

CITY OF GOODLETTSVILLE

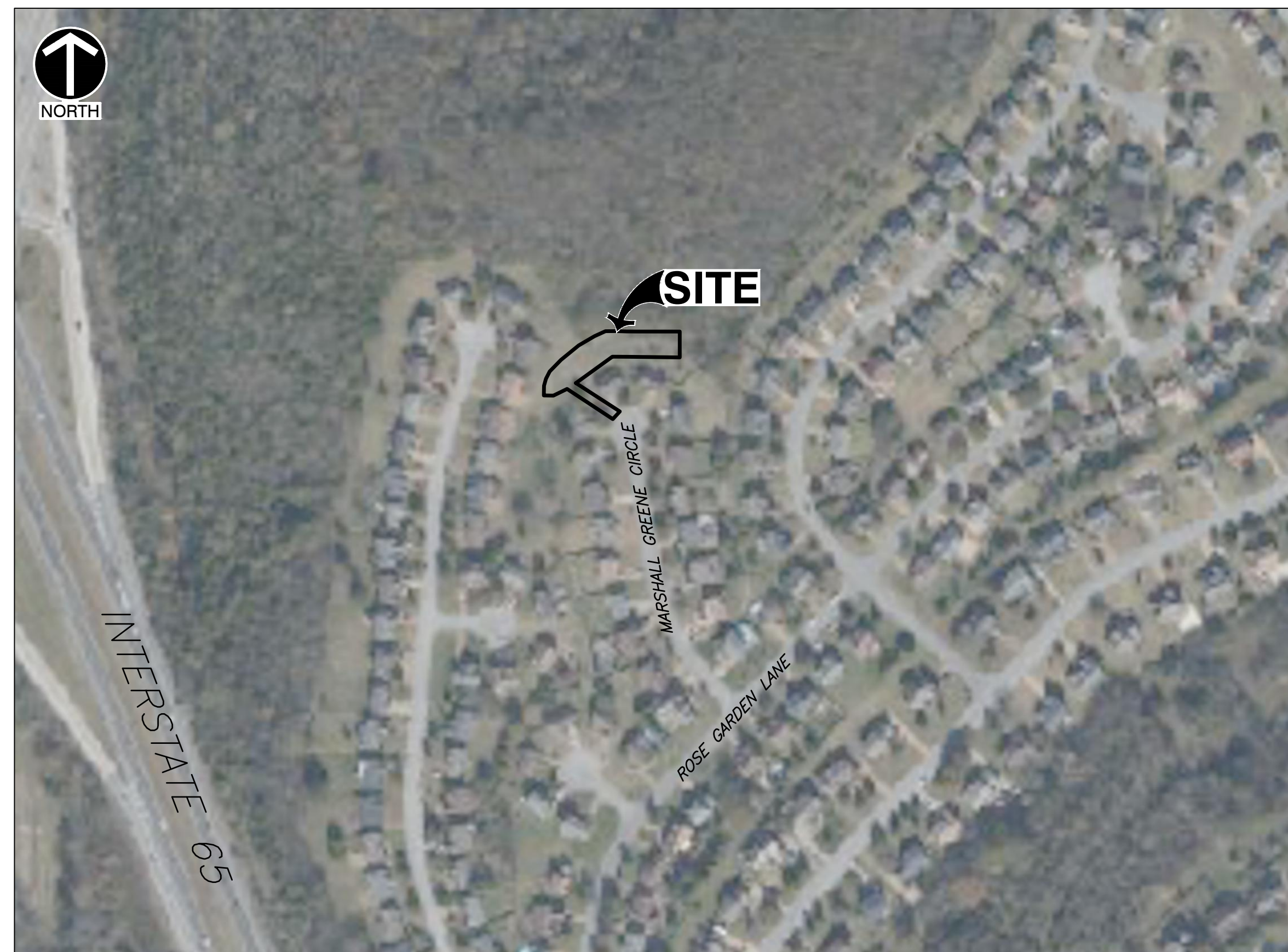
MARSHALL GREENE SLOPE REPAIR

GOODLETTSVILLE, SUMNER COUNTY, TN

AUGUST 2022



VICINITY MAP
N.T.S.



VICINITY MAP
SCALE IN FEET
0 200 400

RESOURCE LIST

PLANNING DEPARTMENT:
117 MEMORIAL DRIVE
GOODLETTSVILLE, TN 37072
(615) 851-2200

FIRE DEPARTMENT:
105 LONG HOLLOW PIKE
GOODLETTSVILLE, TN 37072
(615) 851-2245

BUILDING INSPECTION & CODES:
117 MEMORIAL DRIVE
GOODLETTSVILLE, TN 37072
(615) 851-2200

WATER:
MADISON SUBURBAN UTILITY DISTRICT
108 WEST WEBSTER STREET
MADISON, TN 37115
(615) 868-3201

GAS COMPANY:
PIEDMONT NATURAL GAS
83 CENTURY BLVD.
NASHVILLE, TN 37214
(615) 872-2405

ELECTRIC COMPANY:
NASHVILLE ELECTRIC SERVICE
1214 CHURCH STREET
NASHVILLE, TN 37246
(615) 736-6900

TELEPHONE COMPANY:
AT&T
P.O. BOX 105503
ATLANTA, GA 30348
(866) 620-6000

PUBLIC WORKS DEPARTMENT:
215 CARTWRIGHT STREET
GOODLETTSVILLE, TN 37072
(615) 851-2200

STORMWATER & SEWER:
215 CARTWRIGHT STREET
GOODLETTSVILLE, TN 37072
(615) 851-2200

INDEX OF SHEETS

SHEET	DESCRIPTION
C000	COVER SHEET
C001	GENERAL NOTES
C002 - C003	TECHNICAL SPECIFICATIONS
C004	BORING LOGS
C100	EXISTING CONDITIONS & DEMOLITION PLAN
C200	OVERALL PROPOSED CONDITIONS
C201	PROPOSED PIER WALL PLAN
C202	PROPOSED PIER WALL PROFILE
C203 - C204	PROPOSED PIER WALL CROSS-SECTIONS
C800 - C801	DETAILS
C900	EPSC PLAN

RETAINING WALL DESIGN BASIS:

- 2018 INTERNATIONAL BUILDING CODE.
- SUBSURFACE SOIL CONDITIONS AND GEOTECHNICAL INFORMATION IS BASED ON BORINGS PERFORMED BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC. AND INCLUDED ON DRAWING C004.
- SOIL AND BEDROCK RESISTANCE LOADS BASED ON A SAFETY FACTOR OF 1.5.
- GLOBAL STABILITY BASED ON A SAFETY FACTOR OF 1.5.
- THE DESIGN SHEAR AND MOMENT (INCLUDING A SAFETY FACTOR OF 1.5 FOR GLOBAL STABILITY) FOR THE 24-INCH DIAMETER PIERS IS 82 KIPS AND 1360 IN-KIPS, RESPECTIVELY.
- THE DRILLED SHAFTS HAVE BEEN DESIGNED FOR A MAXIMUM DEFLECTION OF 1 INCH AT THE TOP OF PIER.

REVISION RECORD

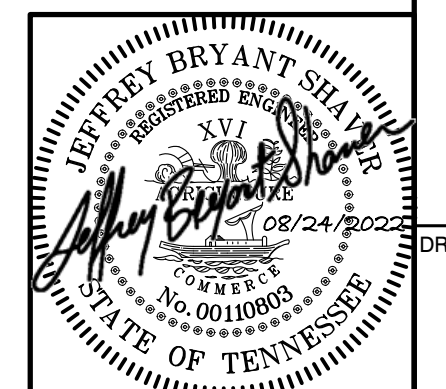
NO.	DATE	DESCRIPTION

Civil & Environmental Consultants, Inc.
117 Seaboard Lane - Suite E-100 - Franklin, TN 37067
615-333-7797 · 800-763-2326
www.cecinc.com

CITY OF GOODLETTSVILLE
MARSHALL GREENE
SLOPE REPAIR
GOODLETTSVILLE, TN

COVER SHEET

DATE: AUGUST 2022
DRAWN BY: WJW
DWG SCALE: AS SHOWN
CHECKED BY: APA
PROJECT NO: 193-778
APPROVED BY: JBS



DRAWING NO.:
C000

P:\2019\193-778\CAD\DWG\C000.dwg (11/18/2022 - 09:30 AM) - UF - 8/24/2022 9:30 AM

CONSTRUCTION

- 1. EXISTING CONDITIONS AS DEPICTED ON THESE PLANS ARE GENERAL AND ILLUSTRATIVE IN NATURE. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO EXAMINE THE SITE AND BE FAMILIAR WITH EXISTING CONDITIONS PRIOR TO BIDDING ON THIS PROJECT. IF CONDITIONS ENCOUNTERED DURING EXAMINATION ARE SIGNIFICANTLY DIFFERENT THAN THOSE SHOWN, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY.
2. THE CONTRACTOR AND SUBCONTRACTORS SHALL BE RESPONSIBLE FOR COMPLYING WITH APPLICABLE FEDERAL, STATE, LOCAL, AND PRIVATE UTILITY COMPANY REQUIREMENTS, CODES, AND SPECIFICATIONS, TOGETHER WITH EXERCISING PRECAUTIONS AT ALL TIMES FOR THE PROTECTION OF PERSONS (INCLUDING EMPLOYEES) AND PROPERTY. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND SUBCONTRACTORS TO INITIATE, MAINTAIN AND SUPERVISE ALL SAFETY REQUIREMENTS, PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK.
3. ALL WORK PERFORMED BY THE CONTRACTOR SHALL CONFORM TO THE LATEST REGULATIONS OF THE AMERICANS WITH DISABILITIES ACT.
4. TOPOGRAPHICAL INFORMATION TAKEN FROM SURVEY COMPLETED BY CIVIL AND ENVIRONMENTAL CONSULTANTS, INC. ON JANUARY 10, 2020.
5. BEFORE INSTALLATION OF STORM SEWER, OR OTHER UTILITY, THE CONTRACTOR SHALL VERIFY ALL CROSSINGS, BY EXCAVATION WHERE NECESSARY, AND INFORM THE OWNER AND THE ENGINEER OF ANY CONFLICTS.
6. NOTHING IN THE GENERAL NOTES SHALL RELIEVE THE CONTRACTOR FROM HIS RESPONSIBILITIES TOWARD THE SAFETY AND CONVENIENCE OF THE GENERAL PUBLIC AND THE RESIDENTS ALONG THE PROPOSED CONSTRUCTION AREA.
7. ANY AND ALL REFERENCES IN THESE PLANS AND SPECIFICATIONS (CONSTRUCTION DOCUMENTS) TO BRANDED PRODUCTS, PROCEDURES OR PATENTED PROCESSES ARE ASSUMED TO CARRY AN IMPLIED STATEMENT OF 'OR APPROVED EQUAL' UNLESS SPECIFICALLY NOTED OTHERWISE WITH 'NO SUBSTITUTIONS ALLOWED'.
8. ALL CONSTRUCTION MATERIALS AND WORKMANSHIP, INCLUDING BUT NOT LIMITED TO EXCAVATION AND CONCRETE, SHALL CONFORM TO THE CURRENT STANDARD SPECIFICATION, DETAILS, AND REQUIREMENTS OF THE TENNESSEE DEPARTMENT OF TRANSPORTATION (TDOT).
9. CONTRACTOR SHALL REFER TO OTHER PLANS WITHIN THIS CONSTRUCTION SET FOR OTHER PERTINENT INFORMATION. IT IS NOT THE ENGINEER'S INTENT THAT ANY SINGLE PLAN SHEET IN THIS SET OF DOCUMENTS FULLY DEPICT ALL WORK ASSOCIATED WITH THE PROJECT.
10. ALL PROPOSED GRADES SHOWN ARE FINAL GRADES OR TOP OF PIERS, UNLESS INDICATED OTHERWISE
11. THE STRUCTURAL FILL AND DITCH CONSTRUCTION SHALL BE PERFORMED AFTER INSTALLATION OF THE REINFORCED PIERS.
12. THE CONTRACTOR SHALL INDEMNIFY AND HOLD HARMLESS THE OWNER AND OWNER'S REPRESENTATIVE FOR ANY AND ALL INJURIES AND/OR DAMAGES TO PERSONNEL, EQUIPMENT AND/OR EXISTING FACILITIES OCCURRING IN THE COURSE OF THE CONSTRUCTION DESCRIBED IN THE PLANS AND SPECIFICATIONS.
13. CONTRACTOR SHALL MAINTAIN ONE SET OF AS-BUILT / RECORD DRAWINGS ON THE JOB SITE DURING CONSTRUCTION FOR DISTRIBUTION TO THE OWNER AND/OR OWNERS REPRESENTATIVE UPON COMPLETION.
14. ACCESS TO OCCUPIED RESIDENCES IN THE VICINITY OF THE WORK AREA SHALL BE MAINTAINED AT ALL TIMES.
15. SCHEDULE ALL WORK IN A CAREFUL MANNER WITH ALL NECESSARY CONSIDERATION FOR NEARBY RESIDENTS AND PROPERTY OWNERS. WORK HOURS SHALL BE BETWEEN 7 A.M. AND SUNSET MONDAY THROUGH FRIDAY, BETWEEN 9 A.M. AND 6 P.M. SATURDAY, AND 12 P.M. AND 6 P.M. SUNDAY, UNLESS COORDINATED WITH CITY AND OWNER.
16. CONTRACTOR SHALL PROVIDE CITY WITH A CONSTRUCTION SCHEDULE FOR APPROVAL PRIOR TO COMMENCEMENT OF WORK.

LAYOUT

- 1. THE CONTRACTOR SHALL CHECK EXISTING GRADES, DIMENSIONS, LAYOUT OF PIERS AND UTILITY INVERTS IN THE FIELD PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FIELD DIMENSIONS AND ELEVATIONS DURING THE ENTIRE CONSTRUCTION SCHEDULE. IF ANY DISCREPANCIES ARE FOUND IN THESE PLANS FROM ACTUAL FIELD DIMENSIONS, THE CONTRACTOR SHALL CONTACT THE ENGINEER IMMEDIATELY.
2. THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF ALL EXISTING UTILITIES. CARE SHALL BE TAKEN TO PROTECT UTILITIES THAT ARE TO REMAIN. RELOCATE EXISTING UTILITIES AS INDICATED, BASED UPON UTILITY COMPANY SPECIFICATIONS, AND AS NECESSARY FOR CONSTRUCTION. INSTALL ALL UTILITIES, INCLUDING CONDUITS, PRIOR TO INSTALLATION OF PAVED SURFACES.
3. PROVIDE A SMOOTH TRANSITION BETWEEN EXISTING PAVEMENT AND NEW PAVEMENT. FIELD ADJUSTMENT OF FINAL GRADES WITH THE WRITTEN APPROVAL OF THE ENGINEER MAY BE NECESSARY.
4. ALL DAMAGE TO EXISTING PAVEMENT TO REMAIN WHICH RESULTS FROM THE CONTRACTOR'S OPERATIONS SHALL BE REPLACED WITH LIKE MATERIALS AT THE CONTRACTOR'S EXPENSE. CONTRACTOR TO PROVIDE PRE-CONSTRUCTION PHOTO DOCUMENTATION OF THE ENTIRE SITE TO ENGINEER BEFORE BEGINNING WORK.
5. CONTRACTOR SHALL MAINTAIN ONE SET OF AS-BUILT/RECORD DRAWINGS ON THE JOB SITE DURING CONSTRUCTION FOR DISTRIBUTION TO THE OWNER AND/OR OWNERS REPRESENTATIVE UPON COMPLETION.
6. ALL DIMENSIONS ARE TO EDGE OF PAVEMENT OR FACE OF CURB UNLESS OTHERWISE NOTED IN THE PLANS.

UTILITIES

- 1. ALL PROPOSED UTILITY LINES AND EXTENSIONS ARE TO BE CONSTRUCTED IN ACCORDANCE WITH APPLICABLE UTILITY COMPANY SPECIFICATIONS. CONTRACTOR SHALL COORDINATE UTILITY DISCONNECTIONS WITH THE APPROPRIATE AGENCY.
2. THE CONTRACTOR IS PARTICULARLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF THE EXISTING UTILITIES SHOWN HEREON IS BASED ON TOPOGRAPHIC SURVEYS AND RECORD DRAWINGS. THE CONTRACTOR SHALL NOT RELY UPON THIS INFORMATION AS BEING EXACT OR COMPLETE. SHOULD UNCHARTED UTILITIES BE ENCOUNTERED DURING EXCAVATION OPERATIONS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY FOR INSTRUCTIONS. THE CONTRACTOR SHALL CALL THE APPROPRIATE UTILITY COMPANY AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION AND REQUEST FIELD VERIFICATION OF UTILITY LOCATIONS.
3. THE CONTRACTOR SHALL OBTAIN ALL REQUIRED UTILITY WORK PERMITS PRIOR TO COMMENCEMENT OF CONSTRUCTION.
4. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING THE SEQUENCING OF CONSTRUCTION FOR ALL UTILITY LINES SO THAT WATER LINES AND UNDERGROUND ELECTRIC CONDUITS DO NOT CONFLICT WITH SANITARY SEWERS OR STORM SEWERS. INSTALL UTILITIES PRIOR TO PAVEMENT CONSTRUCTION.
5. ADJUST ALL EXISTING UTILITY SURFACE FEATURES INCLUDING BUT NOT LIMITED TO CASTINGS, VALVE BOXES, PEDESTALS, CLEANOUTS, ETC. TO MATCH PROPOSED FINISHED GRADES, UNLESS OTHERWISE INDICATED.
6. THE LOCATIONS OF UTILITIES SHOWN WITHIN THESE PLANS ARE APPROXIMATE ONLY. EXACT LOCATIONS SHALL BE DETERMINED IN THE FIELD BY CONTACTING THE UTILITY COMPANIES INVOLVED. NOTIFICATION BY CALLING THE TENNESSEE ONE CALL SYSTEM, INC., AT 1-800-351-1111 AS REQUIRED BY TCA 65-31-106 WILL BE REQUIRED.
7. UNLESS OTHERWISE NOTED, ALL UTILITY ADJUSTMENTS WILL BE PERFORMED BY THE UTILITY OR ITS REPRESENTATIVE. THE CONTRACTOR AND UTILITY OWNERS WILL BE REQUIRED TO COOPERATE WITH EACH OTHER IN ORDER TO EXPEDITE THE WORK REQUIRED BY THIS CONTRACT ON CONTRACTS WHERE CONSTRUCTION STAKES, LINES, AND GRADES ARE CONTRACT ITEMS. THE CONTRACTOR WILL BE REQUIRED TO PROVIDE RIGHT-OF-WAY OR SLOPE STAKES, DITCH OR STREAM BED GRADES, OR OTHER ESSENTIAL SURVEY STAKING TO PREVENT CONFLICTS WITH THE HIGHWAY CONSTRUCTION. FREQUENTLY, THIS WILL BE REQUIRED AS THE FIRST ITEM OF WORK AND AT ANY LOCATION ON THE PROJECT DIRECTED BY THE ENGINEER.
8. THE CONTRACTOR WILL PROVIDE ALL NECESSARY PROTECTIVE MEASURES TO SAFEGUARD EXISTING UTILITIES FROM DAMAGE DURING CONSTRUCTION OF THIS PROJECT. IN THE EVENT THAT SPECIAL EQUIPMENT IS REQUIRED TO WORK OVER AND AROUND THE UTILITIES, THE CONTRACTOR WILL BE REQUIRED TO FURNISH SUCH EQUIPMENT.
9. THE CONTRACTOR WILL BE SOLELY RESPONSIBLE FOR CONTACTING OWNERS OF ALL AFFECTED UTILITIES IN ORDER TO DETERMINE THE EXTENT TO WHICH UTILITY RELOCATIONS AND/OR ADJUSTMENTS WILL HAVE UPON THE SCHEDULE OF WORK FOR THE PROJECT. WHILE SOME WORK MAY BE REQUIRED 'AROUND' UTILITY FACILITIES THAT WILL REMAIN IN PLACE, OTHER UTILITY FACILITIES MAY NEED TO BE ADJUSTED CONCURRENTLY WITH THE CONTRACTOR'S OPERATIONS. ADVANCE CLEAR CUTTING MAY BE REQUIRED BY THE ENGINEER AT ANY LOCATION WHERE CLEARING IS CALLED FOR IN THE PLANS AND CLEAR CUTTING IS NECESSARY FOR A UTILITY RELOCATION.

PERMITS, PLANS & RECORDS

- 1. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR AND OBTAIN ANY NECESSARY ENVIRONMENTAL PERMITS OR APPROVALS, INCLUDING BUT NOT LIMITED TO ARCHAEOLOGY, ECOLOGY, HISTORICAL, HAZARDOUS MATERIALS, AIR AND NOISE, TDEC ARAAP/401, USACE SECTION 404, AND TDEC NPDES PERMITS, FROM FEDERAL, STATE AND/OR LOCAL AGENCIES REGARDING ANY MATERIAL AND STAGING AREAS AND THE OPERATION OF ANY PROJECT-DEDICATED ASPHALT AND/OR CONCRETE PLANTS TO BE USED. ANY SUCH PERMITS SHALL BE SUPPLIED TO THE OWNER PRIOR TO THE USE OF THE PERMITTED AREA(S).
2. ANY DISAGREEMENT BETWEEN THE CONSTRUCTION PLANS, THE PROJECT AS CONSTRUCTED, AND THE PERMIT(S) ISSUED FOR THE PROJECT, SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER. THE OWNER SHALL BE CONTACTED IN THESE INSTANCES AND DECIDE WHICH HAS PRECEDENCE AND WHETHER PERMIT OR PLAN REVISIONS ARE NEEDED. IN GENERAL, PERMIT CONDITIONS WILL PREVAIL.
3. IF A CHANGE IN PROJECT SCOPE OCCURS DURING CONSTRUCTION, INCLUDING VALUE ENGINEERING, THE OWNER SHALL BE CONTACTED TO DETERMINE WHETHER PERMIT REVISIONS ARE NEEDED. THE OWNER SHALL BE CONTACTED TO DETERMINE IF ANY PLAN REVISIONS ARE NEEDED.
4. THE CONTRACTOR SHALL REVIEW ALL EXISTING PERMITS TO ENSURE THAT WORK AT PERMITTED SITES DOES NOT EXCEED THE EXPIRATION DATE. IF WORK IS GOING TO BE CONTINUED AFTER EXPIRATION DATES, THE CONTRACTOR SHALL CONTACT THE OWNER TO COMMENCE PERMIT RENEWAL PROCESS.
5. THE EPSC PLAN IS TO SERVE AS AN INITIAL GUIDE FOR SITE PERSONNEL AS THE CONSTRUCTION PROCESS DEVELOPS. IT MUST BE AMENDED, MODIFIED, AND UPDATED WHENEVER A CHANGE IN THE DESIGN OR CONSTRUCTION OF THE PROJECT OCCURS. THE STAGES DEPICTED IN THE EPSC PLANS MAY NOT COINCIDE WITH THE ACTUAL PHASES OF CONSTRUCTION ESTABLISHED BY THE CONTRACTOR DURING CONSTRUCTION. THIS MODIFICATIONS WILL BE REQUIRED TO ENSURE THE EPSC PLAN IS MAINTAINED TO DEPICT CURRENT SITE CONDITIONS. IT SHOULD BE MAINTAINED SUCH THAT IT WILL ALWAYS REFLECT THE MEASURES THAT ARE INSTALLED DURING THE VARIOUS PHASES OF CONSTRUCTION. IT IS IMPRACTICAL TO DETERMINE ALL THE INTERMEDIATE PHASES OF CONSTRUCTION THAT WILL OCCUR, THUS THESE DOCUMENTS WILL HAVE TO BE UPDATED THROUGHOUT THE LIFE OF THE CONSTRUCTION PROJECT.

DEMOLITION

- 1. CLEARING LIMITS SHALL BE PHYSICALLY MARKED IN THE FIELD.
2. ALL DEMOLITION WASTE AND CONSTRUCTION DEBRIS SHALL BECOME THE PROPERTY OF THE CONTRACTOR UNLESS OTHERWISE DESIGNATED AND SHALL BE REMOVED BY THE CONTRACTOR AND DISPOSED OF OFFSITE ACCORDANCE WITH ALL LOCAL AND STATE CODES AND PERMIT REQUIREMENTS.
3. TAKE CARE TO PROTECT UTILITIES THAT ARE TO REMAIN. DAMAGE TO UTILITIES SHALL BE REPAIRED BY THE CONTRACTOR TO UTILITY COMPANY STANDARDS AT NO ADDITIONAL COST TO THE OWNER.
4. ALL UTILITY DISCONNECTION, REMOVAL, RELOCATION, CUTTING, CAPPING AND/OR ABANDONMENT SHALL BE COORDINATED WITH THE APPROPRIATE UTILITY COMPANY/AGENCY. UTILITY CONTACTS ARE LISTED ON THE COVER SHEET (SHEET C000).
5. CONTRACTOR SHALL PROTECT ALL CORNER PINS, MONUMENTS, PROPERTY CORNERS AND BENCHMARKS DURING DEMOLITION ACTIVITIES. IF DISTURBED, CONTRACTOR SHALL HAVE DISTURBED ITEMS RESET BY A LICENSED SURVEYOR AT NO ADDITIONAL COST TO THE OWNER, PROVIDING CERTIFICATION TO THE ENGINEER OF RECORD FOR EACH ITEM REPLACED.
6. CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES, STRUCTURES, AND FEATURES TO REMAIN. ANY ITEMS TO REMAIN THAT HAVE BEEN DISTURBED OR DAMAGED AS A RESULT OF CONSTRUCTION SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST TO OWNER.
7. ALL UTILITY AND STRUCTURE REMOVAL, RELOCATION, CUTTING, CAPPING AND/OR ABANDONMENT SHALL BE COORDINATED AND PROPERLY DOCUMENTED BY A CERTIFIED PROFESSIONAL, WHEN APPLICABLE, WITH THE APPROPRIATE UTILITY COMPANY, MUNICIPALITY AND/OR AGENCY.
8. NO TREES SHALL BE REMOVED, NOR VEGETATION DISTURBED BEYOND THE LIMITS OF CONSTRUCTION WITHOUT THE EXPRESS WRITTEN APPROVAL OF THE OWNER'S REPRESENTATIVE.
9. ALL PAVEMENT, BASE COURSES, SIDEWALKS, CURBS, BUILDINGS, FOUNDATIONS, DITCHES, ETC., WITHIN THE AREA TO BE DEMOLISHED SHALL BE REMOVED TO FULL DEPTH, UNLESS OTHERWISE NOTED ON THIS PLAN SET. EXISTING BASE COURSE MATERIALS MAY BE WORKED INTO THE NEW PAVEMENT OR BUILDING SUBGRADE PROVIDED THAT THE GRADATION, CONSISTENCY, COMPACTION, SUBGRADE CONDITION, ETC., ARE IN ACCORDANCE WITH THE SPECIFICATIONS.
10. THE CONTRACTOR SHALL USE SUITABLE METHODS TO CONTROL DUST AND DIRT CAUSED BY THE DEMOLITION ACTIVITY.
11. THE BURNING OF CLEARED MATERIAL AND DEBRIS SHALL NOT BE ALLOWED.
12. EROSION PREVENTION AND SEDIMENT CONTROL MEASURES AROUND AREAS OF DEMOLITION SHALL BE PROPERLY INSTALLED AND SHALL FUNCTION PROPERLY PRIOR TO INITIALIZATION OF DEMOLITION ACTIVITIES.
13. IT IS NOT EXPECTED THAT HAZARDOUS MATERIALS WILL BE ENCOUNTERED IN THE WORK. IF FOUND ON SITE, SUCH MATERIALS SHALL BE REMOVED BY A LICENSED HAZARDOUS MATERIALS CONTRACTOR. CONTRACTOR SHALL NOTIFY OWNER IMMEDIATELY IF HAZARDOUS MATERIALS ARE ENCOUNTERED.

GOOD HOUSEKEEPING MEASURES & WASTE DISPOSAL

- 1. THE CONTRACTOR SHALL REFER TO THE EPSC PLANS, NOTES AND DETAILS FOR ADDITIONAL NOTES AND REQUIREMENTS RELATED TO GOOD HOUSEKEEPING MEASURES AND WASTE DISPOSAL.
2. OPEN BURNING IS PROHIBITED UNLESS IT IS SPECIFICALLY ALLOWED BY LAW. IF ALLOWED, NATURAL VEGETATION, TREES, AND UNTREATED LUMBER SHALL BE THE ONLY MATERIALS THAT CAN BE OPEN BURNED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL APPLICABLE STATE AND LOCAL PERMITS PRIOR TO ANY BURNING.
3. DISPOSAL OF ONSITE VEGETATION AND TREES BY CHIPPING THEM INTO MULCH IS PREFERABLE TO OPEN BURNING. THIS MULCH MAY BE USED AS AN ONSITE SOIL STABILIZATION MEASURE WHERE APPROPRIATE.
4. WASTE MATERIAL (EARTH, ROCK, ASPHALT, CONCRETE, ETC.) NOT REQUIRED FOR THE CONSTRUCTION OF THE PROJECT WILL BE DISPOSED OF BY THE CONTRACTOR. IMPACTS TO WATERS OF THE STATE/U.S. SHALL BE AVOIDED IF POSSIBLE. IF UNAVOIDABLE, THE CONTRACTOR WILL OBTAIN ANY AND ALL NECESSARY PERMITS INCLUDING, BUT NOT LIMITED TO NPDES, AQUATIC RESOURCES ALTERATION PERMIT(S), AND CORPS OF ENGINEERS SECTION 404 PERMITS, TO DISPOSE OF WASTE MATERIALS.
5. MATERIALS AND LAND STAGING AREAS SHALL NOT AFFECT ANY WATERS OF THE STATE/U.S. UNLESS THESE AREAS ARE SPECIFICALLY COVERED BY ENVIRONMENTAL PERMITS, OBTAINED SOLELY BY THE CONTRACTOR. THE CONTRACTOR SHALL REVIEW ALL EXISTING PERMITS TO ENSURE THAT WORK AT PERMITTED SITES DOES NOT EXCEED EXPIRATION DATES. IF WORK IS GOING TO BE CONTINUED AFTER EXPIRATION DATES, THE CONTRACTOR SHALL CONTACT THE ENGINEER TO COMMENCE PERMIT RENEWAL PROCESS.

