

# WOLF RIVER TRIBUTARY (WN071200.02) BANK STABILIZATION/GRADE CONTROL CITY OF MEMPHIS SEWER ASSESSMENT AND REHABILITATION PROGRAM (SARP10) MEMPHIS, TENNESSEE

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J FORD CANALE, COUNCILMAN  
DR JEFF WARREN, COUNCILMAN

## CITY ENGINEER

MANNY BELEN, P.E.

## JIM STRICKLAND, MAYOR



## LOCATION MAP

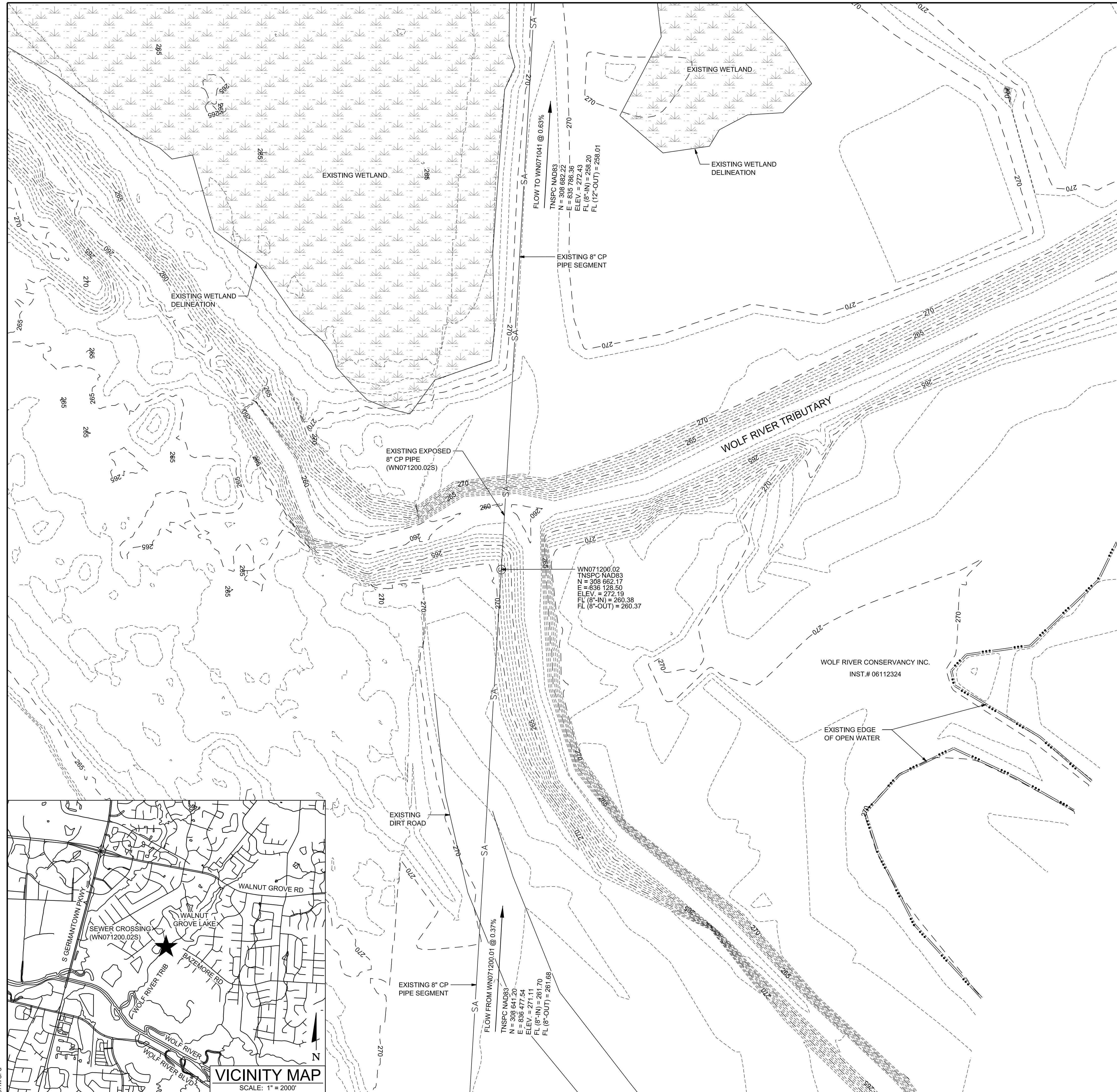
NOT TO SCALE

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C0.01



**GENERAL NOTES:**

1. THE CONTRACTOR SHALL NOT ENTER UPON, WORK UPON NOR CAUSE DAMAGE TO ANY ADJACENT PROPERTIES WITHOUT PRIOR PERMISSION FROM SAID PROPERTY OWNER.
2. GRADING AND DRAINAGE: FINISH GRADE SHALL BE SLOPED FOR POSITIVE DRAINAGE.
3. ALL RIP RAP TO EXTEND TO BOTTOM OF DITCH AND FULLY PROTECT THE BANK AND EDGES OF OTHER EROSION CONTROL DEVICES.
4. PROPERTY OWNED BY THE WOLF RIVER CONSERVANCY INC; PARCEL ID 091112 00004C; INST.# 06112324.
5. PROPERTY LINES SHALL BE FIELD VERIFIED PRIOR TO CONSTRUCTION. GRADING, CLEARING AND THE ERECTION OR REMOVAL OF FENCES ALONG PROPERTY LINES SHALL BE FULLY COORDINATED WITH ADJACENT PROPERTY OWNERS.
6. NEWLY CUT OR FILLED EMBANKMENTS SHALL BE SODDED OR SEEDDED AND MULCHED TO ADEQUATELY PREVENT SOIL EROSION.
7. ALL GRADING WORK SHALL BE PERFORMED IN SUCH A MANNER THAT ADJACENT PROPERTIES ARE NOT DAMAGED OR ADVERSELY AFFECTED. STAKE ALL SOD PLACED ON PROJECT.
8. THE LOCATION OF ALL EXISTING UTILITIES SHALL BE PROPERLY VERIFIED PRIOR TO CONSTRUCTION. ALL WORK SHALL BE PERFORMED IN A MANNER TO ENSURE THAT EXISTING UTILITIES ARE NOT INTERFERED WITH OR DISRUPTED.
9. ALL FILL SHALL BE COMPACTED TO 95% STANDARD PROCTOR DENSITY WITHIN 3% OPTIMUM MOISTURE CONTENT IN 6" LIFTS UNLESS OTHERWISE SPECIFIED (TYP). SUBMIT TEST RESULTS TO SARP10.
10. ALL AREAS TO BE FILLED SHALL BE PROPERLY CLEARED AND STRIPPED PRIOR TO BEGINNING THE FILLING OPERATION.
11. THE CONTRACTOR IS TO INSTALL EROSION AND SEDIMENT CONTROL SYSTEMS AND STRUCTURES AS NECESSARY TO PREVENT SEDIMENT LADEN WATER FROM LEAVING THE SITE.
12. ALL RIP-RAP SHALL BE PLACED ON NON-WOVEN GEOTEXTILE, OR APPROVED EQUAL.
13. ALL WORK SHALL BE DONE IN DRY CONDITIONS. CONTRACTOR SHALL MAKE PROVISIONS TO KEEP STORM WATER, LATERAL WATER AND GROUND WATER OUT OF CONSTRUCTION ACTIVITIES. THE CONTRACTOR SHALL DEWATER THE SITE AS NECESSARY SO THAT PLACEMENT OF ALL FILL RIP-RAP, OR GROUTING OF ANY RIP-RAP WILL BE IN DRY CONDITIONS.
14. CONTRACTOR IS RESPONSIBLE FOR AND SHALL PAY FOR ALL PROJECT TESTING. SOIL AND OTHER MATERIAL TESTING SHALL BE PERFORMED BY A LICENSED GEOTECHNICAL FIRM.
15. CONTRACTOR IS RESPONSIBLE FOR AND SHALL PAY FOR ALL SURVEY LAYOUT AND STAKING. SURVEY DATA SHALL BE PROVIDED BY A REGISTERED LAND SURVEYOR

**TYPICAL CONSTRUCTION NOTES:**

1. ALL DESIGN, CONSTRUCTION AND MATERIAL SHALL BE IN COMPLIANCE WITH THE SEWER ASSESSMENT AND REHABILITATION PROGRAM (SARP10) AND CITY OF MEMPHIS CONSTRUCTION SPECIFICATIONS AND STANDARDS.
2. LOCATION OF EXISTING UNDERGROUND UTILITIES ARE APPROXIMATE AND ARE NOT NECESSARILY ALL THE SAME. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING THE APPROPRIATE UTILITY COMPANY TO DETERMINE THE EXACT LOCATION OF ALL UTILITIES AND/OR UNDERGROUND STRUCTURES PRIOR TO THE INITIATION OF ANY CONSTRUCTION. CONTRACTOR SHALL ALSO ASSUME FULL RESPONSIBILITY FOR DAMAGE TO ANY UTILITIES ENCOUNTERED WITHIN CONSTRUCTION PERIMETERS. FOR SITE LOCATIONS OF EXISTING UTILITIES INVOLVING M.L.G.&W., SOUTH CENTRAL BELL, AND/OR TVA, CALL 1-800-351-1111. FOR SEWER AND/OR WATER SERVICE LOCATIONS, CALL 901-529-8025.
3. CONTRACTOR SHALL MAINTAIN ACCESS TO ALL PROPERTIES.
4. CONTRACTOR SHALL NOTIFY THE CITY OF MEMPHIS CONSTRUCTION INSPECTION OFFICE AT 901-636-2462 A MINIMUM OF 24 HOURS PRIOR TO BEGINNING ANY CONSTRUCTION.
5. ALL AREAS IN CUT OR FILL WHERE VEGETATION HAS BEEN REMOVED SHALL BE SEEDDED, MULCHED, FERTILIZED, AND/OR SODDED AS REQUIRED TO PREVENT EROSION, UNLESS OTHERWISE NOTED ON PLANS. SOD SLOPES AND SEED/MULCH ALL OTHER AREAS.
6. THE CONTRACTOR SHALL VERIFY EXISTING DATA AND REPORT ANY SIGNIFICANT DISCREPANCIES TO THE ENGINEER.
7. THE CONTRACTOR SHALL PROVIDE ADEQUATE AND EFFECTIVE EROSION CONTROL AS NECESSARY TO PREVENT ANY SEDIMENT RELEASE INTO THE EXISTING DRAINAGE SYSTEM AND/OR ONTO ADJACENT PROPERTIES.
8. THE CONTRACTOR SHALL MAINTAIN BARRICADES, FENCES, GUARDS, AND FLAGMEN AS REASONABLY NECESSARY TO ENSURE THE SAFETY OF ALL PERSONS AT OR NEAR THE PROJECT SITE DURING CONSTRUCTION. ALL CONSTRUCTION MATERIAL, INCLUDING WITHOUT LIMITATION, MUD, SILT, DIRT, AND GRAVEL SHALL BE KEPT OFF EXISTING STREETS AT ALL TIMES. IN THE EVENT SUCH MUD, SILT, DIRT, GRAVEL, OR OTHER CONSTRUCTION MATERIAL IS WASHED, BLOWN, OR CARRIED INTO AN EXISTING STREET, THE CONTRACTOR SHALL TAKE IMMEDIATE STEPS TO REMOVE SUCH MATERIALS. IF THE DEVELOPER DOES NOT REMOVE SUCH MATERIALS AFTER NOTIFICATION BY THE CITY AND THE CITY DEEMS IT NECESSARY TO CLEAN THE AFFECTED STREETS, THE DEVELOPER AGREES TO REIMBURSE THE CITY FOR ALL SUCH EXPENSES.
9. ALL STREETS SHALL BE KEPT CLEAR AND FREE OF DIRT AND DEBRIS.
10. ALL CONSTRUCTION ACTIVITY SHALL BEGIN NO EARLIER THAN 7:00 A.M. AND END NO LATER THAN 6:00 P.M., MONDAY THRU SATURDAY, AND NO CONSTRUCTION ACTIVITY SHALL BE PERMITTED ON SUNDAYS.
11. CONTRACTOR SHALL RESTORE OFF-SITE ACCESS ROUTES AND ALL DISTURBED AREAS TO ORIGINAL BEFORE-START-OF-WORK CONDITION.

**FLOOD HAZARD NOTE:**

THE SUBJECT PROPERTY IS LOCATED IN A SPECIAL FLOOD HAZARD AREA ZONE "X" (AREA OF MINIMAL FLOOD HAZARD DETERMINED BY DETAILED METHODS) AS PER FLOOD LINES ESTABLISHED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY AS SHOWN ON FLOOD INSURANCE RATE MAP NUMBER 4715C0456G, DATED FEBRUARY 6, 2013. THE NEAREST BFE IS 263.4.

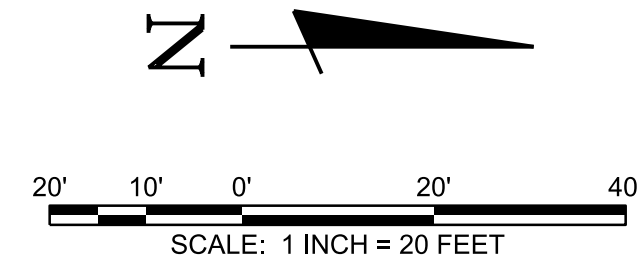
TRIBUTARY STREAM WATER FLOW WILL BE 86 CFS IN THE EVENT OF A 100-YEAR STORM EVENT.

**BENCHMARK NOTE:**

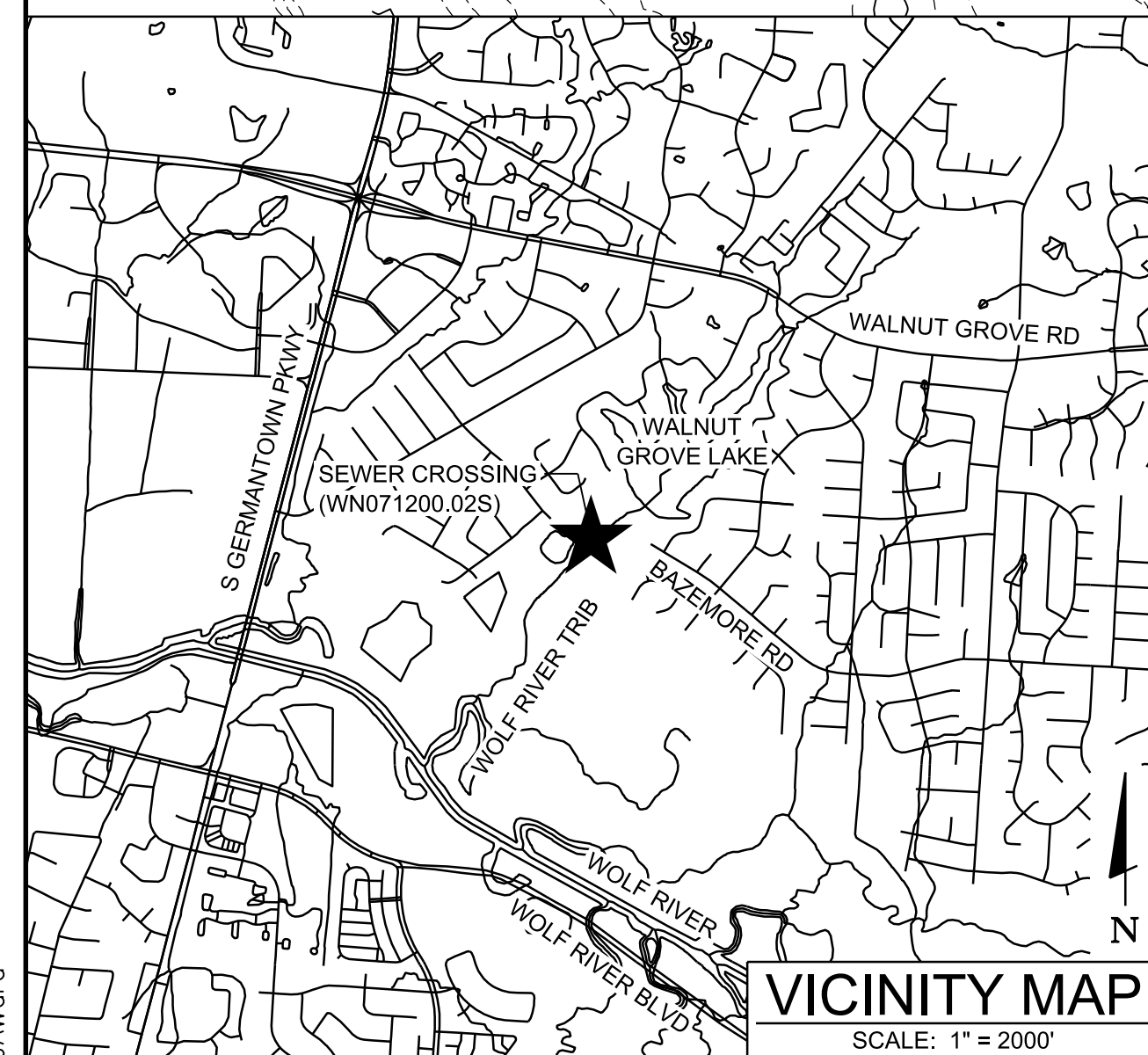
CITY OF MEMPHIS BM #1440 - WALNUT BEND RD. & WALNUT GROVE RD: M.L.G.&W MONUMENT IS LOCATED 10' E. OF THE E. CURBLINE OF WALNUT BEND RD., 249' N. OF THE CENTERLINE OF WALNUT GROVE RD., 96' S. OF THE CENTERLINE OF A D/WAY TO A CHURCH. THIS IS GPS CITY/NET CONTROL POINT 95, PID AJ2615, ELEVATION: 335.42

**LEGEND:**

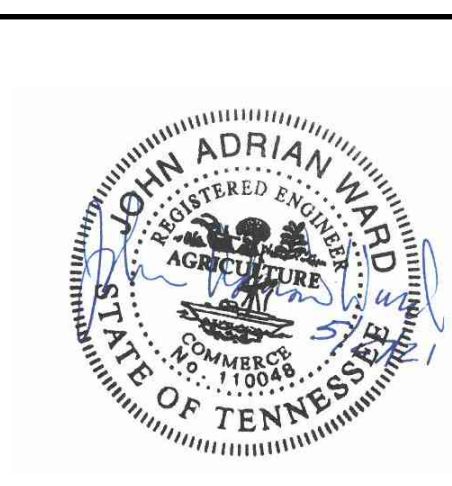
- EXISTING PROPERTY BOUNDARY
- - - - EXISTING MINOR CONTOUR
- 250- EXISTING MAJOR CONTOUR
- SA - EXISTING SANITARY SEWER LINE
- ==+== EXISTING EDGE OF OPEN WATER
- ⊙ EXISTING MANHOLE
- ▨ EXISTING WETLAND



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REVISION		
ITEM NO.	DESCRIPTION OF CHANGE	APPROVAL DATE
0	100% SUBMITTAL	04/30/2021



**WOLF RIVER TRIBUTARY  
SANITARY SEWER INTERCEPTOR**  
CORDOVA, TENNESSEE  
DEVELOPER: SARP10  
ENGINEER: BARGE DESIGN SOLUTIONS, INC.

