

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 ONSITE 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.169 OF 495 OF MAP NUMBER 08035C0169G DATED MARCH 16, 2016. NO PORTIONS OF THE PROPERTY ARE LOCATED WITHIN A DESIGNATED 100-YEAR FLOODPLAIN ZONE A/AE.



UNCC
CALL BEFORE
YOU DIG
811
OR

1-800-922-1987

Utility Notification
Center of Colorado
Administrative Office 303-232-1991
16361 Table Mountain Parkway
Golden, Co. 80403

CALL 2 BUSINESS DAYS IN ADVANCE BEFORE YOU DIG,
GRADE OR EXCAVATE FOR THE MARKING OF
UNDERGROUND MEMBER UTILITIES.

PERSONALIZED ENGINEERING SOLUTIONS, LLC ASSUMES NO
RESPONSIBILITY FOR EXISTING UTILITY LOCATIONS
(HORIZONTAL AND VERTICAL). THE EXISTING UTILITIES SHOWN
ON THIS DRAWING HAVE BEEN PLOTTED FROM THE BEST
AVAILABLE INFORMATION. IT IS, HOWEVER, THE
RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY THE
LOCATIONS OF ALL UTILITIES PRIOR TO THE COMMENCEMENT
OF ANY CONSTRUCTION ACTIVITIES.

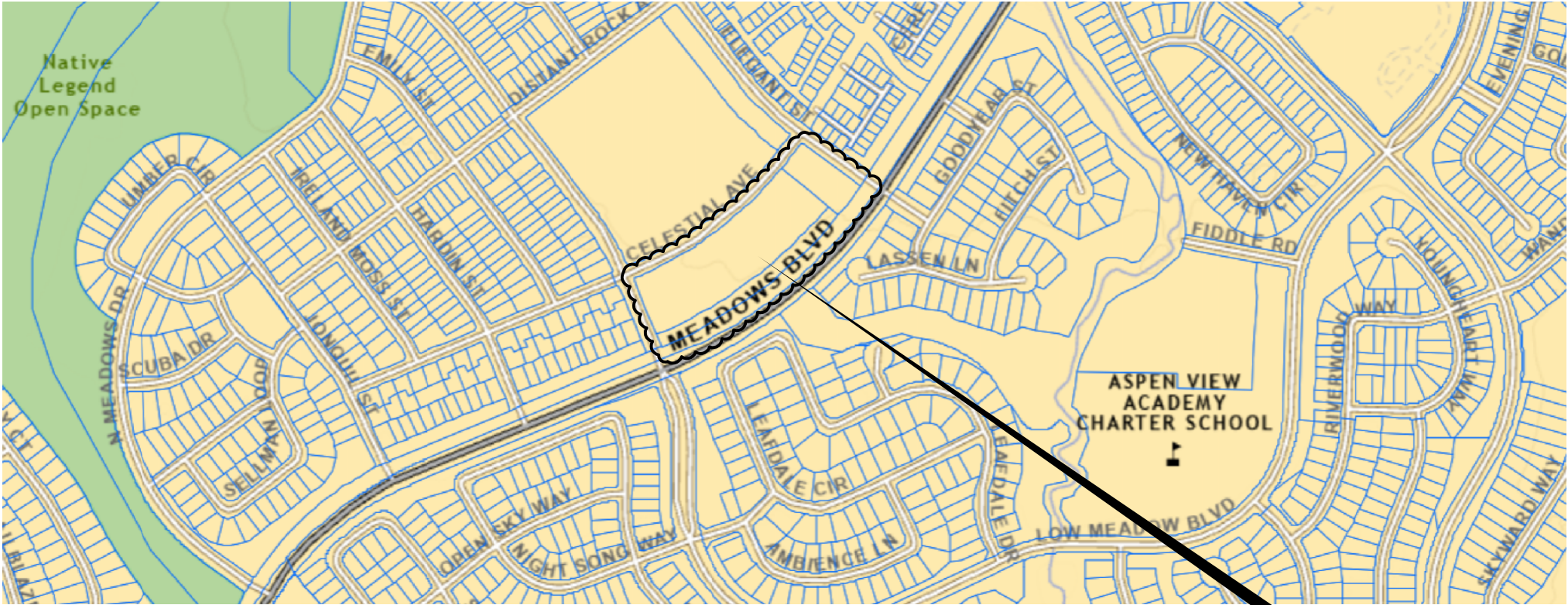
FIELD CHANGE ORDER TABLE:

FCO#	DATE	PURPOSE/DESCRIPTION

CONSTRUCTION DOCUMENTS

LOT 1A, BLOCK 6, THE MEADOWS FILING NO. 20, PHASE 1, AMENDMENT NO. 5

LOCATED IN THE SOUTHEAST QUARTER OF SECTION 33, TOWNSHIP 7 SOUTH, RANGE 67 WEST OF THE 6TH P.M.
TOWN OF CASTLE ROCK, COUNTY OF DOUGLAS, STATE OF COLORADO
TOWN OF CASTLE ROCK PROJECT NO. CD24-0042



VICINITY MAP

N.T.S.

PROJECT
LOCATION

GENERAL NOTES (CONT.)

20. BENCHMARK: NAVD 1988 BASED ON THE DOUGLAS COUNTY CONTROL MONUMENT 2011031. ELEVATION 6089.98 FEET (NAVD 1988).

21. BASIS OF BEARINGS: A LINE BASED ON THE MEADOWS FILING NO. 20, PHASE 1, AMENDMENT NO. 5 PLAT, BEARS N36°11'10"E, A DISTANCE OF 1020.60 FEET, PER SAID PLAT, MONUMENTED BY A FOUND NAIL & WASHER STAMPED 38064 ON THE SOUTHWEST AND, A FOUND #5 REBAR AND YELLOW CAP STAMPED 36567, SHOWN HEREON.

KEY CONTACTS

TOWN OF CASTLE ROCK PUBLIC WORKS DEPT.
4175 CASTLETON CT. CASTLE ROCK, CO 80109
720.733.2462
ROADS@CRGOV.COM

CASTLE ROCK WATER -- STORMWATER
175 KELLOGG CT. CASTLE ROCK, CO 80109
720.733.2235
STORMWATER@CRGOV.COM

BLACK HILLS ENERGY
350 INDIAN ST., STE: 400 GOLDEN, CO 80401
ATTN: RON AUROFF
303.568.3260

COMCAST CABLE SERVICES
6850 S. TUCSON WAY ENGLEWOOD, CO 80112
ATTN: KEVIN SONKA
303.603.5605

I.R.E.A.
P.O. BOX 495 SEDALIA, CO 80135
ATTN: LAND USE DEPARTMENT
303.688.3100

CENTURY LINK
9750 E. COSTILLA AVE. ENGLEWOOD, CO 80112
303.792.1840

OWNER REPRESENTATIVE
THE MEADOWS NEIGHBORHOOD COMPANY
EXECUTIVE DIRECTOR
JILL ALLEN 303.814.3952
JALLEN@MEADOWSLINK.COM

ENGINEER
STEPHEN DOUGLAS, P.E. 720.388.8126
PERSONALIZED ENGINEERING SOLUTIONS, LLC
9249 S. BROADWAY #200-388, HIGHLANDS RANCH CO 80129
SDOUGLAS@PENG SOLUTIONS.COM

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DARRICK JANDA 303.783.2562
RECONSTRUCTION EXPERTS
5310 VIVAN ST. ARVADA CO 80002
DARRICK.JANDA@RECONEXP.COM

SURVEYOR
ROBERT HALL 303.973.9404
GILLIANS LAND CONSULTANTS
P.O. BOX 375, BENNETT CO 80102
RHALL@GILLIANS.LC.COM

LANDSCAPE
MATT WHITEMAN 303.993.4811 X1004
OUTDOOR DESIGN GROUP, INC.
5690 WEBSTER ST. ARVADA CO 80002
MWHITEMAN@ODGDESIGN.COM

POOL CONTRACTOR
CONNOR RILEY 303.323.8524
COUNSILMAN-HUNSAKER
12265 W. BAYAUD AVE. STE. 110, LAKEWOOD CO 80228
CONNORRILEY@CHH20.COM

UTILITY NOTIFICATION
UTILITY NOTIFICATION CENTER OF COLORADO 800.922.1987

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24 TOTAL SHEETS

LEGEND

— — — — —	PROPERTY LINE	— — — — —	LIMITS OF CONSTRUCTION
— — — — —	TOP OF PROPOSED BERM	— — — — —	ASPHALT PATCHBACK LIMITS
— — — — —	EX CONCRETE SIDEWALK	— — — — —	EX WATER VALVE
— — — — —	EX GRAVEL SIDEWALK	— — — — —	EX WATER METER
— — — — —	EX EASEMENT LINEWORK	— — — — —	EX STREET LIGHT
— — — — —	EX REGIONAL STORM SEWER MAINLINE	— — — — —	EX SANITARY SEWER MANHOLE
— — — — —	EX LOCAL STORM SEWER TO REMAIN	— — — — —	EX STORM SEWER MANHOLE
— — — — —	PR STORM SEWER	— — — — —	EX FIRE HYDRANT
— — — — —	EX CURB & GUTTER	— — — — —	EX DRAIN GRATE
— — — — —	EX WATER LINE	— — — — —	EX STORM INLETS
— — — — —	EX SANITARY SEWER LINE	— — — — —	EX CLEANOUT
— — — — —	EX FENCE LINE	— — — — —	EX GAS METER
— — — — —	PROPOSED MAJOR CONTOUR	— — — — —	EX ELECTRICAL METER
— — — — —	PROPOSED MINOR CONTOUR	— — — — —	EX ELECTRICAL BOXES
— — — — —	EXISTING MAJOR CONTOUR	— — — — —	EX SITE TREES (TO REMAIN)
— — — — —	EXISTING MINOR CONTOUR	— — — — —	PR TREES AND SHRUBS
— — — — —	DRAINAGE SWALES	— — — — —	
— — — — —	DRAINAGE FLOW ARROWS	— — — — —	

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.

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.

STEPHEN M. DOUGLAS, P.E.
REGISTERED LICENSED PROFESSIONAL ENGINEER
STATE OF COLORADO No. 41176
FOR AND ON BEHALF OF
PERSONALIZED ENGINEERING SOLUTIONS, LLC
(720)388-8126

TOWN OF CASTLE ROCK APPROVAL
PLANS ARE HEREBY APPROVED FOR ONE YEAR FROM
DATE OF DEVELOPMENT SERVICES APPROVAL
DEVELOPMENT SERVICES
APPROVED BY:
By Kirkpatrick on 02/03/2025
APPROVED-CD24-0042 PLANS.pdf
Record Document on File

DEVELOPMENT SERVICES

DATE	REVISION DESCRIPTION
JAN 21 2024	ADDRESSING TOWNS 1ST REVIEW COMMENTS
DEC 13 2024	INITIAL CD SUBMITTAL



Drawing Name 01-T1_CD.dwg	Job Number MNC TAFT HOUSE	Prepared For MNC	Designer SMD	Drafter SN	Checked SMD
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PES Personalized Engineering Solutions, LLC
9249 S. Broadway #200-388
Highlands Ranch, CO 80129 720.388.8126
www.pengsolutions.com
Construction Management Civil Engineering Land Planning

THE MEADOWS FILING 20, PHASE 1
CONSTRUCTION DOCUMENTS
TITLE SHEET

Sheet T1	1 of 24
Date DECEMBER 2024	

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 BREAKAWAYASSEMBLIES 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 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-UNITED 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 ENDS 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 DETAILW-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 MEGALUG 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 C600-5.2; 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 RESPONSIBILITYOF 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 ASSEMBLYSHALL 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 ASFOLLOWS:

- 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 THECONTRACTOR.
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 FINISHSURFACE.
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 (GESC) 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 THESITE.
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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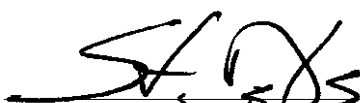
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CALL 2 BUSINESS DAYS IN ADVANCE BEFORE YOU DIG,
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PERSONALIZED ENGINEERING SOLUTIONS, LLC ASSUMES NO RESPONSIBILITY FOR EXISTING UTILITY LOCATIONS (HORIZONTAL AND VERTICAL). THE EXISTING UTILITIES SHOWN ON THIS DRAWING HAVE BEEN PLOTTED FROM THE BEST AVAILABLE INFORMATION. IT IS, HOWEVER, THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY THE LOCATIONS OF ALL UTILITIES PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES.

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.

 02-03-2025

STEPHEN M. DOUGLAS, P.E.
REGISTERED LICENSED PROFESSIONAL ENGINEER
STATE OF COLORADO No. 41176
FOR AND ON BEHALF OF
PERSONALIZED ENGINEERING SOLUTIONS, LLC
(720)388-8126

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

APPROVED BY:  **APPROVED**
By Kirkpatrick
on 02/03/2025
APPROVED-CD24-0042 PLANS.pdf
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DEVELOPMENT SERVICES

DATE	REVISION DESCRIPTION
JAN 21 2024	ADDRESSING TOWNS 1ST REVIEW COMMENTS
DEC 13 2024	INITIAL CD SUBMITTAL



Drawing Name 02-GN1_CD.dwg	Job Number MNC TAFT HOUSE	Prepared For MNC	Designer SMD	Drafter SN	Checked SMD
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PES Personalized Engineering Solutions
Personalized Engineering Solutions, LLC
9249 S. Broadway #200-388
Highlands Ranch, CO 80129 720.388.8126
www.pengsolutions.com
Construction Management Civil Engineering Land Planning

THE MEADOWS FILING 20, PHASE 1

CONSTRUCTION DOCUMENTS

GENERAL NOTES

Sheet
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2 of 24

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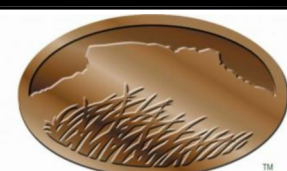
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LEGEND

- LIMITS OF CONSTRUCTION
- PROPERTY LINE
- 6210--- EX MAJOR CONTOURS
- 6208--- EX MINOR CONTOURS
- EX EASEMENT LINEWORK
- EX REGIONAL STORM SEWER MAINLINE
- EX LOCAL STORM SEWER TO REMAIN
- EX LOCAL STORM SEWER TO BE REMOVED
- EX ROAD CENTERLINE
- W---W EX WATER LINE
- S---S EX SANITARY SEWER LINE
- LIMITS OF EX POOL DECK TO BE REMOVED



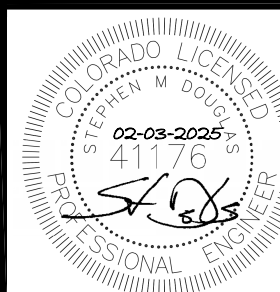
EX TREES AND SHRUBS TO BE REMOVED



THE MEADOWS

Drawing Name
03-DM1_CD.dwg
Job Number
MNC TAFT HOUSE
Prepared For
MNC

Digitally signed by Stephen Douglas
DN: cn=Stephen Douglas, o=Personalized Engineering Solutions, LLC, ou=Owner, email=Stephen.Douglas@pengsolutions.com, c=US
02-03-2025 10:42:59-0700
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THE MEADOWS FILING 20, PHASE 1 CONSTRUCTION DOCUMENTS DEMOLITION PLAN

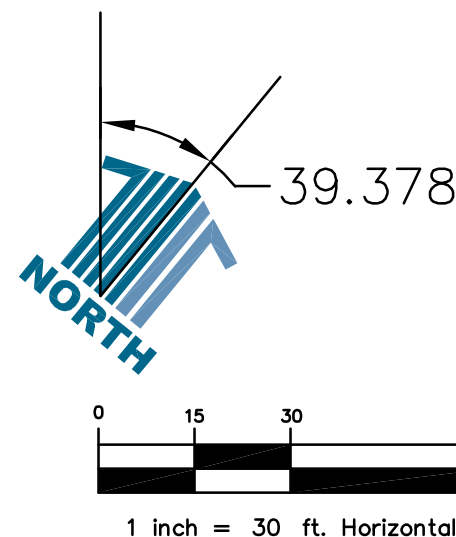
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Stephen M. Douglas 02-03-2025
STEPHEN M. DOUGLAS, P.E.
REGISTERED LICENSED PROFESSIONAL ENGINEER
STATE OF COLORADO No. 41176
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APPROVED BY: *J. Kirkpatrick* 02/03/2025
By J. Kirkpatrick on 02/03/2025
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DEVELOPMENT SERVICES



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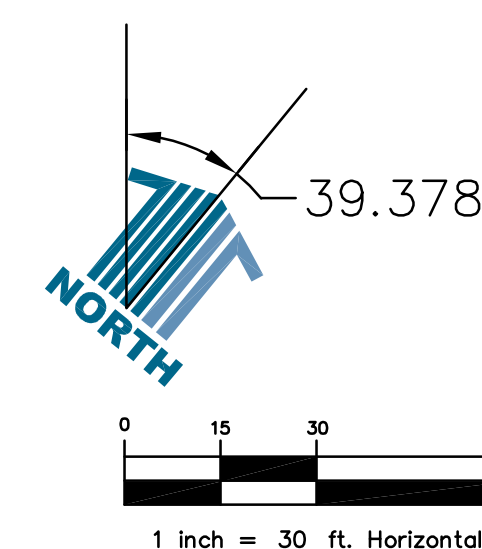
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- LEGEND**
- PROPERTY LINE
 - TOP OF PROPOSED BERM
 - EX CONCRETE SIDEWALK
 - EX GRAVEL SIDEWALK
 - EX EASEMENT LINEWORK
 - EX REGIONAL STORM SEWER MAINLINE
 - EX LOCAL STORM SEWER TO REMAIN
 - PR STORM SEWER
 - EX CURB & GUTTER
 - EX WATER LINE
 - EX SANITARY SEWER LINE
 - EX FENCE LINE

- LIMITS OF CONSTRUCTION
- EX WATER VALVE
- EX WATER METER
- EX STREET LIGHT
- EX SANITARY SEWER MANHOLE
- EX STORM SEWER MANHOLE
- EX FIRE HYDRANT
- EX DRAIN GRATE
- EX STORM INLETS
- EX CLEANOUT
- EX GAS METER
- EX ELECTRICAL METER
- EX ELECTRICAL BOXES
- EX SITE TREES (TO REMAIN)
- PR TREES AND SHRUBS

- KEYNOTE LEGEND**
- PROPOSED PEDESTRIAN CURB
 - TOP OF PROPOSED BERM
 - PROPOSED 6' CROSS PAN
 - EXISTING WATER METER
 - RETAINING WALL EXTENSION
 - PROPOSED TYPE C INLET
 - PROPOSED 12" PVC DRAIN PIPE WITH 12" F.E.S.
 - PROPOSED TYPE L RIPRAP RUNDOWN
 - PROPOSED 15" NYLOPLAST DRAIN BASIN
 - PROPOSED 12" PVC STORM PIPE
 - PROPOSED 4" PVC STORM PIPE
 - EXISTING STORM PIPE (TO REMAIN) (TYP.)
 - EXISTING DRAIN BASIN (TO REMAIN) (TYP.)
 - EXISTING WATER LINE (LOCATE AND PROTECT)
 - EXISTING LIGHT POLE (TO REMAIN) (TYP.)
 - PROPOSED POOL - DECK AND INFRASTRUCTURE
 - PROPOSED 6" DRAIN BASIN
 - EXISTING TREES (TO REMAIN) (TYP.)
 - PROPOSED TREES (RE: LS ARCH)
 - PROPOSED SHRUBS (RE: LS ARCH)
 - EXISTING IRRIGATION LINE & 1" IRRIGATION METER



PROFESSIONAL ENGINEER CERTIFICATION

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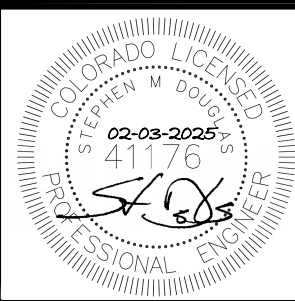
Signature 02-03-2025
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FOR AND ON BEHALF OF
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DEC 13 2024	INITIAL CD SUBMITTAL



Drawing Name 04-SP1_CD.dwg	Job Number MNC TAFT HOUSE	Prepared For MNC
Designer SMD	Drafter SN	Checked SMD



PES Personalized Engineering Solutions
Personalized Engineering Solutions, LLC
9249 S. Broadway #200-388
Highlands Ranch, CO 80129 720.388.8126
www.pengsolutions.com
Construction Management Civil Engineering Land Planning

**THE MEADOWS FILING 20, PHASE 1
CONSTRUCTION DOCUMENTS
OVERALL SITE & UTILITY PLAN**

PATH: P:\MNC TAFT HOUSE\CADD\CIVIL\CD\05-GR1_CD.DWG
PLOT BY: S. DOUGLAS PLOT DATE: 1/7/2025 11:34 AM
XREFS: 10 BASE; 10 EPN; 10 EUT; 10 LBASE; 10 PPN; 10 PUT



UNCC
CALL BEFORE
YOU DIG
811
OR

1-800-922-1987

Utility Notification
Center of Colorado
Administrative Office 303-232-1991
16361 Table Mountain Parkway
Golden, Co. 80403

CALL 2 BUSINESS DAYS IN ADVANCE BEFORE YOU DIG,
GRADE OR EXCAVATE FOR THE MARKING OF
UNDERGROUND MEMBER UTILITIES.

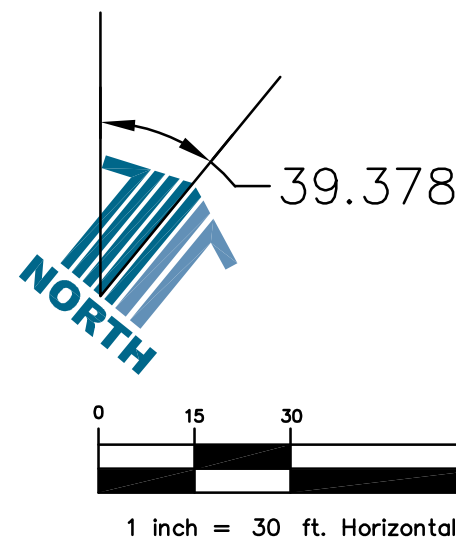
PERSONALIZED ENGINEERING SOLUTIONS, LLC ASSUMES NO
RESPONSIBILITY FOR EXISTING UTILITY LOCATIONS
(HORIZONTAL AND VERTICAL). THE EXISTING UTILITIES SHOWN
ON THIS DRAWING HAVE BEEN PLOTTED FROM THE BEST
AVAILABLE INFORMATION. IT IS, HOWEVER, THE
RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY THE
LOCATIONS OF ALL UTILITIES PRIOR TO THE COMMENCEMENT
OF ANY CONSTRUCTION ACTIVITIES.

- — — — — PROPERTY LINE
- - - - - LIMITS OF CONSTRUCTION
- W - W - EX WATER LINE
— 5300 — PROPOSED MAJOR CONTOUR
- 5300 - PROPOSED MINOR CONTOUR
- - - 5300 - EXISTING MAJOR CONTOUR
- - - 5300 - EXISTING MINOR CONTOUR
[] EX CONCRETE SIDEWALK
[] TOP OF BERM
— — — — — DRAINAGE SWALES
— — — — — DRAINAGE FLOW ARROWS

LEGEND

- [] EX GRAVEL SIDEWALK
- - - - - EX EASEMENT LINEWORK
[] EX REGIONAL STORM SEWER MAINLINE
- - - - - EX LOCAL STORM SEWER TO REMAIN
[] PR STORM SEWER
[] EX CURB & GUTTER
- W - W - EX WATER LINE
- - - S - S - EX SANITARY SEWER LINE
[] EX FENCE LINE

- [] EX WATER VALVE
[] EX WATER METER
[] EX STREET LIGHT
[] EX SANITARY SEWER MANHOLE
[] EX STORM SEWER MANHOLE
[] EX FIRE HYDRANT
[] EX DRAIN GRATE
[] EX STORM INLETS
[] EX CLEANOUT
[] EX GAS METER
[] EX ELECTRICAL METER
[] EX ELECTRICAL BOXES



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.