EROSION PREVENTION AND SEDIMENT CONTROL NOTES

- 1. THE CONTRACTOR SHALL REFER TO THE EPSC PLANS AND DETAILS FOR ADDITIONAL NOTES AND REQUIREMENTS RELATED TO EROSION AND SEDIMENT CONTROL.
2. EROSION AND SEDIMENT CONTROL MEASURES TO BE SELECTED, INSTALLED, AND MAINTAINED IN ACCORDANCE WITH THE TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION EROSION AND SEDIMENT CONTROL HANDBOOK, LATEST EDITION.
3. SITE EROSION CONTROLS SHALL BE CHECKED AND, REPAIRED AS NECESSARY, BEFORE THE NEXT RAIN EVENT; BUT IN NO CASE MORE THAN SEVEN DAYS AFTER THE NEED IS IDENTIFIED.
4. ANY OFF SITE SEDIMENT ACCUMULATIONS SHALL BE REMOVED DAILY. OFFSITE ACCUMULATIONS DEPOSITED ON PRIVATE PROPERTY SHALL BE REMOVED BY METHODS AGREED UPON BY THE CONTRACTOR AND THE ADJACENT LAND OWNER(S).
5. STABILIZE AREAS WITHIN 14 DAYS AND STEEP SLOPES EQUAL TO OR GREATER THAN 3:1 WITHIN 7 DAYS.
6. CONTRACTOR SHALL PROVIDE AN AREA FOR CONCRETE WASH DOWN AND EQUIPMENT FUELING. CONTRACTOR TO COORDINATE EXACT LOCATION WITH OWNER DURING PRECONSTRUCTION MEETING. CONTROL OF OTHER SITE WASTES SUCH AS DISCARDED BUILDING MATERIALS, CHEMICALS, LITTER, AND SANITARY WASTES THAT MAY CAUSE ADVERSE IMPACTS TO WATER QUALITY IS ALSO REQUIRED BY THE CONTRACTOR.
7. ALL EPSC MEASURE LOCATIONS AREA APPROXIMATE.
8. LAND DISTURBING ACTIVITIES SHALL NOT COMMENCE UNTIL APPROVAL TO DO SO HAS BEEN RECEIVED BY GOVERNING AUTHORITIES.
9. NO LAND CLEARING OR GRADING SHALL BEGIN UNTIL ALL PERIMETER EROSION AND SEDIMENT CONTROL MEASURES HAVE BEEN INSTALLED.
10. THE GENERAL CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PREVENT SOIL SEDIMENT FROM LEAVING THE SITE. ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED BY THE CONTRACTOR IF DEEMED NECESSARY BY ON SITE INSPECTION.
11. SHOULD CONSTRUCTION STOP FOR LONGER THAN 14 DAYS, THE SITE SHALL BE TEMPORARILY SEEDED.

GRADING

- 1. CONTRACTOR SHALL ADHERE TO THE EPSC PLAN PREPARED FOR THIS PROJECT. SEE NOTE 5, PERMITS, PLANS & RECORDS SECTION.
2. EARTHWORK SHALL INCLUDE CLEARING AND GRUBBING, STRIPPING AND STOCKPILING TOPSOIL, MASS GRADING, EXCAVATION, FILLING, UNDER CUT AND REPLACEMENT, IF REQUIRED, AND COMPACTION.
3. CONTRACTOR TO BACKFILL UNDERCUT AREAS WITH SUITABLE MATERIAL AND COMPACT AS RECOMMENDED BY THE SPECIFICATIONS.
4. ALL AREAS NOT PAVED SHALL BE STABILIZED WITH SEED AND MULCH, UNLESS NOTED OTHERWISE.
5. ALL EXCESS SOIL MATERIALS SHALL BE REMOVED BY THE CONTRACTOR AND DISPOSED OF OFFSITE IN ACCORDANCE WITH ALL LOCAL AND STATE CODES AND PERMIT REQUIREMENTS.
6. ANY AREA THAT IS DISTURBED OUTSIDE LIMITS OF CONSTRUCTION DURING THE LIFE OF THIS PROJECT SHALL BE REPAIRED BY THE CONTRACTOR AT HIS EXPENSE.
7. THE CONTRACTOR SHALL NOT DISPOSE OF ANY MATERIAL EITHER ON OR OFF STATE-OWNED R.O.W. IN A REGULATORY FLOODWAY OR FLOODPLAIN AS DEFINED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY WITHOUT APPROVAL BY SAME. ALL MATERIAL SHALL BE DISPOSED OF IN UPLAND (NON-WETLAND) AREAS AND ABOVE ORDINARY HIGH WATER OF ANY ADJACENT WATERCOURSE. THIS DOES NOT ELIMINATE THE NEED TO OBTAIN ANY OTHER LICENSES OR PERMITS THAT MAY BE REQUIRED BY ANY OTHER FEDERAL, STATE OR LOCAL AGENCY.

DRAINAGE

- 1. DISTANCES SHOWN ON PIPING ARE HORIZONTAL DISTANCES FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE, UNLESS OTHERWISE NOTED.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH THE INSTALLATION, INSPECTION, TESTING AND FINAL ACCEPTANCE OF ALL NEW STORMWATER FACILITIES CONSTRUCTION. CONTRACTOR SHALL COORDINATE WITH ALL APPLICABLE REGULATING AGENCIES CONCERNING INSTALLATION, INSPECTION AND APPROVAL OF THE STORMWATER CONSTRUCTION.
3. ALL STORMWATER FACILITIES, INCLUDING COLLECTION AND CONVEYANCE STRUCTURES SHALL BE INSTALLED IN ACCORDANCE WITH ALL APPLICABLE LOCAL AND STATE CODES AND REGULATIONS INCLUDING, BUT NOT LIMITED TO, TDOT STANDARD DRAWINGS AND CONSTRUCTION SPECIFICATIONS FOR ROADWAY CONSTRUCTION.

PIER WALL CONSTRUCTION NOTES

- 1. NO DEVIATION FROM THESE NOTES OR PLAN SHEETS WILL BE PERMITTED EXCEPT UPON WRITTEN PERMISSION FROM THE ENGINEER. THE ENGINEER IS TO BE THE FINAL JUDGE AS TO INTERPRETATION OF THE NOTES AND FIGURES. WHENEVER THE WORD 'OWNER' IS USED HEREIN, IT SHALL MEAN CITY OF GOODLETTSVILLE, AND WHEREVER THE WORD 'ENGINEER' IS USED HEREIN, IT SHALL MEAN CIVIL AND ENVIRONMENTAL CONSULTANTS, INC. (CEC).
2. THE CONTRACTOR SHALL COORDINATE WITH THE OWNER FOR LOCATION, MATERIAL & EQUIPMENT STAGING AREA(S). THE CONTRACTOR SHALL REPLACE AND RESTORE ALL 'STAGING AREAS' TO EQUAL CONDITIONS, WHICH EXISTED PRIOR TO THE TIME OF BEGINNING CONSTRUCTION. IN ADDITION, ALL AREAS AFFECTED BY THE CONTRACTOR'S OPERATION SHALL BE RESTORED TO THEIR ORIGINAL OR BETTER CONDITION.

ABBREVIATIONS WITHIN CONSTRUCTION PLANS

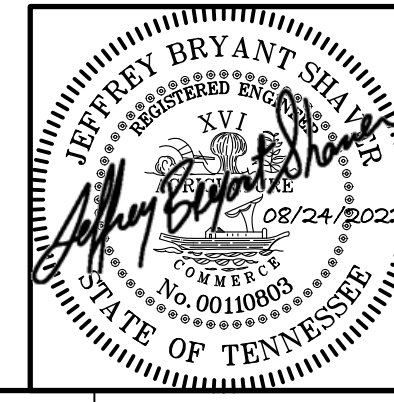
Table with 2 columns: Abbreviation and Description. Includes TYP (TYPICAL), PUDE (PUBLIC UTILITY AND DRAINAGE EASEMENT), REF (REFERENCE), TDOT (TENNESSEE DEPARTMENT OF TRANSPORTATION), DIA (DIAMETER), NTS (NOT TO SCALE), UG (UNDERGROUND), SAN (SANITARY SEWER), WTR (WATER), PVC (POLYVINYL CHLORIDE), MTEMC (MIDDLE TENNESSEE ELECTRIC MEMBERSHIP CORPORATION), EPSC (EROSION PREVENTION AND SEDIMENT CONTROL), NPDES (NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM), SPCC (SPILL PREVENTION, CONTROL AND COUNTERMEASURES), EP (EDGE OF PAVEMENT), FC (FACE OF CURB), FOG (FACE OF GUTTER), OC (ON CENTER), LP (LOW POINT), HP (HIGH POINT), EX (EXISTING), CONT (CONTINUOUS), MBSL (MINIMUM BUILDING SETBACK LINE).

REVISION RECORD table with columns: NO, DATE, DESCRIPTION.

Civil & Environmental Consultants, Inc. 117 Seaboard Lane - Suite E-100 - Franklin, TN 37067 615-333-7797 · 800-763-2326 www.cecinc.com

CITY OF GOODLETTSVILLE MARSHALL GREENE SLOPE REPAIR GOODLETTSVILLE, TN

GENERAL NOTES table with fields: DATE, DWG SCALE, PROJECT NO, APPROVED BY, DRAWN BY, AS SHOWN, CHECKED BY.



DRAWING NO.: C001

PL 181919 (1819-778) - CAD (Imp) | C:\011181778-001-001.dwg | 15/05/2022 - (mod) - LP 8/24/2022 8:39 AM

TECHNICAL SPECIFICATIONS

1.0 SCOPE OF WORK
1.1 GENERAL
1.1.1 WORK COVERED IN THIS TECHNICAL SPECIFICATION INCLUDES THE CONSTRUCTION OF REINFORCED AND UNREINFORCED CONCRETE PIERS, AND SITE EARTHWORK TO STABILIZE A SLOPE BEHIND A RESIDENTIAL HOME ON MARSHALL GREENE CIRCLE IN GOODLETTSVILLE, SUMNER COUNTY, TENNESSEE. THE FOLLOWING PRESENTS THE PRIMARY TYPES OF ACTIVITIES ASSOCIATED WITH THIS WORK:

THE CONTRACTOR MAY PROPOSE ALTERNATE CONSTRUCTION METHODS FOR APPROVAL OR REJECTION BY THE OWNER AND/OR CIVIL & ENVIRONMENTAL CONSULTANTS, INC. (CEC).

1.2 SECURITY, SITE SAFETY AND GOOD HOUSEKEEPING
1.2.1 EVERY EMPLOYEE SHALL BE ADEQUATELY TRAINED TO PERFORM HIS JOB IN A SAFE AND EFFICIENT MANNER. EMPLOYEES WILL NOT BE PERMITTED TO SMOKE WITHIN THE WORK AREA.

1.3 CODES AND STANDARDS
1.3.1 AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM) STANDARDS
A 615 - SPECIFICATIONS FOR DEFORMED BILLET-STEEL BARS FOR CONCRETE REINFORCEMENT.

1.3.2 CSI REFERENCES FOR STRUCTURAL STEEL CONSTRUCTION
CSI MONOGRAPH 05M010 'SURFACE PREPARATION OF STRUCTURAL STEEL'.
CSI DOCUMENT 05120 'STRUCTURAL STEEL FOR BUILDINGS'.

1.3.4 OTHER REFERENCES
'RECOMMENDED PRACTICE FOR CONCRETE FORMWORK' PUBLICATION ACI 247-68 OF THE AMERICAN CONCRETE INSTITUTE.

1.4 CONTRACT DRAWINGS
THE CONTRACT DRAWINGS THAT ACCOMPANY THE CONSTRUCTION BID PACKAGE ARE A PART OF THE CONTRACT DOCUMENTS.

1.5 DEFINITIONS
1.5.1 ENGINEER
CIVIL & ENVIRONMENTAL CONSULTANTS, INC. (CEC)
117 SEABOARD LANE, SUITE E-100
FRANKLIN, TN 37067
(615)-333-7797

2.0 LAYOUT AND SITE PREPARATION
2.1 GENERAL
2.1.1 DESCRIPTION
2.1.1.1 THE CONTRACTOR IS RESPONSIBLE FOR ALL SITE LAYOUT NECESSARY TO COMPLETE THE WORK.

2.1.2 QUALITY ASSURANCE
IN ADDITION TO COMPLYING WITH ALL PERTINENT CODES AND REGULATIONS, COMPLY WITH THE REQUIREMENTS OF ALL INSURANCE CARRIERS PROVIDING COVERAGE FOR THIS WORK.

2.2 MATERIALS
2.2.1 EXPLOSIVES
THE USE OF EXPLOSIVES IS NOT PERMITTED.
2.2.2 OTHER MATERIALS
ALL OTHER MATERIALS NOT SPECIFICALLY DESCRIBED BUT REQUIRED FOR PROPER COMPLETION OF THE WORK OF THIS SECTION SHALL BE AS SELECTED BY THE CONTRACTOR AND SUBJECT TO THE APPROVAL OF THE ENGINEER.

2.3 METHODS
2.3.1 PREPARATION
2.3.1.1 NOTIFICATION:
NOTIFY THE ENGINEER/OWNER AT LEAST SEVEN (7) FULL WORKING DAYS PRIOR TO COMMENCING THE WORK OF THIS SECTION.

2.4 PAY ITEMS
ITEM 001, 'SITE LAYOUT AND PREPARATION,' PER LUMP SUM.

3.0 EARTHWORK
3.1 GENERAL
WORK COVERED IN THIS SECTION SHALL CONSIST OF FURNISHING THE LABOR, MATERIALS, TOOLS, EQUIPMENT, INCIDENTALS AND SERVICES NECESSARY TO PERFORM THE WORK AS SHOWN ON AND IN THE CONTRACT DRAWINGS AND AS DESCRIBED IN THESE CONSTRUCTION SPECIFICATIONS.

3.2 MATERIALS
3.2.1 UNSATISFACTORY MATERIAL IS DEFINED AS MATERIAL POSSESSING ONE OR MORE OF THE FOLLOWING CHARACTERISTICS: SOFT, WET, ORGANIC, ACIDIC, PLASTIC (I.E., PLASTICITY INDEX GREATER THAN 20), HIGHLY FRACTURED, FRIABLE AND PUMPS OR RUTS EXCESSIVELY.

3.2.2 STRUCTURAL FILL IS DEFINED AS DRY, CLEAN SOILS FREE OF UNSATISFACTORY MATERIAL AND MEETING THE CRITERIA OF UNIFIED SOIL CLASSIFICATION SYSTEM GW, GC, GM, GP, SW, SP, SM, SC OR CL.

3.2.3 GRANULAR MATERIAL IS DEFINED AS CLEAN, DURABLE, AGGREGATE MEETING THE CRITERIA OF AASHTO NO. 1 (OR SIMILAR GRADATION) MATERIALS. PROCESSED, NON-EXPANSIVE SLAG IS PERMITTED FOR USE.

3.2.4 DRAINAGE MATERIAL IS DEFINED AS CLEAN, DURABLE, AGGREGATE MEETING THE CRITERIA OF AASHTO NO. 57 (OR SIMILAR GRADATION) MATERIALS. PROCESSED, NON-EXPANSIVE SLAG IS PERMITTED FOR USE.

3.3 METHODS
3.3.1 GRADING OPERATIONS SHALL NOT BE STARTED IN AN AREA UNTIL THE APPROPRIATE EROSION PREVENTION & SEDIMENT CONTROL MEASURES HAVE BEEN INSTALLED AND APPROVED BY THE OWNER.

3.4 CLEARING
3.4.1 CLEARING AND GRUBBING SHALL CONSIST OF THE REMOVAL, HAULING AND DISPOSAL OF ALL TREES, TREE ROOT SYSTEMS, BRUSH, STUMPS, DEBRIS AND OTHER MATERIALS WITHIN THE PROPOSED EARTHWORK GRADING CONSTRUCTION AREA.

3.4.2 THE CONTRACTOR SHALL AVOID CUTTING OR INJURING TREES AND VEGETATION OUTSIDE OF THE WORK AREA WITHOUT THE OWNER'S PERMISSION.

3.4.3 TOPSOIL AND/OR OTHER SOILS SUITABLE FOR USE IN REVEGETATION SHALL BE STRIPPED AND STOCKPILED ON SITE AS DIRECTED BY THE OWNER. TOPSOIL SHALL BE STOCKPILED SEPARATELY FROM ALL OTHER SOIL MATERIALS.

3.5 EXCAVATION
3.5.1 ALL WORK ASSOCIATED WITH EXCAVATION WILL BE PERFORMED AS PART OF THIS SECTION.

3.6 FILL PLACEMENT
3.6.1 STRUCTURAL FILL SHALL BE PLACED IN LOOSE HORIZONTAL LIFTS OF ABOUT 8 INCHES AND COMPACTED TO AT LEAST 98 PERCENT OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY AT ± 2 PERCENT OF THE OPTIMUM MOISTURE CONTENT.

3.6.2 GRANULAR AND DRAINAGE MATERIALS SHALL BE PLACED IN LOOSE HORIZONTAL LIFTS OF ABOUT 8 INCHES AND COMPACTED TO AT LEAST 75 PERCENT RELATIVE DENSITY (AND/OR THE POINT OF NON-MOVEMENT DURING PROOFROLLING).

3.6.3 FIELD IN-PLACE DENSITY SHALL BE DETERMINED BY THE OWNER'S QUALITY ASSURANCE FIRM.

3.6.4 PROOFROLLING OF THE SUBGRADE AND OTHER MATERIALS SHALL BE PERFORMED PRIOR TO FILL PLACEMENT OR PAVEMENT CONSTRUCTION AND UNDER DIRECTION OF THE ENGINEER OR DESIGNATED COA CONSULTANT USING LOADED DUMP TRUCKS OR SIMILAR CONSTRUCTION EQUIPMENT.

3.6.5 FROZEN FILL MATERIAL SHALL NOT BE PLACED NOR SHALL FILL BE PLACED UPON FROZEN MATERIALS. PREVIOUSLY FROZEN MATERIALS SHALL BE REMOVED BEFORE NEW FILL MATERIAL IS PLACED.

3.6.6 UNLESS OTHERWISE DIRECTED, FILL LAYERS SHALL BE OVERLAIN AS SOON AS POSSIBLE AFTER THE WORK IS INSPECTED, TESTED AS REQUIRED AND ACCEPTED, AND PERMISSION TO PLACE THE NEXT LAYER OF FILL HAS BEEN GIVEN BY THE COA CONSULTANT/ENGINEER.

3.6.7 THE CONTRACTOR SHALL GRADE THE LIFTS TO MAINTAIN POSITIVE DRAINAGE TO PREVENT PONDING OF SURFACE WATER. FOLLOWING RAINFALL, THE CONTRACTOR SHALL REMOVE ALL SATURATED FILL BEFORE PLACING ADDITIONAL FILL MATERIAL.

3.6.8 AT ALL TIMES, THE CONTRACTOR SHALL PREVENT GROUND AND SUBSURFACE WATER FROM FLOWING INTO FILL AREAS AND FROM COLLECTING AND PONDING. IF NECESSARY, THE CONTRACTOR SHALL INSTALL TEMPORARY DIVERSIONS FROM ADJACENT AREAS TO CHANNEL WATER AWAY FROM FILL AREAS.

3.6.9 THE COMPLETED SURFACE SHALL BE SMOOTH, FIRM AND FREE OF LOOSE DEBRIS. ANY DAMAGED AREAS OF THE COMPACTED STRUCTURAL FILL SHALL BE EXCAVATED AND REPAIRED AT NO ADDITIONAL COST TO THE OWNER.

3.7 QUALITY CONTROL
3.7.1 THE EXCAVATION, OVER-EXCAVATION, PLACEMENT AND COMPACTION OF ALL MATERIALS SHALL BE VISUALLY MONITORED BY THE COA CONSULTANT/ENGINEER.

3.8 SUBMITTALS
NONE.

3.9 MEASUREMENT AND PAYMENT
PAYMENT FOR THE EARTHWORK SHALL BE ON A LUMP SUM BASIS FOR THE FOLLOWING ITEMS PLUS ALL OTHER ACTIVITIES INCIDENTAL TO EARTHWORK CONSTRUCTION:

3.10 PAY ITEMS
ITEM 002, 'EARTHWORK,' PER LUMP SUM.

4.0 CONCRETE PIERS
4.1 GENERAL
4.1.1 RELATED DOCUMENTS:

4.1.1.1 CONSTRUCTION DRAWINGS PREPARED BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC. (CEC) FOR THIS PROJECT.

4.1.2 SUMMARY:
4.1.2.1 THE WORK SHALL CONSIST OF THE CONSTRUCTION AND INSTALLATION OF REINFORCED AND UNREINFORCED CONCRETE PIERS AT THE PROJECT SITE AT THE LOCATION, LINE, AND GRADES SHOWN ON THE CONSTRUCTION DRAWINGS.

4.1.3 DEFINITIONS:
4.1.3.1 DESIGN ENGINEER - CIVIL & ENVIRONMENTAL CONSULTANTS, INC. (CEC)

4.1.3.2 QUALITY ASSURANCE FIRM - THE OWNER WILL RETAIN A FIRM TO PROVIDE INSPECTION AND TESTING DURING THE CONCRETE PIER CONSTRUCTION.

4.1.4.1 BEFORE BIDDING THE WORK, THE CONTRACTOR SHALL REVIEW THE AVAILABLE SITE TOPOGRAPHIC AND SUBSURFACE INFORMATION AND VISIT THE SITE TO ASSESS THE SITE GEOMETRY, EQUIPMENT ACCESS CONDITIONS, INSTALLATION AND CONSTRUCTION REQUIREMENTS, LOCATION OF EXISTING STRUCTURES, UTILITIES, AND ABOVE-GROUND FACILITIES AND CONFIRM THE EXISTING TOPOGRAPHY DEPICTED ON SHEET C100.

4.1.4.2 THE CONTRACTOR IS RESPONSIBLE FOR FIELD LOCATING AND VERIFYING THE LOCATION OF ALL UTILITIES SHOWN ON THE PLANS, AND ANY UTILITIES NOT SHOWN ON THE PLANS, PRIOR TO STARTING THE WORK.

4.1.4.3 PRIOR TO THE START OF ANY CONSTRUCTION OR INSTALLATION ACTIVITY, THE CONTRACTOR AND OWNER SHALL JOINTLY INSPECT THE SITE TO OBSERVE AND DOCUMENT THE PRE-CONSTRUCTION CONDITION OF THE SITE.

4.1.5 REFERENCES:
4.1.5.1 AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)
A6/A6M - GENERAL REQUIREMENTS FOR ROLLED STRUCTURAL STEEL BARS, PLATES, SHAPES, AND SHEET PILING

A572/A572M - HIGH-STRENGTH LOW-ALLOY COLUMN-BUILDING STRUCTURAL STEEL
A690/A690M - HIGH-STRENGTH LOW-ALLOY STEEL H-PILES AND SHEET PILING FOR USE IN MARINE ENVIRONMENTS
A108 - STANDARD SPECIFICATION FOR STEEL BAR, CARBON AND ALLOY, COLD-FINISHED

4.1.5.2 AMERICAN CONCRETE INSTITUTE (ACI)
301R-99 - SPECIFICATIONS FOR STRUCTURAL CONCRETE
304R - PLACING AND HANDLING CONCRETE, ETC.

4.1.6 SPECIAL PROVISIONS:
4.1.6.1 THE CONTRACTOR IS RESPONSIBLE FOR TEMPORARY EXCAVATIONS OR FILL NECESSARY TO COMPLETE THE WORK.

4.1.7 DELIVERY, STORAGE, AND HANDLING:
4.1.7.1 MATERIALS DELIVERED TO THE SITE SHALL BE NEW, UNDAMAGED, AND BE ACCOMPANIED BY CERTIFIED TEST REPORTS.

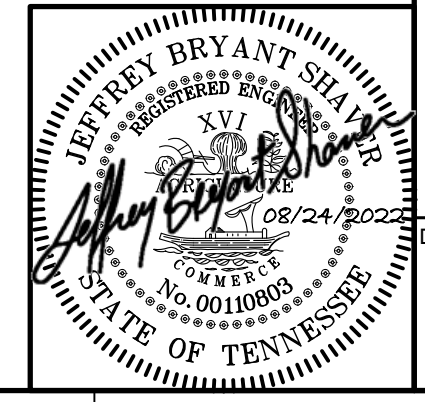
4.1.8 PRE-CONSTRUCTION MEETING:
4.1.8.1 A PRE-CONSTRUCTION MEETING WILL BE SCHEDULED BY THE OWNER AND HELP PRIOR TO THE START OF THE CONCRETE PIER INSTALLATION.