SEWER-BASIN: WN-07  
DRAIN-BASIN: WOLF-RIVER  
C0.31

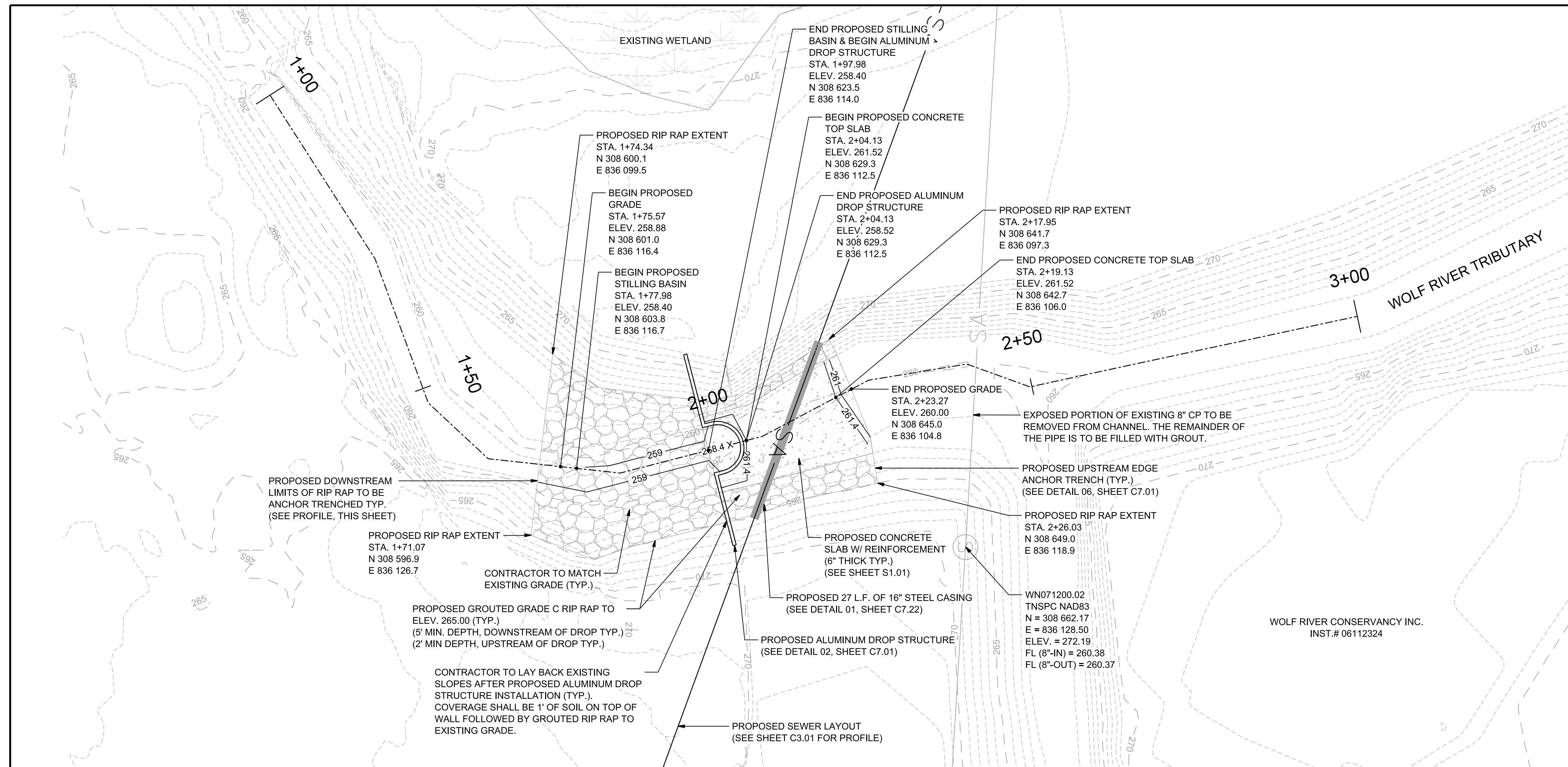
SHEET 2 OF 10

**EXISTING-CONDITIONS  
WOLF-RIVER-TRIBUTARY  
BANK-STABILIZATION/GRADE-CONTROL**  
CORDOVA, TENNESSEE

SURVEY: GEODESY DATE: 04/20 PROJECT NO.: 36592-02  
DESIGN BY: BARGE DATE: 04/21 SCALE: 1" = 20'  
REVIEWED

DEPUTY-CITY-ENGINEER DATE CITY-ENGINEER DATE

5/12/2021 9:49:10 PM JAWard



**GRADING AND DRAINAGE NOTES:**

- A MINIMUM OF 24-HOURS PRIOR TO BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE CITY OF MEMPHIS CONSTRUCTION INSPECTION OFFICE AT (901) 636-2462.
- ALL NEWLY CUT OR FILLED AREAS, LACKING ADEQUATE VEGETATION, SHALL BE SEEDDED, MULCHED, FERTILIZED AND/OR SODDED AS REQUIRED TO EFFECTIVELY CONTROL SOIL EROSION.
- THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE APPROXIMATE AND NOT NECESSARILY ALL THE SAME. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING THE UTILITY COMPANIES WHICH MAINTAIN A UTILITY LINE WITHIN THE BOUNDARIES OF THE PROJECT PRIOR TO THE INITIATION OF ANY CONSTRUCTION ON THE PROJECT OR IN THE STREETS BORDERING THE PROJECT. THE CONTRACTOR SHALL ALSO ASSUME FULL RESPONSIBILITY FOR DAMAGE TO ANY UTILITIES ENCOUNTERED WITHIN CONSTRUCTION PERIMETERS, WHETHER SHOWN ON THE CONSTRUCTION PLANS OR NOT, DURING THE WORK ON THE PROJECT. FOR SITE LOCATION OF EXISTING UTILITIES INVOLVING ML&W, SOUTH CENTRAL BELL, AND/OR TEXAS GAS COMPANY, CALL 1-800-351-1111. FOR SEWER LOCATIONS CALL 901-529-8025.
- CONTRACTOR SHALL MAINTAIN ACCESS TO ALL PROPERTIES.
- ALL FILL SHALL BE COMPACTED TO 95% STANDARD PROCTOR DENSITY WITHIN 3% OPTIMUM MOISTURE CONTENT IN 6" LIFTS UNLESS OTHERWISE SPECIFIED BY THE SOILS REPORT. SUBMIT TEST RESULTS TO SARP10.
- ALL CONSTRUCTION MATERIALS AND PROCEDURES SHALL MEET OR EXCEED THE REQUIREMENTS OF THE CITY OF MEMPHIS STANDARD CONSTRUCTION SPECIFICATIONS.
- PROPERTY LINES SHALL BE FIELD VERIFIED PRIOR TO CONSTRUCTION. GRADING, CLEARING AND THE ERECTION OR REMOVAL OF FENCES ALONG PROPERTY LINES SHALL BE FULLY COORDINATED WITH ADJACENT PROPERTY OWNERS.
- VERIFY SITE CONDITIONS PRIOR TO CONSTRUCTION. NOTIFY THE CITY OF MEMPHIS CONSTRUCTION INSPECTION OFFICE ENGINEER OF ANY VARIATIONS PRIOR TO COMMENCEMENT OF WORK.
- ALL GRADING WORK SHALL BE PERFORMED IN SUCH A MANNER THAT ADJACENT PROPERTIES ARE NOT DAMAGED OR ADVERSELY AFFECTED.

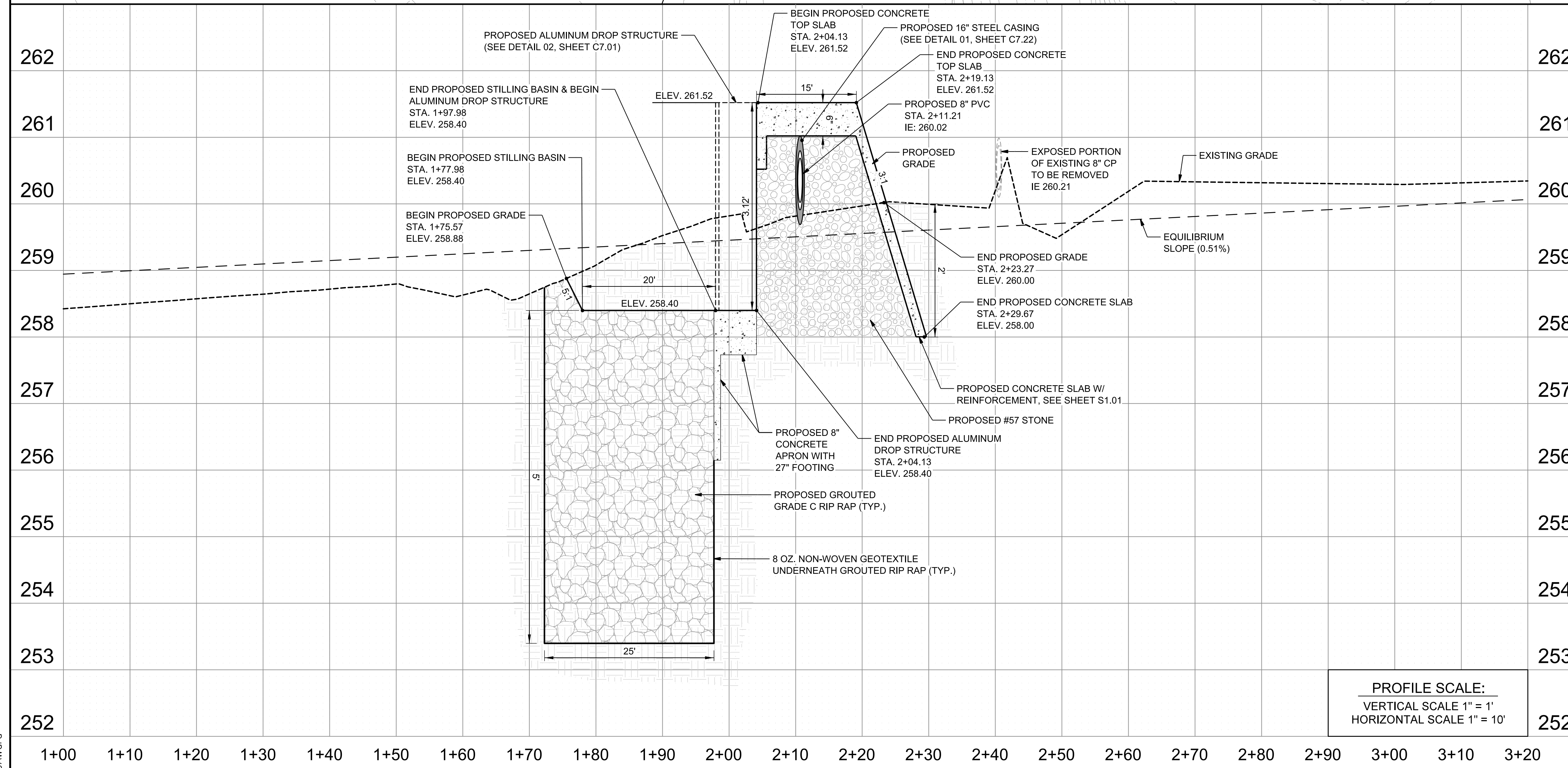
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TRIBUTARY STREAM WATER FLOW WILL BE 86 CFS IN THE EVENT OF A 100-YEAR STORM EVENT.

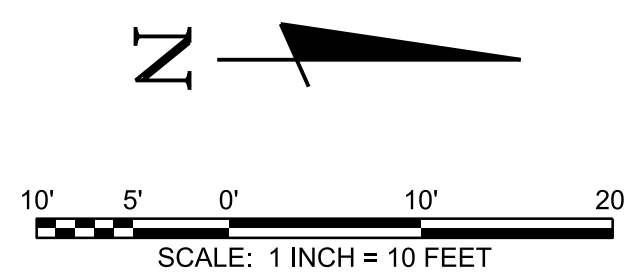
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CITY OF MEMPHIS BM #1440 - WALNUT BEND RD. & WALNUT GROVE RD. ML&W MONUMENT IS LOCATED 10' E. OF THE E. CURBLINE OF WALNUT BEND RD., 240' N. OF THE CENTERLINE OF WALNUT GROVE RD., 96' S. OF THE CENTERLINE OF A DWAY TO A CHURCH. THIS IS GPS CITYNET CONTROL POINT 95. PID AJ2615. ELEVATION: 335.42



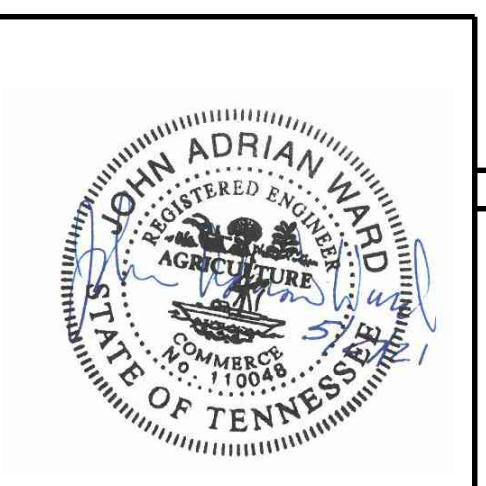
**LEGEND:**

- EXISTING MINOR CONTOUR
- 250- EXISTING MAJOR CONTOUR
- SA- EXISTING SANITARY SEWER LINE
- ⊙ EXISTING MANHOLE
- ⊙ EXISTING WETLAND
- ⊙ PROPOSED MANHOLE
- 251- PROPOSED MINOR CONTOUR
- 250- PROPOSED MAJOR CONTOUR
- - - PROPOSED STREAM CENTERLINE
- N  
E  
COORDINATE
- ⊙ PROPOSED GROUTED GRADE C RIP RAP LIMITS
- ⊙ PROPOSED #57 STONE LIMITS
- ⊙ PROPOSED CONCRETE W/ REINFORCEMENT LIMITS



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0	100% SUBMITTAL	04/30/2021



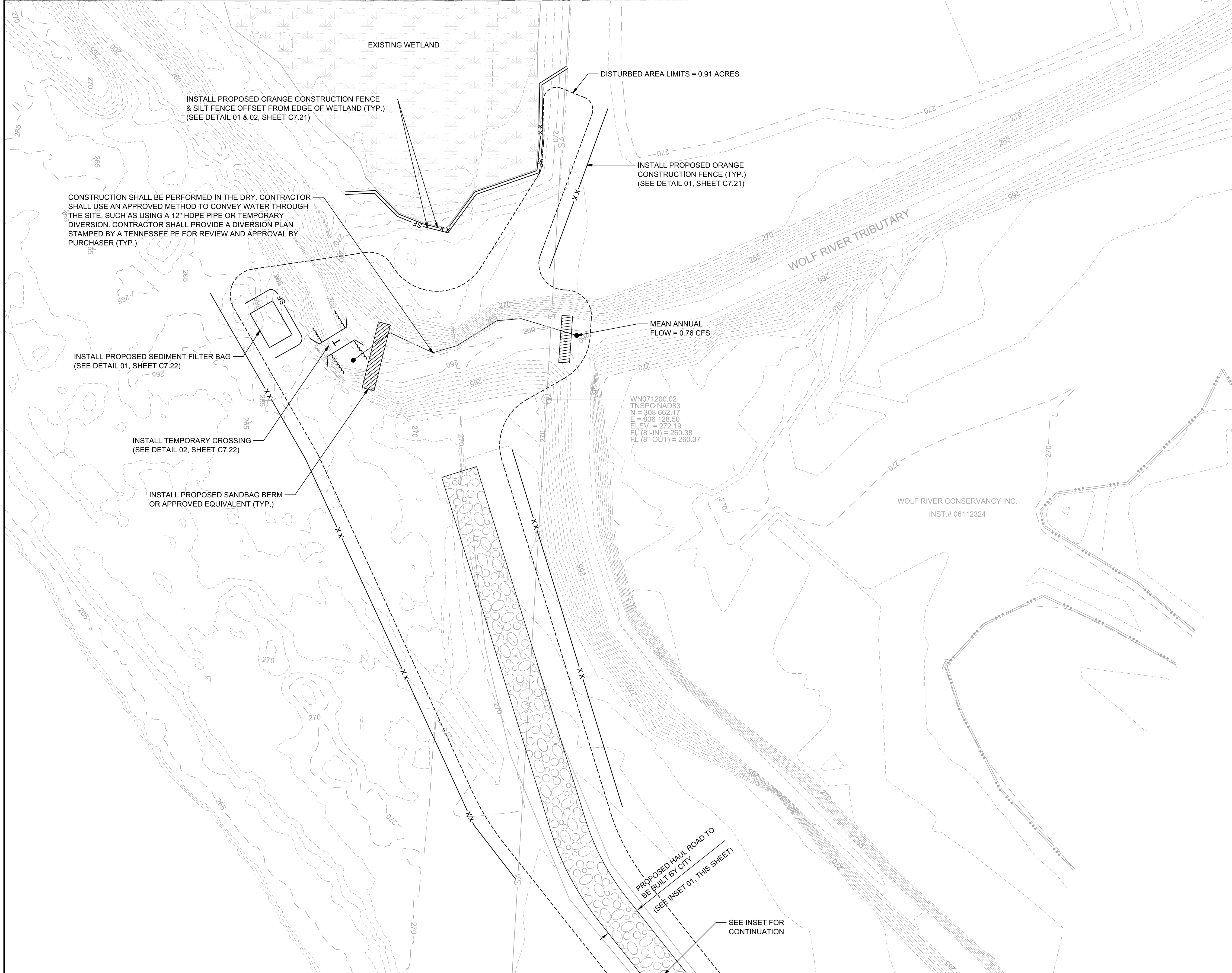
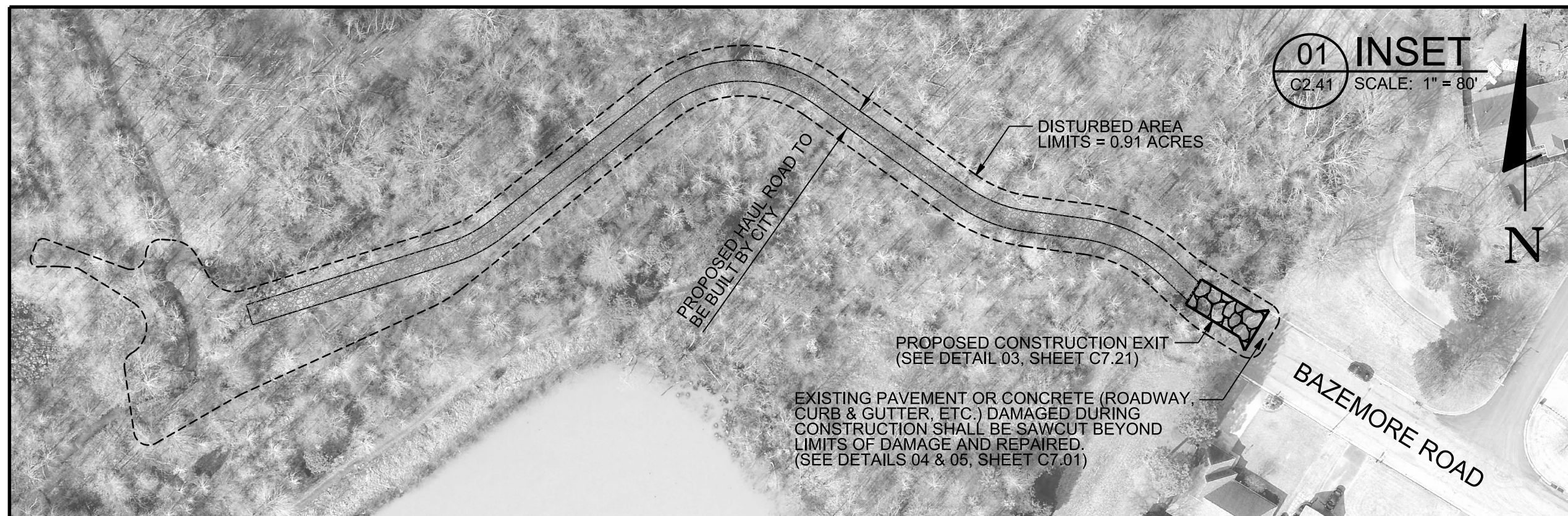
SEWER-BASIN: WN-07  
DRAIN-BASIN: WOLF-RIVER  
SHEET 3 OF 10

**SITE-PLAN-AND-PROFILE**  
**WOLF-RIVER-TRIBUTARY**  
**BANK-STABILIZATION/GRADE-CONTROL**  
**CORDOVA, TENNESSEE**

SURVEY: GEODESY DATE: 04/20 PROJECT NO.: 36592-02  
DESIGN BY: BARGE DATE: 04/21 SCALE: 1" = 10'  
REVIEWED

DEPUTY-CITY-ENGINEER DATE CITY-ENGINEER DATE

5/27/2021 10:17:15 PM JAWard



**PHASE I SEQUENCING NOTES:**

1. INSTALL CONSTRUCTION EXIT AND HAUL ROAD AS SHOWN. THIS WILL BE THE FIRST BMP INSTALLED ON SITE.
2. INSTALL ORANGE CONSTRUCTION FENCE.
3. INSTALL TEMPORARY CROSSING.
4. SILT FENCE TO BE OFFSET FROM EDGE OF WETLAND AS SHOWN.
5. PERFORM REQUIRED EXCAVATION AND UTILITY WORK.
6. FILL EXISTING CHANNEL VALLEY TO INVERT SHOWN. IF WATER ACCUMULATES BEHIND THE GRADE CONTROL STRUCTURE DURING FILLING OPERATIONS, THE TRAPPED WATER WILL BE PUMPED THROUGH A SEDIMENT FILTER BAG BEFORE IT LEAVES THE SITE.