Stephen M. Douglas 02-03-2025
STEPHEN M. DOUGLAS, P.E.
REGISTERED LICENSED PROFESSIONAL ENGINEER
STATE OF COLORADO No. 41176
FOR AND ON BEHALF OF
PERSONALIZED ENGINEERING SOLUTIONS, LLC
(720)388-8126

TOWN OF CASTLE ROCK APPROVAL
PLANS ARE HEREBY APPROVED FOR ONE YEAR FROM
DATE OF DEVELOPMENT SERVICES APPROVAL
DEVELOPMENT SERVICES
APPROVED BY: [Signature] APPROVED
By Kirkpatrick on 02/03/2025
APPROVED-CD24-0042 PLANS.pdf
Record Document on File
DEVELOPMENT SERVICES



Drawing Name	05-GR1_CD.dwg
Job Number	MNC TAFT HOUSE
Prepared For	MNC
Designer	SMD
Drafter	SN
Checked	SMD

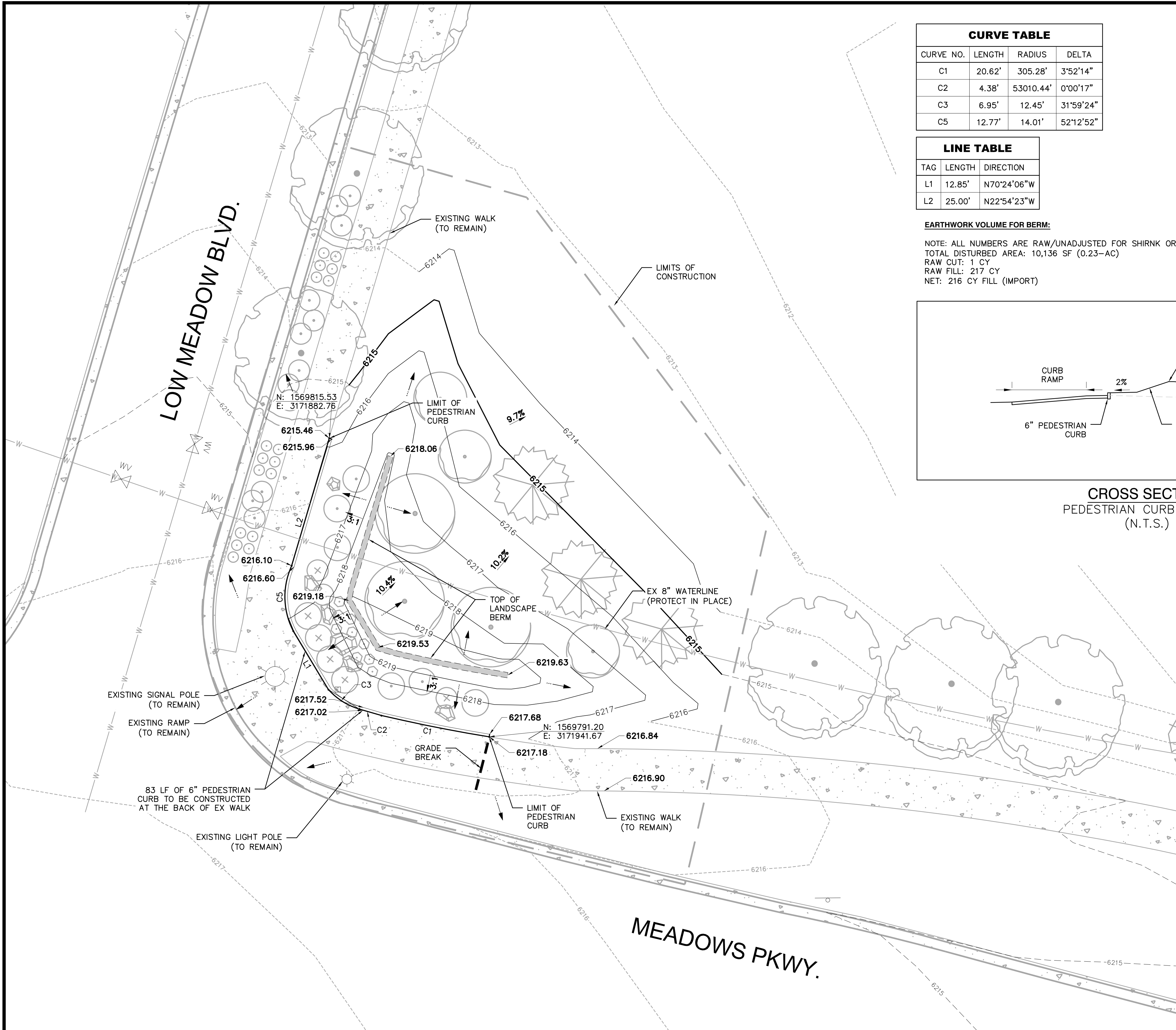


PES Personalized Engineering Solutions, LLC
9249 S. Broadway #200-388
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THE MEADOWS FILING 20, PHASE 1 CONSTRUCTION DOCUMENTS OVERALL GRADING PLAN

Sheet
GR1
of
24
Date
DECEMBER 2024

PATH: P:\MNC TAFT HOUSE\CADD\CIVIL\CD\06-GR2_CD.DWG
PLOT BY: S. DOUGLAS
PLOT DATE: 1/17/2025 11:33 AM
XREFS: 10 EPN;10 PPN;10 EUT;10 LBASE

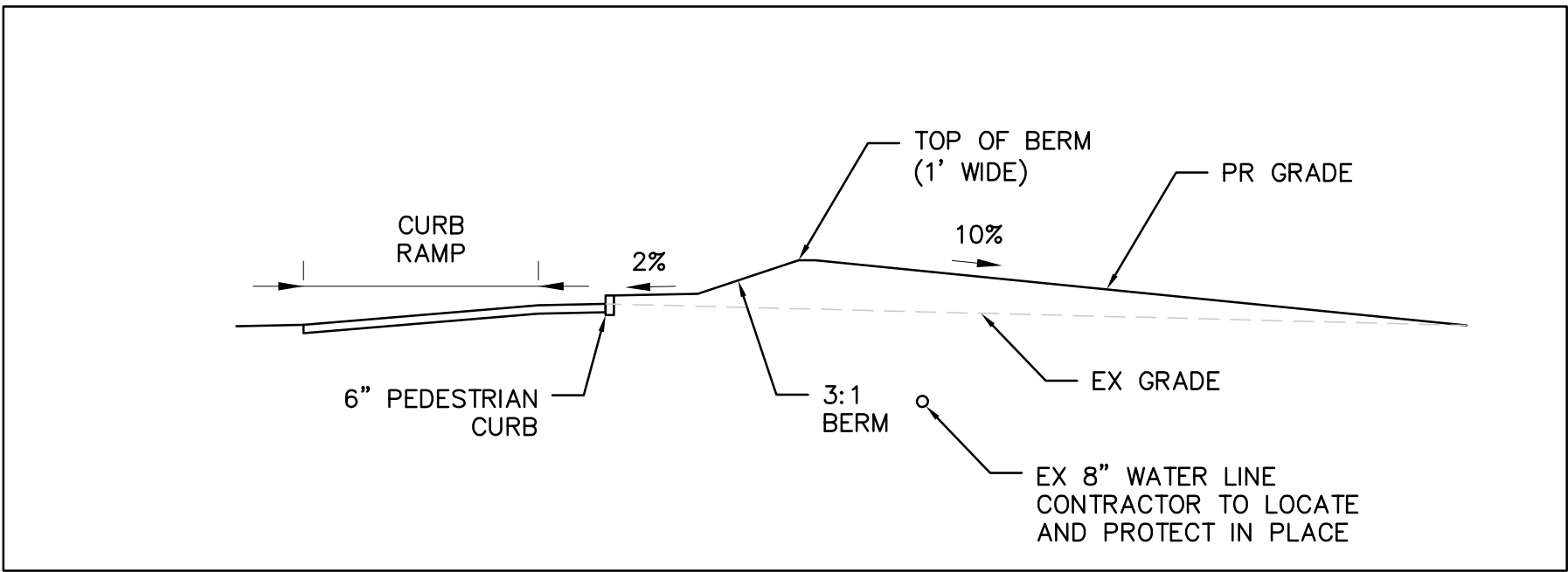


CURVE TABLE			
CURVE NO.	LENGTH	RADIUS	DELTA
C1	20.62'	305.28'	3°52'14"
C2	4.38'	53010.44'	0°00'17"
C3	6.95'	12.45'	31°59'24"
C5	12.77'	14.01'	52°12'52"

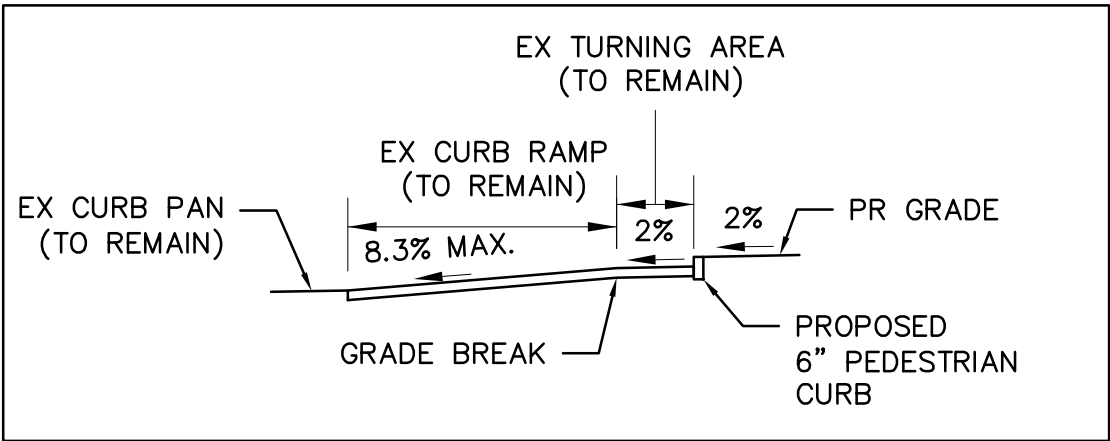
LINE TABLE		
TAG	LENGTH	DIRECTION
L1	12.85'	N70°24'06"W
L2	25.00'	N22°54'23"W

EARTHWORK VOLUME FOR BERM:

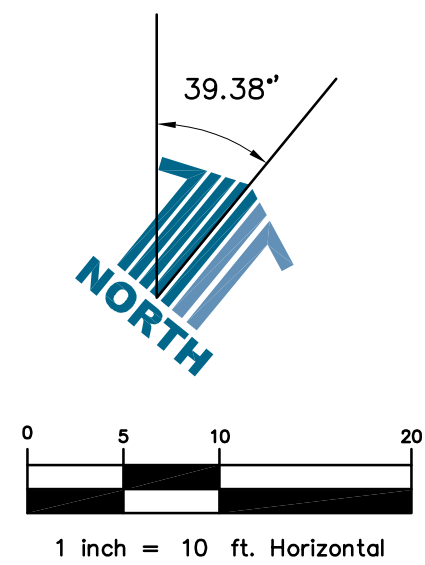
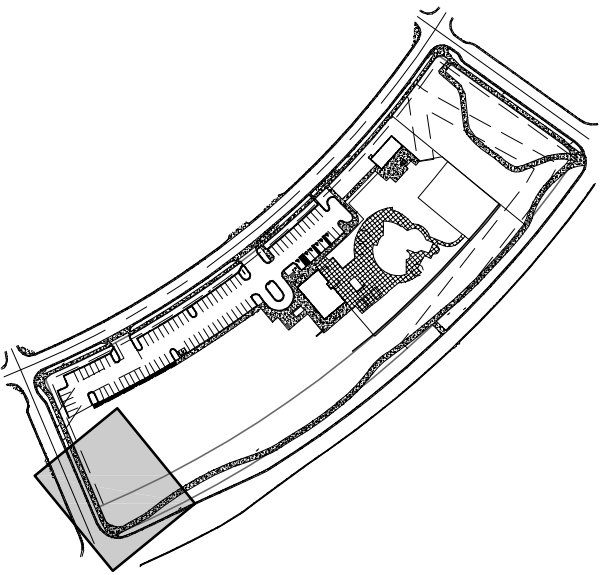
NOTE: ALL NUMBERS ARE RAW/UNADJUSTED FOR SHIRNK OR SWELL FACTORS
TOTAL DISTURBED AREA: 10,136 SF (0.23-AC)
RAW CUT: 1 CY
RAW FILL: 217 CY
NET: 216 CY FILL (IMPORT)



CROSS SECTION
PEDESTRIAN CURB & BERM
(N.T.S.)



CURB RAMP MODIFICATION
PEDESTRIAN CURB
(N.T.S.)



KEYMAP
N.T.S.

- LEGEND**
- LIMITS OF CONSTRUCTION
 - W W EX WATER LINE
 - 5300— PROPOSED MAJOR CONTOUR
 - 5300 PROPOSED MINOR CONTOUR
 - - -5300- - - EXISTING MAJOR CONTOUR
 - - -5300- - - EXISTING MINOR CONTOUR
 - [Pattern] EX CONCRETE SIDEWALK
 - [Pattern] TOP OF BERM
 - [Pattern] EX CURB & GUTTER

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.

Signature 02-03-2025
STEPHEN M. DOUGLAS, P.E.
REGISTERED LICENSED PROFESSIONAL ENGINEER
STATE OF COLORADO No. 41176
FOR AND ON BEHALF OF
PERSONALIZED ENGINEERING SOLUTIONS, LLC
(720)388-8126

TOWN OF CASTLE ROCK APPROVAL
PLANS ARE HEREBY APPROVED FOR ONE YEAR FROM
DATE OF DEVELOPMENT SERVICES APPROVAL
DEVELOPMENT SERVICES
APPROVED BY: *Signature* **APPROVED**
By Jkirkpatrick
on 02/03/2025
APPROVED-CD24-0042 PLANS.pdf
Record Document on File

DEVELOPMENT SERVICES

DATE	REVISION DESCRIPTION
JAN 21 2024	ADDRESSING TOWNS 1ST REVIEW COMMENTS
DEC 13 2024	INITIAL CD SUBMITTAL



Drawing Name 06-GR2_CD.dwg	Digitally signed by Stephen Douglas DN: cn=S. Douglas, o=Personalized Engineering Solutions, LLC, ou=Owner, email=S.Douglas@pengsolutions.com
Job Number MNC TAFT HOUSE	Location: Office Reason: I have reviewed this document Date: 02/02/2025 10:43:36-0700
Prepared For MNC	Designer SMD
	Drafter SN
	Checked SMD



PES Personalized Engineering Solutions
Personalized Engineering Solutions, LLC
9249 S. Broadway #200-388
Highlands Ranch, CO 80129 720.388.8126
www.pengsolutions.com
Construction Management Civil Engineering Land Planning

THE MEADOWS FILING 20, PHASE 1
CONSTRUCTION DOCUMENTS
DETAILED GRADING PLAN

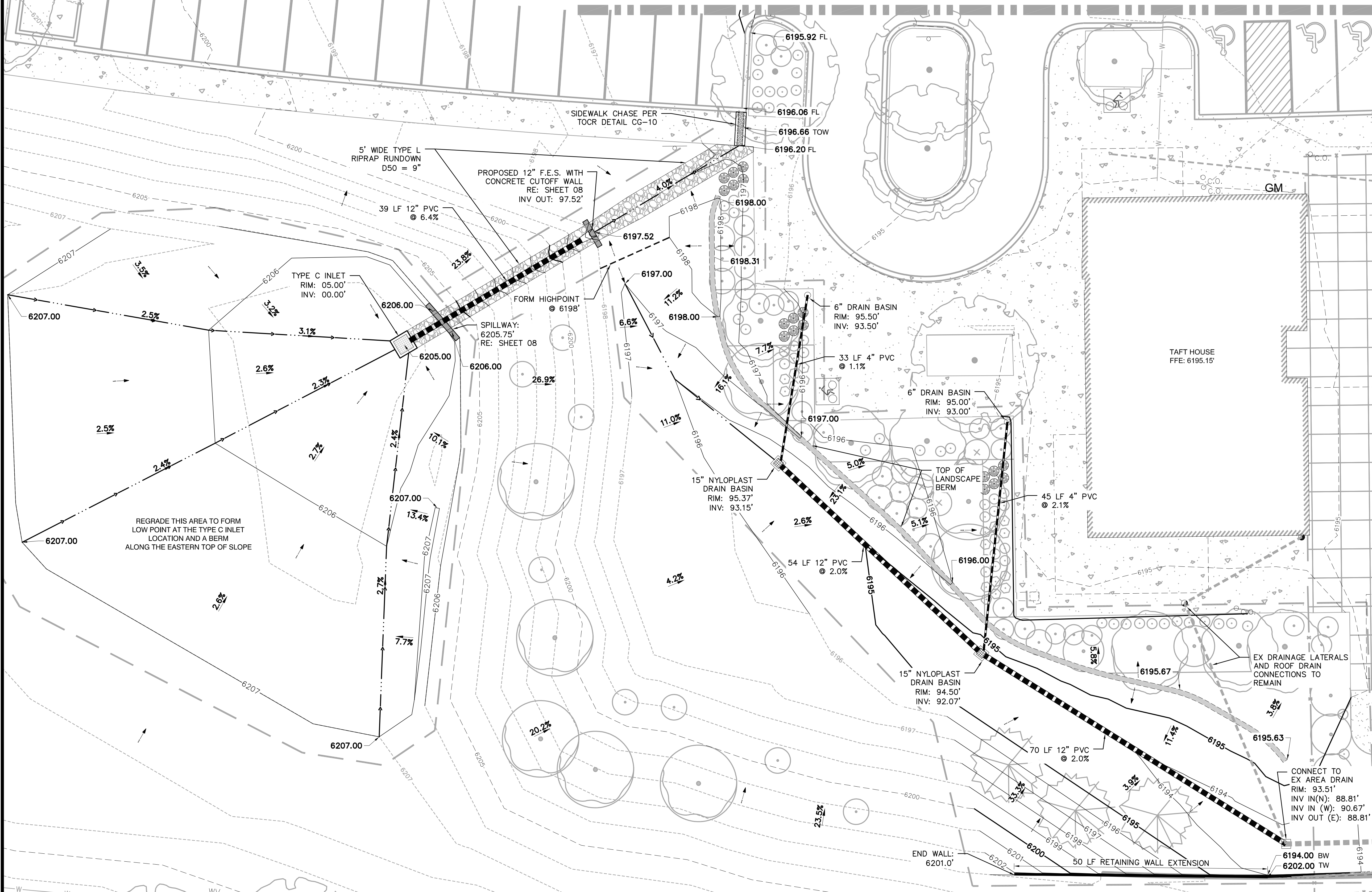
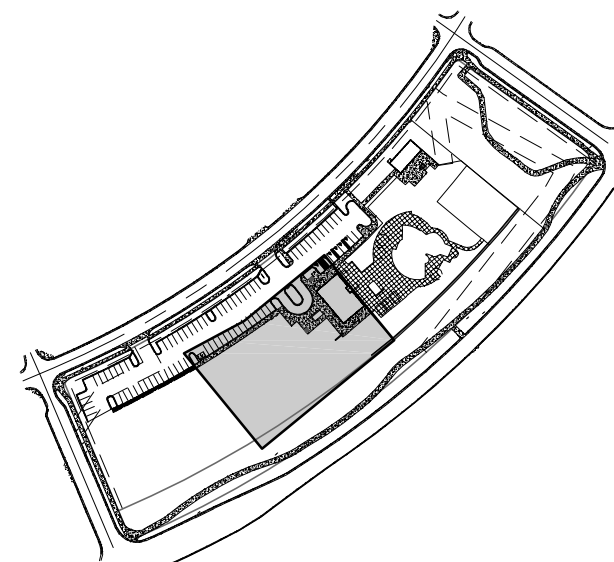
EARTHWORK VOLUME FOR TOP OF HILL GRADING AREA:

NOTE: ALL NUMBERS ARE RAW/UNADJUSTED FOR SHIRNK OR SWELL FACTORS
TOTAL DISTURBED AREA: 8,240 SF (0.19-AC)
RAW CUT: 31 CY
RAW FILL: 18 CY
NET: 13 CY CUT (EXPORT)

EARTHWORK VOLUME FOR TAFT HOUSE GRADING AREA:

NOTE: ALL NUMBERS ARE RAW/UNADJUSTED FOR SHIRNK OR SWELL FACTORS
TOTAL DISTURBED AREA: 10,2300 SF (0.23-AC)
RAW CUT: 137 CY
RAW FILL: 101 CY
NET: 56 CY CUT (EXPORT)

MATCHLINE SHEET 8



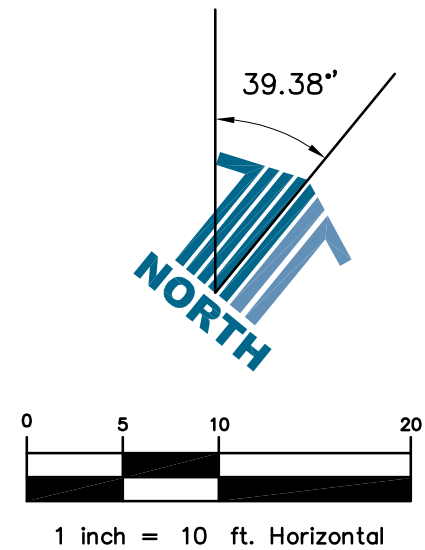
KEYMAP
N.T.S.

LEGEND

- LIMITS OF CONSTRUCTION
- EX WATER LINE
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- EX CONCRETE SIDEWALK
- TOP OF BERM
- DRAINAGE SWALES
- DRAINAGE FLOW ARROWS

GRADING NOTE:

- 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.



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.

Stephen M. Douglas 02-03-2025
STEPHEN M. DOUGLAS, P.E.
REGISTERED LICENSED PROFESSIONAL ENGINEER
STATE OF COLORADO No. 41176
FOR AND ON BEHALF OF
PERSONALIZED ENGINEERING SOLUTIONS, LLC
(720)388-8126

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

APPROVED BY: **APPROVED**
By Jkirkpatrick on 02/03/2025
APPROVED-CD24-0042 PLANS.pdf
Record Document on File

DEVELOPMENT SERVICES

PATH: P:\MNC TAFT HOUSE\CADD\CIVIL\CD\07-GR3_CD.DWG
PLOT BY: S. DOUGLAS PLOT DATE: 1/17/2025 11:32 AM
XREFS: 10 EPN;10 PPN;10 PUT;10 LBSASE

DATE	REVISION DESCRIPTION
JAN 21 2024	ADDRESSING TOWNS 1ST REVIEW COMMENTS
DEC 13 2024	INITIAL CD SUBMITTAL



Drawing Name 07-GR3_CD.dwg	Job Number MNC TAFT HOUSE	Prepared For MNC
Designer SMD	Drafter SN	Checked SMD



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9249 S. Broadway #200-388
Highlands Ranch, CO 80129 720.388.8126
www.pengsolutions.com
Construction Management Civil Engineering Land Planning

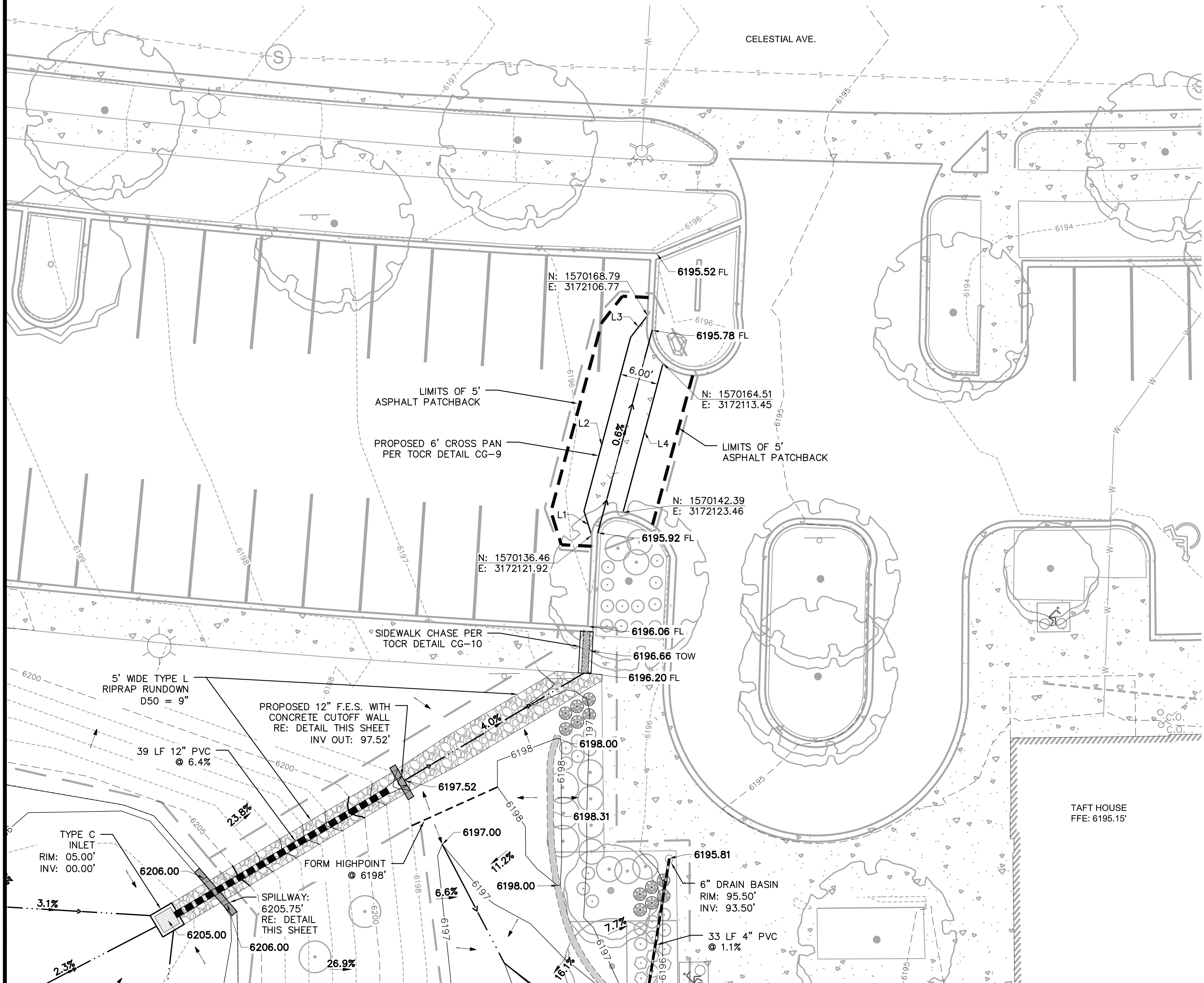
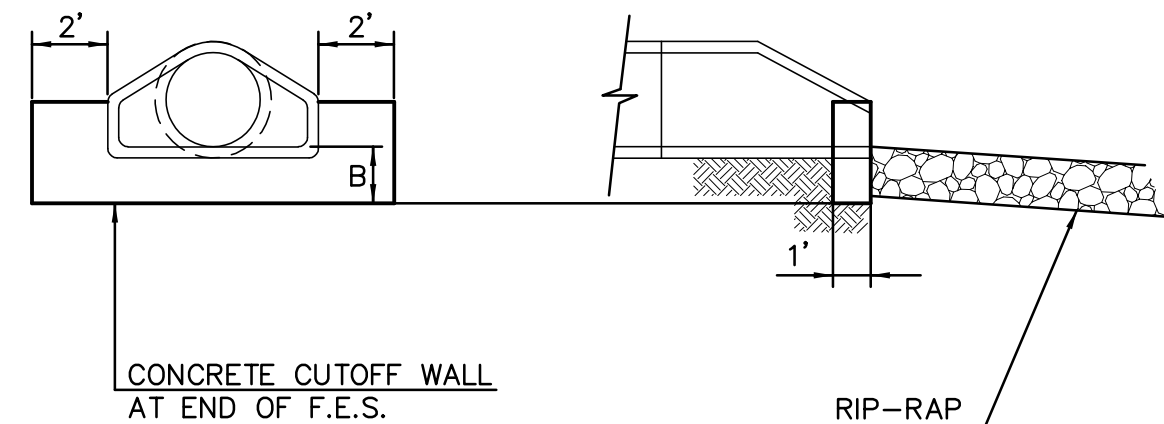
THE MEADOWS FILING 20, PHASE 1

CONSTRUCTION DOCUMENTS

DETAILED GRADING PLAN

Sheet
GR3
of
24
Date
DECEMBER 2024

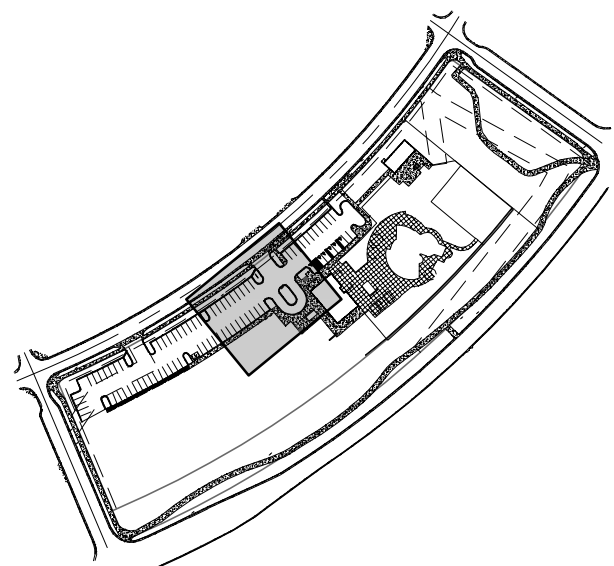
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PLOT BY: S. DOUGLAS PLOT DATE: 1/17/2025 11:31 AM
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NOTE
1. SEE CDOT M-601-11 TYPE "S" SADDLE HEADWALLS FOR PIPE CULVERTS FOR REBAR AND CONCRETE SPECIFICATIONS.
2. INCLUDE JOINT RESTRAINTS PER M-603-10.