REVISION RECORD table with columns: NO, DATE, DESCRIPTION

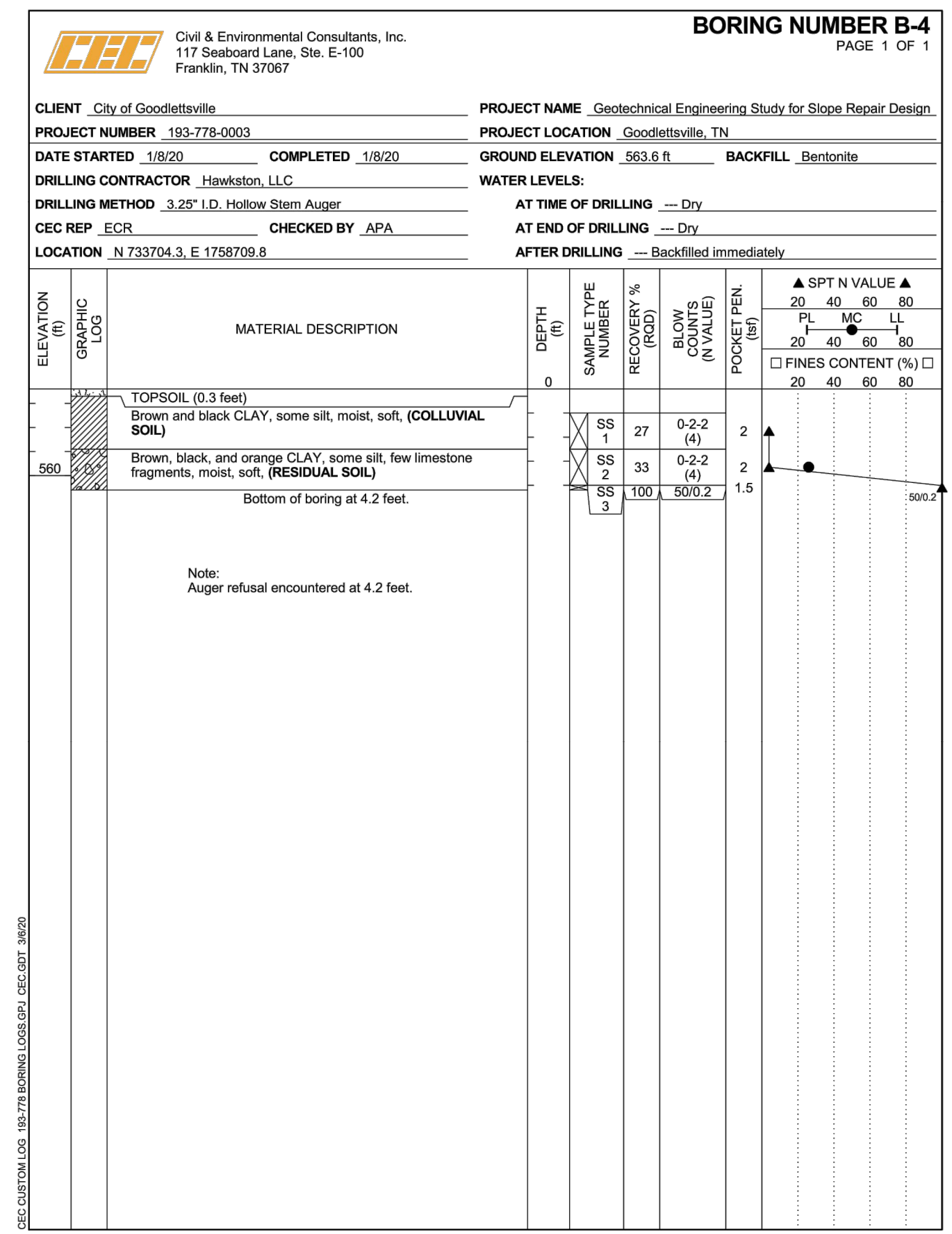
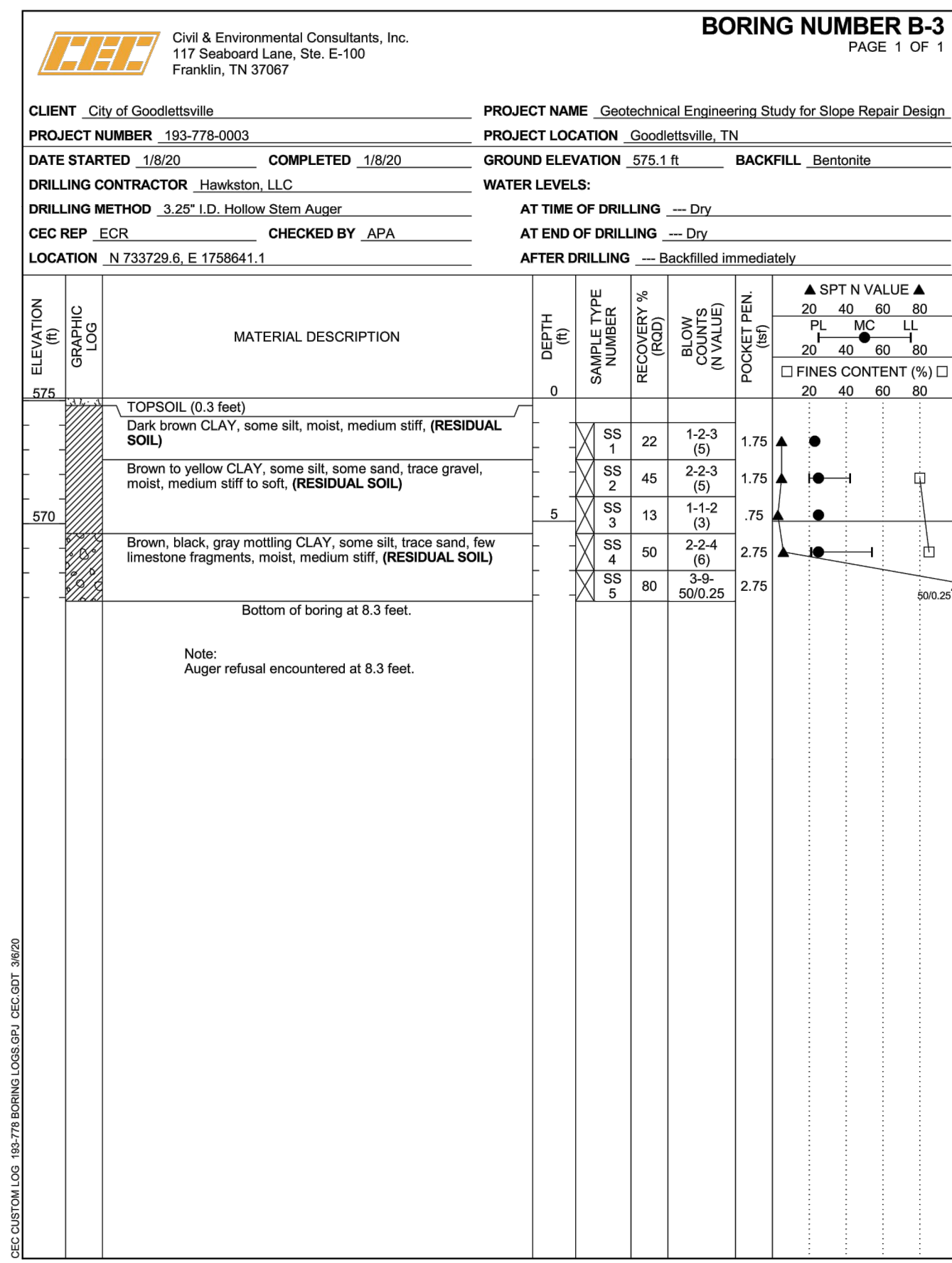
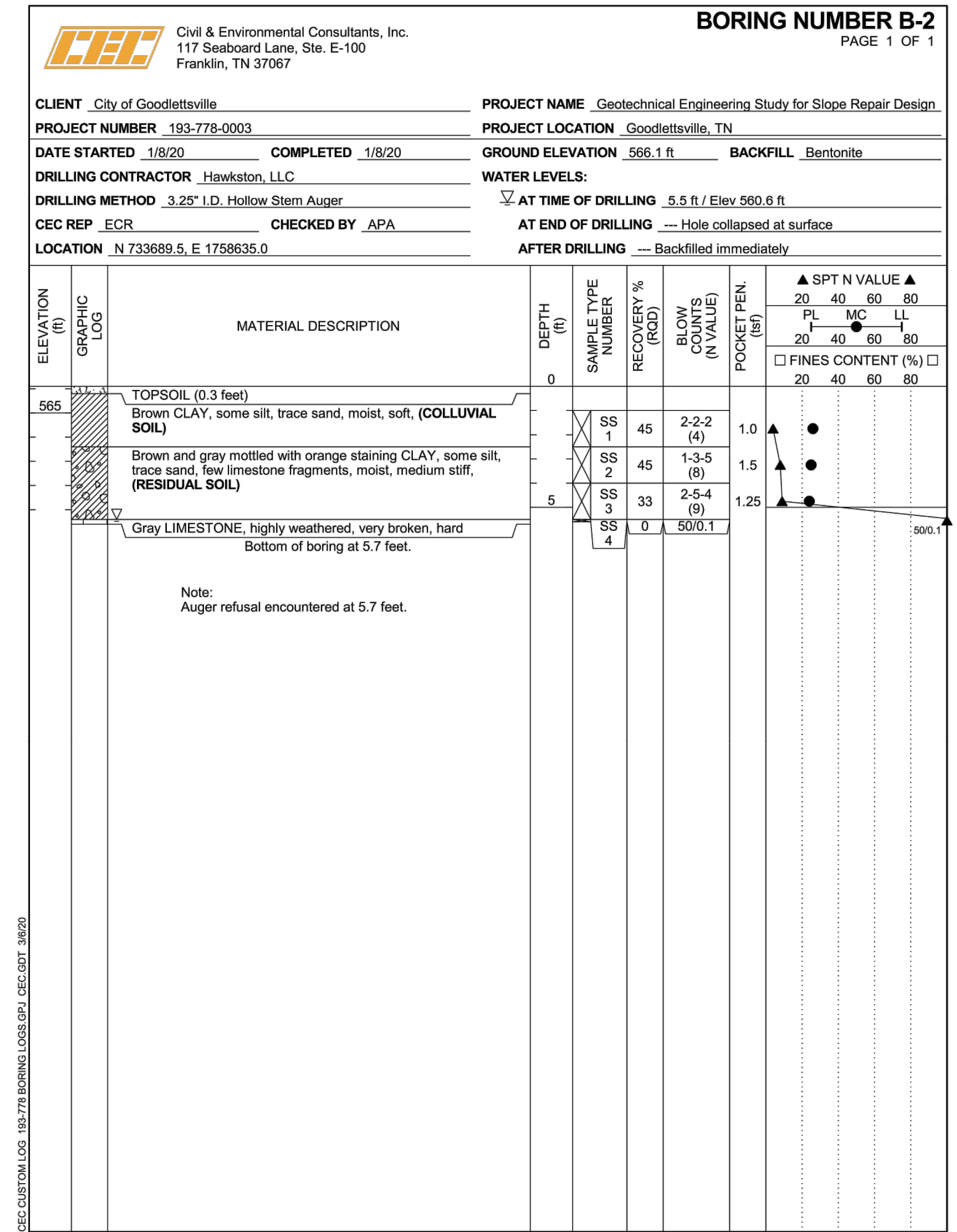
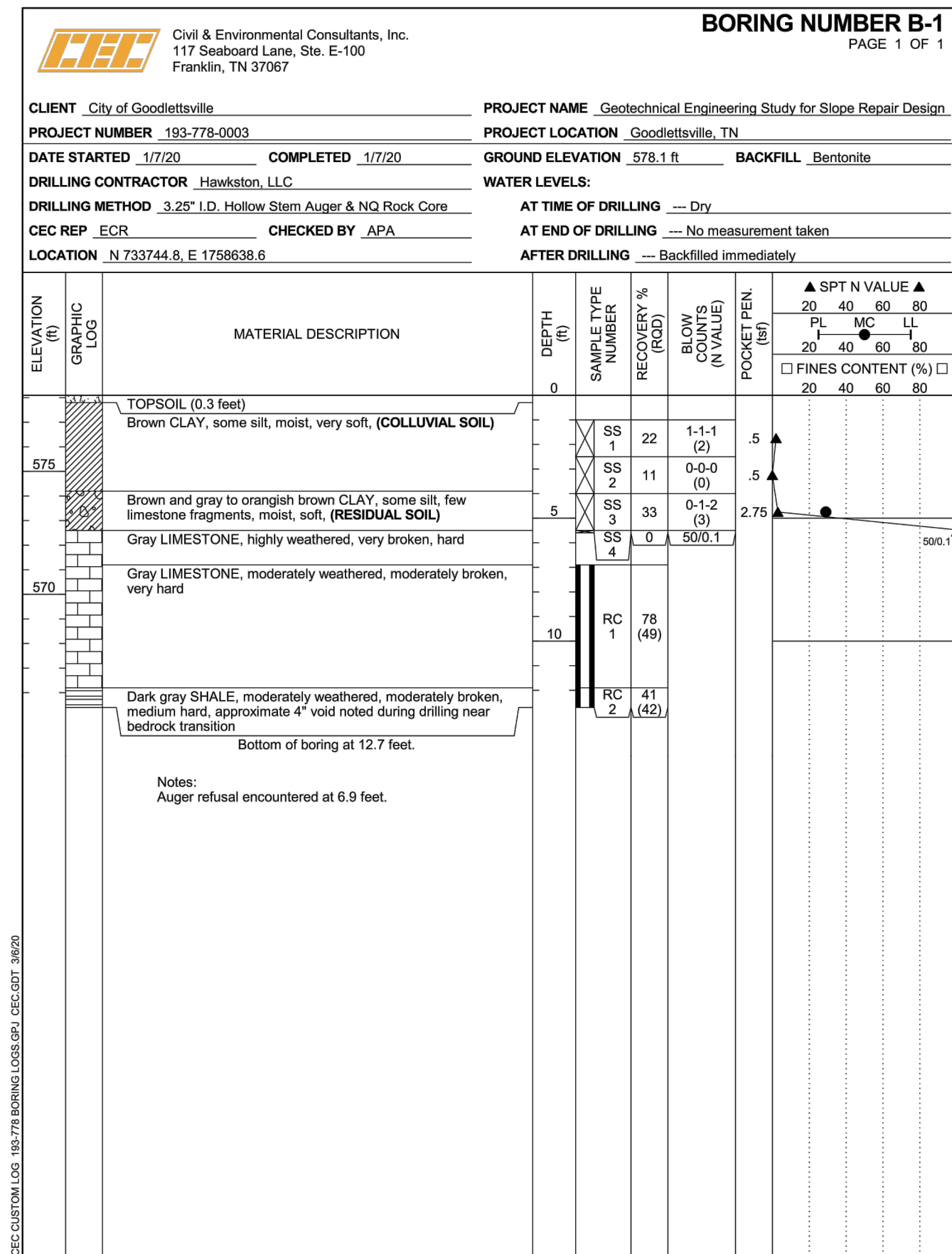
Civil & Environmental Consultants, Inc. logo and contact information: 117 Seaboard Lane - Suite E-100 - Franklin, TN 37067

TECHNICAL SPECIFICATIONS
MARSHALL GREENE
SLOPE REPAIR
GOODLETTSVILLE, TN

TECHNICAL SPECIFICATIONS [1 OF 2]
DRAWING NO.: C002
DATE: AUGUST 2022
DWG SCALE: AS SHOWN



Vertical text on the left margin: P:\2019\192-7791-CAD\DWG\C101182779-C001.dwg(10/20/2022 - 1:00) - LP: 8/24/2022 8:30 AM



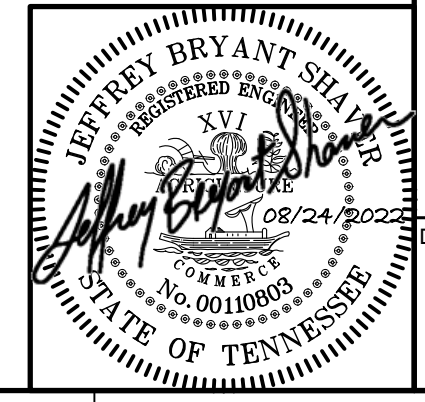
NO	DATE	REVISION RECORD	DESCRIPTION

Civil & Environmental Consultants, Inc.
117 Seaboard Lane - Suite E-100 - Franklin, TN 37067
615-333-7797 • 800-763-2326
www.cecinc.com

**CITY OF GOODLETTSVILLE
MARSHALL GREENE
SLOPE REPAIR
GOODLETTSVILLE, TN**

BORING LOGS

DATE: AUGUST 2022 DRAWN BY: WJW
DWG SCALE: AS SHOWN CHECKED BY: APA
PROJECT NO: 193-778
APPROVED BY: JBS



DRAWING NO.: **C004**

P:\2019\193-778-C004\DWG\C004\193-778-C004.dwg(08/24/2022 - 1:00 PM) - LP, 8/24/2022 8:30 AM



NOTES

- SEE SHEET C001, C002, C003 FOR GENERAL NOTES AND SPECIFICATIONS.
- EXISTING SITE INFORMATION / TOPOGRAPHIC SURVEY WAS PREPARED BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC. DATED JANUARY 10, 2020.
- BEARING BASED ON THE TENNESSEE STATE PLANE COORDINATE SYSTEM (NAD83).

LEGEND:

- EXISTING PROPERTY LINE
- EXISTING ADJACENT PROPERTY LINE
- EXISTING RIGHT-OF-WAY
- EXISTING EASEMENT
- EXISTING MINIMUM BUILDING SETBACK
- EXISTING INDEX (MAJOR) CONTOUR
- EXISTING INTERMEDIATE (MINOR) CONTOUR
- EXISTING DITCH FLOW LINE
- EXISTING SANITARY SEWER LINE
- EXISTING GAS LINE
- EXISTING FIBER OPTIC LINE
- EXISTING UNDERGROUND ELEC. LINE
- EXISTING TREELINE
- IRON PIN FOUND
- MAILBOX
- AC UNIT
- WATER METER
- FIRE DEPT. CONNECTION
- CLEAN OUT
- DOWNSPOUT
- SANITARY MANHOLE
- GAS MANHOLE
- CABLE PEDESTAL
- ELECTRIC METER
- ELECTRIC CONTROL CABINET (ABOVE GRADE)
- TRANSFORMER
- BENCHMARK
- LOT NUMBER
- APPROXIMATE LIMITS OF POSSIBLE SLIDE
- BORE HOLE
- PROPOSED CONCRETE DITCH DEMOLITION

KEY NOTES

- SAWCUT CONCRETE DITCH.
- REMOVE APPROXIMATELY 1120 SQ. FT. OF EXISTING CONCRETE DITCH FOR PROPOSED PIER WALL CONSTRUCTION.
- EXISTING SOIL MASS, VEGETATION, ETC. TO BE CLEARED AND GRUBBED AS NEEDED TO FACILITATE PIER WALL CONSTRUCTION.
- CONTRACTOR IS RESPONSIBLE FOR LOCATING AND IDENTIFYING EXISTING UTILITIES. CONTRACTOR SHALL COORDINATE WITH CITY AND ENGINEER ON RELOCATION, REMOVAL, OR ABANDONMENT.

NO.	DATE	DESCRIPTION

Civil & Environmental Consultants, Inc.
 117 Seaboard Lane - Suite E-100 - Franklin, TN 37067
 615-333-7797 · 800-763-2326
 www.cecinc.com

CITY OF GOODLETTSVILLE
MARSHALL GREENE
SLOPE REPAIR
GOODLETTSVILLE, TN

EXISTING CONDITIONS & DEMOLITION PLAN

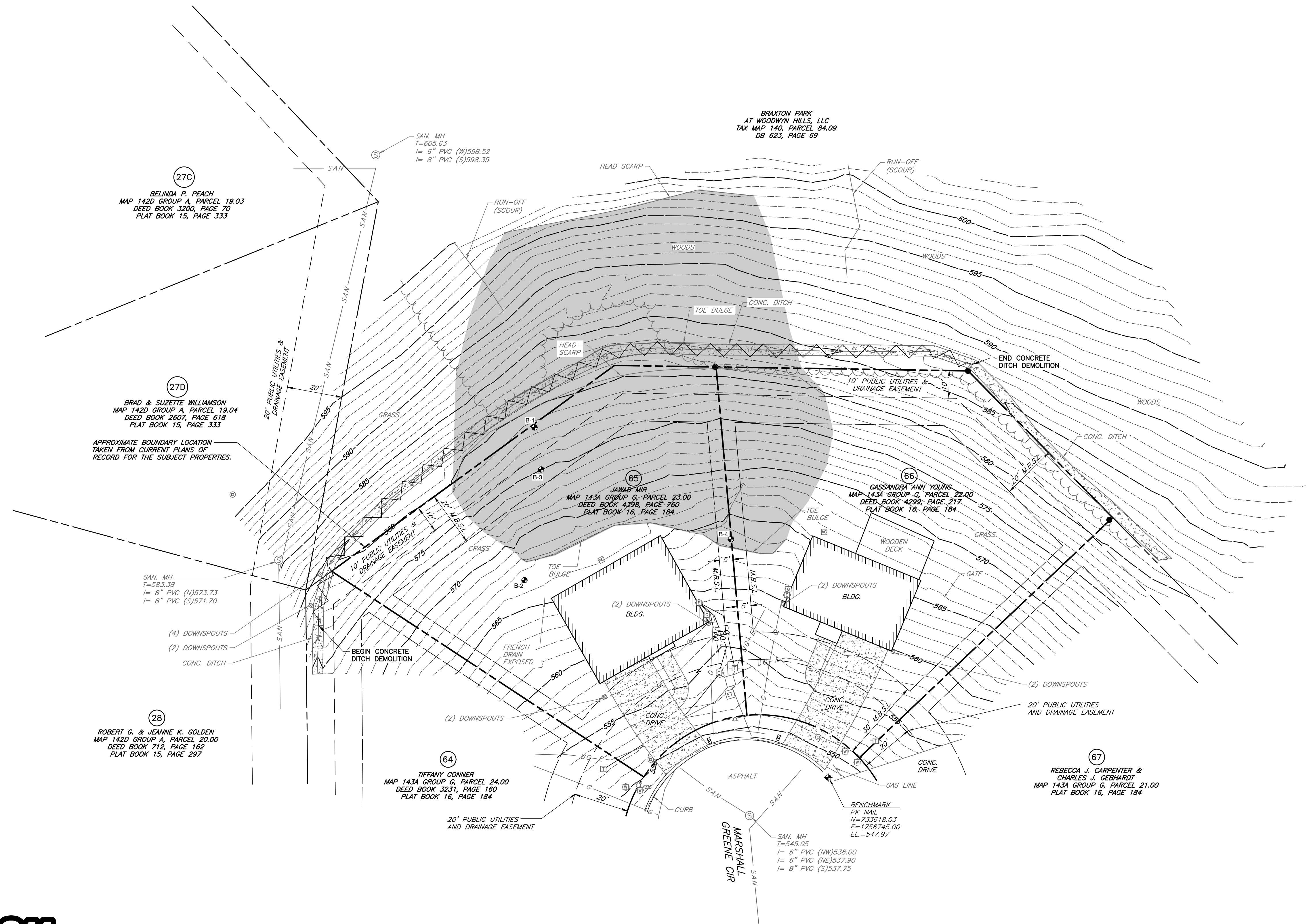
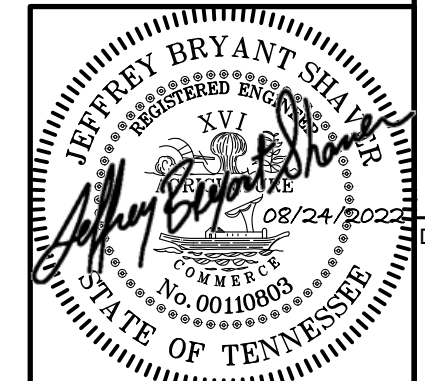
DATE: AUGUST 2022
 DRAWN BY: WJW
 DWG SCALE: AS SHOWN
 CHECKED BY: JBS
 PROJECT NO: 193-778
 APPROVED BY: JBS

DRAWING NO. **C100**

P:\193-778\CADD\DWG\C100\193-778-C100.dwg(10/11/2022 8:30 AM) - LPI: 8/24/2022 8:30 AM
 (Albany) - LST(2/28/2022 - Albany) -



NOTE TO CONTRACTOR
 THE CONTRACTOR SHALL REFER TO ALL PLANS WITHIN THIS PLAN SET. IT IS NOT THE DESIGNER'S INTENT THAT ANY SINGLE PLAN SHEET IN THIS SET OF DOCUMENTS FULLY DEPICT ALL WORK ASSOCIATED WITH THIS PROJECT.



27C
 BELINDA P. PEACH
 MAP 142D GROUP A, PARCEL 19.03
 DEED BOOK 3200, PAGE 70
 PLAT BOOK 15, PAGE 333

27D
 BRAD & SUZETTE WILLIAMSON
 MAP 142D GROUP A, PARCEL 19.04
 DEED BOOK 2607, PAGE 618
 PLAT BOOK 15, PAGE 333

28
 ROBERT C. & JEANNE K. GOLDEN
 MAP 142D GROUP A, PARCEL 20.00
 DEED BOOK 712, PAGE 162
 PLAT BOOK 15, PAGE 297

28
 ROBERT C. & JEANNE K. GOLDEN
 MAP 142D GROUP A, PARCEL 20.00
 DEED BOOK 712, PAGE 162
 PLAT BOOK 15, PAGE 297

64
 TIFFANY CONNER
 MAP 143A GROUP G, PARCEL 24.00
 DEED BOOK 3231, PAGE 160
 PLAT BOOK 16, PAGE 184

65
 JAWAB MIR
 MAP 143A GROUP G, PARCEL 23.00
 DEED BOOK 4398, PAGE 780
 PLAT BOOK 16, PAGE 184

66
 GASSANDRA ANN YOUNG
 MAP 143A GROUP G, PARCEL 22.00
 DEED BOOK 4299, PAGE 217
 PLAT BOOK 16, PAGE 184

67
 REBECCA J. CARPENTER &
 CHARLES J. GEBHARDT
 MAP 143A GROUP G, PARCEL 21.00
 PLAT BOOK 16, PAGE 184

BRAXTON PARK
 AT WOODWYN HILLS, LLC
 TAX MAP 140, PARCEL 84.09
 DB 623, PAGE 69

SAN. MH
 T=605.63
 I= 6" PVC (W)598.52
 I= 8" PVC (S)598.35

SAN. MH
 T=583.38
 I= 8" PVC (N)573.73
 I= 8" PVC (S)571.70

SAN. MH
 T=545.05
 I= 6" PVC (NW)538.00
 I= 6" PVC (NE)537.90
 I= 8" PVC (S)537.75

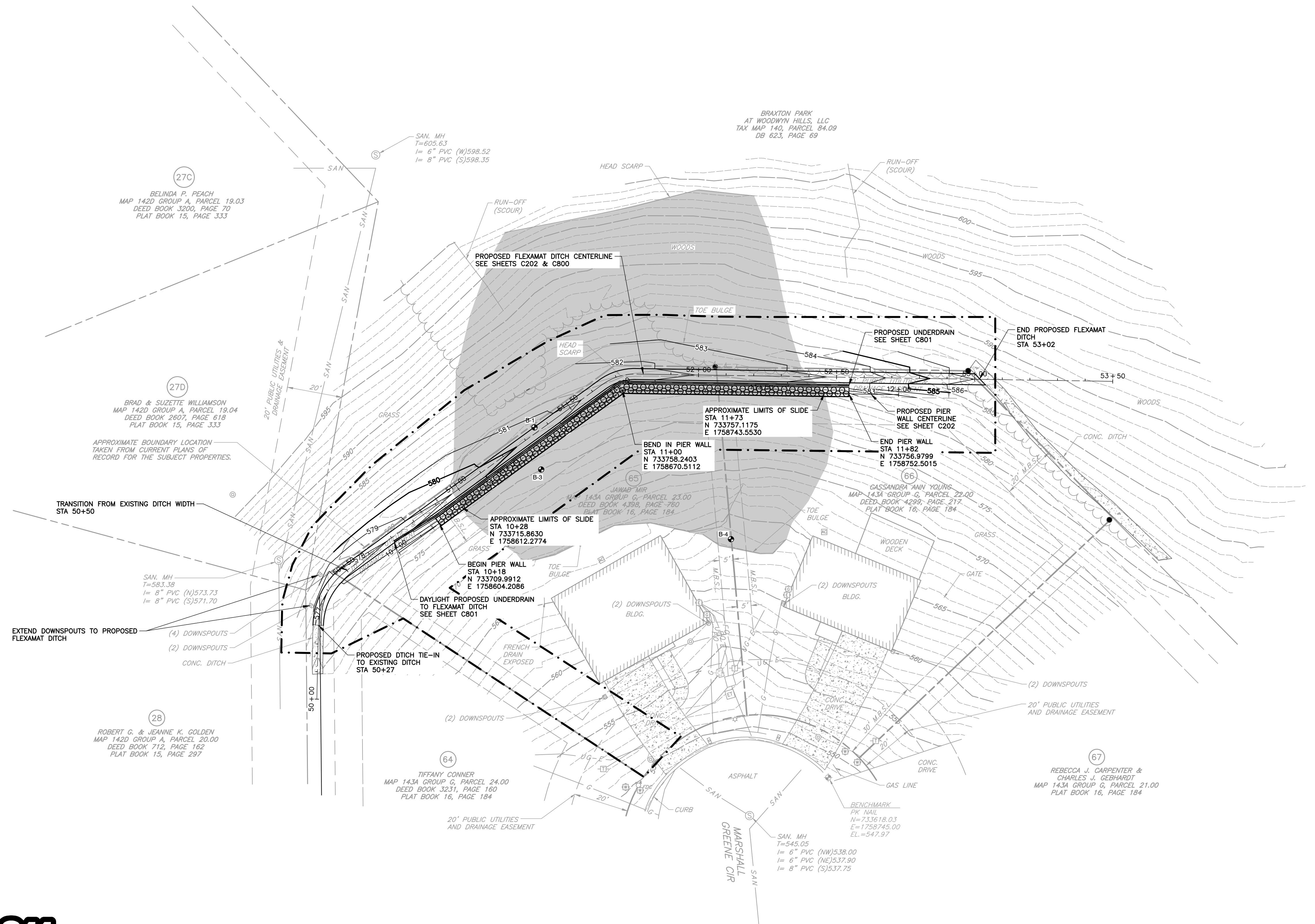


NOTES

- SEE SHEET C001, C002, C003 FOR GENERAL NOTES AND SPECIFICATIONS.
- EXISTING SITE INFORMATION / TOPOGRAPHIC SURVEY WAS PREPARED BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC. DATED JANUARY 10, 2020.
- BEARING BASED ON THE TENNESSEE STATE PLANE COORDINATE SYSTEM (NAD83).