**EROSION CONTROL NOTES:**

1. ALL EROSION CONTROL STRUCTURES SHALL BE IN PLACE AND FUNCTIONAL PRIOR TO GRADING, EXCAVATION, TOP SOIL REMOVAL, TREE REMOVAL, OR PIPE-LAYING OPERATIONS.
2. ALL EROSION CONTROL STRUCTURES SHALL BE MAINTAINED AND MONITORED THROUGHOUT THE ENTIRE TIME OF CONSTRUCTION OPERATIONS AND UNTIL VEGETATION IS ESTABLISHED ON ALL BARE, DISTURBED AREAS.
3. KEEP CONSTRUCTION DEBRIS, MUD AND SILT FROM ENTERING DITCH CHANNELS OR LEAVING THE JOB SITE AT ALL TIMES UNTIL SITE IS COMPLETELY STABILIZED.
4. UNLESS OTHERWISE NOTED, TURF REINFORCED MATTING SHOULD BE USED ON SLOPES GREATER THAN 3:1 TO PREVENT EROSION RILLS FROM FORMING.
5. EROSION CONTROLS ARE NOT LIMITED TO WHAT IS SHOWN ON APPROVED EROSION CONTROL PLANS. ADDITIONAL EROSION CONTROL STRUCTURES OR MEASURES MAY BE NEEDED AS CONDITIONS WARRANT OR AS DIRECTED BY THE PROJECT ENGINEER, CITY ENGINEER OR CITY INSPECTOR.
6. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT ALL REQUIRED PERMITS HAVE BEEN OBTAINED PRIOR TO BEGINNING ANY CONSTRUCTION OR OTHER ACTIVITY ON THE SITE AND FOR SATISFYING THE REQUIREMENTS OF THE STATE OF TENNESSEE DEPARTMENT OF WATER POLLUTION CONTROL AS SET FORTH IN THE TENNESSEE EROSION AND SEDIMENT CONTROL HANDBOOK.
7. ALL NEWLY CUT OR FILL AREAS LACKING ADEQUATE VEGETATION SHALL BE FERTILIZED, MULCHED, SEEDED, AND/OR SODDED TO EFFECTIVELY CONTROL SOIL EROSION. THE SEED AND FERTILIZER WILL BE COVERED WITH TURF REINFORCED MATTING ON SLOPES GREATER THAN 3:1.
8. PROVIDE THE NAME AND PHONE NUMBER OF THE PERSON OR PERSONS RESPONSIBLE FOR EROSION CONTROL AND/OR MUD/DIRT IN THE STREET REMOVAL TO THE CITY INSPECTOR PRIOR TO THE START OF CONSTRUCTION.
9. ALL CONTROL MEASURES SHALL BE CHECKED TWICE A WEEK AND AT LEAST 72 HOURS APART, DURING PROLONGED RAINFALL. DAILY CHECKING AND REPAIRING IS NECESSARY. THE CONTRACTOR SHALL MAINTAIN RECORDS OF CHECKS AND REPAIRS.
10. TOTAL DISTURBED AREA IS 0.91 ACRES.
11. GRADING AND UTILITY WORK IS TO BE PERFORMED IN THE DRY. CONTRACTOR TO USE CLEAN WATER DIVERSION, SAND BAG BERM SHALL BE INCLUDED IN THE COST OF THE "CLEAN WATER DIVERSION". CONTRACTOR SHALL SUBMIT A PLAN STAMPED BY A TENNESSEE PE FOR REVIEW AND APPROVAL BY THE PURCHASER/ENGINEER.

**FLOOD HAZARD NOTE:**

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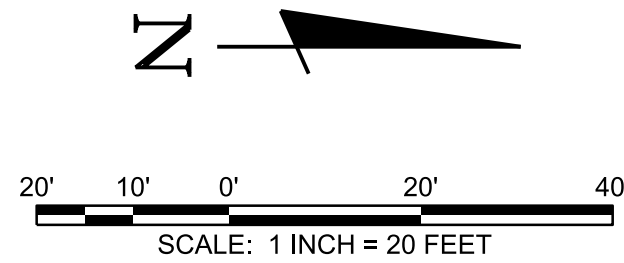
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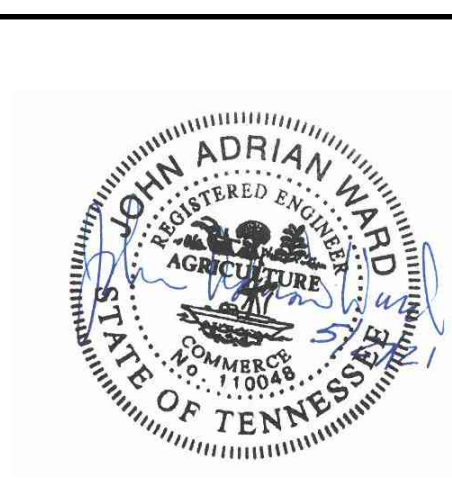
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**LEGEND:**

- EXISTING MINOR CONTOUR
- - - - EXISTING MAJOR CONTOUR
- EXISTING WETLAND
- XX- ORANGE CONSTRUCTION FENCE
- SF- SILT FENCE
- DISTURBED AREA LIMITS
- SANDBAG BERM
- CONSTRUCTION EXIT
- TEMPORARY CROSSING



REVISION		
ITEM NO.	DESCRIPTION OF CHANGE	APPROVAL DATE
0	100% SUBMITTAL	04/30/2021

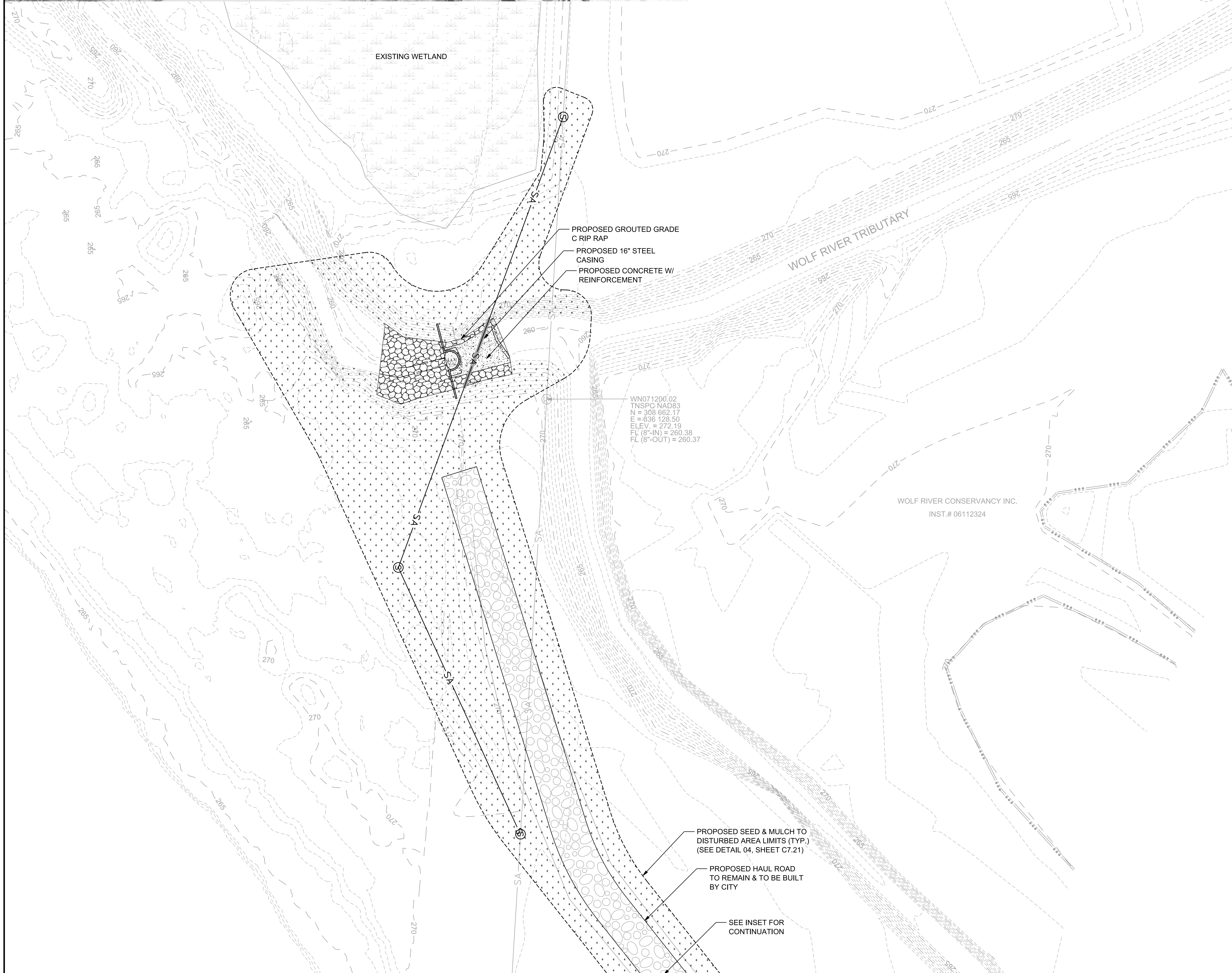
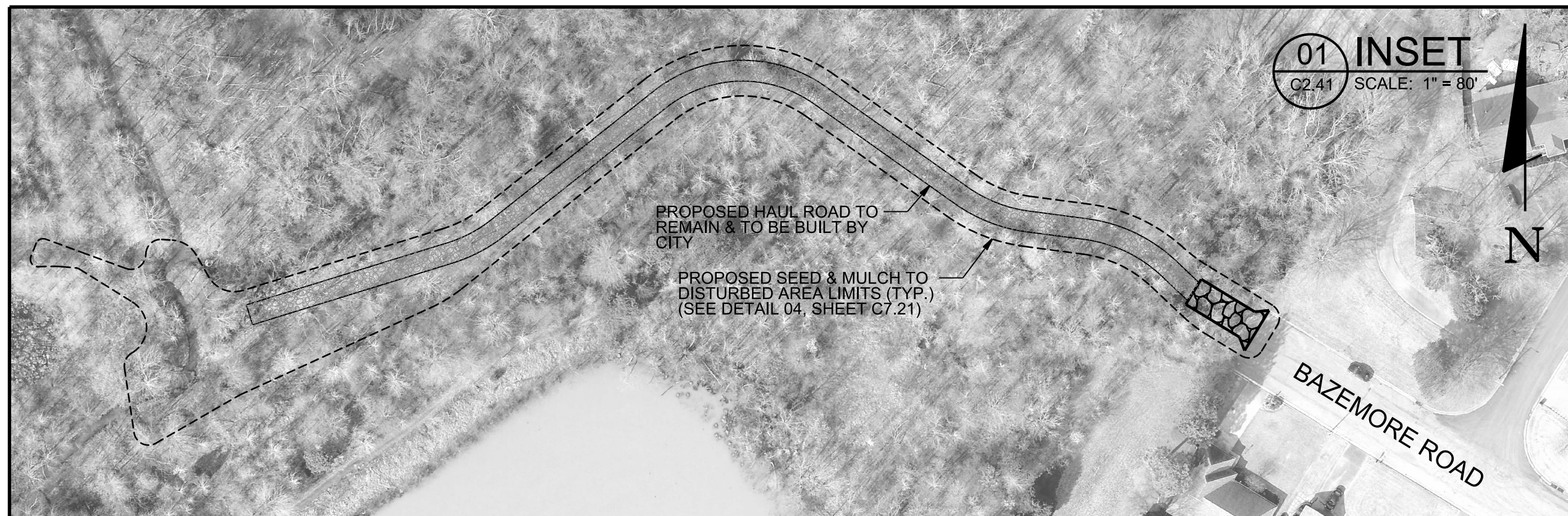


WOLF RIVER TRIBUTARY  
SANITARY SEWER INTERCEPTOR  
CORDOVA, TENNESSEE  
DEVELOPER: SARP10  
ENGINEER: BARGE DESIGN SOLUTIONS, INC.

SEWER-BASIN: WN-07  
DRAIN-BASIN: WOLF-RIVER  
C2.41

SHEET 4 OF 10  
**EROSION-CONTROL-PLAN-PHASE-I**  
**WOLF-RIVER-TRIBUTARY**  
**BANK-STABILIZATION/GRADE-CONTROL**  
CORDOVA, TENNESSEE  
SURVEY: GEODESY DATE: 04/20 PROJECT NO.: 36592-02  
DESIGN BY: BARGE DATE: 04/21 SCALE: 1" = 20'  
REVIEWED  
DEPUTY-CITY-ENGINEER DATE CITY-ENGINEER DATE

5/27/2021 9:53:47 PM JAWard



WN071200.02  
 TNSPC NAD83  
 N = 208 662.17  
 E = 636 128.50  
 ELEV = 272.19  
 FL (8"-IN) = 260.38  
 FL (8"-OUT) = 260.37

**PHASE II SEQUENCING NOTES:**

1. MAINTAIN BMPs INSTALLED DURING PHASE I.
2. STABILIZE SITE AS SHOWN. ALL OTHER DISTURBED AREAS NOT RECEIVING GROUDED GRADE C RIP-RAP, CONCRETE W/ REINFORCEMENT, OR NATIVE MATERIAL WILL BE SEEDED AND MULCHED.
3. REMOVE BMPs WHEN SITE IS STABLE.

**EROSION CONTROL NOTES:**

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3. KEEP CONSTRUCTION DEBRIS, MUD AND SILT FROM ENTERING DITCH CHANNELS OR LEAVING THE JOB SITE AT ALL TIMES UNTIL SITE IS COMPLETELY STABILIZED.
4. UNLESS OTHERWISE NOTED, TURF REINFORCED MATTING SHOULD BE USED ON SLOPES GREATER THAN 3:1 TO PREVENT EROSION RILLS FROM FORMING.
5. EROSION CONTROLS ARE NOT LIMITED TO WHAT IS SHOWN ON APPROVED EROSION CONTROL PLANS. ADDITIONAL EROSION CONTROL STRUCTURES OR MEASURES MAY BE NEEDED AS CONDITIONS WARRANT OR AS DIRECTED BY THE PROJECT ENGINEER, CITY ENGINEER OR CITY INSPECTOR.
6. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT ALL REQUIRED PERMITS HAVE BEEN OBTAINED PRIOR TO BEGINNING ANY CONSTRUCTION OR OTHER ACTIVITY ON THE SITE AND FOR SATISFYING THE REQUIREMENTS OF THE STATE OF TENNESSEE DEPARTMENT OF WATER POLLUTION CONTROL AS SET FORTH IN THE TENNESSEE EROSION AND SEDIMENT CONTROL HANDBOOK.
7. ALL NEWLY CUT OR FILL AREAS LACKING ADEQUATE VEGETATION SHALL BE FERTILIZED, MULCHED, SEEDED, AND/OR SODDED TO EFFECTIVELY CONTROL SOIL EROSION. THE SEED AND FERTILIZER WILL BE COVERED WITH TURF REINFORCED MATTING ON SLOPES GREATER THAN 3:1.
8. PROVIDE THE NAME AND PHONE NUMBER OF THE PERSON OR PERSONS RESPONSIBLE FOR EROSION CONTROL AND/OR MUD/DIRT IN THE STREET REMOVAL TO THE CITY INSPECTOR PRIOR TO THE START OF CONSTRUCTION.
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11. GRADING AND UTILITY WORK IS TO BE PERFORMED IN THE DRY. CONTRACTOR TO USE CLEAN WATER DIVERSION, SAND BAG BERM SHALL BE INCLUDED IN THE COST OF THE "CLEAN WATER DIVERSION". CONTRACTOR SHALL SUBMIT A PLAN STAMPED BY A TENNESSEE PE FOR REVIEW AND APPROVAL BY THE PURCHASER/ENGINEER.

**FLOOD HAZARD NOTE:**

THE SUBJECT PROPERTY IS LOCATED IN A SPECIAL FLOOD HAZARD AREA ZONE "X" (AREA OF MINIMAL FLOOD HAZARD DETERMINED BY DETAILED METHODS) AS PER FLOOD LINES ESTABLISHED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY AS SHOWN ON FLOOD INSURANCE RATE MAP NUMBER 47157C0456G, DATED FEBRUARY 6, 2013. THE NEAREST BFE IS 263.4.

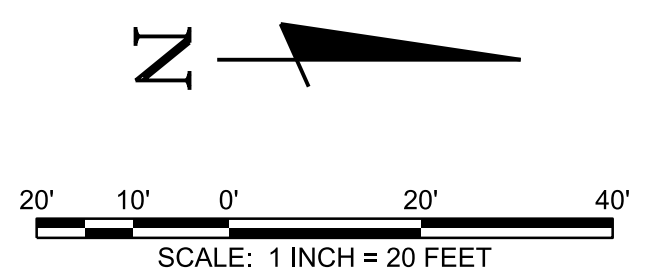
TRIBUTARY STREAM WATER FLOW WILL BE 86 CFS IN THE EVENT OF A 100-YEAR STORM EVENT.