CUT-OFF WALL DEPTHS	
	B (FT.)
12" PVC	18"

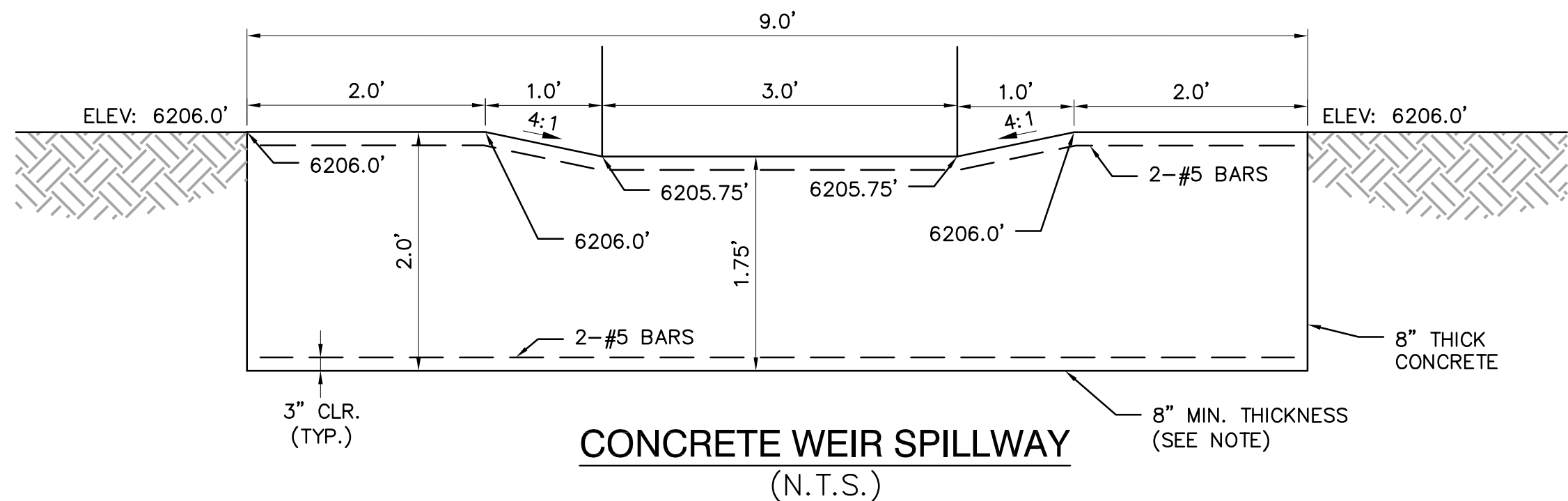
CONCRETE CUTOFF WALL
N.T.S.



KEYMAP
N.T.S.

LEGEND

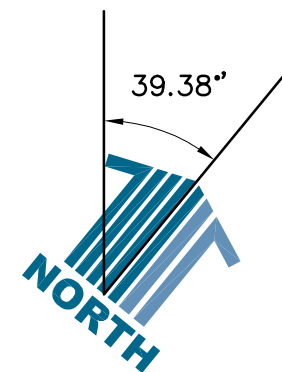
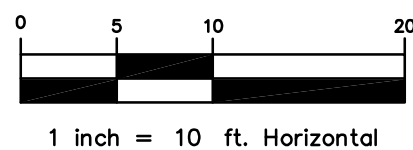
- LIMITS OF CONSTRUCTION
- W — EX WATER LINE
- 5300 — PROPOSED MAJOR CONTOUR
- 5300 — PROPOSED MINOR CONTOUR
- - - 5300 - - - EXISTING MAJOR CONTOUR
- - - 5300 - - - EXISTING MINOR CONTOUR
- - - ASPHALT PATCHBACK LIMITS
- EX CONCRETE SIDEWALK
- TOP OF BERM
- DRAINAGE SWALES
- DRAINAGE FLOW ARROWS



NOTE:
TRENCH FOR SPILLWAY STRUCTURE USING NATIVE GROUND AS FORM WORK. CONSTRUCT SPILLWAY 8" MINIMUM THICKNESS. UPON COMPLETION OF TRENCHING, PLACE TEMPERATURE STEEL AND CONCRETE IMMEDIATELY.

LINE TABLE

TAG	LENGTH	DIRECTION
L1	4.01'	N56°50'03"W
L2	28.34'	N24°20'42"W
L3	4.32'	N01°30'56"W
L4	24.28'	N24°20'42"W



PROFESSIONAL ENGINEER CERTIFICATION

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Stephen M. Douglas 02-03-2025
STEPHEN M. DOUGLAS, P.E.
REGISTERED LICENSED PROFESSIONAL ENGINEER
STATE OF COLORADO No. 41176
FOR AND ON BEHALF OF
PERSONALIZED ENGINEERING SOLUTIONS, LLC
(720)388-8126

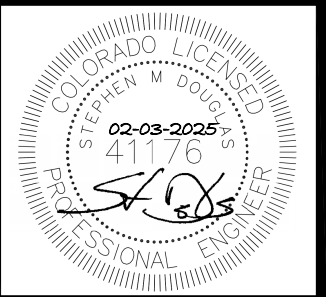
TOWN OF CASTLE ROCK APPROVAL
PLANS ARE HEREBY APPROVED FOR ONE YEAR FROM
DATE OF DEVELOPMENT SERVICES APPROVAL

APPROVED BY:  **APPROVED**
By Jkirkpatrick
on 02/03/2025
APPROVED-CD24-0042 PLANS.pdf
Record Document on File

DEVELOPMENT SERVICES



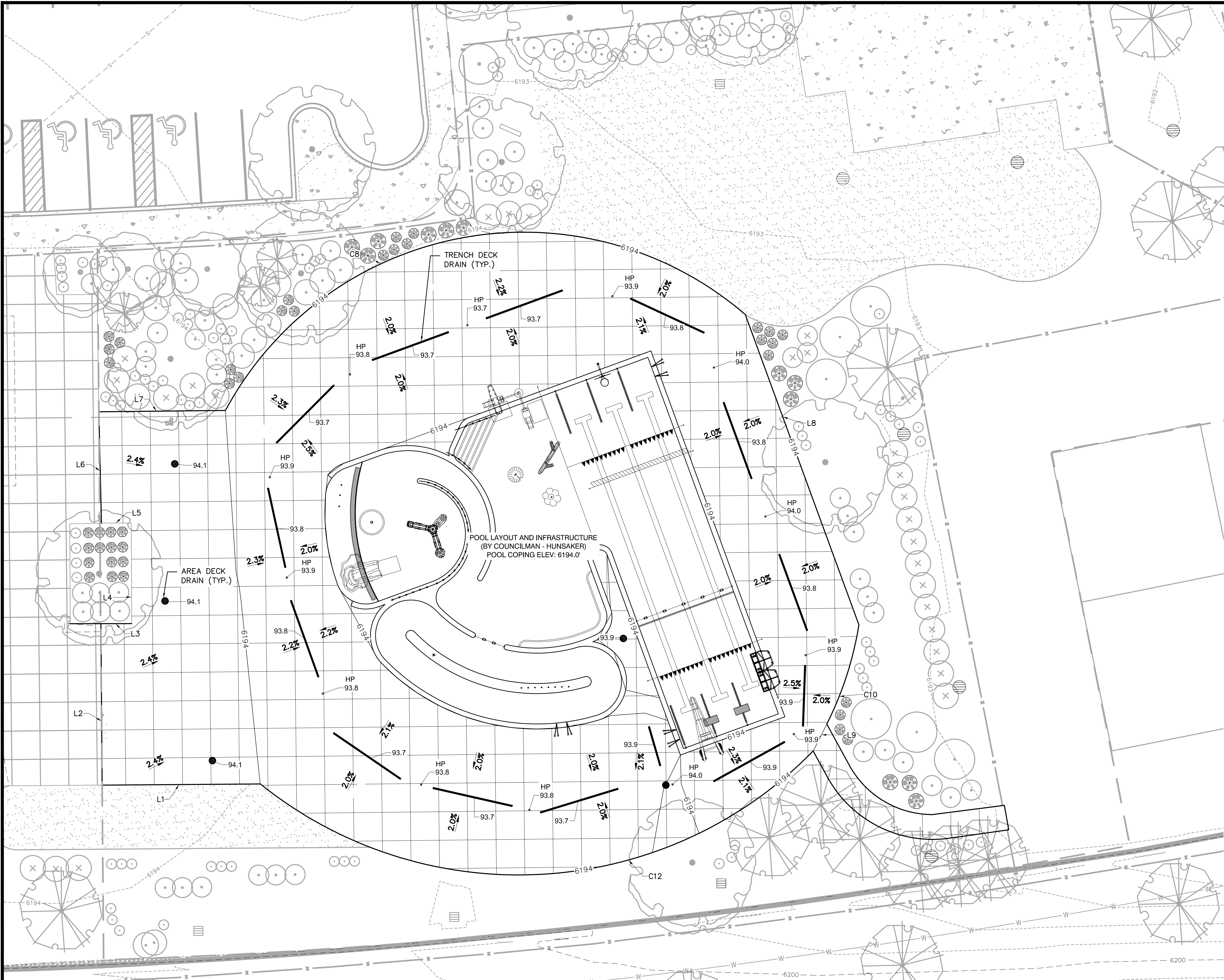
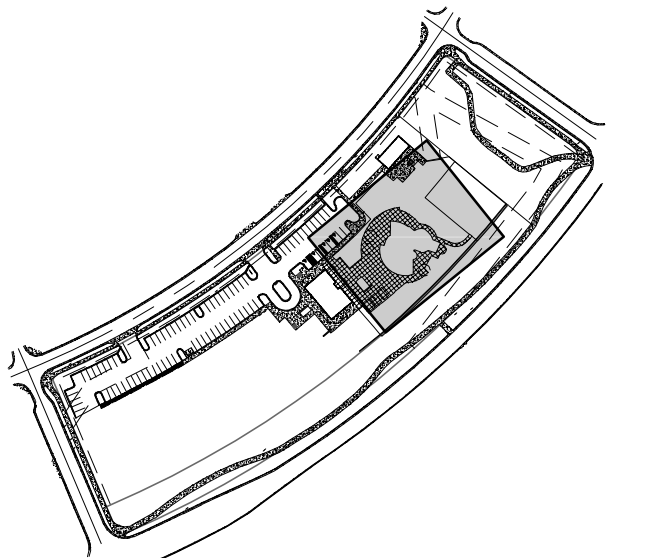
Drawing Name 08-GR4_CD.dwg	Designer SMD	Drafter SN	Checked SMD
Job Number MNC TAFT HOUSE	Digitally signed by Stephen Douglas DN: cn=Stephen Douglas, o=Personalized Engineering Solutions, LLC, ou=Owner, email=Stephen.Douglas@pengsolutions.com, c=US Date: 2025.02.03 10:44:03 -0700		
Prepared For MNC	Colorado Licensed Professional Engineer 02-03-2025 41176 STEPHEN M. DOUGLAS		



PES Personalized Engineering Solutions
Personalized Engineering Solutions, LLC
9249 S. Broadway #200-388
Highlands Ranch, CO 80129 720.388.8126
www.pengsolutions.com
Construction Management Civil Engineering Land Planning

THE MEADOWS FILING 20, PHASE 1
CONSTRUCTION DOCUMENTS
DETAILED GRADING PLAN

PATH: P:\MNC TAFT HOUSE\CADD\CIVIL\CD\09-GR5_CD.DWG
PLOTTER: S. DOUGLAS
PLOT DATE: 1/17/2025 11:30 AM
XREFS: 10 EPN;10 PUT;10 EUT;10 LBASE;10 PPN



KEYMAP
N.T.S.

LEGEND

- LIMITS OF CONSTRUCTION
- W — EX WATER LINE
- 5300 — PROPOSED MAJOR CONTOUR
- 5300 — PROPOSED MINOR CONTOUR
- - - 5300 - - - EXISTING MAJOR CONTOUR
- - - 5300 - - - EXISTING MINOR CONTOUR
- [Pattern] EX CONCRETE SIDEWALK
- [Line] PR POOL DECK TRENCH DRAIN
- [Grid] EX POOL DECK (TO REMAIN)
- [Grid] PR POOL DECK

LINE TABLE

TAG	LENGTH	DIRECTION
L1	31.26'	S50°11'27"W
L2	31.93'	N39°48'33"W
L3	6.08'	N50°29'35"E
L4	19.90'	N39°28'58"W
L5	5.94'	S50°24'30"W
L6	22.02'	N40°43'14"W
L7	25.03'	N50°00'29"E
L8	65.38'	S59°29'02"E
L9	5.98'	S12°34'26"E

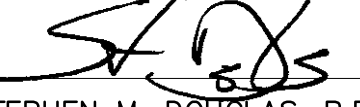
CURVE TABLE

CURVE NO.	LENGTH	RADIUS	DELTA
C8	119.97'	67.03'	102°32'29"
C10	20.69'	67.03'	17°41'06"
C12	120.19'	81.51'	84°29'17"

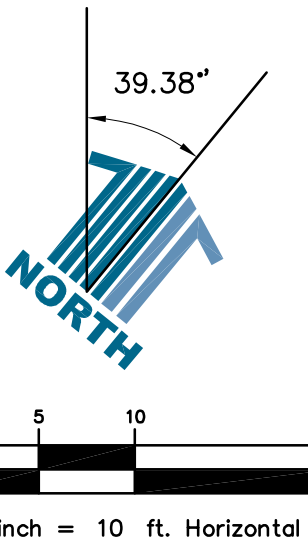
NOTE:
ALL SLOPES ON POOL DECK SHALL BE 1/4" PER FOOT MIN., AND 1/2" PER FOOT MAX. PER TRI-COUNTY HEALTH REQUIREMENTS.

PROFESSIONAL ENGINEER CERTIFICATION

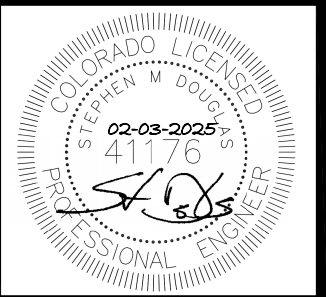
I HEREBY AFFIRM THAT THESE FINAL CONSTRUCTION PLANS WERE PREPARED UNDER MY DIRECT SUPERVISION, IN ACCORDANCE WITH ALL APPLICABLE TOWN OF CASTLE ROCK AND STATE OF COLORADO STANDARDS AND STATUTES, RESPECTIVELY; AND THAT I AM FULLY RESPONSIBLE FOR ALL DESIGN AND REVISIONS RELATIVE TO SAID PLANS.


STEPHEN M. DOUGLAS, P.E.
REGISTERED LICENSED PROFESSIONAL ENGINEER
STATE OF COLORADO No. 41176
FOR AND ON BEHALF OF
PERSONALIZED ENGINEERING SOLUTIONS, LLC
(720)388-8126

TOWN OF CASTLE ROCK APPROVAL
PLANS ARE HEREBY APPROVED FOR ONE YEAR FROM DATE OF DEVELOPMENT SERVICES APPROVAL
DEVELOPMENT SERVICES
APPROVED BY:  **APPROVED**
By Kirkpatrick on 02/03/2025
APPROVED-CD24-0042 PLANS.pdf
Record Document on File
DEVELOPMENT SERVICES



Drawing Name 09-GR5_CD.dwg	Designer SMD	Drafter SN	Checked SMD
Job Number MNC TAFT HOUSE	Prepared For MNC		



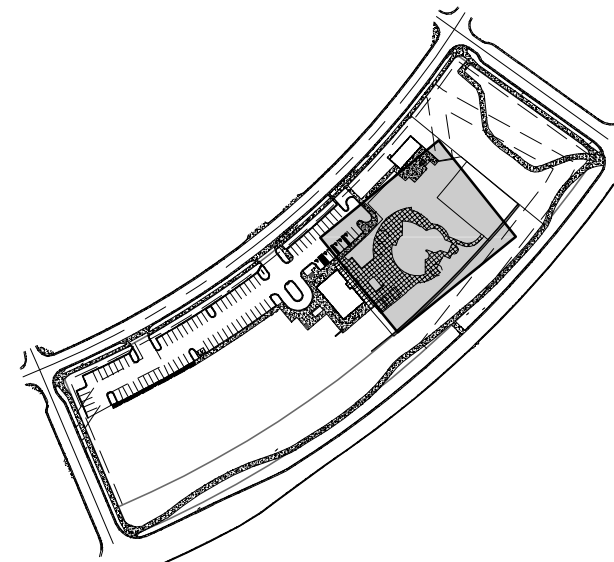
PES Personalized Engineering Solutions, LLC
9249 S. Broadway #200-388
Highlands Ranch, CO 80129 720.388.8126
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Construction Management Civil Engineering Land Planning

THE MEADOWS FILING 20, PHASE 1

CONSTRUCTION DOCUMENTS

POOL DECK DRAINAGE PLAN

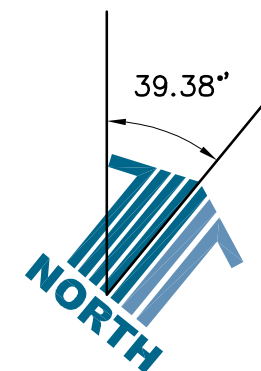
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PLOT BY: S. DOUGLAS PLOT DATE: 1/17/2025 11:28 AM
XREFS: 10 EPN;10 PPN;10 PUT;10 EUT;10 LSBASE



KEYMAP
N.T.S.

LEGEND

- LIMITS OF CONSTRUCTION
- EX WATER LINE
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- EX CONCRETE SIDEWALK
- EX REGIONAL STORM SEWER MAINLINE
- EX AUX STORM SEWER TO REMAIN
- PR PVC STORM SEWER MAINLINE
- PR AUX STORM SEWER (4" & 6" HDPE)
- PR POOL DECK TRENCH DRAIN



0 5 10 20
1 inch = 10 ft. Horizontal

PROFESSIONAL ENGINEER CERTIFICATION

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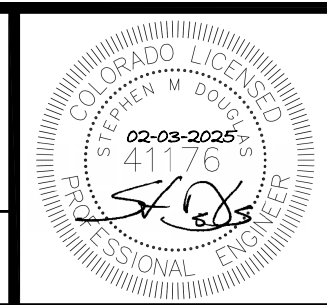
Signature 02-03-2025
STEPHEN M. DOUGLAS, P.E.
REGISTERED LICENSED PROFESSIONAL ENGINEER
STATE OF COLORADO No. 41176
FOR AND ON BEHALF OF
PERSONALIZED ENGINEERING SOLUTIONS, LLC
(720)388-8126

TOWN OF CASTLE ROCK APPROVAL
PLANS ARE HEREBY APPROVED FOR ONE YEAR FROM
DATE OF DEVELOPMENT SERVICES APPROVAL
DEVELOPMENT SERVICES
APPROVED BY: *Signature* 02/03/2025
By Kirkpatrick
on 02/03/2025
APPROVED-CD24-0042 PLANS.pdf
Record Document on File

DATE	REVISION DESCRIPTION
JAN 21 2024	ADDRESSING TOWNS 1ST REVIEW COMMENTS
DEC 13 2024	INITIAL CD SUBMITTAL



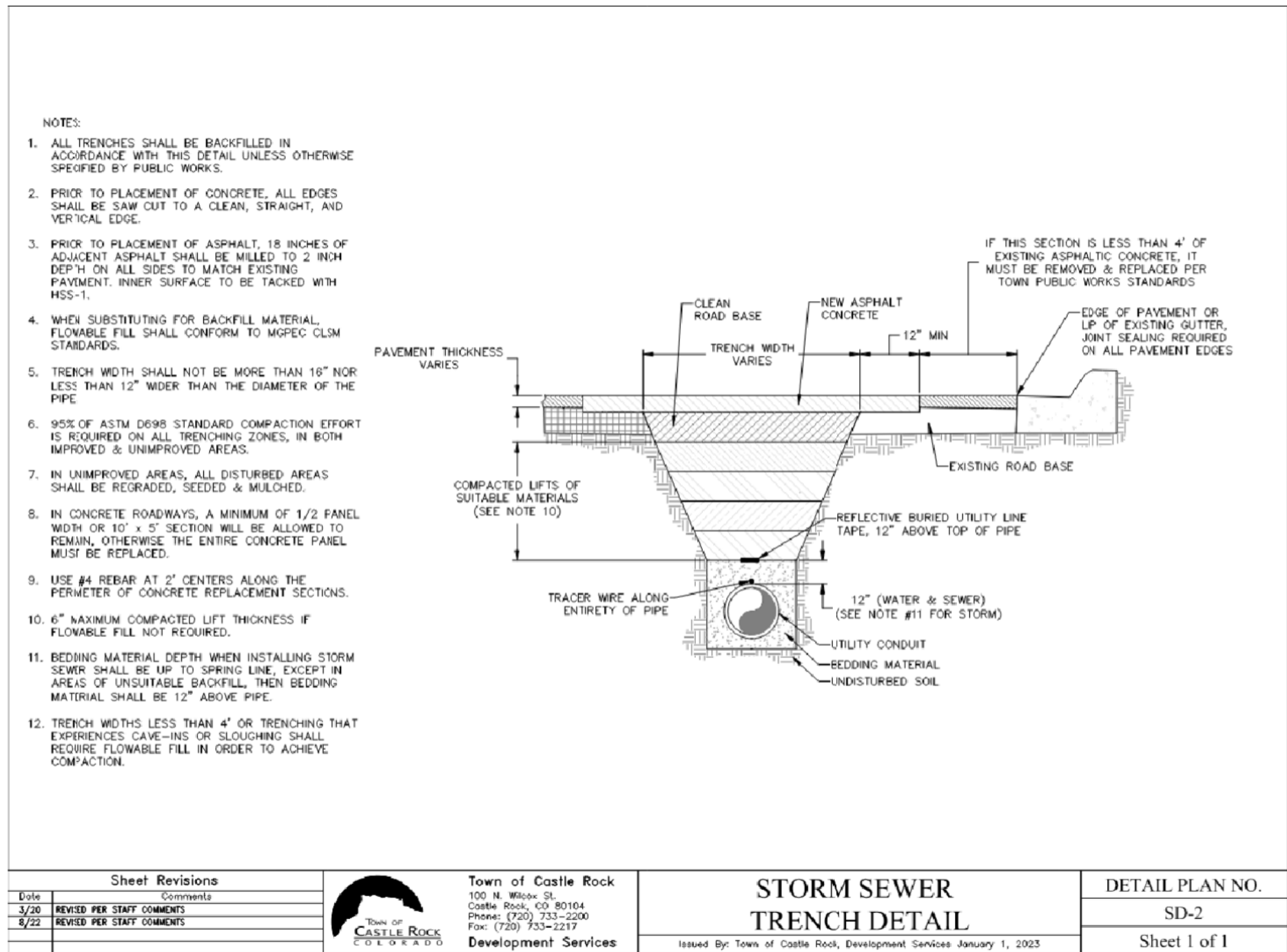
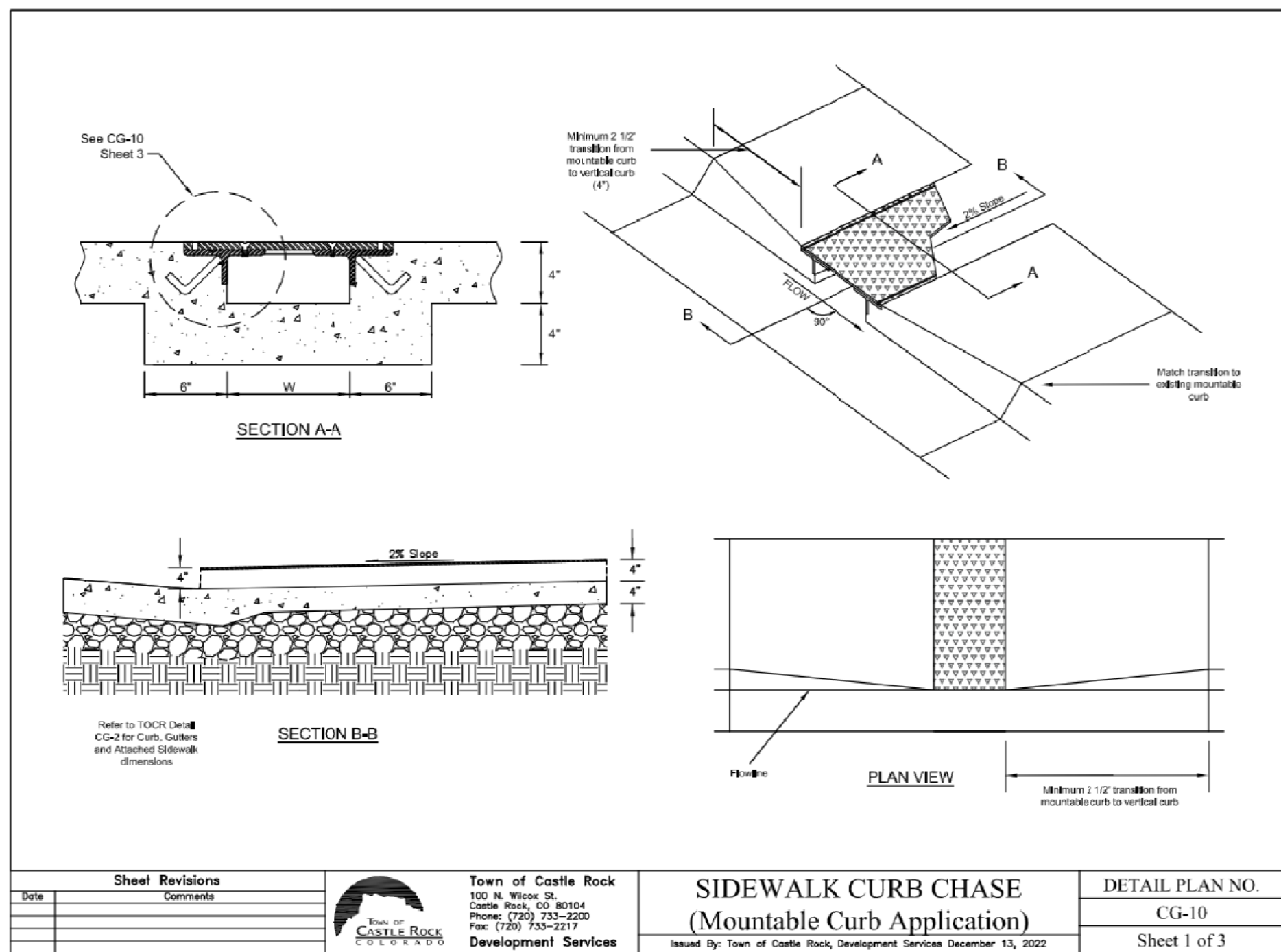
Drawing Name 10-UT1_CD.dwg	Designer SMD	Drafter SN	Checked SMD
Job Number MNC TAFT HOUSE	Prepared For MNC		