LEGEND:

- EXISTING PROPERTY LINE
- EXISTING ADJACENT PROPERTY LINE
- EXISTING RIGHT-OF-WAY
- EXISTING EASEMENT
- EXISTING MINIMUM BUILDING SETBACK
- EXISTING INDEX (MAJOR) CONTOUR
- EXISTING INTERMEDIATE (MINOR) CONTOUR
- EXISTING DITCH FLOW LINE
- EXISTING SANITARY SEWER LINE
- EXISTING GAS LINE
- EXISTING FIBER OPTIC LINE
- EXISTING UNDERGROUND ELEC. LINE
- EXISTING TREELINE
- IRON PIN FOUND
- MAILBOX
- AC UNIT
- WATER METER
- FIRE DEPT. CONNECTION
- CLEAN OUT
- DOWNSPOUT
- SANITARY MANHOLE
- GAS MANHOLE
- TELEPHONE PEDESTAL
- CABLE PEDESTAL
- ELECTRIC METER
- ELECTRIC CONTROL CABINET (ABOVE GRADE)
- TRANSFORMER
- BENCHMARK
- LOT NUMBER
- APPROXIMATE LIMITS OF POSSIBLE SLIDE
- BORE HOLE
- PROPOSED PIER WALL
- 24" REINFORCED CONCRETE PIER
- 24" UNREINFORCED CONCRETE PLUG PIER
- PROPOSED LIMITS OF DISTURBANCE
- PROPOSED INDEX (MAJOR) CONTOUR
- PROPOSED INTERMEDIATE (MINOR) CONTOUR
- PROPOSED CENTERLINE ALIGNMENT

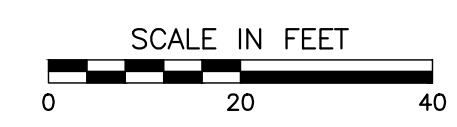
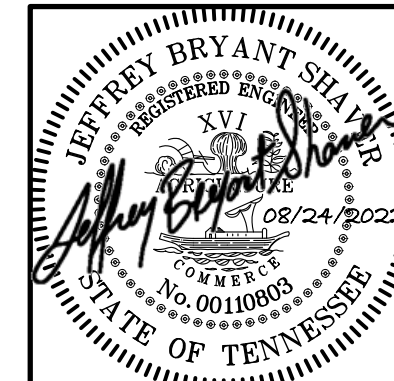


NO.	DATE	DESCRIPTION

Civil & Environmental Consultants, Inc.
 117 Seaboard Lane - Suite E-100 - Franklin, TN 37067
 615-333-7797 · 800-763-2326
 www.cecinco.com

**CITY OF GOODLETTSVILLE
 MARSHALL GREENE
 SLOPE REPAIR
 GOODLETTSVILLE, TN**

OVERALL PROPOSED CONDITIONS	
DATE:	AUGUST 2022
DRAWN BY:	WUJ
CHECKED BY:	AS SHOWN
PROJECT NO.:	193-778
APPROVED BY:	JBS

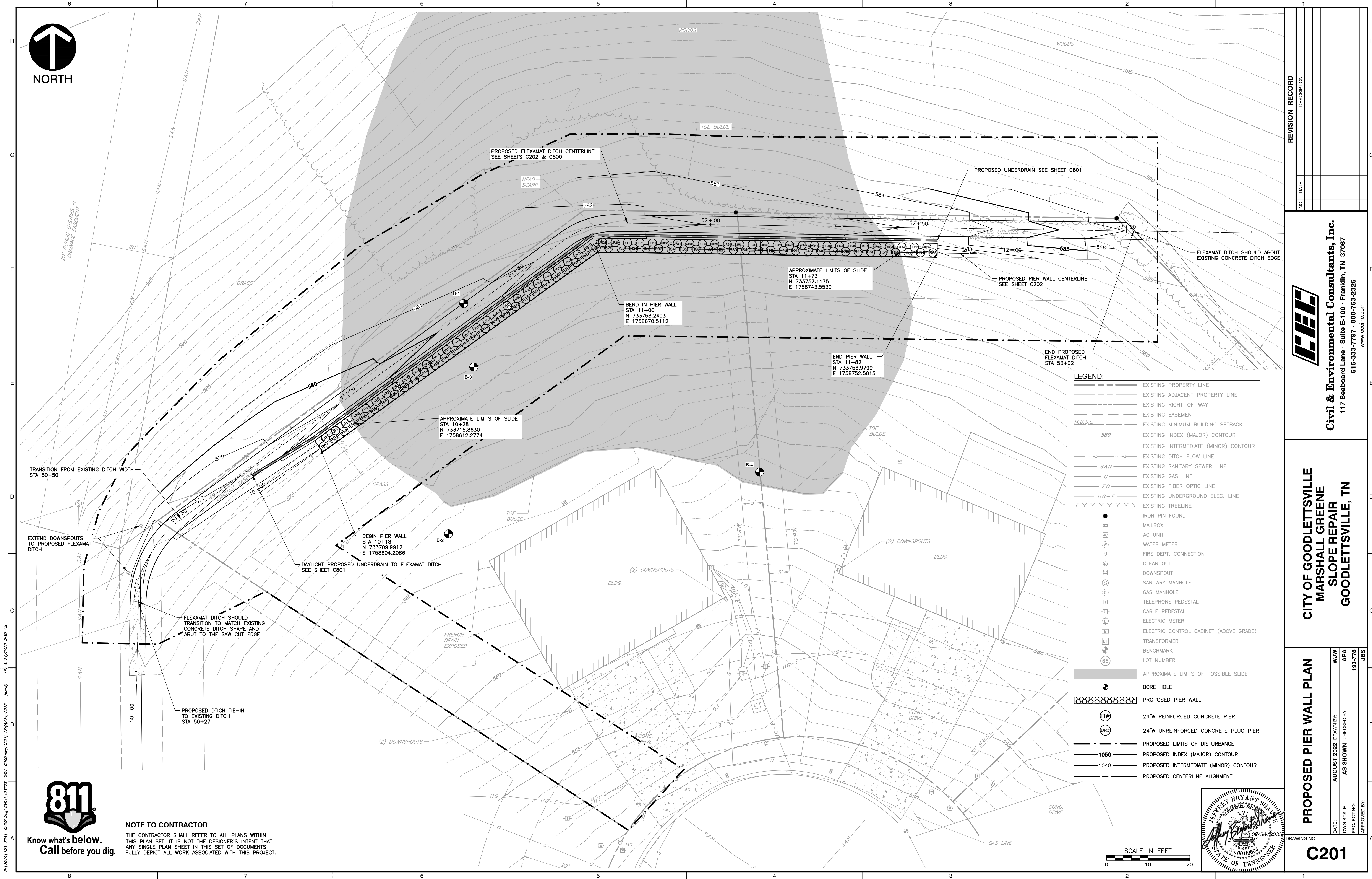


DRAWING NO.: **C200**

NOTE TO CONTRACTOR
 THE CONTRACTOR SHALL REFER TO ALL PLANS WITHIN THIS PLAN SET. IT IS NOT THE DESIGNER'S INTENT THAT ANY SINGLE PLAN SHEET IN THIS SET OF DOCUMENTS FULLY DEPICT ALL WORK ASSOCIATED WITH THIS PROJECT.

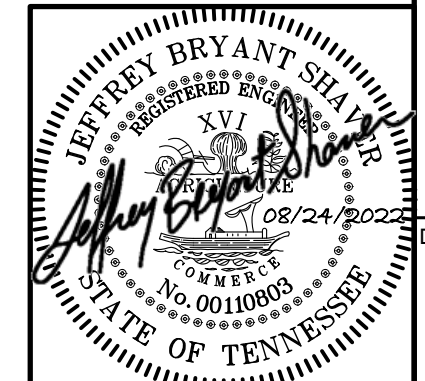
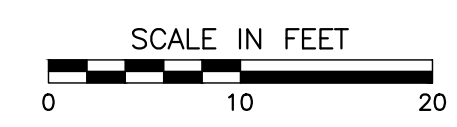


P:\2019\193-778-C200\Drawings\C200\193-778-C200.dwg (2022) 15:09:24 2022 - AutoCAD - LF: 8/24/2022 9:30 AM



- LEGEND:**
- EXISTING PROPERTY LINE
 - - - EXISTING ADJACENT PROPERTY LINE
 - · - · EXISTING RIGHT-OF-WAY
 - · - · EXISTING EASEMENT
 - M.B.S.L. EXISTING MINIMUM BUILDING SETBACK
 - 580 EXISTING INDEX (MAJOR) CONTOUR
 - · - · EXISTING INTERMEDIATE (MINOR) CONTOUR
 - · - · EXISTING DITCH FLOW LINE
 - SAN EXISTING SANITARY SEWER LINE
 - G EXISTING GAS LINE
 - FO EXISTING FIBER OPTIC LINE
 - UG-E EXISTING UNDERGROUND ELEC. LINE
 - EXISTING TREELINE
 - IRON PIN FOUND
 - Ⓜ MAILBOX
 - Ⓜ AC UNIT
 - Ⓜ WATER METER
 - Ⓜ FIRE DEPT. CONNECTION
 - Ⓜ CLEAN OUT
 - Ⓜ DOWNSPOUT
 - Ⓜ SANITARY MANHOLE
 - Ⓜ GAS MANHOLE
 - Ⓜ TELEPHONE PEDESTAL
 - Ⓜ CABLE PEDESTAL
 - Ⓜ ELECTRIC METER
 - Ⓜ ELECTRIC CONTROL CABINET (ABOVE GRADE)
 - Ⓜ TRANSFORMER
 - Ⓜ BENCHMARK
 - Ⓜ LOT NUMBER
 - APPROXIMATE LIMITS OF POSSIBLE SLIDE
 - BORE HOLE
 - PROPOSED PIER WALL
 - Ⓜ 24" REINFORCED CONCRETE PIER
 - Ⓜ 24" UNREINFORCED CONCRETE PLUG PIER
 - · - · PROPOSED LIMITS OF DISTURBANCE
 - 1050 PROPOSED INDEX (MAJOR) CONTOUR
 - 1048 PROPOSED INTERMEDIATE (MINOR) CONTOUR
 - · - · PROPOSED CENTERLINE ALIGNMENT

NOTE TO CONTRACTOR
 THE CONTRACTOR SHALL REFER TO ALL PLANS WITHIN THIS PLAN SET. IT IS NOT THE DESIGNER'S INTENT THAT ANY SINGLE PLAN SHEET IN THIS SET OF DOCUMENTS FULLY DEPICT ALL WORK ASSOCIATED WITH THIS PROJECT.



NO.	DATE	DESCRIPTION

Civil & Environmental Consultants, Inc.
 117 Seaboard Lane - Suite E-100 - Franklin, TN 37067
 615-333-7797 · 800-763-2326
 www.cecinco.com

**CITY OF GOODLETTSVILLE
 MARSHALL GREENE
 SLOPE REPAIR
 GOODLETTSVILLE, TN**

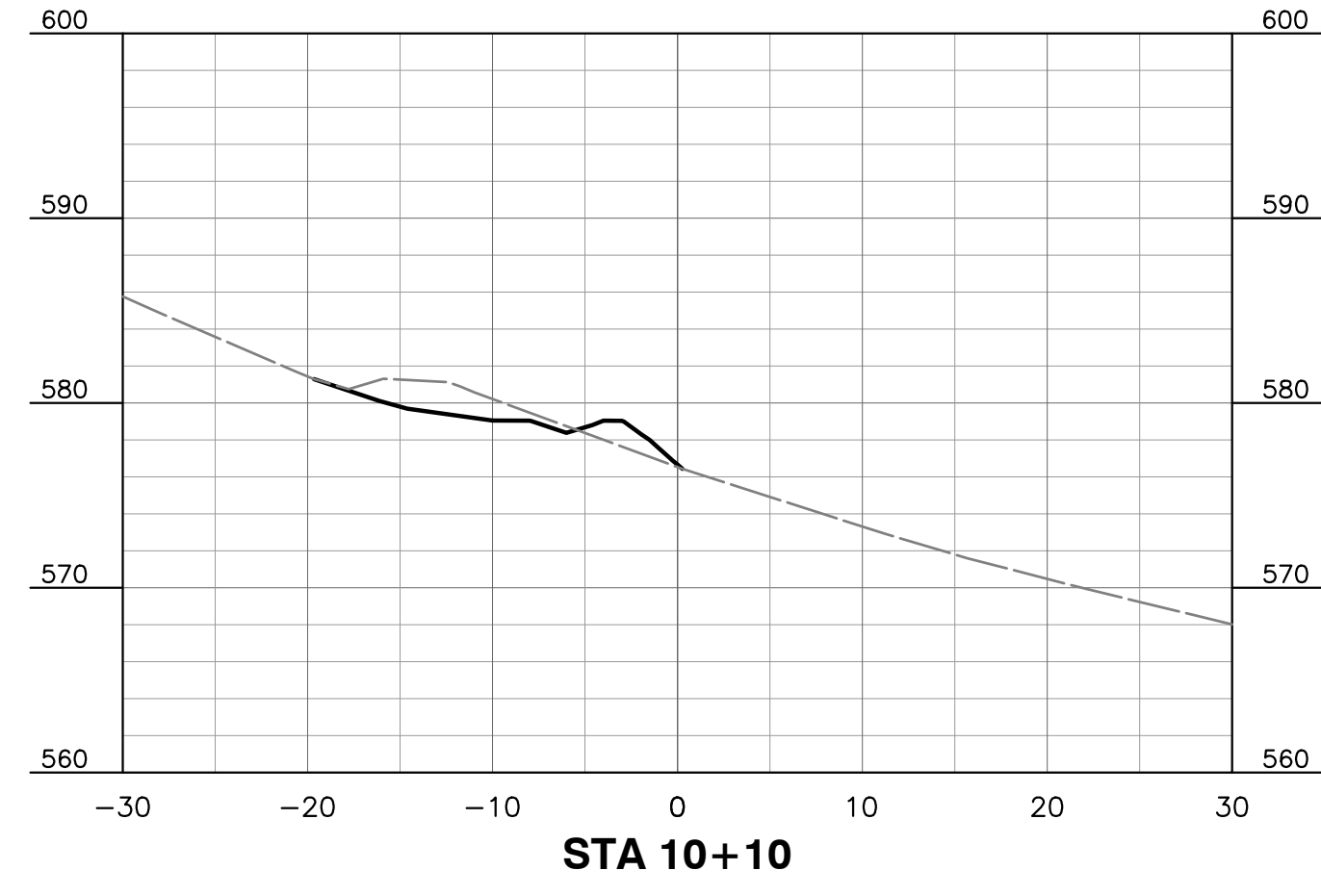
PROPOSED PIER WALL PLAN

DRAWING NO.: **C201**

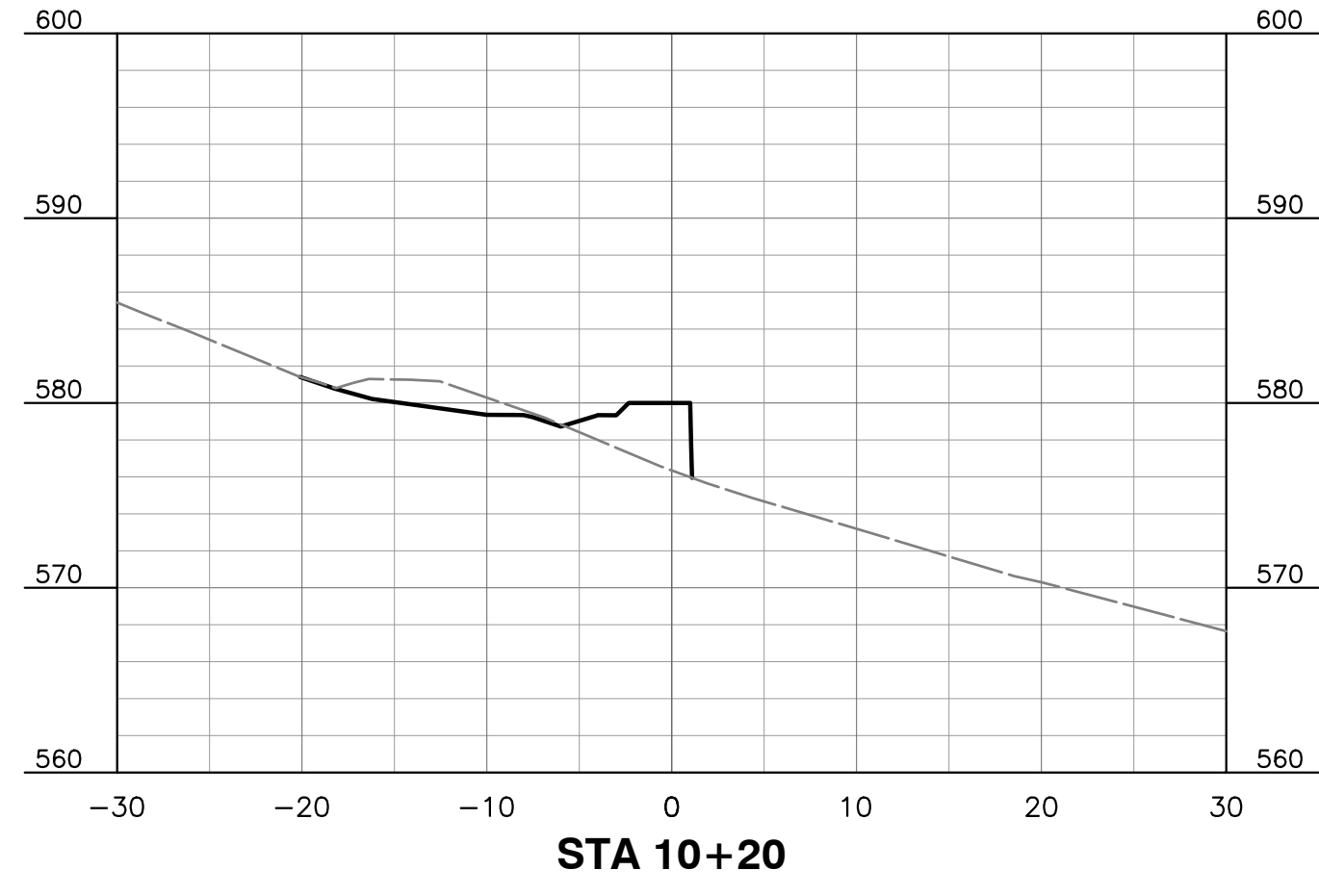
DATE: AUGUST 2022 | DRAWN BY: WJW | APPROVED BY: JBS
 DWG SCALE: AS SHOWN | CHECKED BY: APA | PROJECT NO: 193-778

P:\1919\193-778\CADD\DWG\C1001\183778-C101-C200.dwg(2021 15:09:24/2022 - Auto) - LP: 8/24/2022 9:30 AM

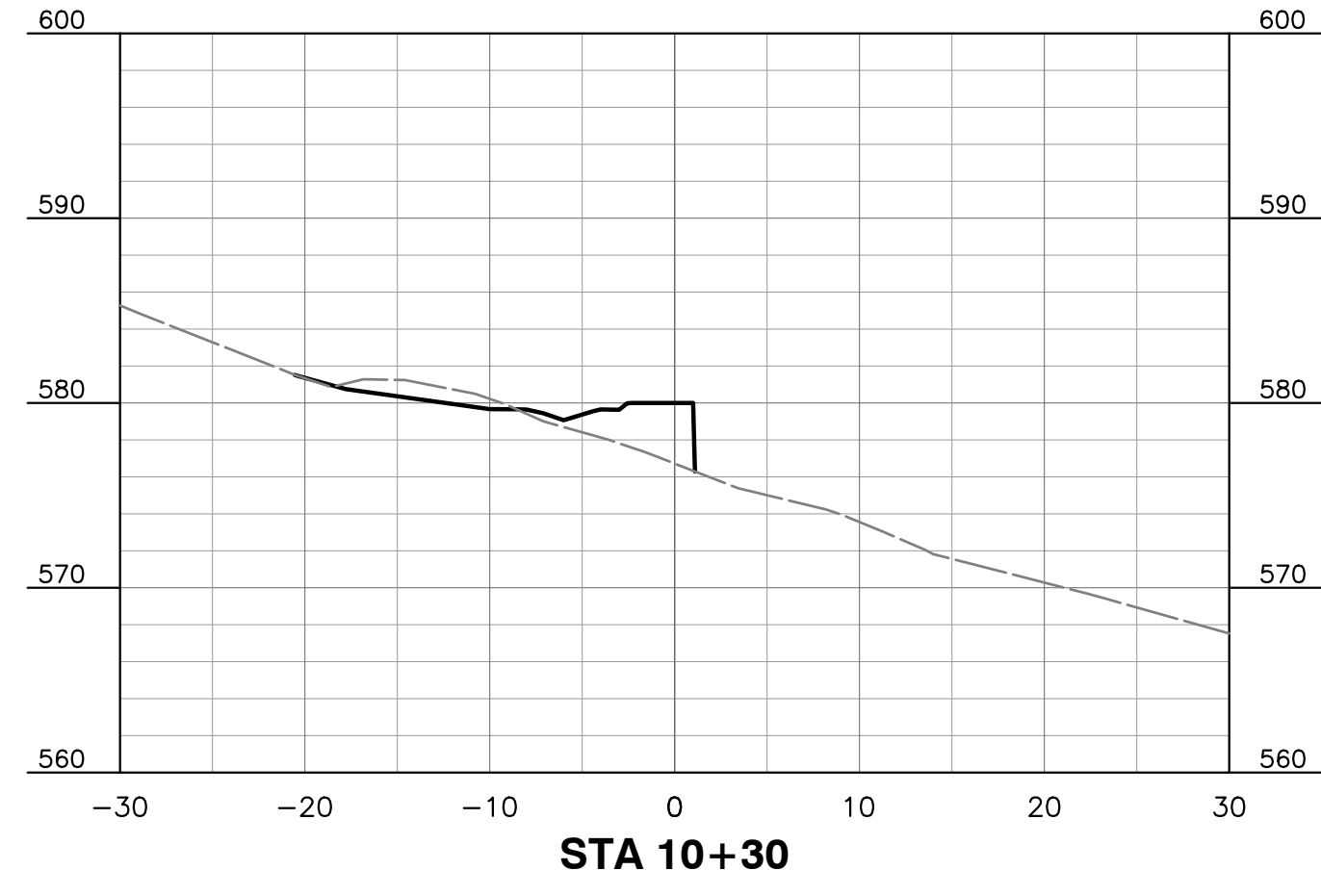
P:\2019\193-778-CAD\DWG\C101\18378-C101-C203.dwg(2023) LS(8/24/2022 - Auto) - LF: 8/24/2022 9:30 AM



