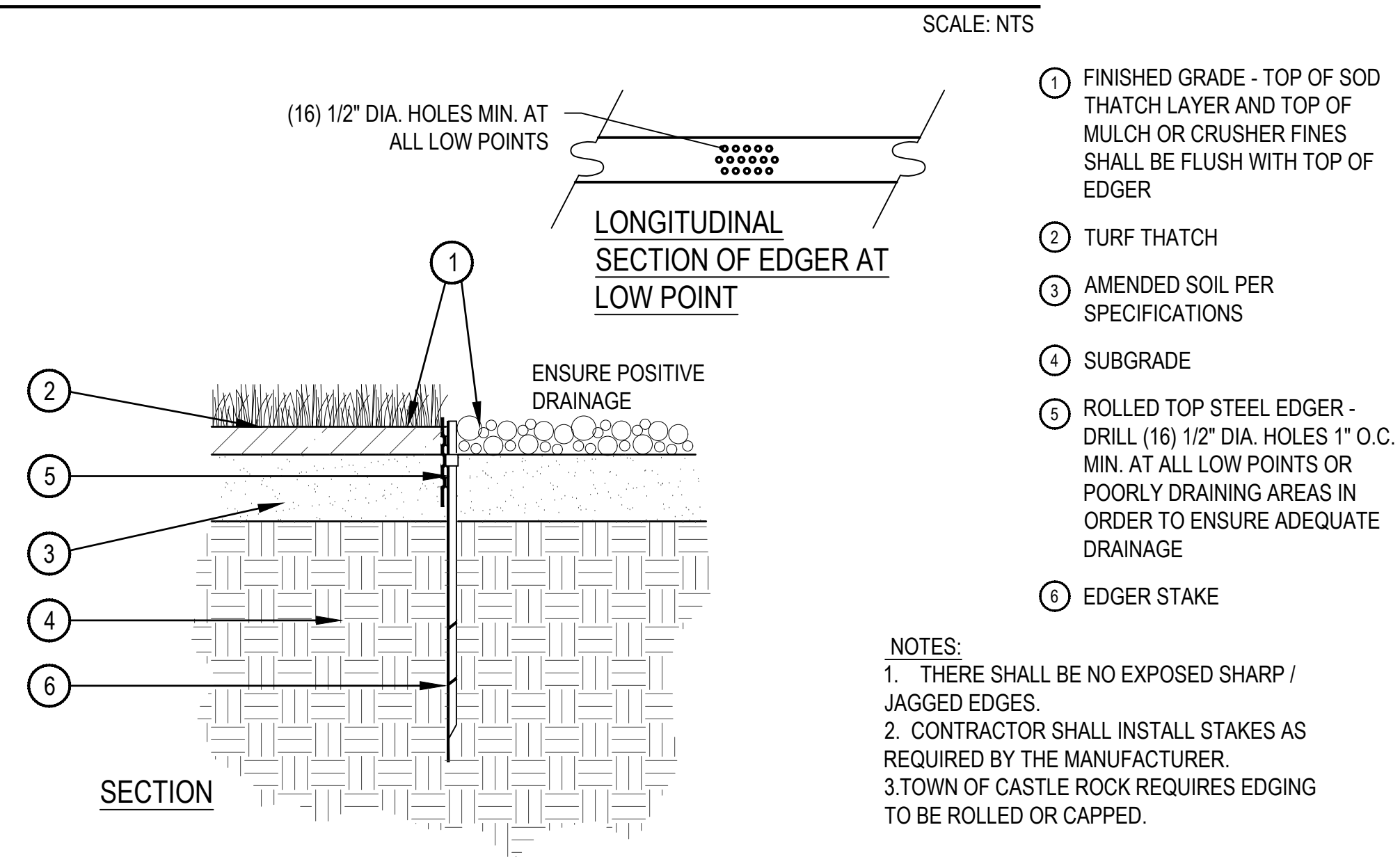


1 TREE PLANTING DETAIL



3 PERENNIAL PLANT LAYOUT

SCALE: 1" = 1'-0"



4 STEEL EDGER

SCALE: 1" = 1'-0"

2 SHRUB PLANTING

SCALE: NTS

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DRAWN BY: JR, RN

ISSUE DATE: 08-11-2022

DATE REVISION COMMENTS
10-31-2022 PER TOWN OF CASTLE ROCK COMMENTS



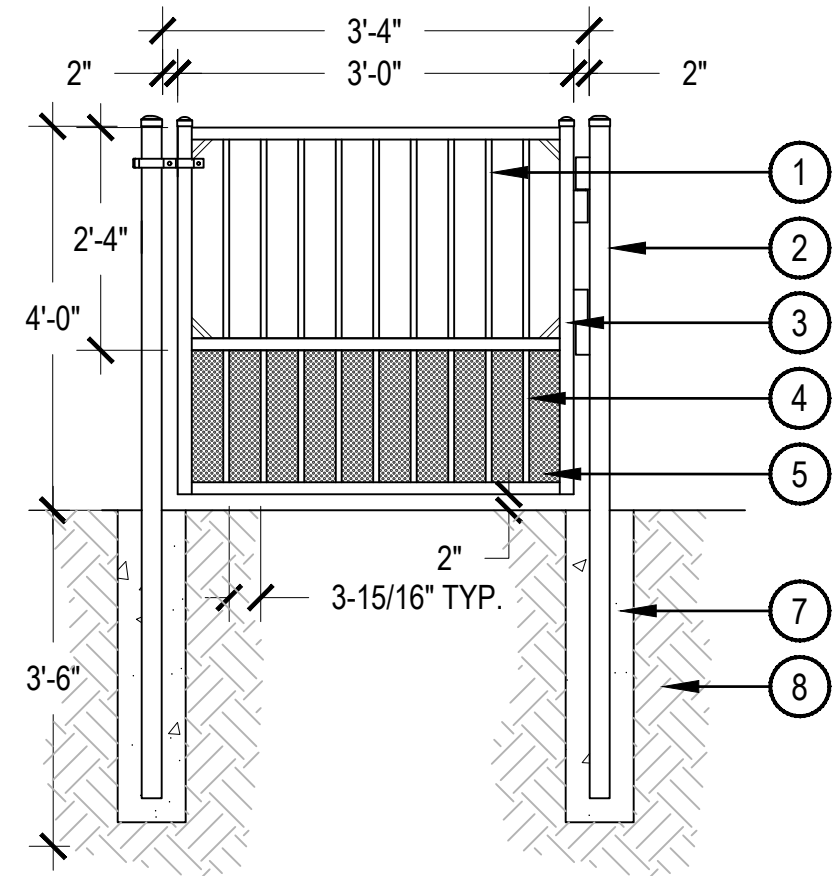
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Denver, Colorado 80203
P: 303.623.6300 F: 303.623.6311
HarrisKocherSmith.com



AVILLA FOUNDERS VILLAGE
LANDSCAPE
DETAILS

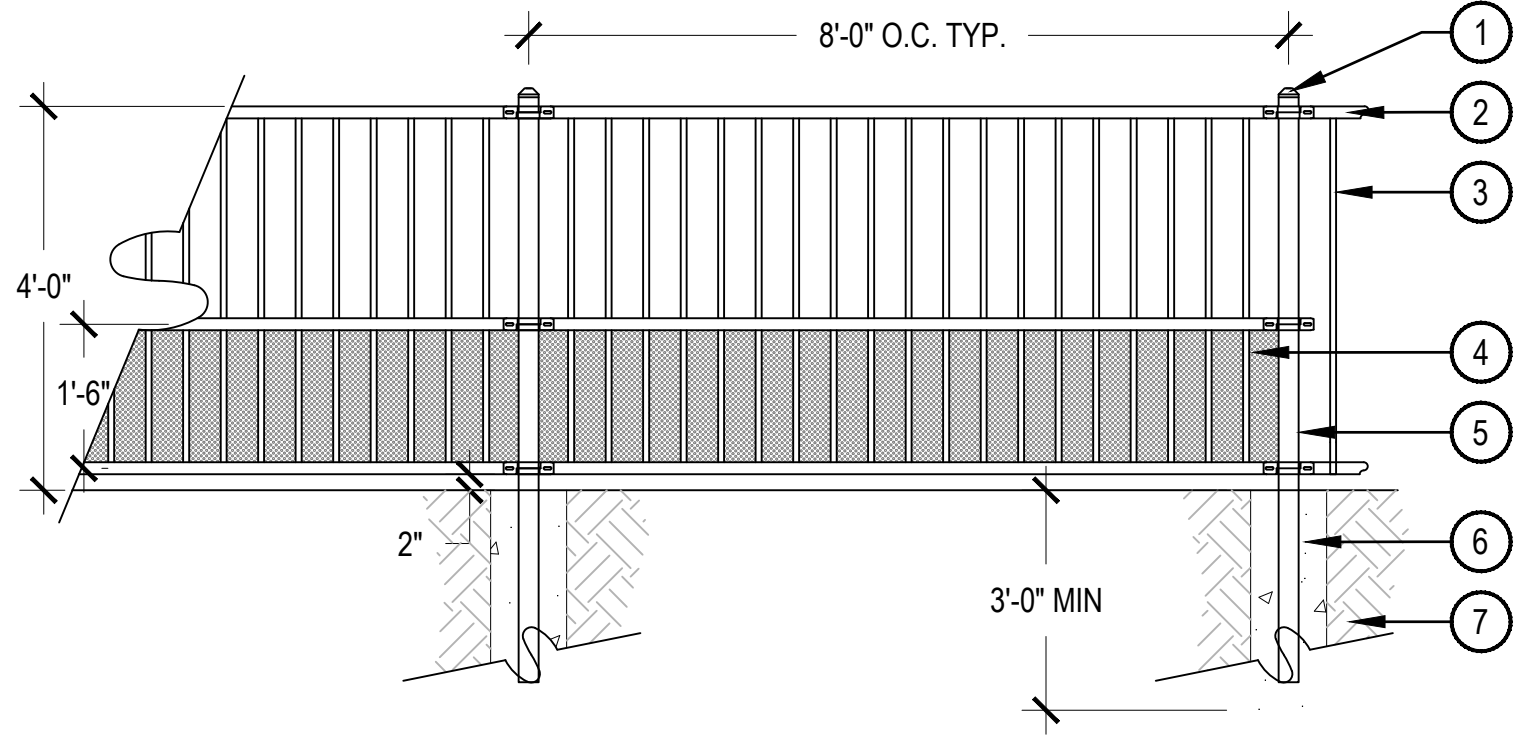
CHECKED BY JARED CARLON, PLA 942

PROJECT #: 210431
SHEET NUMBER



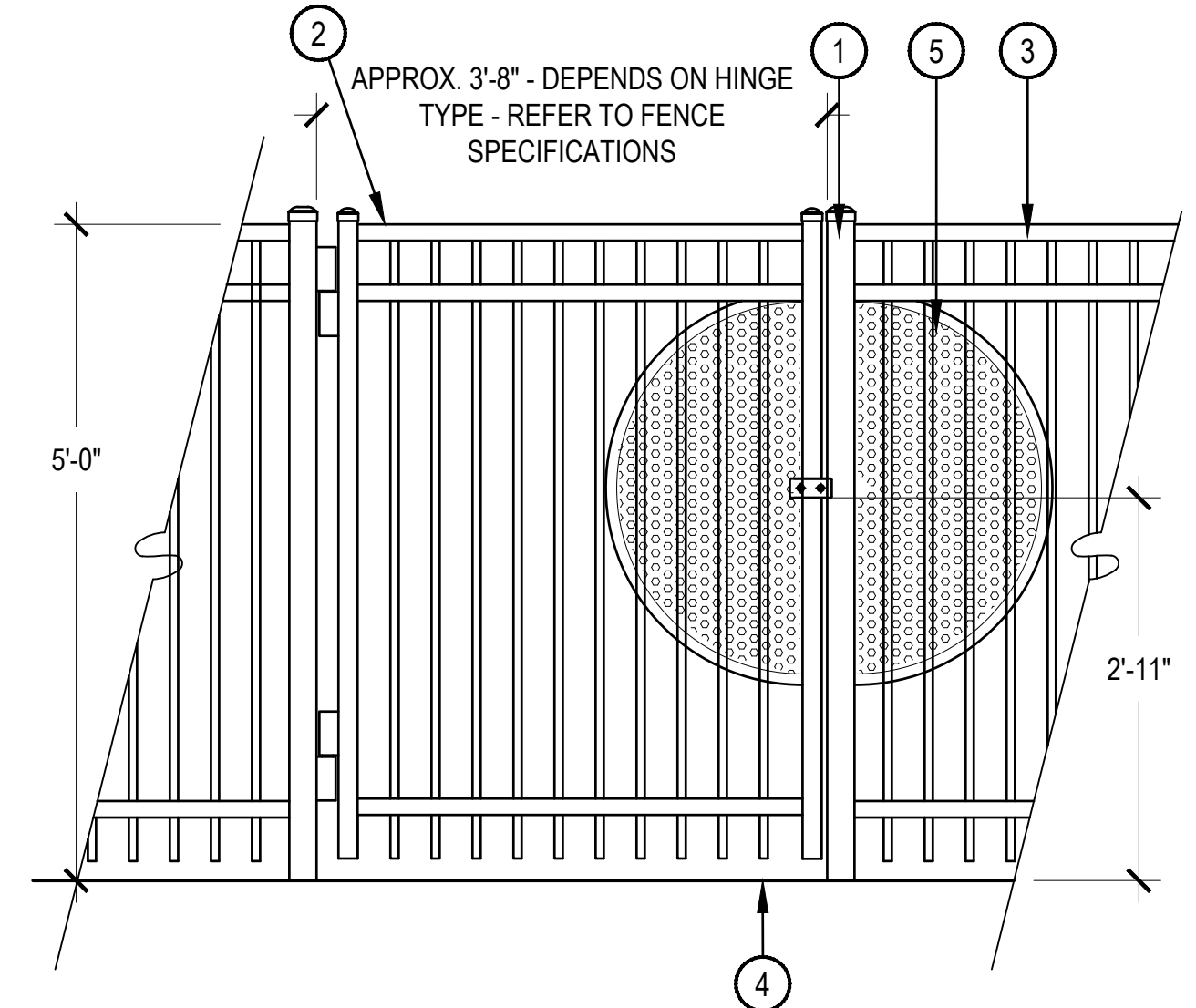
- 1-1/2" METAL RAIL
- 2-1/2" SQ. METAL POST
- 1-3/4" SQ. METAL GATE END
- 3/4" SQ. METAL PICKET
- EXPANDED / PERFORATED METAL SCREEN
- ALL GATE HARDWARE TO BE ADA COMPLIANT
- CONCRETE FOOTER PER MANUFACTURER, SLOPE CONCRETE AWAY FROM POST FOR POSITIVE DRAINAGE
- COMPACTED SUBGRADE

PRODUCT INFORMATION:
MANUFACTURER: AMERISTAR
MODEL: MONTAGE PLUS (CUSTOM)
STYLE: MAJESTIC 3 RAIL
COLOR: BLACK
OR APPROVED EQUAL



- 2-1/2" METAL SQ. POST
- 1-1/2" X 1-7/16" METAL RAIL
- 3/4" SQ. X 18 GAUGE METAL PICKET, 3" ON CENTER
- EXPANDED / PERFORATED METAL SCREEN
- 2 1/2" SQ. X 16 GAUGE METAL POST
- CONCRETE FOOTING PER MANUFACTURER, SLOPE CONCRETE AWAY FROM POST FOR POSITIVE DRAINAGE
- COMPACTED SUBGRADE

PRODUCT INFORMATION:
MANUFACTURER: AMERISTAR
MODEL: MONTAGE PLUS (CUSTOM)
STYLE: MAJESTIC 3 RAIL
COLOR: BLACK
OR APPROVED EQUAL



- GATE POST TYP.
- GATE: ALL GATES SHALL BE SELF CLOSING W/ GATE LOCK TO BE APPROVED BY OWNER. ALL POOL GATES SHALL MEET CURRENT STATE AND IBC POOL ENCLOSURE CODE REQUIREMENTS. PROVIDE PANIC HARDWARE ON PUSH SIDE OF GATE FOR EGRESS, SPRING HINGES, LEVER HANDLE LOCK SET WITH PUSH BUTTON KEYED ENTRY ON PULL SIDE.
- ORNAMENTAL METAL FENCE
- FINISH GRADE
- FOR POOL GATES ONLY: PERFORATED POWDER COATED BRONZE TO MATCH FENCE STEEL PLATING W/ NO GAPS GREATER THAN 1/2" TYPE T.B.D.

NOTES:
1. POOL GATE STYLE SHALL MATCH POOL FENCE STYLE
2. REFER TO MANUFACTURERS FENCE SPECIFICATIONS FOR INFORMATION ON FOOTER DEPTH.

1 DOG PARK GATE

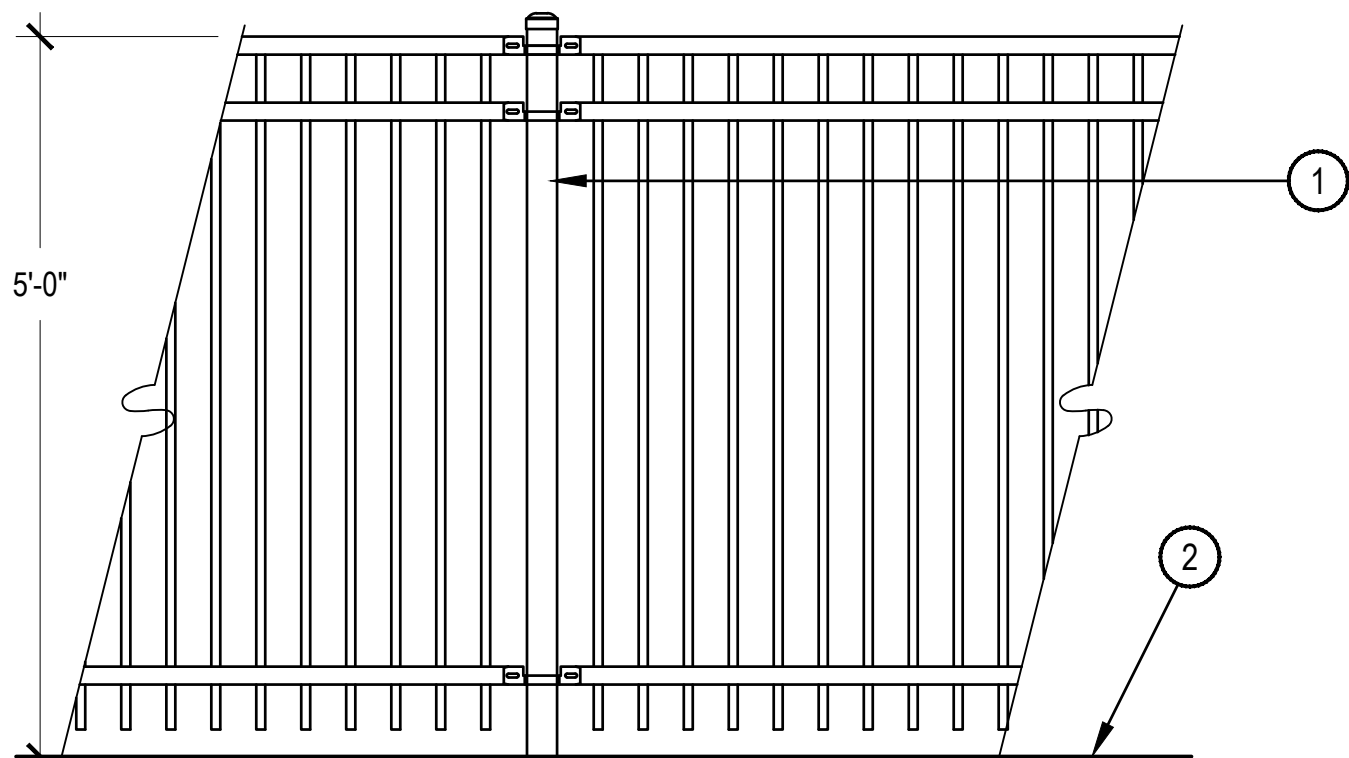
SCALE: 1/2" = 1'-0"

2 DOG PARK FENCE

SCALE: 1/2" = 1'-0"

3 POOL GATE

SCALE: 3/4" = 1'-0"

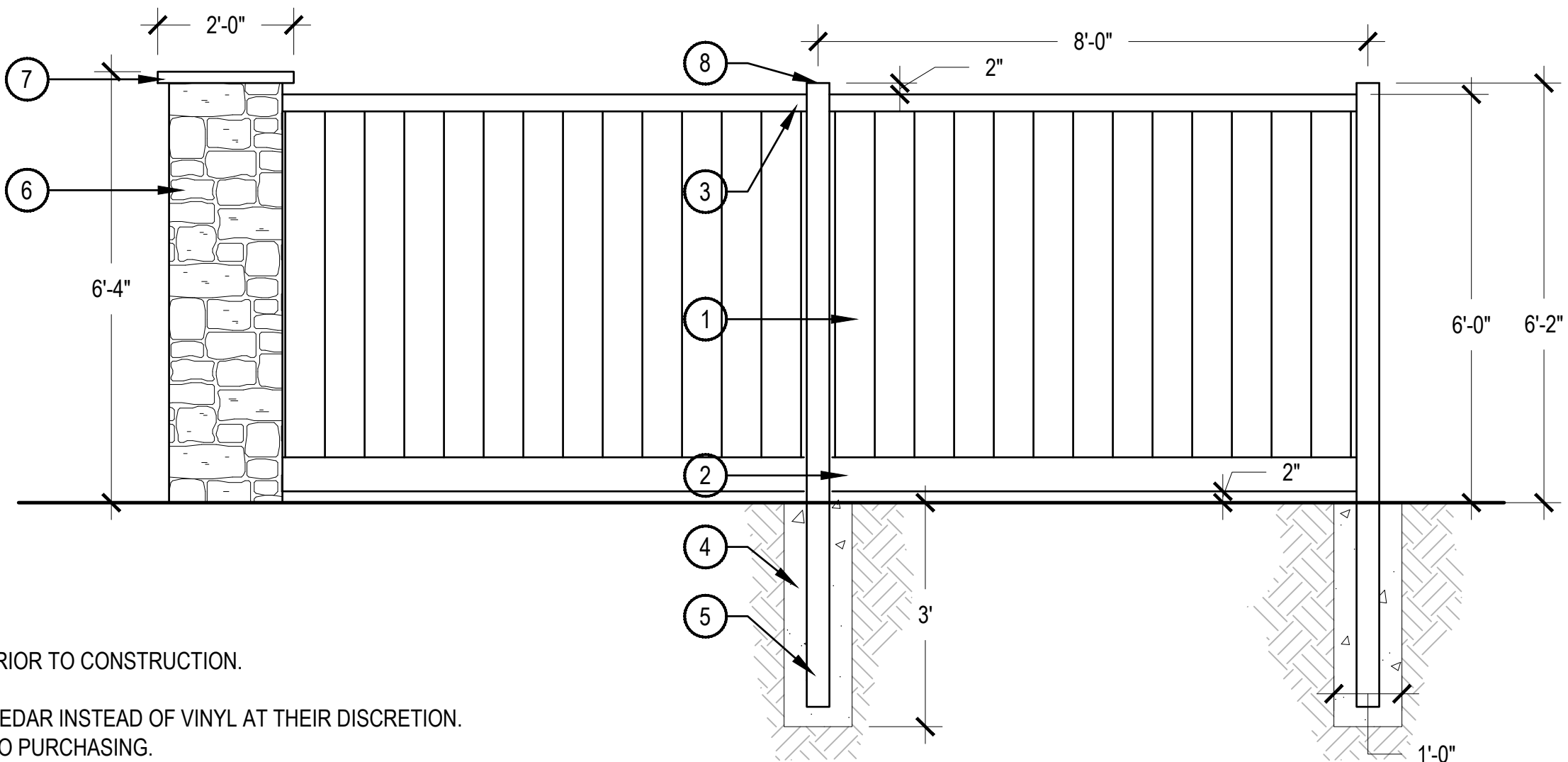


- FENCE POST - SET IN CONCRETE FOOTER, REFER TO FENCE SPECIFICATIONS FOR FOOTER INFORMATION
- FINISH GRADE

NOTES:
1. FENCE SHALL BE BY AMERISTAR FENCE OR APPROVED EQUAL, CONTACT: AARON COPE 918-879-5884 acope@ameristarfence.com
www.ameristarfence.com
2. FENCE STYLE FOR POOL ENCLOSURE SHALL BE: MONTAGE PLUS (POOL, PET, PLAY FENCING) MAJESTIC - 3 RAIL, NO FLUSH BOTTOM
3. FENCE STYLE FOR ALL OTHER LOCATIONS SHALL BE: MONTAGE PLUS (STANDARD 4" PICKET SPACING) MAJESTIC - 3 RAIL, NO FLUSH BOTTOM
4. COLOR: BRONZE
5. ALL FENCING AROUND POOL AREA SHALL MEET CURRENT STATE AND IBC POOL ENCLOSURE CODE REQUIREMENTS.

4 POOL FENCE

SCALE: 3/4" = 1'-0"



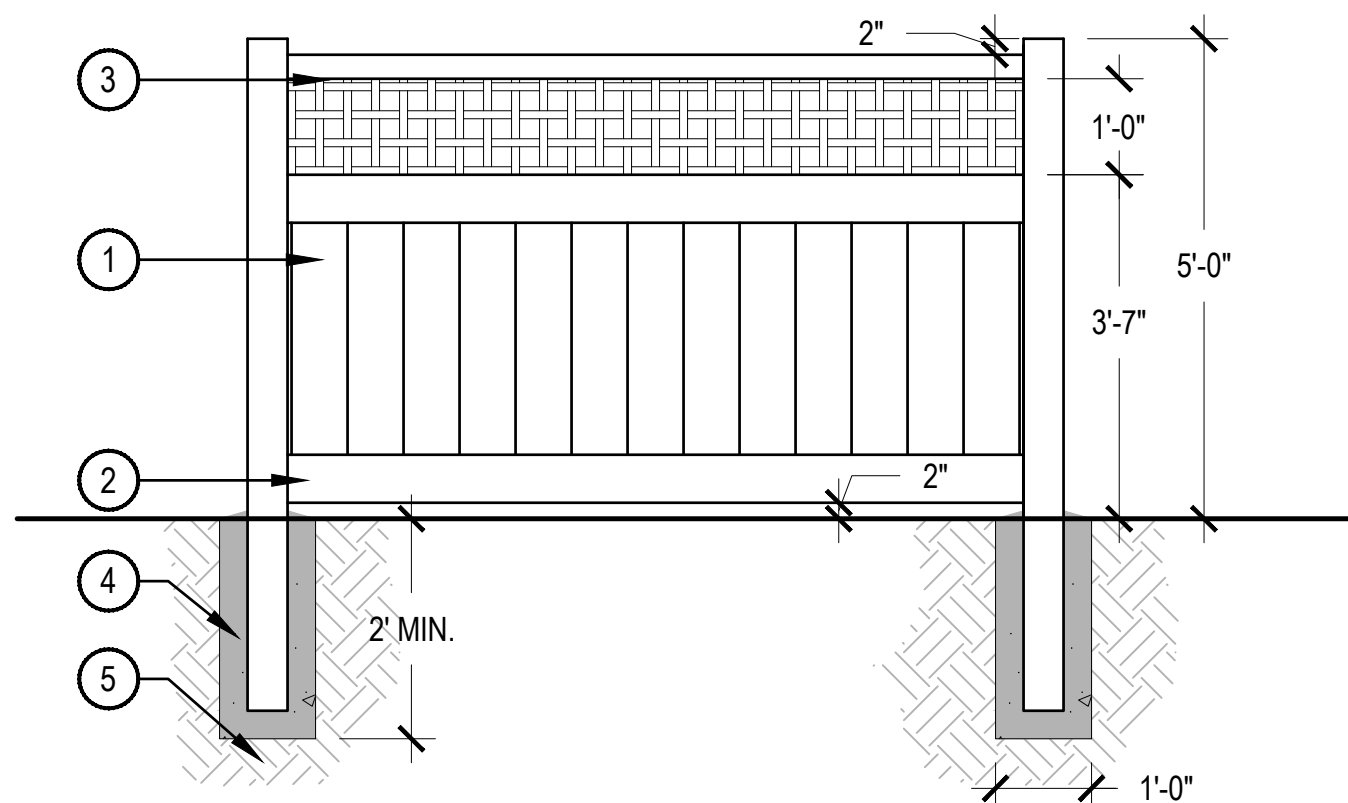
- VINYL OR NATURAL CEDAR FENCE
- 6" WIDE STEEL REINFORCED BOTTOM RAIL
- 3" WIDE TOP RAIL
- CONCRETE FOOTER PER MANUFACTURER, SLOPE CONCRETE AWAY FROM POSTS FOR POSITIVE DRAINAGE
- COMPACTED SUBGRADE
- 20" X 20" MASONRY COLUMN, MINIMUM 50' ON CENTER AND AT EVERY PERPENDICULAR INTERSECTING FENCE
- PRECAST CONCRETE CAP
- 4" X 4" POST

PRODUCT INFORMATION
• MANUFACTURER: BUFFTECH
• MODEL: CHESTERFIELD WITH VINYL CERTAGRAIN TEXTURE
• COLOR: SIERRA BLEND
• APPROVED EQUAL MAY BE USED.

NOTES:
1. INSTALL PER MANUFACTURERS SPECIFICATIONS.
2. CONTRACTOR TO SUBMIT SAMPLE FOR APPROVAL PRIOR TO CONSTRUCTION.
3. REFER TO PLANS FOR COLUMN LOCATIONS.
4. OPTION: THE OWNER MAY ELECT TO USE NATURAL CEDAR INSTEAD OF VINYL AT THEIR DISCRETION.
5. THE CONTRACTOR SHALL VERIFY MATERIAL PRIOR TO PURCHASING.

5 DOUBLE SIDED PRIVACY FENCE

SCALE: 1/2" = 1'-0"



- DECORATIVE NATURAL CEDAR PRIVACY FENCE, REFER TO PLANS FOR LOCATIONS
- 6" WIDE BOTTOM RAIL
- CUSTOM DECORATIVE LATTICE
- CONCRETE FOOTER PER CONTRACTOR. SLOPE CONCRETE AWAY FROM POSTS FOR POSITIVE DRAINAGE
- COMPACTED SUBGRADE

NOTES
1. CONTRACTOR TO SUBMIT SAMPLES FOR APPROVAL PRIOR TO CONSTRUCTION.
2. ALL CONCRETE SHALL HAVE 4,000 PSI COMPRESSIVE STRENGTH AT 28 DAYS.
3. CONTRACTOR TO SUBMIT SHOP DRAWINGS FOR APPROVAL PRIOR TO INSTALLATION.