PES Personalized Engineering Solutions
Personalized Engineering Solutions, LLC
9249 S. Broadway #200-388
Highlands Ranch, CO 80129 720.388.8126
www.pengsolutions.com
Construction Management Civil Engineering Land Planning

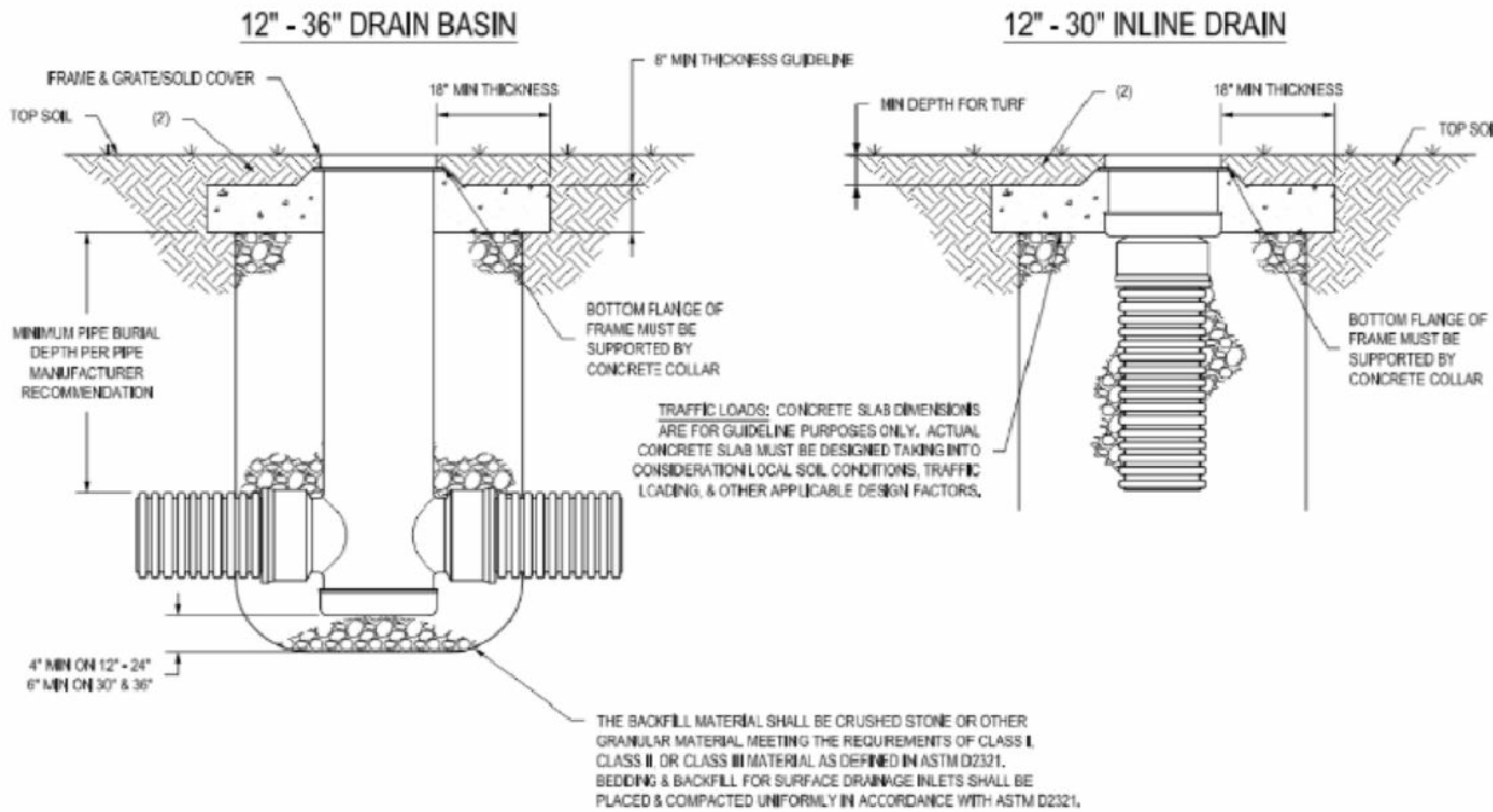
THE MEADOWS FILING 20, PHASE 1 CONSTRUCTION DOCUMENTS POOL DECK PIPING PLAN

Sheet UT1	10 of 24
Date DECEMBER 2024	



DEVELOPMENT SERVICES

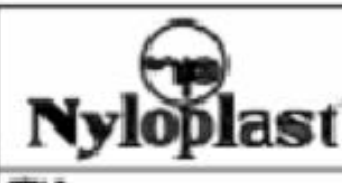
NYLOPLAST TURF TRAFFIC INSTALLATION



1. GRATES/SOLID COVERS SHALL MEET H&D LOAD RATING FOR 30\"/>

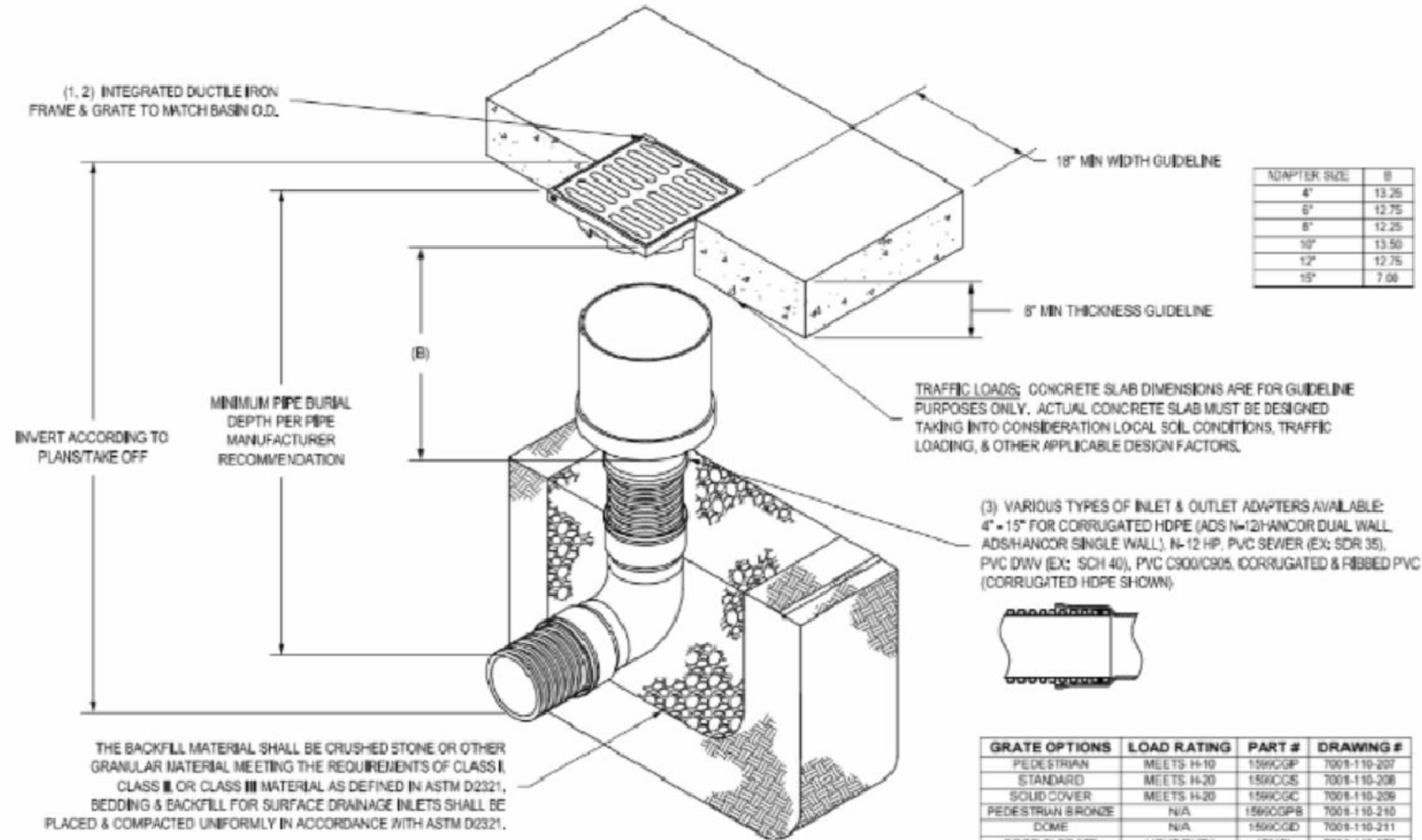
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DRAWN BY	EBC	MATERIAL	3130 VERONA AVE BURLINGTON, GA 30616 PHN: (770) 933-2443 FAX: (770) 933-2490 www.nyloplast-us.com
DATE	01-15-09	PROJECT NO./NAME	
REVISED BY	NMH		
DATE	06-12-10		
DWG SIZE	A	SCALE	1/2\"/>



15 IN INLINE DRAIN QUICK SPEC INSTALLATION DETAIL

NYLOPLAST 15" INLINE DRAIN: 2715AG __ X



- 1 - GRATES/SOLID COVER SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05, WITH THE EXCEPTION OF THE BRONZE GRATE.
- 2 - FRAMES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05.
- 3 - DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS N-12 H&D COR DUAL WALL), N-12 HP, & PVC SEWER.
- 4 - DIMENSIONS ARE FOR REFERENCE ONLY. ACTUAL DIMENSIONS MAY VARY.
- 5 - DIMENSIONS ARE IN INCHES.
- 6 - SEE DRAWING NO. 7001-110-275 FOR ADS N-12 H&D COR DUAL WALL BELL INFORMATION & DRAWING NO. 7001-110-384 FOR N-12 HP BELL INFORMATION.

THIS PRINT DISCLOSES SUBJECT MATTER IN WHICH NYLOPLAST HAS PROPRIETARY RIGHTS. THE RECEIPT OR POSSESSION OF THIS PRINT DOES NOT CONFER, TRANSFER, OR LICENSE THE USE OF THE DESIGN OR TECHNICAL INFORMATION SHOWN HEREIN. REPRODUCTION OF THIS PRINT OR ANY INFORMATION CONTAINED HEREIN, OR MANUFACTURE OF ANY ARTICLE HEREFROM, FOR THE DISCLOSURE TO OTHERS IS FORBIDDEN, EXCEPT BY SPECIFIC WRITTEN PERMISSION FROM NYLOPLAST.

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DATE	04-03-06	PROJECT NO./NAME	
REVISED BY	NMH		
DATE	03-15-10		
DWG SIZE	A	SCALE	1/2\"/>



15 IN INLINE DRAIN QUICK SPEC INSTALLATION DETAIL

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.

Stephen M. Douglas
STEPHEN M. DOUGLAS, P.E.
REGISTERED LICENSED PROFESSIONAL ENGINEER
STATE OF COLORADO No. 41176
FOR AND ON BEHALF OF
PERSONALIZED ENGINEERING SOLUTIONS, LLC
(720)388-8126

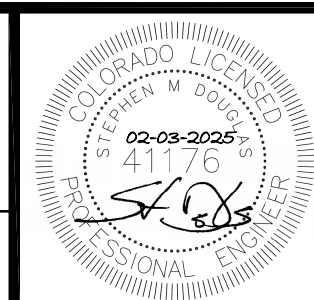
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PLANS ARE HEREBY APPROVED FOR ONE YEAR FROM DATE OF DEVELOPMENT SERVICES APPROVAL
DEVELOPMENT SERVICES
APPROVED BY: **APPROVED**
By Kirkpatrick on 02/03/2025
APPROVED-CD24-0042 PLANS.pdf
Record Document on File
DEVELOPMENT SERVICES

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PLOT BY: S. DOUGLAS
PLOT DATE: 1/17/2025 11:28 AM
XREFS: 10 BASE; 10 EPN; 10 EUT; 10 LBASE; 10 PPN; 10 PUT

DATE	REVISION DESCRIPTION
JAN 21 2024	ADDRESSING TOWNS 1ST REVIEW COMMENTS
DEC 13 2024	INITIAL CD SUBMITTAL



Drawing Name	11-DET_CD.dwg
Job Number	MNC TAFT HOUSE
Prepared For	MNC
Designer	SMD
Drafter	SN
Checked	SMD

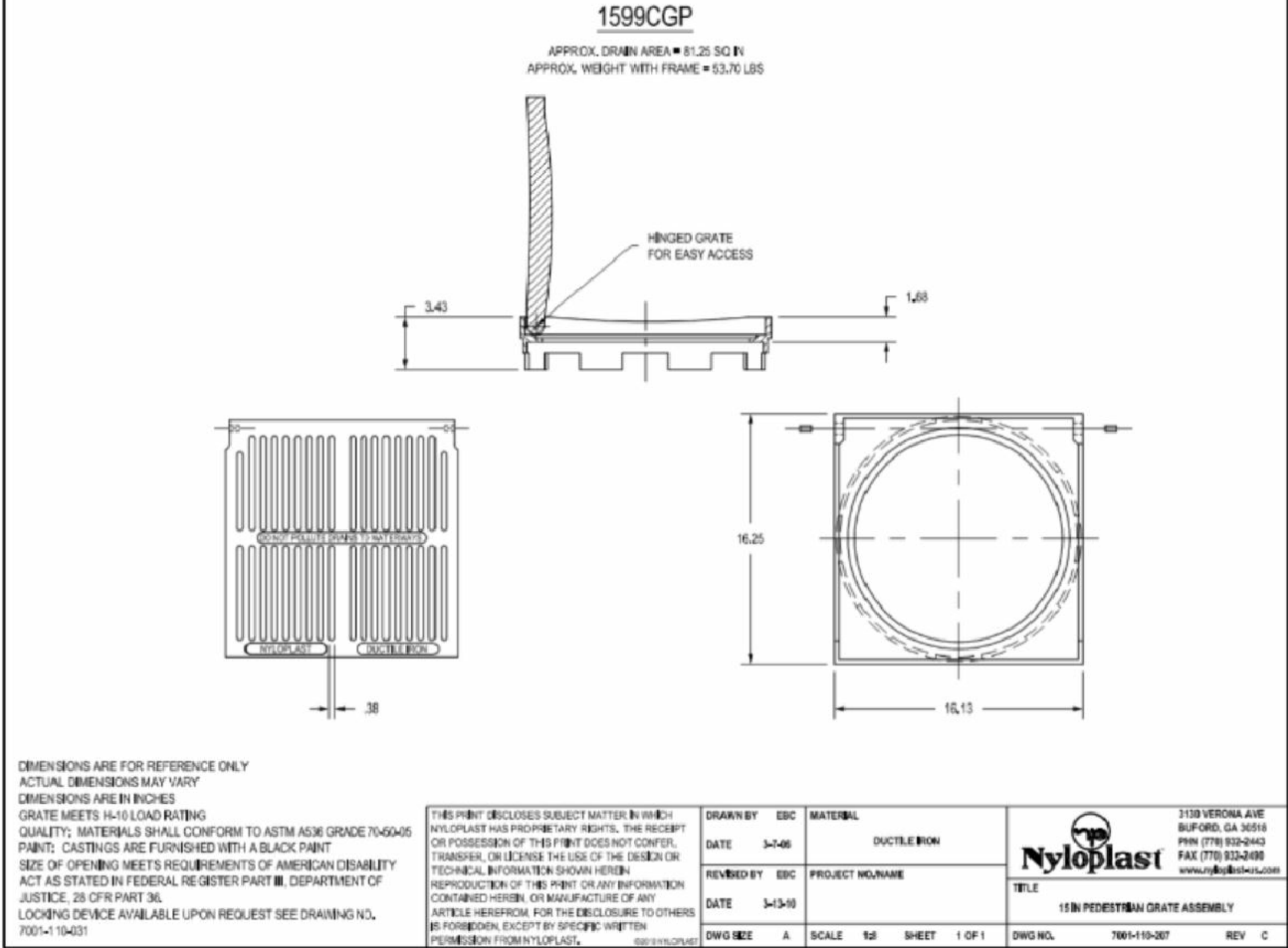
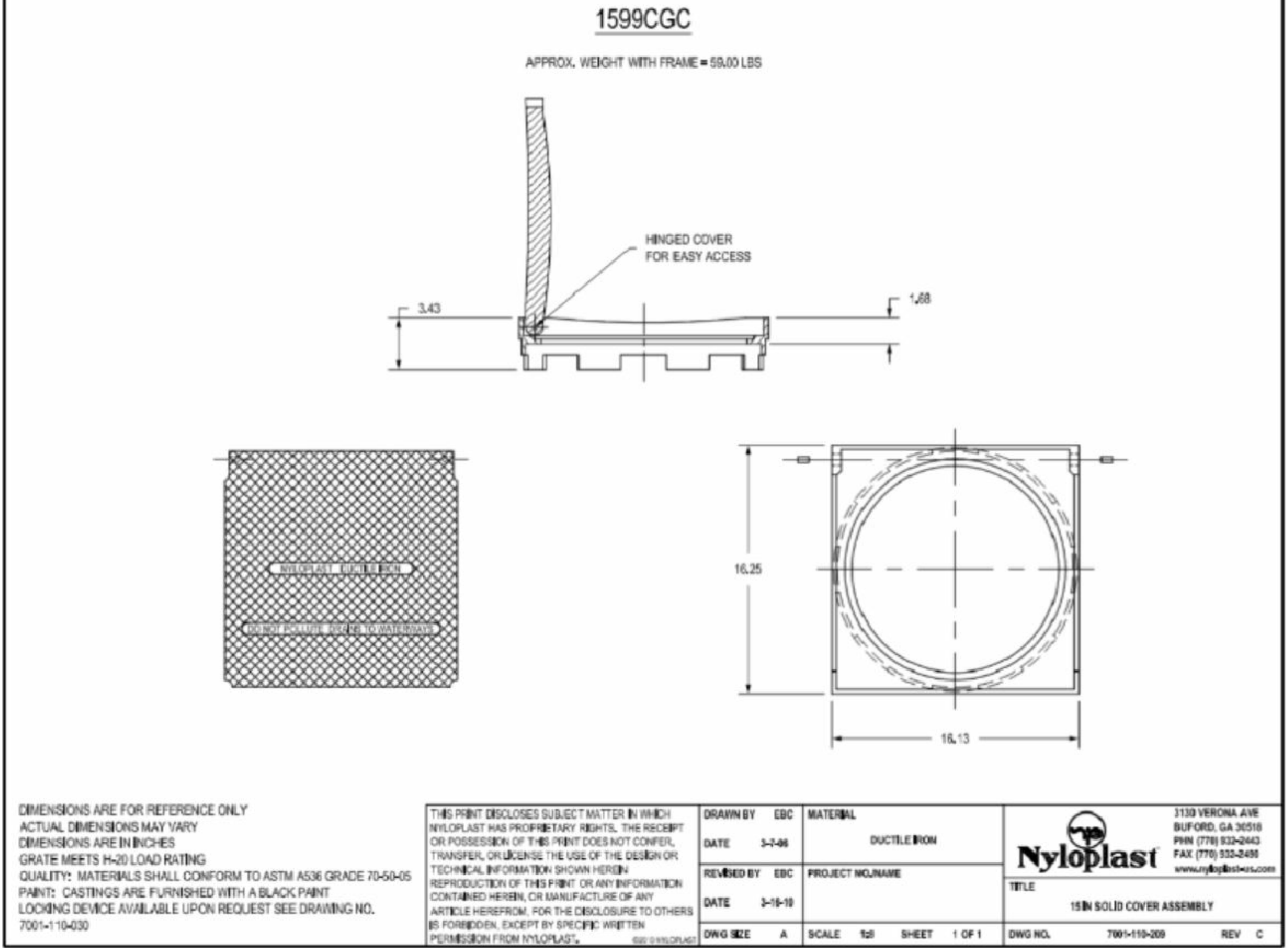


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THE MEADOWS FILING 20, PHASE 1
CONSTRUCTION DOCUMENTS
CIVIL SITE DETAILS

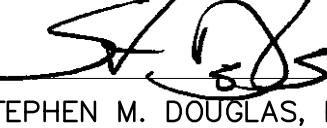
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of	24
Date	DECEMBER 2024

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XREFS: 10 BASE; 10 EUT; 10 LS BASE; 10 PPN; 10 PUT



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02-03-2025
STEPHEN M. DOUGLAS, P.E.
REGISTERED LICENSED PROFESSIONAL ENGINEER
STATE OF COLORADO No. 41176
FOR AND ON BEHALF OF
PERSONALIZED ENGINEERING SOLUTIONS, LLC
(720)388-8126

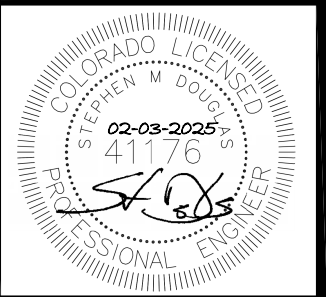
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PLANS ARE HEREBY APPROVED FOR ONE YEAR FROM
DATE OF DEVELOPMENT SERVICES APPROVAL

APPROVED BY:  **APPROVED**
By Jkirkpatrick
on 02/03/2025
APPROVED-CD24-0042 PLANS.pdf
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DEVELOPMENT SERVICES



Drawing Name	11-DET_CD.dwg
Job Number	MNC TAFT HOUSE
Prepared For	MNC
Designer	SMD
Drafter	SN
Checked	SMD



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THE MEADOWS FILING 20, PHASE 1
CONSTRUCTION DOCUMENTS
CIVIL SITE DETAILS

PATH: C:\JUNK\A REMOTE FOLDER\TAFT HOUSE\24028 TAFT HOUSE LANDSCAPE PLAN.DWG
 PLOTTED BY: M. WHITEMAN
 PLOT DATE: 12-13-24

TAFT HOUSE MEADOWS

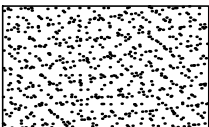
Landscape & Irrigation Construction Plans