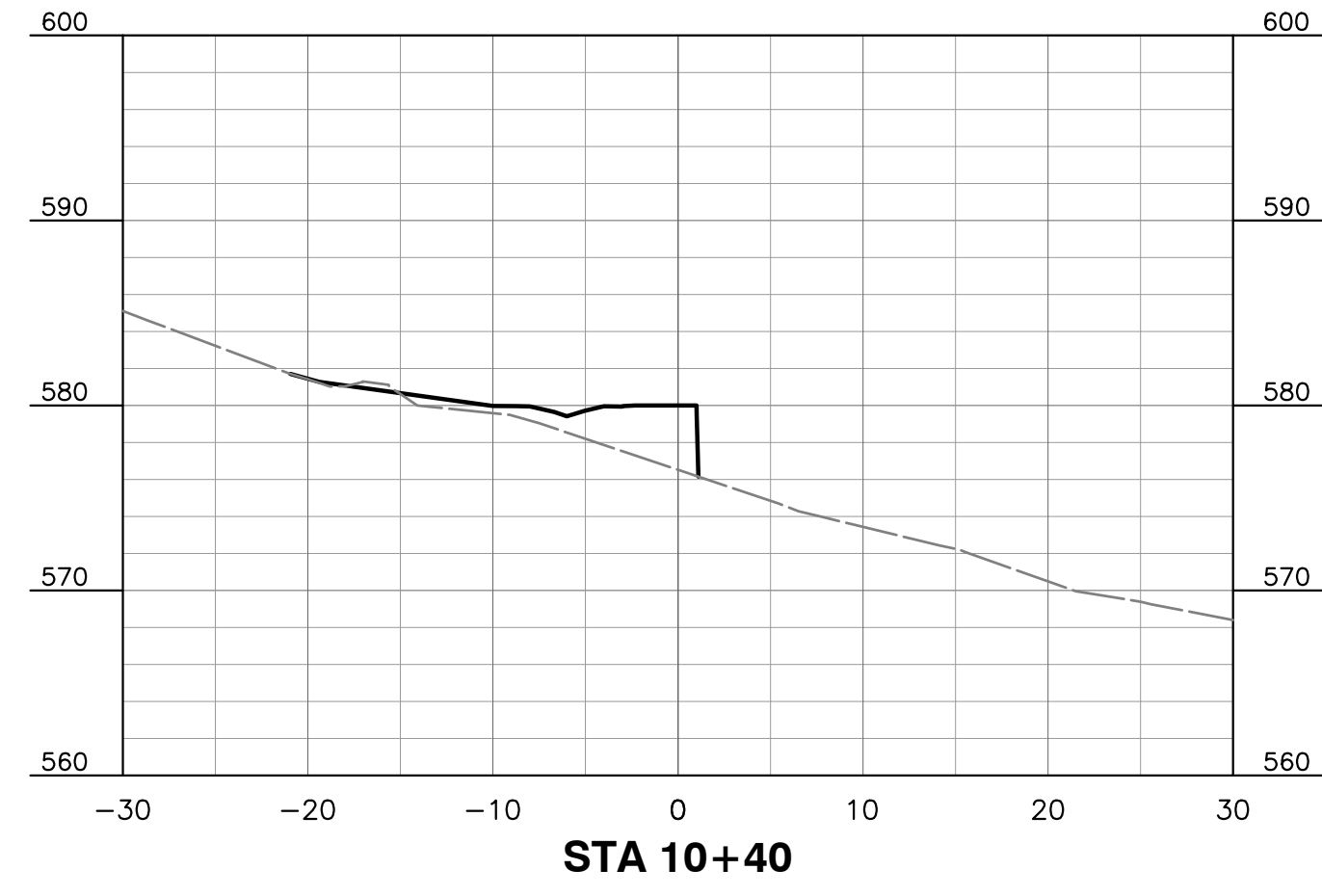
STA 10+10



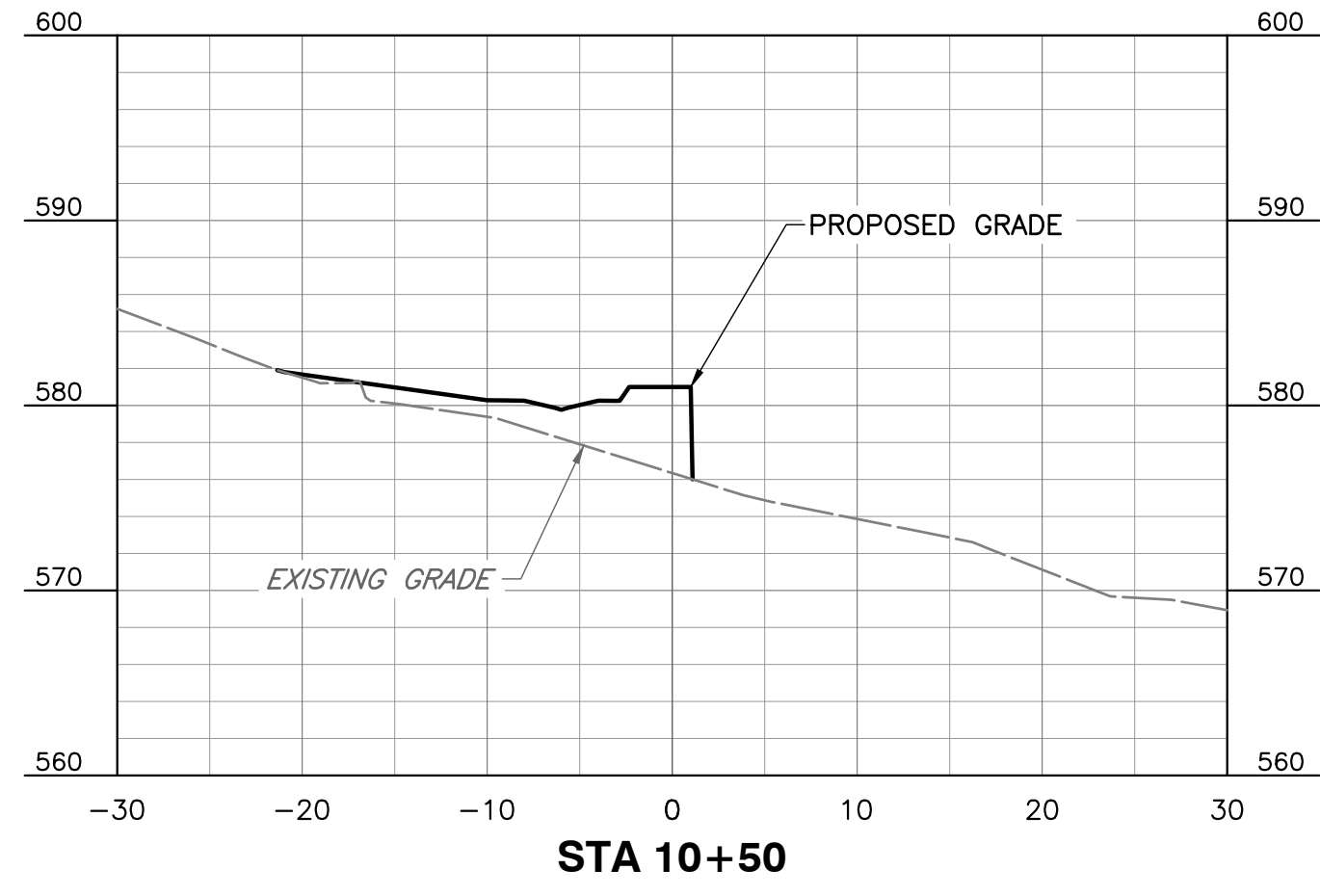
STA 10+20



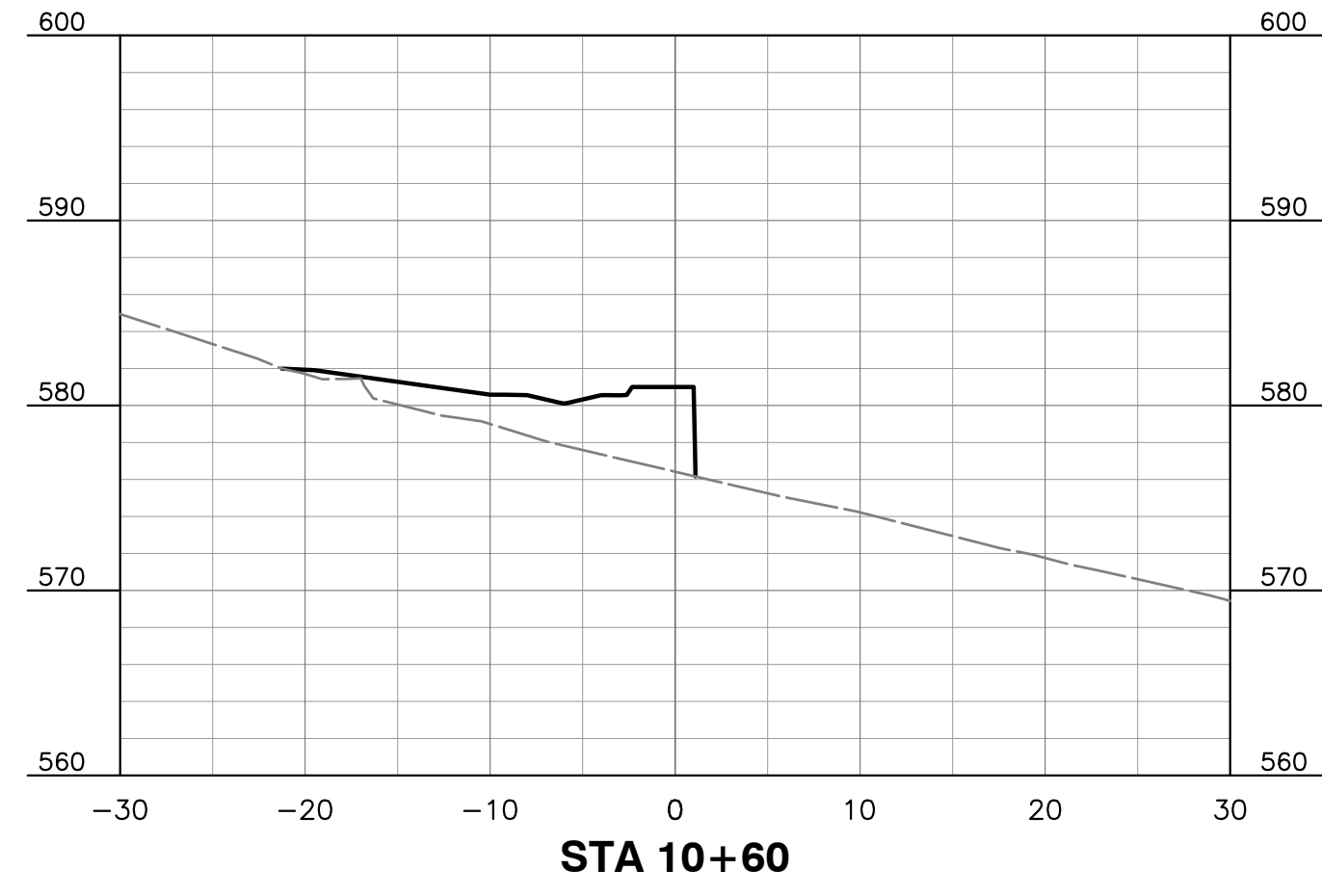
STA 10+30



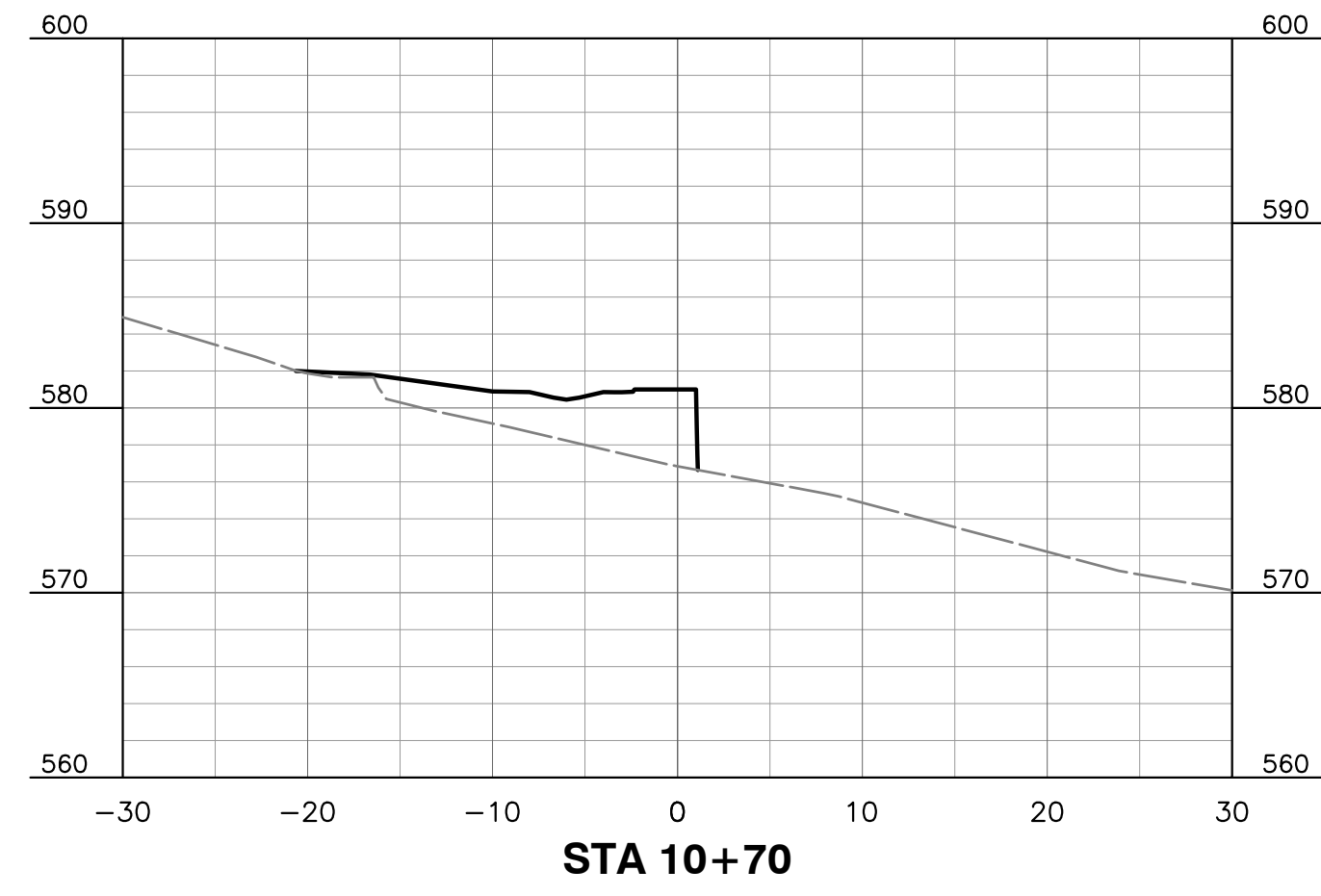
STA 10+40



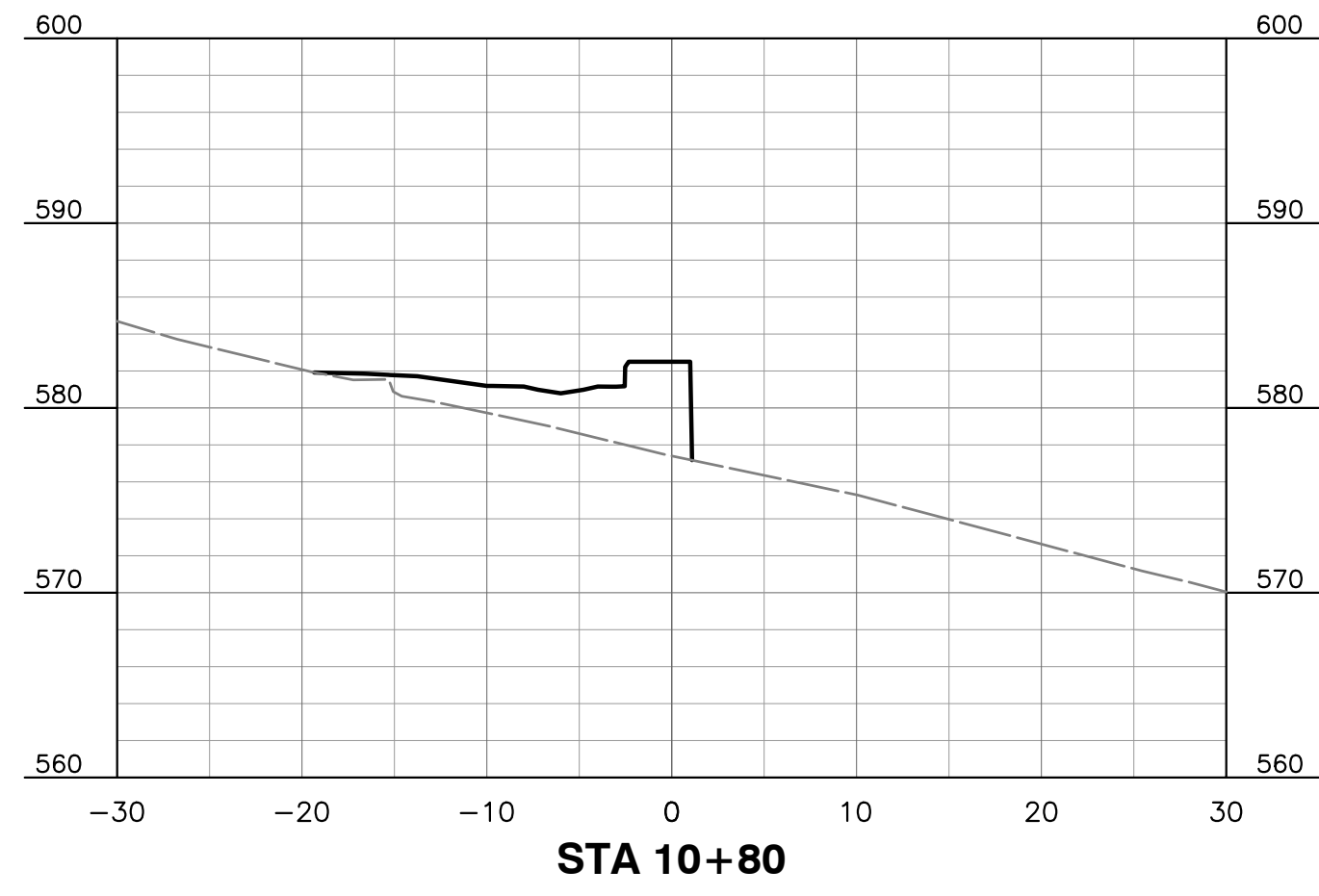
STA 10+50



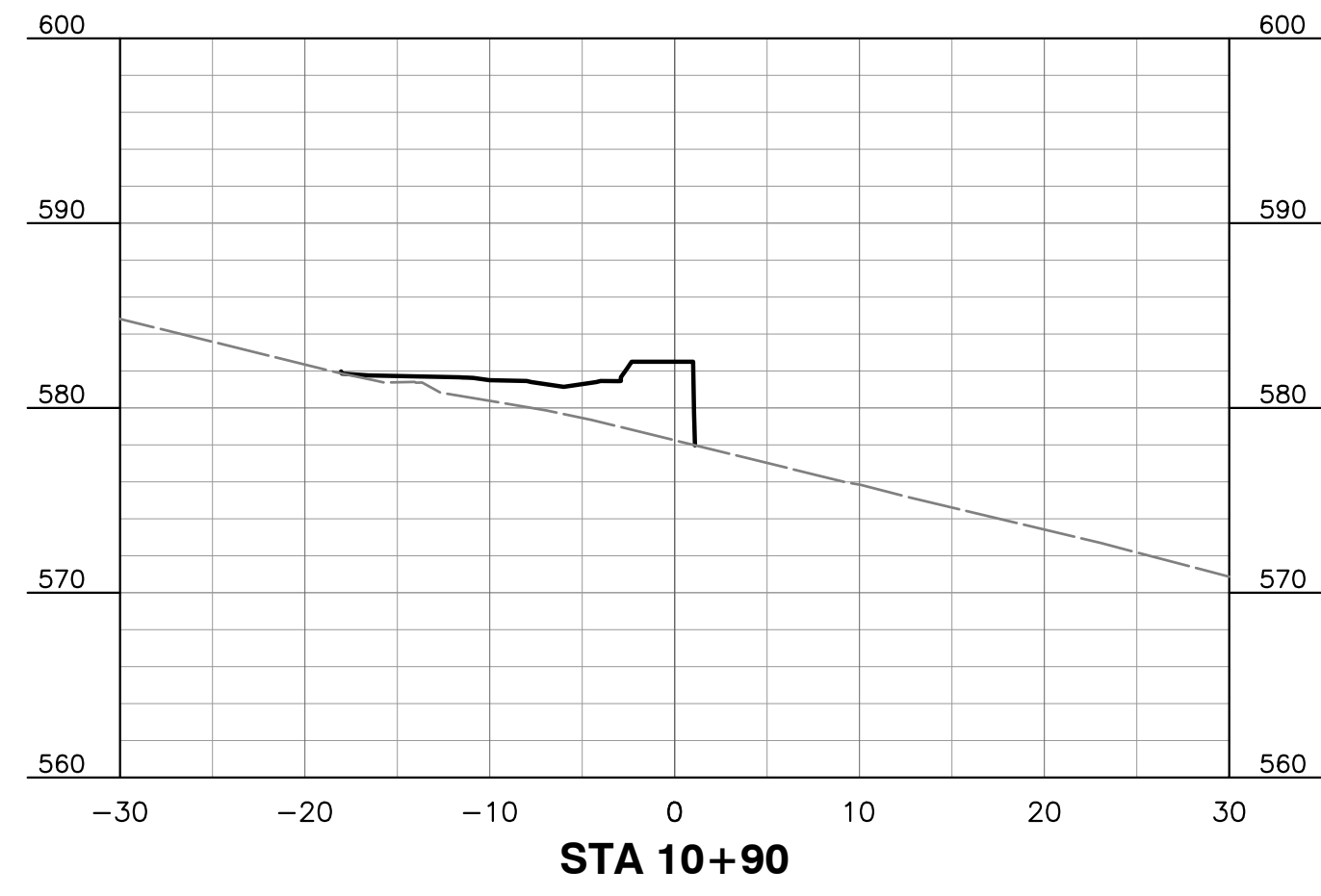
STA 10+60



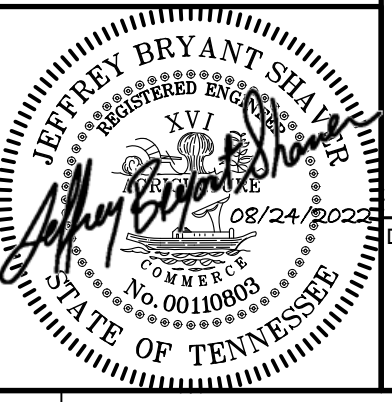
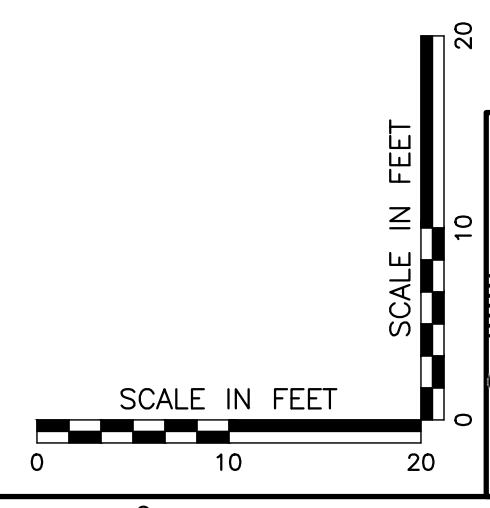
STA 10+70



STA 10+80



STA 10+90



NO.	DATE	DESCRIPTION

CEC
Civil & Environmental Consultants, Inc.
 117 Seaboard Lane - Suite E-100 - Franklin, TN 37067
 615-333-7797 · 800-763-2326
 www.cecinc.com