**BENCHMARK NOTE:**

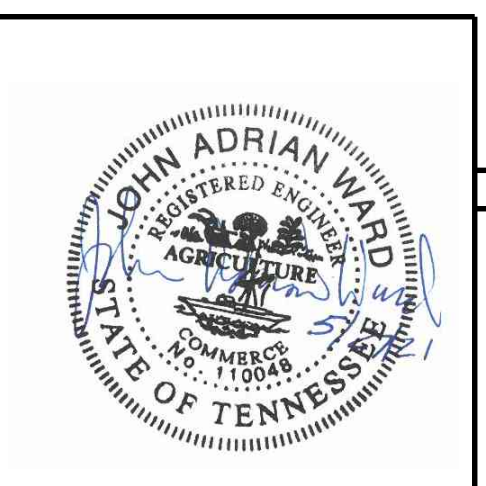
CITY OF MEMPHIS BM #1440 - WALNUT BEND RD. & WALNUT GROVE RD; M/G&W MONUMENT IS LOCATED 10' E. OF THE E. CURBLINE OF WALNUT BEND RD., 240' N. OF THE CENTERLINE OF WALNUT GROVE RD., 96' S. OF THE CENTERLINE OF A D/WAY TO A CHURCH. THIS IS GPS CITY/NET CONTROL POINT 95, PID AJ2615. ELEVATION: 335.42

**LEGEND:**

- EXISTING MINOR CONTOUR
- 250- EXISTING MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- 250- PROPOSED MAJOR CONTOUR
- EXISTING WETLAND
- [Pattern] PROPOSED GROUDED GRADE C RIP RAP
- [Pattern] PROPOSED SEED & MULCH
- [Pattern] PROPOSED GRAVEL HAUL ROAD
- [Pattern] PROPOSED CONCRETE W/ REINFORCEMENT



REVISION		
ITEM NO.	DESCRIPTION OF CHANGE	APPROVAL DATE
0	100% SUBMITTAL	04/30/2021



WOLF RIVER TRIBUTARY  
 SANITARY SEWER INTERCEPTOR  
 CORDOVA, TENNESSEE  
 DEVELOPER: SARP10  
 ENGINEER: BARGE DESIGN SOLUTIONS, INC.

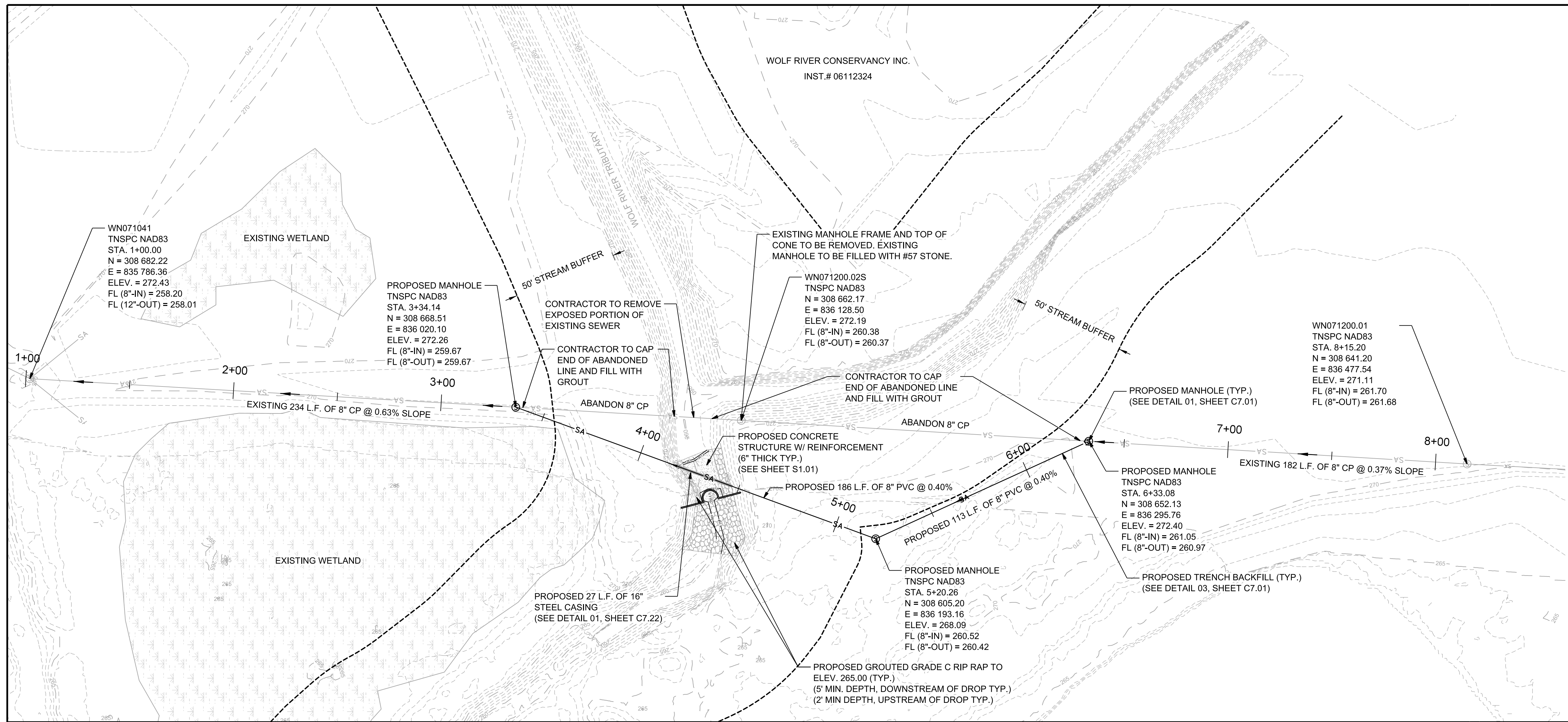
SEWER-BASIN: WN-07  
 DRAIN-BASIN: WOLF-RIVER  
 SHEET 5 OF 10

**EROSION-CONTROL-PLAN-PHASE-II**  
**WOLF-RIVER-TRIBUTARY**  
**BANK-STABILIZATION/GRADE-CONTROL**  
 CORDOVA, TENNESSEE

SURVEY: GEODESY DATE: 04/20 PROJECT NO.: 36592-02  
 DESIGN BY: BARGE DATE: 04/21 SCALE: 1" = 20'

DEPUTY-CITY-ENGINEER DATE CITY-ENGINEER DATE

5/27/2021 9:54:54 PM JAWard



**SANITARY SEWER NOTES:**

- ALL SEWER CONSTRUCTION SHALL BE IN ACCORDANCE WITH SPECIFICATIONS AND STANDARD DETAILS OF SARP10.
- AFTER COMPLETION OF THE SANITARY SEWER, THE CONTRACTOR IS RESPONSIBLE FOR THE TELEVISIONING OF THE LINES PRIOR TO FINAL ACCEPTANCE. THE VIDEO TAPING MUST BE COORDINATED WITH THE SARP10. ALL COSTS WILL BE BORNE BY THE CONTRACTOR.
- UPON COMPLETION OF CONSTRUCTION OF SEWER, THE CONTRACTOR SHALL PROVIDE SARP10 WITH A COMPLETE SET OF AS-BUILT PLANS ON MOIST ERASABLE MYLARS AND IN DIGITAL (.DWG) FORMAT. SEWER PLANS SHALL BE SEALED BY A LICENSED PROFESSIONAL ENGINEER OR A REGISTERED LAND SURVEYOR.

**FLOOD HAZARD NOTE:**

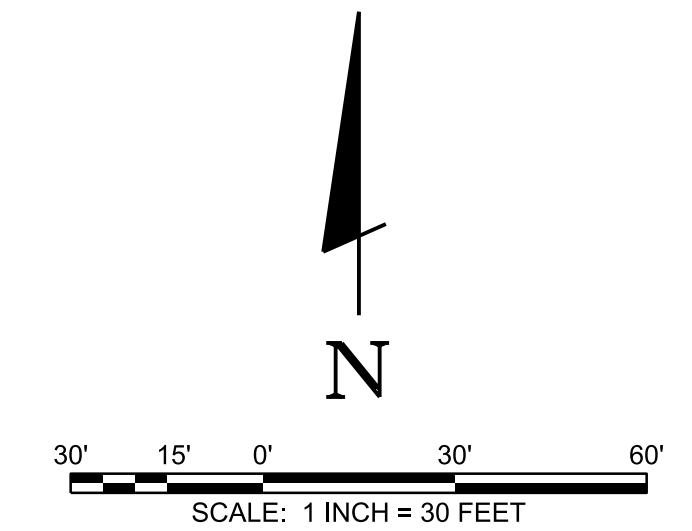
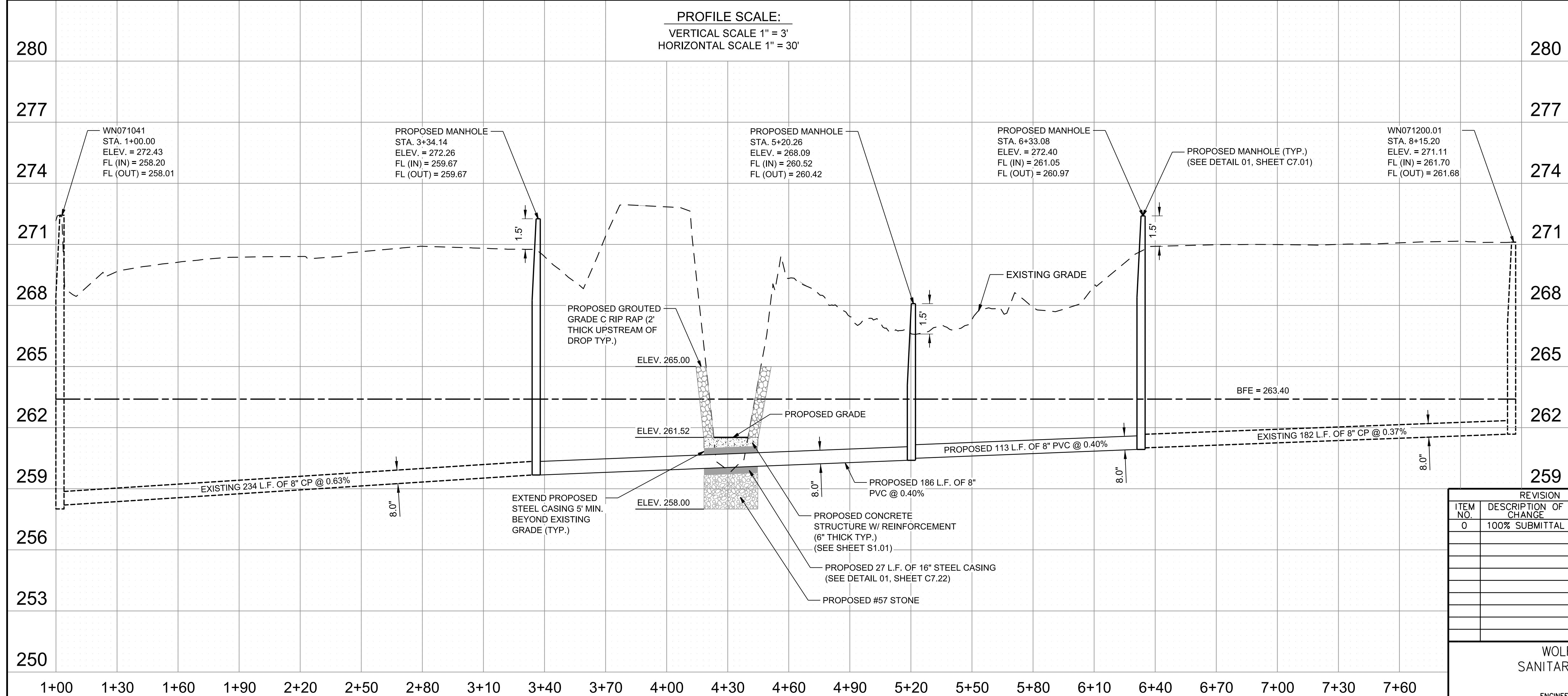
THE SUBJECT PROPERTY IS LOCATED IN A SPECIAL FLOOD HAZARD AREA ZONE "X" (AREA OF MINIMAL FLOOD HAZARD DETERMINED BY DETAILED METHODS) AS PER FLOOD LINES ESTABLISHED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY AS SHOWN ON FLOOD INSURANCE RATE MAP NUMBER 47157C0456G, DATED FEBRUARY 6, 2013. THE NEAREST BFE IS 263.4.

TRIBUTARY STREAM WATER FLOW WILL BE 86 CFS IN THE EVENT OF A 100-YEAR STORM EVENT.

**BENCHMARK NOTE:**

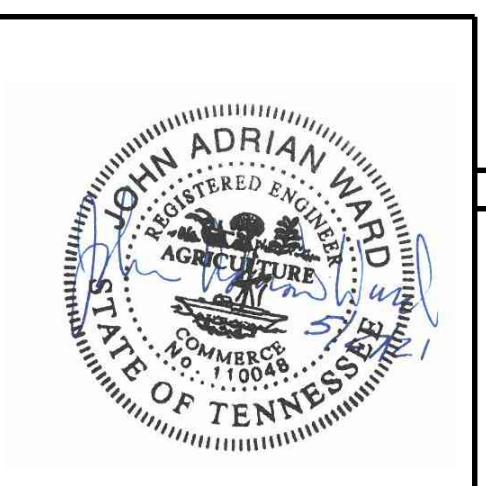
CITY OF MEMPHIS BM #1440 - WALNUT BEND RD. & WALNUT GROVE RD. M/G&W MONUMENT IS LOCATED 10' E. OF THE E. CURBLINE OF WALNUT BEND RD., 240' N. OF THE CENTERLINE OF WALNUT GROVE RD., 96' S. OF THE CENTERLINE OF A D/WAY TO A CHURCH. THIS IS GPS CITYNET CONTROL POINT 95, PID AJ2615. ELEVATION: 335.42

- LEGEND:**
- EXISTING MINOR CONTOUR
  - - - EXISTING MAJOR CONTOUR
  - SA - EXISTING SANITARY SEWER LINE
  - ⊙ EXISTING MANHOLE
  - ⊙ PROPOSED MANHOLE
  - 251 --- PROPOSED MINOR CONTOUR
  - - - 250 - - - PROPOSED MAJOR CONTOUR
  - - - - - PROPOSED STREAM CENTERLINE
  - - - - - 50' STREAM BUFFER
  - N E COORDINATE
  - PROPOSED GROUDED GRADE C RIP RAP LIMITS
  - PROPOSED #57 STONE LIMITS
  - PROPOSED CONCRETE W/ REINFORCEMENT LIMITS



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REVISION	DESCRIPTION OF CHANGE	APPROVAL DATE
0	100% SUBMITTAL	04/30/2021



**WOLF RIVER TRIBUTARY  
SANITARY SEWER INTERCEPTOR**  
CORDOVA, TENNESSEE  
ENGINEER: BARGE DESIGN SOLUTIONS, INC.

SEWER-BASIN: WN-07  
DRAIN-BASIN: WOLF-RIVER  
C3.01

SHEET 6 OF 10

**UTILITY-PLAN-AND-PROFILE  
WOLF-RIVER-TRIBUTARY  
BANK-STABILIZATION/GRADE-CONTROL**  
CORDOVA, TENNESSEE

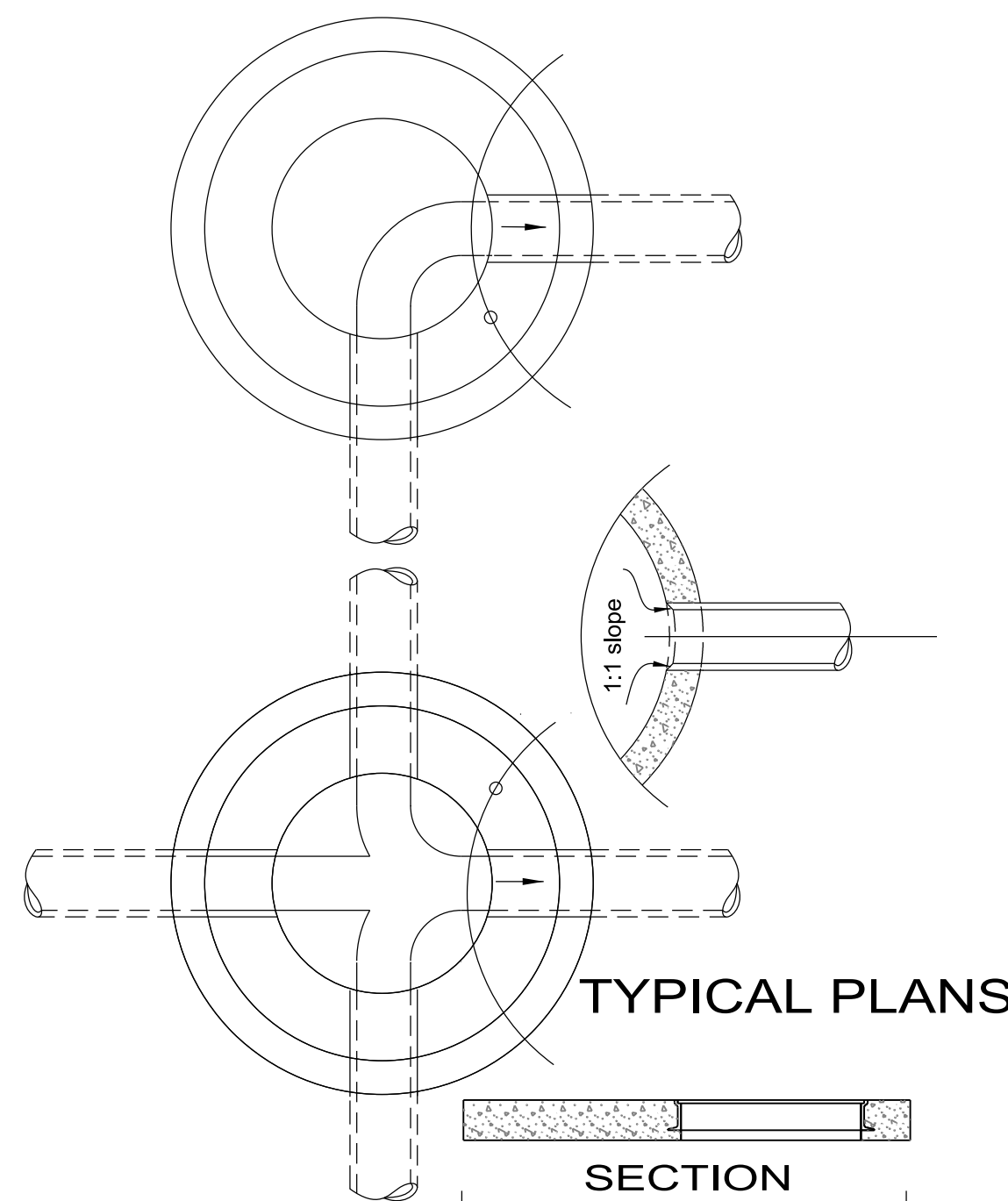
SURVEY: GEODESY DATE: 04/20 PROJECT NO.: 36592-02  
DESIGN BY: BARGE DATE: 04/21 SCALE: 1" = 30'  
REVIEWED