Castle Rock, Colorado

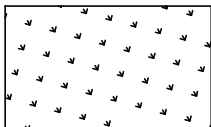


LANDSCAPE PLANT LIST

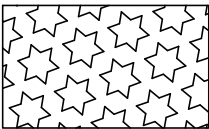
DECIDUOUS SHADE TREES									
QTY	SYMBOL	COMMON NAME	BOTANICAL NAME	HYDROZONE	MATURE HEIGHT	MATURE SPREAD	WATER USE	SUN/SHADE	SIZE AND CONDITION
2	WEC	Western Catalpa	Catalpa speciosa	2	40-60'	30-50'	Low	Sun	2" Cal., B&B
2	WEH	Western Hackberry	Celtis occidentalis	2	50-60'	40-50'	Low	Sun	2" Cal., B&B
3	BUO	Bur Oak	Quercus macrocarpa	2	50-80'	50-80'	Low	Sun	2" Cal., B&B
1	SWO	Swamp White Oak	Quercus bicolor	2	40-60'	40-60'	Low	Sun / Part Shade	2" Cal., B&B
ORNAMENTAL TREES									
QTY	SYMBOL	COMMON NAME	BOTANICAL NAME	HYDROZONE	MATURE HEIGHT	MATURE SPREAD	WATER USE	SUN/SHADE	SIZE AND CONDITION
3	RMG	Rocky Mountain Glow Maple	Acer grandidentatum Rocky Mountain Glow	2	20-30'	20-30'	Low	Sun	1-1 1/2" Cal., B&B
3	PSH	Prairie Sentinel Hackberry	Celtis occidentalis 'JFS KSU1'	2	45'	12'	Low	Sun / Part Shade	1-1 1/2" Cal., B&B
EVERGREEN TREES									
QTY	SYMBOL	COMMON NAME	BOTANICAL NAME	HYDROZONE	MATURE HEIGHT	MATURE SPREAD	WATER USE	SUN/SHADE	SIZE AND CONDITION
1	FIN	Pinon Pine	Pinus edulis	1	20-30'	10-20'	Low	Sun	6" ht., B&B
2	VPP	Vanderwolf's Pyramid Limber Pine	Pinus flexilis 'Vanderwolf's Pyramid'	1	30-50'	15-30'	Low	Sun / Part Shade	6" ht., B&B
4	PRP	Ponderosa Pine	Pinus ponderosa	1	60-80'	30-40'	Low	Sun	6" ht., B&B
DECIDUOUS SHRUBS									
QTY	SYMBOL	COMMON NAME	BOTANICAL NAME	HYDROZONE	MATURE HEIGHT	MATURE SPREAD	WATER USE	SUN/SHADE	SIZE AND CONDITION
13	DLP	Dwarf Leadplant	Amorpha nana	1	2'	2'	Very Low	Sun	5 Gallon Cont.
24	CPB	Crimson Pygmy Barberry	Berberis thunbergii 'Crimson Pygmy'	2	2'	2'	Low	Sun	5 Gallon Cont.
15	DKS	Dark Knight Spirea	Caryopteris x dandoniensis 'Dark Knight'	2	3-4'	3'	Low	Sun	5 Gallon Cont.
18	BBR	Baby Blue Rabbitbrush	Ericameria nauseosa v. var. nauseosa	1	2'	2'	Very Low	Sun	5 Gallon Cont.
11	TBR	Tall Blue Rabbitbrush	Ericameria nauseosa speciosa	1	2-6'	2-6'	Very Low	Sun	5 Gallon Cont.
15	APP	Apache Plume	Fallugia paradoxa	1	3-6'	3-6'	Very Low	Sun	5 Gallon Cont.
6	NMP	New Mexico Privet	Forestiera pubescens var. pubescens	2	8-12'	6-8'	Low	Sun	5 Gallon Cont.
3	RUS	Russian Sage	Perovskia atriplicifolia	1	3-4'	3-4'	Very Low	Sun	5 Gallon Cont.
6	CMO	Cheyenne Mockorange	Philadelphus lewisii Cheyenne	2	5-7'	4-6'	Low	Sun / Part Shade	5 Gallon Cont.
7	CWS	Creeping Western Sand Cherry	Prunus besseyi Pawnee Buttes	2	15-18"	4-6"	Low	Sun	5 Gallon Cont.
5	TLS	Three-Leaf Sumac	Rhus trilobata	1	3-6'	3-6'	Very Low	Sun	5 Gallon Cont.
18	CTS	Creeping Three-Leaf Sumac	Rhus trilobata 'Autumn Amber'	1	12-18"	6-8"	Very Low	Sun	5 Gallon Cont.
15	GAD	Gambel Oak	Quercus gambelii	1	8-20"	6-12"	Very Low	Sun / Part Shade	5 Gallon Cont.
EVERGREEN SHRUBS									
QTY	SYMBOL	COMMON NAME	BOTANICAL NAME	HYDROZONE	MATURE HEIGHT	MATURE SPREAD	WATER USE	SUN/SHADE	SIZE AND CONDITION
3	CMZ	Chieftain manzanita	Arctostaphylos x coloradoensis 'Chieftain'	2	18-38"	5-8"	Low	Sun / Part Shade	5 Gallon Cont.
3	PMZ	Pandito Manzanita	Arctostaphylos x coloradoensis 'Pandito'	2	10-15"	3-5"	Low	Sun / Part Shade	5 Gallon Cont.
14	RTY	Red Fale (Texas) Yucca	Hesperaloe parviflora	1	3-4'	3-4'	Very Low	Sun	5 Gallon Cont.
12	OGJ	Old Gold Juniper	Juniperus x media 'Old Gold'	2	3-4'	4-6"	Low	Sun	5 Gallon Cont.
6	BUF	Buffalo Juniper	Juniperus sabina 'Buffalo'	2	12-18"	6-8"	Low	Sun / Part Shade	5 Gallon Cont.
12	WCJ	Wilton Carpet Juniper	Juniperus horizontalis 'Wiltoni'	2	4-6"	6-8"	Low	Sun	5 Gallon Cont.
ORNAMENTAL GRASSES									
QTY	SYMBOL	COMMON NAME	BOTANICAL NAME	HYDROZONE	MATURE HEIGHT	MATURE SPREAD	WATER USE	SUN/SHADE	SIZE AND CONDITION
25	BAM	Blonde Ambition Grama Grass	Bouteloua gracilis 'Blonde Ambition'	1	2-3'	1-2'	Very Low	Sun	1 Gallon Cont.
33	BBF	Boulder Blue Fescue Grass	Festuca glauca 'Boulder Blue'	2	8-12"	8-10"	Low	Sun	1 Gallon Cont.
20	BLB	Blaze Life Bluestem Grass	Schizachyrium scoparium 'Blaze'	1	3-4'	24-30"	Low	Sun	1 Gallon Cont.
6	TMI	Thin Man Indian Grass	Sorghastrum nutans 'Thin Man' PPAF	1	6"	24-30"	Low	Sun	1 Gallon Cont.
10	PLG	Plume Grass	Saccharum ravennae	2	8-12"	3-4'	Low	Sun	5 Gallon Cont.
PERENNIALS									
QTY	SYMBOL	COMMON NAME	BOTANICAL NAME	HYDROZONE	MATURE HEIGHT	MATURE SPREAD	WATER USE	SUN/SHADE	SIZE AND SPACING
3	DSM	Double Bubblemint Hyssop	Agastache cana	1	2-3'	18-24"	Low	Sun	1 Gallon Cont.
3	WMG	Wichita Mountain Goldenrod	Solidago 'Wichita Mountain'	1	2-3'	2-3'	Low	Sun	1 Gallon Cont.
3	SIO	Sky Island Orange Hummingbird Trumpet (Fire Chalice)	Zauschneria cuneata var. arizonica Sky Island Orange	1	30-36"	30-36"	Low	Sun	1 Gallon Cont.
18	MEC	Moonbeam Coreopsis	Coreopsis verticillata 'Moonbeam'	2	18-24"	18-24"	Low	Sun	1 Gallon Cont.



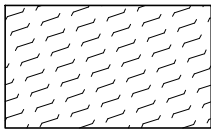
BLUEGRASS (IRRIGATED)
90 / 10 Fescue/Bluegrass Mix



NATIVE SEEDING (IRRIGATED)
Pawnee Buttes Seed Mixes (www.pawneebutteseed.com);
PBSI Foothills Native Mix
Application Rate: 25 LBS/Acre



ENVIROTURF (IRRIGATED)
Turf Master Sod Farms (www.turfmastersod.com);
Hybrid Fescue



NATIVE SEEDING (NON-IRRIGATED)
Pawnee Buttes Seed Mixes (www.pawneebutteseed.com);
PBSI Foothills Native Mix
Application Rate: 25 LBS/Acre

PLAN SET INDEX

SHEET	NAME
14	LANDSCAPE COVER SHEET & PLANT LIST
15	LANDSCAPE DEMO PLAN
16	LANDSCAPE PLAN
17	LANDSCAPE NOTES & DETAILS
18-19	IRRIGATION DEMO PLAN
20-21	IRRIGATION PLAN
22	IRRIGATION NOTES & CALCULATIONS
23-24	IRRIGATION DETAILS

LANDSCAPE MATERIALS SCHEDULE

ITEM	NOTES
ROCK MULCH	SIZE/COLOR: MATCH EXISTING DEPTH: 3" LOCATIONS: ALL PLANTING BED AREAS NOTES: INSTALL OVER PERMEABLE WEED BARRIER FABRIC. PROVIDE A SAMPLE TO OWNER AND LANDSCAPE ARCHITECT FOR APPROVAL PRIOR TO ORDERING AND INSTALLING MATERIAL.
PLANTING BED SOIL AMENDMENT	TYPE: CLASS 1 SCREENED COMPOST, "BIOCOMP" OR APPROVED EQUAL RATE: 5 C.Y./1000 S.F. OR AS SPECIFIED PER SOIL TESTING LOCATIONS: ALL PLANTING BED AREAS NOTES: TILL TO A DEPTH OF 6 INCHES SOURCE: A1 ORGANICS, WWW.A1ORGANICS.COM
LAWN AREAS SOIL AMENDMENT	TYPE: CLASS 2 SCREENED COMPOST, "PREMIUM 3 HORTICULTURE" OR APPROVED EQUAL RATE: 5 C.Y./1000 S.F. LOCATIONS: ALL SODDED OR SEEDED LAWN AREAS NOTES: TILL TO A DEPTH OF 6 INCHES SOURCE: A1 ORGANICS, WWW.A1ORGANICS.COM
NATIVE SEEDING SOIL AMENDMENT	TYPE: CLASS 1 SCREENED COMPOST, "BIOCOMP" OR APPROVED EQUAL RATE: 3 C.Y./1000 S.F. LOCATIONS: ALL NATIVE SEEDED AREAS NOTES: TILL TO A DEPTH OF 6 INCHES SOURCE: A1 ORGANICS, WWW.A1ORGANICS.COM

LANDSCAPE MATERIALS NOTES:

- 1) PROVIDE SAMPLE OF BULK MATERIALS TO OWNER FOR APPROVAL PRIOR TO ORDERING OR DELIVERING BULK MATERIALS TO THE SITE.
- 2) EQUAL SUBSTITUTIONS FOR THE SPECIFIED MATERIALS WILL BE CONSIDERED, PROVIDED THAT CUT-SHEETS OR SAMPLES ARE SUBMITTED TO, AND APPROVED IN WRITING BY, THE LANDSCAPE ARCHITECT AND/OR THE OWNER.

TOWN OF CASTLE ROCK LANDSCAPE NOTES

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

TOWN OF CASTLE ROCK LANDSCAPE NOTES

1. INSTALLING CONTRACTOR SHALL CONTACT CASTLE ROCK WATER AT 720.733.6017 TO SCHEDULE A PRE-CONSTRUCTION MEETING BEFORE BEGINNING THE INSTALLATION OF THE LANDSCAPING.
2. LANDSCAPE AND IRRIGATION SHALL BE INSTALLED BY A TOWN OF CASTLE ROCK REGISTERED LANDSCAPE CONTRACT PROFESSIONAL.
3. SOIL INSPECTION IS REQUIRED BEFORE PLANT INSTALLATION AND SCHEDULING SOIL INSPECTION SHOULD BE DISCUSSED AT THE LANDSCAPE PRECONSTRUCTION MEETING.
4. INSTALLING CONTRACTOR IS TO PROVIDE SUBMITTAL FROM SUPPLIERS FOR SOD AND NATIVE SEED MIX AT TIME OF LANDSCAPE INSPECTION.
5. SOIL AMENDMENT SHALL BE A MINIMUM OF FOUR (4) CUBIC YARDS OF ORGANIC MATTER PER ONE-THOUSAND SQUARE FEET. THIS SOIL AMENDMENT SHALL BE ROTOTILLED TO A DEPTH OF SIX (6) INCHES. CLASS I OR CLASS II COMPOST IS REQUIRED.
6. TREES, LARGE SHRUBS AND PERMANENT OBJECTS ARE NOT PERMITTED IN WATER, SANITARY AND STORM SEWER UTILITY EASEMENTS.
7. ALL LANDSCAPE IS TO BE INSTALLED PER TOWN OF CASTLE ROCK PLANTING DETAILS.
8. PLANT SPECIES AND LOCATION SHOULD FOLLOW THE APPROVED PLAN, IF SITE CONDITIONS OR PLANT AVAILABILITY REQUIRE CHANGES TO THE PLAN, THE CONTRACTOR MUST OBTAIN APPROVAL FROM THE TOWN OF CASTLE ROCK AND THE OWNERS REPRESENTATIVE.
9. TOWN OF CASTLE ROCK IS NOT RESPONSIBLE FOR REPLACING LANDSCAPE OR IRRIGATION REMOVED IN UTILITY EASEMENTS DUE TO UTILITY LINE MAINTENANCE OR REPAIR (PWR 14.3.13)
10. TOWN PERMIT AND TOWN APPROVED LANDSCAPE PLANS ARE REQUIRED ON SITE DURING INSTALLATION OF THE LANDSCAPE AND IRRIGATION.
11. TOWN INSPECTORS WILL NOT APPROVE LANDSCAPE AND OVERHEAD IRRIGATION ON SLOPES STEEPER THAN 3:1.
12. OVERHEAD IRRIGATION IS NOT PERMITTED ON SLOPES EQUAL TO 3:1 OR IN AREAS LESS THAN 10' IN WIDTH.

NON-RESIDENTIAL SITE INVENTORY*

Town of Castle Rock Registered Professional: Matthew Corrion
Town of Castle Rock Registration #: 15-1141 State of Colorado Landscape Architect License #: 155
Company Name: Outdoor Design Group, Inc. Address: 5690 Webster Street, Arvada, CO 80002
Phone: 303.993.4811 Email: mcorrion@odgdesign.com Date: 1-21-25
Project Name: MEADOWS FILING NO. 20, PHASE 1, AMENDMENT NO. 6. LOT 1A CONSTRUCTION DOCUMENTS (Taft House)

Gross Site Area (SF)	Required Landscape Area (SF)	Existing Landscape Area (SF)	Provided Landscape Area (SF)	Required Trees	Provided Trees	Required Shrubs	Provided Shrubs	Soil Prep Amount (CY/1000SF)
56,088	5,609	40,242	38,451	76	51	152	300	4
Turf Grass (SF)	Required Landscape Coverage (SF)	Existing Landscape (If Applicable)	Provided Landscape Coverage (SF)	Required Nonliving Ornamental % (25% max)	Provided Nonliving Ornamental Area in Landscape(SF)	Required Large Canopy Deciduous Trees (50% min.)	Provided Large Canopy Deciduous Trees	Separate Irrigation Service Connections
3427 Taft 4198 Total	28,838	NA	30,058	NA	NA	38	19	Yes <u>X</u> No <u> </u>

LANDSCAPE NOTES:

- 1) LANDSCAPE AREA MUST EQUAL 10% OF THE GROSS SITE AREA
- 2) 2 TREES + 4 SHRUBS REQUIRED PER 1,000 SF
- 3) SOIL PREP AMOUNTS ARE LISTED AS CUBIC YARDS PER 1000 SF
- 4) PROVIDED LANDSCAPE COVERAGE IS MEASURED AT MATURE SIZING

*NON-RESIDENTIAL SITE INVENTORY REFLECTS THE PROPOSED LIMITS OF WORK - IMPROVEMENT ZONES 1-4. PROVIDED PLANT COUNTS ALSO REFLECT PROPOSED PLANTS OUTSIDE THE LIMITS OF WORK (2 TREES + 13 SHRUBS).

TOWN OF CASTLE ROCK APPROVAL
PLANS ARE HEREBY APPROVED FOR ONE YEAR FROM
DATE OF DEVELOPMENT SERVICES APPROVAL
DEVELOPMENT SERVICES
APPROVED BY:  **APPROVED**
By Kirkpatrick
on 02/03/2025
APPROVED-CD24-0042 PLANS.pdf
Record Document on File
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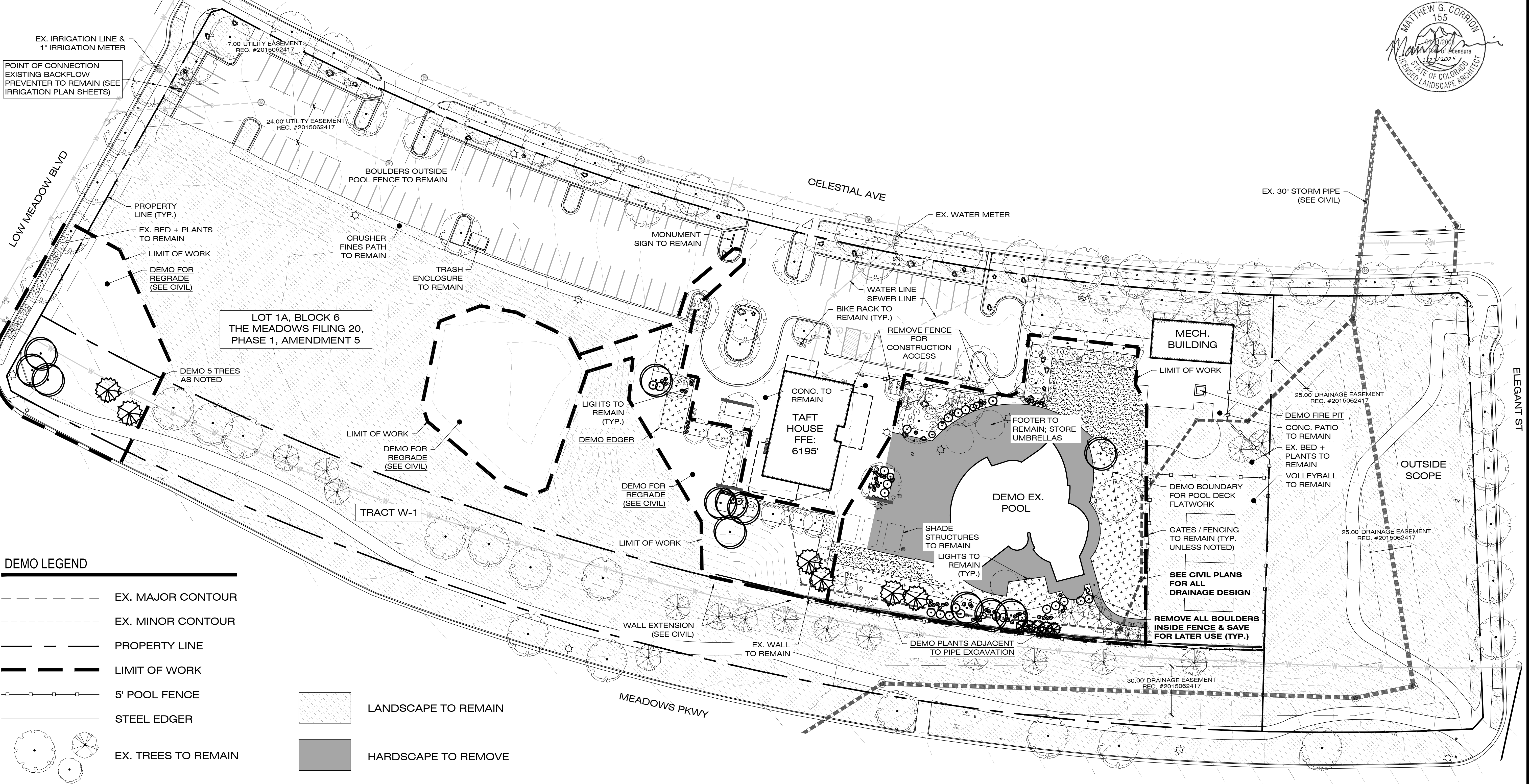
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Job Number	MNC TAFT HOUSE
Prepared For	MNC
Designer	MW
Drafter	MW
Checked	MC



THE MEADOWS FILING 20, PHASE 1 CONSTRUCTION DOCUMENTS LANDSCAPE COVER SHEET & PLANT LIST

Sheet
LS1
Date
DECEMBER 2024

DEMO PLAN



DEMO LEGEND

- EX. MAJOR CONTOUR
- EX. MINOR CONTOUR
- PROPERTY LINE
- LIMIT OF WORK
- 5' POOL FENCE
- STEEL EDGER
- EX. TREES TO REMAIN
- EX. TREES TO REMOVE
- EX. SHRUBS TO REMAIN
- EX. SHRUBS TO REMOVE
- LANDSCAPE TO REMAIN
- HARDSCAPE TO REMOVE
- TURF TO REMAIN
- TURF TO REMOVE



PATH: C:\JUNK\A REMOTE FOLDER\TAFT HOUSE\24028 TAFT HOUSE LANDSCAPE PLAN.DWG PLOTTED BY: M. WHITEMAN PLOT DATE: 1/21/2025 11:15 AM

JAN 21 2025	ADDRESSING TOWN'S 1ST REVIEW COMMENTS
DEC 13 2024	INITIAL CD SUBMITTAL
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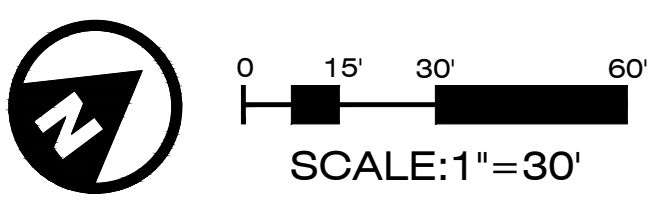
Drawing Name	MNC TAFT HOUSE
Job Number	MNC
Prepared For	MNC
Designer	MW
Drafter	MW
Checked	MC



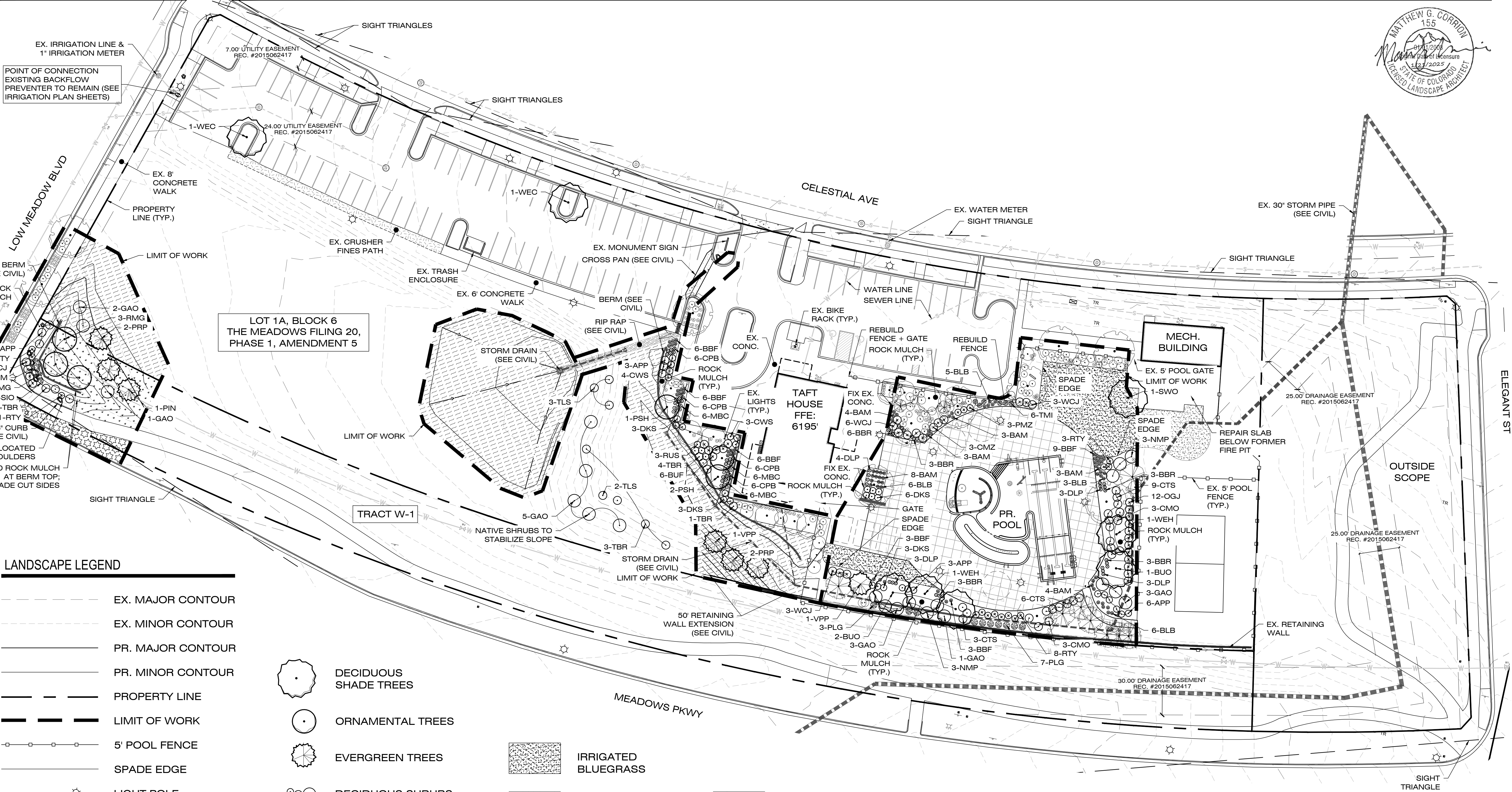
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THE MEADOWS FILING 20, PHASE 1
CONSTRUCTION DOCUMENTS
LANDSCAPE DEMO PLAN

TOWN OF CASTLE ROCK APPROVAL
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LANDSCAPE PLAN

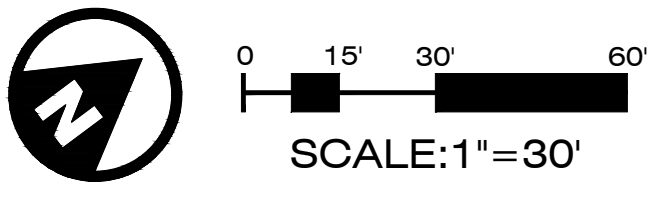


LANDSCAPE LEGEND

- EX. MAJOR CONTOUR
- EX. MINOR CONTOUR
- PR. MAJOR CONTOUR
- PR. MINOR CONTOUR
- PROPERTY LINE
- LIMIT OF WORK
- 5' POOL FENCE
- SPADE EDGE
- LIGHT POLE
- EXISTING TREES TO REMAIN
- EX. SHRUBS TO REMAIN