6 DECORATIVE PRIVACY AND BACKYARD FENCE

SCALE: 1/2" = 1'-0"

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DRAWN BY: JR, RN

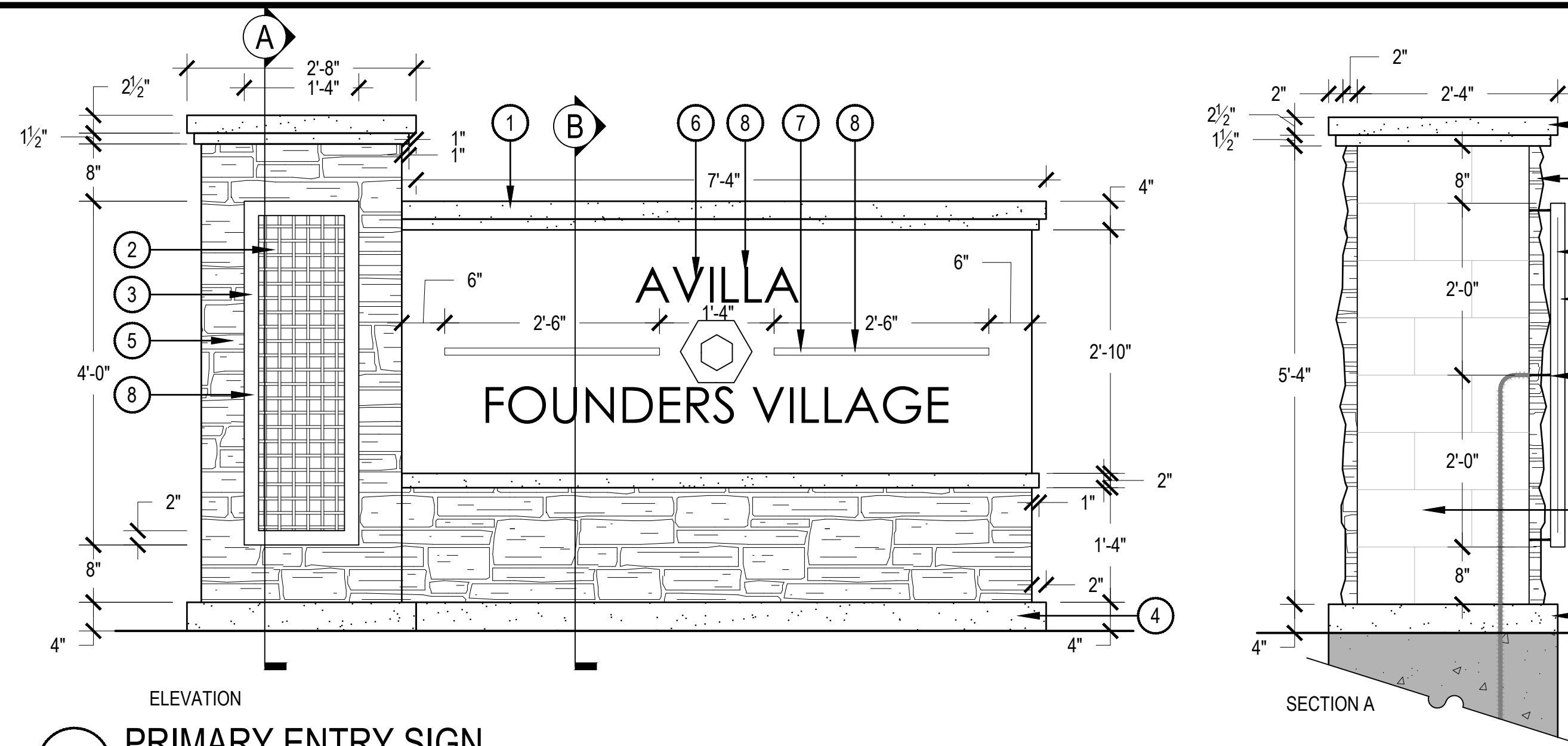
ISSUE DATE: 08-11-2022	
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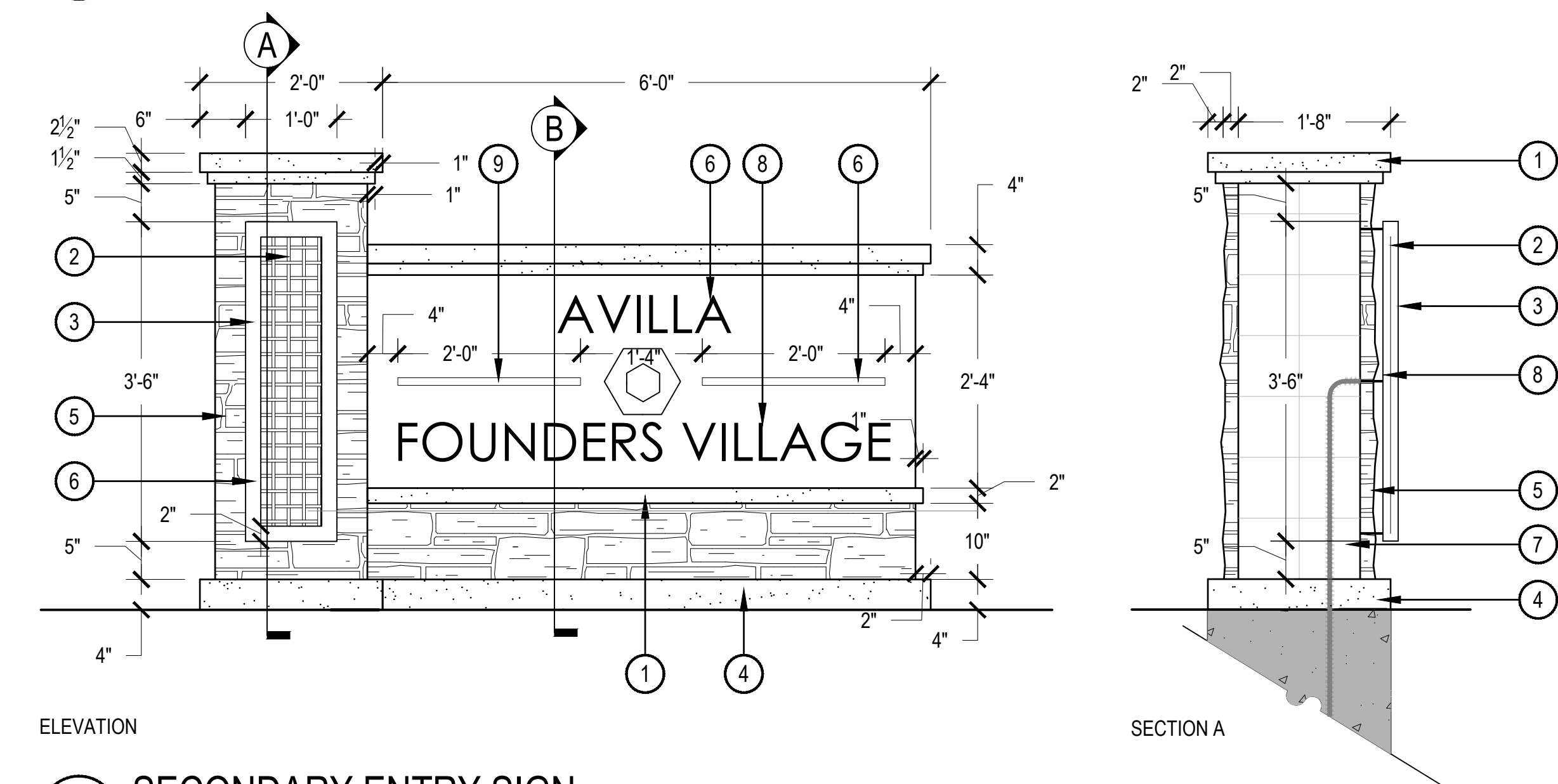
AVILLA FOUNDERS VILLAGE
HARDSCAPE
DETAILS

CHECKED BY JARED CARLON, PLA 942

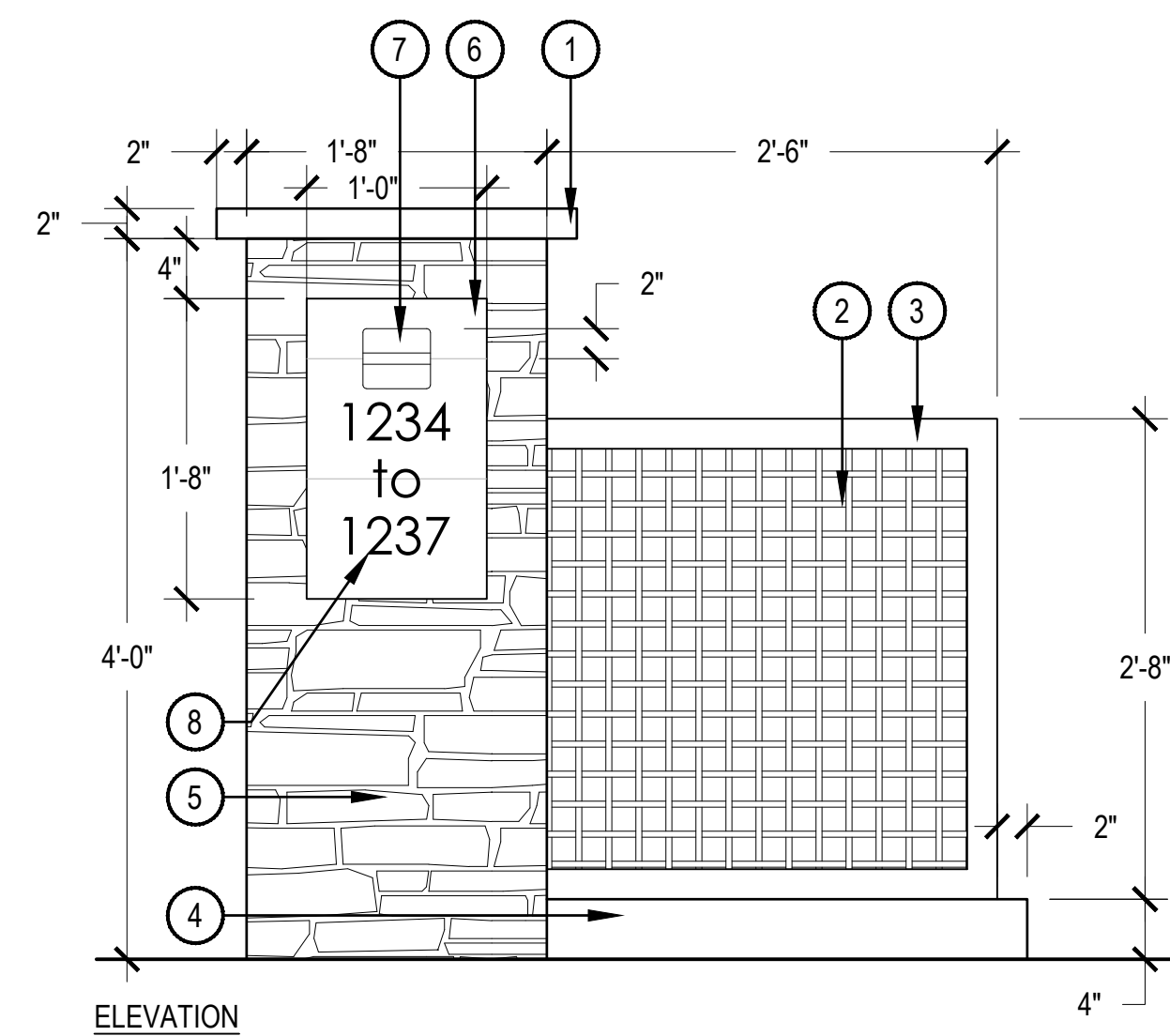
PROJECT #: 210431
SHEET NUMBER



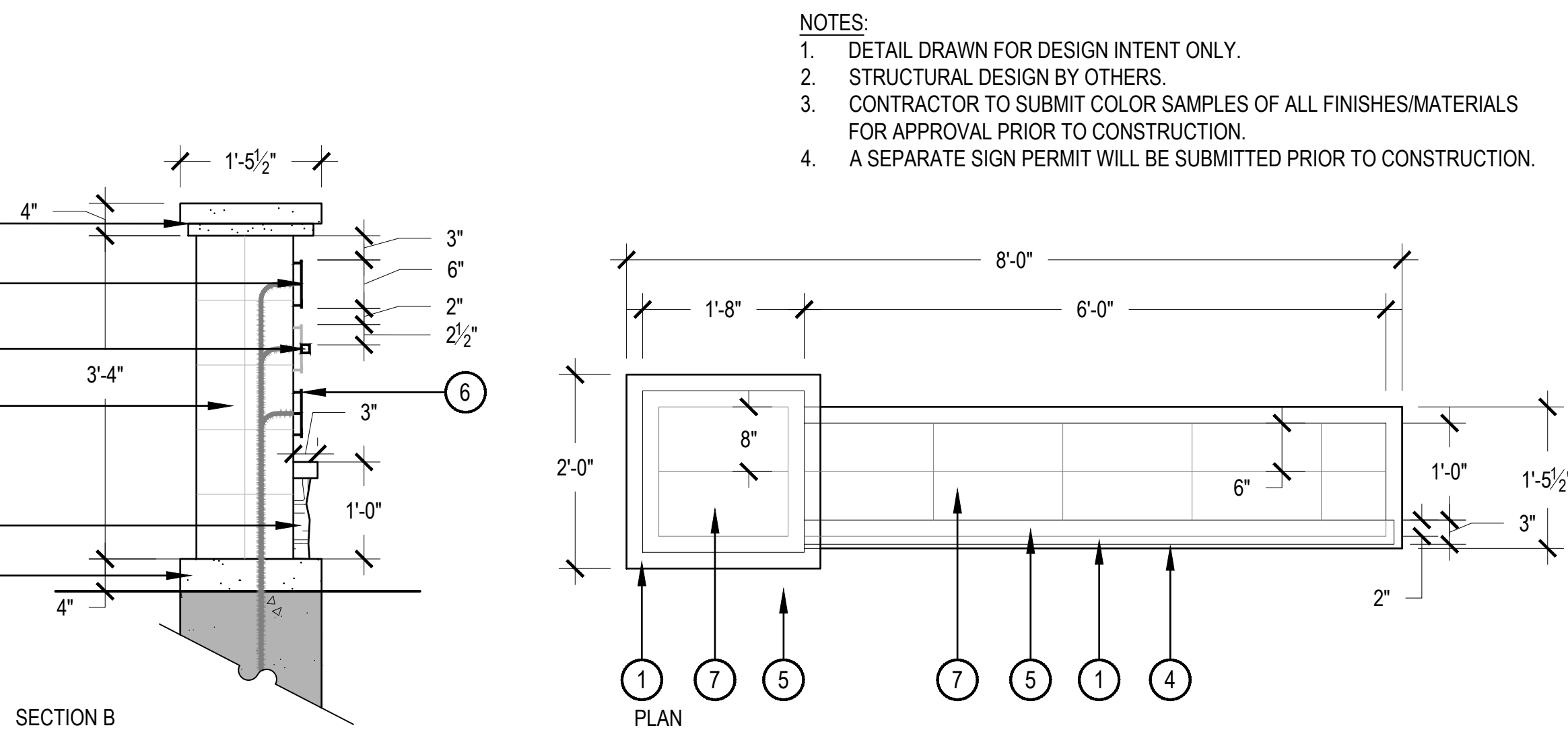
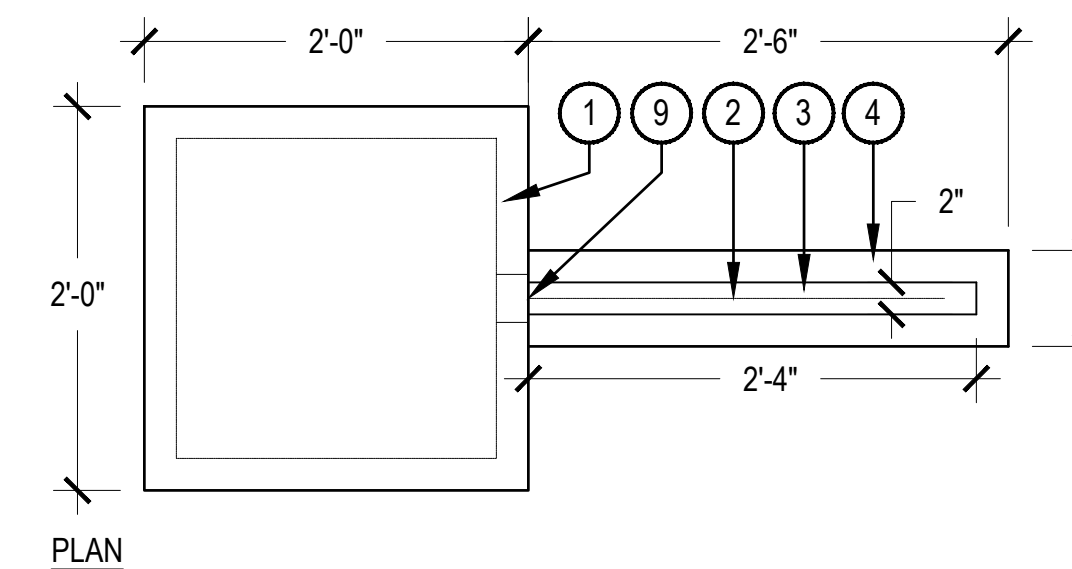
1 PRIMARY ENTRY SIGN



2 SECONDARY ENTRY SIGN



3 ADDRESS MARKER



- 1 COLORED CONCRETE CAP AND LEDGE
- 2 DECORATIVE METAL LATTICE, PIN MOUNTED, COLOR: DARK BRONZE
- 3 METAL FRAME, SMOOTH WELDS, COLOR: DARK BRONZE
- 4 COLORED CONCRETE BASE, DAVIS COLOR 641 PEBBLE (OR APPROVED EQUAL)
- 5 CULTURED STONE VENEER, NANTUCKET COBBLE STONE (OR APPROVED EQUAL)
- 6 MOUNTED METAL LETTERS AND LOGO, COLOR DARK BRONZE. DESIGN TO MATCH STANDARD AVILLA BRANDING
- 7 MOUNTED METAL ACCENT BARS, COLOR: DARK BRONZE
- 8 BACKLIGHT LETTERS, LOGO, METAL FRAME, AND ACCENT BARS, REFER TO ELECTRICAL

- 1 COLORED CONCRETE CAP AND LEDGE
- 2 DECORATIVE METAL LATTICE, COLOR: DARK BRONZE
- 3 METAL FRAME, SMOOTH WELDS, COLOR: DARK BRONZE
- 4 COLORED CONCRETE BASE, DAVIS COLOR 641 PEBBLE (OR APPROVED EQUAL)
- 5 CULTURED STONE VENEER, NANTUCKET COBBLESTONE (OR APPROVED EQUAL)
- 6 BACKLIGHT LETTERS, LOGO, METAL FRAME, AND ACCENT BARS, REFER TO ELECTRICAL
- 7 STANDARD GREY 6" x 8" x 16" CMU BLOCK, STUCCO FINISH WHERE NO STONE VENEER.
- 8 MOUNTED METAL LETTERS AND LOGO, COLOR: DARK BRONZE. DESIGN TO MATCH STANDARD AVILLA BRANDING
- 9 MOUNTED METAL ACCENT BARS, COLOR: DARK BRONZE

- 1 INTEGRALLY COLORED CONCRETE CAP, DAVIS COLOR 641 PEBBLE OR APPROVED EQUAL
- 2 DECORATIVE METAL LATTICE, COLOR: DARK BRONZE
- 3 WELDED METAL FRAME, COLOR: DARK BRONZE
- 4 STANDARD GRAY CONCRETE BASE
- 5 STONE VENEER TO MATCH ARCHITECTURE (NANTUCKET COBBLESTONE, OR APPROVED EQUAL)
- 6 GROUND FACE CMU, COLOR TO MATCH CONCRETE CAP
- 7 LIGHT TO ILLUMINATE NUMBERS, RE: ELECTRICAL
- 8 METAL MOUNTED NUMBERS/LETTERS, COLOR: DARK BRONZE
- 9 JUNCTION BOX, TO BE FLUSH WITH FACE OF VENEER. GROUT BETWEEN J-BOX & VENEER

NOTES:
1. DETAIL DRAWN FOR DESIGN INTENT ONLY.
2. STRUCTURAL DESIGN BY OTHERS.
3. CONTRACTOR TO SUBMIT COLOR SAMPLES OF ALL FINISHES/MATERIALS FOR APPROVAL PRIOR TO CONSTRUCTION.
4. A SEPARATE SIGN PERMIT WILL BE SUBMITTED PRIOR TO CONSTRUCTION.

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DRAWN BY: JR, RN

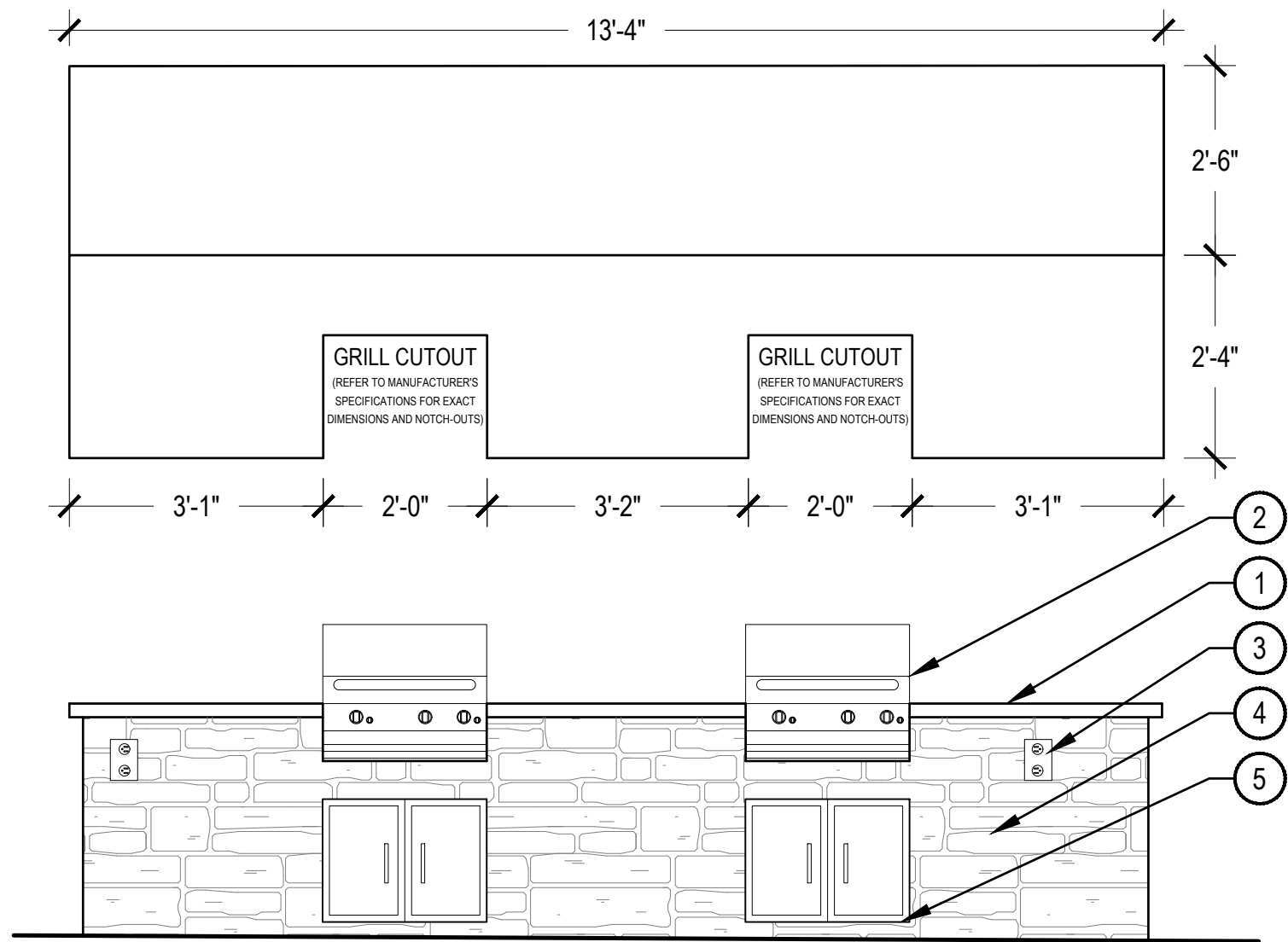
ISSUE DATE: 08-11-2022	
DATE	REVISION COMMENTS
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AVILLA FOUNDERS VILLAGE
HARDSCAPE
DETAILS

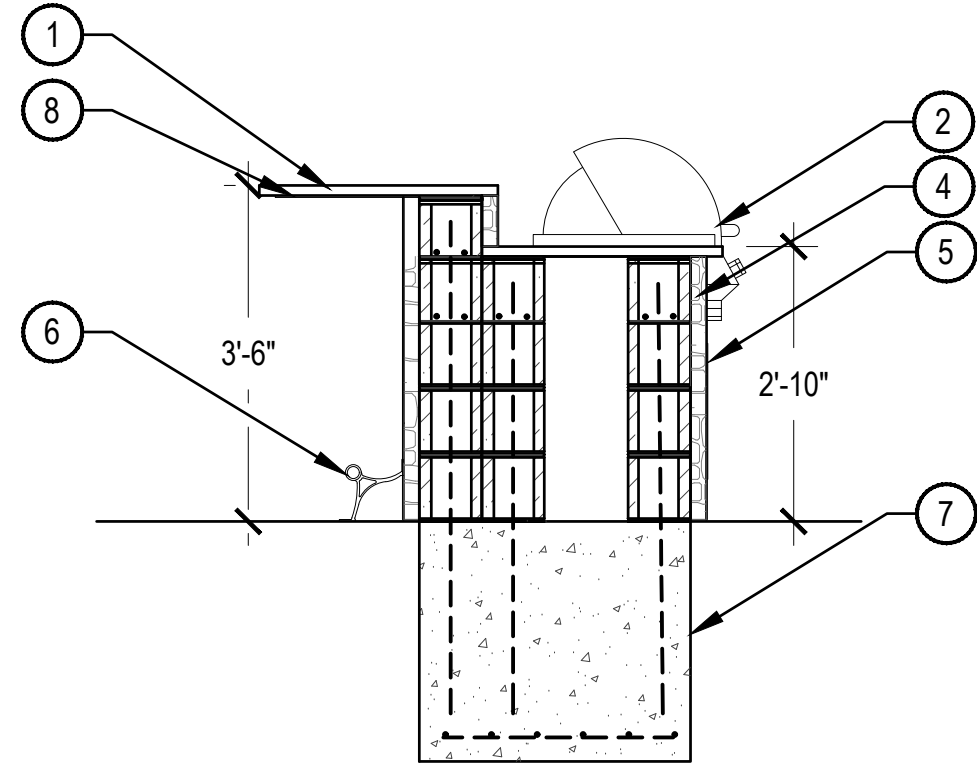
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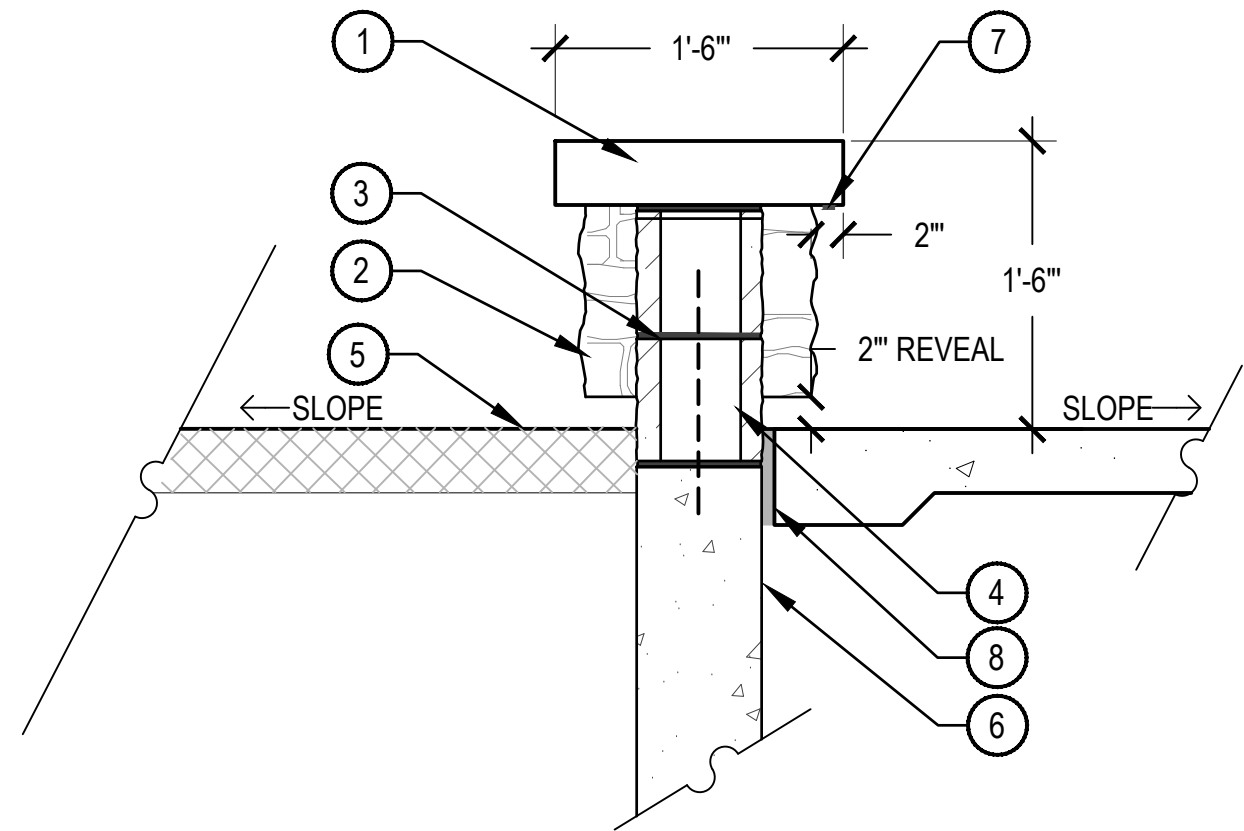


NOTES:

1. FOR STRUCTURAL INFORMATION AND FOOTINGS REF: STRUCTURAL.
2. THIS DETAIL SHOWS DESIGN INTENT ONLY. CONTRACTOR SHALL MEET ALL APPLICABLE IBC, CITY, STATE AND ADA CODES.
3. DEBURR AND ROUND ALL EXPOSED EDGES FOR ALL METAL WORK.
4. NATURAL GAS LINE WITH AVAILABLE 67,000 BTUs FOR EACH GRILL WITH SHUT-OFF VALVE AND TIMER SHALL BE PROVIDED WITH / FOR THE GRILL.
5. COORDINATE WITH ELECTRICAL TO PROVIDE 1 GFI OUTLETS AND POWER FOR TIMERS AND SHUT-OFF SYSTEM. ALL TIMERS AND SHUT OFF TO BE ADA COMPLIANT.