DEPUTY-CITY-ENGINEER DATE CITY-ENGINEER DATE

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NOTE: PIPE OFF CENTER EXACT LOCATION TO BE DETERMINED IN FIELD

24" STANDARD RIM  
26 1/2" OPTIONAL RIM



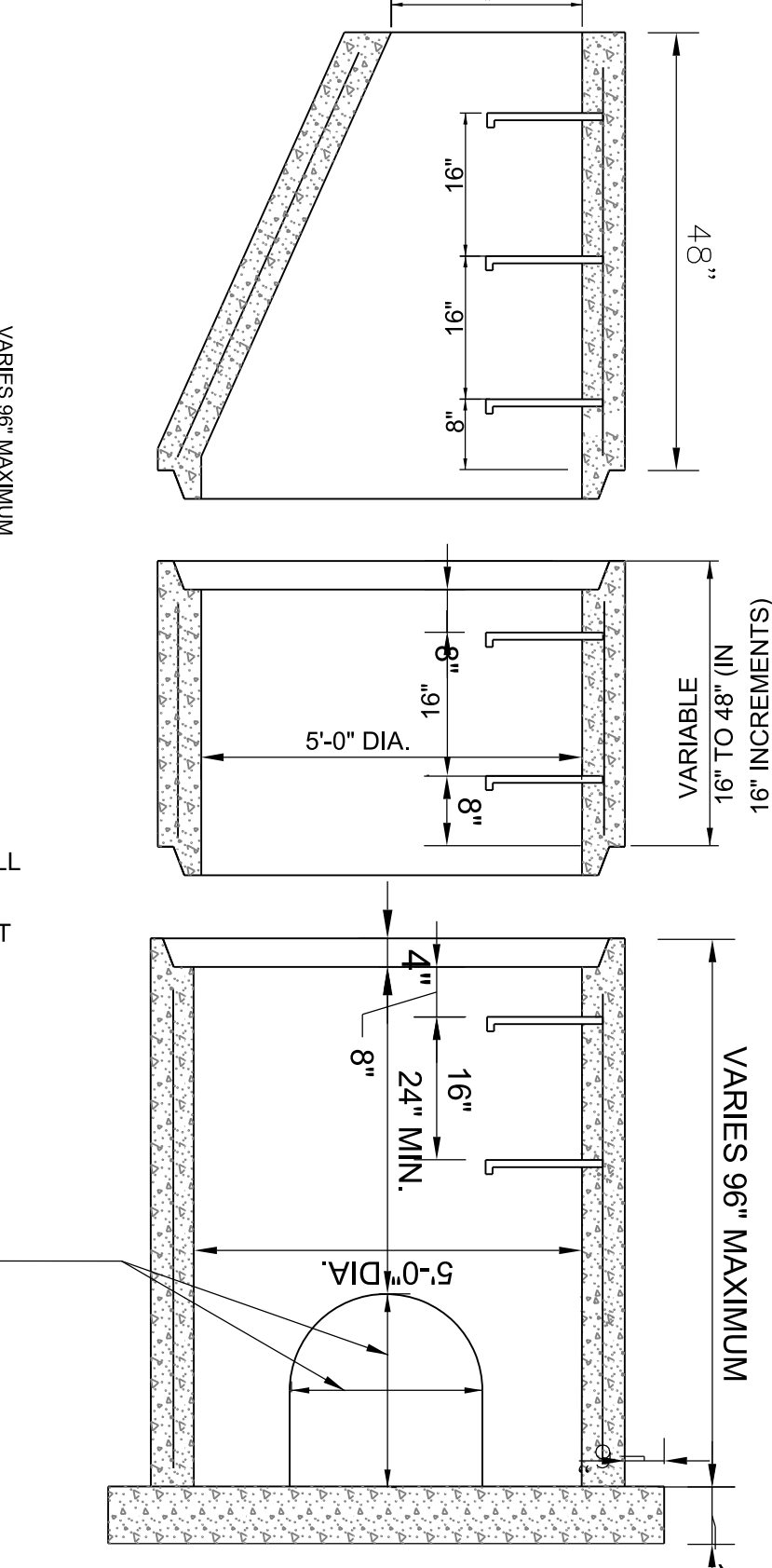
**STANDARD FLAT TOP MANHOLE**

NOTE:  
JOINT SEALANT CONCRETE MORTAR SHALL BE USED TO SEAL JOINTS AFTER THE INSTALLATION OF AN APPROVED GASKET BETWEEN ALL PRECAST MANHOLE SECTIONS.

WALL THICKNESS EQUALS PIPE DIAMETER (IN FEET) + 1"

CUT OUT SIZES  
15" PIPE - 22" CUT-OUT  
18" PIPE - 27" CUT-OUT  
24" - PIPE - 36" CUT-OUT  
30" PIPE - 44" CUT-OUT  
36" PIPE - 50" CUT-OUT

FOUNDATION FILL MAT'L.

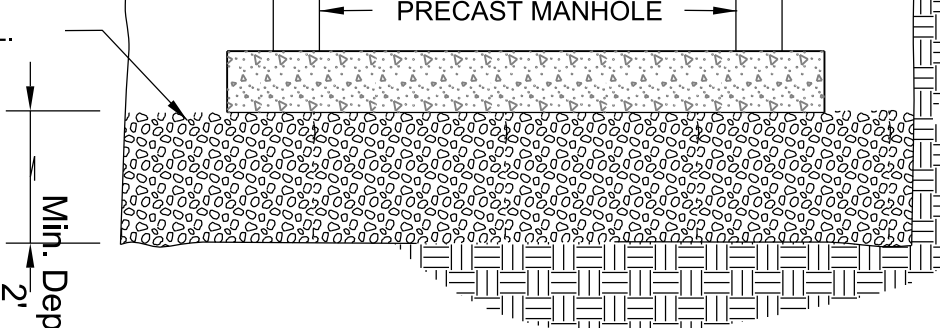


**STANDARD ECCENTRIC CONC. RISER**

**SECTION, BASE SECTION, AND BASE**

FOUNDATION FILL MAT'L.

Min. Depth



**8" THICK REINF. CONC. SLAB**

A CONCRETE SLAB 8" THICK (WITH MANHOLE FRAME LOCATED ECCENTRICALLY IN SLAB) REINFORCED WITH #4 DEFORMED STEEL BARS 2" FROM BOTTOM OF SLAB AND SPACED 6" C.C. BOTH LONGITUDINALLY AND TRANSVERSELY. SLAB TO BE BUILT TO BASE OR PAVEMENT GRADE

**01 STANDARD CONCRETE MANHOLE DETAIL**

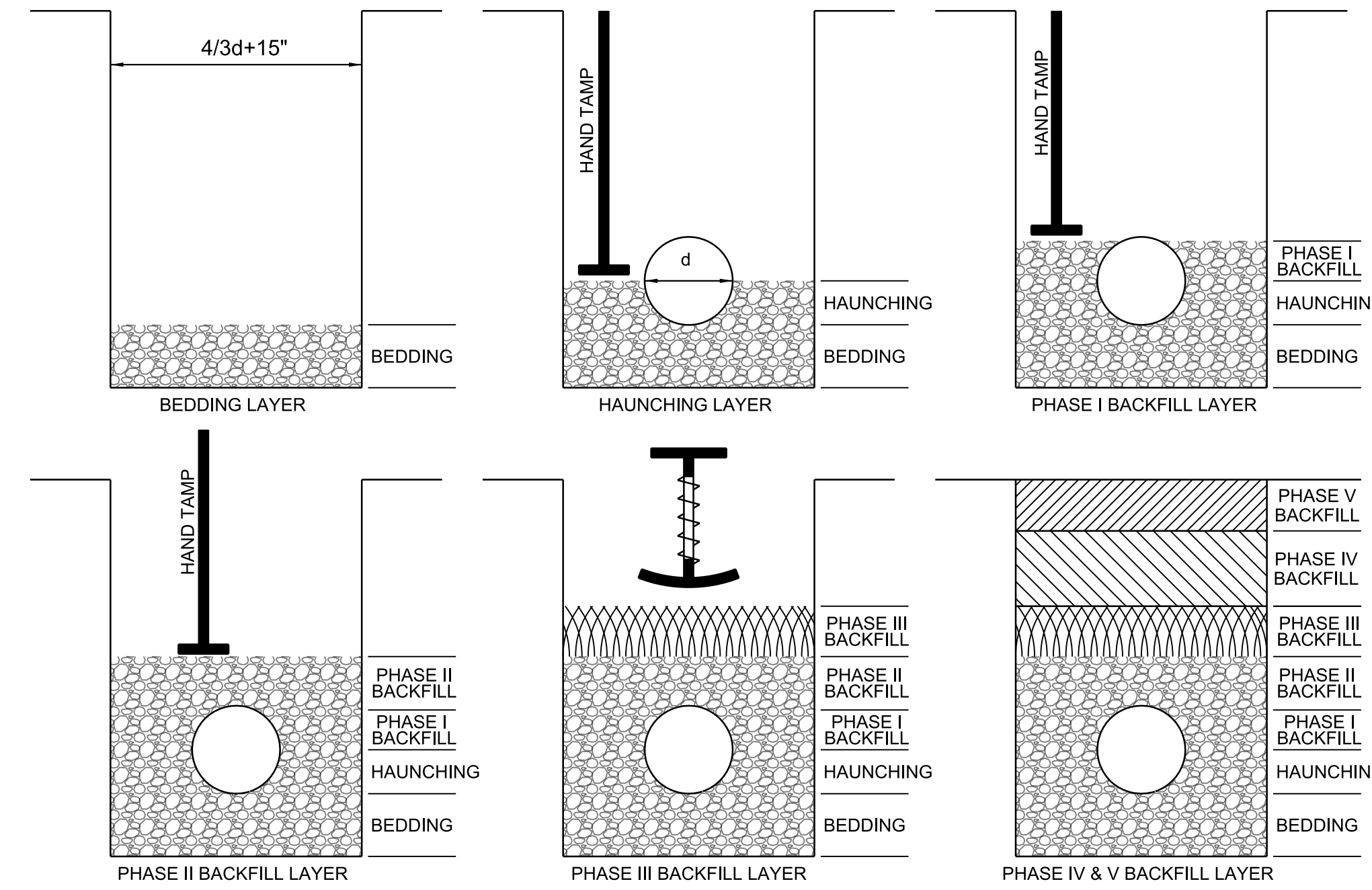
C7.01 N.T.S.

**GENERAL NOTES**

THIS MANHOLE WILL CONFORM TO THE STANDARD DRAWING UNLESS OTHERWISE SHOWN OR DIRECTED BY THE ENGINEER TO MEET SPECIAL CONDITIONS. THERE WILL BE NO VARIATION FROM THE CONTRACT PRICE DUE TO SUCH CHANGES. IN ALL CASES IT MUST BE BUILT LARGE ENOUGH TO ACCOMMODATE INLET AND OUTLET PIPES.

THE PRECAST CONCRETE MANHOLE SHALL MEET THE REQUIREMENT AND SPECIFICATION SET OUT IN ASTM-C478, LAST REVISION.

ALL CONCRETE FOR MASONRY TO BE CLASS "A".



**BEDDING AND BACKFILL OF TRENCHES UNDER UNIMPROVED AREAS**

LAYER	DEPTH	MATERIAL
BEDDING	4" MIN	#67 CRUSHED LIMESTONE. SEE NOTES (1)(2). WELL COMPACTED.
HAUNCHING	d/2	#67 CRUSHED LIMESTONE STONE TAMPED IN 6" MAXIMUM LAYERS. SEE NOTE (2). WELL COMPACTED W/SIDE TAMPER HAND TAMPER.
PHASE I BACKFILL	d/2	CRUSHED LIMESTONE OR RECYCLED CRUSHED CONCRETE TAMPED IN 6" MAXIMUM LAYERS. SEE NOTE (3). WELL COMPACTED W/SIDE TAMPER HAND TAMPER.
PHASE II BACKFILL	6"	CRUSHED LIMESTONE OR RECYCLED CRUSHED CONCRETE . SEE NOTE (3). WELL COMPACTED W/HAND TAMPER.
PHASE III BACKFILL	6"	SELECT EARTH MATERIAL. SEE NOTE (4). WELL COMPACTED W/PNEUMATIC OR MECHANICAL TAMPER.
PHASE IV BACKFILL	VARIES	SELECT EARTH MATERIAL TAMPED IN 12" MAXIMUM LAYERS. SEE NOTE (4). COMPACTED TO 95% PER ASTM D698
PHASE V BACKFILL	12"	SELECT EARTH MATERIAL. SEE NOTE (4). COMPACTED TO 95% PER ASTM D698 *SEE COVER SEEDING MIXTURE (DETAIL 04, SHEET C7.21) FOR UPPER 2-4" OF SOIL FOR TOPSOIL, MULCH, ETC.

**TABLE NOTES:**

(1) SEE GEOTECHNICAL ENGINEER'S RECOMMENDATIONS AND UTILITY AND TRENCHING SPECIFICATION FOR SPECIAL FOUNDATION PREPARATION.

**BEDDING AND BACKFILL MATERIAL CLASSIFICATION**

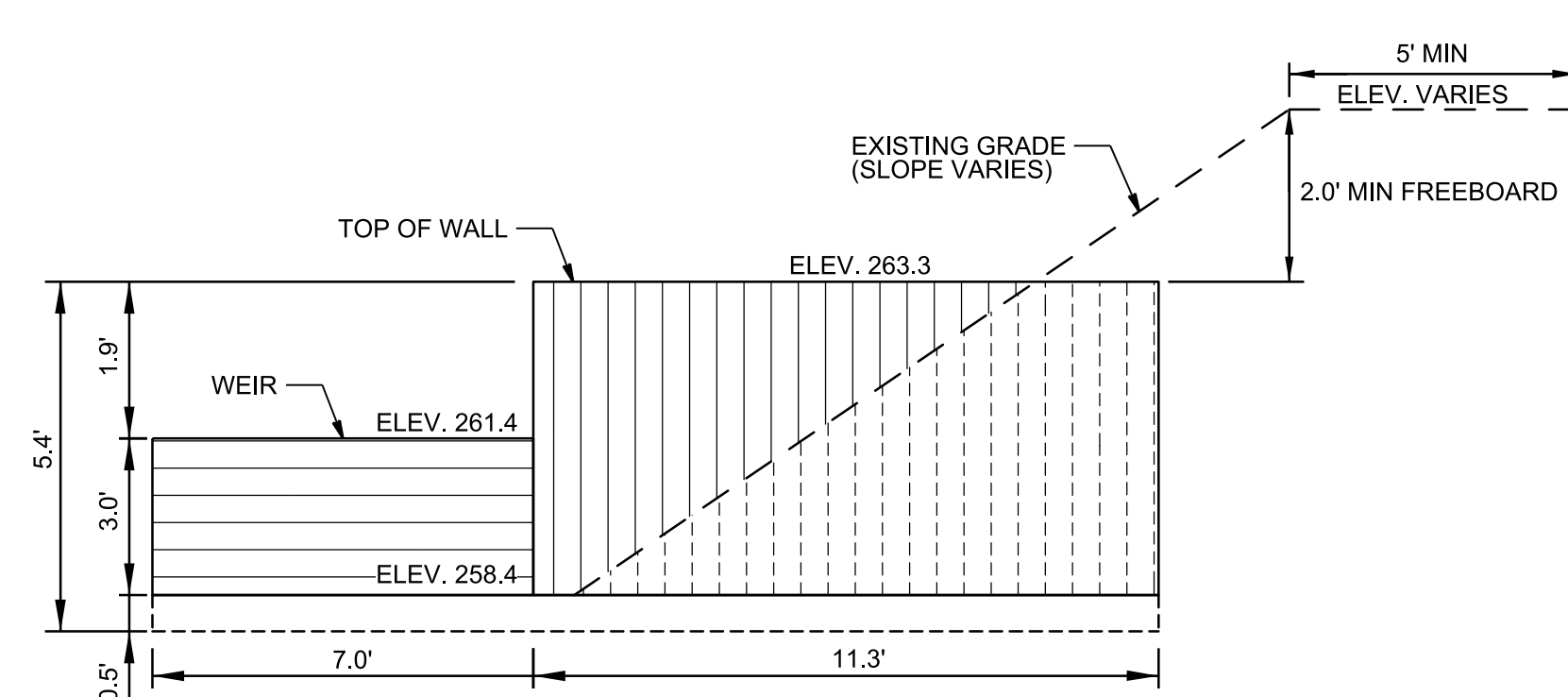
(2) INSTALL CRUSHED LIMESTONE ASTM D-448-54 TABLE 1, #67 FOR BEDDING AND HAUNCHING MATERIAL. THE QUANTITY OF CRUSHED LIMESTONE FOR BEDDING AND HAUNCHING IS PART OF THE "8" PVC PIPE" LINE ITEM AND NO SEPARATE PAYMENT WILL BE MADE.

(3) INSTALL EITHER CRUSHED LIMESTONE OR RECYCLED CRUSHED CONCRETE FOR PHASE I & II BACKFILL PER CITY OF MEMPHIS SPECIFICATIONS.

(4) INSTALL SELECT EARTH MATERIAL FOR PHASE III, IV, & V BACKFILL UNDER UNIMPROVED AREAS PER CITY OF MEMPHIS SPECIFICATIONS.

**03 TRENCH BACKFILL DETAIL**

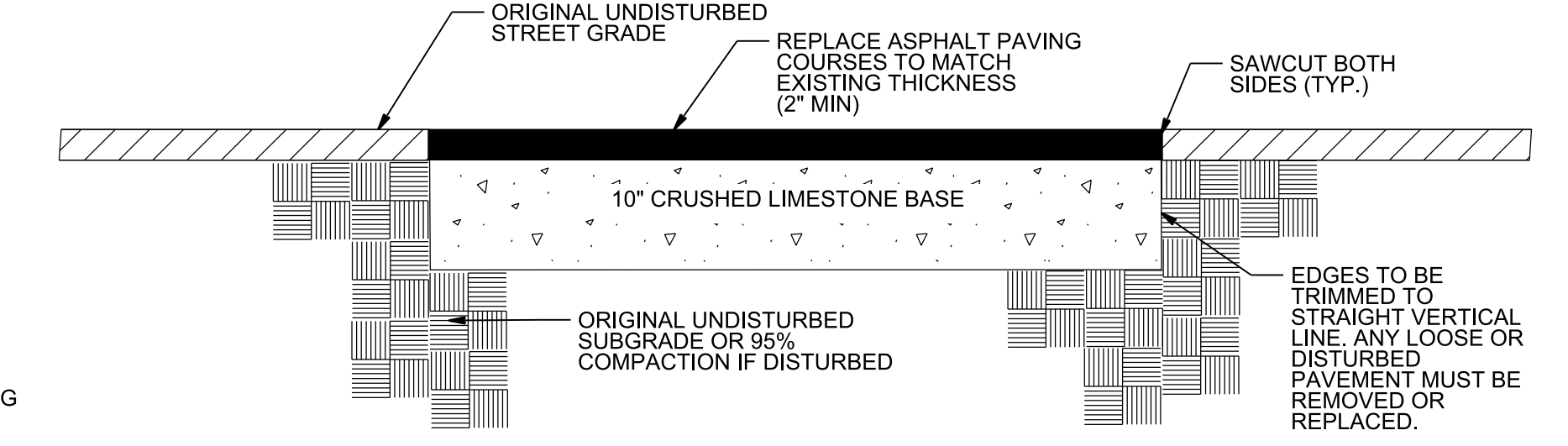
C7.01 SCALE: N.T.S.