- DECIDUOUS SHADE TREES
- ORNAMENTAL TREES
- EVERGREEN TREES
- DECIDUOUS SHRUBS
- EVERGREEN SHRUBS
- ORNAMENTAL GRASS
- LARGE PERENNIALS

- IRRIGATED BLUEGRASS
- IRRIGATED ENVIROTURF
- POOL DECK
- IRRIGATED NATIVE SEED
- NON-IRRIGATED NATIVE SEED



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PATH: C:\JUNK\A REMOTE FOLDER\TAFT HOUSE\24028 TAFT HOUSE LANDSCAPE PLAN.DWG
PLOT DATE: 1/21/2025 11:16 AM
PLOT BY: M. WHITEMAN

DATE	REVISION DESCRIPTION
JAN 21 2025	ADDRESSING TOWN'S 1ST REVIEW COMMENTS
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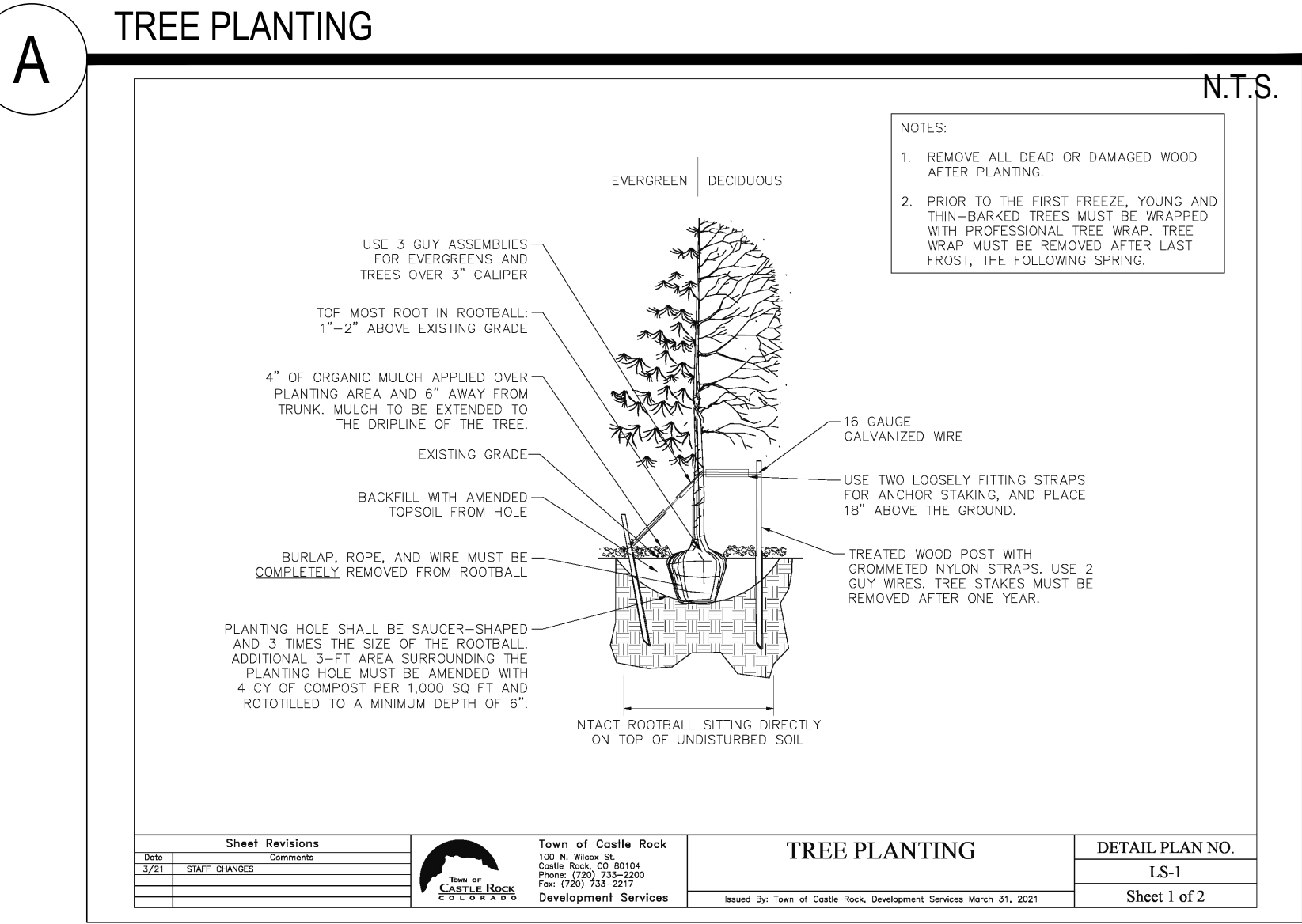
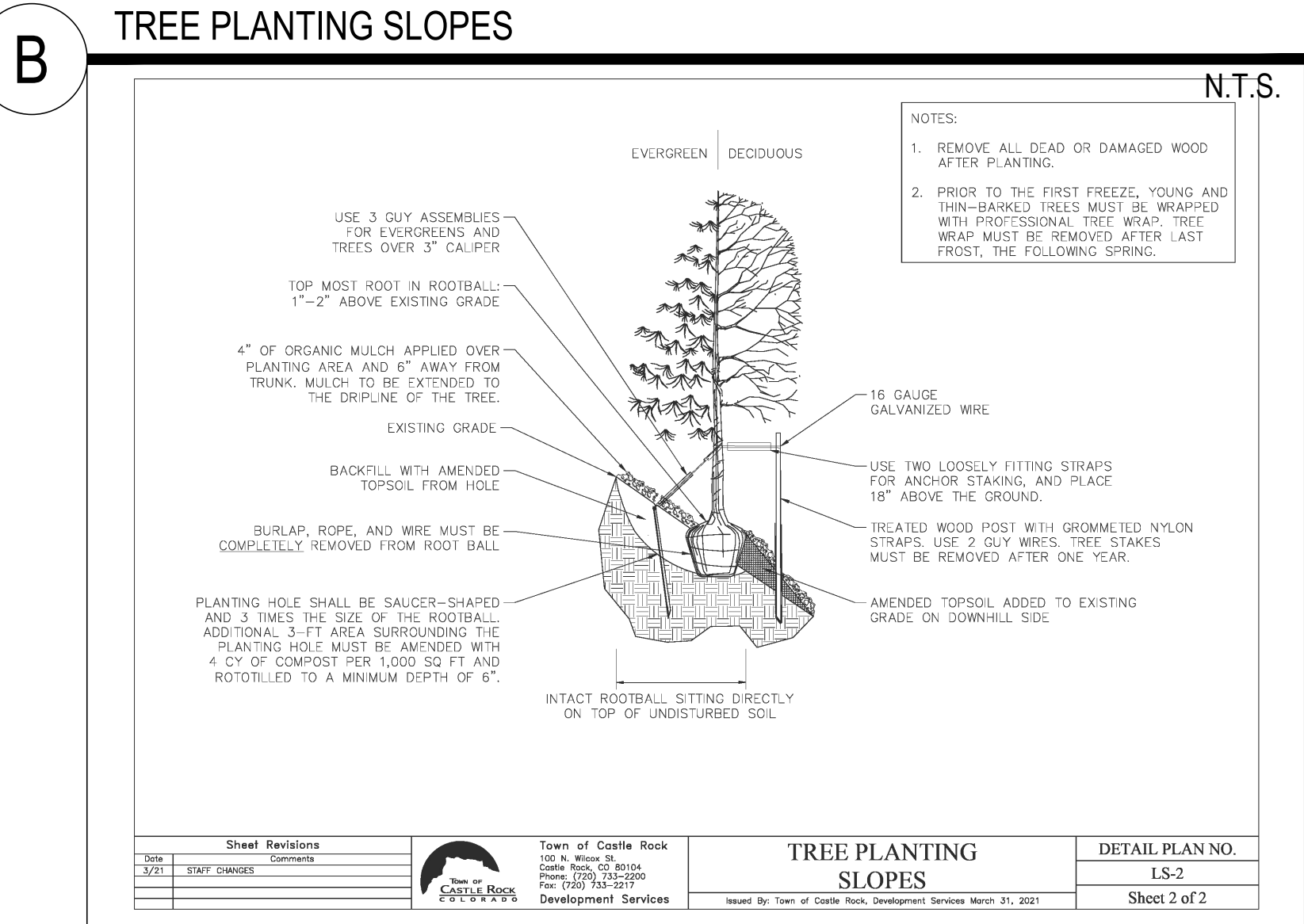
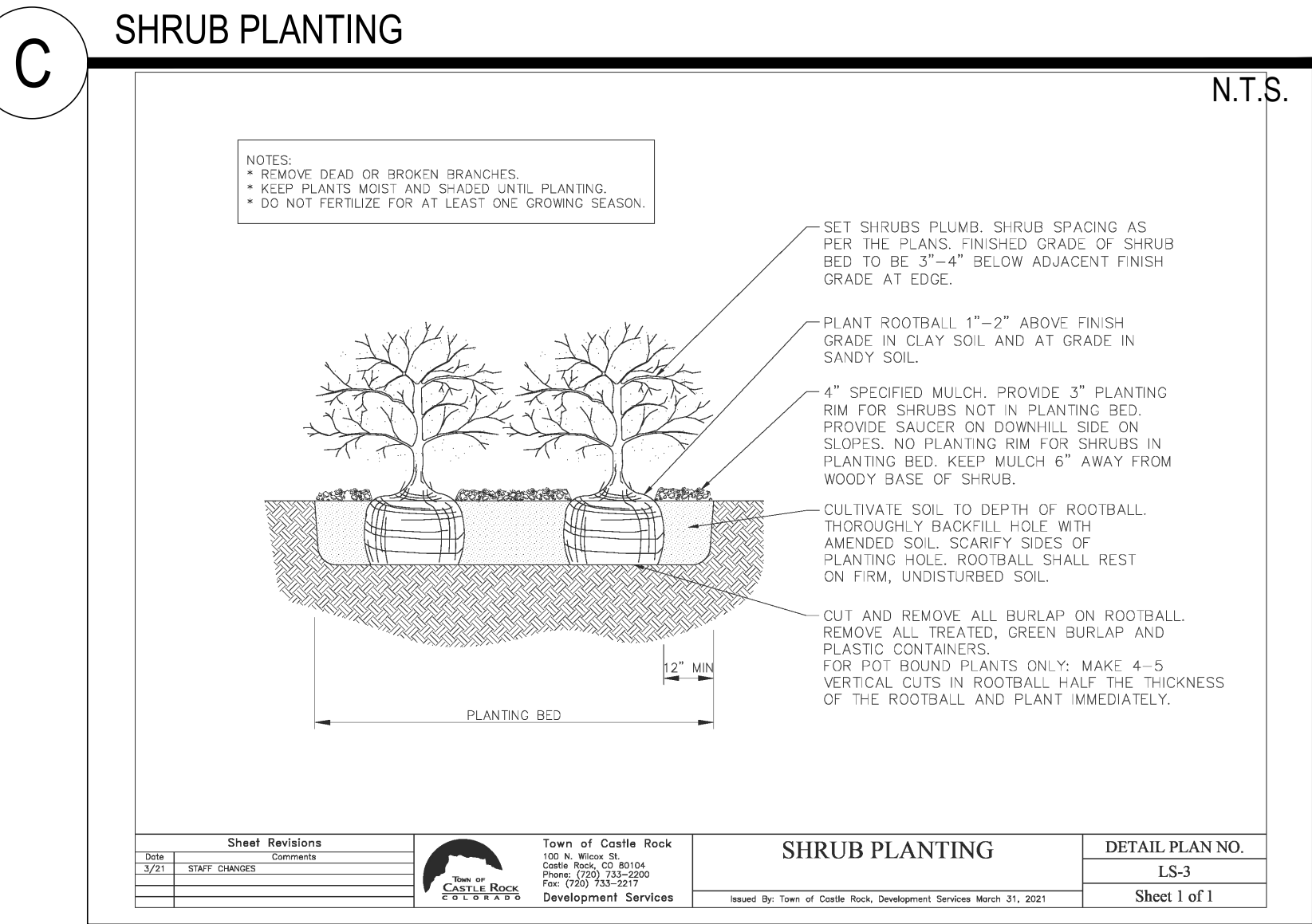
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MNC TAFT HOUSE	MNC	MNC	MW	MW	MC



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PLOTTER BY: M. WHITEMAN PLOT DATE: 1/21/2025 11:18 AM



LANDSCAPE NOTES AND SPECIFICATIONS

1. ALL EXTERIOR LIGHTING, LIGHT POLES, SHADE STRUCTURES AND UMBRELLA CAISSONS ARE TO REMAIN. STORE UMBRELLAS ON-SITE & RE-INSTALL UPON COMPLETION OF PROJECT.

2. DO NOT DISTURB AREA BEYOND LIMITS OF WORK.

3. ALL SOD AREAS, BED AREAS, AND LANDSCAPE AREAS SHALL BE FINE GRADED PRIOR TO INSTALLATION OF NEW PLANT MATERIAL. ROCKS, WOOD, AND ANY MATERIAL LARGER THAN 1" IN DIAMETER SHALL BE REMOVED FROM ALL PLANTING AREAS PRIOR TO SODDING AND PLANTING NEW MATERIALS.

4. PRIOR TO THE INSTALLATION OF ANY ROCK OR WOOD MULCHES, IN BOTH NEW AND RENOVATED BED AREAS, LANDSCAPE CONTRACTOR SHALL EXCAVATE THE GRADE IN ORDER TO EXPOSE A 2' MIN. LIP AT THE EDGE OF ANY SIDEWALK, CURB, OR HARDSCAPE TO CONTAIN THE ROCK OR WOOD MULCH.

5. EXISTING TURF, SHRUBS, TREES, AND PLANT MATERIAL TO BE REMOVED SHALL BE FULLY REMOVED FROM THE SITE, INCLUDING ALL ROOTS.

6. THE CONTRACTOR IS RESPONSIBLE FOR THE COST TO REPAIR UTILITIES, ADJACENT LANDSCAPE, PUBLIC AND PRIVATE PROPERTY THAT IS DAMAGED BY THE CONTRACTOR OR THEIR SUBCONTRACTOR'S OPERATIONS DURING INSTALLATION OR DURING THE SPECIFIED MAINTENANCE PERIOD.

7. THE CONTRACTOR SHALL REPORT ANY DISCREPANCY IN PLAN VS. FIELD CONDITIONS IMMEDIATELY TO THE OWNER AND/OR THE LANDSCAPE ARCHITECT, PRIOR TO CONTINUING WITH THAT PORTION OF WORK.

8. LAY OUT THE HARDSCAPE, FENCING, AND LANDSCAPE ELEMENTS AS SHOWN ON THE PLANS. DO NOT DEVIATE FROM THE PLANS UNLESS SPECIFIC APPROVAL IS OBTAINED FROM THE LANDSCAPE ARCHITECT.

9. THE CONTRACTOR SHALL PROVIDE A STAKED LAYOUT OF ALL SIGNIFICANT ITEMS FOR INSPECTION BY THE LANDSCAPE ARCHITECT, AND MAKE MODIFICATIONS AT NO COST TO THE OWNER PRIOR TO PROCEEDING WITH CONSTRUCTION.

10. DO NOT DISTURB THE EXISTING PAVING, LIGHTING, LANDSCAPING, OR IRRIGATION THAT EXISTS ADJACENT TO THE SITE UNLESS OTHERWISE NOTED ON PLAN.

11. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL PLANT QUANTITIES AND OTHER LANDSCAPE AND HARDSCAPE QUANTITIES. QUANTITIES ARE PROVIDED FOR CONVENIENCE IN ROUGH BIDDING. CONTRACTOR IS RESPONSIBLE FOR RE-COUNTING AND VERIFYING ALL QUANTITIES ALONG WITH ANY BID. BIDS AND INSTALLATION SHALL FOLLOW THE DESIGN ON THE PLANS AND GRAPHIC QUANTITIES SCALED OFF OF THE PLANS SHALL TAKE PRECEDENCE OVER WRITTEN QUANTITIES.

12. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS REQUIRED TO DO THEIR PORTION OF THE WORK.

13. ANY NEW OR EXISTING TO REMAIN PLANT MATERIAL DAMAGED DURING CONSTRUCTION SHALL BE REPLACED WITH THE SAME SPECIES AT THE CONTRACTOR'S EXPENSE.

14. CONTRACTOR IS RESPONSIBLE FOR VERIFYING UTILITY LOCATIONS PRIOR TO BEGINNING ANY DIGGING ON THE SITE.

15. CONTRACTOR SHALL ENSURE THAT ALL SITE AREAS ACHIEVE POSITIVE DRAINAGE. IF INADEQUATE DRAINAGE IS OBSERVED, IT SHALL BE REPORTED IMMEDIATELY TO THE OWNER AND/OR THE LANDSCAPE ARCHITECT.

16. FOLLOWING THE COMPLETION OF CONSTRUCTION IT SHALL BE THE RESPONSIBILITY OF THE OWNER TO KEEP ALL DRAIN INLETS AND DRAINAGE SWALES CLEAR OF DEBRIS TO ENSURE THAT THEY FUNCTION AS INTENDED. COBBLE LINED DRAINAGE SWALES AND ANY CONCRETE PANS SHOULD BE CLEARED OF LEAVES, WEEDS AND ANY OTHER DEBRIS THAT COULD IMPEDE THE FLOW OF WATER.

17. WATER FOR PLANTING WILL BE PROVIDED ON-SITE BY THE OWNER. CONTRACTOR IS RESPONSIBLE FOR CONVEYING THE WATER AS NEEDED.

18. REFER TO THE IRRIGATION PLANS FOR LOCATIONS OF SLEEING.

19. CURVED EDGER, WALKWAYS, WALLS, ETC. ARE INTENDED TO BE CONSTRUCTED WITH SMOOTH FLOWING CURVES. ANYTHING OTHER THAN SMOOTH FLOWING CURVES WILL BE REJECTED.

20. CONTACT THE LANDSCAPE ARCHITECT 48 HOURS IN ADVANCE OF PLANTING TREES, SHRUBS, PERENNIALS, AND GRASSES, SO THAT LANDSCAPE ARCHITECT CAN BE PRESENT TO WORK WITH CONTRACTOR AT THE SITE TO PLACE PLANTS IN THEIR FINAL POSITION PRIOR TO PLANTING.



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Prepared For	MNC
Designer	MW
Drafter	MW
Checked	MC



THE MEADOWS FILING 20, PHASE 1 CONSTRUCTION DOCUMENTS LANDSCAPE NOTES & DETAILS

Sheet	17
of	24
Date	DECEMBER 2024

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PLOT DATE: 1/23/2025 10:16 AM
PLOT BY: T. NOSER

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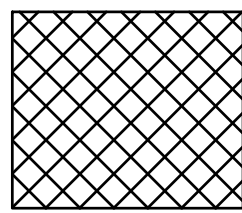


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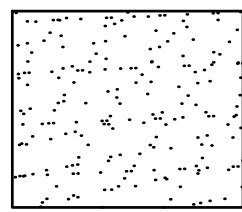


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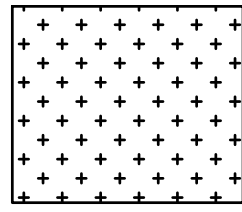
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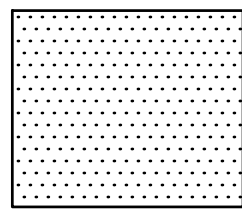
EXISTING DRIP IRRIGATION TO REMAIN



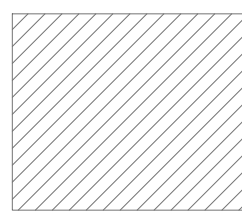
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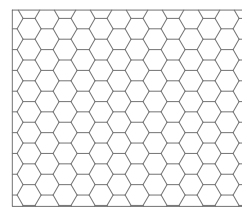
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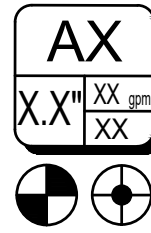
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EXISTING SPRAY AND ROTOR TURF IRRIGATION TO BE REMOVED FOR NEW POOL DECK.



EXISTING SPRAY AND ROTOR TURF IRRIGATION TO BE REMOVED. AREA TO BE CHANGED FROM TURF TO PLANTING BEDS. NEW DRIP IRRIGATION TO BE ADDED TO THIS AREA.



EXISTING REMOTE CONTROL DRIP/SPRAY VALVE TO REMAIN



EXISTING REMOTE CONTROL DRIP/SPRAY VALVE TO BE REMOVED



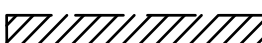
EXISTING MAINLINE TO REMAIN



EXISTING MAINLINE TO BE REMOVED



LIMITS OF CONSTRUCTION



EXISTING IRRIGATION SLEEVE TO REMAIN



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STEPHEN M. DOUGLAS, P.E.
REGISTERED LICENSED PROFESSIONAL ENGINEER
STATE OF COLORADO No. 41176
FOR AND ON BEHALF OF
PERSONALIZED ENGINEERING SOLUTIONS, LLC
(720)388-8126

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MNC TAFT HOUSE	MNC	MNC	TDN	TDN	TDN



THE MEADOWS FILING 20, PHASE 1
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IRRIGATION DEMOLITION PLAN

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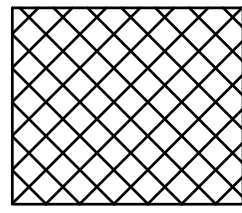


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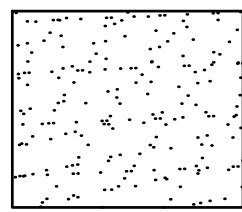


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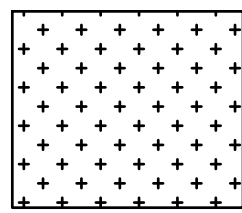
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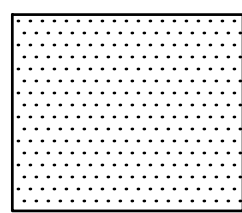
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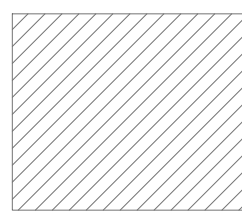
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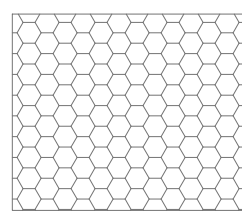
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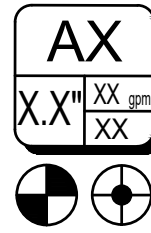
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EXISTING IRRIGATION SLEEVE TO REMAIN



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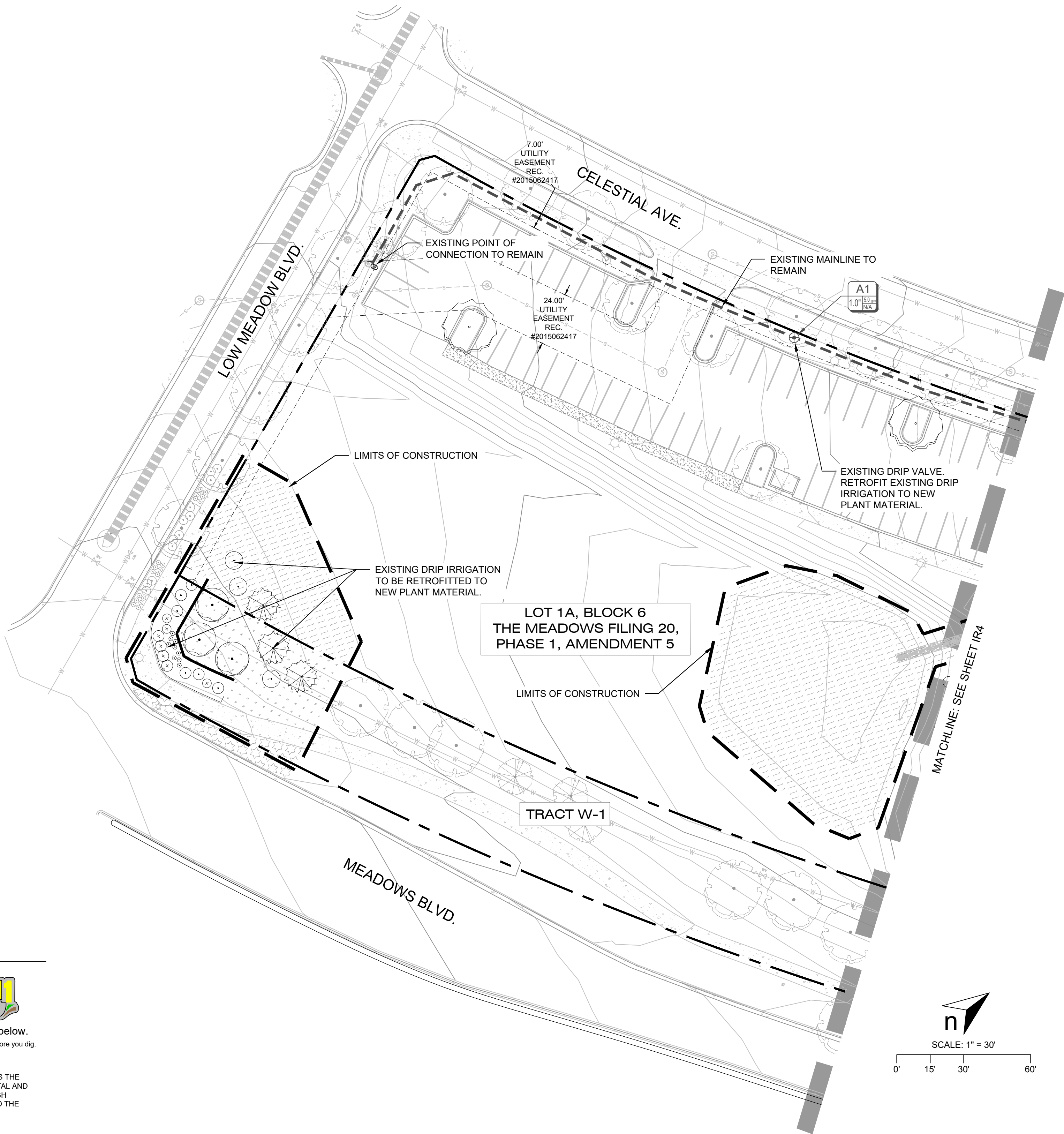
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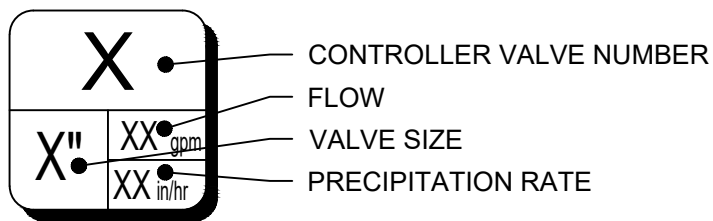
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IRRIGATION LEGEND