1. 2" THICK POLISHED CONCRETE COUNTER, 2" OVERHANG TOP TO BE SEALED, REFER TO LANDSCAPE SCHEDULES SHEET
2. GAS GRILL (REFER TO MATERIALS SCHEDULE)
3. (1) GFCI ELECTRICAL OUTLET WITH ALL WEATHER COVER RE: ELECTRICAL.
4. STONE VENEER TO MATCH ARCHITECTURE, WRAP ALL SIDES
5. STAINLESS STEEL CABINET DOORS (REFER TO MATERIALS SCHEDULE)
6. KEGWORKS COMBINATION FOOT RAIL BRACKET MATTE BLACK, 2" OD
7. CONCRETE FOOTER (REFER TO STRUCTURAL)
8. STEEL COUNTERTOP BRACKETS, 24" O.C.

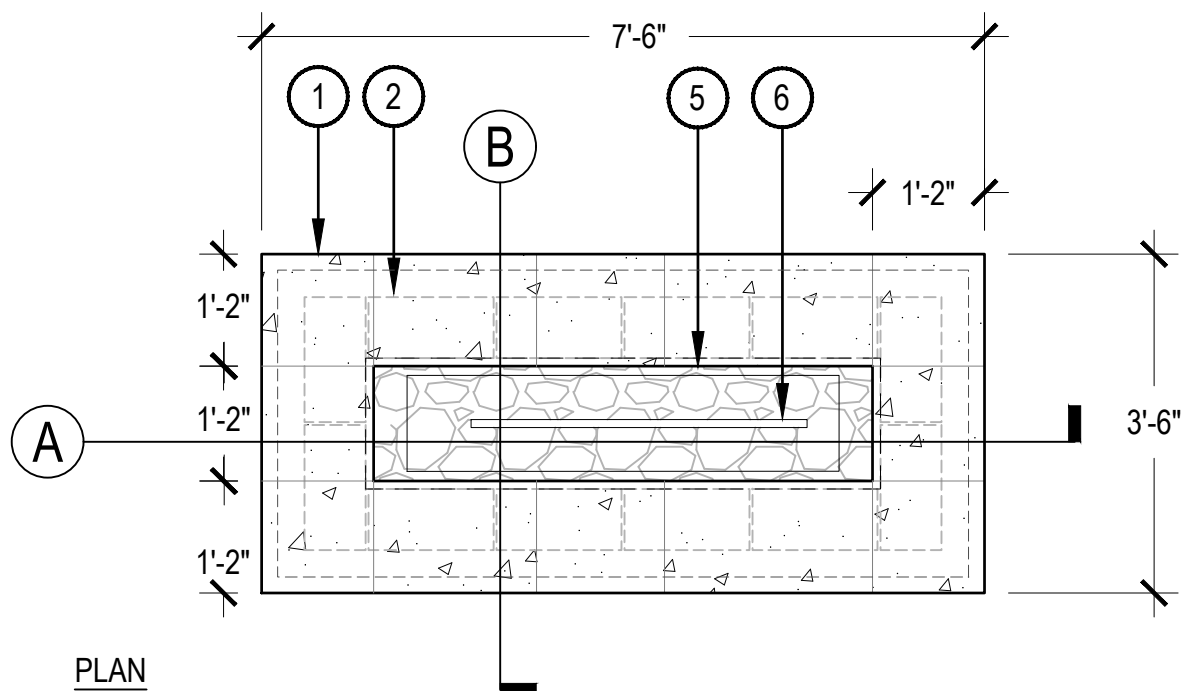


NOTES:

1. CONTRACTOR TO SUBMIT SHOP DRAWINGS
2. REFER TO STRUCTURAL DRAWINGS FOR CMU DESIGN.
3. NORRIS DESIGN HAS PROVIDED THIS DETAIL FOR REFERENCE PURPOSE, THIS DETAIL HAS NOT BEEN ENGINEERED.
4. NORRIS DESIGN IS NOT RESPONSIBLE FOR STRUCTURAL DESIGN AND CALCULATIONS.

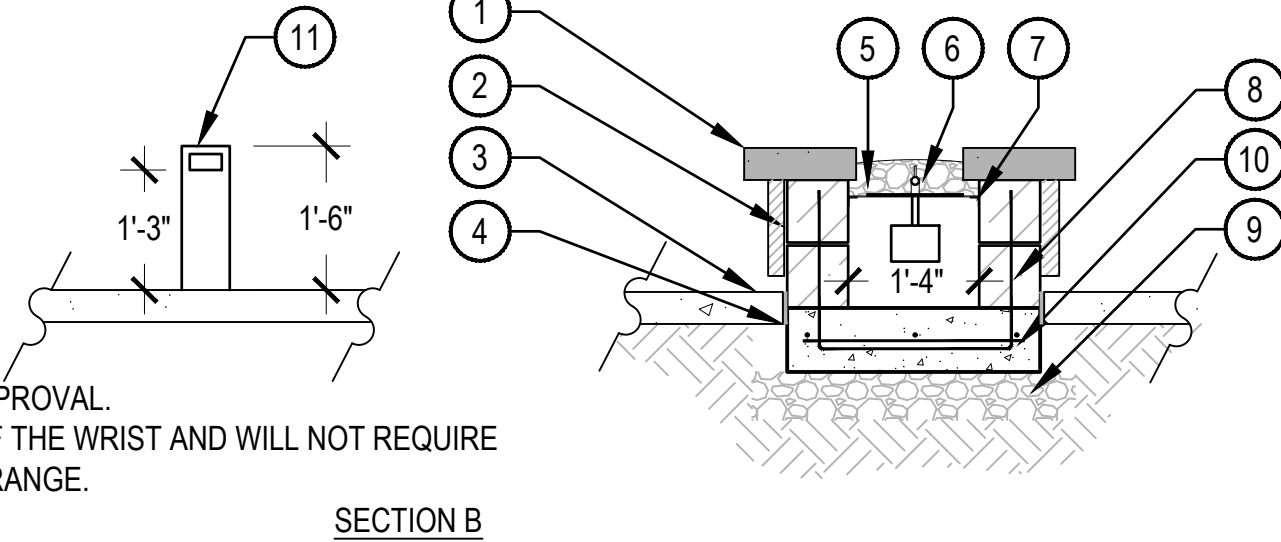
1. 3" THICK SANDSTONE CAP, RE: MATERIAL SCHEDULE, (2" MIN OVERHANG)
2. STONE VENEER - TO MATCH ARCHITECTURE
3. 3/8" GROUTED JOINTS
4. CMU CORE
5. FINISHED GRADE. REFER TO LANDSCAPE PLANS FOR MATERIAL
6. CONCRETE FOOTER, RE: STRUCTURAL
7. STRIP LIGHTING, ADHERED AND PERMANENTLY SECURE TO CAP PER MANUFACTURES SPECIFICATIONS. STRIP LIGHTING ON WALL SHALL BE INSTALLED ON WALKWAY SIDE.
8. EXPANSION JOINT

1 POOL DECK GRILL

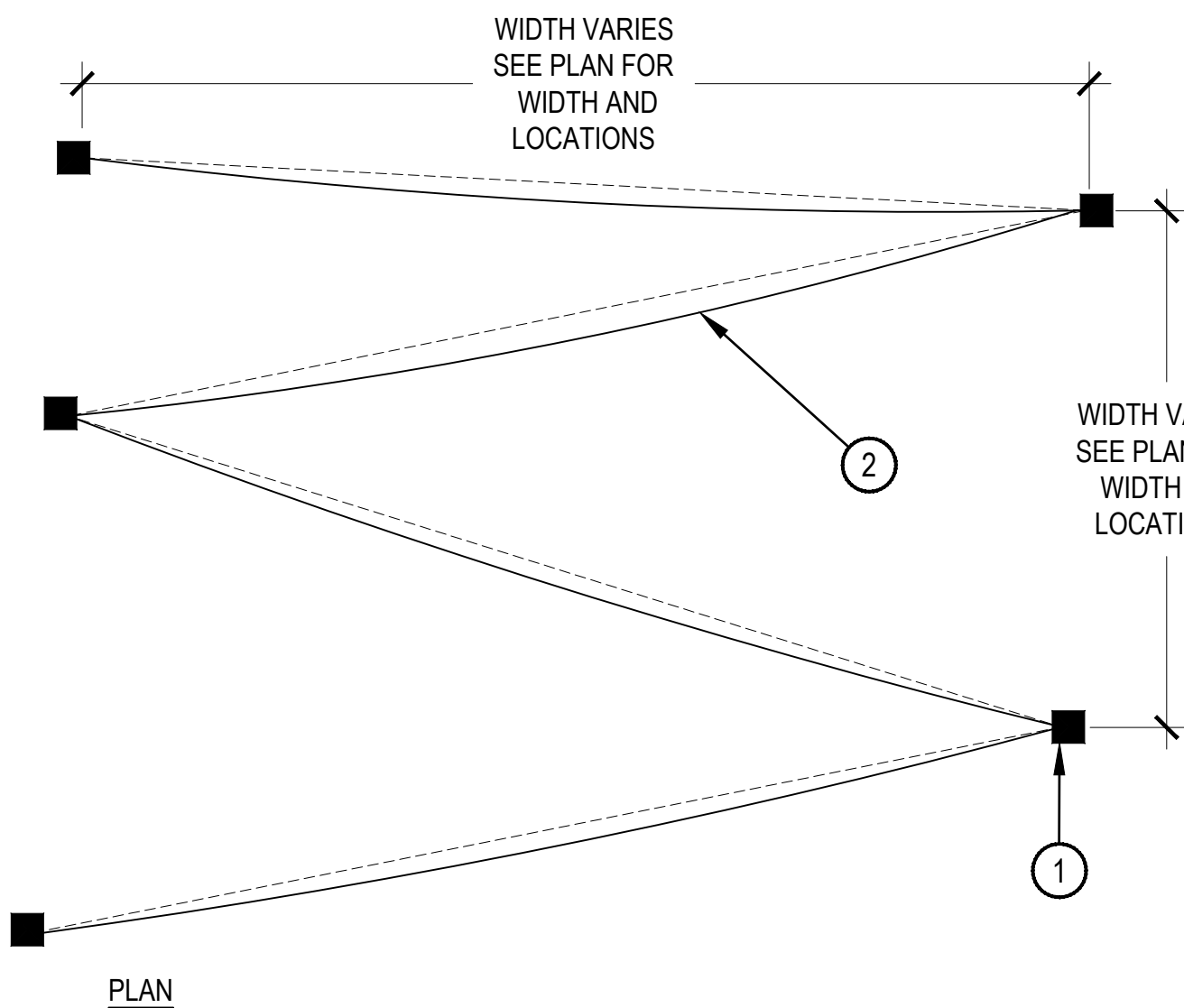
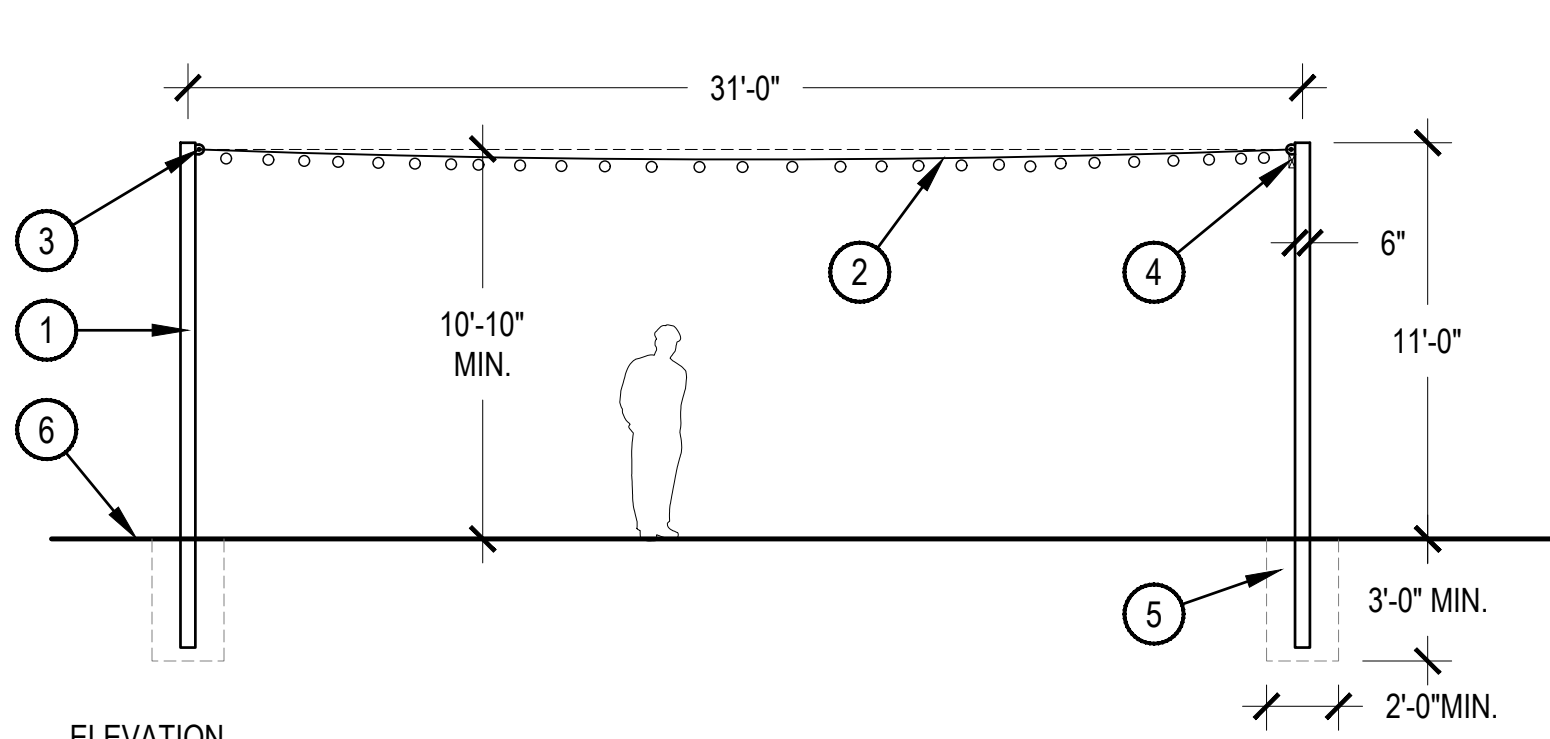


NOTES:

1. CONTRACTOR TO PROVIDE SHOP DRAWINGS & SUBMIT SAMPLES FOR OWNER/ARCHITECT APPROVAL.
2. CONTRACTOR TO COORDINATE AUTOMATED TIMER SYSTEM
3. CONTRACTOR TO PROVIDE TIMER AND AUTO SHUTOFF.
4. CONTRACTOR TO PROVIDE SHOP DRAWINGS AND BURNER ASSEMBLY FOR LANDSCAPE ARCHITECT APPROVAL.
5. CONTROLS WILL BE OPERABLE WITH ONE HAND WITHOUT TIGHT GRASPING, PINCHING OR TWISTING OF THE WRIST AND WILL NOT REQUIRE MORE THAN 5LBS OF FORCE TO OPERATE. CONTROLS WILL BE MOUNTED WITHIN ACCESSIBLE REACH RANGE.



3 FIRE PIT - POOL DECK



NOTES:

1. THERE SHALL BE NO EXPOSED CONDUIT OR WIRING. ALL CONDUIT AND WIRING SHALL BE THREAD THROUGH POLES.
2. SEE LANDSCAPE STRUCTURAL & MEP PLANS FOR STRUCTURAL DETAILS OF POLE & STEEL CABLE SYSTEM, AS WELL AS ELECTRICAL SUPPLY FOR LIGHTS
3. STEEL POLES SHALL BE PRIMED AND POWDER BLACK, TO MATCH OTHER POWDER COATED STEEL ON REST OF PROJECT.

4 STRING LIGHTING

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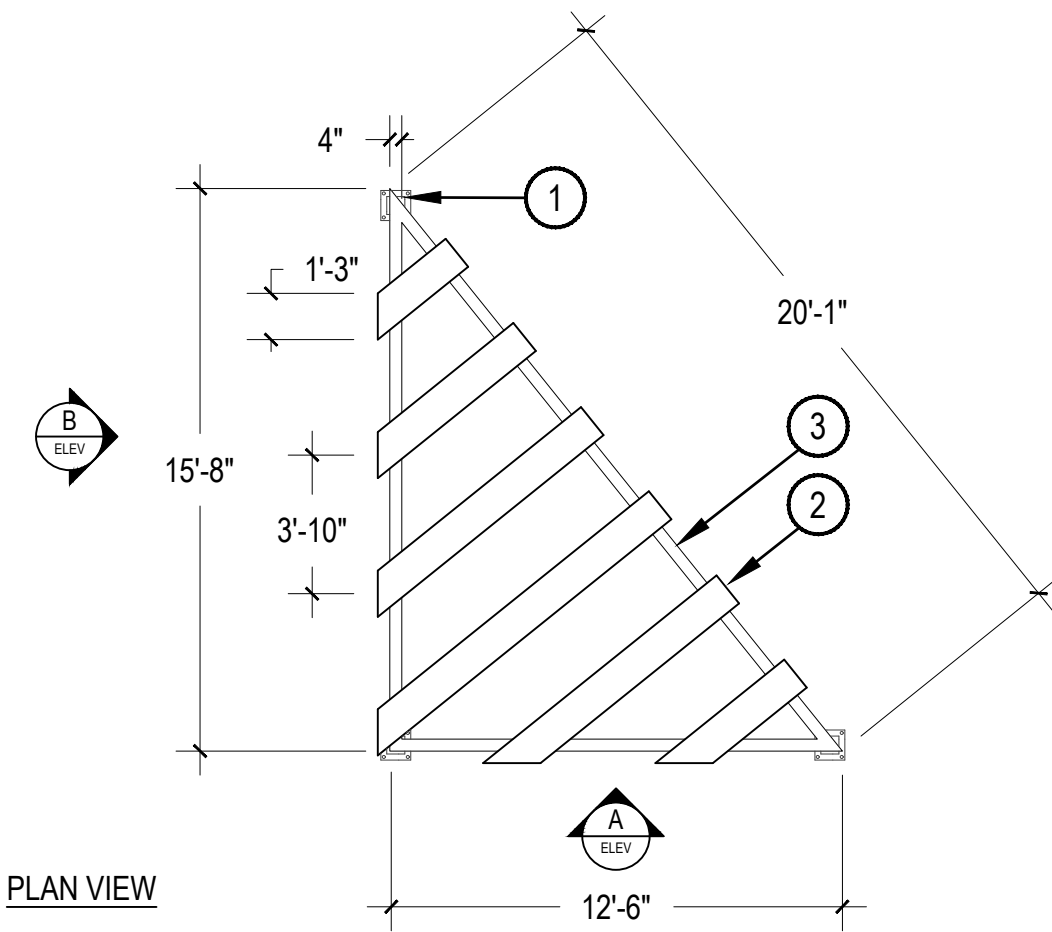
DATE REVISION COMMENTS
10-31-2022 PER TOWN OF CASLIE ROCK COMMENTS



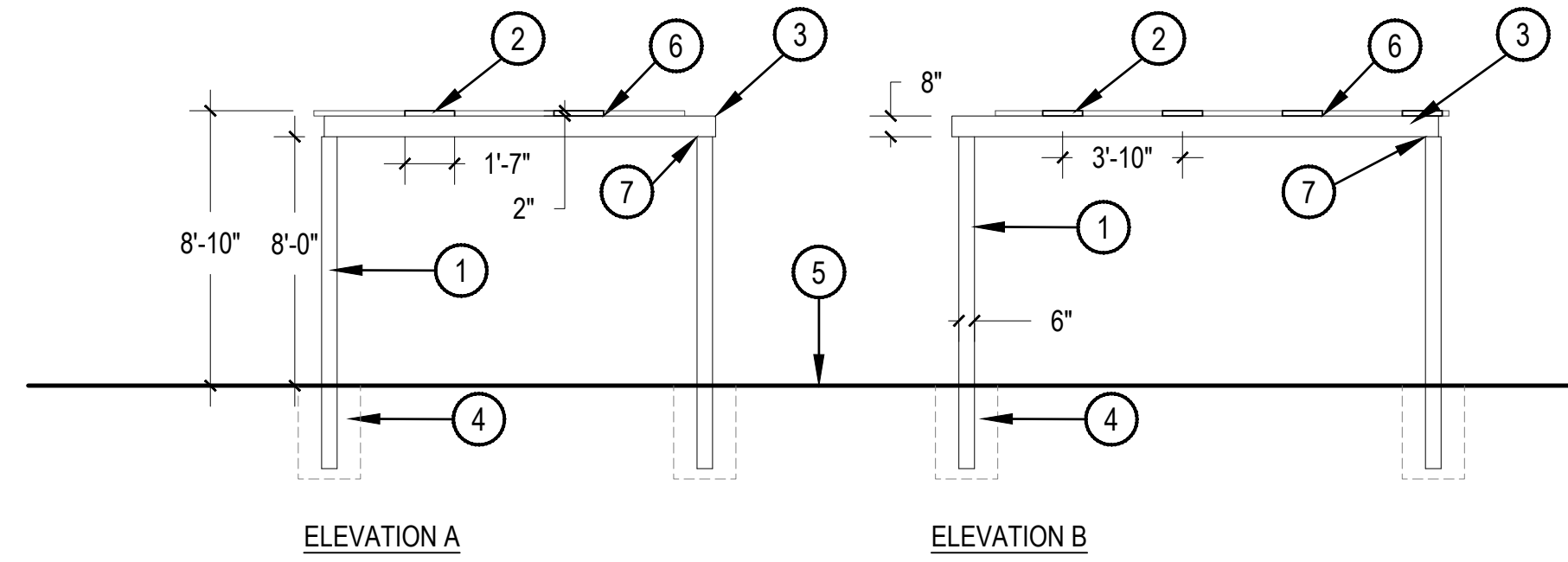
AVILLA FOUNDERS VILLAGE
HARDSCAPE
DETAILS

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PROJECT #: 210431
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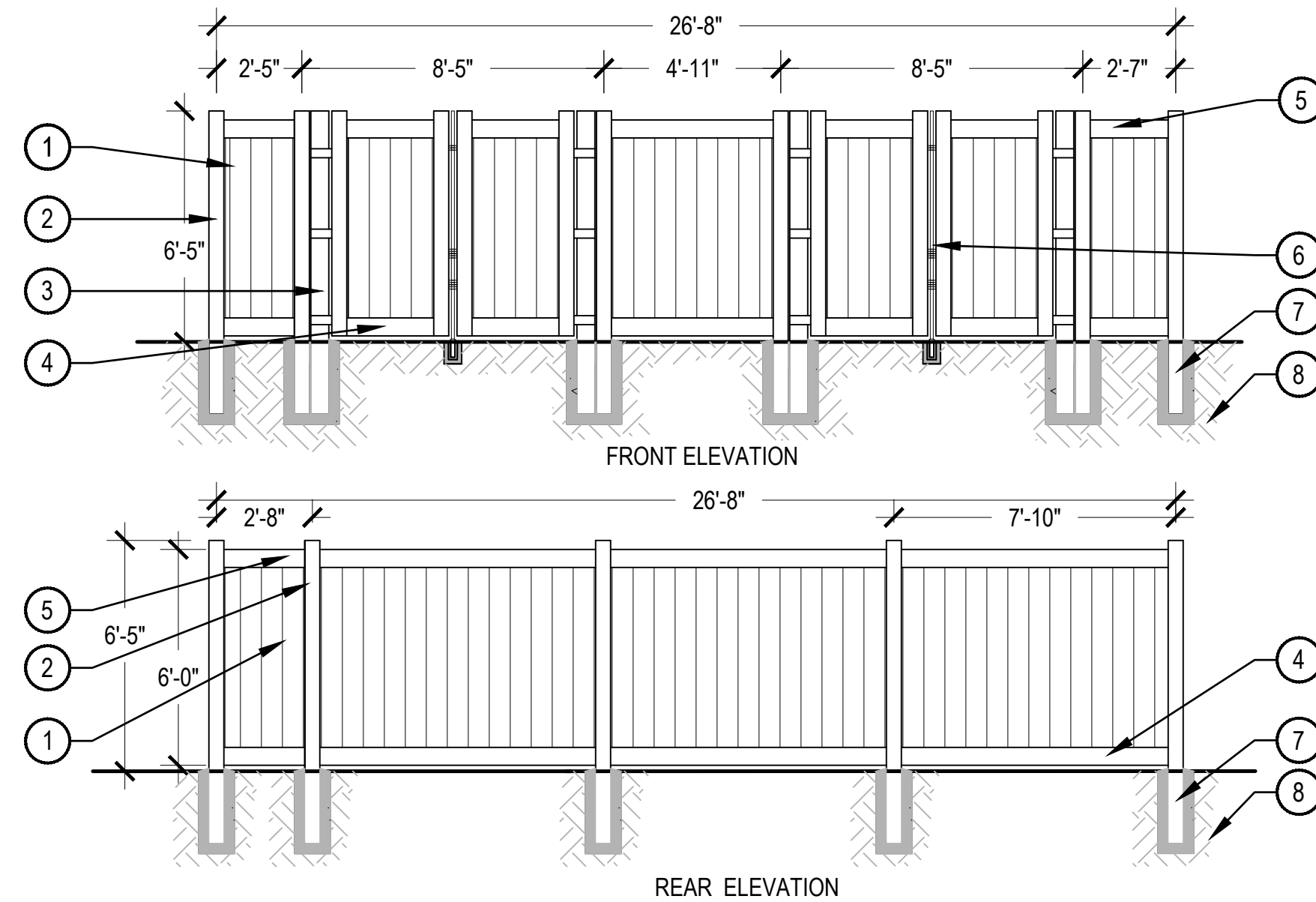
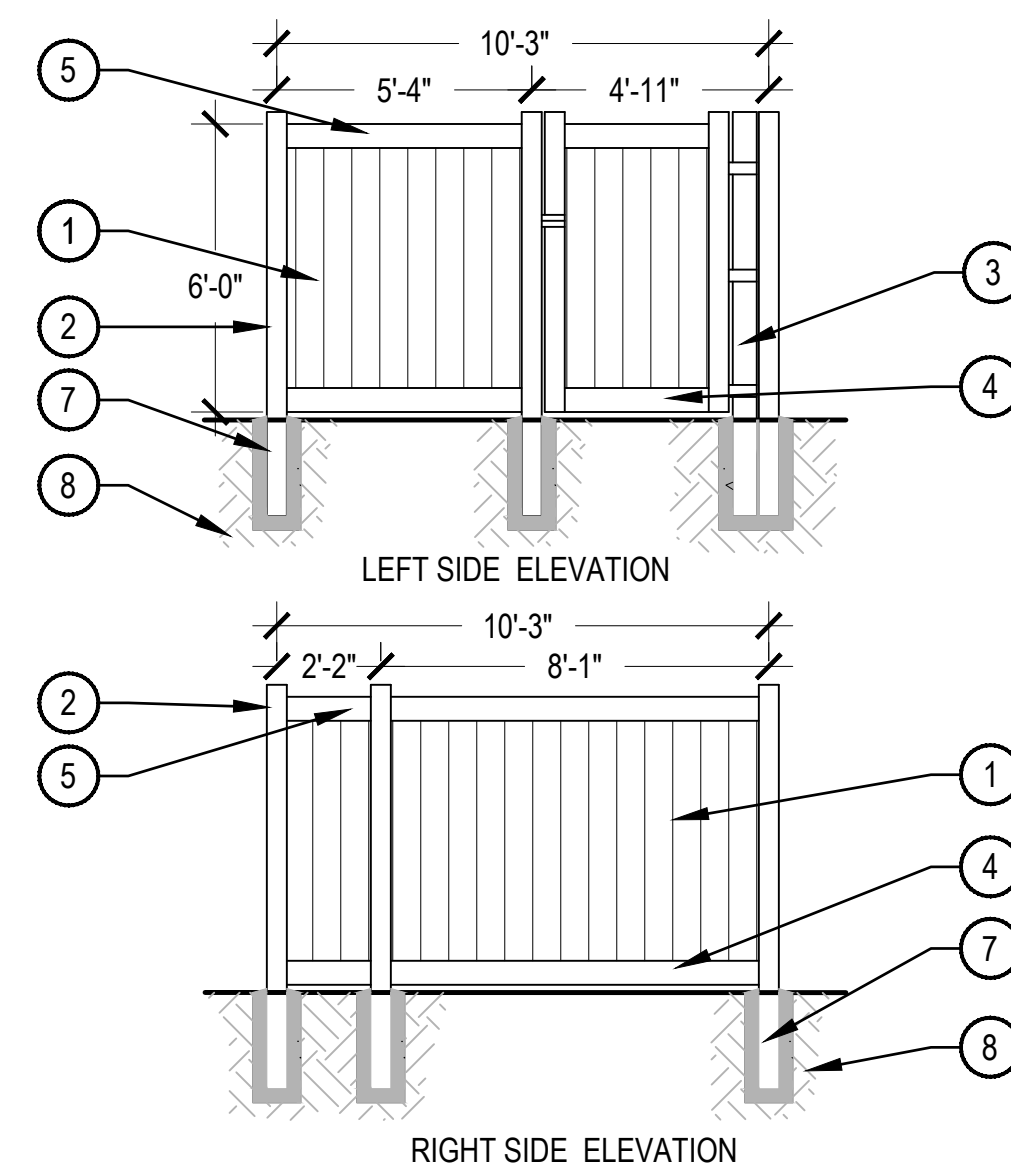
- NOTES:
1. BLACK POWDER COAT FINISH ON ALL STEEL.
 2. THIS DETAIL SHOWS DESIGN INTENT ONLY. CONTRACTOR TO SUBMIT SHOP DRAWINGS FOR APPROVAL.
 3. REFER TO STRUCTURAL PLANS FOR ALL STRUCTURAL INFORMATION.
 4. ALL EXPOSED STEEL TUBE ENDINGS WILL NEED TO BE CAPPED



- 1 6" x 6" TUBE STEEL BEAMS
- 2 2" x 12" STEEL SLATS; LENGTHS VARY
- 3 4" x 8" CROSS BEAM
- 4 CONCRETE FOOTING. REF: STRUCTURAL
- 5 FINISH SURFACE
- 6 WELD STEEL SLATS TO STEEL BEAM
- 7 WELD STEEL CROSS BEAM TO ALL SUPPORTS

1 TRELLIS

SCALE: 3/16" = 1'-0"



- 1 1" x 8" NATURAL CEDAR PICKETS
- 2 6"x6" NATURAL CEDAR POST
- 3 6"x6" STEEL GATE POST WITH HINGES
- 4 2"x6" NATURAL CEDAR BOTTOM RAIL
- 5 2"x6" NATURAL CEDAR TOP RAIL
- 6 CENTER DROP ROD ASSEMBLY
- 7 CONCRETE FOOTER PER MANUFACTURER'S SPECIFICATIONS, SLOPE CONCRETE AWAY FROM POST FOR POSITIVE DRAINAGE
- 8 COMPACTED SUBGRADE

- NOTES:
1. BOTTOM OF FENCE SHALL BE 2" ABOVE FINAL GRADE.