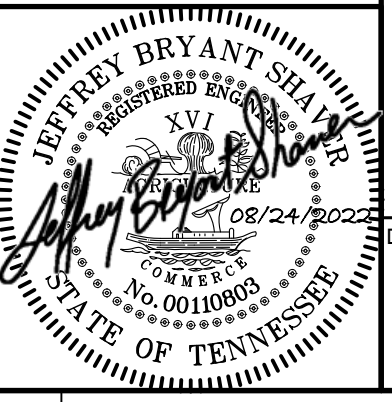
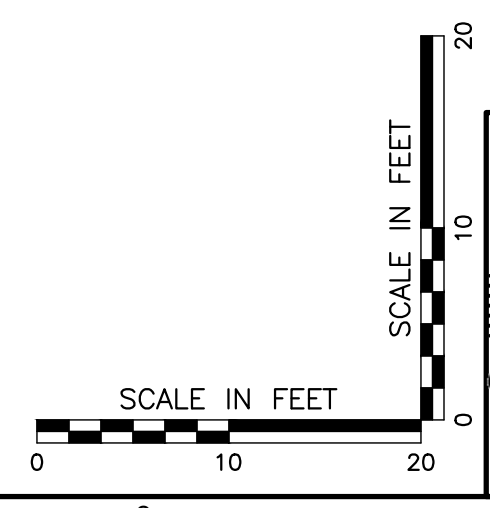
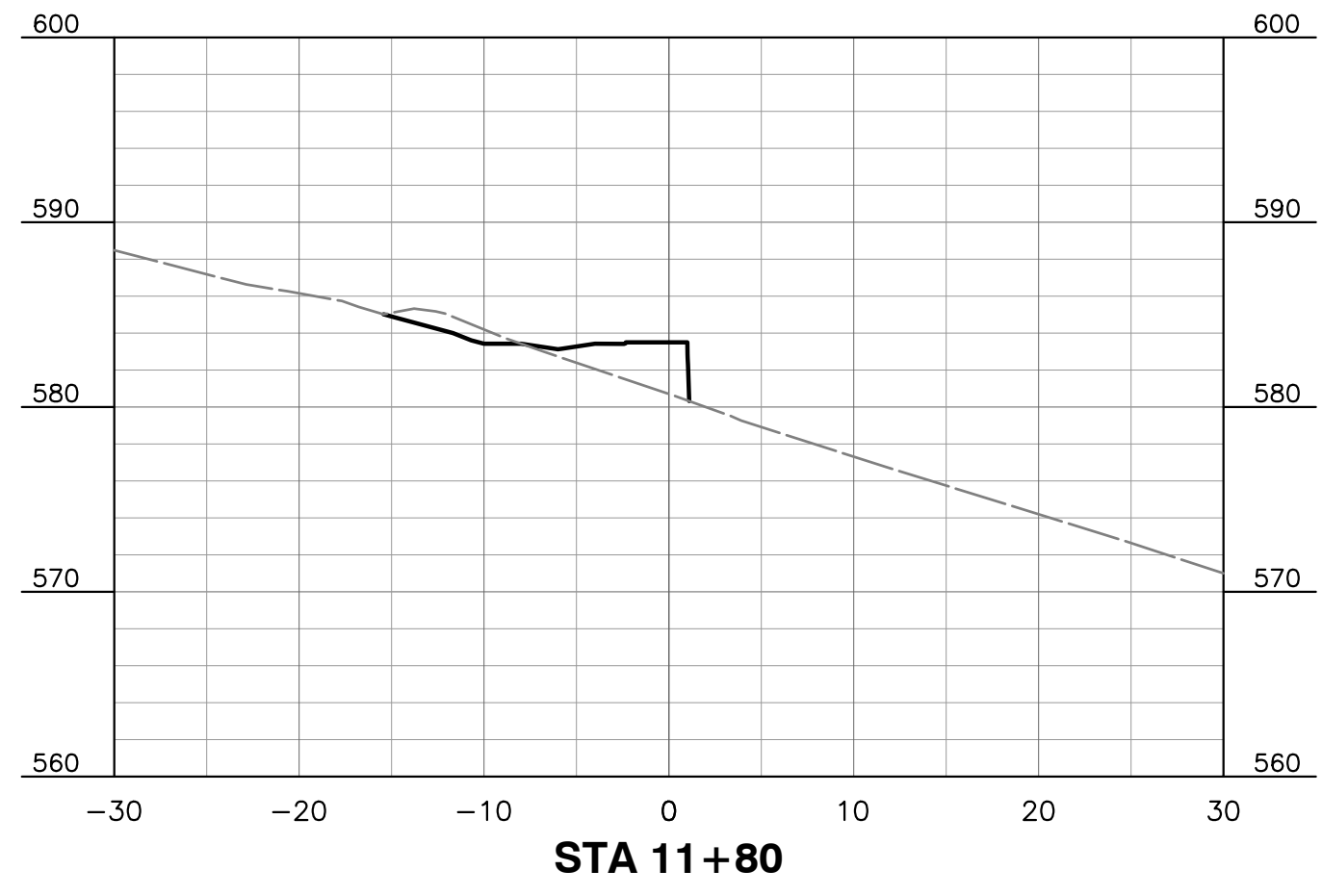
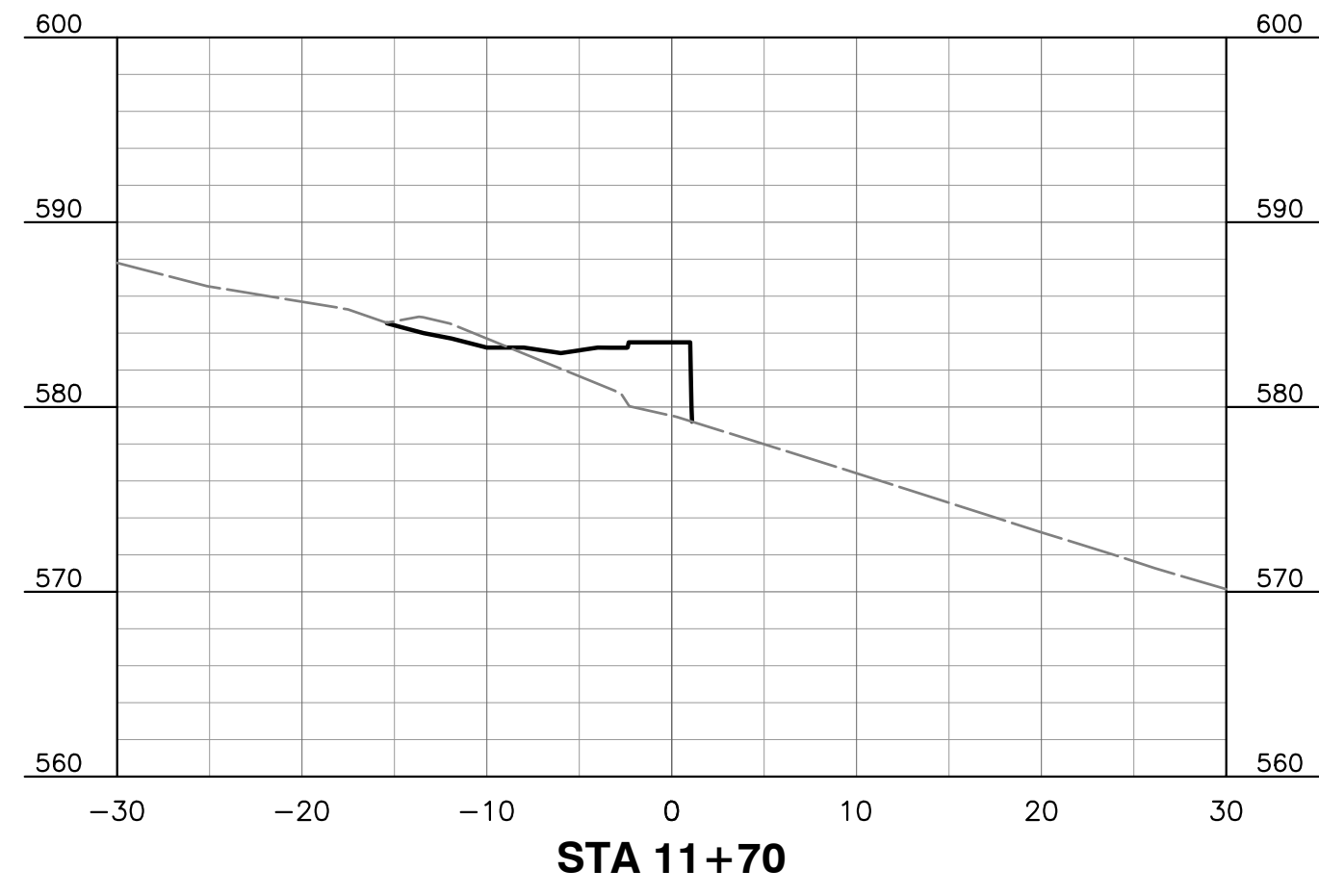
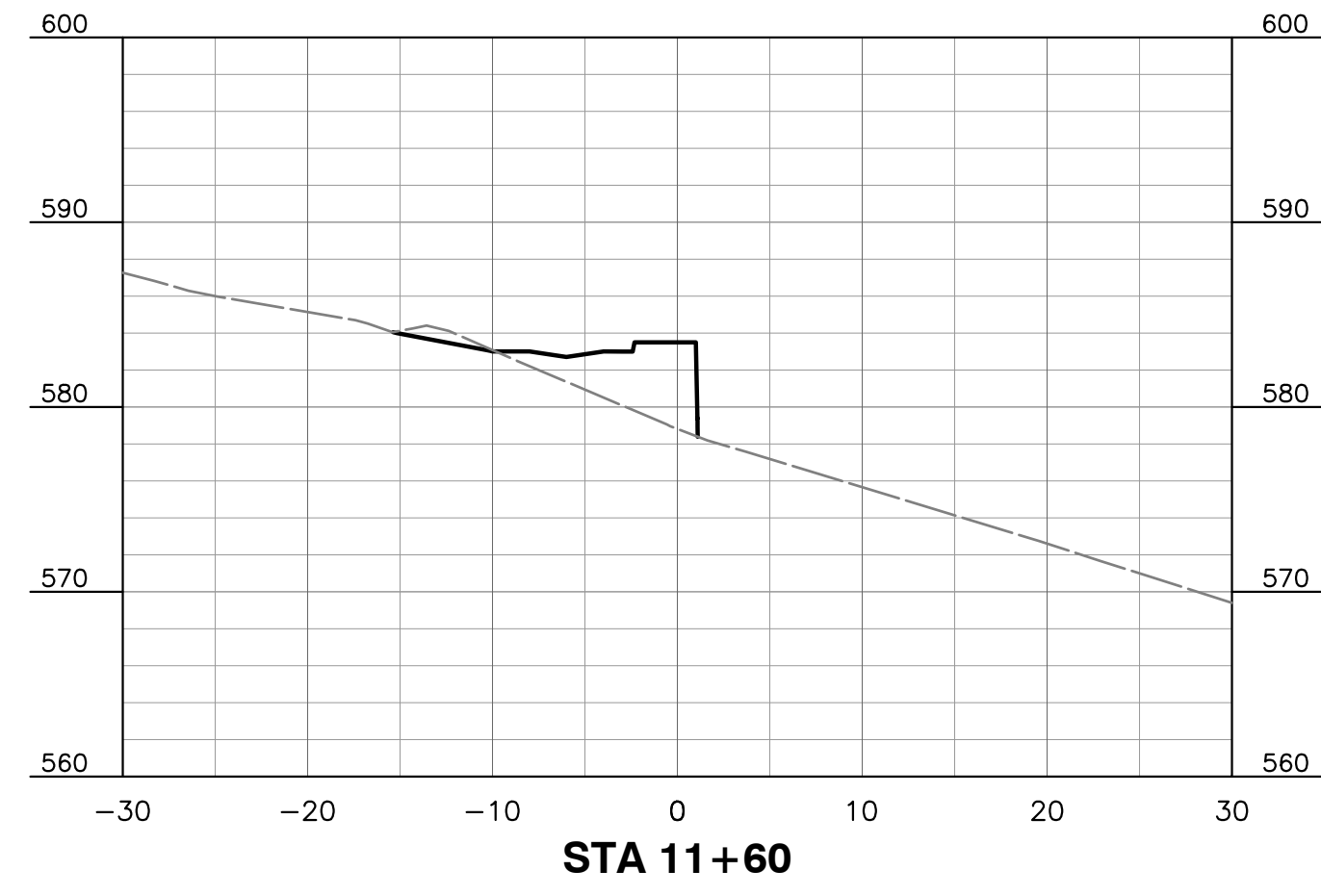
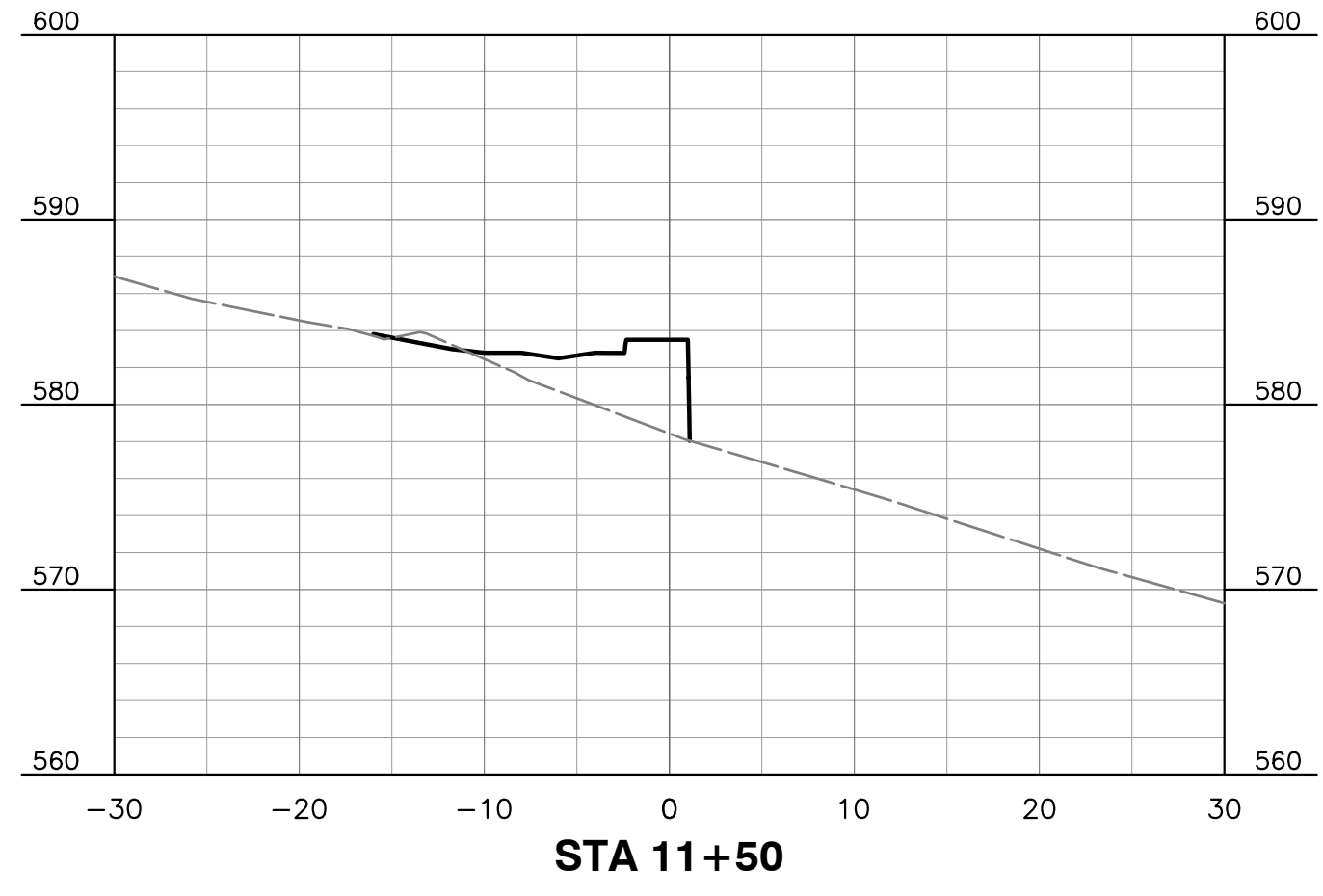
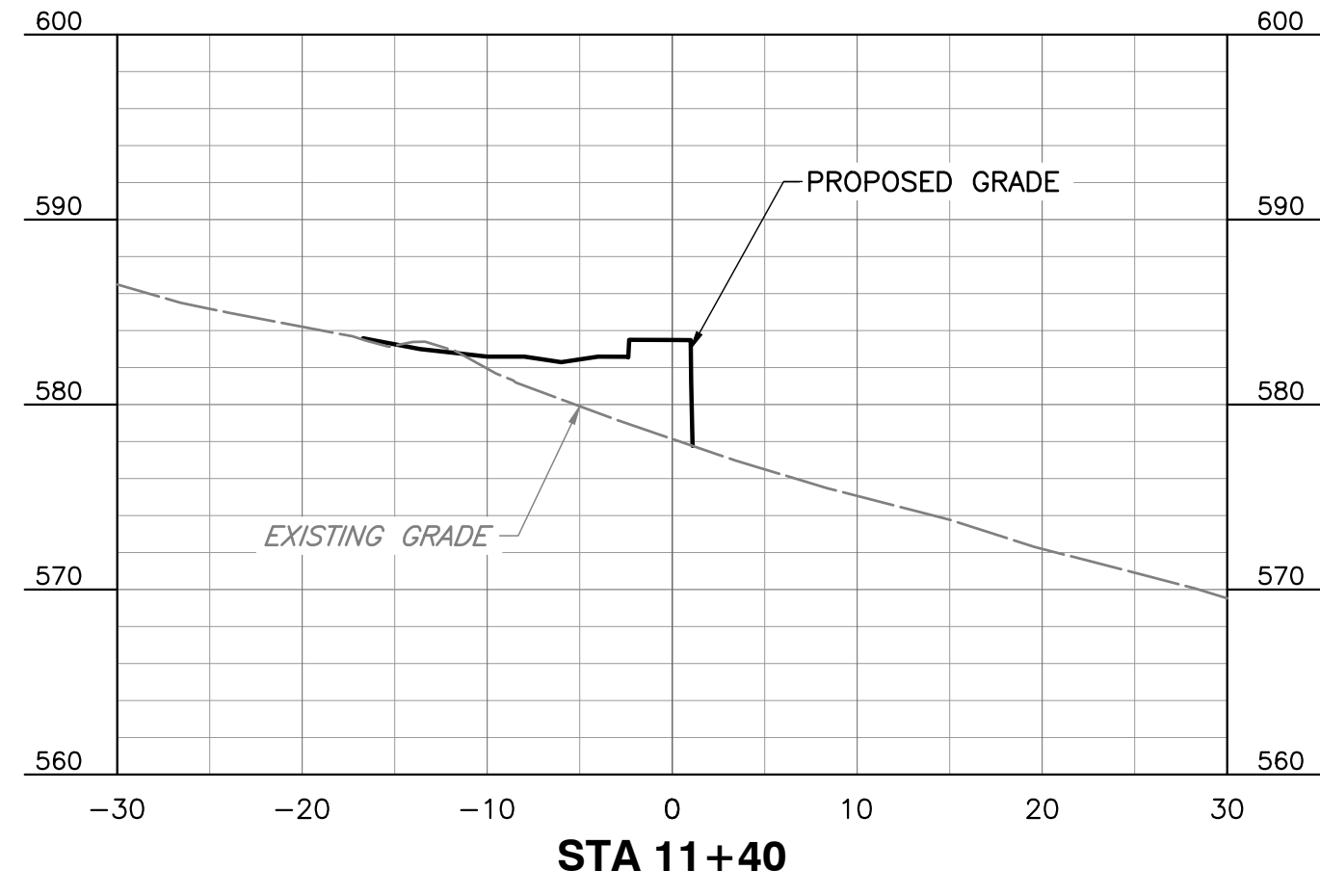
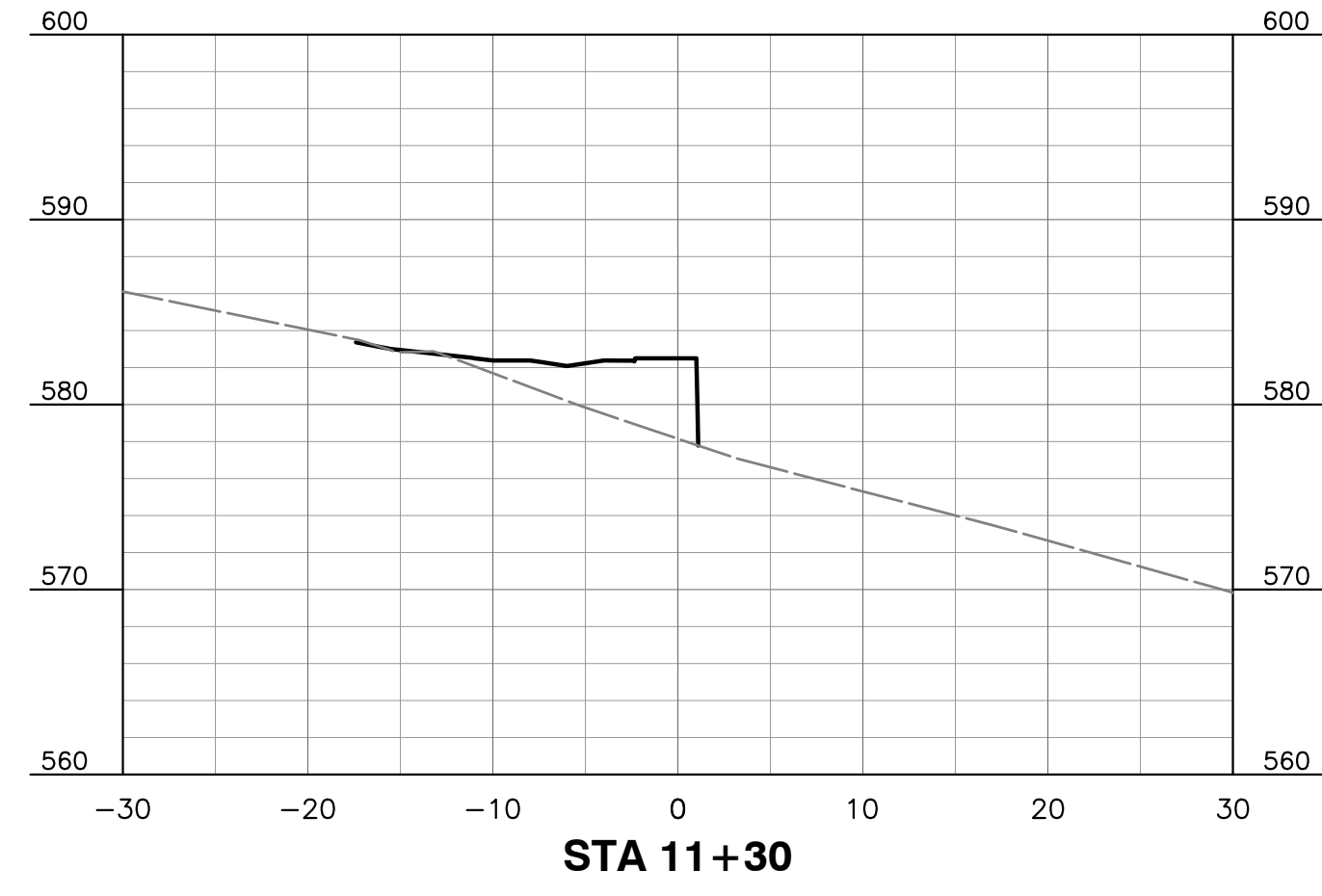
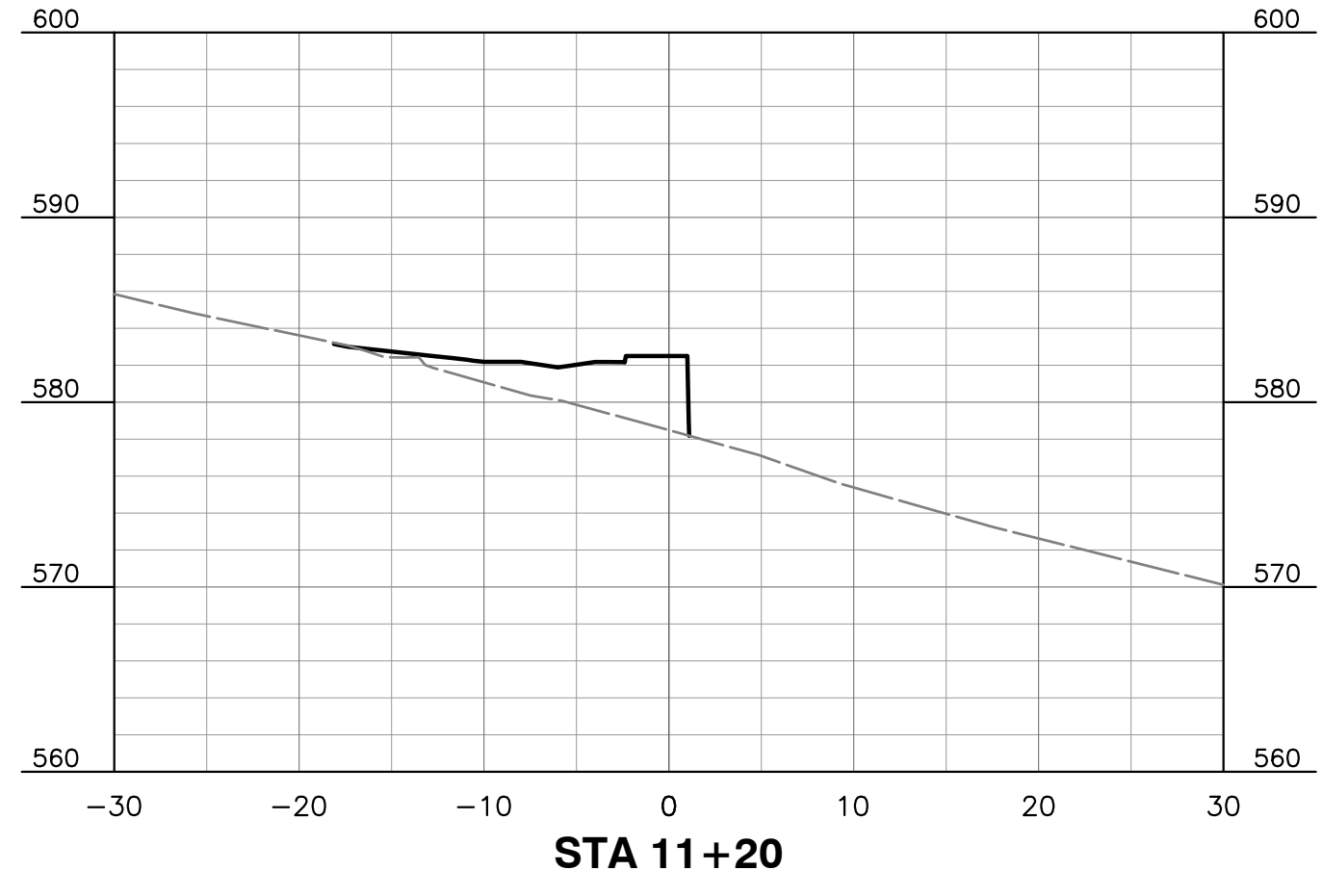
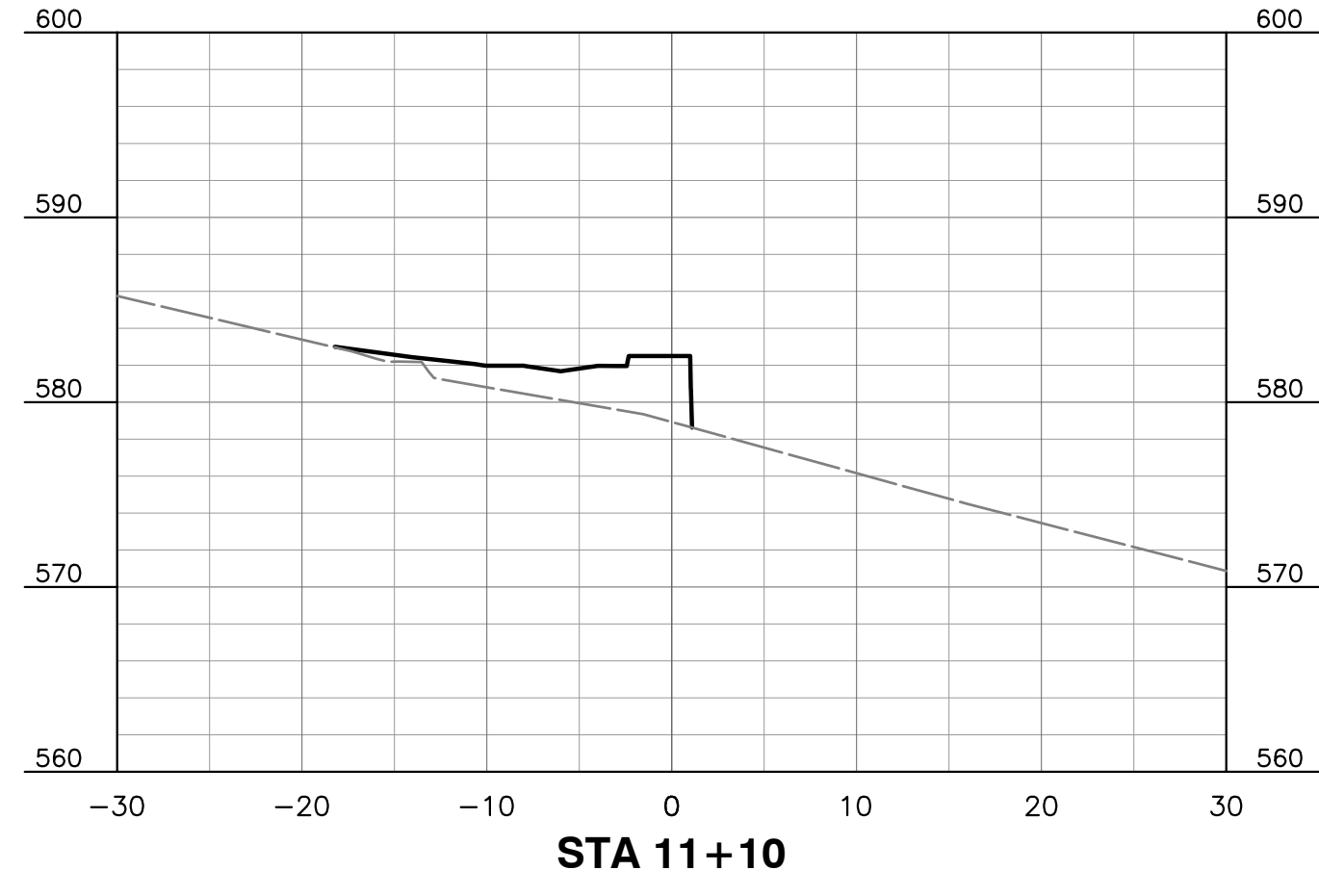
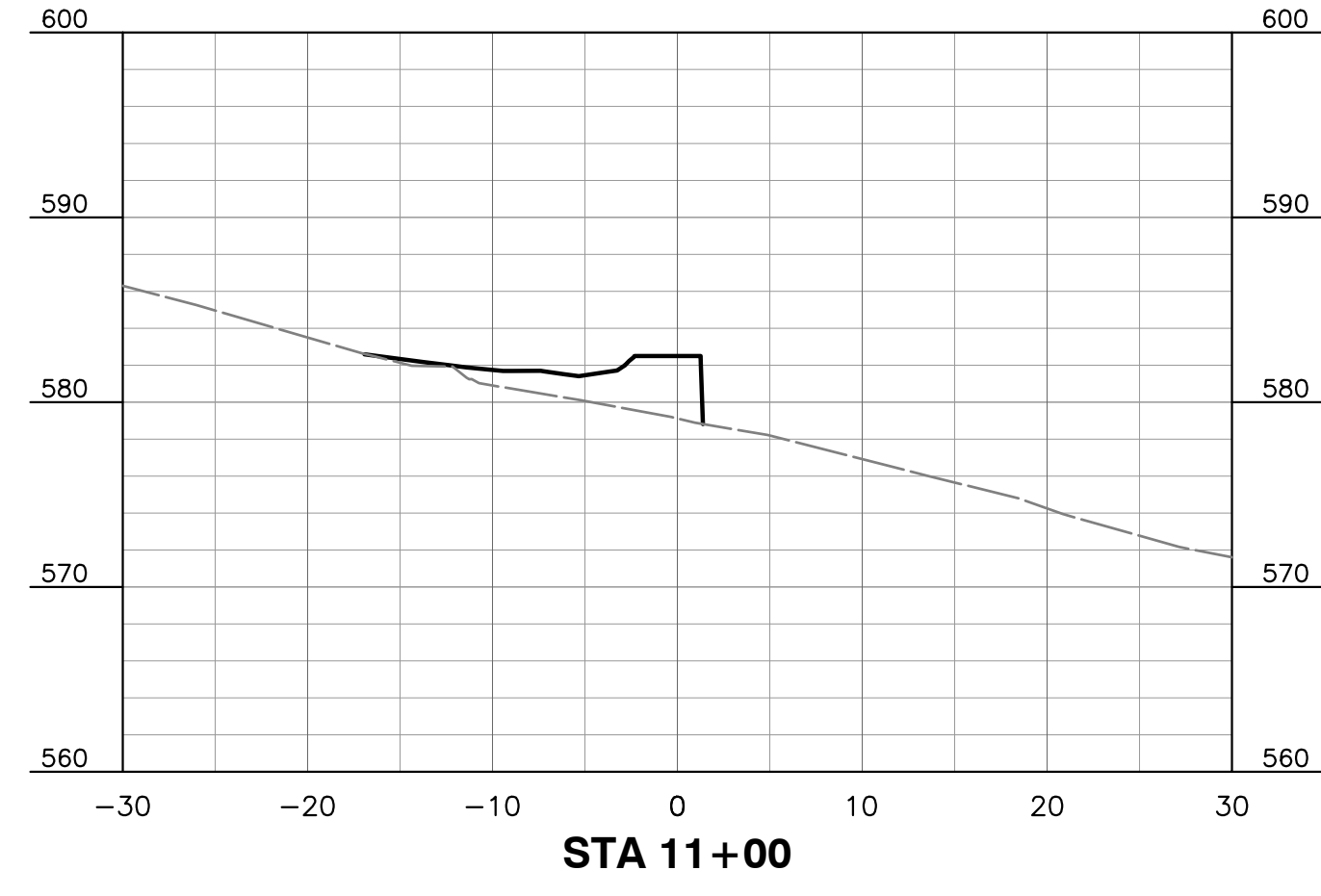
CITY OF GOODLETTSVILLE
MARSHALL GREENE
SLOPE REPAIR
GOODLETTSVILLE, TN

PROPOSED PIER WALL
CROSS-SECTIONS [1 OF 2]

DRAWING NO.: **C203**

DATE: AUGUST 2022 | DRAWN BY: WJW
 DWG SCALE: AS SHOWN | CHECKED BY: APA
 PROJECT NO.: 193-778
 APPROVED BY: JBS

P:\2019\193-778-CAD\DWG\C101\18378-C101-C204.dwg(2024) LS(8/24/2022 - Auto) - LF: 8/24/2022 9:30 AM



NO.	DATE	DESCRIPTION

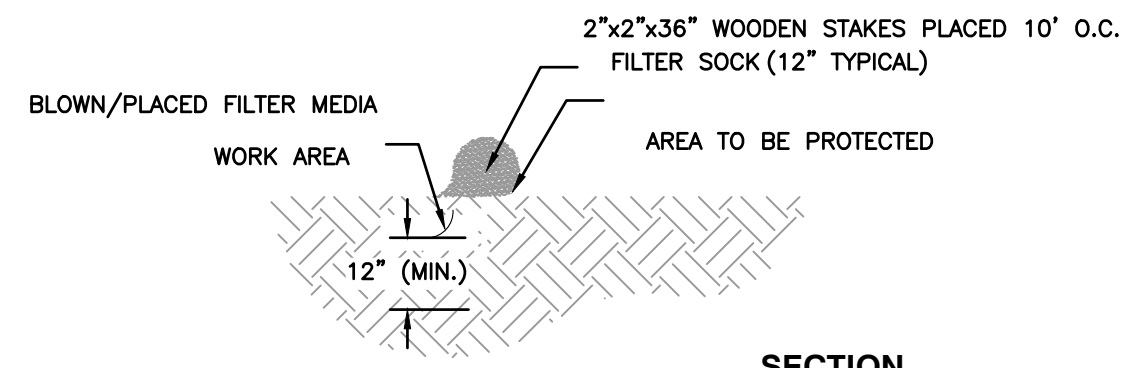
C&E
Civil & Environmental Consultants, Inc.
 117 Seaboard Lane - Suite E-100 - Franklin, TN 37067
 615-333-7797 · 800-763-2326
 www.cecinc.com

**CITY OF GOODLETTSVILLE
 MARSHALL GREENE
 SLOPE REPAIR
 GOODLETTSVILLE, TN**

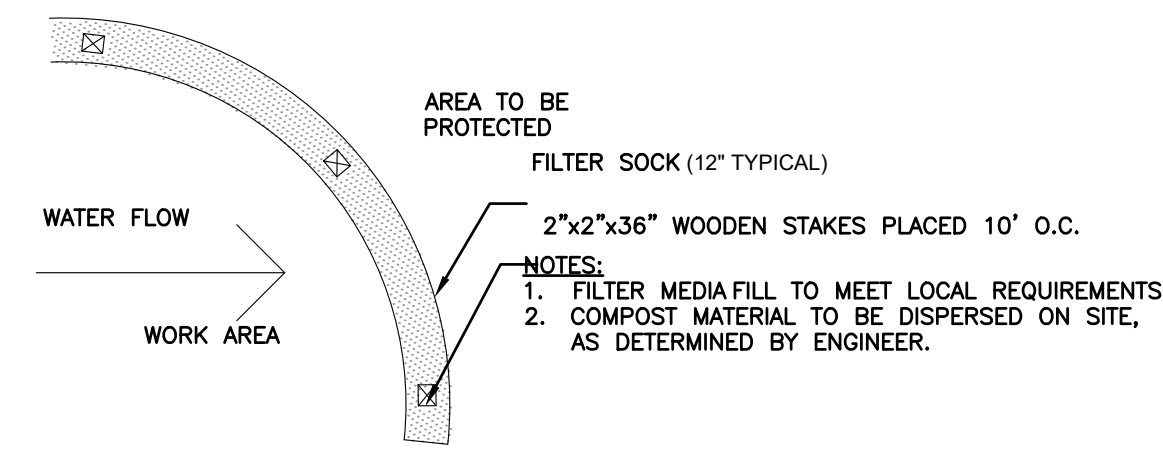
**PROPOSED PIER WALL
 CROSS-SECTIONS [2 OF 2]**

DRAWING NO.: **C204**

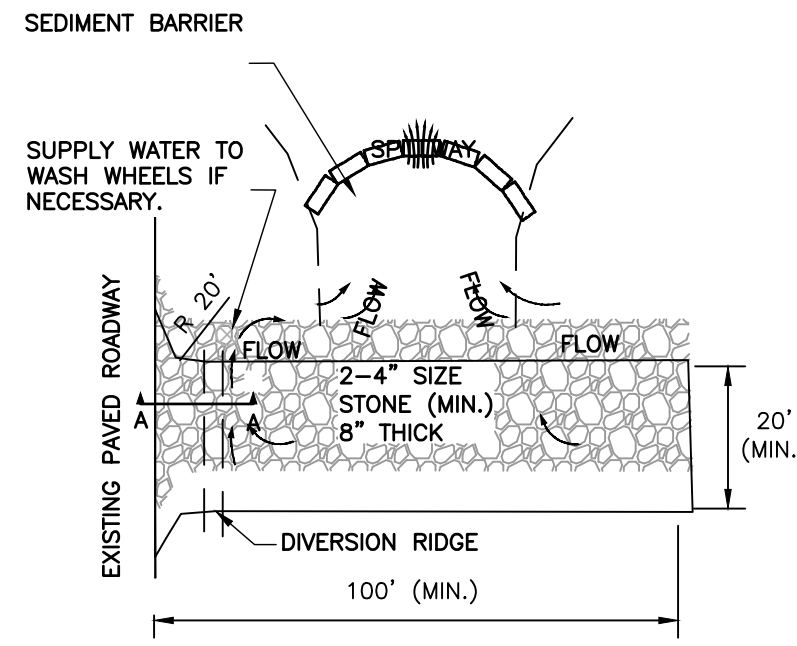
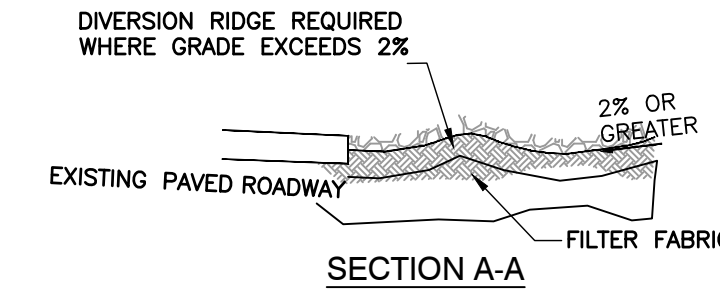
DATE: AUGUST 2022 | DRAWN BY: WJW
 DWG SCALE: AS SHOWN | CHECKED BY: APA
 PROJECT NO.: 193-778
 APPROVED BY: JBS



SECTION

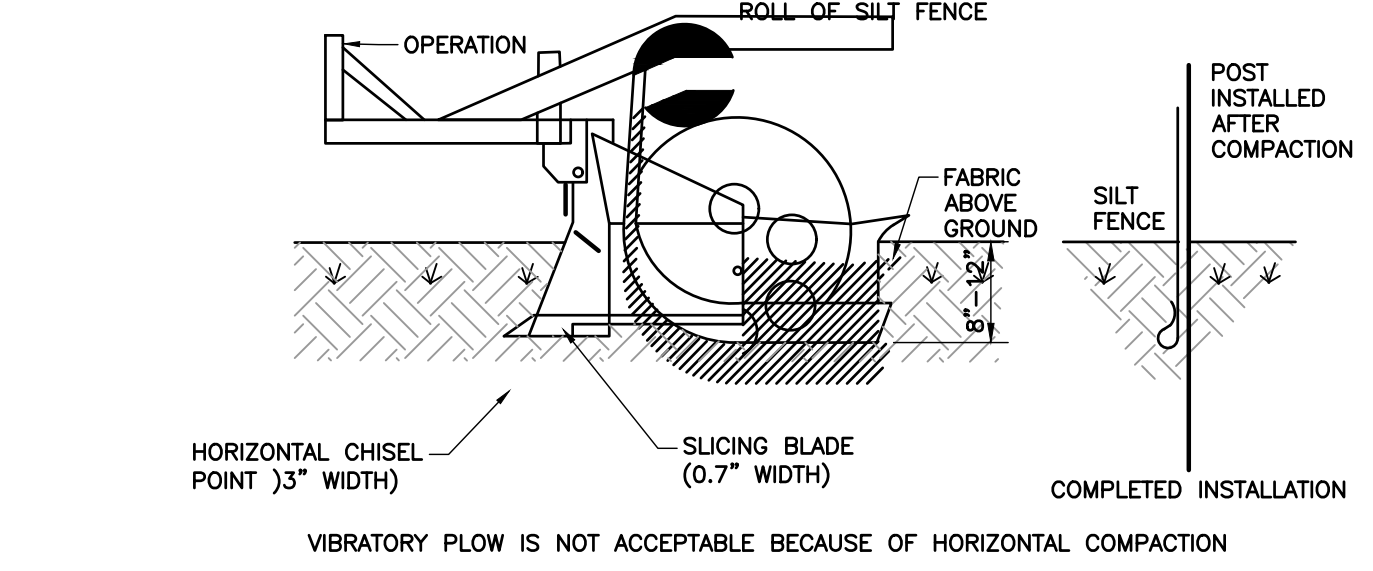
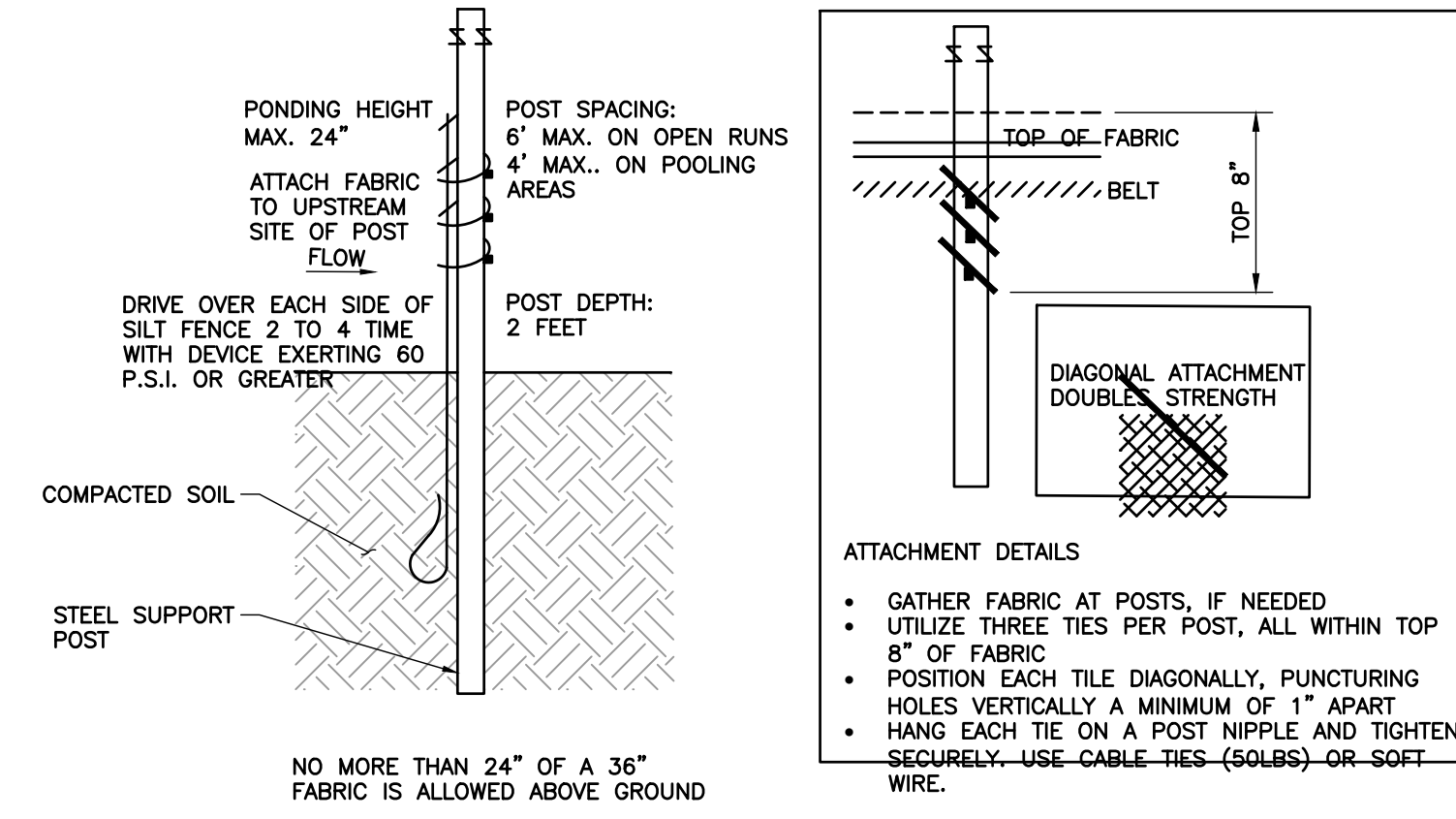


FILTER SOCK
N.T.S.