SYMBOL	MANUFACTURER	MODEL	DESCRIPTION	DETAIL
	RAINBIRD	44-LRC	1" QUICK COUPLER	DETAIL 1 / SHEET IR6
	HUNTER	ICV-G-FS	REMOTE CONTROL VALVE. SIZE VARIES. SEE PLAN AND IRRIGATION CONTROLLER SCHEDULE. GROUP VALVES TO MAXIMIZE AVAILABLE GPM AND FIT WITHIN WATER WINDOWS.	DETAIL 2 & 3 / SHEET IR6
	HUNTER	PCZ-101-40	DRIP CONTROL ZONE KITS. GLOBE VALVE WITH FILTER SYSTEM AND SCREEN. PRESSURE REGULATION AT 40 PSI. FLOW RANGE BETWEEN 5GPM-15GPM. SIZE VARIES. SEE PLAN AND IRRIGATION CONTROLLER SCHEDULE. GROUP VALVES TO MAXIMIZE AVAILABLE GPM AND FIT WITHIN WATER WINDOWS.	DETAIL 4 / SHEET IR6
	RAINBIRD	XERI-BUG	POINT SOURCE DRIP EMITTER. SELF PIERCING BARC. COLOR CODED EMITTERS. PRESSURE COMPENSATING FROM 15PSI-50 PSI. SEE EMITTER SCHEDULE BELOW: - 1/2 GALLON: 1. XB-05PC EMITTER PER PLANT (5 GPH TOTAL) - 5 GALLON: 2. XB-05PC EMITTERS PER PLANT (1 GPH TOTAL) - 1-1/2" CAL. TREE: 3. XB-10PC EMITTERS PER PLANT (3 GPH TOTAL) - 2" CAL. TREE: 4. XB-10PC EMITTERS PER PLANT (4 GPH TOTAL) - 2-1/2" CAL. TREE: 6. XB-10PC EMITTERS PER PLANT (6 GPH TOTAL) - 3" CAL. TREE: 8. XB-10PC EMITTERS PER PLANT (8 GPH TOTAL) - 6 EVERGREEN TREE: 4. XB-10PC EMITTERS PER PLANT (4 GPH TOTAL)	DETAIL 5 / SHEET IR6
	NIBCO	4660-T	MANUAL FLUSH VALVE. SCHEDULE 40 MANUAL FLUSH VALVE. CONNECT TO DRIP POLYTUBING FOR WINTERIZATION BLOWOUT. SIZE VARIES. MATCH DRIPLINE PIPE SIZE AT VALVE LOCATION.	DETAIL 6 / SHEET IR7
	ANY APPROVED	ANY APPROVED	IRRIGATION MAINLINE. CLASS 200 PVC. SIZE: 1-1/2" UNLESS OTHERWISE NOTED ON PLAN.	DETAIL 7 / SHEET IR7
	ANY APPROVED	ANY APPROVED	IRRIGATION LATERAL LINE. CLASS 200 PVC. SIZE: 1" UNLESS OTHERWISE NOTED ON PLAN.	DETAIL 7 / SHEET IR7
	TORO	BLUESTRIPE	IRRIGATION DRIP SUPPLY TUBING. POLY PIPE. SIZE: 3/4"	DETAIL 7 / SHEET IR7
	HUNTER/TORO	PROS-06-PRS30-CV W/ O PRECISION SERIES NOZZLES	O PRECISION SERIES NOZZLE ON 6" POP UP. FACTORY INSTALLED CHECK VALVE. PRESSURE REGULATED TO 30 PSI. MP ROTATOR NOZZLE ON PRS30 BODY.	DETAIL 8 / SHEET IR7

VALVE CALLOUT TAG DIAGRAM



CONTRACTOR NOTE

- CONTRACTOR TO ENSURE IRRIGATION SYSTEM IS IN PLACE AND OPERATIONAL PRIOR TO INSTALLATION.
- CONTRACTOR TO RETROFIT AND EXTEND THE EXISTING IRRIGATION SYSTEM TO NEWLY ADDED PLANT MATERIAL SHOWN ON THE LANDSCAPE PLAN.
- ALL IRRIGATION EQUIPMENT AND COMPONENTS USED, SHALL MATCH THE EXISTING IRRIGATION SYSTEM.
- CONTRACTOR TO ENSURE THE RETROFITTED IRRIGATION SYSTEM IS OPERATIONAL UPON COMPLETION.
- CONTACT THE IRRIGATION DESIGNER WITH ANY QUESTIONS REGARDING THIS RETROFIT.



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JAN 21 2025	2ND CD SUBMITTAL
DEC 13 2024	INITIAL CD SUBMITTAL

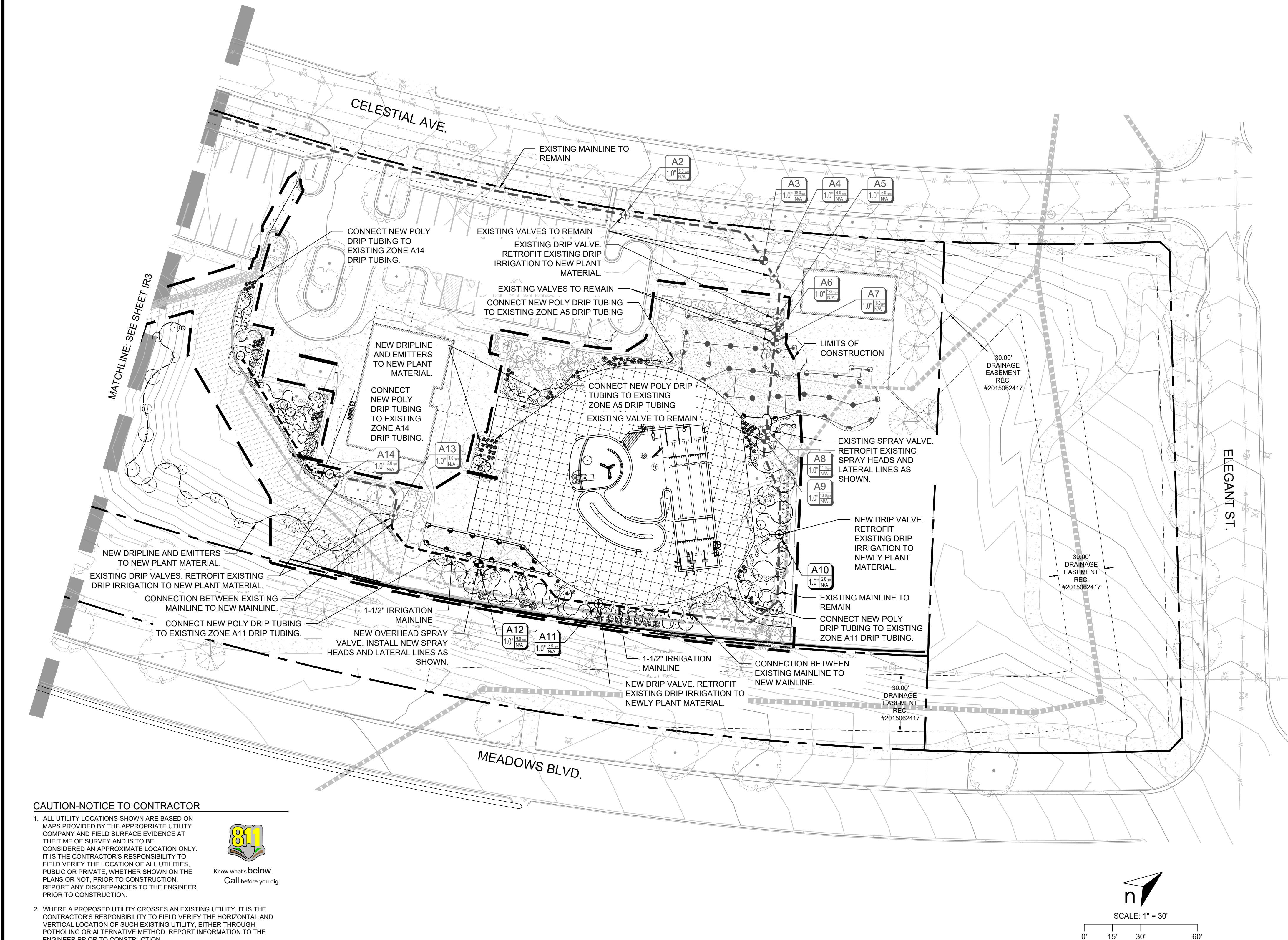


Drawing Name	MNC TAFT HOUSE
Job Number	MNC
Prepared For	MNC
Designer	TDN
Drafter	TDN
Checked	TDN



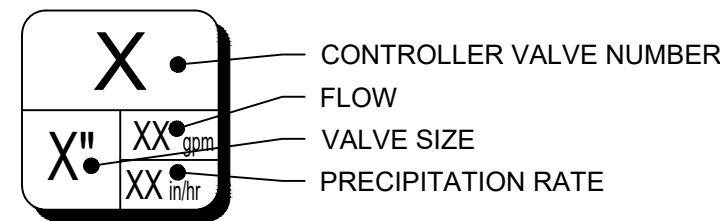
THE MEADOWS FILING 20, PHASE 1
CONSTRUCTION DOCUMENTS
IRRIGATION PLAN

PATH: C:\USERS\TROY\NOME\DRIVE - TND\DESIGN\LLC\COM\TIN\DESIGN\PROJECTS\OUTDOOR DESIGN GROUP\ODG001 - CASTLE ROCK, CO - TAFT HOUSE\LA & IRR\3-CD\ODG001_CD-IRRIGATION.DWG
PLOT DATE: 1/21/2025 6:17 AM
PLOT BY: T. NOSER



IRRIGATION LEGEND				
SYMBOL	MANUFACTURER	MODEL	DESCRIPTION	DETAIL
	RAINBIRD	44-LRC	1" QUICK COUPLER	DETAIL 1 / SHEET IR6
	HUNTER	ICV-G-FS	REMOTE CONTROL VALVE. SIZE VARIES. SEE PLAN AND IRRIGATION CONTROLLER SCHEDULE. GROUP VALVES TO MAXIMIZE AVAILABLE GPM AND FIT WITHIN WATER WINDOWS.	DETAIL 2 & 3 / SHEET IR6
	HUNTER	PCZ-101-40	DRIP CONTROL ZONE KITS. GLOBE VALVE WITH FILTER SYSTEM AND SCREEN. PRESSURE REGULATION AT 40 PSI. FLOW RANGE BETWEEN .5GPM-15GPM. SIZE VARIES. SEE PLAN AND IRRIGATION CONTROLLER SCHEDULE. GROUP VALVES TO MAXIMIZE AVAILABLE GPM AND FIT WITHIN WATER WINDOWS.	DETAIL 4 / SHEET IR6
	RAINBIRD	XERI-BUG	POINT SOURCE DRIP EMITTER. SELF PIERCING BARC. COLOR CODED EMITTERS. PRESSURE COMPENSATING FROM 15PSI-50 PSI. SEE EMITTER SCHEDULE BELOW: - 1-2 GALLON: 1. XB-05PC EMITTER PER PLANT (5 GPH TOTAL) - 5 GALLON: 2. XB-05PC EMITTERS PER PLANT (1 GPH TOTAL) - 1-1/2" CAL. TREE: 3. XB-10PC EMITTERS PER PLANT (3 GPH TOTAL) - 2" CAL. TREE: 4. XB-10PC EMITTERS PER PLANT (4 GPH TOTAL) - 2-1/2" CAL. TREE: 6. XB-10PC EMITTERS PER PLANT (6 GPH TOTAL) - 3" CAL. TREE: 8. XB-10PC EMITTERS PER PLANT (8 GPH TOTAL) - 6 EVERGREEN TREE: 4. XB-10PC EMITTERS PER PLANT (4 GPH TOTAL)	DETAIL 5 / SHEET IR6
	NIBCO	4660-T	MANUAL FLUSH VALVE. SCHEDULE 40 MANUAL FLUSH VALVE. CONNECT TO DRIP POLYTUBING FOR WINTERIZATION BLOWOUT. SIZE VARIES. MATCH DRIP LINE PIPE SIZE AT VALVE LOCATION.	DETAIL 6 / SHEET IR7
	ANY APPROVED	ANY APPROVED	IRRIGATION MAINLINE. CLASS 200 PVC. SIZE: 1-1/2" UNLESS OTHERWISE NOTED ON PLAN.	DETAIL 7 / SHEET IR7
	ANY APPROVED	ANY APPROVED	IRRIGATION LATERAL LINE. CLASS 200 PVC. SIZE: 1" UNLESS OTHERWISE NOTED ON PLAN.	DETAIL 7 / SHEET IR7
	TORO	BLUESTRIPE	IRRIGATION DRIP SUPPLY TUBING. POLY PIPE. SIZE: 3/4"	DETAIL 7 / SHEET IR7
	HUNTER/TORO	PROS-06-PRS30-CV W/ O PRECISION SERIES NOZZLES	O PRECISION SERIES NOZZLE ON 6" POP UP. FACTORY INSTALLED CHECK VALVE. PRESSURE REGULATED TO 30 PSI. MP ROTATOR NOZZLE ON PRS30 BODY.	DETAIL 8 / SHEET IR7

VALVE CALLOUT TAG DIAGRAM



CONTRACTOR NOTE

- CONTRACTOR TO ENSURE IRRIGATION SYSTEM IS IN PLACE AND OPERATIONAL PRIOR TO INSTALLATION.
- CONTRACTOR TO RETROFIT AND EXTEND THE EXISTING IRRIGATION SYSTEM TO NEWLY ADDED PLANT MATERIAL SHOWN ON THE LANDSCAPE PLAN.
- ALL IRRIGATION EQUIPMENT AND COMPONENTS USED, SHALL MATCH THE EXISTING IRRIGATION SYSTEM.
- CONTRACTOR TO ENSURE THE RETROFITTED IRRIGATION SYSTEM IS OPERATIONAL UPON COMPLETION.
- CONTACT THE IRRIGATION DESIGNER WITH ANY QUESTIONS REGARDING THIS RETROFIT.



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.

STEPHEN M. DOUGLAS, P.E.
REGISTERED LICENSED PROFESSIONAL ENGINEER
STATE OF COLORADO No. 41176
FOR AND ON BEHALF OF
PERSONALIZED ENGINEERING SOLUTIONS, LLC
(720)388-8126

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

APPROVED BY: **APPROVED**
By jkirpatrick
on 02/03/2025
APPROVED-CD24-0042 PLANS.pdf
Record Document on File

DEVELOPMENT SERVICES

CAUTION-NOTICE TO CONTRACTOR

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



Drawing Name		
Job Number		
MNC TAFT HOUSE		
Prepared For	Designer	Drafter
MNC	TDN	TDN
Checked	TDN	



THE MEADOWS FILING 20, PHASE 1
CONSTRUCTION DOCUMENTS
IRRIGATION PLAN

PATH: C:\USERS\TROY\NOME\DRIVE - TND\DESIGN\LLC\COM\TIN\DESIGN\PROJECTS\OUTDOOR DESIGN GROUP\ODG001 - CASTLE ROCK, CO - TAFT HOUSE\LA & IRR\3-CD\ODG001_CD-IRRIGATION.DWG
 PLOTTED BY: T. NOSER PLOT DATE: 1/21/2025 6:21 AM

GENERAL IRRIGATION NOTES

- IRRIGATION DESIGN IS BASED ON THEORIES, ASSUMPTIONS, AND/OR INFORMATION PROVIDED BY CIVIL MODEL,SUTILITIES/MUNICIPAL ENTITIES AND THUS, IS DIAGRAMMATIC IN NATURE.
- THE IRRIGATION SYSTEM SHALL BE INSTALLED BY A QUALIFIED IRRIGATION CONTRACTOR.
- THE CONTRACTOR SHALL PROVIDE ALL LABOR, EQUIPMENT AND MATERIALS NECESSARY TO INSTALL THE IRRIGATION DESIGN SHOWN ON THE PLANS,THE IRRIGATION CONTRACTOR SHALL REPAIR OR REPLACE ANYTHING DAMAGED BY HIS WORK AT NO ADDITIONAL COST TO THE OWNER.
- THE CONTRACTOR ASSUMES ALL LIABILITY ASSOCIATED WITH ANY SUBSTITUTIONS OR MODIFICATIONS OF THE IRRIGATION SYSTEM DESIGN WITHOUT NOTIFYING THE OWNER'S REPRESENTATIVE.
- ALL IRRIGATION EQUIPMENT IS TO BE INSTALLED AS SPECIFIED IN THE IRRIGATION SCHEDULE AND PER MANUFACTURE SPECIFICATIONS, NO SUBSTITUTIONS OF EQUIPMENT WILL BE ACCEPTABLE WITHOUT PRIOR WRITTEN APPROVAL BY THE LANDSCAPE ARCHITECT OR THE OWNER'S REPRESENTATIVE. THE IRRIGATION CONTRACTOR MAY BE REQUIRED TO REMOVE AND REPLACE ALL UNAPPROVED SUBSTITUTED EQUIPMENT AT THEIR OWN COST.
- REFER TO WRITTEN SPECIFICATIONS (IF APPLICABLE) FOR SUBMITTALS, INSPECTIONS AND OTHER APPLICABLE INFORMATION. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING A COPY OF THE PROJECT SPECIFICATIONS PRIOR TO BIDDING. THE PROJECT SPECIFICATIONS ARE A PART OF THESE PLANS AND THE CONTRACTOR IS RESPONSIBLE FOR IMPLEMENTING WORK AS SPECIFIED IN THE PROJECT SPECIFICATIONS AND ON THE PLANS. IN THE EVENT OF A DISCREPANCY BETWEEN THE PLAN AND SPECIFICATIONS, THE PLAN SHALL TAKE PRECEDENCE.
- THE IRRIGATION CONTRACTOR SHALL MEET WITH THE OWNER'S REPRESENTATIVE AND CONDUCT A SITE INSPECTION PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL OBTAIN ALL CONSTRUCTION DOCUMENTS, INCLUDING BUT NOT LIMITED TO, THE LANDSCAPE PLAN, SITE PLAN, UTILITY PLAN, GRADING PLAN AND DRAINAGE PLAN PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL THOROUGHLY REVIEW PLANS & REPORTS. IF THE CONTRACTOR NOTICES ANY DISCREPANCIES BETWEEN THE CONSTRUCTION DOCUMENTS AND THE EXISTING SITE CONDITIONS, IT IS THEIR RESPONSIBILITY TO NOTIFY THE OWNER'S REPRESENTATIVE IMMEDIATELY.
- ALL IRRIGATION EQUIPMENT SHALL BE INSTALLED WITHIN LANDSCAPE AREAS AND WITHIN THE

- PROJECT LIMITS. ANY IRRIGATION EQUIPMENT SHOWN WITHIN PAVED AREAS, OUTSIDE OF PROJECT LIMITS AND/OR PROPERTY BOUNDARIES ARE FOR GRAPHIC CLARITY ONLY. IF THERE IS A QUESTION REGARDING THE LOCATION OF IRRIGATION EQUIPMENT, THE IRRIGATION CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE FOR VERIFICATION. IF THE CONTRACTOR NEGLECTS TO NOTIFY THE NECESSARY PARTIES, THE CONTRACTOR MAY BE REQUIRED TO MOVE OR REPLACE SUCH ITEMS AT THEIR OWN COST.
- ALL CONSTRUCTION SHALL CONFORM TO ALL APPLICABLE CITY, COUNTY, STATE, AND FEDERAL REQUIREMENTS AND INSTALL THE IRRIGATION SYSTEM AND COMPONENTS PER MANUFACTURE SPECIFICATIONS. IT SHALL BE THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR TO ENSURE THAT ALL IRRIGATION EQUIPMENT MEETS GOVERNMENT REGULATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ANY NECESSARY PERMITS OR APPROVALS.
- THE IRRIGATION SYSTEM DESIGN IS BASED ON THE MINIMUM OPERATING PRESSURE AND THE MAXIMUM FLOW DEMAND SHOWN ON THE POINT OF CONNECTION NOTE TAG(S) ON THE DRAWINGS. THE IRRIGATION CONTRACTOR SHALL FIELD VERIFY THE STATIC & OPERATING WATER PRESSURE PRIOR TO CONSTRUCTION, AND SHALL REPORT ANY DIFFERENCES BETWEEN THE WATER PRESSURE INDICATED ON THE DRAWINGS AND THE ACTUAL PRESSURE READING AT THE IRRIGATION POINT OF CONNECTION TO THE OWNER'S REPRESENTATIVE AND LANDSCAPE ARCHITECT. IN THE EVENT PRESSURE DIFFERENCES ARE NOT REPORTED OR PRESSURES HAVE GREATLY CHANGED PRIOR TO THE START OF THE IRRIGATION SYSTEM CONSTRUCTION, THE IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE FOR RECOMMENDING A SOLUTION AND PROVIDING AN ADD ALTERNATE BID FOR IRRIGATION COSTS.
- CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE IF THE STATIC WATER PRESSURE IS 5 PSI HIGHER OR LOWER THAN THE STATIC WATER PRESSURE USED TO DESIGN THESE PLANS.
- NO MORE THAN 90% OF AVAILABLE MINIMUM STATIC WATER PRESSURE WAS USED IN PREPARATION OF THESE PLANS. FURTHERMORE, THE MAXIMUM FLOW THROUGH THE METER SHOULD NOT EXCEED 75% OF THE MAXIMUM SAFE FLOW.
- SUPPLY LINE AND METER TO BE PROVIDED BY GENERAL CONTRACTOR. BACKFLOW PREVENTOR AND ALL OTHER POINT OF CONNECTION EQUIPMENT TO BE PROVIDED BY IRRIGATION CONTRACTOR. IRRIGATION CONTRACTOR'S POINT OF CONNECTION TO BEGIN AFTER THE IRRIGATION WATER METER.