**SECTION A**

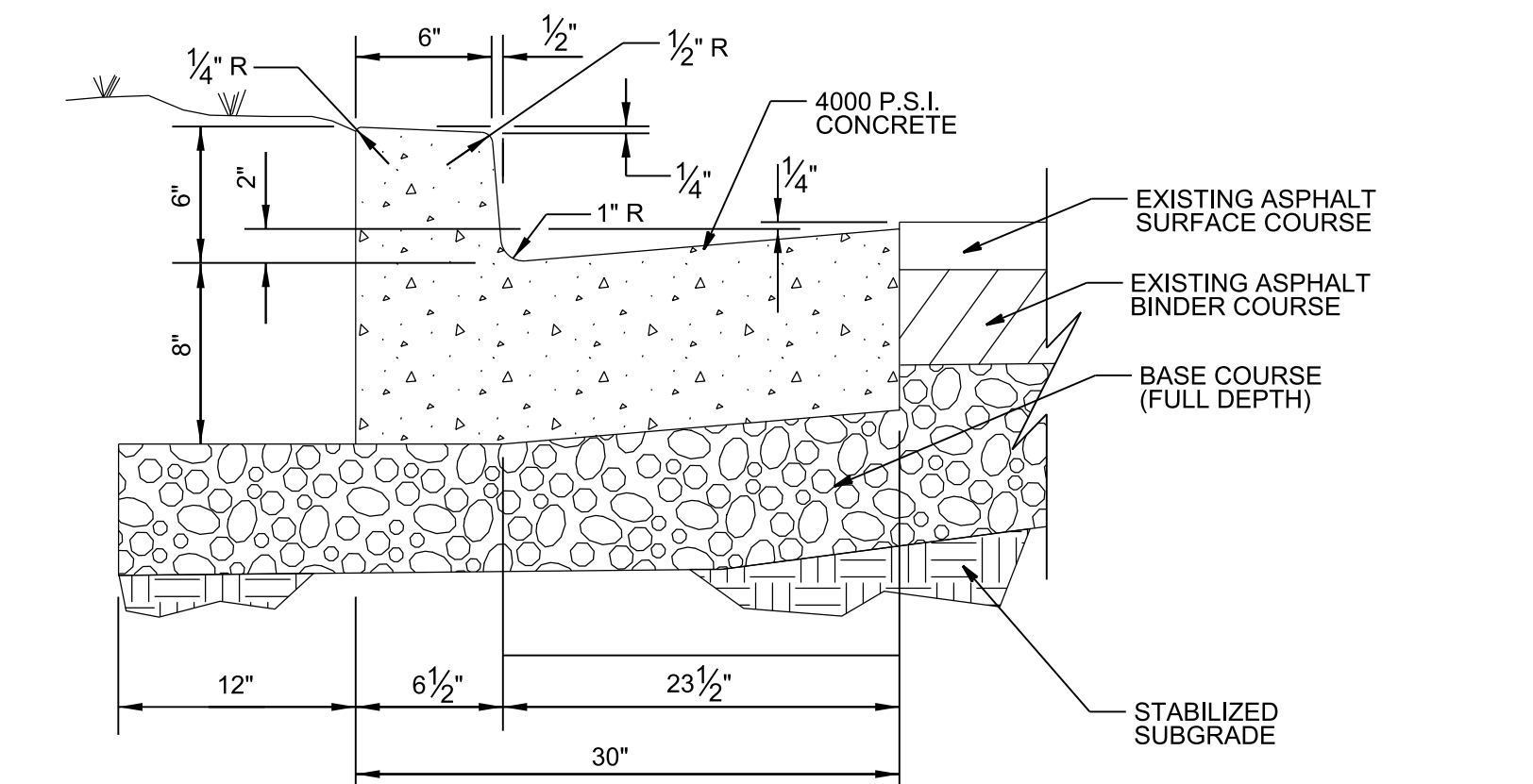
**NOTES:**

- CONTRACTOR TO PROVIDE SHOP DRAWING SUBMITTAL TO ENGINEER
- THE DESIGN FLOW FOR THE ALUMINUM DROP STRUCTURE IS 95 CFS.



**04 TYPICAL PAVEMENT REPAIR DETAIL**

C7.01 SCALE: N.T.S.

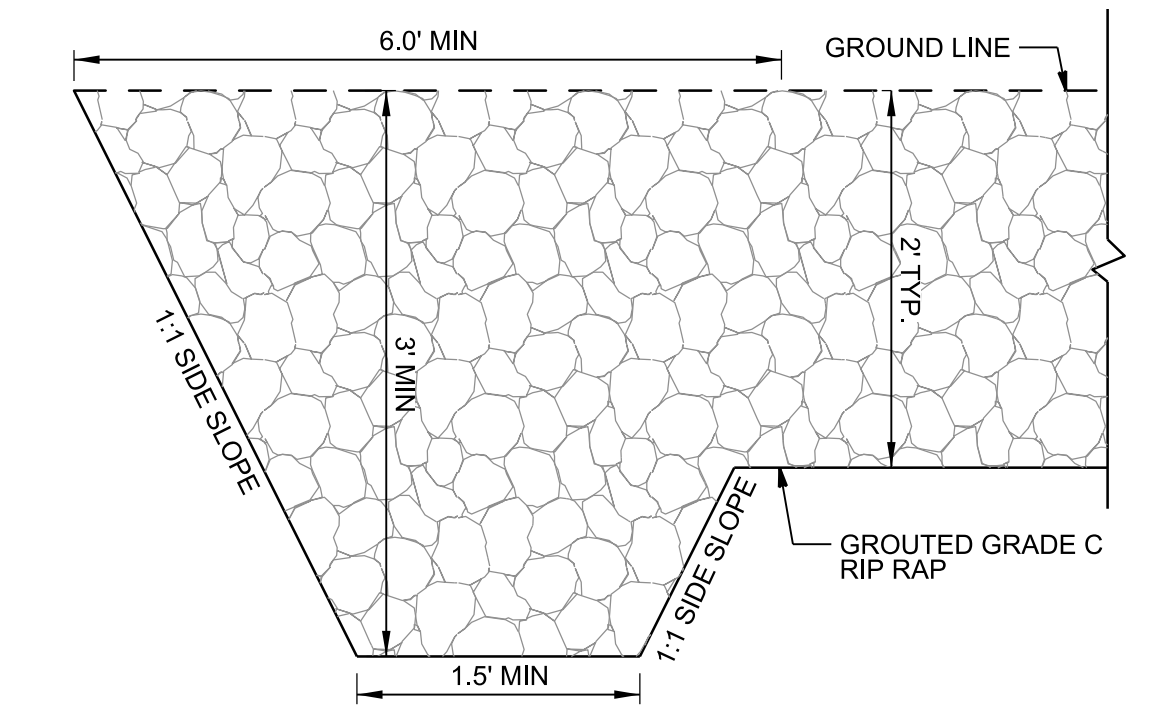


**NOTES:**

- PREFORMED 1/2" EXPANSION JOINTS SHALL BE EQUALLY SPACED AT 30' MAX. CENTERS, WITH 1/4" CONTRACTION JOINTS EQUALLY SPACED AT 10' MAX. CENTERS BETWEEN EXPANSION JOINTS.
- EXACT CURB DIMENSIONS MAY BE ALTERED SLIGHTLY TO FIT STANDARD EXTRUDED CURB MACHINES, BUT SUCH VARIANCES MUST BE APPROVED BY THE ENGINEER.
- SEE PAVING DETAILS FOR PAVEMENT SECTIONS, SUBBASE, SUBGRADE, AND COMPACTION REQUIREMENTS.

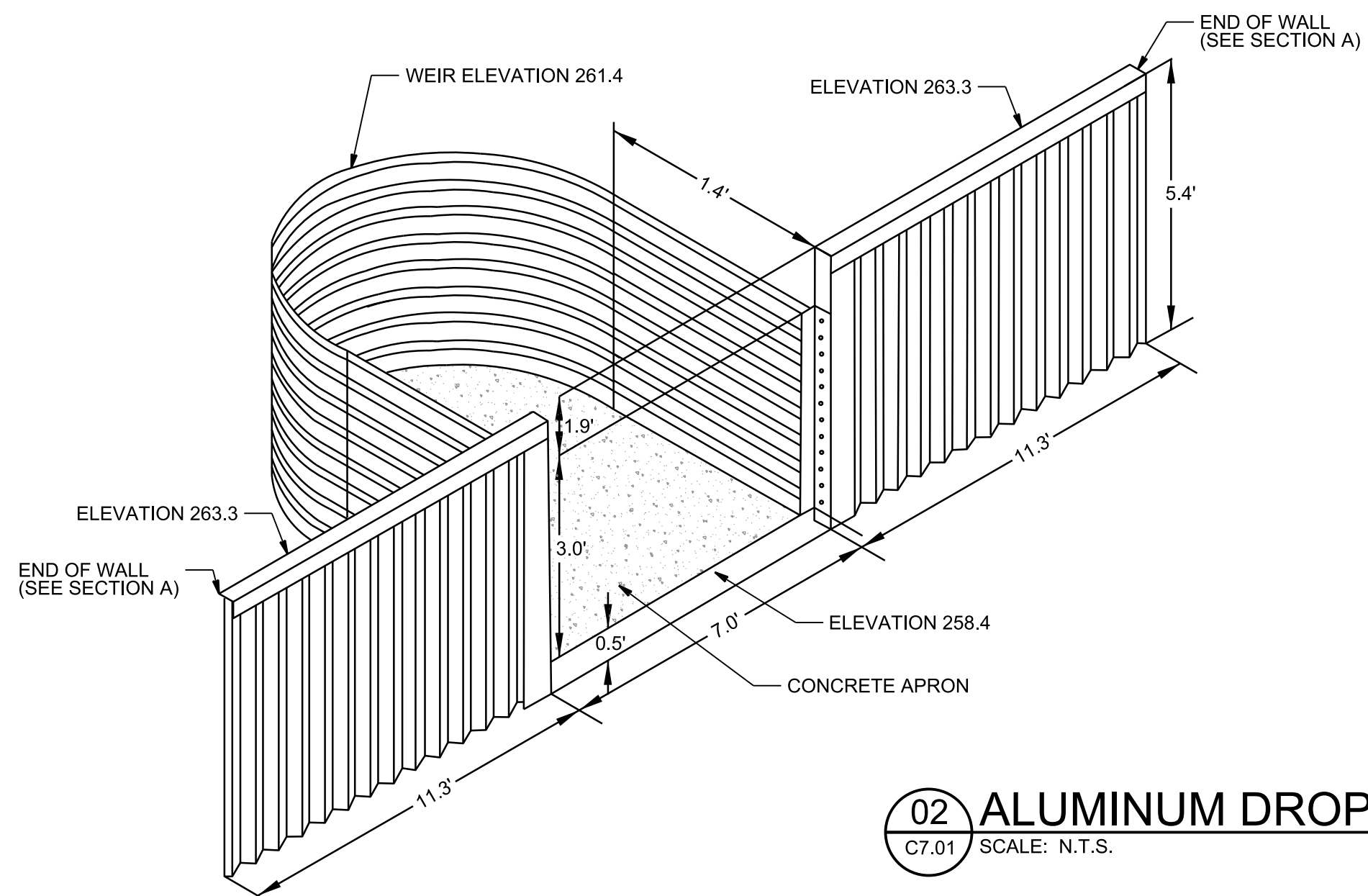
**05 TYPICAL CURB & GUTTER REPAIR DETAIL**

C7.01 SCALE: N.T.S.



**06 UPSTREAM EDGE ANCHOR TRENCH DETAIL**

C7.01 SCALE: N.T.S.



**02 ALUMINUM DROP STRUCTURE DETAIL**

C7.01 SCALE: N.T.S.

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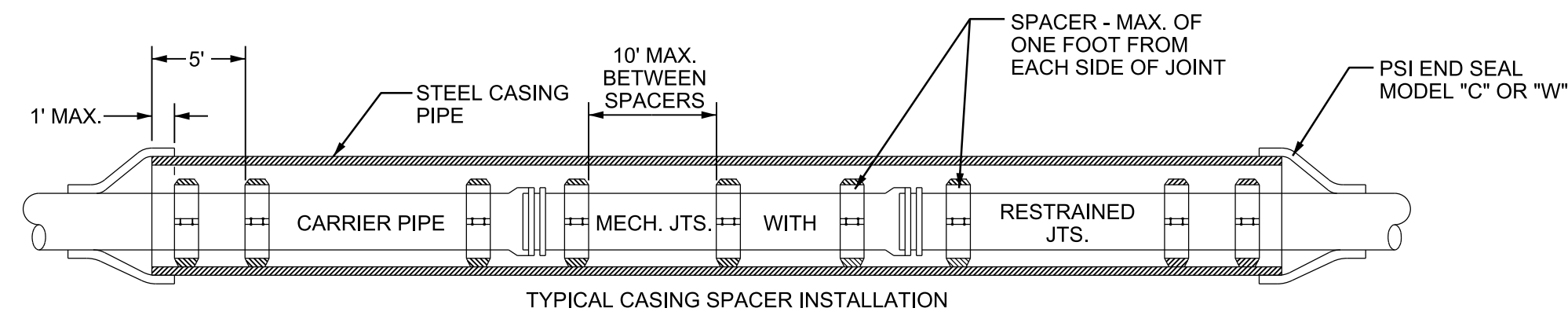
SEWER-BASIN: WN-07  
DRAIN-BASIN: WOLF-RIVER

SHEET 7 OF 10  
**CIVIL-DETAILS**  
**WOLF-RIVER-TRIBUTARY**  
**BANK-STABILIZATION/GRADE-CONTROL**  
CORDOVA, TENNESSEE

WOLF RIVER TRIBUTARY  
SANITARY SEWER INTERCEPTOR  
CORDOVA, TENNESSEE  
DEVELOPER: SARP10  
ENGINEER: BARGE DESIGN SOLUTIONS, INC.

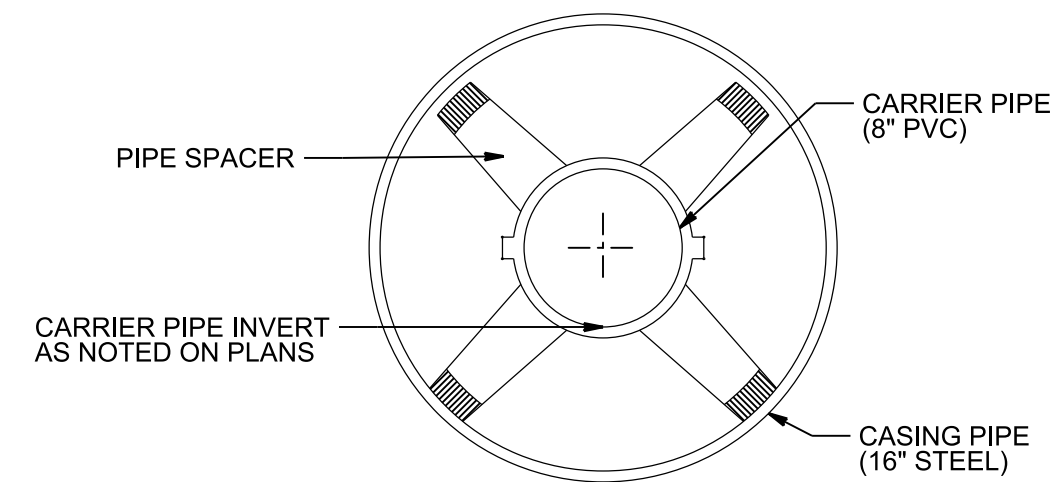
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DESIGN BY: BARGE DATE: 04/21 SCALE: N.T.S.  
DEPUTY-CITY-ENGINEER DATE CITY-ENGINEER DATE

5/27/2021 9:56:05 PM JAWard



NOTES:

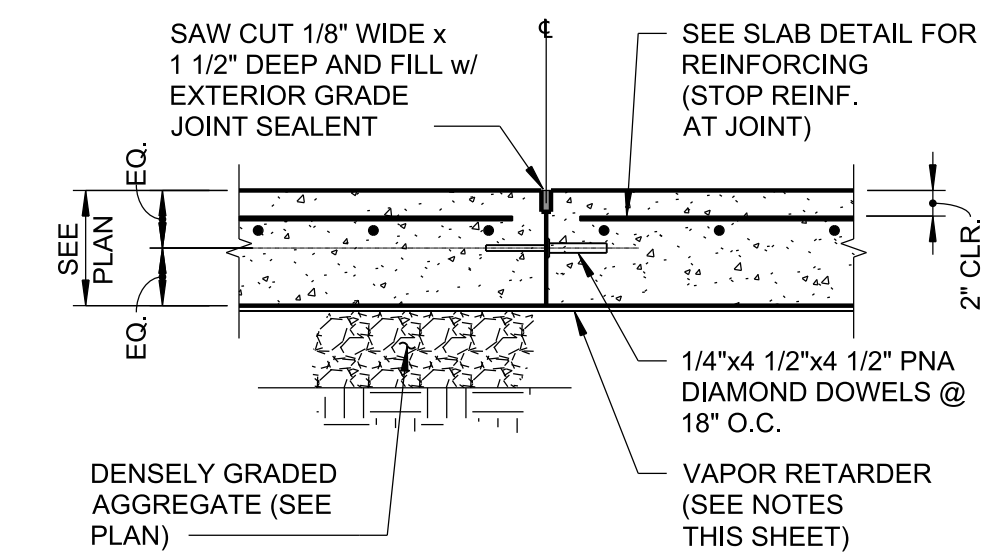
- CASING PIPE SHALL BE CARBON STEEL WITH A MINIMUM SPECIFIED YIELD STRENGTH OF 35,000 PSI.
- CASING PIPE WALL THICKNESS SHALL BE SCHEDULE 20 IN ACCORDANCE WITH ASME/ANSI B36.10.
- CARRIER PIPE SHALL BE RESTRAINED JOINT PVC PIPE.
- SPACERS SHALL BE NON-METALLIC TYPE, RANGER II MADE BY PIPELINE SEAL AND INSULATOR, INC.
- END SEALS SHALL BE MODEL "C" OR "W" AS MADE BY PIPELINE SEAL AND INSULATOR, INC.
- CASINGS TO EXTEND A MINIMUM OF 5' BEYOND THE EDGE OF CONCRETE SUPPORT.
- CASINGS ARE TO BE SIZED TO PROVIDE A MINIMUM OF 2" ANNULAR SPACE BETWEEN THE OUTSIDE OF THE CARRIER PIPE AND THE INTERIOR OF THE CASING PIPE.
- MINIMUM CASING SIZES DO NOT ACCOUNT FOR LONGITUDINAL SLOPE OF GRAVITY PIPES.
- CASING SPACERS SHALL BE BOLTED CIRCULAR STAINLESS STEEL BANDS.
- RUNNERS SHALL BE GLASS FILLED POLYMER WITH BEVELED ENDS.