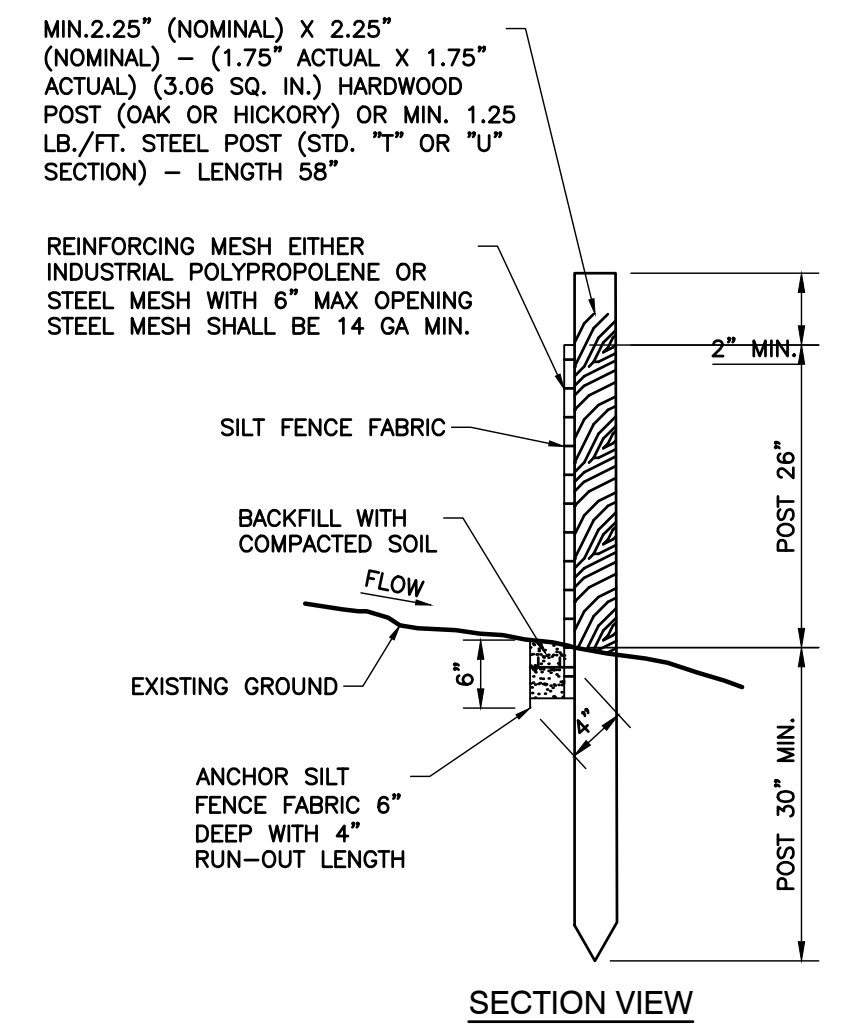


- NOTES:
 1. THE CONSTRUCTION EXIT SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.
 2. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.
 3. USE SANDBAGS, FILTER LOGS OR OTHER APPROVED METHODS TO CHANNELIZE RUNOFF TO BASIN AS REQUIRED.

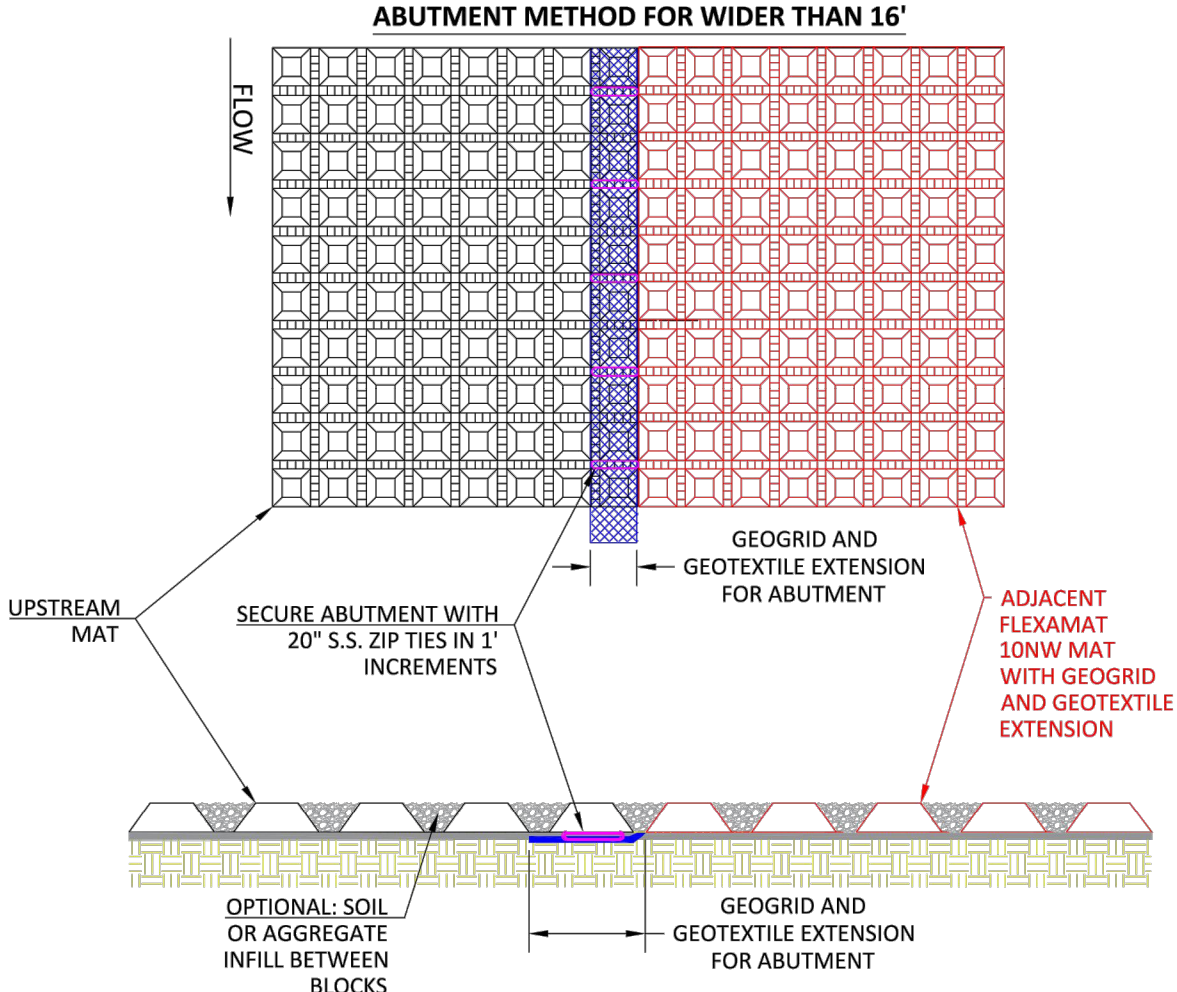
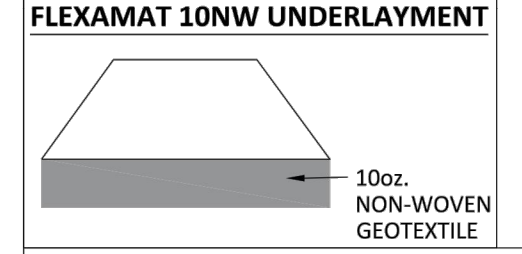
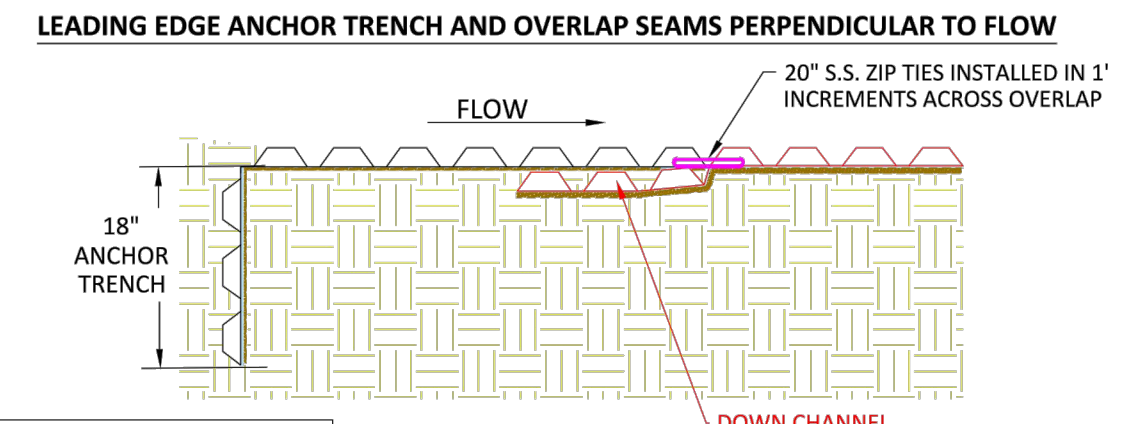
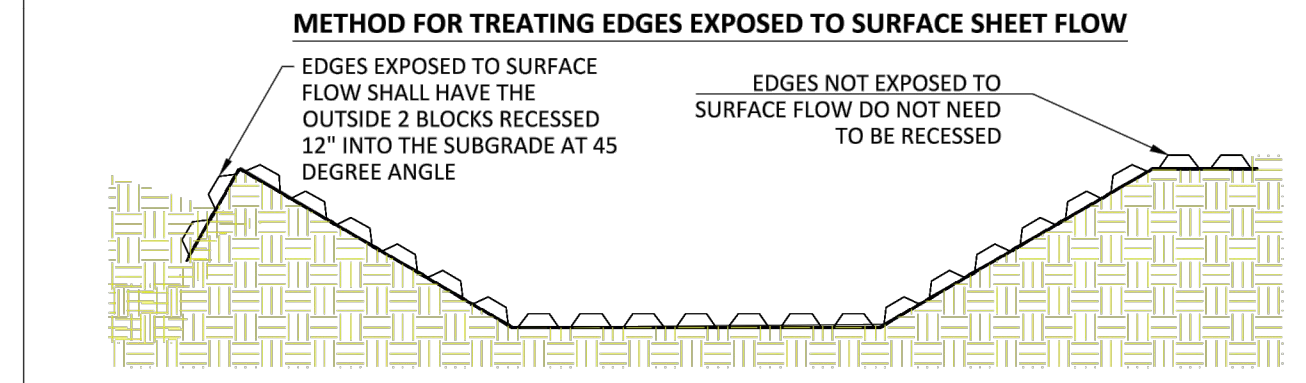
CONSTRUCTION EXIT
N.T.S.



SILT FENCE
N.T.S.



- NOTES:
 1. SILT FENCE SHALL BE SELECTED, INSTALLED, AND MAINTAINED IN ACCORDANCE WITH TDEC SPECIFICATIONS.
 2. SILT FENCE TO BE INSTALLED USING THE J-HOOK METHOD, AS APPLICABLE, ON SLOPES.



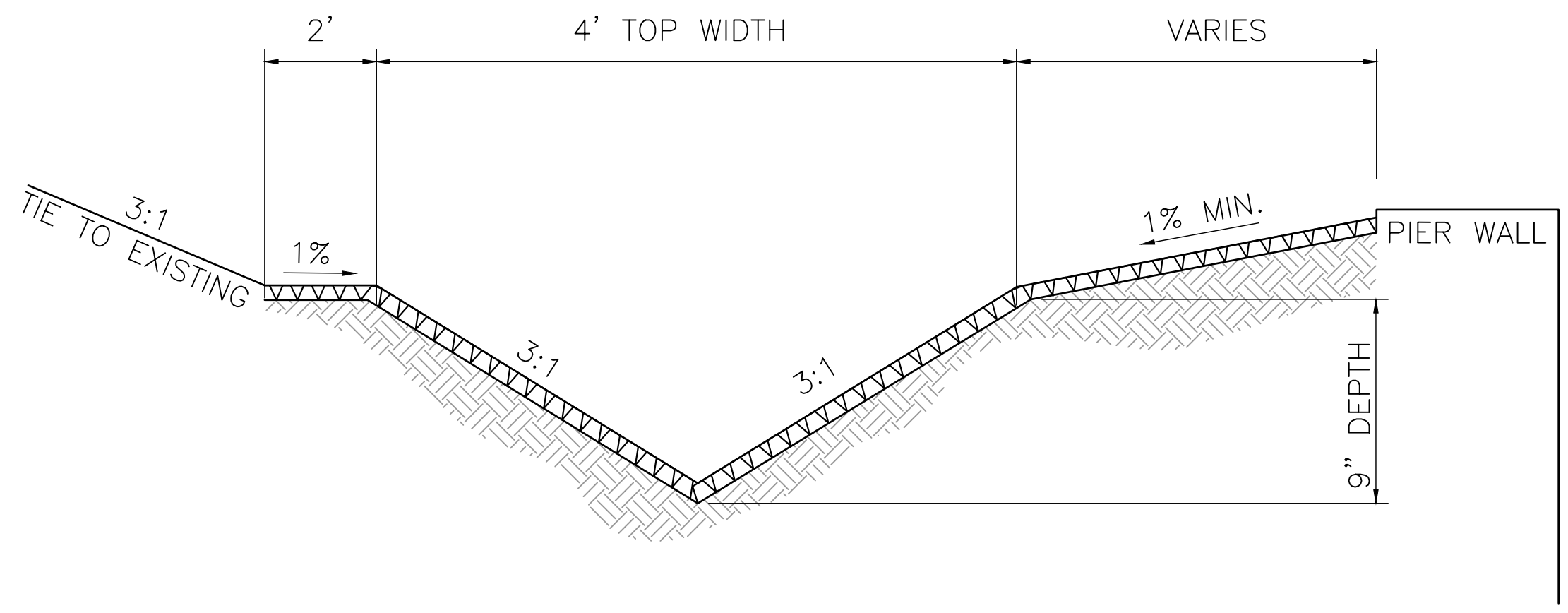
FLEXAMAT 10NW CHANNEL - LAYOUT PARALLEL TO FLOW

- CONSTRUCTION NOTES:
 1. AN ENGINEER OR MANUFACTURERS REPRESENTATIVE SHALL BE ONSITE FOR THE START OF THE INSTALLATION.
 2. GRADE CHANNEL SO THAT WATER WILL FLOW DOWN CENTER OF THE CHANNEL AND BE CONTAINED TO THE CHANNEL. ALL SUBGRADE SURFACES PREPARED FOR PLACEMENT OF MATS SHALL BE SMOOTH AND FREE OF ALL ROCKS, STICKS, ROOTS, OTHER PROTRUSIONS, OR DEBRIS OF ANY KIND.
 3. INSTALL FLEXAMAT 10NW ROLLS, USING THE WIDEST ROLLS POSSIBLE TO AVOID SEAMS.
 3.1. FOR CHANNELS THAT ARE WIDER THAN 16', INSTALL FLEXAMAT 10NW ROLLS THAT INCLUDE GEOGRID EXTENSIONS WITH 10NW GEOTEXTILE UNDERLAYMENT EXTENSIONS. THESE SEAMS ARE PARALLEL WITH FLOW, THE ADJACENT MAT INSTALLED OVER THE EXTENSIONS. ENSURE GEOGRID AND 10NW UNDERLAYMENT EXTENSIONS ARE LAYING FLAT ON SUBGRADE PRIOR TO INSTALLING ADJACENT MAT.
 3.2. SECURE THE ABUTMENT PARALLEL WITH FLOW BY INSTALLING 20" STAINLESS STEEL ZIP TIES IN 1' INCREMENTS THROUGH THE EXTENSION OVERLAP.
 4. FOR ADDITIONAL SECTIONS OF MAT, SECURE SEAM PERPENDICULAR WITH FLOW BY OVERLAPPING THE DOWNSTREAM SECTION 18" WITH UPSTREAM SECTION OF MAT. PRIOR TO INSTALLING OVERLAP, FLIP UPSTREAM MAT BACK 24". EXCAVATE 2.25" OF SOIL 18" FROM END OF UPSTREAM MAT. DOWNSTREAM SECTION IS LAID IN THE SHALLOW TRENCH. FLIP END OF UPSTREAM MAT OVER THE INITIAL LEADING EDGE OF DOWNSTREAM MAT.
 4.1. SECURE OVERLAPS PERPENDICULAR TO FLOW BY INSTALLING 20" STAINLESS STEEL ZIP TIES IN 1' INCREMENTS THROUGH THE OVERLAP. ZIP TIES SHALL ENCOMPASS 3 CORDS OF GEOGRID FROM EACH MAT.
 5. AT THE INITIAL LEADING EDGE OF THE FLEXAMAT 10NW ARMORED CHANNEL, EMBED THE MAT 18" IN A VERTICAL ANCHOR TRENCH. FILL AND COMPACT ANCHOR TRENCH WITH SUITABLE FILL. AT ENDING EDGE OF PROTECTION, EMBED THE MAT 18" IN A TERMINATION TRENCH. THE TRENCH SHALL BE FILLED AND COMPACTED WITH SUITABLE FILL, AS DETERMINED BY THE ENGINEER OF RECORD.

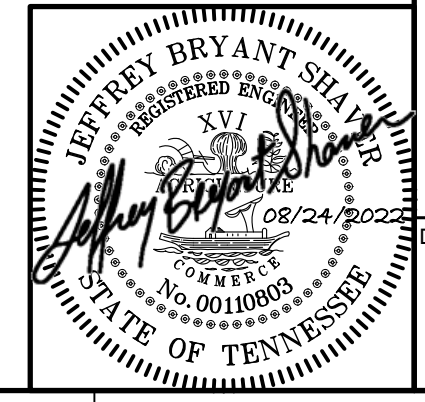
MOTZ ENTERPRISES, INC.
 Flexamat
 (513)772-6689
 Info@Flexamat.com
 Flexamat.com



FLEXAMAT DITCH DETAIL
SCALE: N.T.S.



TYPICAL FLEXAMAT DITCH DETAIL
SCALE: N.T.S.



DATE:	AUGUST 2022	DRAWN BY:	WUJ
DWG SCALE:	AS SHOWN	CHECKED BY:	APA
PROJECT NO.:	193-778	APPROVED BY:	JBS

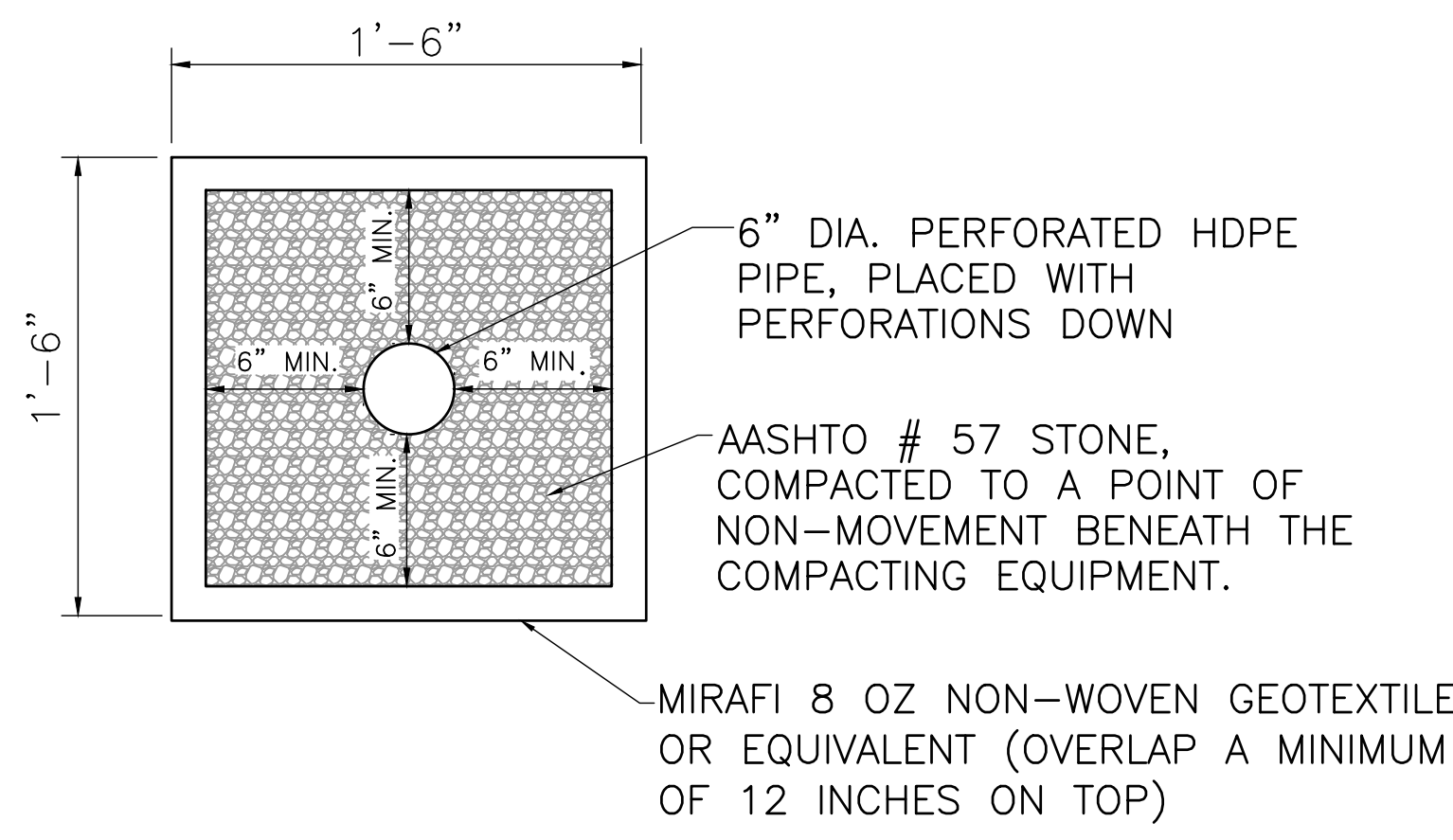
DRAWING NO.: **C800**

CITY OF GOODLETTSVILLE
MARSHALL GREENE
SLOPE REPAIR
GOODLETTSVILLE, TN

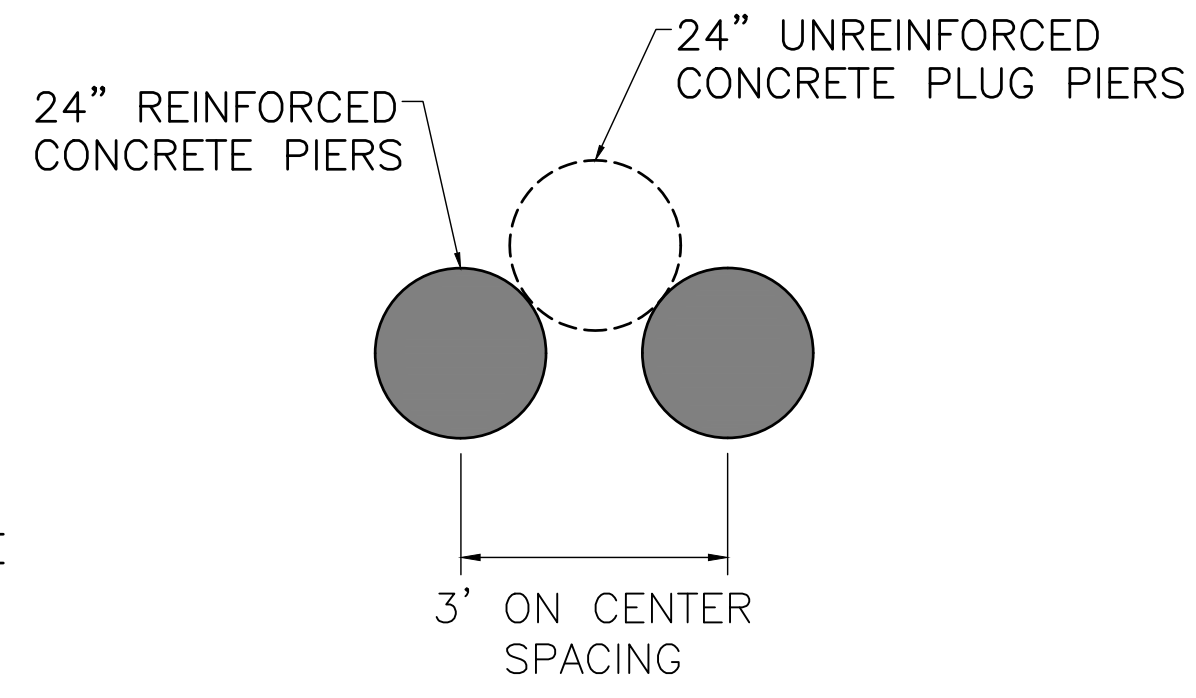
Civil & Environmental Consultants, Inc.
 117 Seaboard Lane - Suite E-100 - Franklin, TN 37067
 615-333-7797 · 800-763-2326
 www.cecinc.com

NO.	DATE	DESCRIPTION

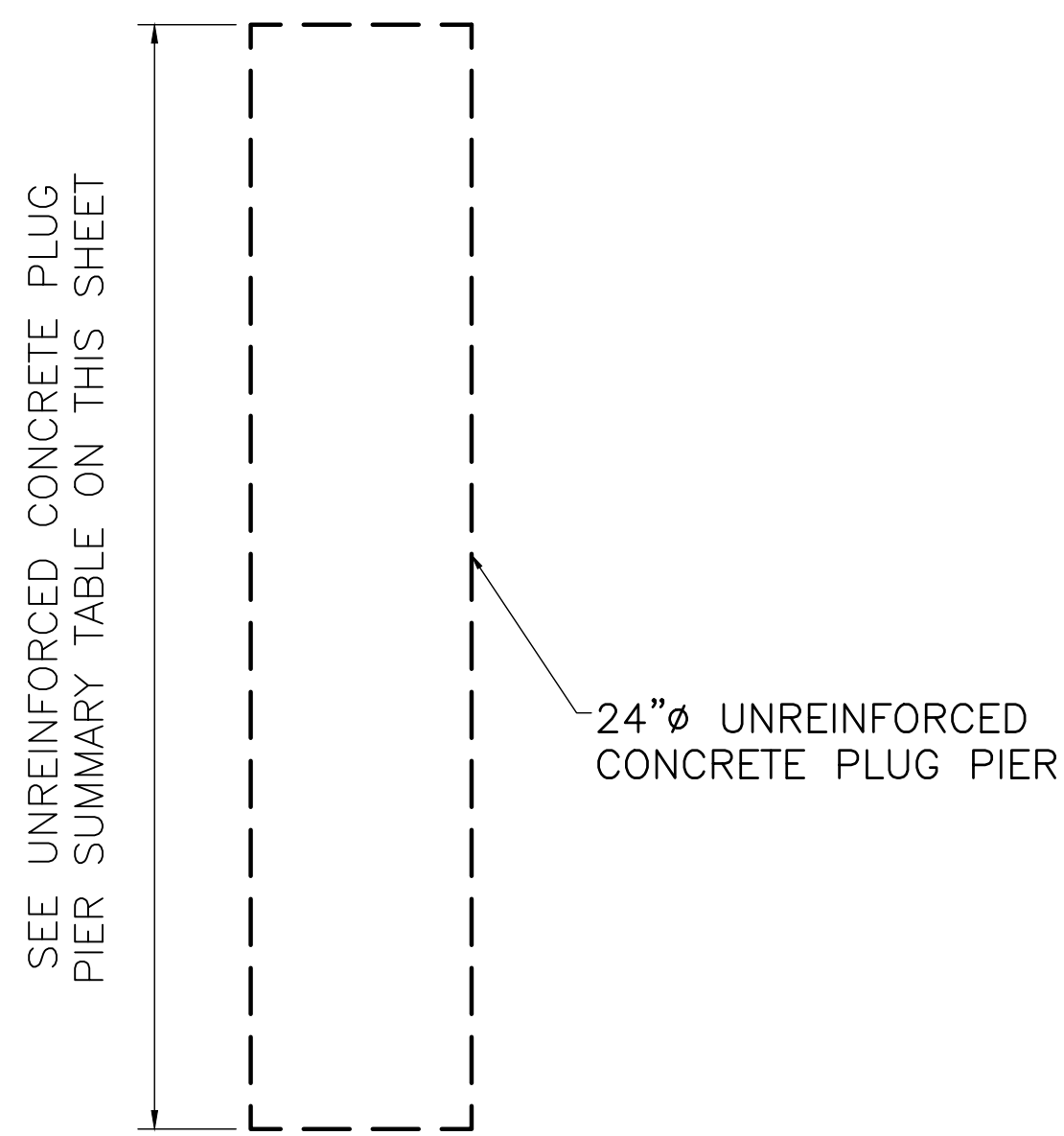
P:\2019\193-778-C800\DWG\C800-01-18279-C800.dwg (2/23/2022 - Auto) - LF: 8/24/2022 9:30 AM



TYPICAL UNDERDRAIN DETAIL
SCALE: N.T.S.