2 TRASH ENCLOSURE

SCALE: 1/4" = 1'-0"

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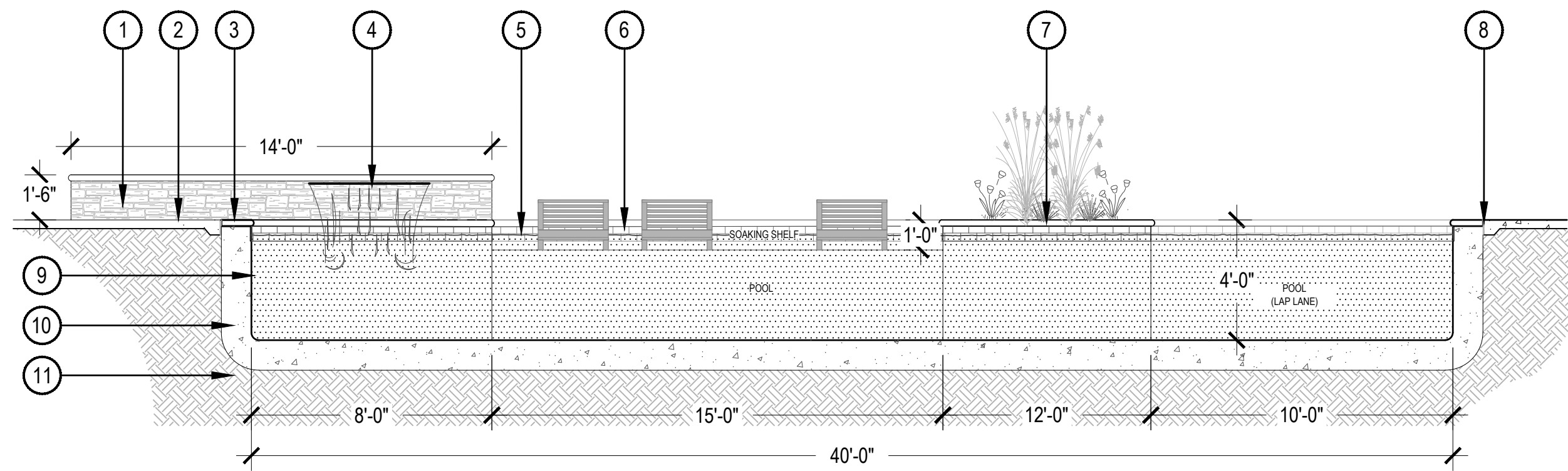
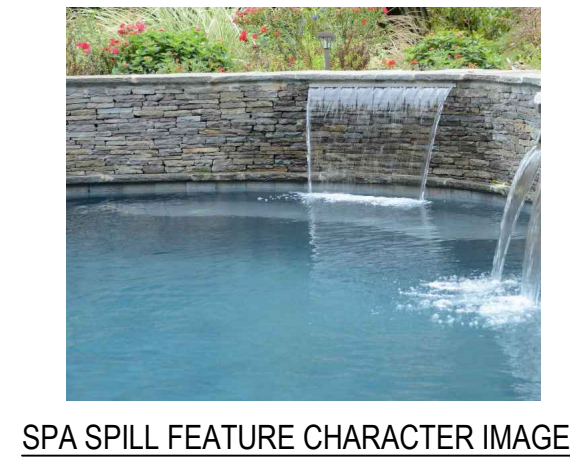
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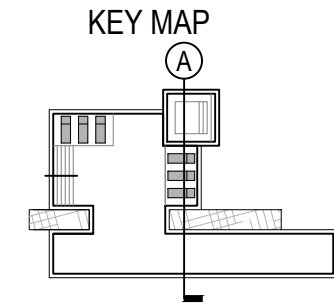
AVILLA FOUNDERS VILLAGE
HARDSCAPE
DETAILS

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SPA SPILL FEATURE CHARACTER IMAGE

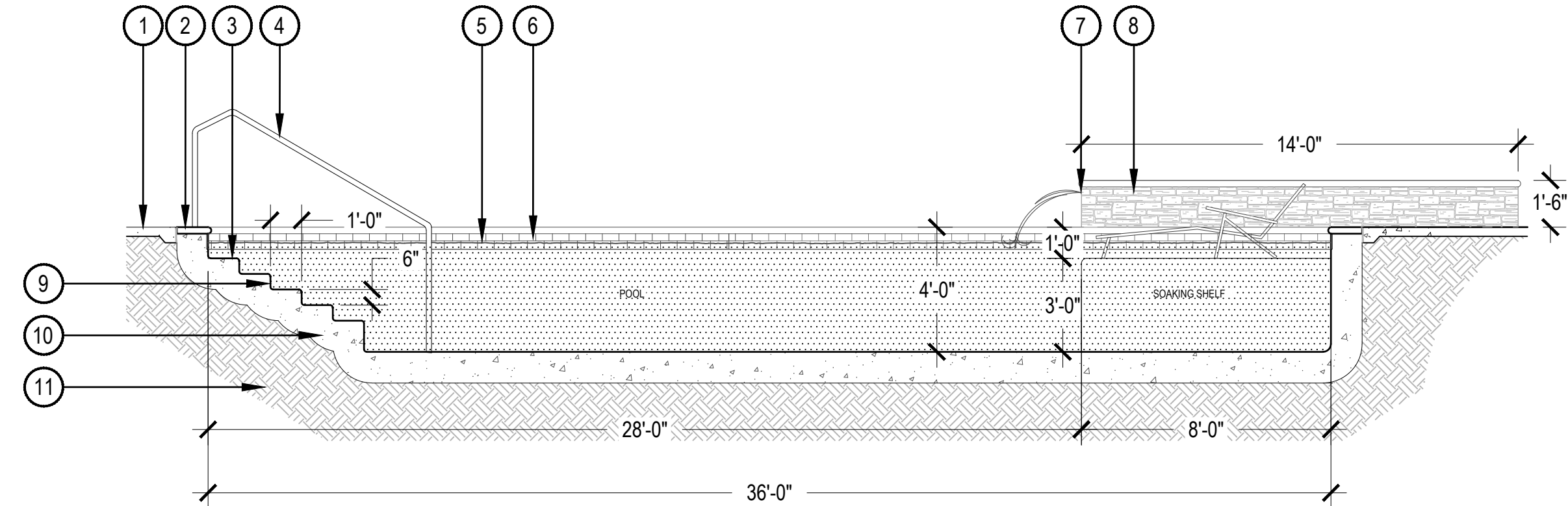


- 1 RAISED SPA, FULLY WRAPPED IN STONE VENEER (REFER TO MATERIALS SCHEDULE)
- 2 POOL DECK WITH ENHANCED PAVING (REFER TO MATERIALS SCHEDULE)
- 3 POOL COPING (REFER TO MATERIALS SCHEDULE)
- 4 SPA SPILL FEATURE (REFER TO MATERIALS SCHEDULE)
- 5 WATER LINE, MAX 4' IN POOL
- 6 POOL TILE (REFER TO MATERIALS SCHEDULE)
- 7 ADJACENT LANDSCAPE PLANTER
- 8 CAULKED EXPANSION JOINT - TO MATCH POOL DECK PAVEMENT
- 9 POOL PLASTER (REFER TO MATERIALS SCHEDULE)
- 10 POOL SHELL REINFORCEMENT AND BONDING BY OTHERS
- 11 COMPACTED SUBGRADE

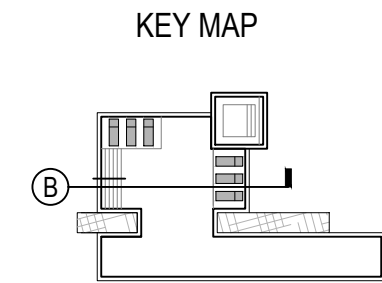
- NOTES:
- 1. CONTRACTOR TO MEET ALL POOL CODE STANDARDS FOR CITY OF CASTLE ROCK.
 - 2. THIS DETAIL IS FOR DESIGN PURPOSES ONLY. FINAL CONSTRUCTION DRAWINGS FOR POOL SHALL BE COMPLETED BY OTHERS.
 - 3. CONTRACTOR TO SUBMIT FINAL SHOP DRAWINGS PRIOR TO CONSTRUCTION.

1 POOL SECTION - A

SCALE: 1/4" = 1'-0"



SPA SPILL FEATURE CHARACTER IMAGE

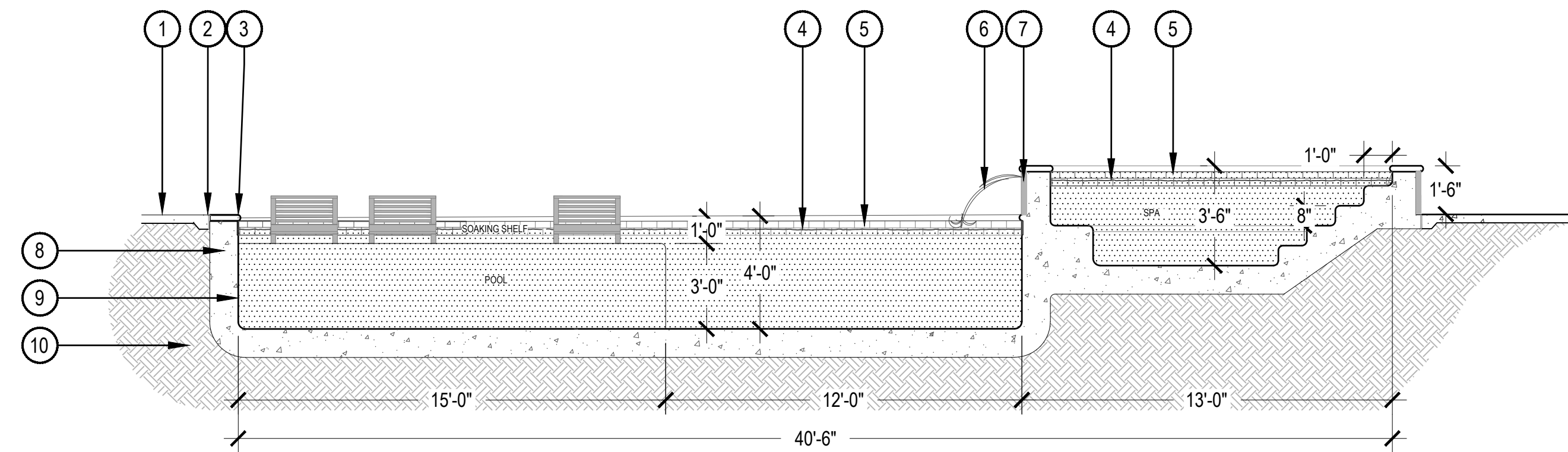


- 1 POOL DECK WITH ENHANCED PAVING (REFER TO MATERIALS SCHEDULE)
- 2 POOL COPING (REFER TO MATERIALS SCHEDULE)
- 3 BLUE STEP TILE, TYPICAL TO CONTRAST WITH POOL PLASTER
- 4 HANDRAIL, STAINLESS STEEL, 1.5" O.D., EMBED MOUNT, BY OTHERS
- 5 WATER LINE, MAX 4' IN POOL
- 6 POOL TILE (REFER TO MATERIALS SCHEDULE)
- 7 SPA SPILL FEATURE (REFER TO MATERIALS SCHEDULE)
- 8 RAISED SPA, FULLY WRAPPED IN STONE VENEER (REFER TO MATERIALS SCHEDULE)
- 9 POOL PLASTER (REFER TO MATERIALS SCHEDULE)
- 10 POOL SHELL REINFORCEMENT AND BONDING BY OTHERS
- 11 COMPACTED SUBGRADE

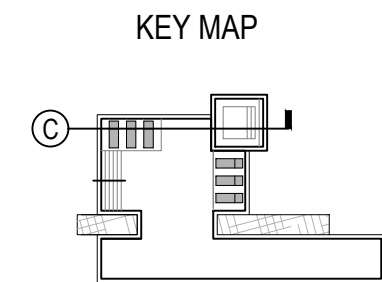
- NOTES:
- 1. CONTRACTOR TO MEET ALL POOL CODE STANDARDS FOR CITY OF CASTLE ROCK.
 - 2. THIS DETAIL IS FOR DESIGN PURPOSES ONLY. FINAL CONSTRUCTION DRAWINGS FOR POOL SHALL BE COMPLETED BY OTHERS.
 - 3. CONTRACTOR TO SUBMIT FINAL SHOP DRAWINGS PRIOR TO CONSTRUCTION.

2 POOL SECTION - B

SCALE: 1/4" = 1'-0"



SPA SPILL FEATURE CHARACTER IMAGE



- 1 POOL DECK WITH ENHANCED PAVING (REFER TO MATERIALS SCHEDULE)
- 2 POOL COPING (REFER TO MATERIALS SCHEDULE)
- 3 CAULKED EXPANSION JOINT - TO MATCH POOL DECK PAVEMENT
- 4 WATER LINE, MAX 4' IN POOL
- 5 POOL TILE (REFER TO MATERIALS SCHEDULE)
- 6 SPA SPILL FEATURE (REFER TO MATERIALS SCHEDULE)
- 7 RAISED SPA, FULLY WRAPPED IN STONE VENEER (REFER TO MATERIALS SCHEDULE)
- 8 POOL SHELL REINFORCEMENT AND BONDING BY OTHERS
- 9 POOL PLASTER (REFER TO MATERIALS SCHEDULE)
- 10 COMPACTED SUBGRADE

- NOTES:
- 1. CONTRACTOR TO MEET ALL POOL CODE STANDARDS FOR CITY OF CASTLE ROCK.
 - 2. THIS DETAIL IS FOR DESIGN PURPOSES ONLY. FINAL CONSTRUCTION DRAWINGS FOR POOL SHALL BE COMPLETED BY OTHERS.
 - 3. CONTRACTOR TO SUBMIT FINAL SHOP DRAWINGS PRIOR TO CONSTRUCTION.

3 POOL SECTION - C

SCALE: 1/4" = 1'-0"

ISSUE DATE: 08-11-2022	
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IRRIGATION GENERAL NOTES

1.

THE CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS AND EQUIPMENT NECESSARY TO INSTALL THE IMPROVEMENTS SHOWN ON THE PLANS.
2.

THE CONTRACTOR SHALL COORDINATE AS NECESSARY WITH THE GENERAL CONTRACTOR AND OWNER'S REPRESENTATIVE FOR SUCCESSFUL COMPLETION OF THIS WORK.
3.

ALL IRRIGATION EQUIPMENT IS TO BE AS SPECIFIED OR APPROVED EQUAL PER THE DISCRETION OF THE OWNER'S REPRESENTATIVE. THE CONTRACTOR ASSUMES ALL LIABILITY ASSOCIATED WITH THE MODIFICATION OF THE IRRIGATION SYSTEM DESIGN WITHOUT NOTIFYING THE OWNER'S REPRESENTATIVE.
4.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONDUCT A THOROUGH SITE INSPECTION AND REVIEW OF THE PROJECT CONSTRUCTION DOCUMENTS INCLUDING BUT NOT LIMITED TO THE FOLLOWING: LANDSCAPE PLAN, UTILITY PLAN, ARCHITECTURE PLAN, GRADING AND DRAINAGE PLAN AND ALL OTHER ASSOCIATED PLANS AND SPECIFICATIONS THAT AFFECT THIS WORK PRIOR TO START OF WORK. IF THE AND CONTRACTOR OBSERVES ANY DISCREPANCIES AMONG THE CONSTRUCTION DOCUMENTS AND THE EXISTING CONDITIONS ON SITE, IT IS THEIR RESPONSIBILITY TO CONTACT THE OWNER'S REPRESENTATIVE IMMEDIATELY.
5.

THE CONTRACTOR MUST VERIFY THE LOCATION OF ALL PUBLIC AND PRIVATE UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION. IF THE CONTRACTOR FAILS TO DO SO AND DAMAGES ANY UNDERGROUND UTILITIES. THE CONTRACTOR SHALL PAY FOR ANY REPAIR WORK ASSOCIATED WITH SAID DAMAGES.
6.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE ADEQUATE VERTICAL AND HORIZONTAL SEPARATION BETWEEN ALL IRRIGATION DISTRIBUTION LINES AND ALL UTILITIES (EXISTING OR PROPOSED), CONDUIT, STORM WATER COMPONENTS, DRAINS, ETC.
7.

THE CONTRACTOR SHALL CONFORM TO ALL LOCAL AND STATE REGULATIONS AND INSTALL THE IRRIGATION SYSTEM AND ITS COMPONENTS PER MANUFACTURER'S SPECIFICATIONS. THE CONTRACTOR SHALL OBTAIN AND PROVIDE PAYMENT FOR ALL PERMITS REQUIRED BY ANY LOCAL AND STATE AGENCIES AND UTILITY COMPANIES HAVING JURISDICTION OVER THIS SITE.
8.

THE CONTRACTOR IS RESPONSIBLE FOR SCHEDULING AND PAYING FOR CERTIFICATION OF THE BACKFLOW PREVENTER BY A STATE CERTIFIED INSPECTOR. THE CONTRACTOR SHALL PROVIDE CERTIFICATES TO OWNER'S REPRESENTATIVE PRIOR TO PROJECT ACCEPTANCE.
9.

IT IS THE INTENT OF THIS DESIGN THAT ALL IRRIGATION EQUIPMENT BE INSTALLED WITHIN LANDSCAPE AREAS AND WITHIN THE PROJECT LIMITS. EQUIPMENT SHOWN OUTSIDE OF THESE LIMITS IS SHOWN FOR GRAPHIC CLARITY ONLY. IF THERE IS A QUESTION REGARDING THE LOCATION OF ANY COMPONENT OF THE IRRIGATION SYSTEM, IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE OWNER'S REPRESENTATIVE. IF THE CONTRACTOR NEGLECTS TO NOTIFY THE NECESSARY PARTIES, THE CONTRACTOR SHALL PAY FOR ANY REPLACEMENT OR MODIFICATION TO ENSURE PROPER LOCATION AND OPERATION OF THE IRRIGATION SYSTEM AND ITS COMPONENTS.
10.

ALL IRRIGATION DISTRIBUTION LINES AND EQUIPMENT INCLUDING BUT NOT LIMITED TO, MAINLINE, LATERALS, SPRAY HEADS, DRIP EMITTERS SHALL BE KEPT A MINIMUM DISTANCE OF 6' AWAY FROM ALL BUILDING AND WALL FOUNDATIONS, OR AS STIPULATED IN THE GEOTECHNICAL REPORT, WHICHEVER IS GREATER. EQUIPMENT MAY BE SHOWN IN THIS AREA FOR GRAPHIC CLARITY. COORDINATE ALL REQUIRED SETBACKS WITH OWNER'S REPRESENTATIVE PRIOR TO START OF WORK.
11.

EACH VALVE SHALL BE INSTALLED IN A SEPARATE VALVE BOX AS DETAILED. ALL VALVE BOXES AND LIDS SHALL BE COMMERCIAL GRADE, PLASTIC WITH SELF LOCKING COVERS. LID COLOR TO BE GREEN. INSTALL FLUSH TO FINISH GRADE AND PER CONSTRUCTION DETAILS. DO NOT INSTALL IN PAVED AREAS OR IN BOTTOMS OF DRAINAGE SWALES/BASINS.
12.

CONTRACTOR SHALL INSTALL DETECTABLE MARKING TAPE OR #14g DIRECT BURY TRACER WIRE IN ALL PRESSURE MAINLINE TRENCHES. SEE IRRIGATION DETAILS FOR MORE INFORMATION.
13.

PLANT MATERIAL LOCATIONS TAKE PRECEDENCE OVER ROUTING OF IRRIGATION PIPING. COORDINATE INSTALLATION OF IRRIGATION EQUIPMENT SO THAT IT DOES NOT INTERFERE WITH THE PLANTING OF TREES OR OTHER LANDSCAPE MATERIAL.
14.

THE CONTRACTOR SHALL MARK THE LOCATION OF THE MAINLINE, CONTROL VALVES, GATE VALVES AND HEAD LAYOUT OF A REPRESENTATIVE SPRAY ZONE. SCHEDULE A REVIEW WITH THE OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION.
15.

INSTALL SCH. 40 BALL WITH OPERATIONAL INDICATOR AT ENDS OF ALL DRIP LATERALS AS DETAILED. FLUSH ALL LATERALS THOROUGHLY BEFORE INSTALLING EMITTERS AND BUBBLERS.
16.

CONTRACTOR SHALL FINE TUNE AND ADJUST NOZZLE DIRECTION AND RADIUS TO REDUCE OVERSPRAY ONTO PAVING OR HARD SURFACES.
17.

CONTRACTOR SHALL INSTALL A QUICK COUPLER IN 10" VALVE BOX AT THE END OF ALL BRANCHES OF THE MAINLINE, OR AS SHOWN ON PLANS, FOR WINTERIZATION AND FLUSHING OF MAINLINE.
18.

THE CONTRACTOR SHALL PERFORM A PRESSURE TEST ON ALL MAINLINES. CONTRACTOR SHALL PRESSURIZE MAINLINES TO 120 PSI AND MAINTAIN PRESSURE AT 120 PSI FOR A MINIMUM CONTINUOUS PERIOD OF TWO (2) HOURS TO ACHIEVE FINAL ACCEPTANCE.
19.

THIS IRRIGATION SYSTEM HAS BEEN DESIGNED TO OPERATE DURING A THREE(3) NIGHT PER WEEK, EIGHT(8) HOURS PER NIGHT WATERING WINDOW. DRIP IRRIGATION ZONES MAY BE ALLOWED TO RUN ON A SEPARATE SCHEDULE FROM THIS WATER WINDOW DEPENDING JURISDICTION. LANDSCAPE ESTABLISHMENT WILL REQUIRE INCREASED IRRIGATION WATER FOR DURATION OF THE ESTABLISHMENT PERIOD AND MAY REQUIRE TWICE THE AMOUNT OF WATER AS ESTABLISHED PLANT MATERIAL. THE CONTRACTOR SHALL COORDINATE WATERING SCHEDULES AND APPLICATION RATES WITH THE OWNER'S REPRESENTATIVE PRIOR TO FINAL ACCEPTANCE.
20.

THE DESIGN IS BASED ON THE FOLLOWING PROJECTED PEAK SEASON WEEKLY APPLICATION RATES AFTER ESTABLISHMENT. THESE FIGURES WILL NEED TO BE ADJUSTED DUE TO SEASONAL CHANGES AND VARIABLE WEATHER CONDITIONS.

•

FESCUE TURF SEED 1.00" PER WEEK PEAK SEASON

•

TREE, SHRUB, AND PERENNIAL PLANT MATERIAL 0.50" PER WEEK PEAK SEASON

•

NATIVE DROUGHT TOLERANT SEED MIX 0.25" PER WEEK PEAK SEASON
23.

THE CONTRACTOR SHALL PROVIDE A SEASONAL MAINTENANCE SCHEDULE WHICH SHALL BEGIN ON APRIL 15TH AND END ON OCTOBER 15TH TO ENSURE THE EFFICIENCY AND LONGEVITY OF THE IRRIGATION SYSTEM. THE MAINTENANCE SCHEDULE SHALL INCLUDE BUT IS NOT LIMITED TO THE FOLLOWING LIST OF BEST MANAGEMENT PRACTICES:

•

CHECK HEADS FOR COVERAGE AND LEAKAGE.

•

CHECK CONTROLLER PROGRAMMING AND ADJUST FOR SEASONAL CHANGES AS NECESSARY.

•

VERIFY THAT THE WATER SUPPLY AND PRESSURE ARE AS STATED IN THE DESIGN.

•

CERTIFY THE BACKFLOW PREVENTION DEVICE AND SUBMIT TEST RESULTS TO THE PROPERTY MANAGER.

•

PERIODICALLY VERIFY THE THE SENSORS IN THE IRRIGATION SYSTEM ARE OPERATING CORRECTLY.

•

WINTERIZATION AND SPRING START UP PROCEDURES.

CASTLE ROCK STANDARD IRRIGATION NOTES

1.

INSTALLING CONTRACTOR SHALL CONTACT THE TOWN OF CASTLE ROCK UTILITIES DEPARTMENT AT 720.733.6017 TO SCHEDULE A PRE-CONSTRUCTION MEETING BEFORE BEGINNING THE INSTALLATION OF THE IRRIGATION SYSTEM.
2.

IRRIGATION SHALL BE INSTALLED BY A TOWN OF CASTLE ROCK REGISTERED LANDSCAPE CONTRACT PROFESSIONAL.
3.

THE IRRIGATION SYSTEM SHALL BE EQUIPPED WITH A BACKFLOW PREVENTION ASSEMBLY APPROVED BY THE TOWN OF CASTLE ROCK.
4.

BACKFLOW TO BE TESTED BY A CERTIFIED BACKFLOW TECHNICIAN APPROVED BY THE UTILITY DEPARTMENT WITHIN 10 DAYS OF THE IRRIGATION METER INSTALLATION AND ANNUALLY THEREAFTER.
5.

IRRIGATION TAP, LINE, METER AND BACKFLOW PREVENTION ASSEMBLY MUST BE THE SAME SIZE FROM THE TAP TO A MINIMUM DISTANCE OF 10 PIPE DIAMETERS PAST THE BACKFLOW PREVENTION ASSEMBLY AND WINTERIZATION TEE.
6.

WATER WASTE IS NOT ALLOWED PER THE TOWN OF CASTLE ROCK'S WATER USE MANAGEMENT PLAN. THEREFORE, ALL NOZZLES ARE TO BE FINE TUNE/ADJUSTED SO THAT OVERSPRAY ONTO HARD SURFACES IS ELIMINATED.
7.

OVERHEAD IRRIGATION IS NOT PERMITTED ON SLOPES STEEPER THAN 3:1.
8.

VELOCITY SHALL NOT EXCEED 7.5 FPS THROUGH THE WATER METER.
9.

NO OVERHEAD IRRIGATION IN AREAS LESS THAN 10 FEET WIDE.
10.

THERE IS TO BE NEITHER PLANT MATERIAL NOR IRRIGATION IN AREAS LESS THAN 4 FEET WIDE.
11.

ALL SPRINKLER HEADS TO BE ADJUSTED TO MINIMIZE/ELIMINATE OVER SPRAY ON TO HARD SURFACES OR UNINTENDED AREAS. PER TOWN OF CASTLE ROCK WATER USE MANAGEMENT PLAN WATER WASTE IS NOT ALLOWED
12.

OVERHEAD IRRIGATION IN AREAS LESS THAN 10' IN WIDTH OR INSTALLED ON SLOPES EQUAL TO OR STEEPER THAN 3:1 WILL NOT BE APPROVED BY TOWN OF CASTLE ROCK INSPECTORS.
13.

ALL IRRIGATION INSTALLATIONS MUST MEET TOWN OF CASTLE ROCK DETAILS
14.

IRRIGATION EXEMPTION MUST BE OBTAINED FROM THE CASTLE ROCK WATER IF IRRIGATING THE NATIVE SEED OR THE SOD ON A DAILY BASIS FOR ESTABLISHMENT DURING THE MONTHS OF MAY, JUNE, AUGUST AND SEPTEMBER.
15.

IRRIGATION EXEMPTIONS WILL NOT BE ISSUED DURING THE MONTH OF JULY. IRRIGATION SYSTEMS MUST BE DESIGNED TO OPERATE WITHIN THE TOWN OF CASTLE ROCK WATER USE MANAGEMENT PLAN. CURRENT COMMERCIAL HOURS OF OPERATION ARE THREE FIXED DAYS A WEEK FROM 10 PM TO 6 AM.
16.

IRRIGATION SYSTEMS ARE TO BE WINTERIZED ANNUALLY IN THE FALL.
17.

A COPY OF THE STAMPED AND TOWN APPROVED IRRIGATION PLANS IS TO BE AVAILABLE ON-SITE DURING IRRIGATION INSPECTIONS.

IRRIGATION POINT OF CONNECTION NOTES

1.

POINT OF CONNECTION: THERE ARE TWO (2) POINTS OF CONNECTION ON THIS PROJECT.

POC #1 : 1-1/2" DEDICATED IRRIGATION WATER METER LOCATED AT SOUTH SIDE OF MAIN ENTRANCE - SEE PLANS.

POC #2 : 1-1/2" DEDICATED IRRIGATION WATER METER LOCATED AT NORTH SIDE OF MAIN ENTRANCE - SEE PLANS.

•

CONTRACTOR IS TO LOCATE AND CONNECT DOWNSTREAM OF THE DEDICATED POTABLE IRRIGATION WATER METER (PROVIDED BY OTHERS) WITH TYPE K COPPER AT A DEPTH OF 48" OR PER LOCAL CODE, WHICHEVER IS GREATER. EXTEND COPPER TO BACKFLOW PREVENTION UNIT. EXTEND COPPER TUBING MINIMUM 30" HORIZONTAL FROM BACKFLOW PREVENTER AND INSTALL ONE MANUAL DRAIN, TRANSITION TO AND EXTEND CLASS 200 PVC MAINLINE TO THE FLOW SENSOR, GATE VALVE, MASTER VALVE, 1" QUICK COUPLER, AND EXTEND MAINLINE TO VALVES AS SHOWN.

•

ALL PIPING FROM THE DEDICATED IRRIGATION POTABLE METER THROUGH DRAIN VALVE DOWNSTREAM OF THE BACKFLOW PREVENTION UNIT SHALL BE THE SAME SIZE AS THE METER UNLESS OTHERWISE NOTED.

•

THE CONTRACTOR SHALL CONFORM TO ALL LOCAL CODES, OBTAIN AND PROVIDE PAYMENT FOR ALL PERMITS ASSOCIATED WITH THIS WORK. FINAL LOCATION OF BACKFLOW PREVENTION UNIT SHALL BE APPROVED BY THE OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION.
2.

CONTROLLER LOCATION: THERE ARE TWO (2) CONTROLLERS ON THIS PROJECT.

CONTROLLER A : WALL MOUNTED CONTROLLER LOCATED AT SOUTH SIDE OF MAIN ENTRANCE - SEE PLANS.

CONTROLLER B : WALL MOUNTED CONTROLLER LOCATED NORTH OF POOL AMENITY AREA - SEE PLANS.

•

CONTROLLERS SHALL BE PROGRAMMED TO RUN MULTIPLE VALVES AT ONE TIME WITH A MAXIMUM TOTAL OF 40 GPM .

•

CONTROLLERS, TO BE MOUNTED PER DETAILS AND MANUFACTURER'S SPECIFICATIONS.

•

CONTRACTOR TO COORDINATE WITH OWNER'S REPRESENTATIVE AND ELECTRICAL PLANS FOR POWER SERVICE. ALL ELECTRICAL EQUIPMENT AND POWER CONNECTION INSTALLATION SHALL CONFORM TO ALL LOCAL CODES. INSTALL A LINE VOLTAGE SURGE DEVICE (INTERMATIC AG2401C3/ OR SQUARE D SDSA1175) FOR 120V IN A JUNCTION BOX PRIOR TO CONTROLLER.