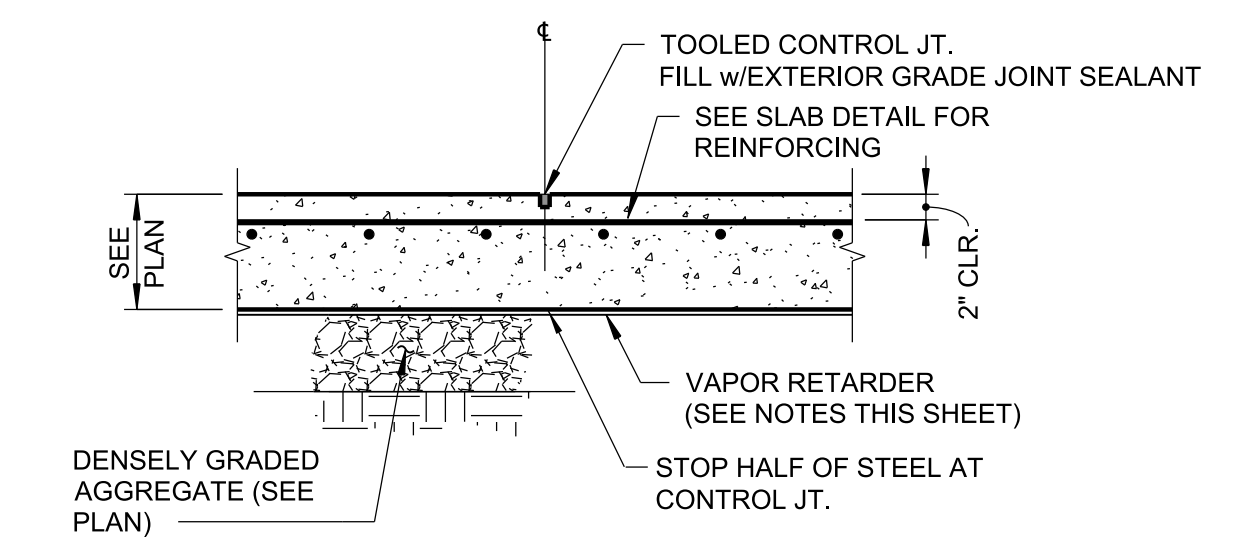
CARRIER PIPE DIA. NOM. PIPE SIZE	DIP BELL OD	MIN. CASING PIPE DIA.	
		NOM. PIPE SIZE	PIPE ID
4"	6.86	12"	12.75
6"	8.75	14"	13.376
8"	11.05	16"	15.376
10"	13.15	18"	17.376
12"	15.05	20"	19.25
14"	17.85	24"	23.25
16"	20.00	26"	25
18"	22.10	28"	27

NOTE: MINIMUM CASING PIPE WALL THICKNESS IS SCHEDULE 20.

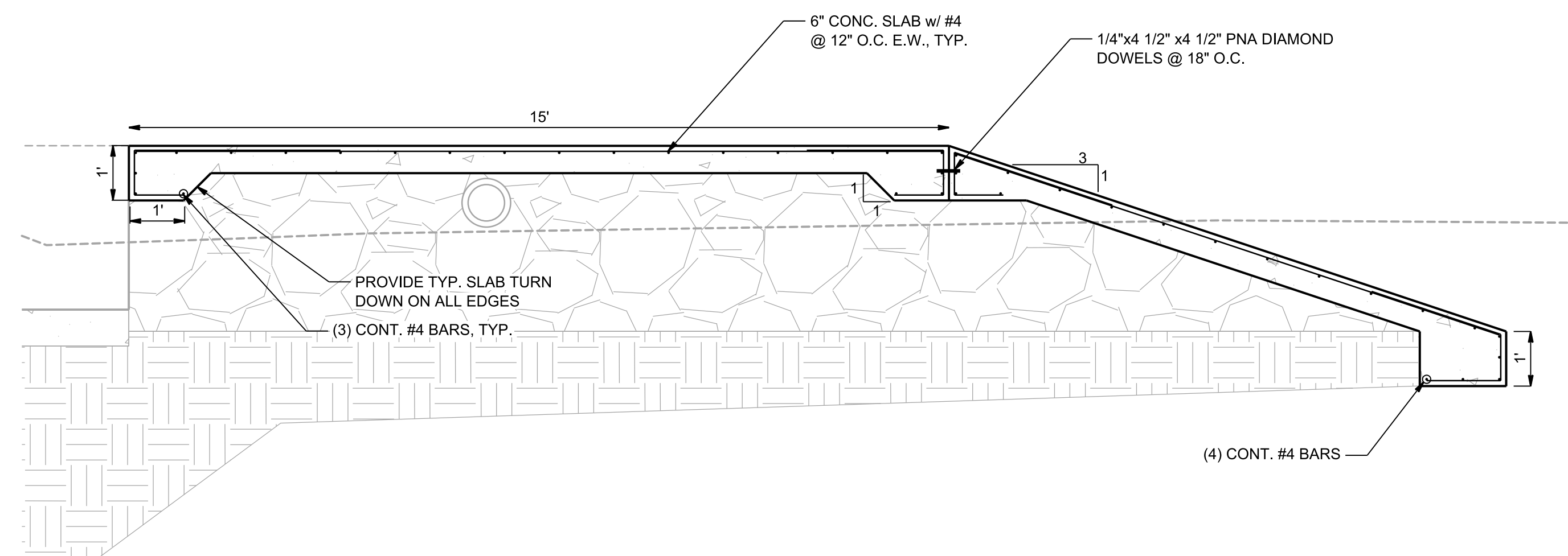
**01 STEEL CASING PIPE DETAIL**  
C7.02 SCALE: N.T.S.



**03 TYPICAL SLAB CONSTRUCTION JOINT**  
C7.02 SCALE: N.T.S.



**04 TYPICAL SLAB CONTROL JOINT**  
C7.02 SCALE: N.T.S.



**02 SLAB DETAIL**  
C7.02 SCALE: 1" = 2'

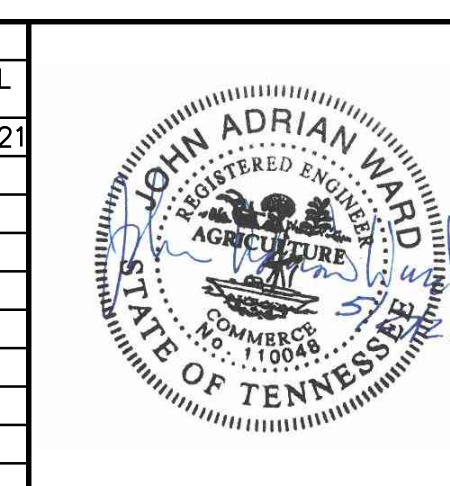
CONCRETE NOTES:

- MINIMUM 28 DAY CONCRETE COMPRESSIVE STRENGTH SHALL BE 4000 PSI
- CONCRETE SHALL BE PROPORTIONED, BATCHED, MIXED, PLACED, CONSOLIDATED, AND CURED IN ACCORDANCE WITH ACI 301, 304, 306, 309 AND 318.
- ALL CONCRETE EXPOSED TO WEATHER SHALL BE AIR ENTRAINED.
- EXPOSED CONCRETE SURFACES SHALL HAVE BROOM FINISH.
- PROVIDE TOOLED CONTROL JOINTS SPACED NO FURTHER THAN 15'-0" APART.
- UNLESS OTHERWISE SHOWN, THE CONCRETE CLEAR COVER AT ALL REINFORCING STEEL SHALL BE:  
CONCRETE CAST AGAINST EARTH 3"  
CONCRETE EXPOSED TO EARTH OR WEATHER 2"  
CONCRETE NOT EXPOSED TO EARTH OR WEATHER 3/4"
- PROVIDE 15 MIL. VAPOR RETARDER UNDERNEATH SLAB.
- PROVIDE 1/4" PER FT. SLOPE FOR DRAINAGE AS REQUIRED.

REINFORCING STEEL NOTES:

- CONCRETE REINFORCING STEEL SHALL BE IN ACCORDANCE WITH ASTM A615 GRADE 60 (DEFORMED BARS)
- REINFORCING STEEL SHALL BE DRY AND FREE OF CONTAMINANTS SUCH AS RUST AND DIRT. GREASE, EPOXY, AND OTHER PROTECTIVE COATINGS SHALL NOT BE APPLIED UNLESS SPECIFICALLY NOTED ON THE DRAWINGS.
- ALL REINFORCING STEEL BAR SPLICES SHALL BE CLASS "B" TENSION LAP SPLICES. MIN. LAP = 15" FOR #4 BAR

REVISION		
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0	100% SUBMITTAL	04/30/2021



WOLF RIVER TRIBUTARY  
SANITARY SEWER INTERCEPTOR  
CORDOVA, TENNESSEE  
DEVELOPER: SARP10  
ENGINEER: BARGE DESIGN SOLUTIONS, INC.

SEWER-BASIN: WN-07  
DRAIN-BASIN: WOLF-RIVER

C7.02

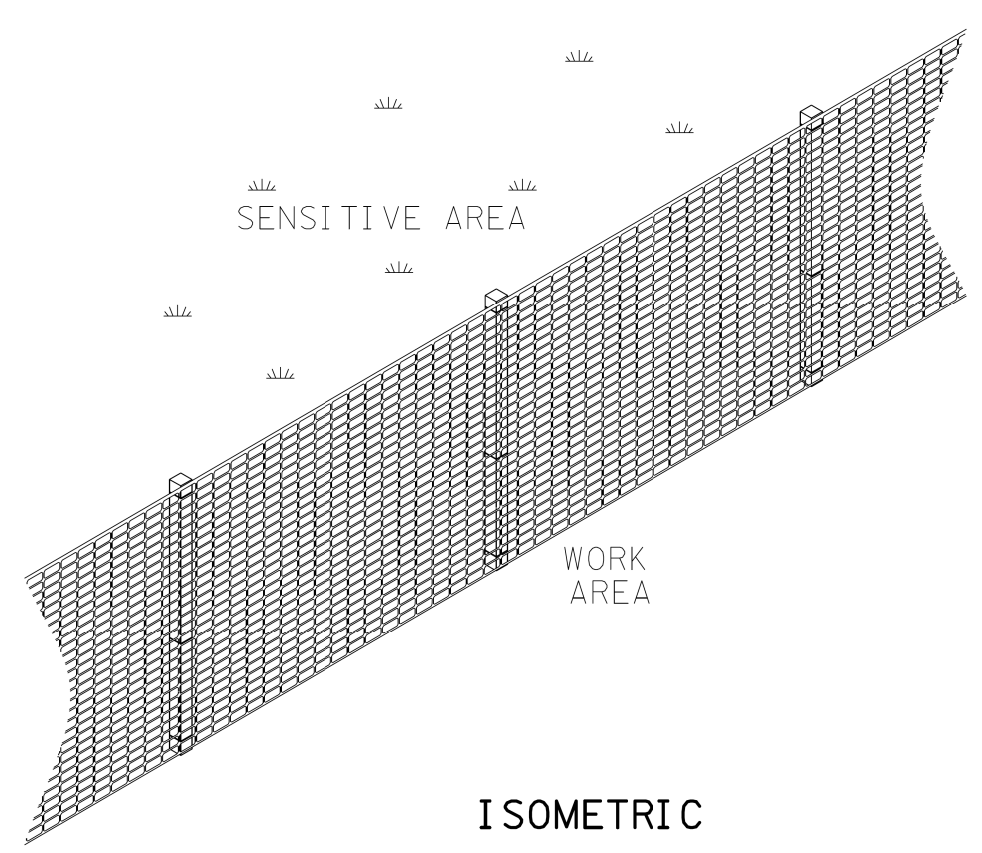
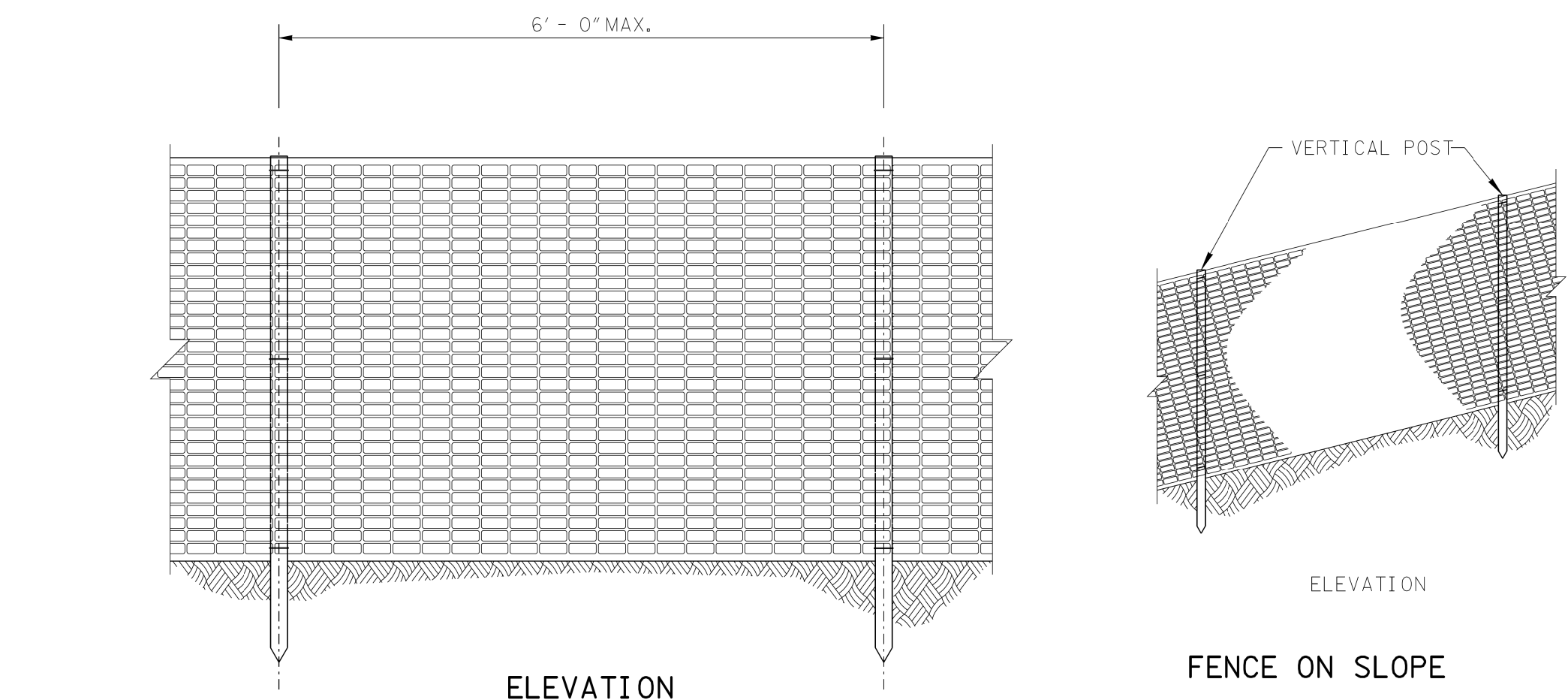
SHEET 8 OF 10