- ALL PIPE FROM THE WATER METER TO QUICK COUPLER LOCATED DOWNSTREAM OF THE BACKFLOW PREVENTOR, SHALL BE THE SAME SIZE AS THE METER.
- IRRIGATION BACKFLOW, CONTROLLER AND RAIN SENSOR LOCATIONS SHALL BE APPROVED BY THE OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION. DO NOT INSTALL THESE ITEMS NEAR BUILDING ENTRANCES AND TRAFFIC INTERSECTIONS.
- THE IRRIGATION CONTRACTOR SHALL COORDINATE 120 V.A.C. ELECTRICAL POWER TO ALL CONTROLLERS WITH OWNER'S REPRESENTATIVE AND ELECTRICAL PLANS FOR POWER SERVICE. ALL ELECTRICAL EQUIPMENT AND POWER CONNECTION TO BE INSTALLED PER LOCAL CODE. IT SHALL BE THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR TO MAKE THE FINAL HOOK-UP FROM THE ELECTRICAL SOURCE TO THE CONTROLLER UNIT AND TO INSTALL A LINE VOLTAGE SURGE DEVICE FOR 120 VOLT IN A JUNCTION BOX BEFORE THE CONTROLLER.
- THE RAIN SENSOR SHALL BE LOCATED NEAR THE IRRIGATION CONTROLLER AND SHALL BE MOUNTED AS SHOWN ON THE DETAIL AND/OR LEGEND. LOCATE SENSOR AWAY FROM TALL TREES, SHRUBS AND OTHER POTENTIAL OBSTRUCTIONS.
- CONTRACTOR SHALL PROVIDE COMMUNICATION WIRE, TO ALL REMOTE CONTROL VALVES AND LEAVE A 24" COIL OF EXCESS WIRE. CONNECT ALL DIRECT BURIAL WIRES TO VALVES USING 3M'S "DBY-DIRECT BURIAL SPLICE KIT", UNLESS OTHERWISE SPECIFIED.
- IF TRADITIONAL WIRE SYSTEM, PROVIDE ADDITIONAL IRRIGATION WIRES TO THE AMOUNT OF OPEN ZONES ON THE CONTROLLER ALONG EACH BRANCH OF MAINLINE FOR FUTURE EXPANSION. STUB ADDITIONAL CONTROL WIRES INTO BACK OF IRRIGATION CONTROLLERS.
- THE GENERAL CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION OF ALL IRRIGATION SLEEVES. THE IRRIGATION CONTRACTOR SHALL COORDINATE ALL IRRIGATION SLEEVE SIZES AND LOCATIONS AND WITH THE GENERAL CONTRACTOR PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL SLEEVE ALL IRRIGATION LINES AND COMMUNICATIONS WIRES UNDER ALL PAVED SURFACES, WALL FOOTERS, DRAINAGE CHANNELS, INLETS, ETC. ALL SLEEVES SHALL BE CLASS 200 PVC PIPE. SLEEVES FOR MAINLINE AND LATERAL LINES SHALL BE A MINIMUM OF TWICE THE DIAMETER OF THE ENCLOSED PIPE. SLEEVES FOR COMMUNICATION WIRES SHALL BE SIZED PER THE SLEEVING / WIRING NOTE AND THE WIRING SLEEVE LEGEND ITEM AS SHOWN ON THESE PLANS. SLEEVES SHALL

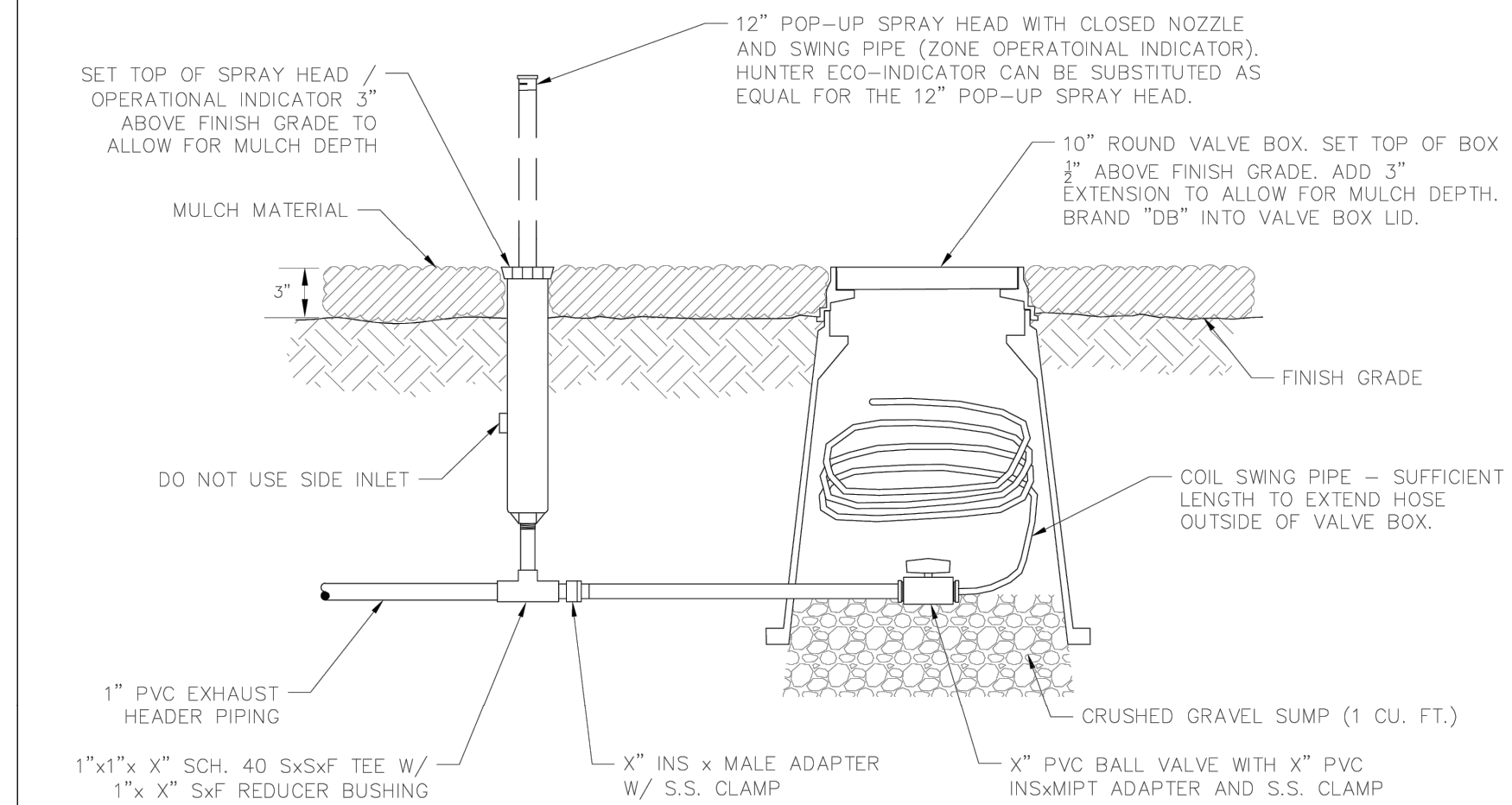
- EXTEND 1' MINIMUM BEYOND THE EDGE OF OBSTRUCTIONS. NO TEES, ELLS OR TURNS IN PIPING. ACCEPTABLE UNDER ANY OBSTRUCTIONS. SLEEVE LOCATION, SIZE AND QUANTITY SHALL MATCH THE PLANS. ALL IRRIGATION LINES AND COMMUNICATION WIRES SHALL BE INSTALLED IN SEPARATE SLEEVES.
- IT IS THE CONTRACTORS RESPONSIBILITY TO ENSURE ADEQUATE VERTICAL SEPARATION BETWEEN ALL IRRIGATION LINES AND ALL EXISTING AND PROPOSAL UNDERGROUND UTILITIES, CONDUIT, DRAINS, STORM STRUCTURES, ETC.
- TRENCH BACKFILL MATERIAL SHALL BE FREE OF ROCKS, GLASS, AND OTHER EXTRANEEOUS MATERIALS LARGER THAN 1" IN DIAMETER. BACKFILL SHALL BE COMPACTED TO 90% MAXIMUM DRY DENSITY.
- IRRIGATION CONTRACTOR SHALL INSTALL TRACER WIRE IN ALL MAINLINE TRENCHES.
- ALL VALVE BOXES SHALL HAVE GREEN, SELF LOCKING LIDS INSTALLED FLUSH WITH THE FINISH GRADE. ALL VALVE BOXES SHALL BE INSTALLED A MINIMUM OF 1' AWAY FROM PAVED SURFACES.
- MANUAL DRAIN VALVES ARE TO BE LOCATED AT ALL LOW POINTS OF IRRIGATION LATERAL LINES FOR FREEZE PROTECTION. WHERE THE LOW POINT IS AT THE END OF THE LINE, LOCATE DRAIN VALVE A MINIMUM OF 12" DOWNSTREAM FROM THE LAST SPRINKLER HEAD.
- QUICK COUPLERS SHALL BE INSTALLED IN 10" ROUND VALVE BOXES AT THE END OF ALL BRANCHES OF THE MAINLINE FOR WINTERIZATION AND MAINLINE FLUSHING.
- USE TEFLON TAPE ON ALL PVC MALE PIPE THREADS, ON ALL SWING JOINT AND VALVE ASSEMBLIES.
- ALL PRESSURIZED MAINLINES, VALVES, DRIP, ROTOR AND SPRAY HEADS SHALL BE INSTALLED A MINIMUM OF 3' AWAY FROM ANY BUILDING FOUNDATION OR AS STIPULATED IN THE GEOTECHNICAL REPORT, WHICHEVER IS GREATER. IF THIS EQUIPMENT IS SHOWN WITHIN THE 3' OFFSET ON THESE PLANS, IT IS FOR THE PURPOSE OF GRAPHIC CLARITY ONLY.
- ALL ROTOR, ROTATOR, AND SPRAY HEAD LOCATIONS SHALL BE STAKED, FLAGGED AND/OR OTHERWISE CLEARLY MARKED ON THE GROUND PRIOR TO INSTALLATION. SPRINKLER HEAD STAKING SHALL BE INSPECTED AND APPROVED BY THE OWNER'S REPRESENTATIVE PRIOR TO

- INSTALLATION. STAKED LOCATIONS SHALL BE SPACED TO PROVIDE HEAD-TO-HEAD COVERAGE. RECOMMENDED SETBACK DISTANCE OF ALL PROPOSED IRRIGATION HEADS IS 12" FROM BACK OF CURB AND EDGE OF PAVEMENT. ALL ROTOR, ROTATOR, AND SPRAY HEADS LOCATED IN TURF OR SEED AREA SHALL BE "POP-UPS" AND INSTALLED 1" ABOVE THE FINISH GRADE, UNLESS OTHERWISE NOTED ON THE PLANS.
- IRRIGATION CONTRACTOR SHALL FLUSH AND ADJUST ALL SPRINKLER HEADS FOR OPTIMUM PERFORMANCE AND TO PREVENT OVERSPRAY ONTO WALKS, ROADWAYS, AND/OR BUILDINGS AS MUCH AS POSSIBLE. THIS SHALL INCLUDE SELECTING THE BEST NOZZLE ARC AND RADIUS TO FIT THE EXISTING SITE CONDITIONS.
- ALL IRRIGATION HEADS, INCLUDING FIXED-SPRAY AND DRIP DEVICES, SHALL BE SET PERPENDICULAR TO THE FINISH GRADE OF THE AREA TO BE IRRIGATED.
- PLANT MATERIAL LOCATIONS TAKE PRECEDENCE OVER IRRIGATION EQUIPMENT. COORDINATE INSTALLATION OF IRRIGATION EQUIPMENT SO THAT IT DOES NOT INTERFERE WITH THE PLANTING OF TREES AND OTHER LANDSCAPE MATERIAL.
- ALL WORK SHALL BE PERFORMED OUTSIDE OF THE CRITICAL ROOT ZONE OF ALL EXISTING TREES TO REMAIN.
- UPON COMPLETION OF THE IRRIGATION SYSTEM INSTALLATION, THE IRRIGATION CONTRACTOR SHALL PROVIDE THE FOLLOWING:
 - CONDUCT A PRESSURE TEST ON ALL MAINLINES, AT 120 PSI FOR A MINIMUM OF 2 HOURS OR PER THE WRITTEN SPECIFICATIONS, WHICHEVER IS GREATER.
 - CREATE ACCURATE "AS BUILT" PLANS OF IRRIGATION SYSTEM INCLUDING A ZONE MAP TO BE PLACED INSIDE EACH CONTROLLER BOX.
 - PROVIDE A SEASONAL MAINTENANCE SCHEDULE TO INSURE THE EFFICIENCY AND LONGEVITY OF THE IRRIGATION SYSTEM.
 - PROVIDE RUN TIME SCHEDULE AND WATER WINDOW LOG.
 - ONE HOUR OF TRAINING TO OWNER ON IRRIGATION SYSTEM AND CONTROLLER OPERATION.
 - REVIEW WINTERIZATION PROCEDURES FOR IRRIGATION SYSTEM WITH OWNERS REPRESENTATIVE.

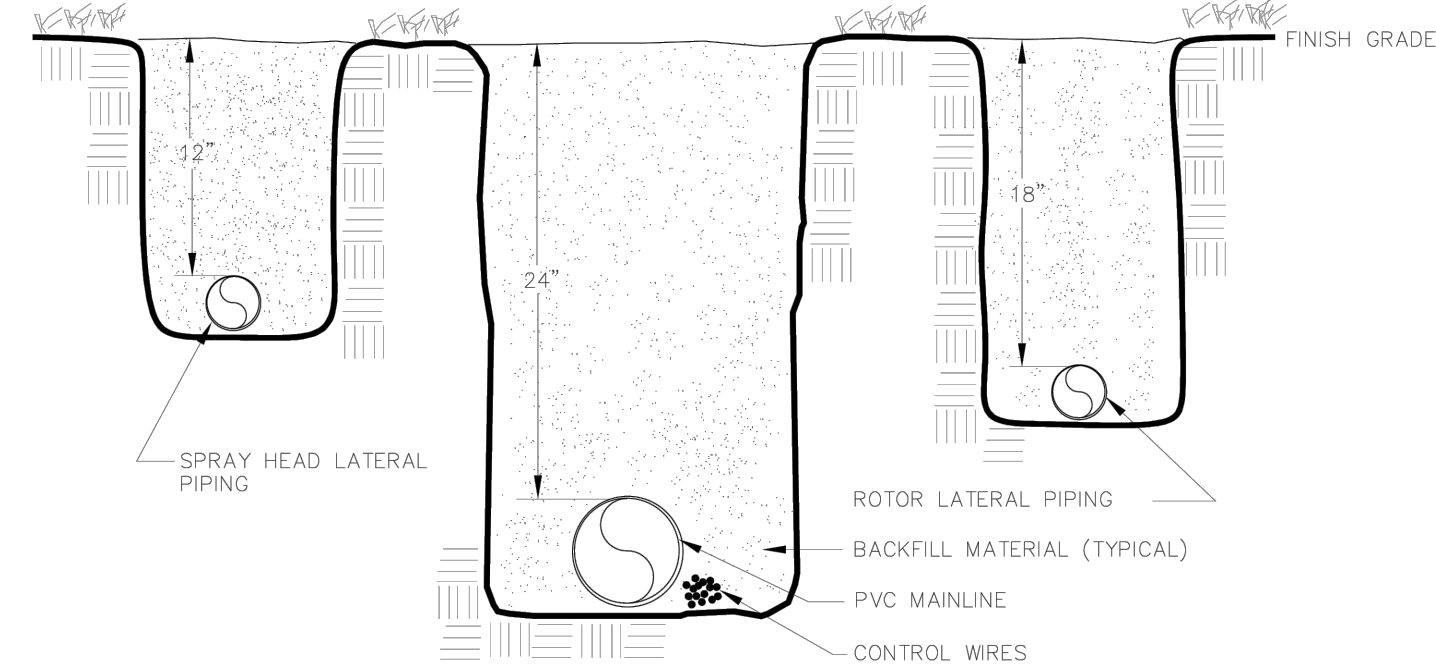
TOWN OF CASTLE ROCK IRRIGATION NOTES

- INSTALLING CONTRACTOR SHALL CONTACT THE TOWN OF CASTLE ROCK UTILITIES DEPARTMENT AT 720.733.8017 TO SCHEDULE A PRE-CONSTRUCTION MEETING BEFORE BEGINNING THE INSTALLATION OF THE IRRIGATION SYSTEM.
- IRRIGATION SHALL BE INSTALLED BY A TOWN OF CASTLE ROCK REGISTERED LANDSCAPE CONTRACT PROFESSIONAL.
- 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.
- 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 JUNE AND AUGUST. 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 A THREE FIXED DAYS A WEEK FROM 10 PM TO 6 AM.
- OVERHEAD IRRIGATION IN AREAS LESS THAN 10' IN WIDTH OR INSTALLED ON SLOPES STEEPER THAN 3:1 WILL NOT BE APPROVED BY TOWN OF CASTLE ROCK INSPECTORS.
- ALL IRRIGATION INSTALLATIONS MUST MEET TOWN OF CASTLE ROCK DETAILS.
- PLEASE NOTE THAT THE 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.
- 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.
- IRRIGATION SYSTEMS ARE TO BE WINTERIZED ANNUALLY IN THE FALL.
- THE IRRIGATION SYSTEM SHALL BE EQUIPPED WITH A BACKFLOW PREVENTION ASSEMBLY APPROVED BY THE TOWN OF CASTLE ROCK.
- 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.
- 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.
- IRRIGATION IS NOT PERMITTED ON 3:1 SLOPES.
- VELOCITY SHALL NOT EXCEED 7.5 FPS THROUGH THE WATER METER.
- NO OVERHEAD IRRIGATION IN AREAS LESS THAN 10 FEET WIDE.
- THERE IS TO BE NEITHER PLANT MATERIAL NOR IRRIGATION IN AREAS LESS THAN 4 FEET WIDE.

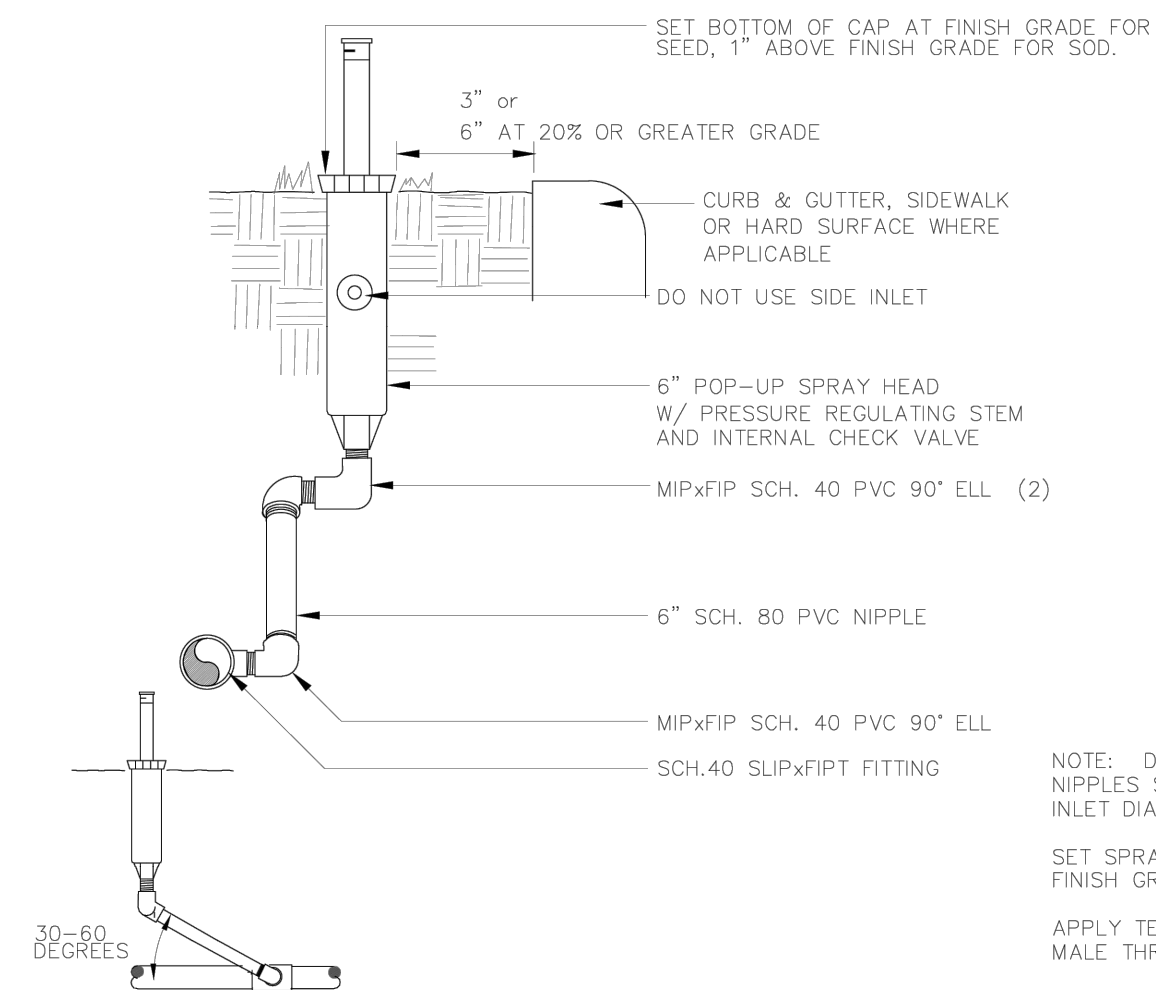
											
Project Name:		The Meadows Filing 20						Date:		12.13.2024	
Project Location:											
Prepared by:		Troy Noser						Current TOCR Registration #			
Tap Size		1.00 "				Source of Pressure		Denise Lannan of TOCR Water June 17th, 2015			
Static Water Pressure:		76 psi									
Hydraulic Grade At Zone:		A12				Company		TN Design LLC			
		Ft. of Copper		Pipe Size (")		K Copper		Friction Loss (from chart)		Flow-GPM Loss/Gain	
Service Line (tap to meter):		30 LF		1.00		K Copper		4.10 /100 FT		11 1.23	
Water Meter:				1.00				0.80		11 0.80	
Service Line (meter to backflow):		20 LF		1.00		K Copper		4.10 /100 FT		11 0.82	
Backflow:				1.00				12.5		11 12.50	
Master Valve:		1						3		11 3.00	
Pressure Required at Head:		30									
Lateral Allowance:		3.00									
Control Valve Allowance:		2.90									
Mainline Allowances:											
Length of Mainline		Pipe Material		Size		Gals.					
1100 LF		CL200BE		1.500 "@		11 GPM		0.30 /100 FT		3.30	
		LF CL200BE		"@		11 GPM-Looped		/100 FT		0.00	
Elevation:		Tap elevation		6,205				High/Low: 6,200		-2.17	
Green shading indicates required information you must provide											
Total System requirements (PSI)										55.39	
Available System Pressure (PSI)										76.45	
Town of Castle Rock provides a minimum of 43 psi											
Total irrigated area for tap #1 is 31,244 sq. ft.											



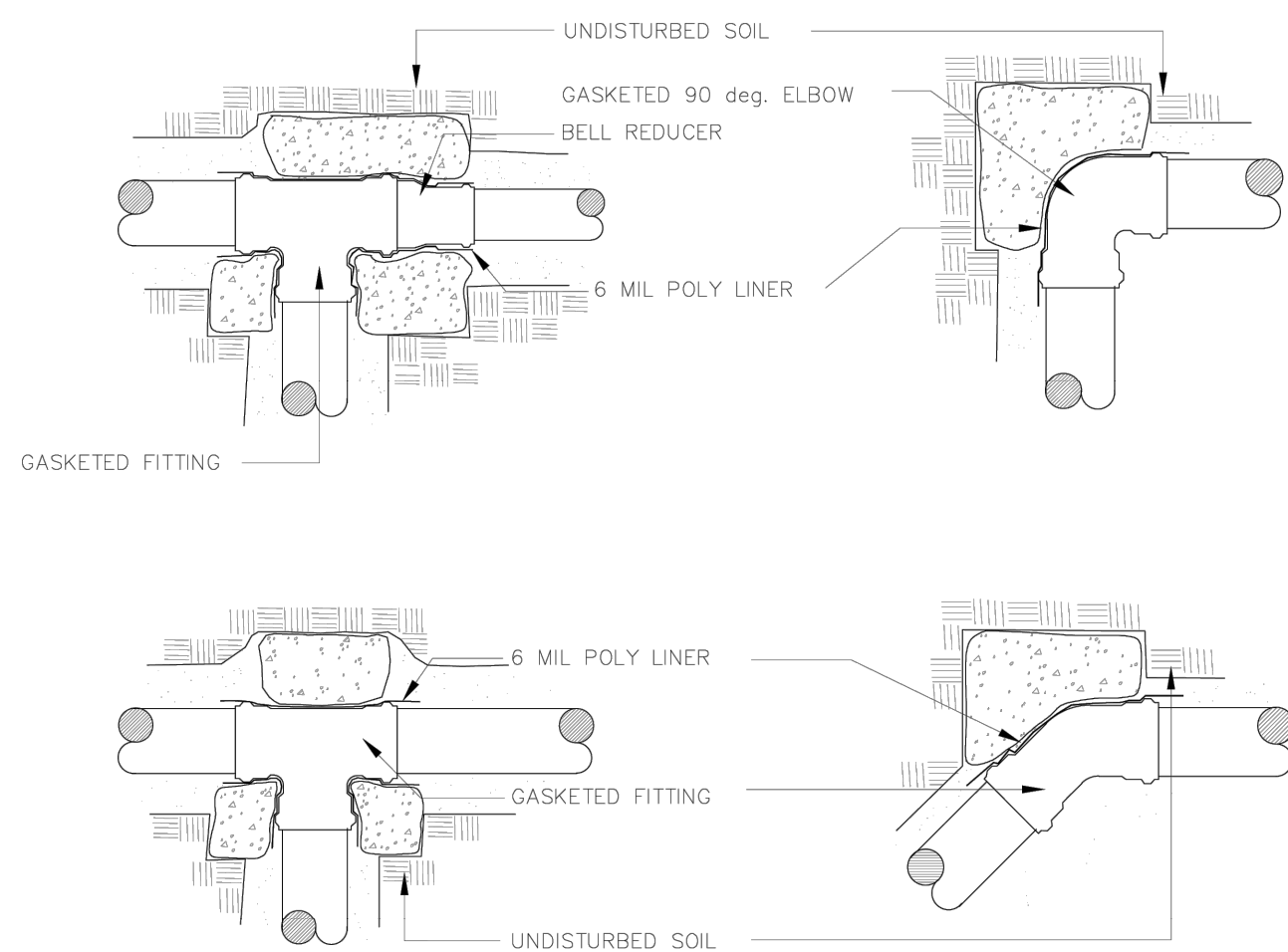
Sheet Revisions Date: 3/21 Comments: STAFF CHANGES		 Town of Castle Rock 100 N. Wilcox St. Castle Rock, CO 80104 Phone: (720) 733-2200 Fax: (720) 733-2017 Development Services	DRIPPERLINE FLUSH-OUT & OPERATIONAL INDICATOR Issued By: Town of Castle Rock, Development Services March 31, 2021	DETAIL PLAN NO. IR-32 Sheet 1 of 1
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Sheet Revisions		 <div>Town of CASTLE ROCK a city of color</div>	Town of Castle Rock 100 N. Wilcox St. Castle Rock, CO 80104 Phone: (720) 733-2200 Fax: (720) 733-2017 Development Services	<div>MAIN LINE & LATERAL TRENCH</div>	DETAIL PLAN NO.
Date	Comments				IR-21
				Issued by: Castle Rock, Development Services March 31, 2021	Sheet 1 of 1



Sheet Revisions Date Comments		 Town of Castle Rock 100 N. Wilcox St. Castle Rock, CO 80104 Phone: (720) 233-2200 Fax: (720) 233-2217 Development Services	POP-UP SPRAY HEAD		DETAIL PLAN NO. IR-4
			Issued By: Town of Castle Rock, Development Services March 31, 2021		Sheet 1 of 1



Sheet Revisions		 <p>Town of Castle Rock 100 N. Wilcox St. Castle Rock, CO 80104 Phone: (720) 733-2200 Fax: (720) 733-2317 Development Services</p>	IRRIGATION THRUST BLOCKING	DETAIL PLAN NO.
Date	Comments			IR-22
3/21	STAFF CHANGES			Sheet 1 of 1
			Issued by: Town of Castle Rock, Development Services March 31, 2021	



Drawing Name						Personalized Engineering Solutions
Job Number						
MNC TAFT HOUSE						
Prepared For	MNC	Designer	Drafter	Checked	Personalized Engineering Solutions, LLC 9249 S. Broadway #200-388 Highlands Ranch, CO 80129 720.388.8126 www.pengsolutions.com www.trndesignllc.com	
		TDN	TDN	TDN	troy.noser@trndesignllc.com 303.246.3577 www.trndesignllc.com	
				Construction Management Civil Engineering Land Planning		



Personalized Engineering Solutions, LLC
9249 S. Broadway #200-388
Highlands Ranch, CO 80129 720.388.8126
www.pengsolutions.com
[Construction Management](#) [Civil Engineering](#) [Land Planning](#)

THE MEADOWS FILING 20, PHASE 1

CONSTRUCTION DOCUMENTS

IRRIGATION DETAILS

Sheet
IR7
Date
DECEMBER 2024