•

RAIN/FREEZE SENSOR: MOUNT THE RAIN SENSOR ON BUILDING EAVE IN PROXIMITY TO THE CONTROLLER. THE SENSOR SHALL BE MOUNTED IN A LOCATION IN FULL SUN AND OPEN TO RAINFALL. SENSOR SHALL BE NO MORE THAN 200' FROM WIRELESS RECEIVER. MOUNT WIRELESS RECEIVER ON OR ADJACENT TO THE IRRIGATION CONTROLLER.
2.

SYSTEM PRESSURE: THE SYSTEM HAS BEEN DESIGNED PER THE FOLLOWING SPECIFICATIONS. REQUIRED MINIMUM STATIC PRESSURE OF 70 PSI AND MAXIMUM SAFE VELOCITY OF 5 FPS IN ANY PVC PIPE AND 7.5 FPS IN ANY COPPER PIPE.

•

PER (WATER PURVEYOR/CITY WATER) THE STATIC PRESSURE ON SITE IS APPROXIMATELY 70 PSI.

•

THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE PRESSURE IN THE FIELD AT THE POINT OF CONNECTION BEFORE CONSTRUCTION BEGINS AND FOR NOTIFYING THE OWNER'S REPRESENTATIVE OF ANY DISCREPANCY BETWEEN THE DESIGN PRESSURE OF THE SYSTEM AND THE MEASURED PRESSURE IN THE FIELD. IF THE CONTRACTOR FAILS TO NOTIFY OWNER'S REPRESENTATIVE OF SUCH DISCREPANCIES, THEN THE CONTRACTOR ASSUMES ALL LIABILITY AND COSTS ASSOCIATED WITH SYSTEM MODIFICATIONS TO ACCOMMODATE THE ACTUAL PRESSURE.

•

FLOW SENSOR: SENSOR REQUIRES A MINIMUM FLOW FOR PROPER READINGS. MULTIPLE ZONES MAY BE REQUIRED TO RUN SIMULTANEOUSLY TO ACHIEVE THE MINIMUM FLOWS REQUIRED. CONTRACTOR TO SET 'K' VALUES PER MANUFACTURER.
3.

FLOW SENSORS REQUIRE A MINIMUM FLOW OF 0.22 GPM.
4.

COMMUNICATION: IT IS RECOMMENDED THAT THE IRRIGATION CONTROLLER BE CONNECTED TO A WATER MANAGEMENT CONTROL SOFTWARE FOR OPTIMUM FUNCTION OF THE IRRIGATION SYSTEM. COORDINATE WITH OWNER'S REPRESENTATIVE AND CONTACT THE LOCAL CONTROLLER MANUFACTURER REPRESENTATIVE OR AUTHORIZED VENDOR PRIOR TO ORDERING CONTROLLER FOR COMMUNICATION AND CONNECTIVITY OPTIONS.

TWO WIRE NOTES

1.

GROUNDING FOR THE IRRIGATION CONTROLLER AND DECODERS ARE TO BE INSTALLED PER THE MANUFACTURER'S SPECIFICATIONS AND PER THE AMERICAN SOCIETY OF IRRIGATION CONSULTANTS GUIDELINE 100-2002 FOR EARTH GROUNDING ELECTRONIC EQUIPMENT IN IRRIGATION SYSTEMS FOUND AT WWW.ASIC.ORG. FOR ADDITIONAL TECHNICAL SUPPORT REGARDING THE IRRIGATION CONTROLLER OR GROUNDING PLEASE CONTACT THE MANUFACTURER.
2.

DO NOT LOOP TWO WIRE PATH. STAR PATTERN FROM CONTROLLER FOR EACH BRANCH OF MAINLINE.
3.

CONTRACTOR IS RESPONSIBLE FOR GROUNDING THE TWO-WIRE PATH AT THE FOLLOWING LOCATIONS, BUT ARE NOT LIMITED TO:

•

CONTROLLER TO BE GROUNDED INDEPENDENTLY FROM BUILDING.

•

GROUND 1ST DECODER ON WIRE PATH FROM CONTROLLER.

•

GROUND EVERY 8TH DECODER OR EVERY 500 FEET BETWEEN DECODERS, WHICH EVER LENGTH IS SMALLER.

•

GROUND EVERY END OF WIRE PATH.
4.

THE TWO-WIRE CONTROLLER REQUIRES EACH CONTROL VALVE AND SENSOR TO HAVE A DECODER. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE THE PROPER DECODERS, SURGE SUPPRESSION AND GROUNDING. THE RAIN SENSOR AND FLOW SENSOR REQUIRE A SENSOR DECODER.
5.

QTY OF STATIONS (VALVES) PER MANIFOLD REQUIRED DECODER

•

SINGLE STATION HUNTER ICD-100
6.

CONTROLLER TWO-WIRE PATH SHALL BE MANUFACTURER'S APPROVED WIRE OR APPROVED EQUAL.
7.

CONTRACTOR SHALL USE UL APPROVED WIRE STRIPPER AND WATERPROOF CONNECTIONS (DBRY OR APPROVED EQUAL) AT ALL SPLICES AND CONNECTIONS POINTS.
8.

PROVIDE 30" MINIMUM TWO WIRE PATH IN EACH VALVE BOX FOR MAINTENANCE.
9.

CONTRACTOR SHALL INCLUDE TWO-WIRE RUN PATHS ON AS-BUILT DRAWINGS.

SLEEVING COORDINATION NOTES

1.

INSTALLATION OF IRRIGATION SLEEVING IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR. THE GENERAL CONTRACTOR SHALL COORDINATE WITH THE IRRIGATION CONTRACTOR FOR LOCATION AND SIZING OF SLEEVES PRIOR TO THE START OF CONSTRUCTION.
2.

SLEEVES SHALL BE INSTALLED PRIOR TO THE START OF PAVING OPERATIONS.
3.

THE CONTRACTOR SHALL SLEEVE ALL IRRIGATION DISTRIBUTION LINES, VALVE CONTROL WIRES AND COMMUNICATION WIRES UNDER ALL PAVED SURFACES, WALL FOOTERS, DRAINAGE CHANNELS, INLETS, CATCH BASINS, ETC.
4.

ALL SLEEVES SHALL EXTEND A MINIMUM OF 12" BEYOND EDGE OF ALL OBSTRUCTIONS. NO TEES, ELLS OR OTHER TURNS IN PIPING SHALL BE LOCATED UNDER ANY OBSTRUCTIONS.
5.

EACH PIPE SHALL BE IN A SEPARATE SLEEVE. WIRES SHALL BE IN A SEPARATE PIPE UNDER ALL PAVED SURFACES.
6.

SLEEVING SHALL BE INSTALLED PER THE SIZES AND QUANTITIES SHOWN ON THE PLANS BASED ON THE CHART BELOW.

PIPING

REQUIRED SLEEVE SIZE

MAINLINE PIPING

6" CLASS 200 PVC

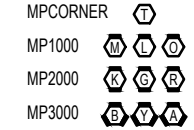
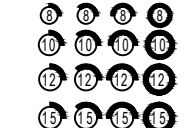
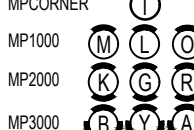
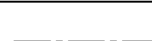
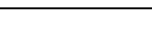
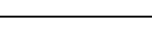
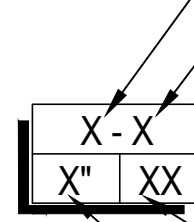
LATERAL PIPING

2X NOMINAL DIAMETER OF LATERAL

CONTROL WIRES

2" CLASS 200 PVC

IRRIGATION SCHEDULE

SYMBOL	DESCRIPTION	DESCRIPTION	# AND SHEET		
	IRRIGATION METER	POC #1: 1.5" DEDICATED IRRIGATION METER POC #2: 1.5" DEDICATED IRRIGATION METER REFER TO CIVIL, UTILITY, AND WATER PLANS	1 85		
	IRRIGATION CONTROLLER	CONTROLLER A: HUNTER ACC2-A2C-1200-SS + A2C-LTE CONTROLLER B: HUNTER ACC2-A2C-1200-SS + A2C-LTE 120VAC POWER REQUIRED - SEE PLANS FOR LOCATION(S)	4 85		
	RAIN SENSOR	HUNTER WSS-SEN REFER TO CONTROLLER NOTES	5 85		
	BACKFLOW PREVENTER	FEBCO 1.5" 825YA SEE ENCLOSURE SPECIFICATIONS BELOW	2 85		
NOT SHOWN	SECURITY ENCLOSURE	GUARD SHACK GS-1 LIFT OFF ENCLOSURE WITH FROSTGUARD BLANKET, POWDER COATED DESERT TAN	3 85		
	MANUAL DRAIN VALVE	MATCO-NORCA 3/4" 201X INSTALLED IN AEP 910L-1G2G VALVE BOX	6 85		
	QUICK COUPLER	HUNTER HQ-44LRC INSTALLED IN AEP 910L-1G2G VALVE BOX	1 86		
	MASTER VALVE	HUNTER IBV-150G WITH ICD-100 DECODER, INSTALLED IN AEP 1015-1G2G VALVE BOX, SIZED PER PLAN	7 85		
	FLOW SENSOR	FLOWEC QS-200-15 WITH SHIELDED COMMUNICATION CABLE BACK TO CONTROLLER, INSTALLED IN AEP 1015-1G2G VALVE BOX	8 85		
	ISOLATION GATE VALVE	MATCO-NORCA 514TX MATCH LINE SIZE, INSTALLED IN AEP 910L-1G2G VALVE BOX	2 86		
	TURF VALVE ASSEMBLY	HUNTER ICV-G SERIES WITH SCH 40 BALL VALVE AND ICD-100 DECODER INSTALLED IN AEP 1015-1G2G VALVE BOX, SIZED PER PLAN	4 86		
	DRIP VALVE ASSEMBLY	HUNTER IC2-101-LF WITH SCH 40 BALL VALVE AND ICD-100 DECODER INSTALLED IN AEP 1320-1G2G VALVE BOX, SIZED PER PLAN	5 86		
	GROUNDING / LINE SURGE SUPPRESSION	COPPER-CLAD GROUNDING ROD WITH WATERPROOF WIRE CONNECTORS AND ICD-100 SURGE ARRESTING DECODER, INSTALLED IN AEP 910L-1G2G VALVE BOX.	4 87		
	TURF ROTARY	HUNTER PROS-06-PRS45-CV WITH HUNTER MP SERIES NOZZLE NOZZLE PER PLAN	6 86		
	TURF SPRAY (FIXED)	HUNTER PROS-06-PRS30-CV WITH TORO PRECISION SERIES NOZZLE NOZZLE PER PLAN	6 86		
	NATIVE SEED ROTARY	HUNTER PROS-12-PRS45-CV WITH HUNTER MP SERIES NOZZLE NOZZLE PER PLAN	7 86		
	TREES IN NATIVE	(2) CONCENTRIC RINGS OF RAIN BIRD XFS-09-12-CV DRIPLINE	3 87		
	SLEEVING	CLASS 200 PVC REFER TO SLEEVING NOTES	8 86		
	SERVICE LINE	TYPE K COPPER SIZE: MATCH POC UNLESS OTHERWISE NOTED	NA NA		
	PVC MAINLINE	CLASS 200 PVC BE SIZE: 2.5" UNLESS OTHERWISE NOTED	3 86		
	PVC TURF LATERAL	CLASS 200 PVC BE SIZE: 1" MINIMUM UNLESS OTHERWISE NOTED	3 86		
	PVC TREE LATERAL	CLASS 200 PVC SIZE: 1" UNLESS OTHERWISE NOTED	3 86		
	DRIP LATERAL	UV RESISTANT POLYETHYLENE SIZE: 3/4" MINIMUM UNLESS OTHERWISE NOTED	3 86		
	FLUSH END CAP	HOSE END FLUSH CAP & OPERATIONAL INDICATOR INSTALLED IN AEP 910L-1G2G VALVE BOX	2 87		
VALVE CALLOUT		EMITTER SCHEDULE			
		PLANT TYPE	EMITTER	QTY.	TOTAL GPH
		PERENNIAL / GRASSES	0.5 GPH	TWO EACH	1.0 GPH
		DECIDUOUS SHRUBS	1.0 GPH	TWO EACH	2.0 GPH
		EVERGREEN SHRUBS	1.0 GPH	TWO EACH	2.0 GPH
		DECIDUOUS TREE	1.0 GPH	EIGHT EACH	8.0 GPH
		EVERGREEN TREE	1.0 GPH	EIGHT EACH	8.0 GPH
		TREES IN NATIVE	TREE RING ASSEMBLY - REFER TO IRRIGATION SCHEDULE		
EMITTER NOTES					
1. ALL PLANT MATERIAL SHALL BE IRRIGATED WITH RAIN BIRD XB SERIES PRESSURE COMPENSATING EMITTERS.					
2. EMITTER SCHEDULE IS FOR REFERENCE ONLY. THE CONTRACTOR SHALL ADJUST EMITTER AND NUMBER OF EMITTERS BASED ON THE NEEDS OF INDIVIDUAL PLANTS OR PLANT HYDROZONES.					
3. 1/4" DISTRIBUTION TUBING NOT TO EXCEED 8' IN LENGTH.					
4. RAIN BIRD DBC-025 DIFFUSER BUG CAP AND TS-025 STAKE ON ALL 1/4" DISTRIBUTION TUBING EMISSION POINTS.					
5. REFER TO DRIP IRRIGATION DETAILS 1-3, SHEET 87					



<div><div><div>TOWN OF CASTLE ROCK COLORADO</div></div><div>Irrigation System Hydraulic</div></div>											
Project Name:		Founders Village					Date:		10.28.2022		
Project Location:		NW Corner of Mikelson Blvd & Mitchell St, Castle Rock, CO									
Prepared by:		Jason Naughtin					Current TOCR Registration #		19-3239		
Tap Size		1.50 "			Source of Pressure		8" Main off Mitchell St				
Static Water Pressure:		70 psi									
Hydraulic Grade At Zone:		6503			Company		Norris Design				
		Ft. of Copper		Pipe Size (")		K Copper		Friction Loss (from chart)		Flow-GPM Loss/Gain	
Service Line (tap to meter):		15 LF		1.50		K Copper		14.41 /100 FT		40 2.16	
Water Meter:				1.50				1.00		40 1.00	
Service Line (meter to backflow):		6 LF		1.50		K Copper		14.41 /100 FT		40 0.86	
Backflow:		1		1.50				13.5		40 13.50	
Master Valve:				1 1/2				1.7		40 1.70	
Pressure Required at Head:										40	
Lateral Allowance:										4.00	
Control Valve Allowance:										1.70	
Mainline Allowances:											
Length of Mainline		Pipe Material		Size		Gals.					
		850 LF CL200BE		2.500 "@		40		GPM		0.39 /100 FT 3.32	
		0 LF CL200BE		0.000 "@		40		GPM-Looped		0.00 /100 FT 0.00	
Elevation:		Tap elevation		6,575				High/Low:		6,570 -2.17	
Green shading indicates <u>required</u> information you must provide											
Total System requirements (PSI)										66.08	
Available System Pressure (PSI)										70.00	
Town of Castle Rock provides a minimum of 43 psi											
Total irrigated area for tap # 1 is 70,490 sq. ft.											

<div><div><div>TOWN OF CASTLE ROCK COLORADO</div></div><div>Irrigation System Hydraulic</div></div>											
Project Name:		Founders Village					Date:			07.25.2022	
Project Location:		NW Corner of Mikelson Blvd & Mitchell St, Castle Rock, CO									
Prepared by:		Jason Naughtin					Current TOCR Registration #		19-3239		
Tap Size		1.50 "			Source of Pressure		8" Main off Mitchell St				
Static Water Pressure:		70 psi									
Hydraulic Grade At Zone:		6503			Company		Norris Design				
		Ft. of Copper		Pipe Size (")		K Copper		Friction Loss (from chart)		Flow-GPM Loss/Gain	
Service Line (tap to meter):		15 LF		1.50		K Copper		14.41 /100 FT		40 2.16	
Water Meter:				1.50				1.00		40 1.00	
Service Line (meter to backflow):		6 LF		1.50		K Copper		14.41 /100 FT		40 0.86	
Backflow:		1		1.50				13.5		40 13.50	
Master Valve:				1 1/2				1.7		40 1.70	
Pressure Required at Head:										40	
Lateral Allowance:										4.00	
Control Valve Allowance:										1.70	
Mainline Allowances:											
Length of Mainline		Pipe Material		Size		Gals.					
500 LF CL200BE		2.000 "		@		40		GPM		1.00 /100 FT 5.00	
0 LF CL200BE		0.000 "		@		40		GPM-Looped		0.00 /100 FT 0.00	
Elevation:		Tap elevation		6,575				High/Low:		6,570 -2.17	
Green shading indicates required information you must provide											
Total System requirements (PSI)										67.76	
Available System Pressure (PSI)										70.00	
Town of Castle Rock provides a minimum of 43 psi											
Total irrigated area for tap # 2										is 52,621 sq. ft.	



IRRIGATION CHART - CONTROLLER 'A'

Registered Professional Jason Naughtin
Registration # 19-3239
Date 10.28.2022

Company Name Norris Design
Address 1101 Bannock St., Denver, CO 80204

Phone 303.892.1166
Email jnaughtin@norris-design.com
Clock Make Hunter
Model ACC2

☐ Circle
☐ Diamond
☐ Square

Zone	Hydrozone	Plant Type	Head Type	Nozzle	App. Rate	GPM	Inches/Month	Run Time	Run Time	Water Usage
	Very Low <5" Low 5-10" Medium 10-15" High >15"	(Turf, Native, Shrubs, Perennials, Trees, Annuals, etc.)	(Rotors, Sprays, Bubblers, Drip, SDI, etc.)	(Nozzle/Emitter size)	(inches/hour)	(Per Zone)	(Average May - September)	(Minutes/ Month)	(Minutes Every Third Day)	(Gallons per month)
A1	LOW	NATIVE	PROS-12-30-CV	MP 1000, 2000	0.31	4.29	2	387	39	1661
A2	LOW	SHRUBS	DRIP	0.5 gph	0.50	0.50	2	240	24	120
A3	MODERATE	TURF	PROS-06-30-CV	MP 1000, 2000	0.48	2.83	2	250	25	708
A4	LOW	SHRUBS	DRIP	0.5, 1.0 gph	0.50	3.00	2	240	24	720
A5	LOW	TREES	TECHLINE	N/A	0.48	1.25	2	250	25	313
A6	LOW	NATIVE	Head Type	MP 2000, 3000	0.25	13.00	2	480	48	6240
A7	LOW	SHRUBS	DRIP	0.5, 1.0 gph	0.50	2.00	2	240	24	480
A8	LOW	TREES	TECHLINE	N/A	0.48	2.00	2	250	25	500
A9	LOW	NATIVE	Head Type	MP 1000, 2000, 3000	0.26	13.03	2	462	46	6014
A10	LOW	SHRUBS	DRIP	0.5, 1.0 gph	0.50	3.00	2	240	24	720
A11	LOW	NATIVE	Head Type	MP 1000, 2000, 3000	0.22	10.05	2	545	55	5482
A12	LOW	NATIVE	Head Type	MP 1000, 2000, 3000	0.22	10.09	2	545	55	5504
A13	LOW	TREES	TECHLINE	N/A	0.48	1.75	2	250	25	438
A14	LOW	TREES	TECHLINE	N/A	0.48	1.50	2	250	25	375
A15	LOW	SHRUBS	DRIP	0.5, 1.0 gph	0.50	3.00	2	240	24	720
A16	MODERATE	TURF	PROS-06-30-CV	MP 2000	0.55	4.46	2	218	22	973
A17	LOW	SHRUBS	DRIP	0.5, 1.0 gph	0.50	3.50	2	240	24	840
A18	LOW	TREES	TECHLINE	N/A	0.48	1.00	2	250	25	250
A19	LOW	TREES	TECHLINE	N/A	0.48	1.50	2	0	0	0
A20	LOW	TREES	TECHLINE	N/A	0.48	0.75	2	250	25	188
A21	MODERATE	TURF	PROS-06-30-CV	MP 1000, 2000	0.56	5.77	2	214	21	1236
A22	LOW	TREES	TECHLINE	N/A	0.48	1.25	2	250	25	313
A23	LOW	TREES	TECHLINE	N/A	0.48	2.75	2	250	25	688
A24	LOW	SHRUBS	DRIP	0.5, 1.0 gph	0.50	4.00	2	240	24	960
A25	LOW	TREES	TECHLINE	N/A	0.48	1.50	2	250	25	375
A26	LOW	TREES	TECHLINE	N/A	0.48	1.25	2	250	25	313
A27	LOW	SHRUBS	DRIP	0.5, 1.0 gph	0.50	4.00	2	240	24	960
A28	LOW	TREES	TECHLINE	N/A	0.48	1.75	2	250	25	438
A29	LOW	SHRUBS	DRIP	0.5, 1.0 gph	0.50	1.50	2	240	24	360
Total							8012	801	37884	
								Min/Month	Min/cycle	Gallons/Month



IRRIGATION CHART - CONTROLLER 'B'

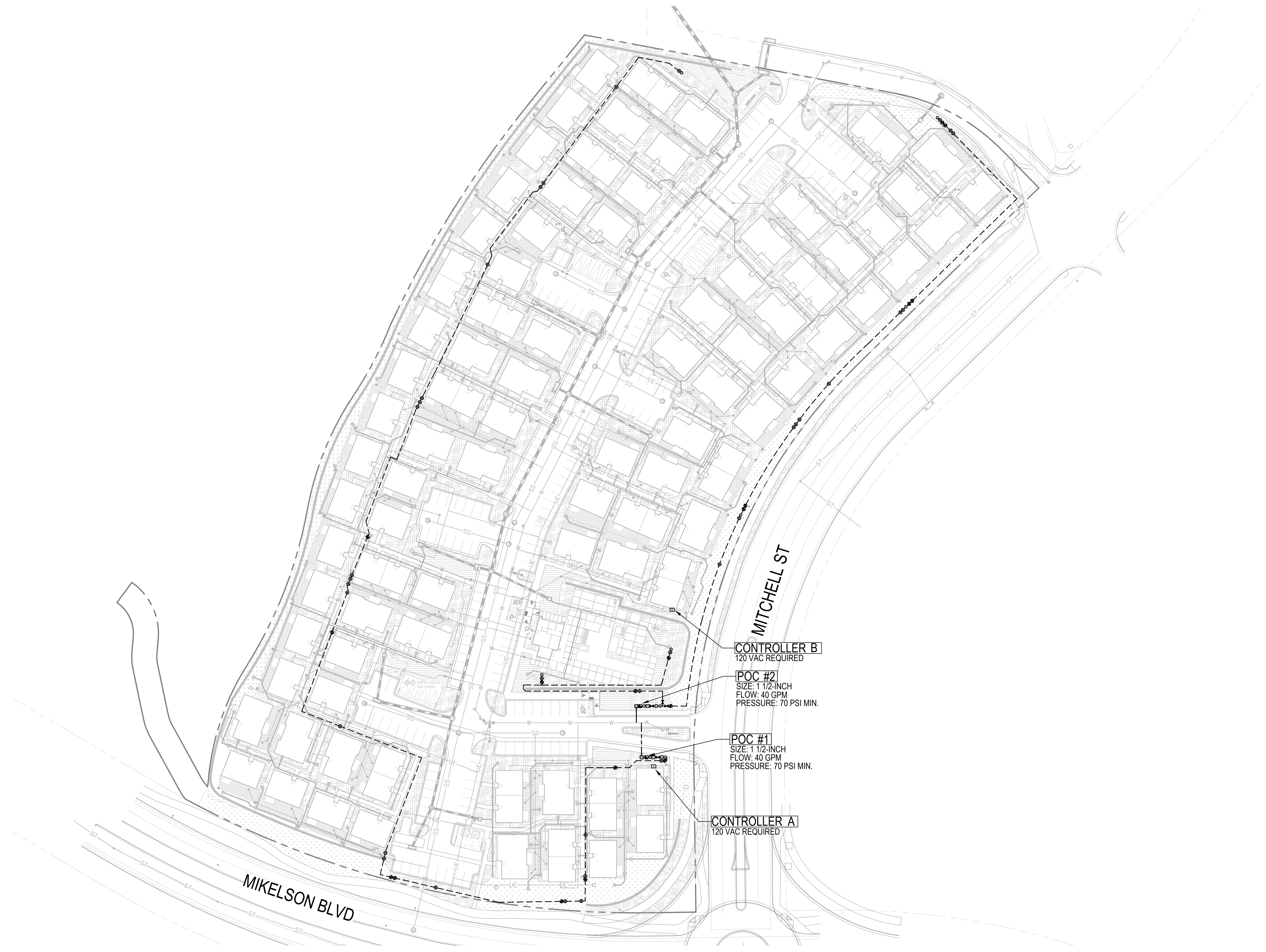
Registered Professional Jason Naughtin
Registration # 19-3239
Date 10.28.2022

Company Name Norris Design
Address 1101 Bannock St., Denver, CO 80204

Phone 303.892.1166
Email jnaughtin@norris-design.com
Clock Make Hunter
Model ACC2

☐ Circle
☐ Diamond
☐ Square

Zone	Hydrozone	Plant Type	Head Type	Nozzle	App. Rate	GPM	Inches/Month	Run Time	Run Time	Water Usage
	Very Low <5" Low 5-10" Medium 10-15" High >15"	(Turf, Native, Shrubs, Perennials, Trees, Annuals, etc.)	(Rotors, Sprays, Bubblers, Drip, SDI, etc.)	(Nozzle/Emitter size)	(inches/hour)	(Per Zone)	(Average May - September)	(Minutes/ Month)	(Minutes Every Third Day)	(Gallons per month)
B1	LOW	SHRUBS	DRIP	0.5, 1.0 gph	0.50	3.00	2	240	24	720
B2	MODERATE	TURF	PROS-06-30-CV	10"	1.53	4.56	2	78	8	358
B3	LOW	SHRUBS	DRIP	0.5, 1.0 gph	0.50	1.50	2	240	24	360
B4	MODERATE	TURF	PROS-06-30-CV	8", 10", 12", 15"	1.57	25.63	2	76	8	1959
B5	MODERATE	TURF	PROS-06-30-CV	MP 2000	0.48	2.96	2	250	25	740
B6	LOW	SHRUBS	DRIP	0.5, 1.0 gph	0.50	1.00	2	240	24	240
B7	LOW	NATIVE	PROS-12-30-CV	MP 1000, 2000	0.26	5.98	2	462	46	2760
B8	LOW	SHRUBS	DRIP	0.5, 1.0 gph	0.50	4.00	2	240	24	960
B9	LOW	TREES	TECHLINE	N/A	0.48	3.00	2	250	25	750
B10	LOW	NATIVE	PROS-12-30-CV	MP 1000, 2000	0.18	8.48	2	667	67	5653
B11	LOW	NATIVE	PROS-12-30-CV	MP 1000, 2000	0.19	8.59	2	632	63	5425
B12	LOW	SHRUBS	DRIP	0.5, 1.0 gph	0.50	2.50	2	240	24	600
B13	LOW	SHRUBS	DRIP	0.5, 1.0 gph	0.50	3.00	2	240	24	720
B14	LOW	SHRUBS	DRIP	0.5, 1.0 gph	0.50	3.00	2	240	24	720
B15	LOW	TREES	TECHLINE	N/A	0.48	2.00	2	250	25	500
B16	LOW	TREES	TECHLINE	N/A	0.48	1.50	2	250	25	375
B17	LOW	SHRUBS	DRIP	0.5, 1.0 gph	0.50	4.00	2	240	24	960
B18	LOW	NATIVE	PROS-12-30-CV	MP 1000	0.19	6.90	2	632	63	4358
B19	LOW	NATIVE	PROS-12-30-CV	MP 1000	0.18	6.77	2	667	67	4513
B20	LOW	SHRUBS	DRIP	0.5, 1.0 gph	0.50	3.00	2	240	24	720
B21	LOW	TREES	TECHLINE	N/A	0.48	1.00	2	250	25	250
B22	LOW	NATIVE	PROS-12-30-CV	MP 1000, 2000	0.25	4.89	2	480	48	2347
B23	LOW	NATIVE	PROS-12-30-CV	MP 1000, 2000	0.27	6.15	2	444	44	2733
B24	LOW	TREES	TECHLINE	N/A	0.48	1.50	2	250	25	375
Total								7797	780	39097
								Min/Month	Min/cycle	Gallons/Month



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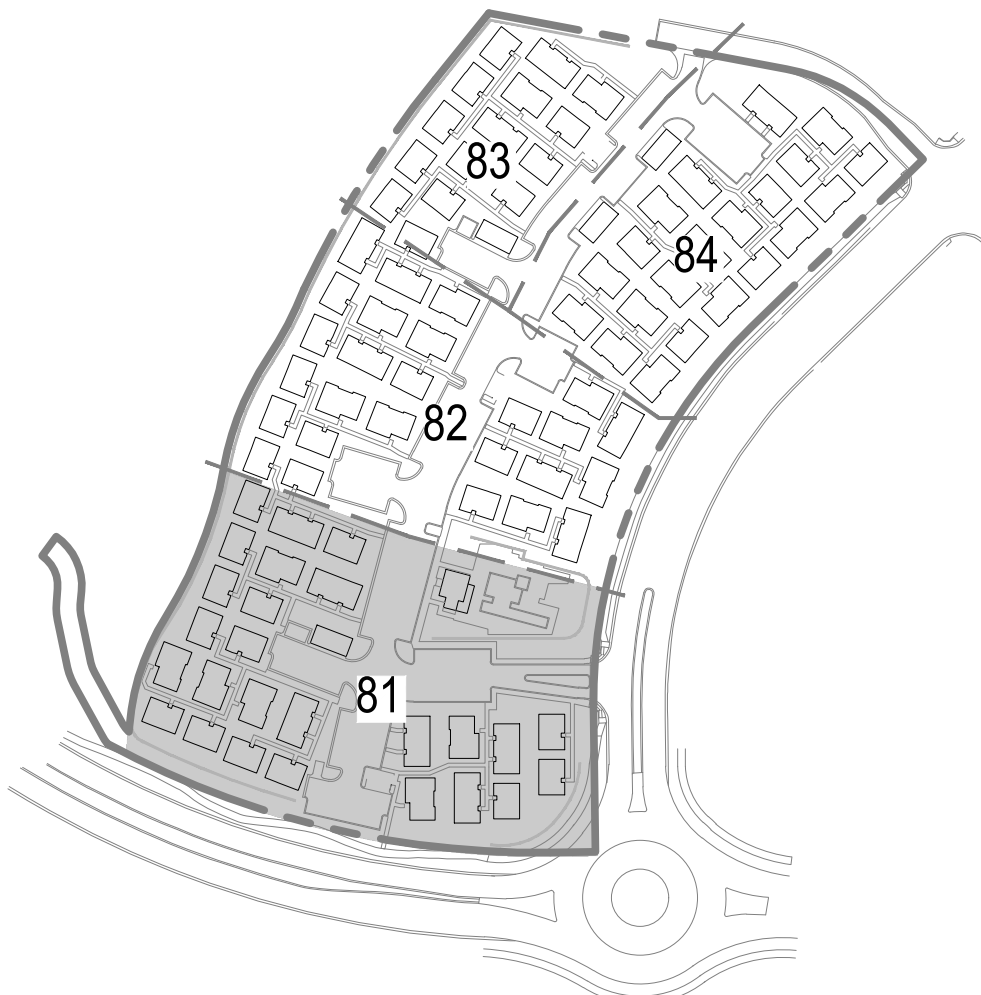
ISSUE DATE: 08-11-2022	
DATE	REVISION COMMENTS
10-31-2022	PER TOWN OF CASLIE ROCK COMMENTS