TYPICAL PIER WALL LAYOUT
SCALE: N.T.S.

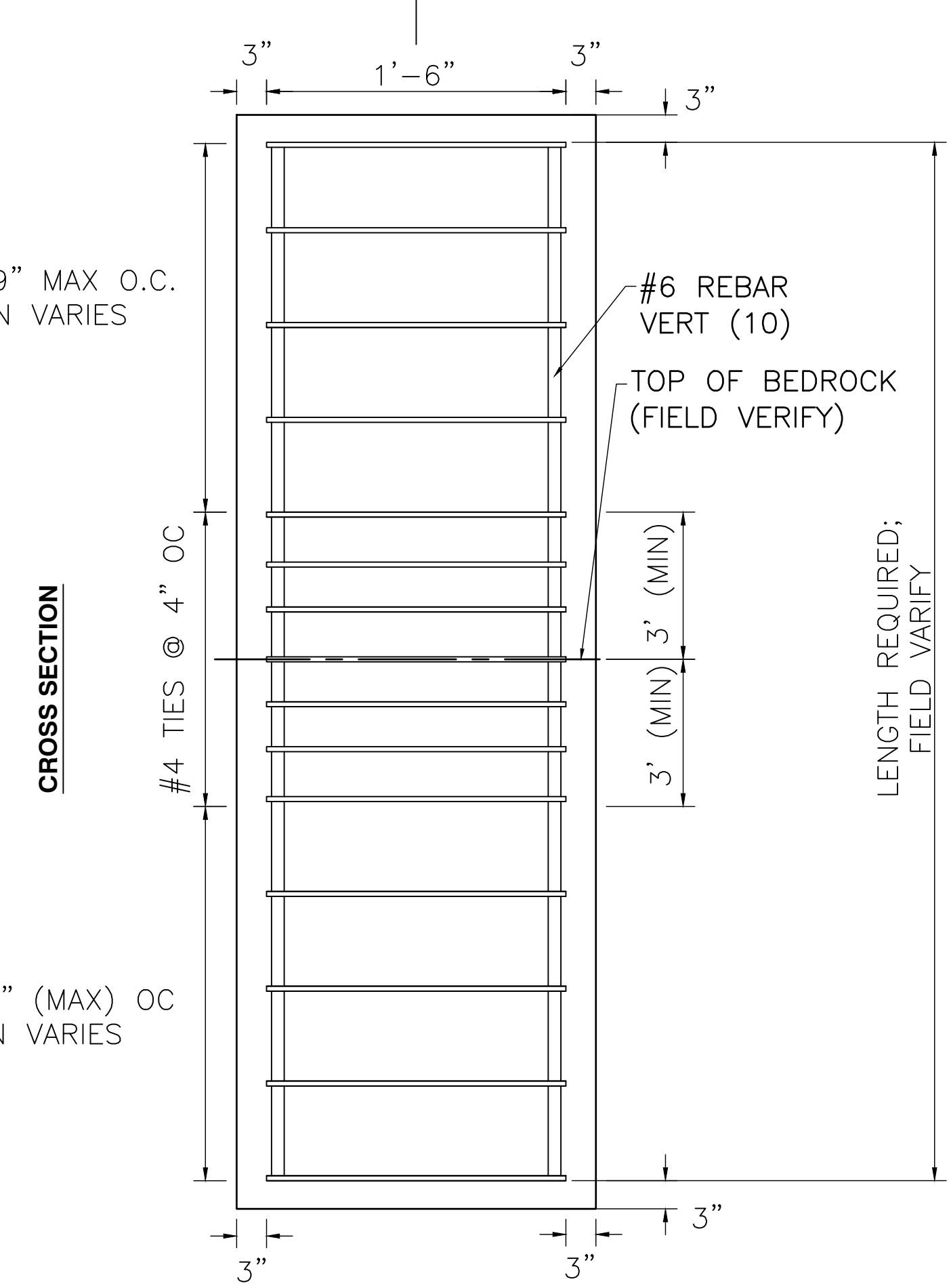
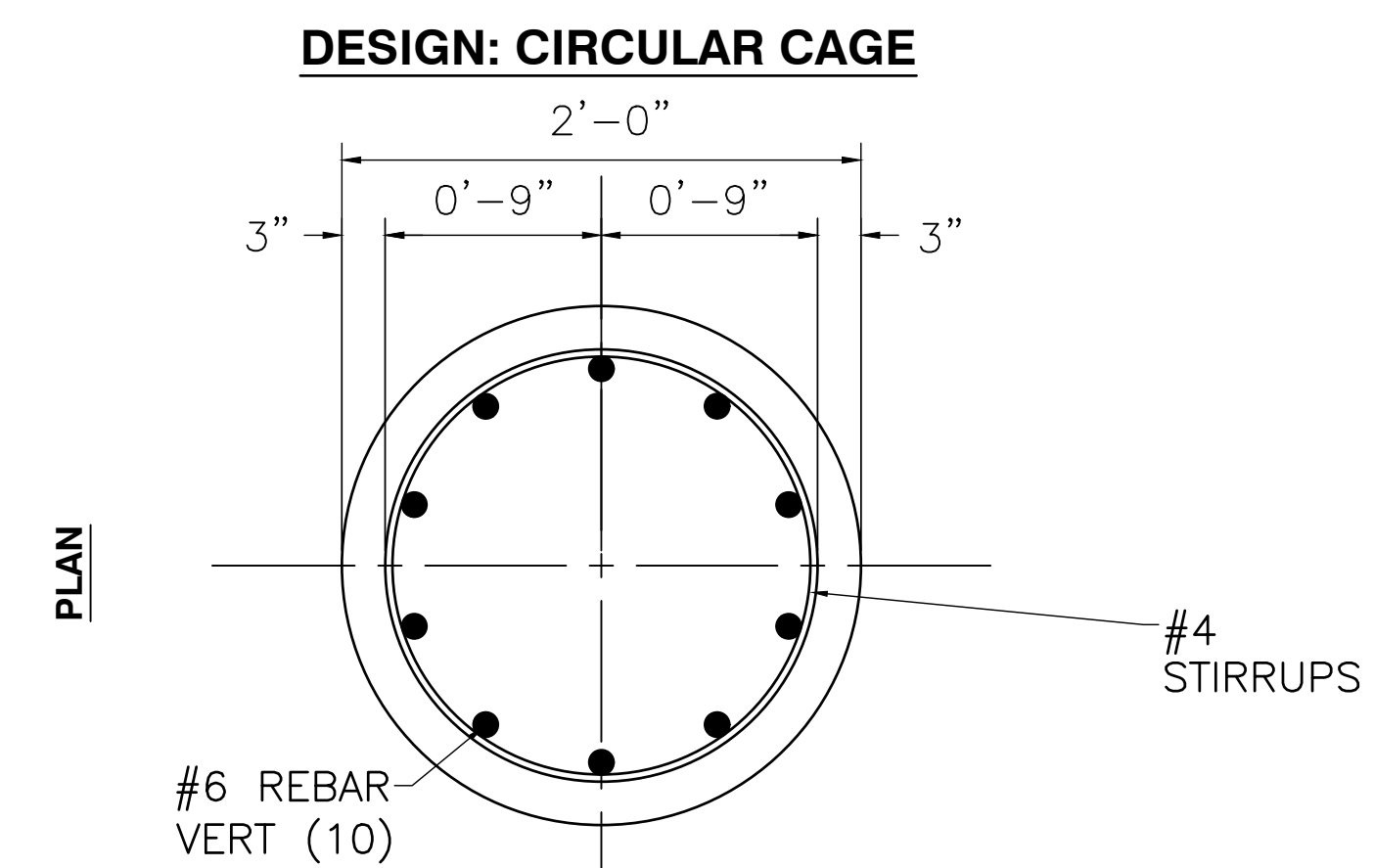


UNREINFORCED CONCRETE PIER DETAIL
N.T.S.

DETAIL NOTES:

- CONCRETE STRENGTH (28-DAY) SHALL BE 4500 PSI (SH-SCC). CONCRETE SHALL CONFORM TO THE CHARACTERISTICS OF TDOT STANDARDS SPECIFICATIONS SECTION 604.03.B

#4 TIES @ 9" MAX O.C.
DIMENSION VARIES



DETAIL NOTES:

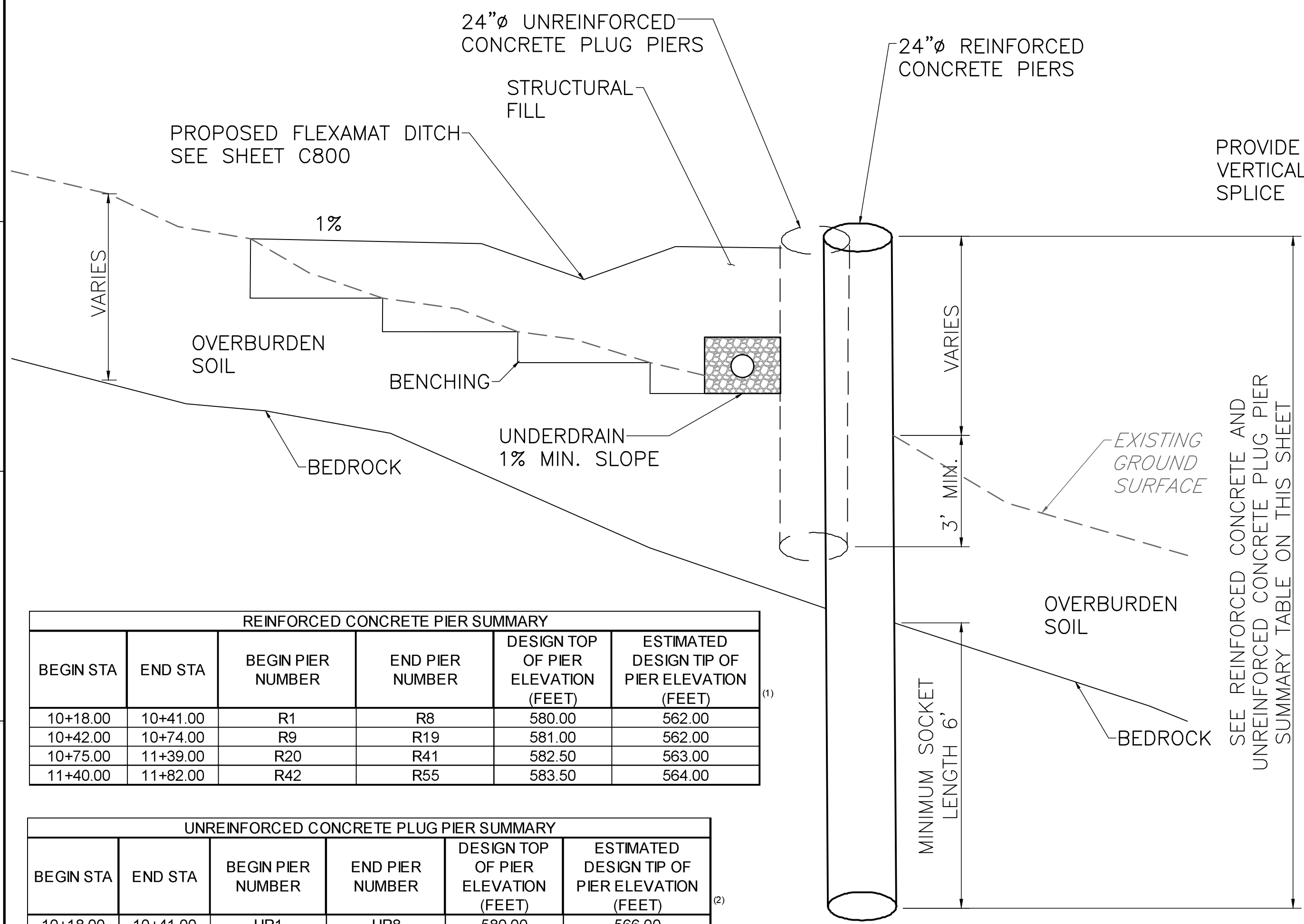
- CONCRETE STRENGTH (28-DAY) SHALL BE 4500 PSI (SH-SCC). CONCRETE SHALL CONFORM TO THE CHARACTERISTICS OF TDOT STANDARDS SPECIFICATIONS SECTION 604.03.B
- ALL REINFORCING STEEL BARS FOR THE REINFORCED DRILLED SHAFTS SHALL COMPLY WITH ASTM A615 AND HAVE MINIMUM YIELD STRENGTH OF 60,000 PSI (60 KSI). THE STEEL CAGES SHALL BE FITTED WITH CHAIRS AND SPACERS TO PROVIDE PROPER BOTTOM AND SIDE CLEARANCES.
- MINIMUM BEDROCK SOCKET IS 6 FEET BELOW BEDROCK SURFACE. CONTRACTOR SHALL CONTACT ENGINEER IF BEDROCK SOCKET IS LESS THAN SPECIFIED.
- IF CONDITIONS ENCOUNTERED DURING THE INSTALLATION OF THE PROPOSED PIERS VARY FROM THIS DESIGN, SUCH THAT THE ACTUAL DEPTH TO BEDROCK IS MORE THAN 2 FEET DEEPER THAN PLAN OR THE BEDROCK SOCKET LENGTH IS LESS THAN SPECIFIED, THE CONTRACTOR SHALL CONTACT THE ENGINEER IMMEDIATELY TO REVIEW THE CHANGED CONDITIONS IN THE FIELD AND THE ENGINEER SHALL THEN MAKE THE APPROPRIATE DESIGN REVISIONS.
- ALL CONCRETE PIER INSTALLATION SHALL BE OBSERVED BY THE ENGINEER OR HIS REPRESENTATIVE DURING DRILLING OF THE SHAFTS, AND PRIOR TO SETTING THE REINFORCING STEEL AND PLACING THE CONCRETE. THESE SERVICES SHALL BE COORDINATED BY THE CONTRACTOR AND SHALL BE THE RESPONSIBILITY OF THE OWNER.
- ALL CONCRETE PIERS ARE TO BE EXCAVATED RELATIVELY PLUMB AND THE BOTTOMS SHALL BE RELATIVELY LEVEL AND FREE OF ALL LOOSE MATERIAL PRIOR TO PLACING THE CONCRETE. CONCRETE PLACEMENT SHALL BE WITH A TREMIE OR CHUTE SO AS TO NOT STRIKE THE HORIZONTAL REINFORCING BARS DURING FREEFALL. THE CONTRACTOR SHALL MECHANICALLY VIBRATE THE TOP 6 FEET OF THE CONCRETE WITHIN THE PIERS.
- THE CONTRACTOR SHALL BE PREPARED TO CASE THE PIERS IF RECOMMENDED BY THE ENGINEER DUE TO EXCESSIVE SEEPAGE, CAVE IN OR SOFT SOILS. CONCRETE SHALL NOT BE PLACED IF MORE THAN 4 INCHES OF STANDING WATER ACCUMULATES AT THE BOTTOM OF ANY PIER EXCAVATION. THE WATER SHALL BE PUMPED DOWN AS NEEDED PRIOR TO CONCRETE PLACEMENT.

VERTICAL REBAR SPlicing DETAIL
N.T.S.

DETAIL NOTES:

- VERTICAL REBAR IN LOWER REBAR CAGE HAS BEEN SHOWN INSIDE SPICED REBAR FOR CLARITY. ACTUAL LAP SPICE MAY BE ADJACENT TO LOWER BARS.
- SECURELY TIE SPICED BARS PRIOR TO PLACEMENT OF CONCRETE.

#4 TIES @ 9" (MAX) OC
DIMENSION VARIES



TYPICAL PIER WALL SECTION
SCALE: N.T.S.

REINFORCED CONCRETE PIER SUMMARY					
BEGIN STA	END STA	BEGIN PIER NUMBER	END PIER NUMBER	DESIGN TOP OF PIER ELEVATION (FEET)	ESTIMATED DESIGN TIP OF PIER ELEVATION (FEET) ⁽¹⁾
10+18.00	10+41.00	R1	R8	580.00	562.00
10+42.00	10+74.00	R9	R19	581.00	562.00
10+75.00	11+39.00	R20	R41	582.50	563.00
11+40.00	11+82.00	R42	R55	583.50	564.00

UNREINFORCED CONCRETE PLUG PIER SUMMARY					
BEGIN STA	END STA	BEGIN PIER NUMBER	END PIER NUMBER	DESIGN TOP OF PIER ELEVATION (FEET)	ESTIMATED DESIGN TIP OF PIER ELEVATION (FEET) ⁽²⁾
10+18.00	10+41.00	UR1	UR8	580.00	566.00
10+42.00	10+74.00	UR9	UR19	581.00	566.00
10+75.00	11+39.00	UR20	UR40	582.50	567.00
11+40.00	11+82.00	UR41	UR54	583.50	568.00

(1) ACTUAL TIP ELEVATION SHALL BE EXTENDED AS NEEDED TO SOCKET PIER AT LEAST 6 FEET BELOW BEDROCK SURFACE AS CONFIRMED BY REPRESENTATIVE OF ENGINEER.
(2) ACTUAL TIP ELEVATION MAY VARY IN ORDER TO ACHIEVE A MINIMUM PENETRATION DEPTH OF 3 FEET BELOW EXISTING GRADE.

NO	DATE	DESCRIPTION

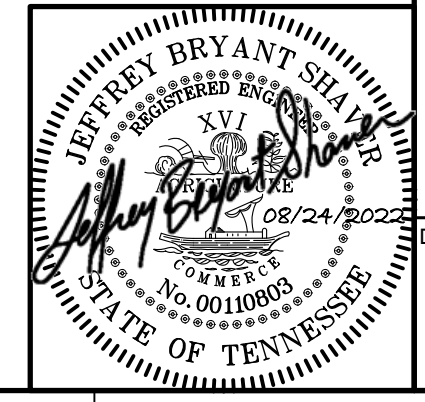
Civil & Environmental Consultants, Inc.
117 Seaboard Lane - Suite E-100 - Franklin, TN 37067
615-333-7797 · 800-763-2326
www.cecinc.com

**CITY OF GOODLETTSVILLE
MARSHALL GREENE
SLOPE REPAIR
GOODLETTSVILLE, TN**

DETAILS [2 OF 2]

DATE: AUGUST 2022 | DRAWN BY: WJW | APPROVED BY: JBS
 DWG SCALE: AS SHOWN | CHECKED BY: APA | PROJECT NO: 193-778

DRAWING NO.: **C801**



P:\2019\193-778-CAD\DWG\C801\18278-C801-C800.dwg (28/11/23/2022 - Auto) - LF: 8/24/2022 9:30 AM



NOTE:
SILT FENCE MAY BE USED IN LIEU OF FILTER SOCK.

- LEGEND:**
- EXISTING PROPERTY LINE
 - EXISTING ADJACENT PROPERTY LINE
 - EXISTING RIGHT-OF-WAY
 - EXISTING EASEMENT
 - EXISTING MINIMUM BUILDING SETBACK
 - EXISTING INDEX (MAJOR) CONTOUR
 - EXISTING INTERMEDIATE (MINOR) CONTOUR
 - EXISTING DITCH FLOW LINE
 - EXISTING SANITARY SEWER LINE
 - EXISTING GAS LINE
 - EXISTING FIBER OPTIC LINE
 - EXISTING UNDERGROUND ELEC. LINE
 - EXISTING TREELINE
 - IRON PIN FOUND
 - MAILBOX
 - AC UNIT
 - WATER METER
 - FIRE DEPT. CONNECTION
 - CLEAN OUT
 - DOWNSPOUT
 - SANITARY MANHOLE
 - GAS MANHOLE
 - TELEPHONE PEDESTAL
 - CABLE PEDESTAL
 - ELECTRIC METER
 - ELECTRIC CONTROL CABINET (ABOVE GRADE)
 - TRANSFORMER
 - BENCHMARK
 - LOT NUMBER
 - APPROXIMATE LIMITS OF POSSIBLE SLIDE
 - BORE HOLE
 - PROPOSED PIER WALL
 - 24" REINFORCED CONCRETE PIER
 - 24" UNREINFORCED CONCRETE PLUG PIER
 - PROPOSED LIMITS OF DISTURBANCE
 - PROPOSED INDEX (MAJOR) CONTOUR
 - PROPOSED INTERMEDIATE (MINOR) CONTOUR
 - PROPOSED CENTERLINE ALIGNMENT
 - PROPOSED FILTER SOCK
 - PROPOSED SILT FENCE
 - PROPOSED CONSTRUCTION EXIT

NO.	DATE	DESCRIPTION

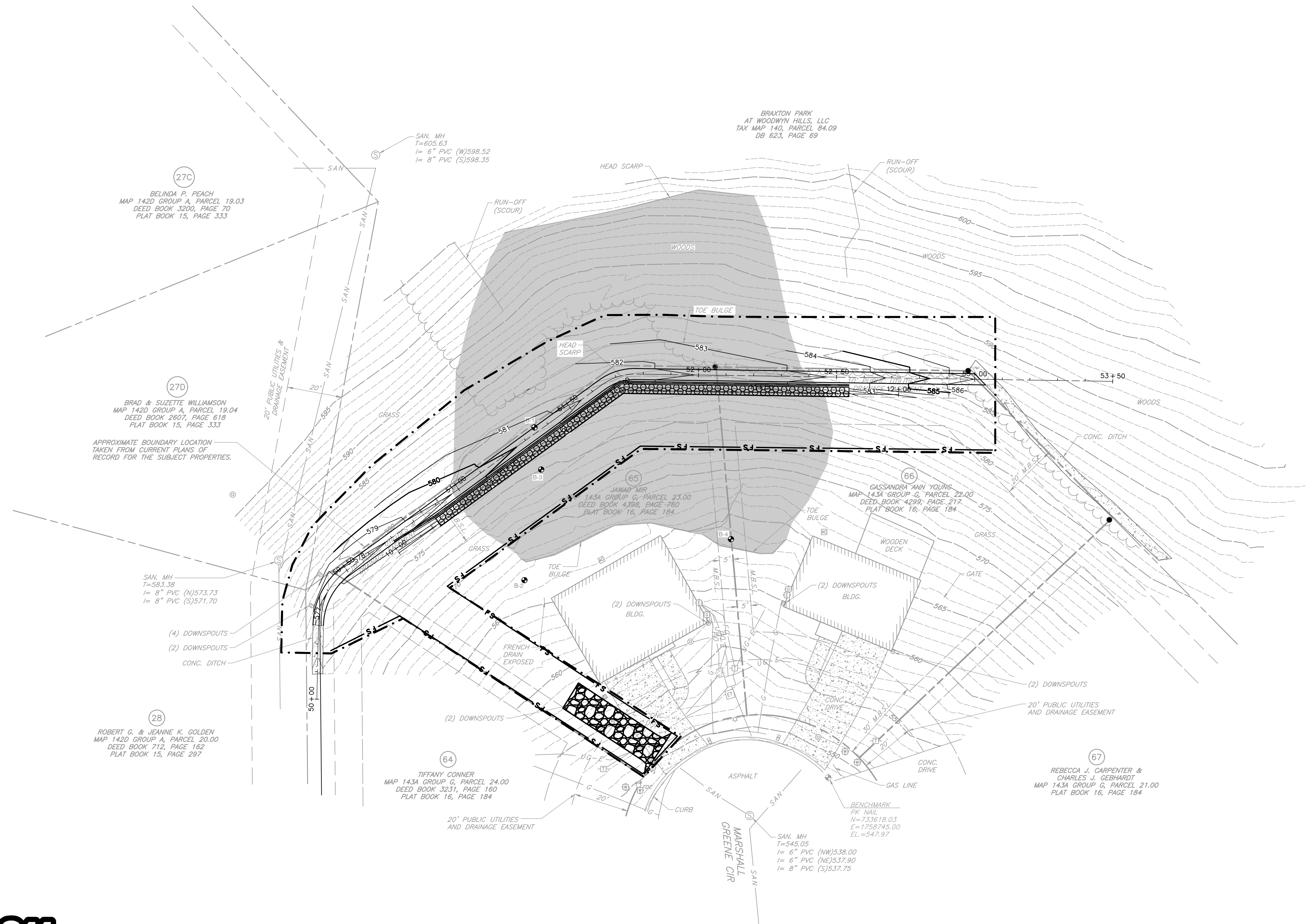
Civil & Environmental Consultants, Inc.
 117 Seaboard Lane - Suite E-100 - Franklin, TN 37067
 615-333-7797 · 800-763-2326
 www.cecinc.com

**CITY OF GOODLETTSVILLE
 MARSHALL GREENE
 SLOPE REPAIR
 GOODLETTSVILLE, TN**

EPSC PLAN

DATE:	AUGUST 2022	DRAWN BY:	WUJ
DWG SCALE:	AS SHOWN	CHECKED BY:	APA
PROJECT NO.:	193-778	APPROVED BY:	JBS

DRAWING NO.: **C900**



27C
 BELINDA P. PEACH
 MAP 142D GROUP A, PARCEL 19.03
 DEED BOOK 3200, PAGE 70
 PLAT BOOK 15, PAGE 333

27D
 BRAD & SUZETTE WILLIAMSON
 MAP 142D GROUP A, PARCEL 19.04
 DEED BOOK 2607, PAGE 618
 PLAT BOOK 15, PAGE 333

SAN. MH
 T=583.38
 I= 8" PVC (N)573.73
 I= 8" PVC (S)571.70

28
 ROBERT C. & JEANNE K. GOLDEN
 MAP 142D GROUP A, PARCEL 20.00
 DEED BOOK 712, PAGE 162
 PLAT BOOK 15, PAGE 297

64
 TIFFANY CONNER
 MAP 143A GROUP G, PARCEL 24.00
 DEED BOOK 3231, PAGE 160
 PLAT BOOK 16, PAGE 184

BRAXTON PARK
 AT WOODWYN HILLS, LLC
 TAX MAP 140, PARCEL 84.09
 DB 623, PAGE 69

65
 JAWAB MR
 143A GROUP G, PARCEL 23.00
 DEED BOOK 4398, PAGE 760
 PLAT BOOK 16, PAGE 184

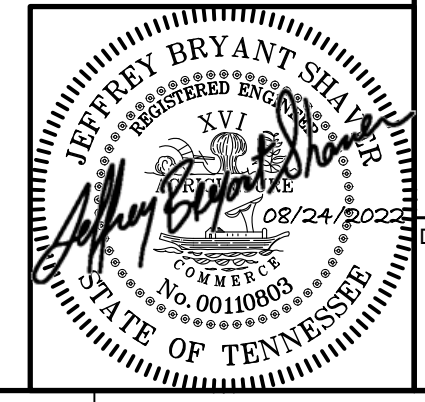
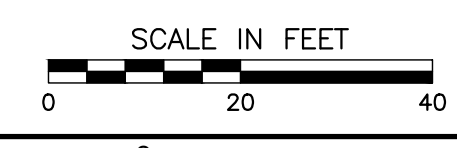
66
 GASSANDRA ANN YOUNG
 MAP 143A GROUP G, PARCEL 22.00
 DEED BOOK 4299, PAGE 217
 PLAT BOOK 16, PAGE 184

67
 REBECCA J. CARPENTER &
 CHARLES J. GEBHARDT
 MAP 143A GROUP G, PARCEL 21.00
 PLAT BOOK 16, PAGE 184

SAN. MH
 T=545.05
 I= 6" PVC (NW)538.00
 I= 6" PVC (NE)537.90
 I= 8" PVC (S)537.75



NOTE TO CONTRACTOR
 THE CONTRACTOR SHALL REFER TO ALL PLANS WITHIN THIS PLAN SET. IT IS NOT THE DESIGNER'S INTENT THAT ANY SINGLE PLAN SHEET IN THIS SET OF DOCUMENTS FULLY DEPICT ALL WORK ASSOCIATED WITH THIS PROJECT.



P:\2019\193-778\CADD\DWG\C1011\183778-C900.dwg(3000) LS(8/5/2022 -- 1:40) - LP_8/24/2022 8:31 AM