AVILLA FOUNDERS VILLAGE
OVERALL
IRRIGATION PLAN

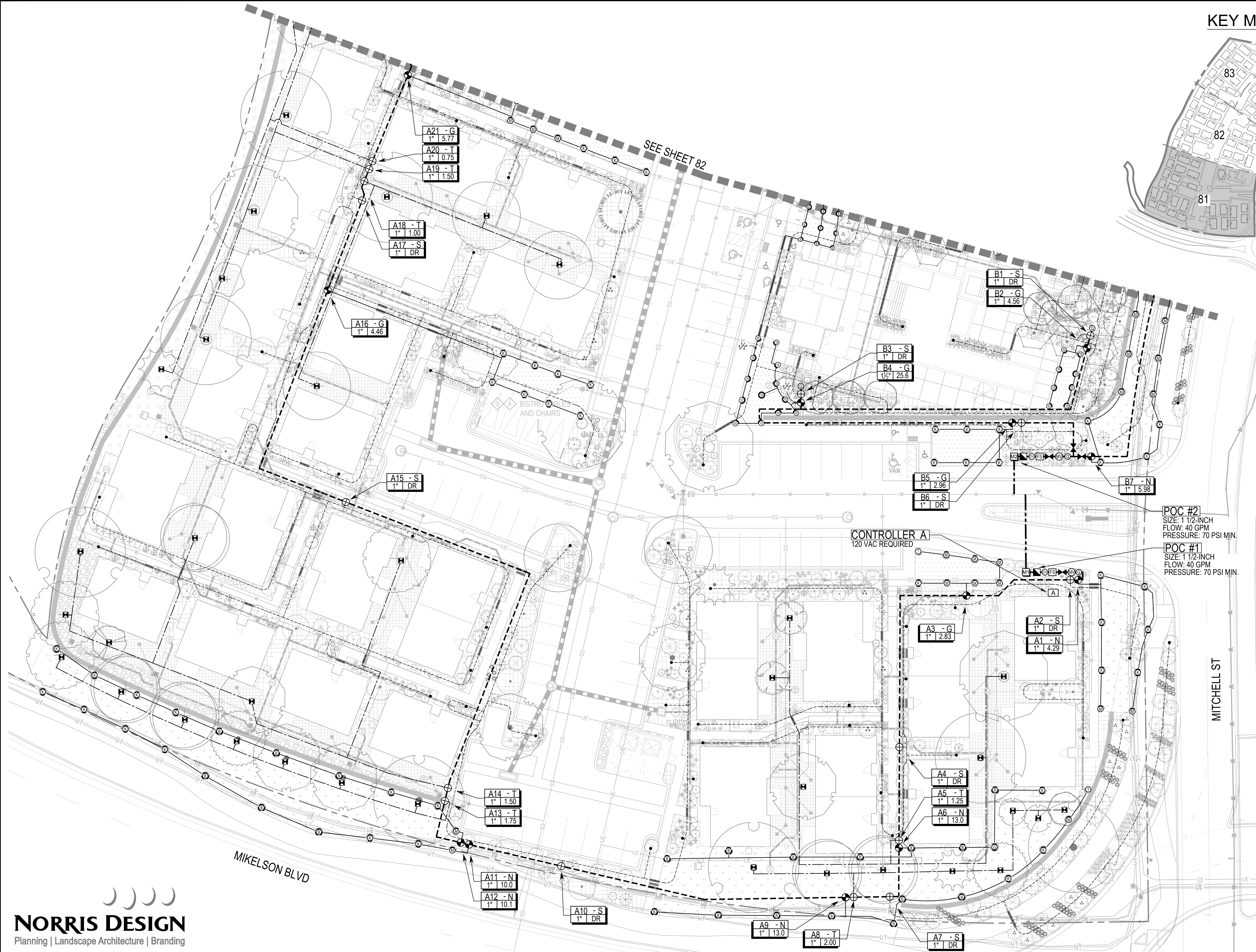
PROJECT #: 210431
SHEET NUMBER

KEY MAP



IRRIGATION SCHEDULE

SYMBOL	DESCRIPTION
	IRRIGATION METER
	IRRIGATION CONTROLLER
	RAIN SENSOR
	BACKFLOW PREVENTER
NOT SHOWN	SECURITY ENCLOSURE
	MANUAL DRAIN VALVE
	QUICK COUPLER
	MASTER VALVE
	FLOW SENSOR
	ISOLATION GATE VALVE
	TURF VALVE ASSEMBLY
	DRIP VALVE ASSEMBLY
	GROUNDING / LINE SURGE SUPPRESSION
	TURF ROTARY
	TURF SPRAY (FIXED)
	NATIVE SEED ROTARY
	TREES IN NATIVE
	SLEEVING
	SERVICE LINE
	MAINLINE
	PVC TURF LATERAL
	PVC TREE LATERAL
	DRIP LATERAL
	FLUSH END
	CAP



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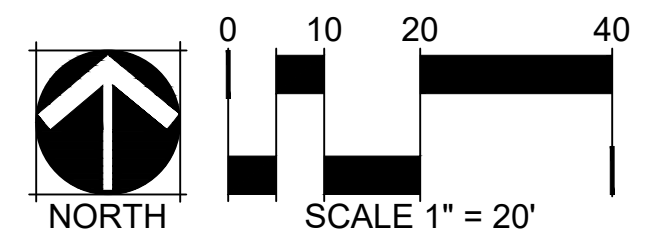
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10-31-2022	PER TOWN OF CASLIE ROCK COMMENTS

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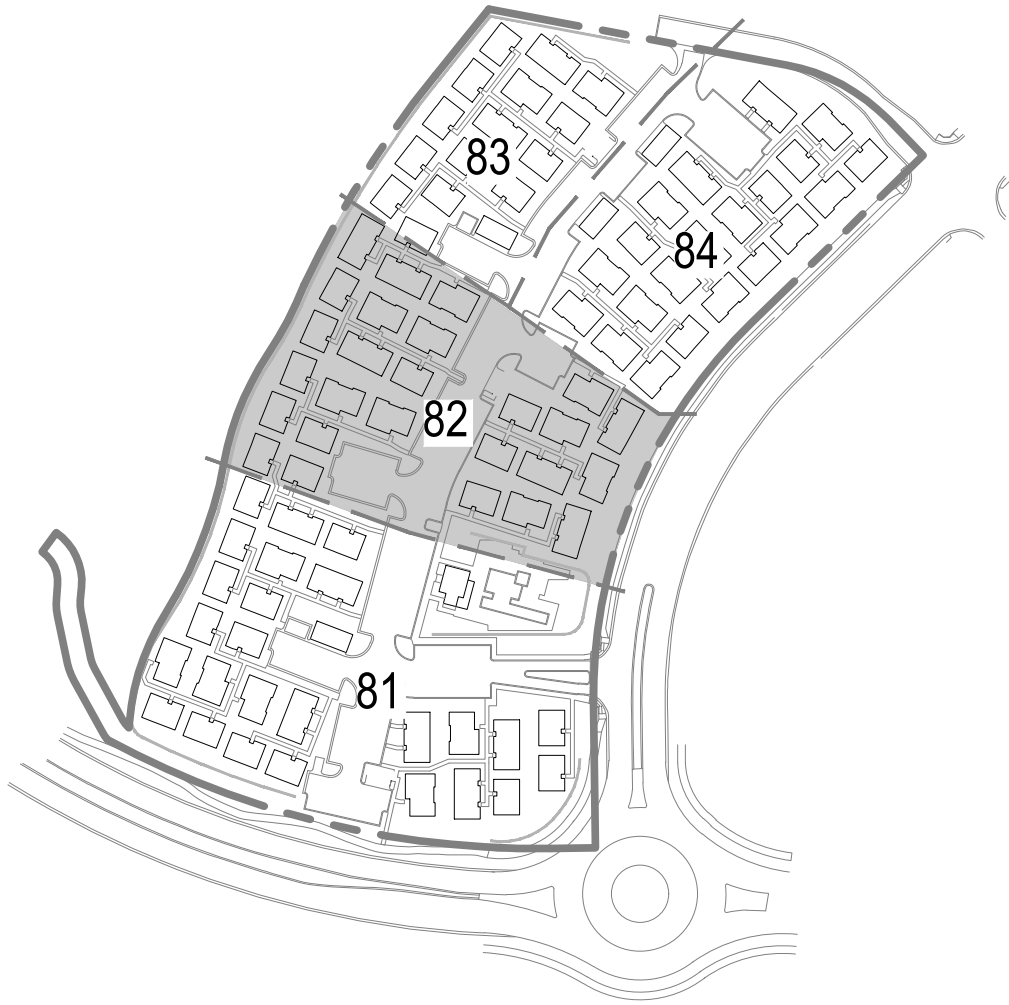
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AVILLA FOUNDERS VILLAGE
IRRIGATION PLAN

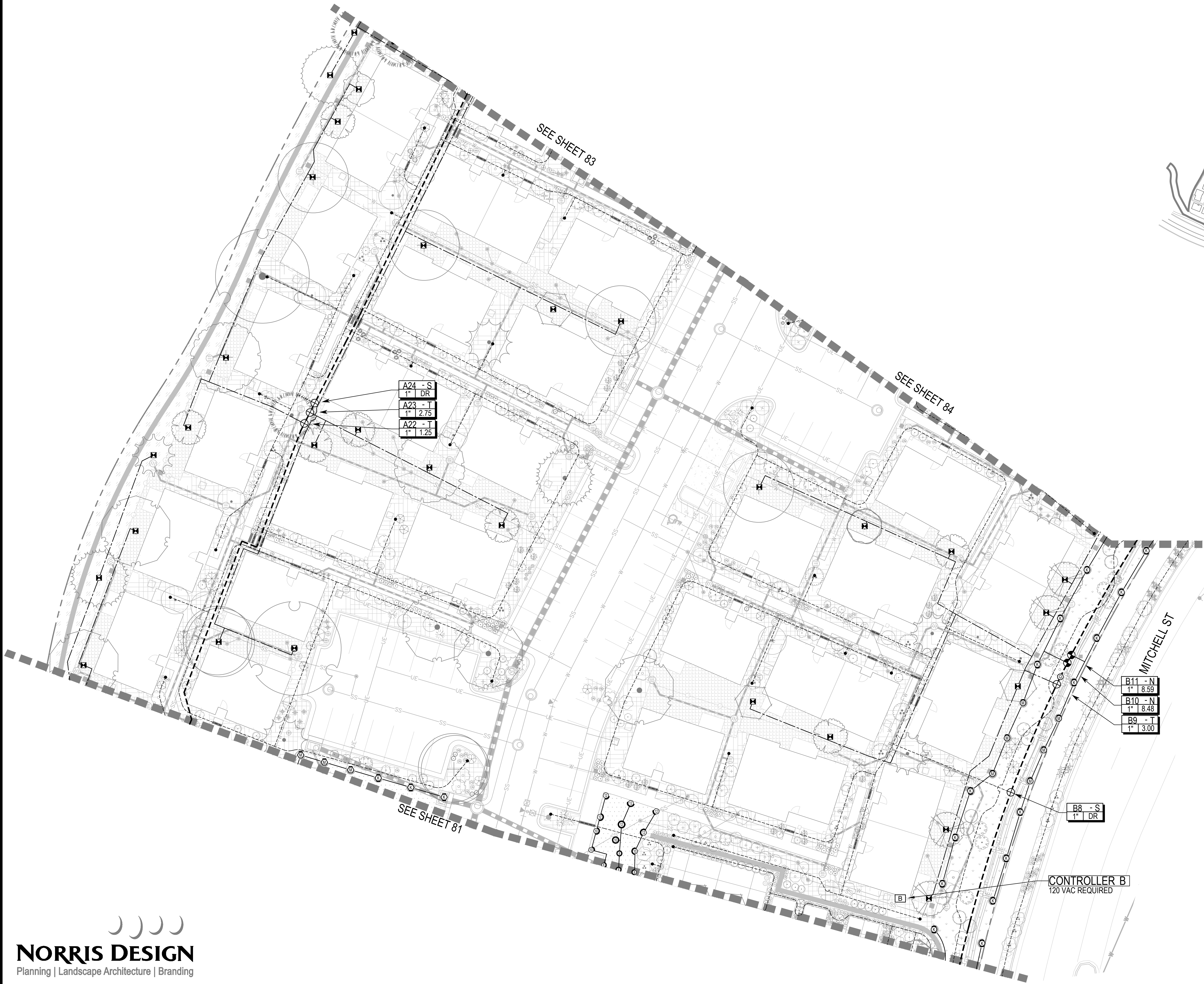
JASON NAUGHTIN TOCR #19-3239
PROJECT #: 210431
SHEET NUMBER
81 OF 82



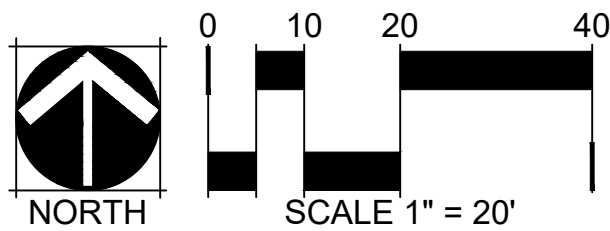
KEY MAP



IRRIGATION SCHEDULE	
SYMBOL	DESCRIPTION
	IRRIGATION METER
	IRRIGATION CONTROLLER
	RAIN SENSOR
	BACKFLOW PREVENTER
NOT SHOWN	SECURITY ENCLOSURE
	MANUAL DRAIN VALVE
	QUICK COUPLER
	MASTER VALVE
	FLOW SENSOR
	ISOLATION GATE VALVE
	TURF VALVE ASSEMBLY
	DRIP VALVE ASSEMBLY
	GROUNDING / LINE SURGE SUPPRESSION
	TURF ROTARY
	TURF SPRAY (FIXED)
	NATIVE SEED ROTARY
	TREES IN NATIVE
	SLEEVING
	SERVICE LINE
	PVC MAINLINE
	PVC TURF LATERAL
	PVC TREE LATERAL
	DRIP LATERAL
	FLUSH END
	CAP



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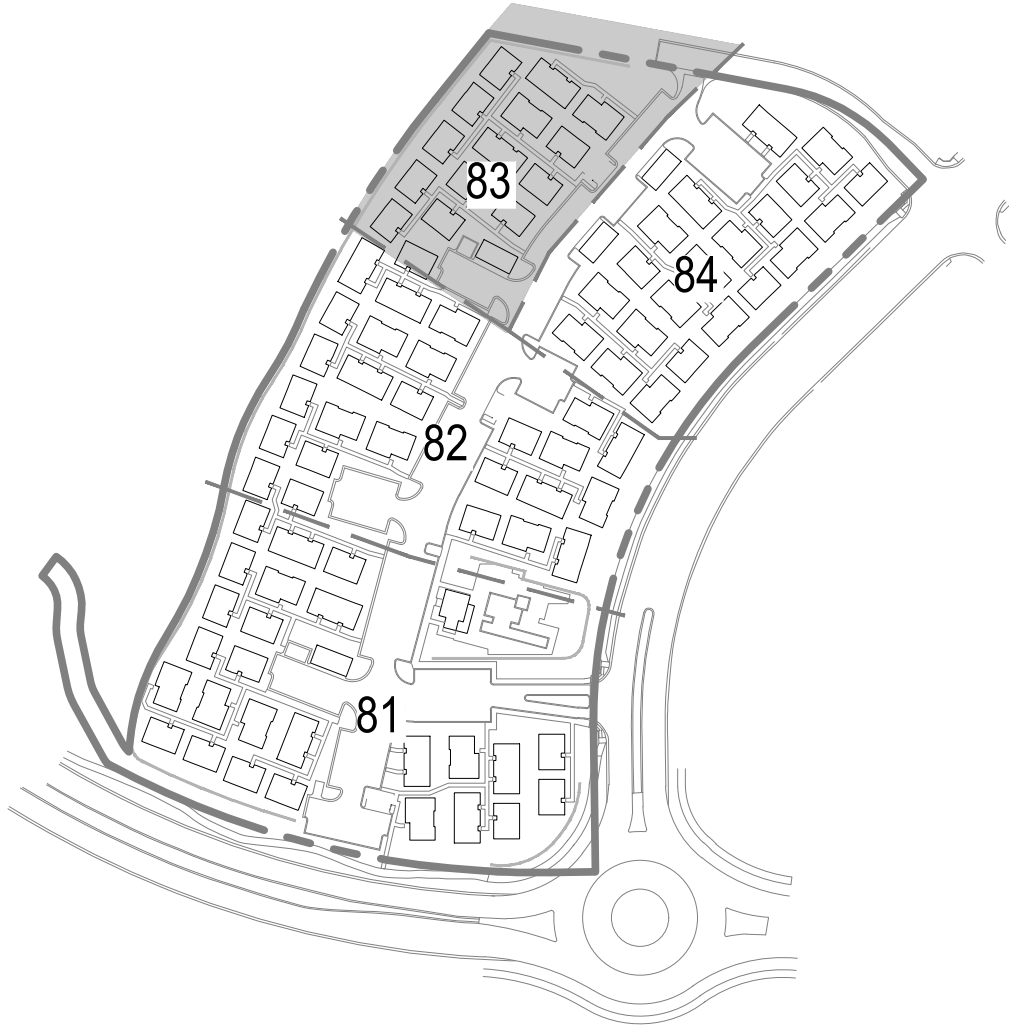
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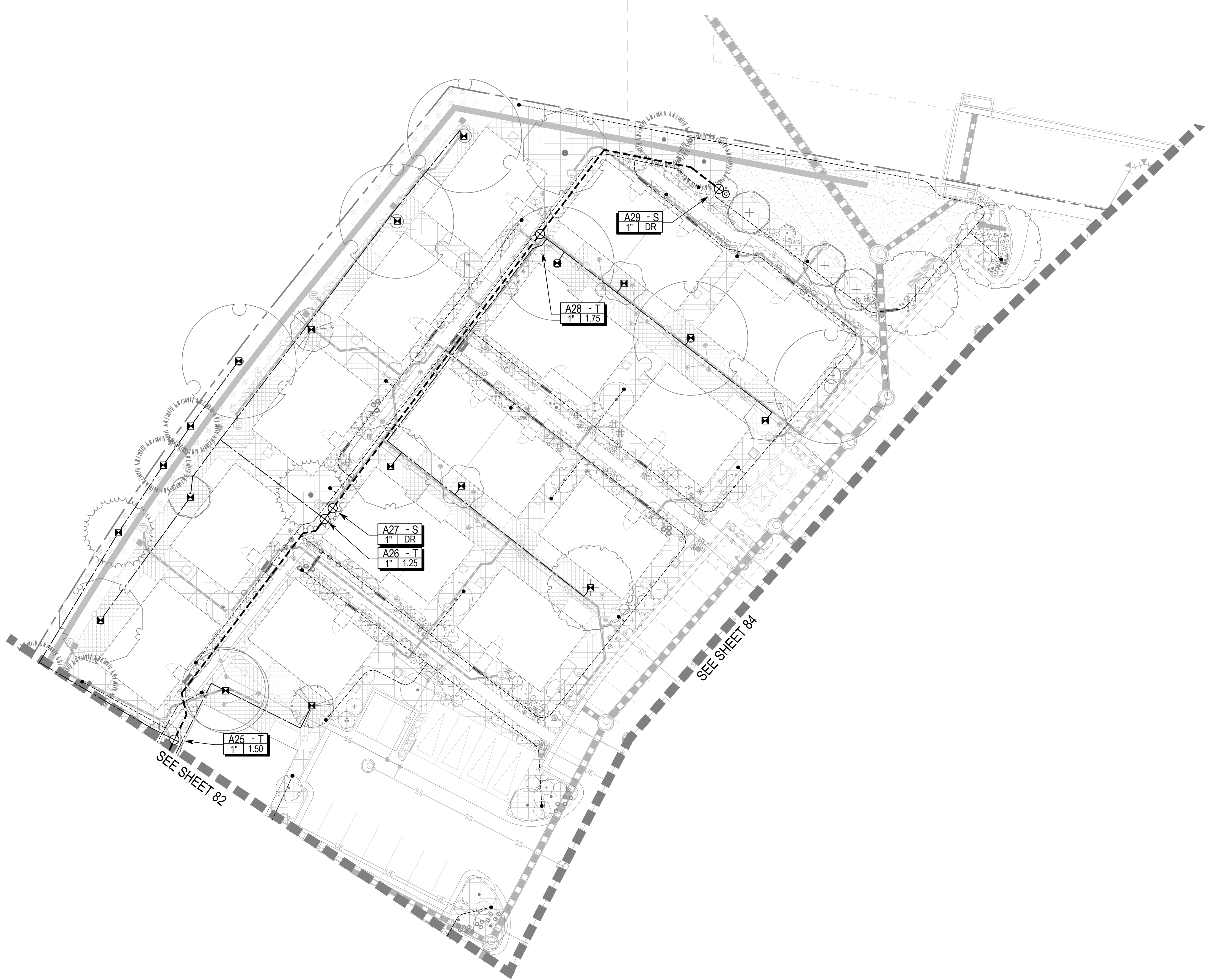
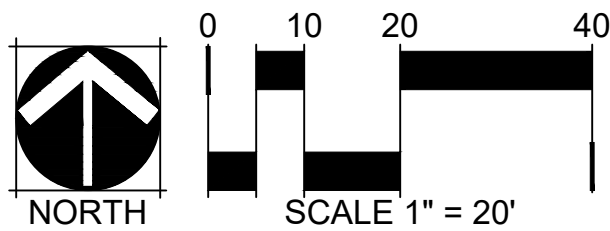
AVILLA FOUNDERS VILLAGE
IRRIGATION PLAN

PROJECT #: 210431
SHEET NUMBER

KEY MAP



IRRIGATION SCHEDULE	
SYMBOL	DESCRIPTION
	IRRIGATION METER
	IRRIGATION CONTROLLER
	RAIN SENSOR
	BACKFLOW PREVENTER
NOT SHOWN	SECURITY ENCLOSURE
	MANUAL DRAIN VALVE
	QUICK COUPLER
	MASTER VALVE
	FLOW SENSOR
	ISOLATION GATE VALVE
	TURF VALVE ASSEMBLY
	DRIP VALVE ASSEMBLY
	GROUNDING / LINE SURGE SUPPRESSION
	TURF ROTARY
	TURF SPRAY (FIXED)
	NATIVE SEED ROTARY
	TREES IN NATIVE
	SLEEVING
	SERVICE LINE
	PVC MAINLINE
	PVC TURF LATERAL
	PVC TREE LATERAL
	DRIP LATERAL
	FLUSH END CAP



JASON NAUGHTIN TOCR #19-3239



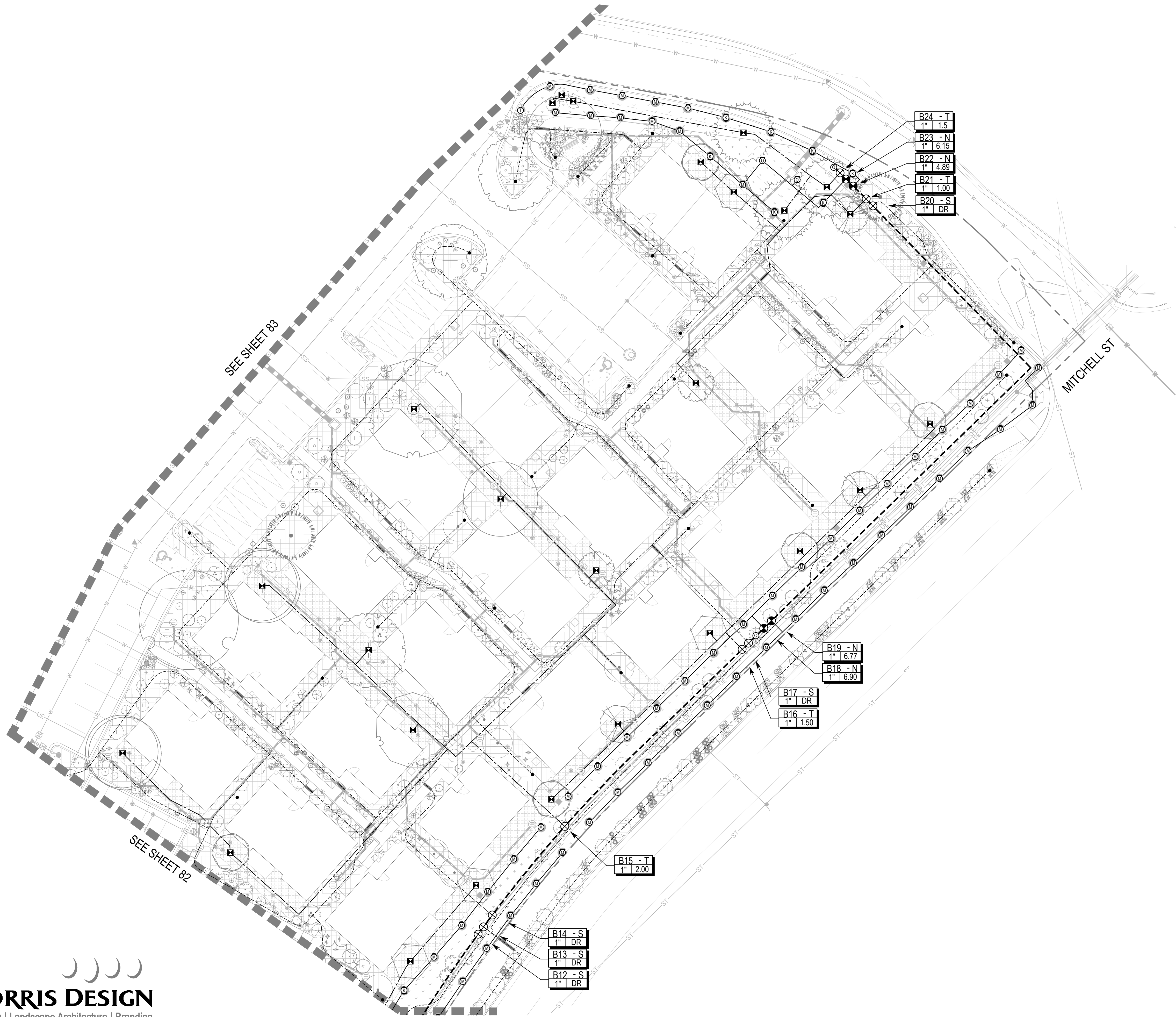
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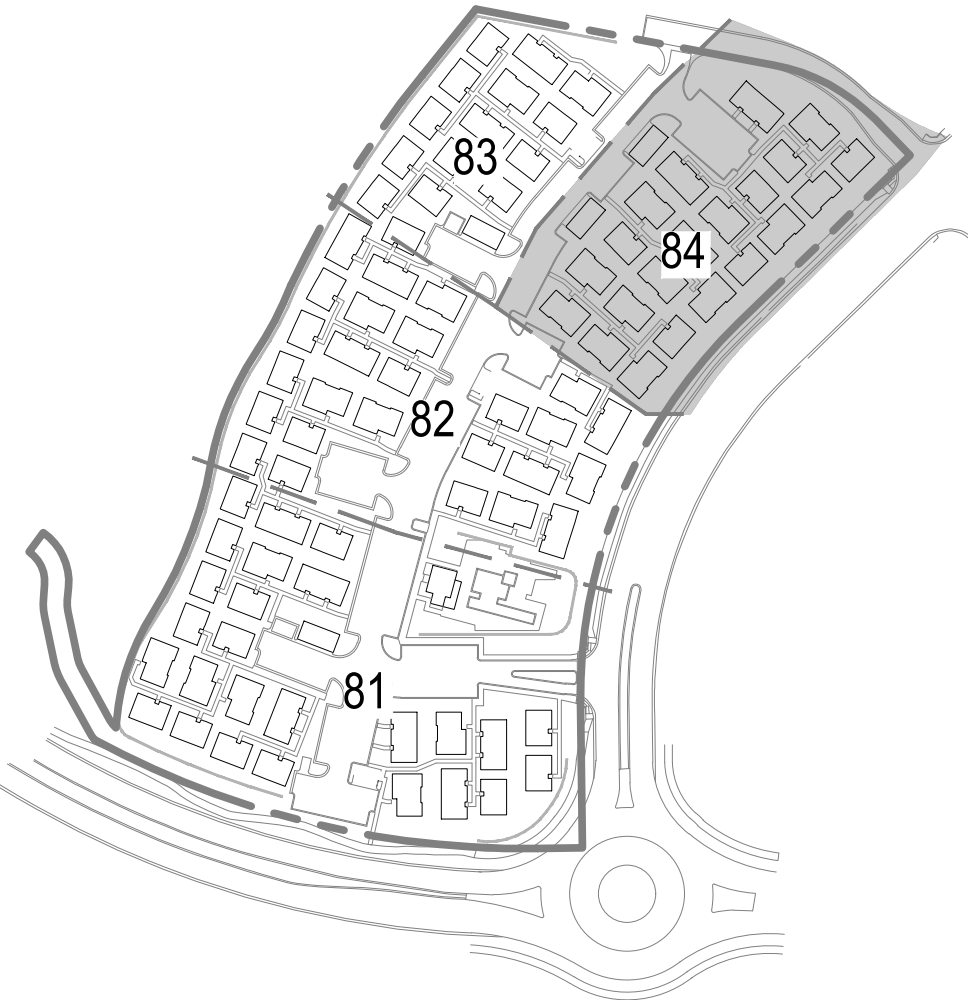


AVILLA FOUNDERS VILLAGE
IRRIGATION PLAN

PROJECT #: 210431
SHEET NUMBER

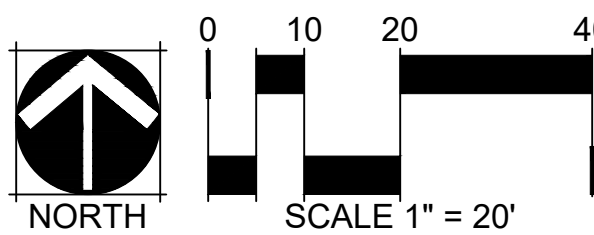


KEY MAP



IRRIGATION SCHEDULE

SYMBOL	DESCRIPTION
	IRRIGATION METER
	IRRIGATION CONTROLLER
	RAIN SENSOR
	BACKFLOW PREVENTER
NOT SHOWN	SECURITY ENCLOSURE
	MANUAL DRAIN VALVE
	QUICK COUPLER
	MASTER VALVE
	FLOW SENSOR
	ISOLATION GATE VALVE
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	TURF SPRAY (FIXED)
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	TREES IN NATIVE
	SLEEVING
	SERVICE LINE
	PVC MAINLINE
	PVC TURF LATERAL
	PVC TREE LATERAL
	DRIP LATERAL
	FLUSH END CAP

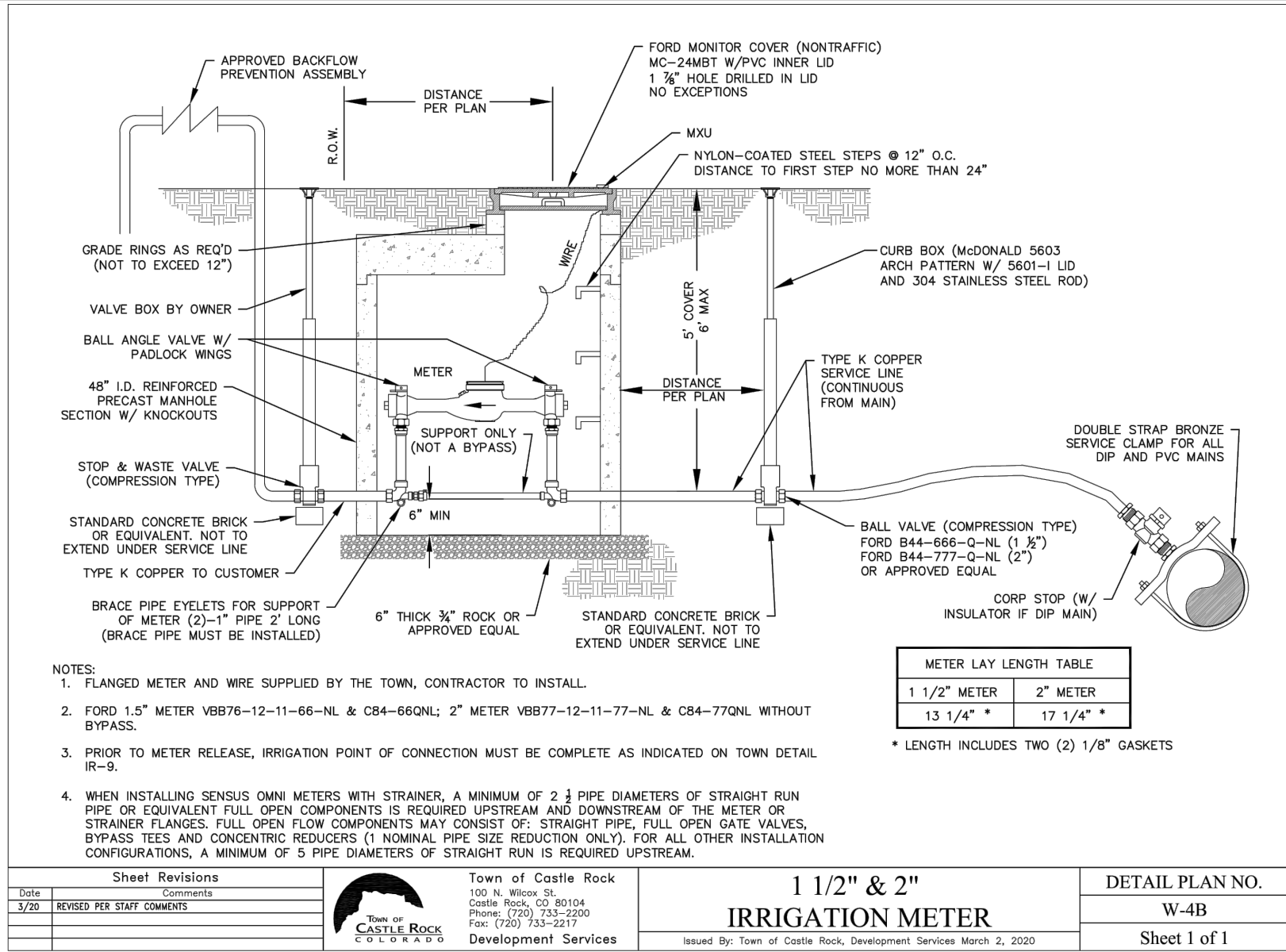


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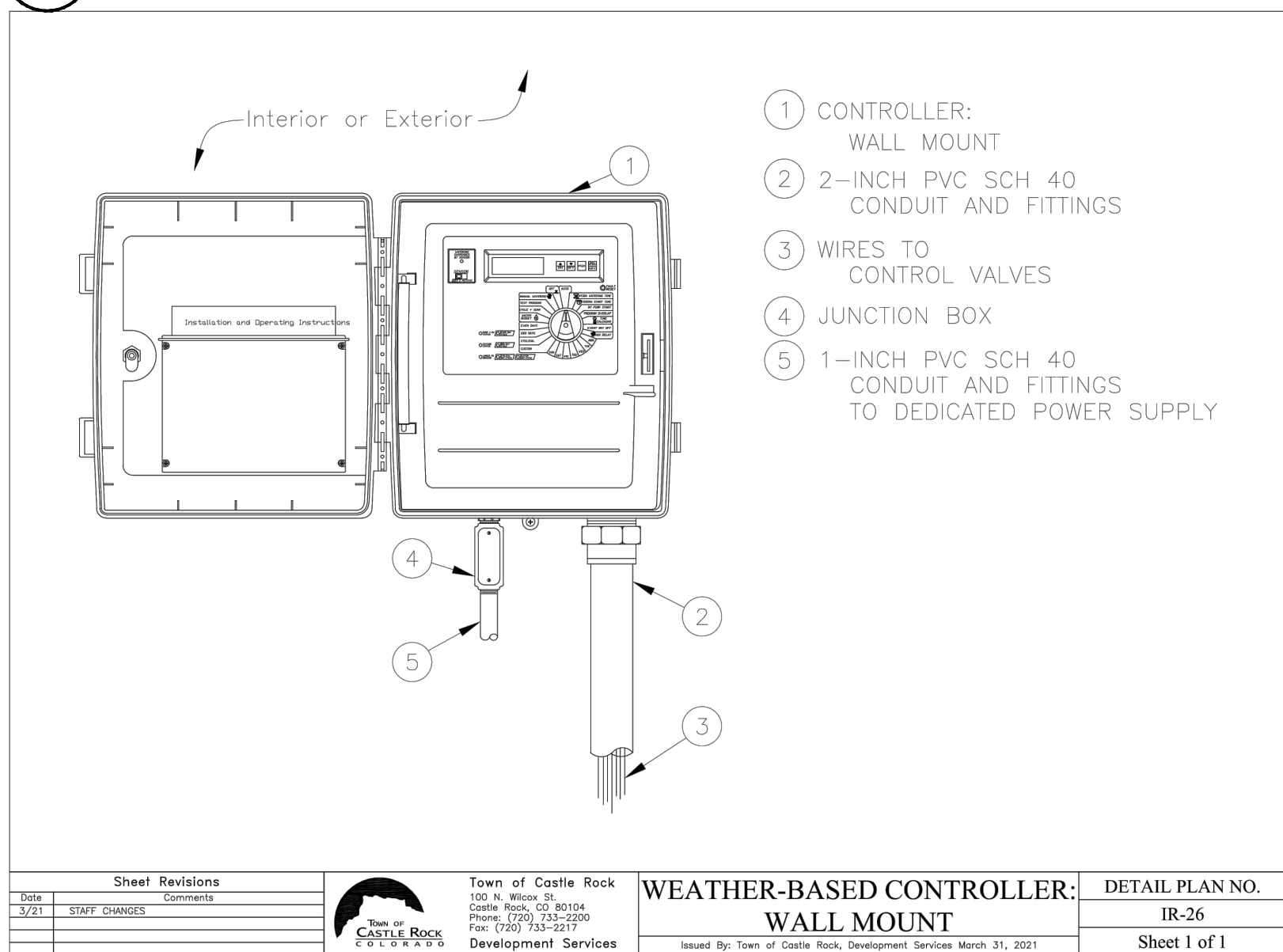
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AVILLA FOUNDERS VILLAGE
IRRIGATION PLAN

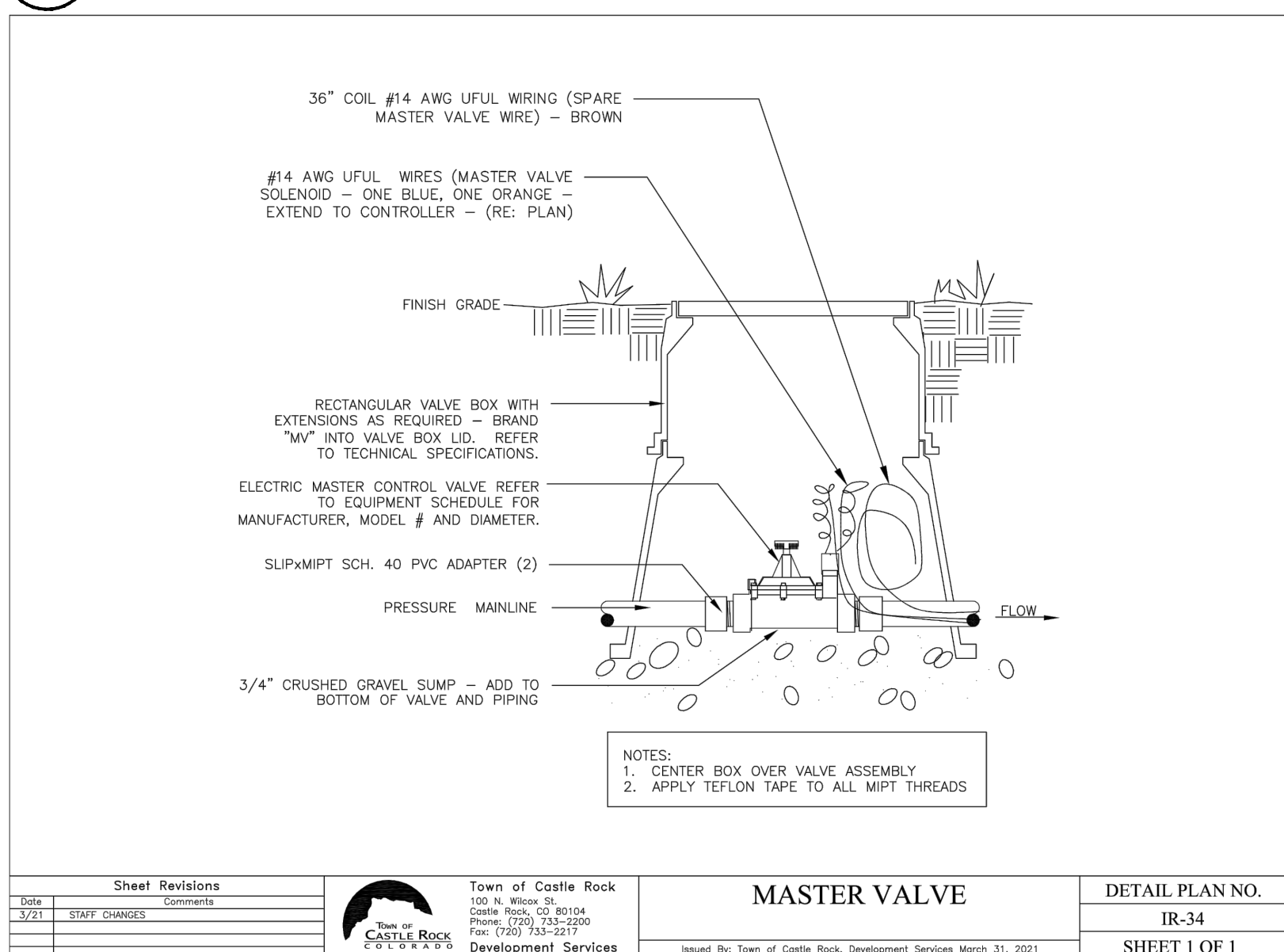
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84 OF 82



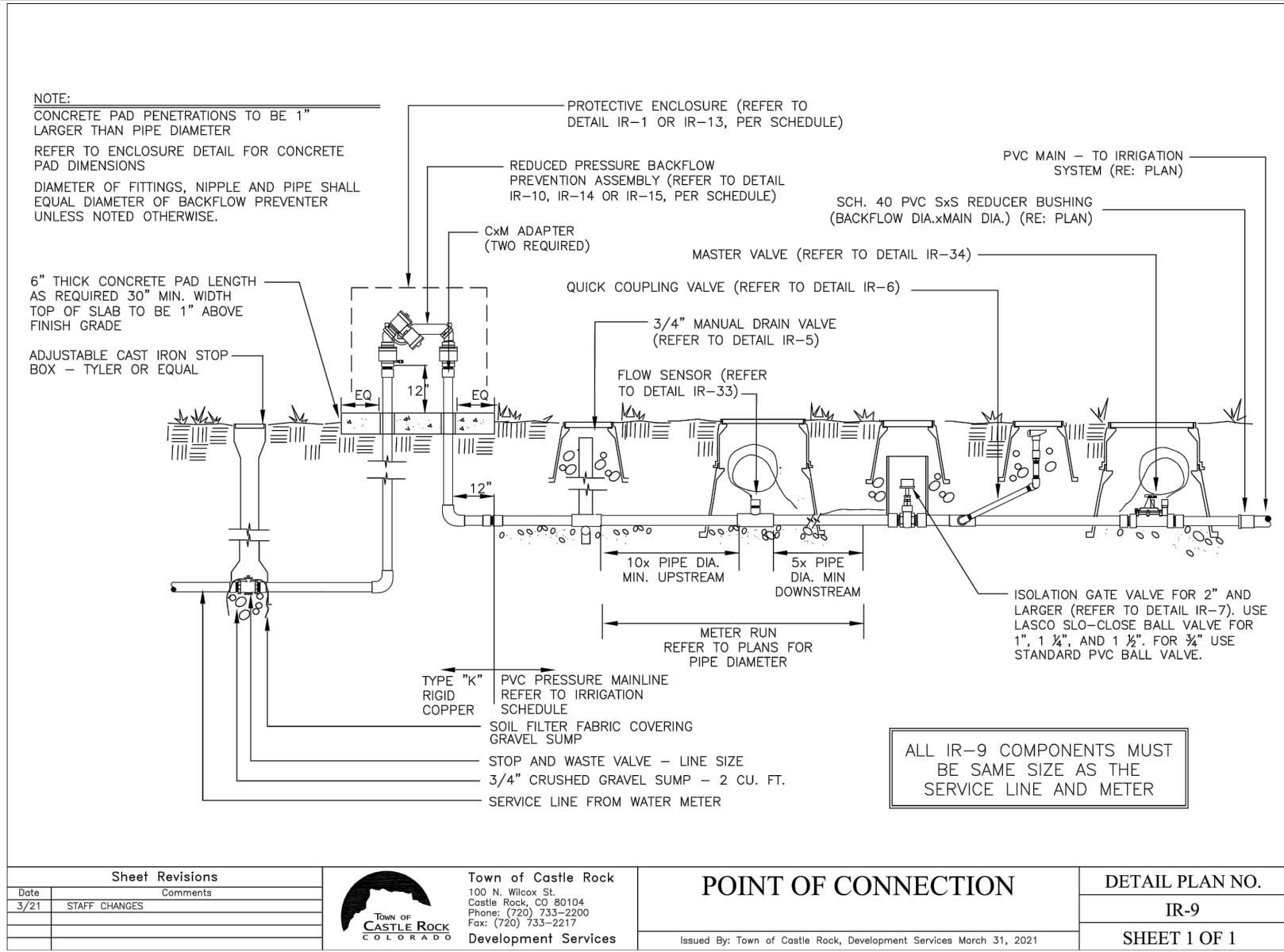
1 IRRIGATION METER - 1 1/2" & 2" SCALE: NTS



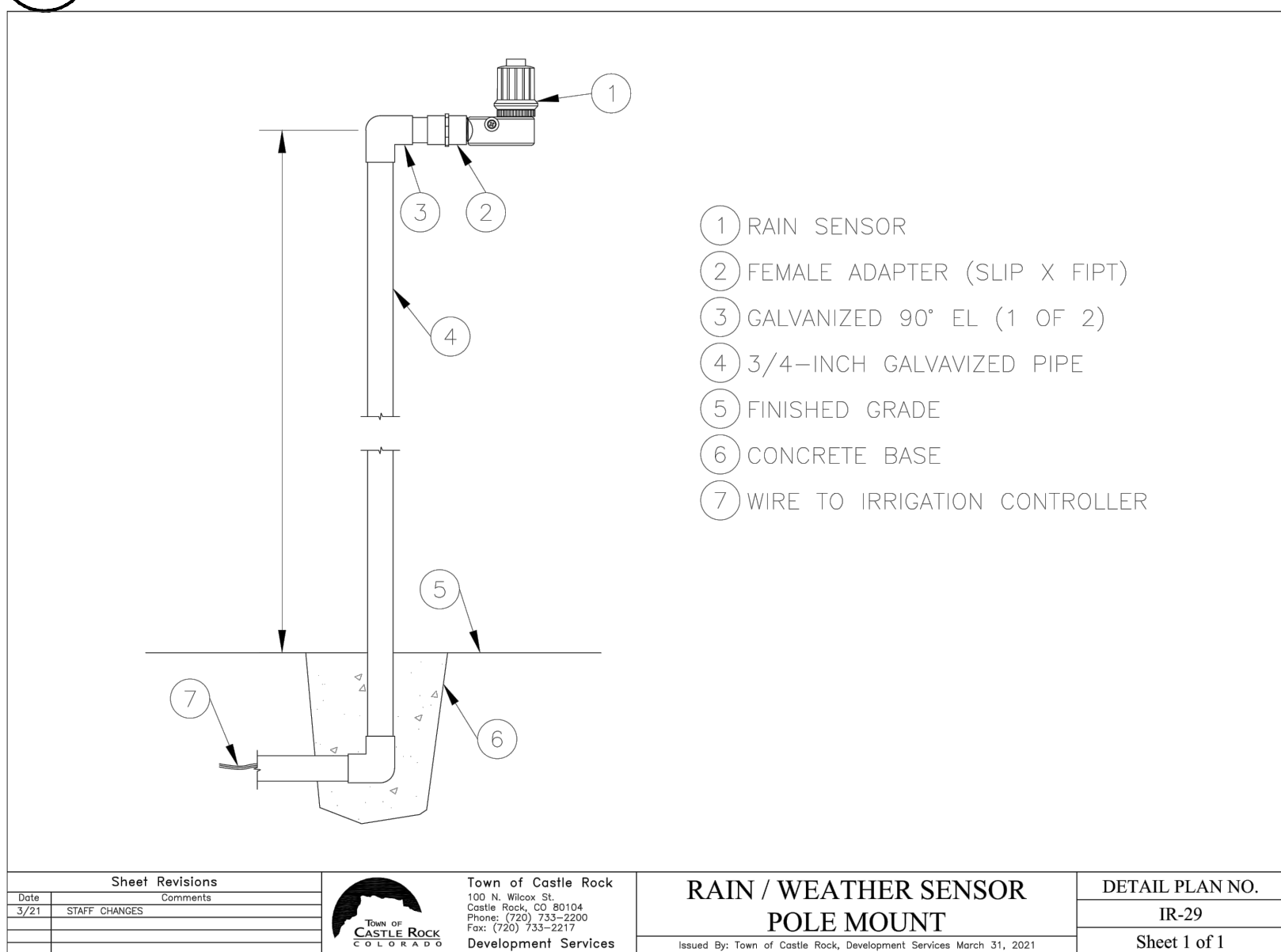
4 WALL MOUNT CONTROLLER SCALE: NTS



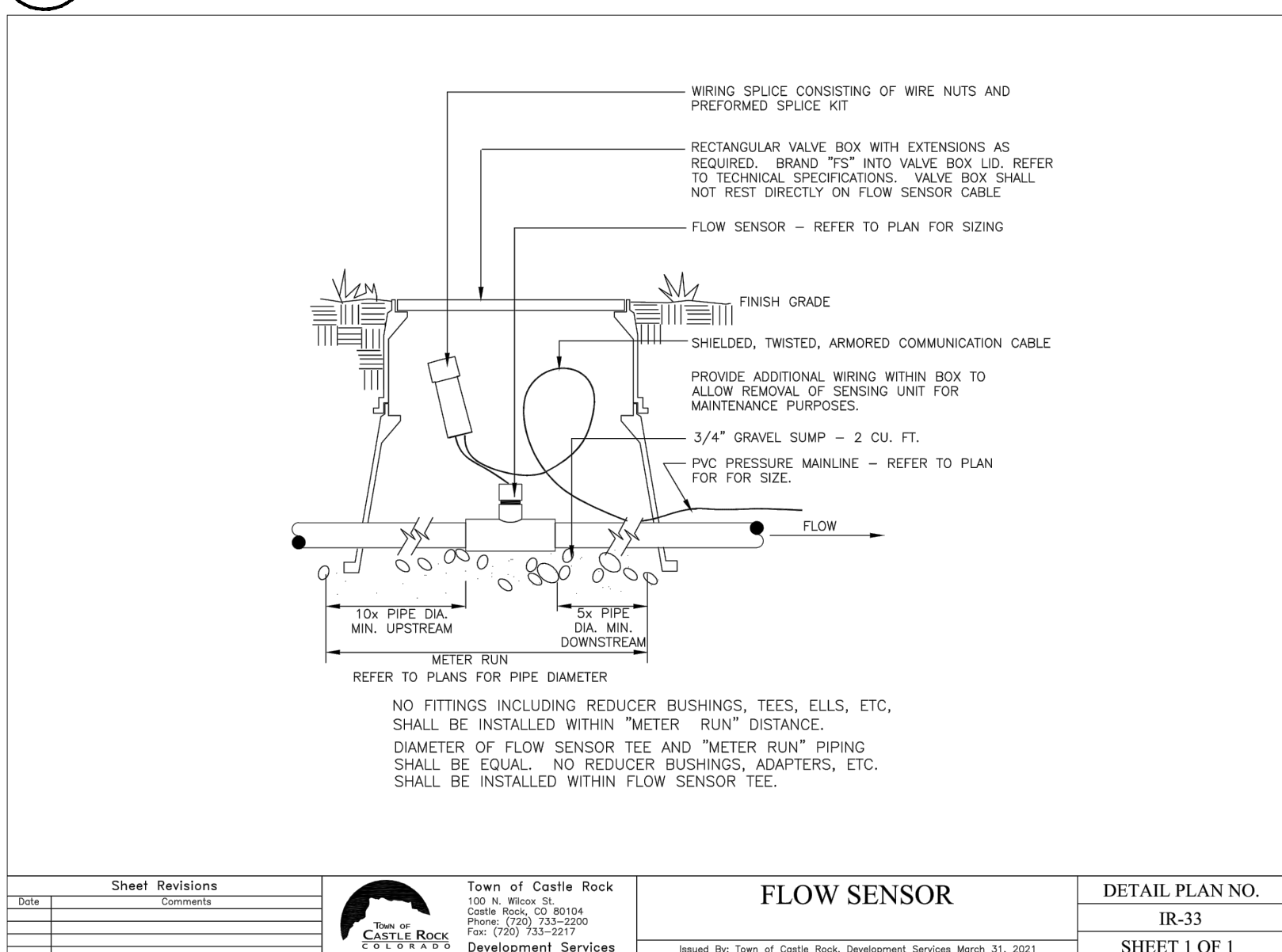
7 MASTER VALVE SCALE: NTS



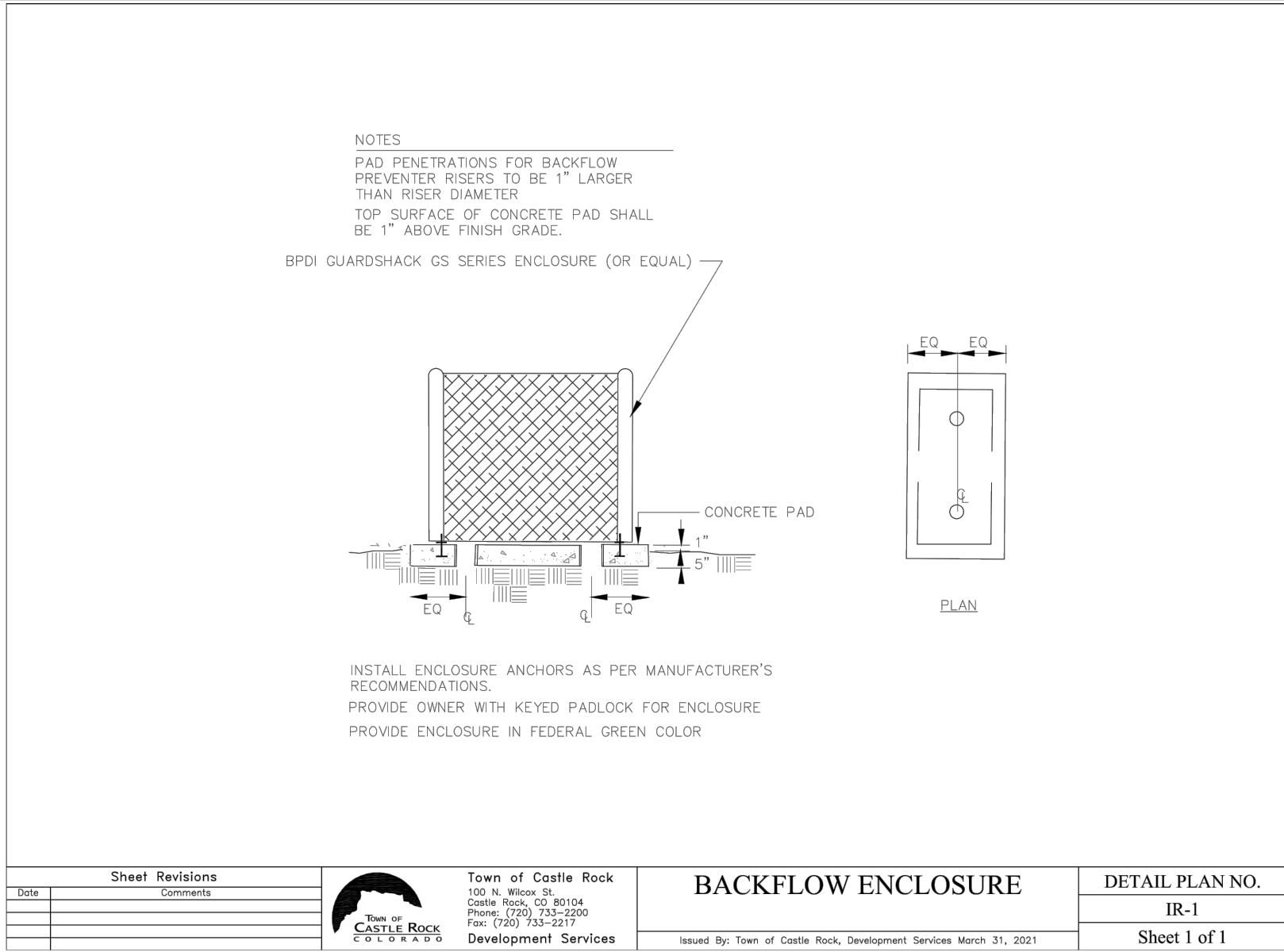
2 BACKFLOW PREVENTION ASSEMBLY SCALE: NTS



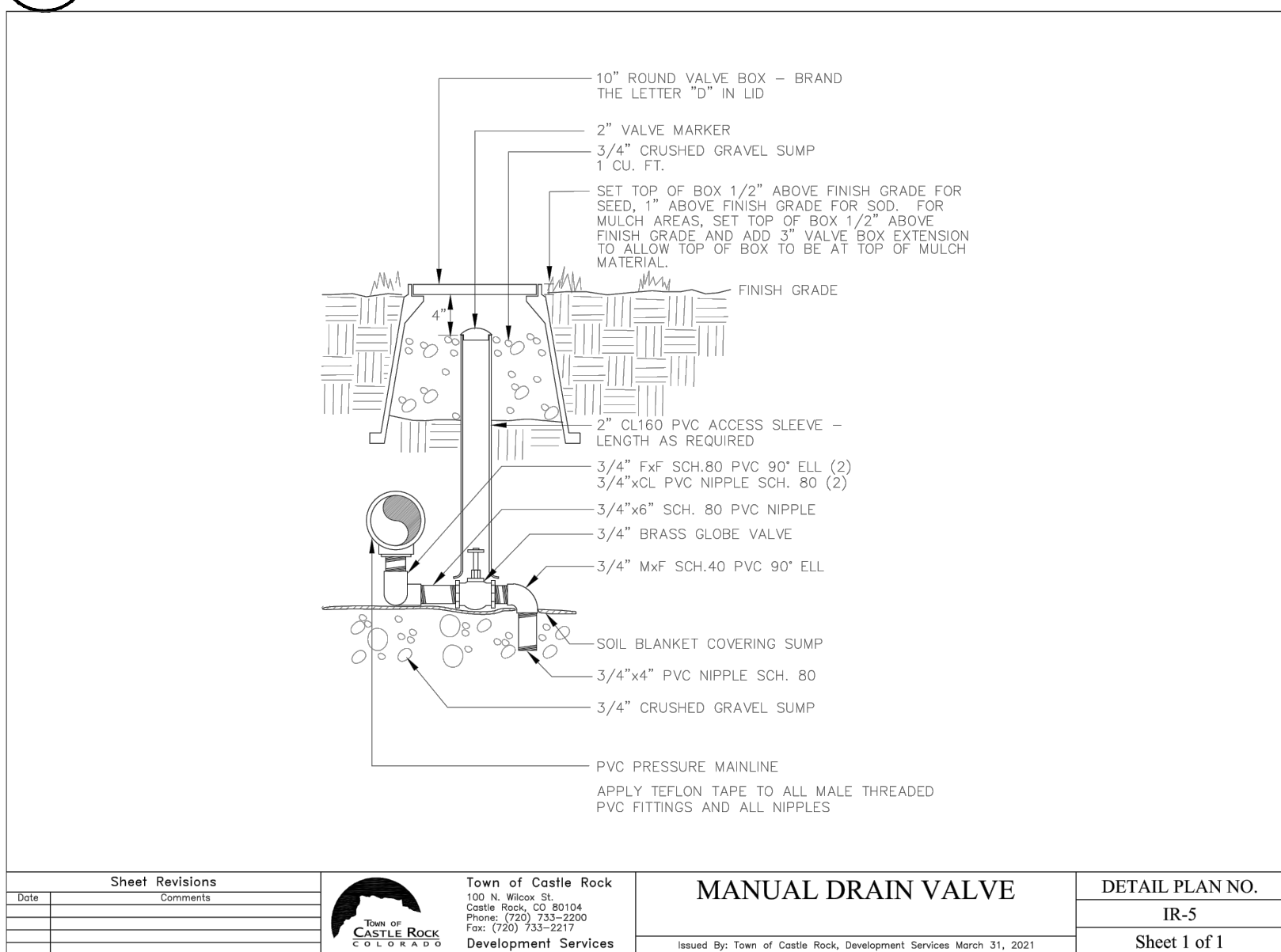
5 POLE MOUNT RAIN SENSOR SCALE: NTS



8 FLOW SENSOR SCALE: NTS



3 BACKFLOW ENCLOSURE SCALE: NTS



6 DRAIN VALVE SCALE: NTS

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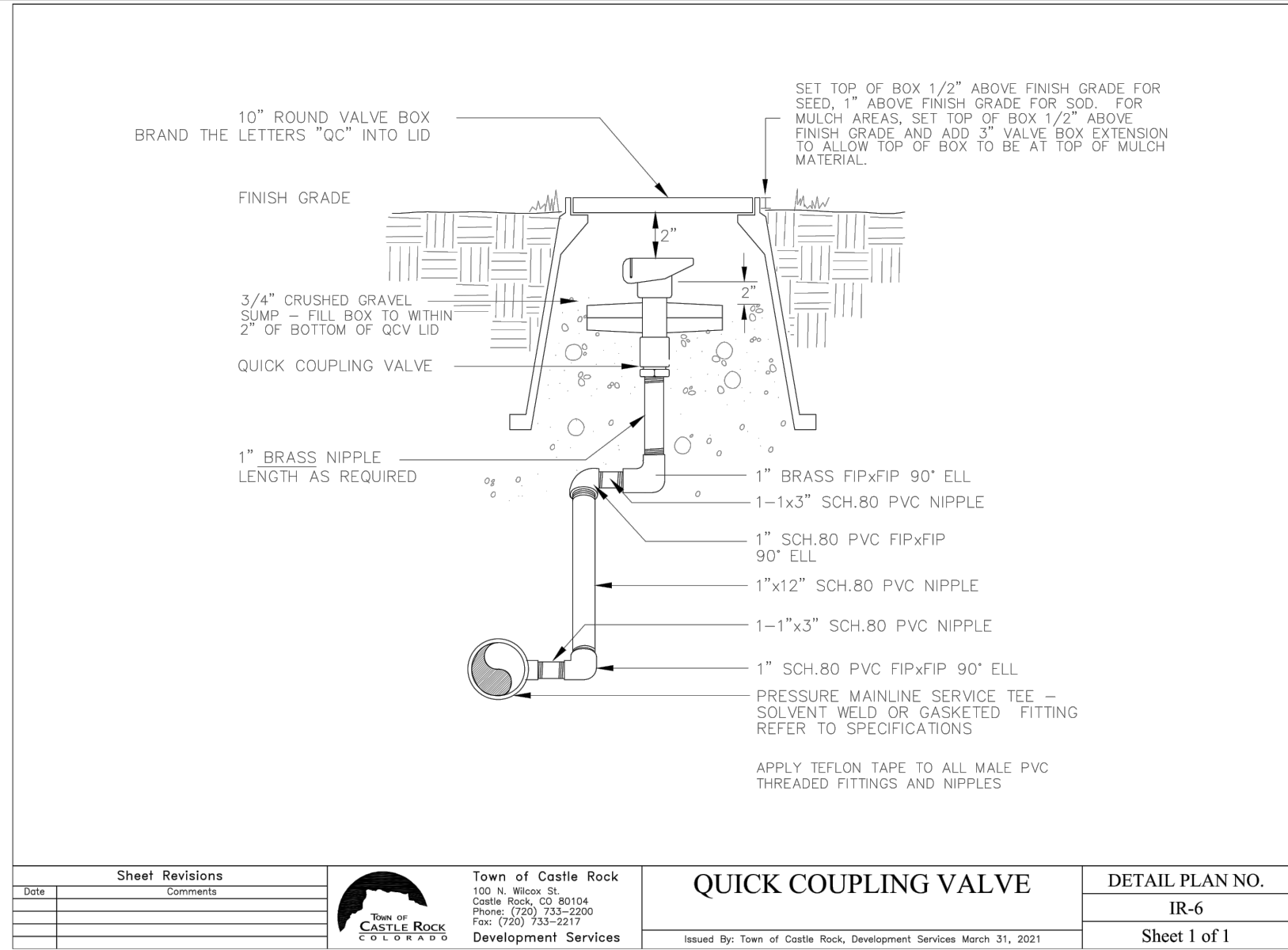
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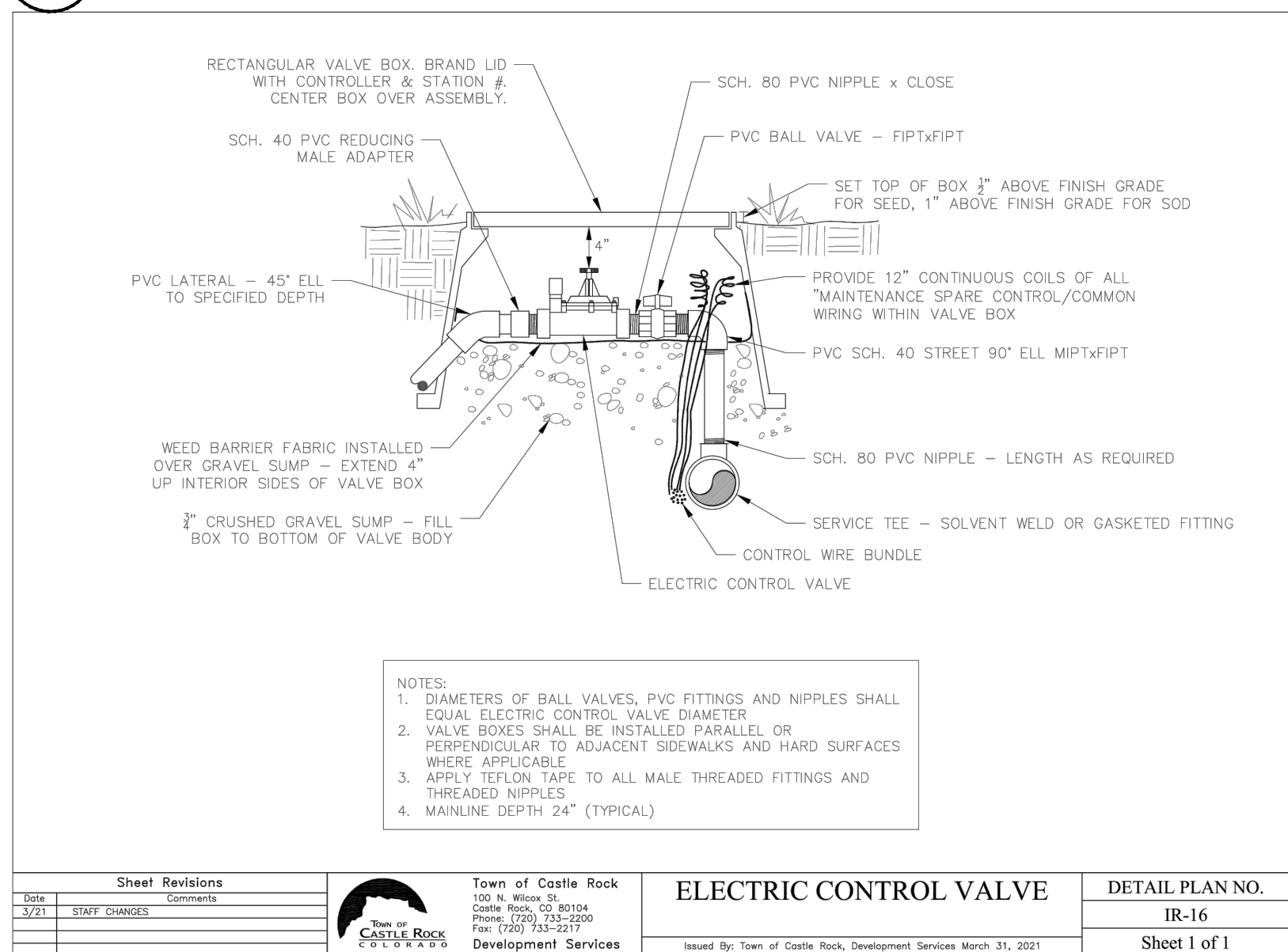
AVILLA FOUNDERS VILLAGE
IRRIGATION
DETAILS

JASON NAUGHTIN TOCR #19-3239

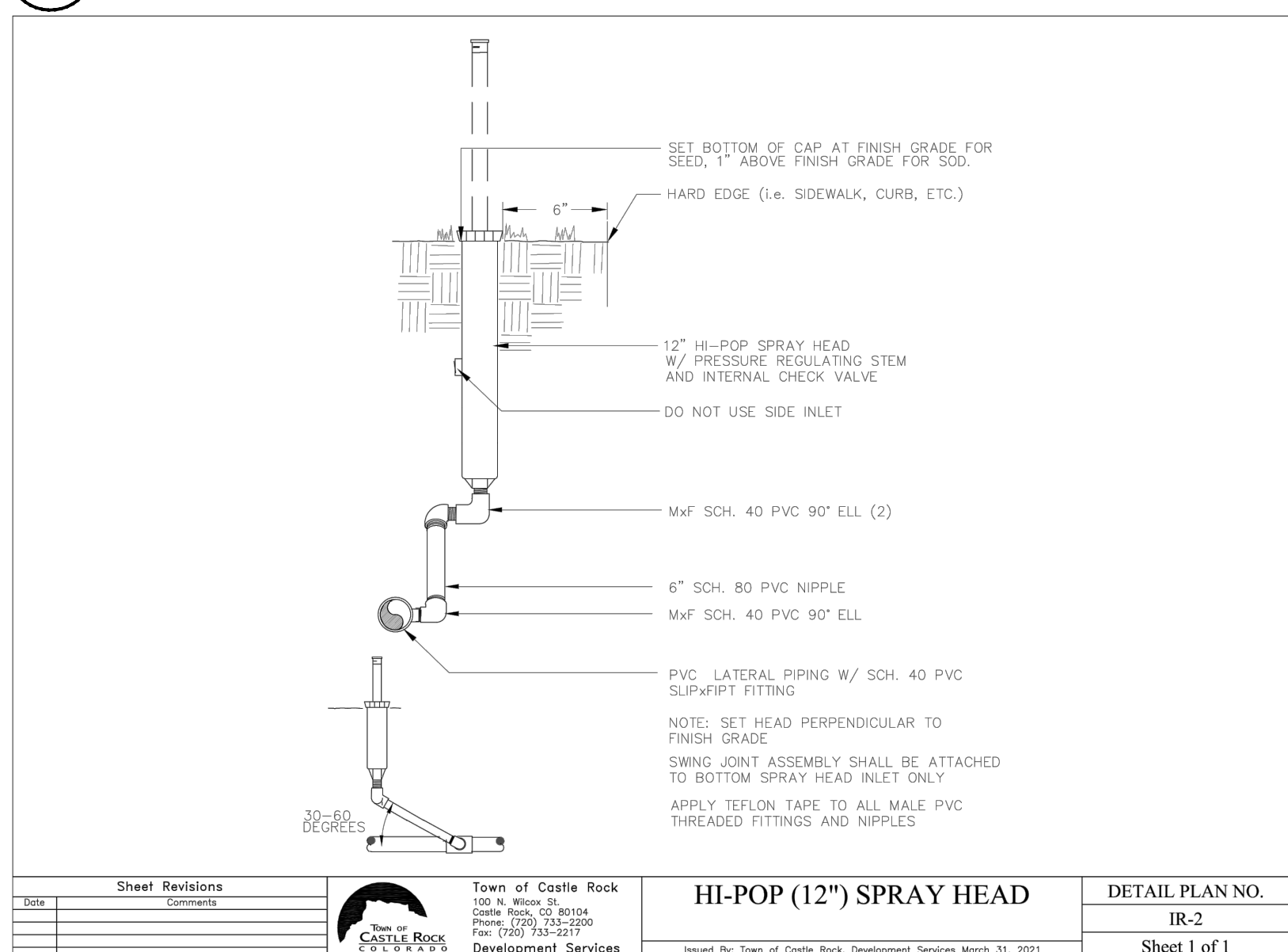
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SHEET NUMBER



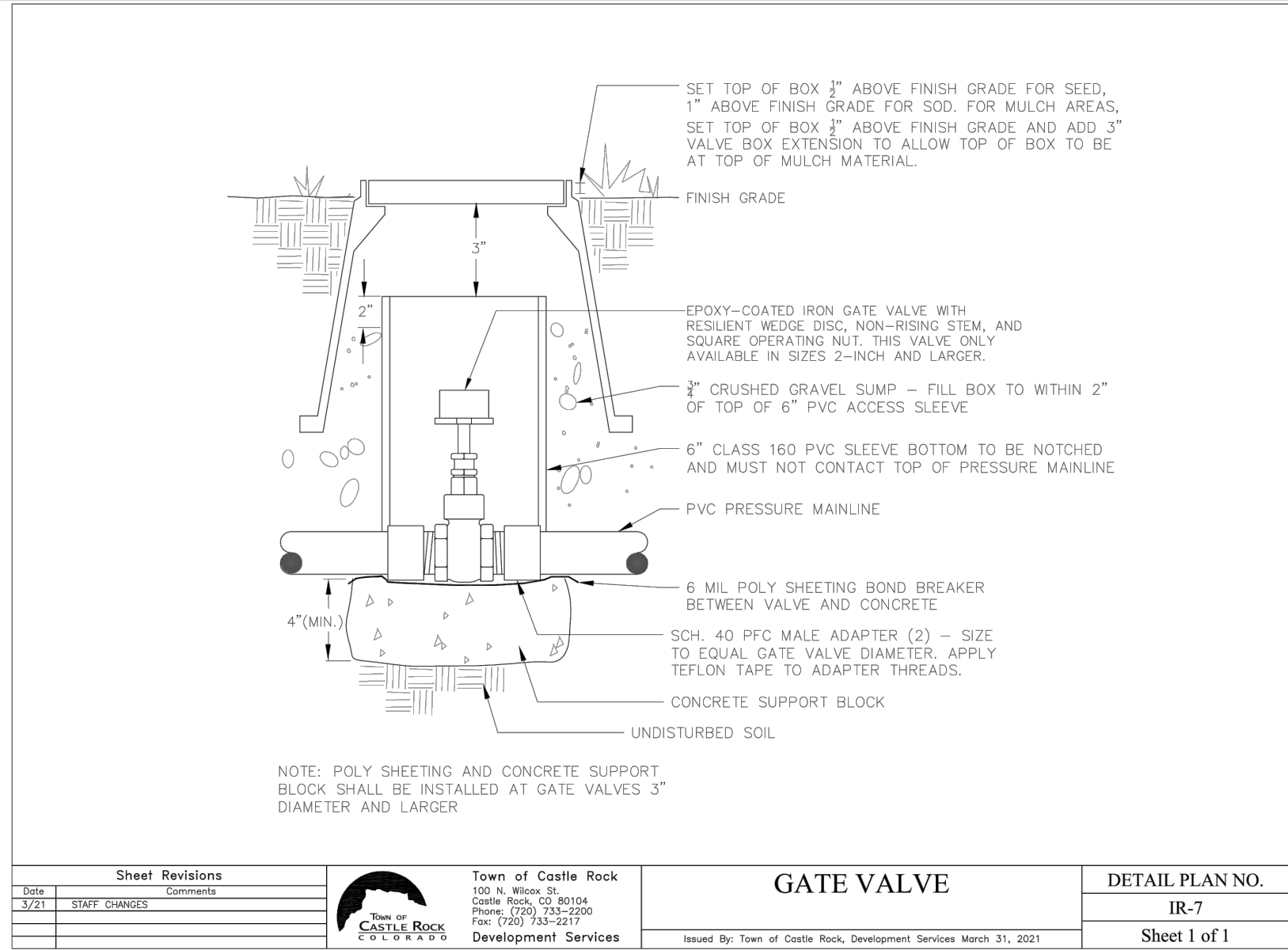
1 QUICK COUPLING VALVE SCALE: NTS



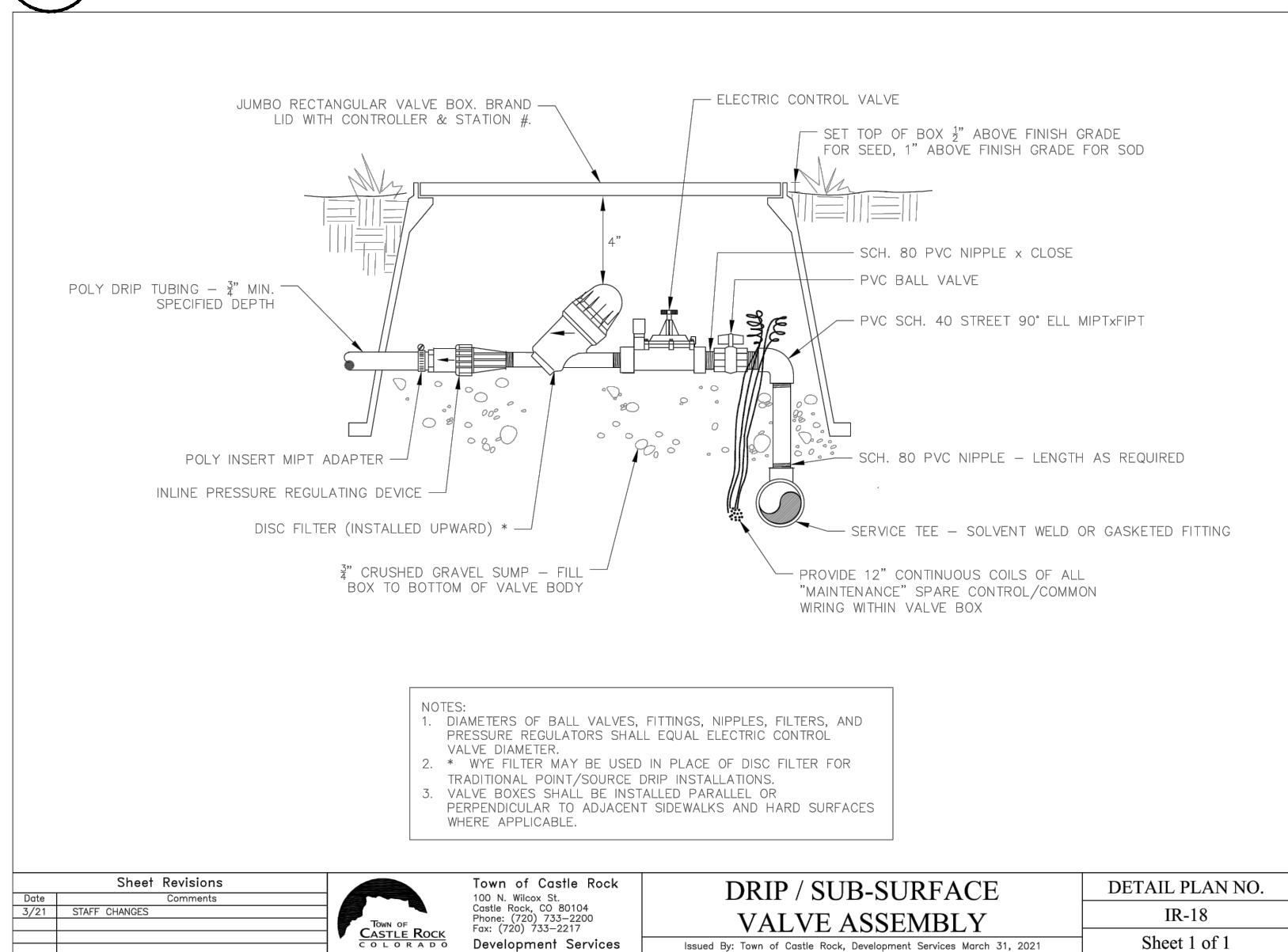
4 CONTROL VALVE ASSEMBLY SCALE: NTS



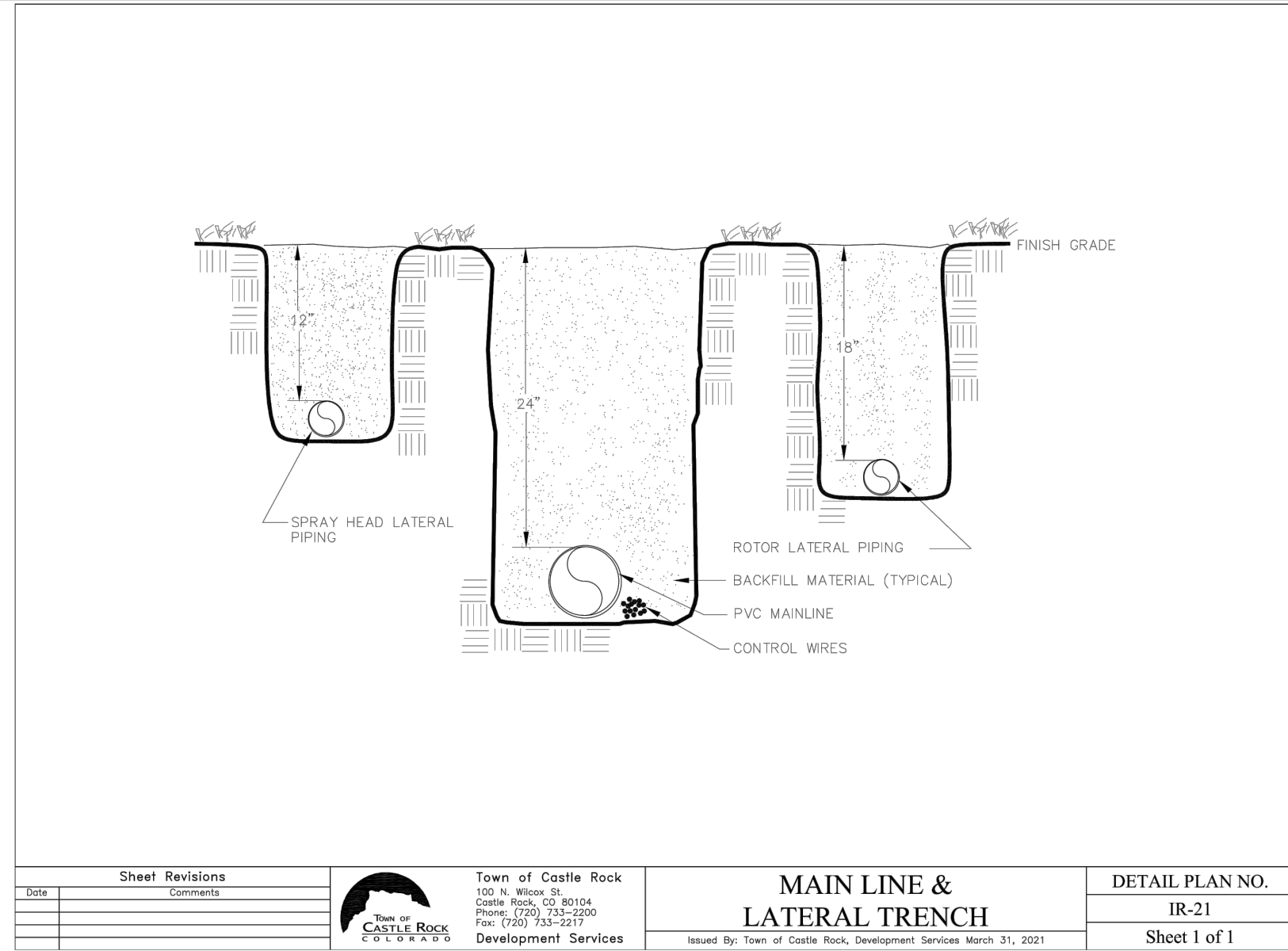
7 12" SPRAY HEAD SCALE: NTS



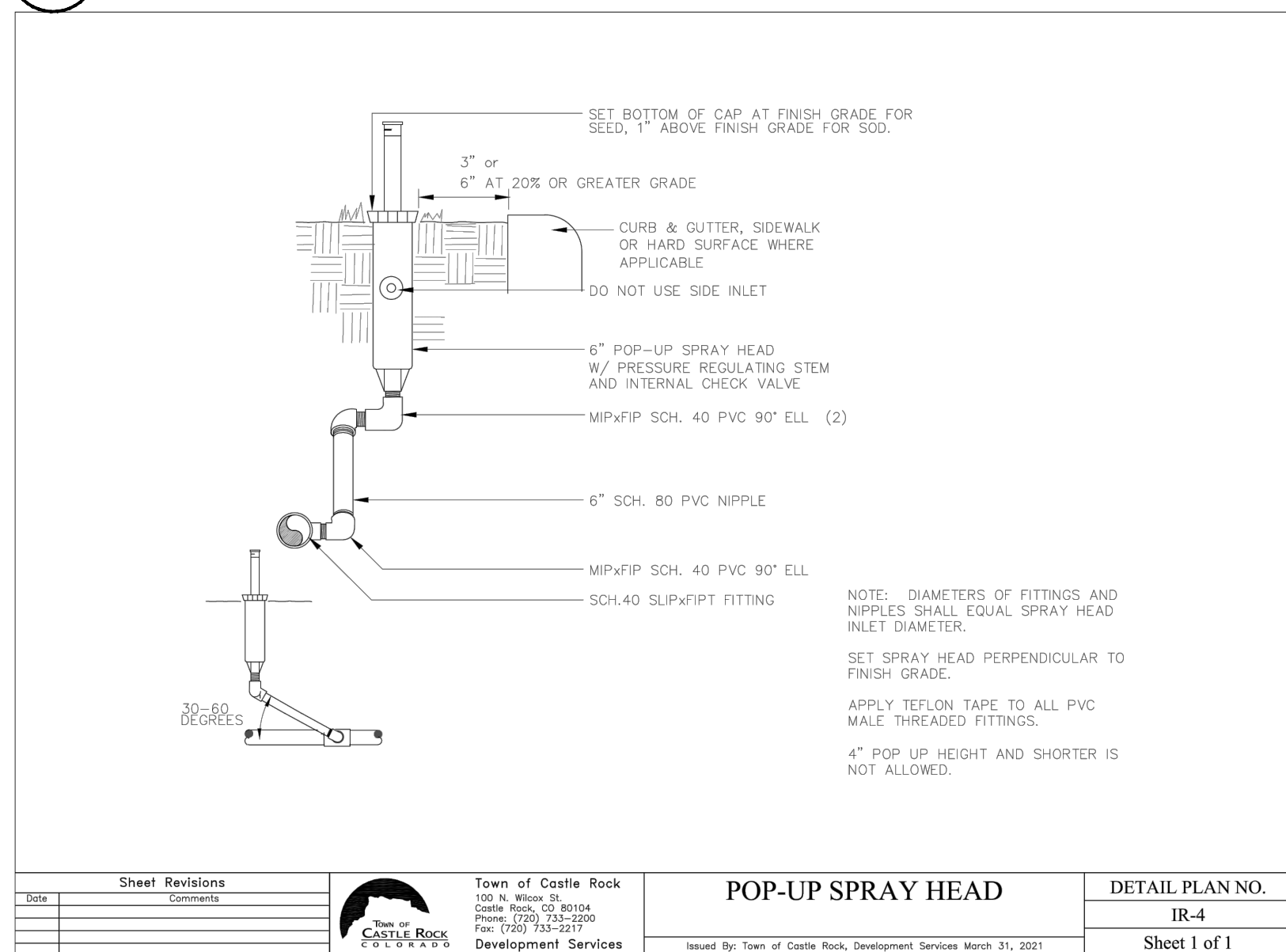
2 GATE VALVE SCALE: NTS



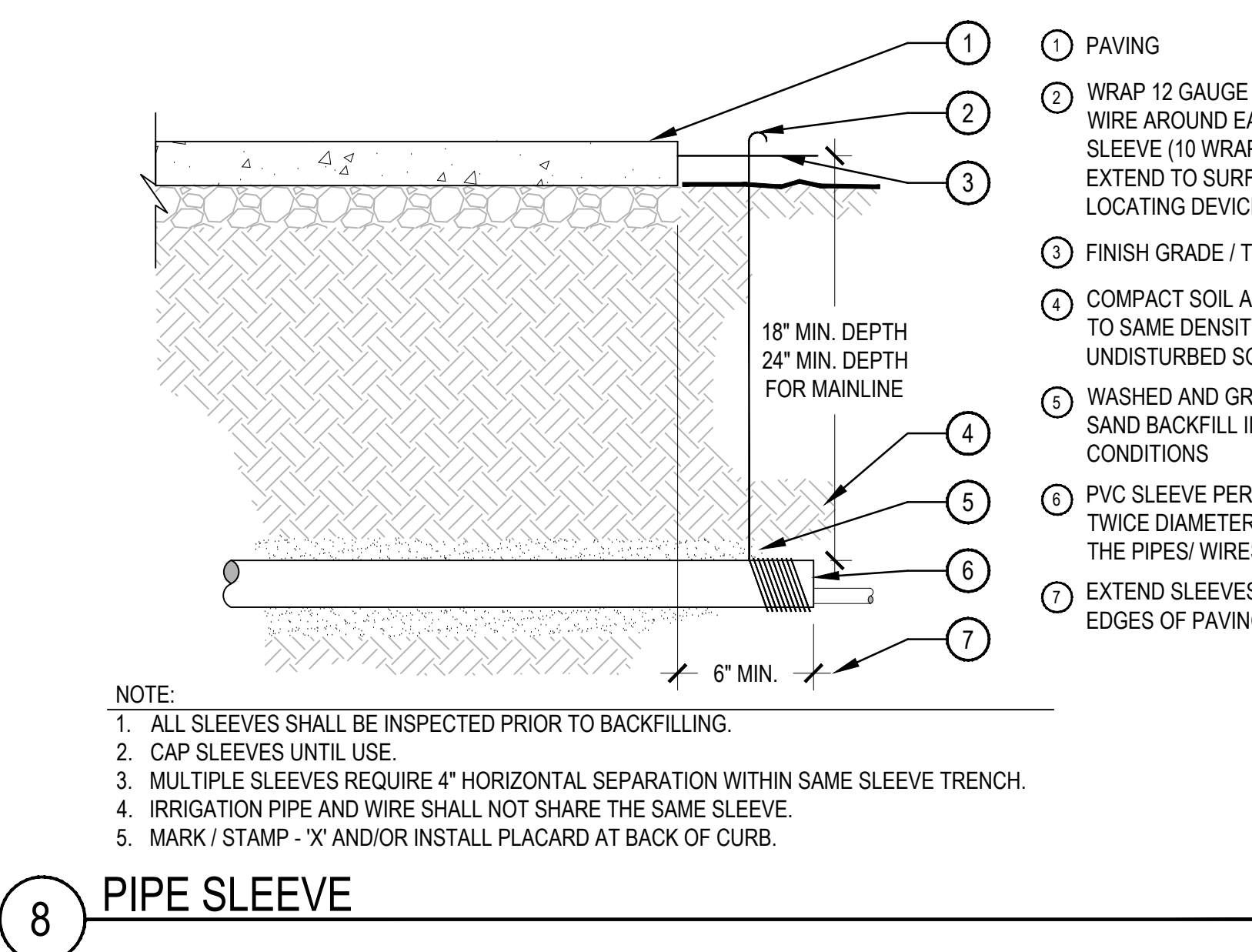
5 DRIP VALVE ASSEMBLY SCALE: NTS



3 IRRIGATION TRENCH SCALE: NTS



6 POP-UP SPRAY HEAD SCALE: NTS



8 PIPE SLEEVE SCALE: NTS