CIVIL-DETAILS  
WOLF-RIVER-TRIBUTARY  
BANK-STABILIZATION/GRADE-CONTROL  
CORDOVA, TENNESSEE

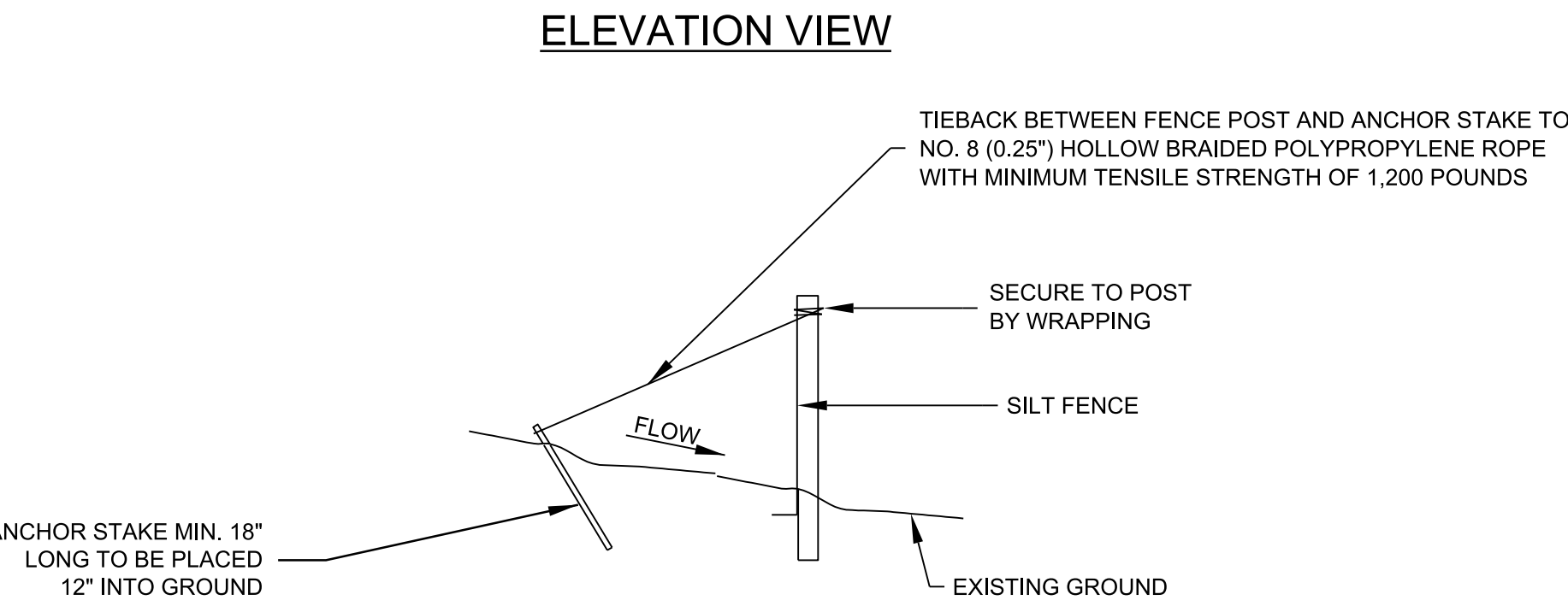
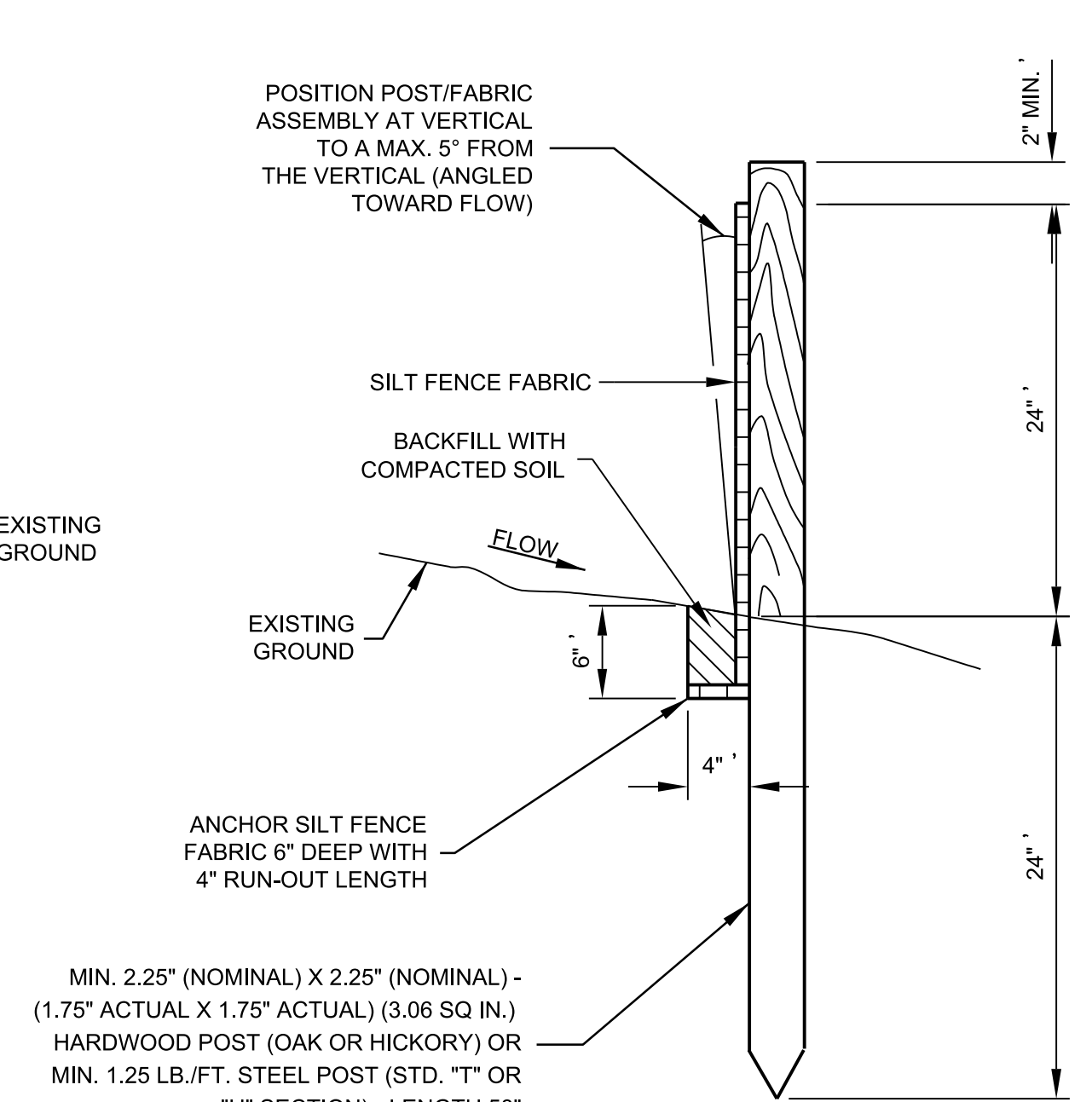
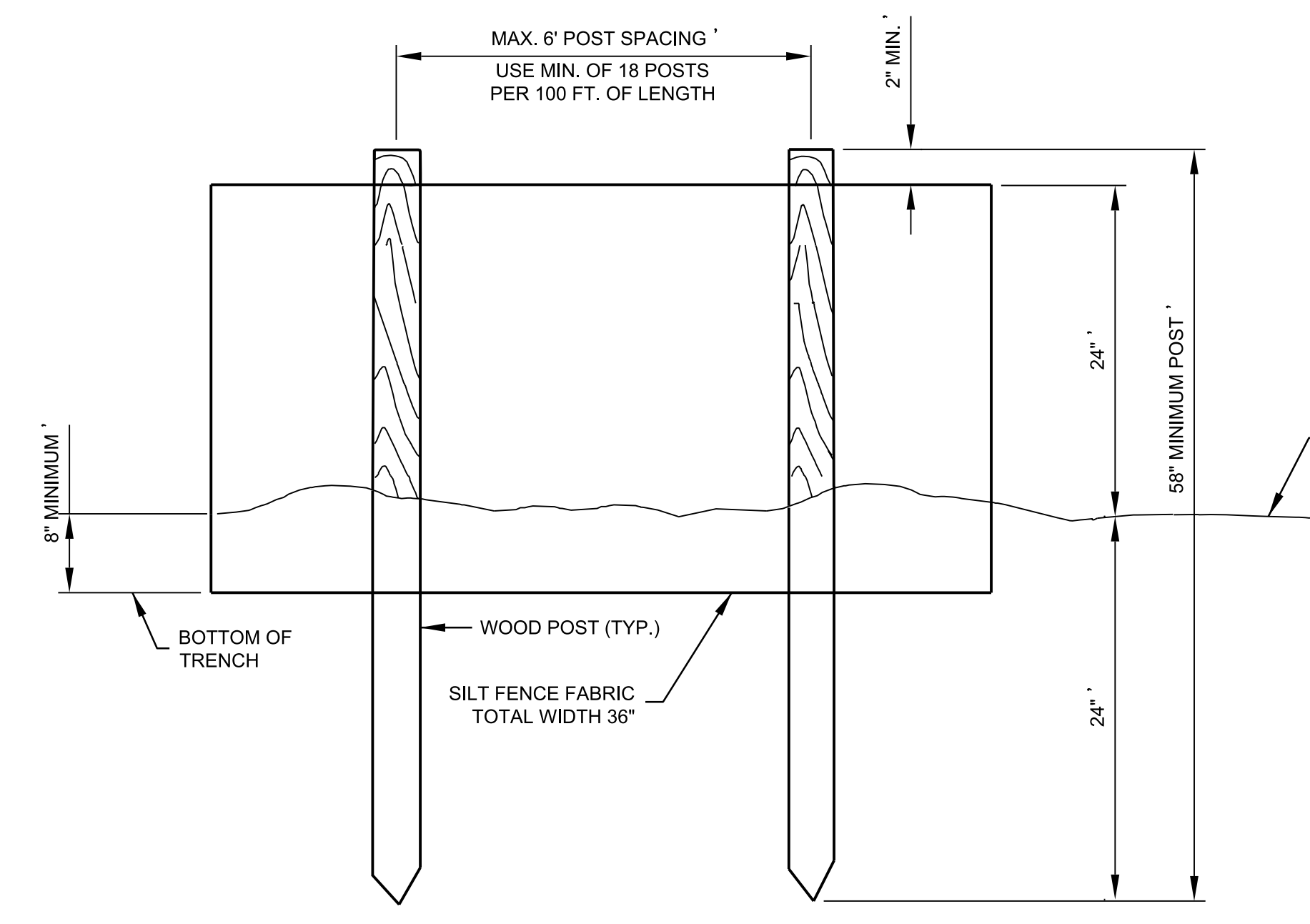
SURVEY: GEODESY DATE: 04/20 PROJECT NO.: 36592-02  
DESIGN BY: BARGE DATE: 04/21 SCALE: N.T.S.

DEPUTY-CITY-ENGINEER DATE CITY-ENGINEER DATE



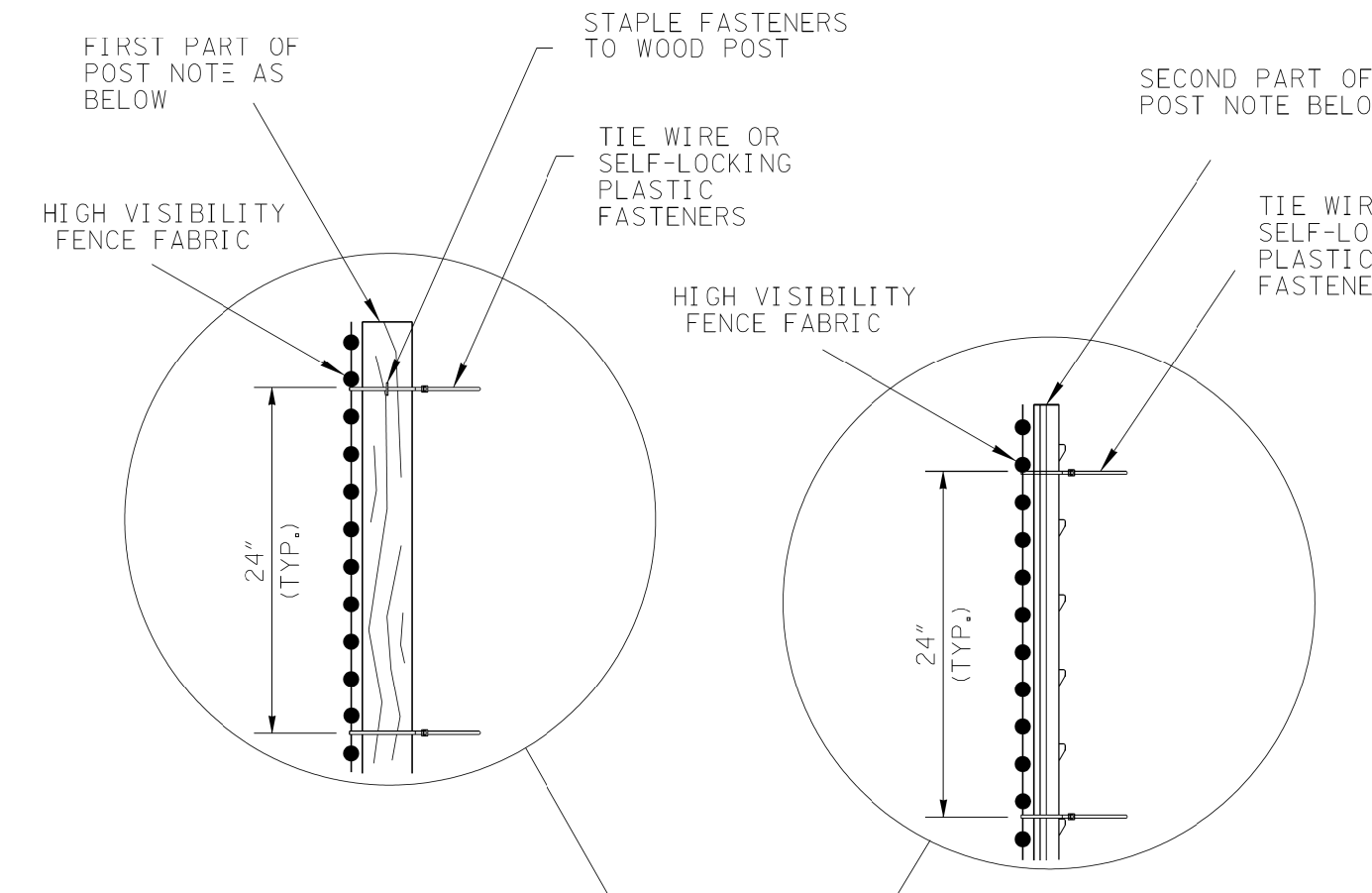


- GENERAL NOTES**
- HIGH VISIBILITY FENCE IS INTENDED TO BE PLACED TO PREVENT DISTURBANCE OF SENSITIVE AREAS, THEIR BUFFERS, AND OTHER AREAS REQUIRED TO BE LEFT UNDISTURBED DURING CONSTRUCTION. IT MAY ALSO BE USED TO MARK APPROVED CLEARING LIMITS AND TO CONTROL VEHICLE ACCESS TO AND ON THE PROJECT SITE.
  - HIGH VISIBILITY FENCE FABRIC SHALL BE MACHINED PRODUCED ORANGE COLORED MESH MANUFACTURED FROM POLYPROPYLENE OR POLYETHYLENE. IT SHALL BE FULLY STABILIZED ULTRAVIOLET RESISTANT.
  - HIGH VISIBILITY FENCE FABRIC MAY BE MADE FROM RECYCLED MATERIALS. MATERIALS SHALL NOT CONTAIN BIODEGRADABLE FILLER MATERIALS THAT CAN DEGRADE THE PHYSICAL OR CHEMICAL CHARACTERISTICS OF THE FINISHED FABRIC.
  - HIGH VISIBILITY FENCE FABRIC SHALL HAVE A MINIMUM 4 FOOT WIDTH AND SHALL BE FURNISHED IN ONE CONTINUOUS WIDTH AND SHALL NOT BE SPLICED TO CONFORM TO THE SPECIFIED WIDTH DIMENSION.
  - STEEL POST SHALL BE ROLLED FROM HIGH CARBON STEEL AND SHALL HAVE A MINIMUM WEIGHT OF 1.25 LB./FT. POST SHALL BE HOT-DIPPED GALVANIZED OR PAINT. STEEL POST MAY BE EQUIPPED WITH AN ANCHOR PLATE HAVING A MINIMUM AREA OF 14 SQUARE INCHES. IF POSTS ANCHOR PLATES USED THEY SHALL CONFORM TO THE REQUIREMENTS OF ASTM A702.
  - HIGH VISIBILITY FENCE FABRIC SHALL BE FASTENED TO THE POST USING TIE WIRE OR SELF-LOCKING PLASTIC FASTENERS WITH A MAXIMUM FASTENERS SPACING OF 2 FEET. WHEN WOOD POSTS ARE USED THE FASTENERS SHALL BE STAPLED TO THE POST.
  - HIGH VISIBILITY FENCE THAT IS DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED OR REPLACED AT THE CONSTRUCTORS EXPENSE ON THE SAME DAY THE DAMAGE OCCURS.
  - HIGH VISIBILITY FENCE SHALL BE PAID FOR UNDER THE FOLLOWING ITEM NUMBER:  
707-08.11 HIGH VISIBILITY CONSTRUCTION FENCE, PER LF  
PAYMENT SHALL INCLUDE ALL MATERIALS AND LABOR NECESSARY FOR CONSTRUCTION MAINTENANCE, AND REMOVAL OF HIGH VISIBILITY FENCE.



**SECTIONAL VIEW**

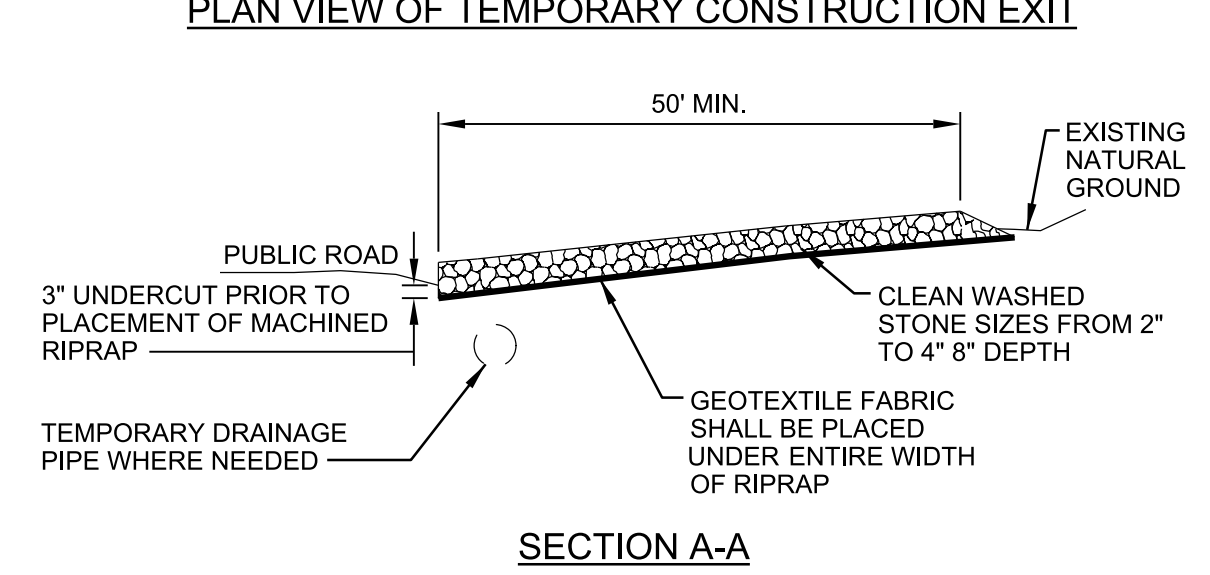
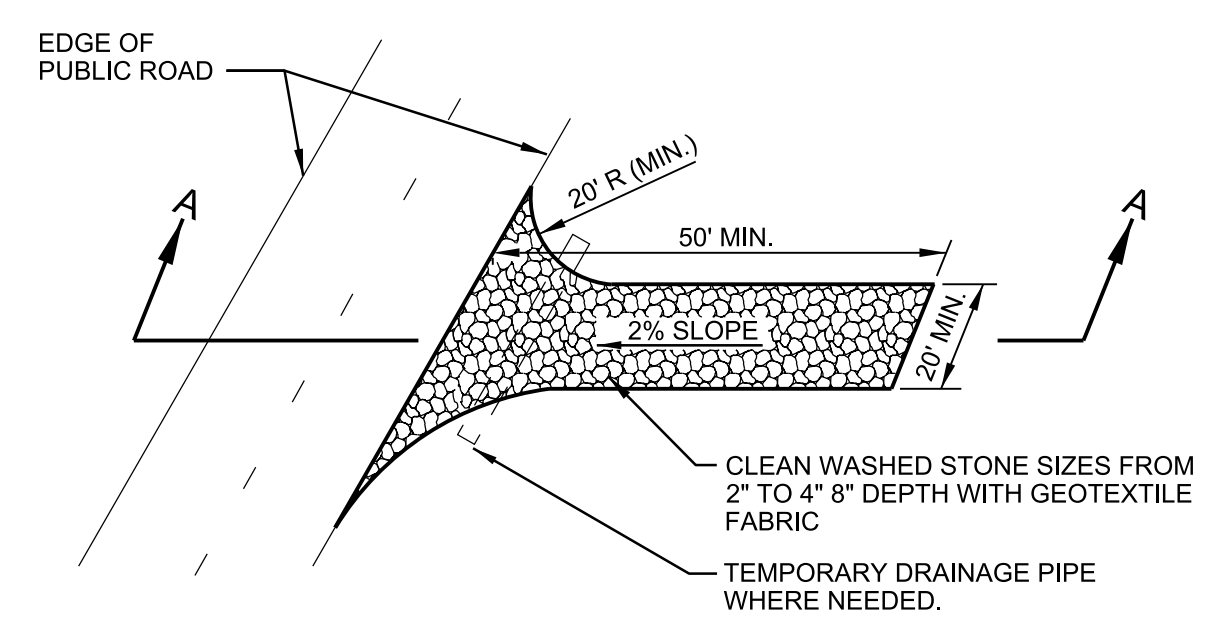
- SILT FENCE NOTES**
- FILTER CLOTH SHALL MEET THE REQUIREMENTS OF THE STANDARD SPECIFICATION FOR GEOTEXTILES AASHTO DESIGNATION: M288, SEDIMENT CONTROL, SELF SUPPORTED.
  - THE FILTER MATERIAL SHALL BE STAPLED TO THE STAKES. HEAVY DUTY WIRE STAPLES WITH 1/2 INCH WIDTH SHALL BE USED AND EVENLY SPACED WITH AT LEAST FOUR PER POST FOR SILT FENCES AND THREE (3) PER POST FOR FILTER BARRIERS. FILTER MATERIAL SHALL NOT BE STAPLED TO EXISTING TREES.
  - MINIMUM (2" NOMINAL X 2" NOMINAL) - (1.5" ACTUAL X 1.5" ACTUAL) (2.25 SQ. IN.) HARDWOOD POST (OAK OR HICKORY) - LENGTH 48" OR MINIMUM 1.33 LB./FT. STEEL POST (STD. OR U SECTION).
  - WHEN STEEL POSTS ARE USED THEY SHALL HAVE A PROTECTION FOR FASTENING WIRE TO THEM. THE WIRE FASTENERS SHOULD BE EVENLY SPACED WITH AT LEAST FIVE PER POST.
  - ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN 12" DEEP.
  - INSTALL FENCE ALONG CONTOUR (NEVER UP AND DOWN SLOPE).
  - SILT FENCE SHALL BE MAINTAINED UNTIL CONTRIBUTING AREA IS STABILIZED WITH PAVEMENT OR VEGETATION. ALL FENCING SHALL BE REMOVED AFTER STABILIZATION AND DISPOSED OF IN AN APPROVED LANDFILL.



**SILT FENCE TIEBACK FOR STEEL POSTS OR WOOD POSTS**

(WHEN REQUIRED BY THE ENGINEER OR NOTED IN THE PLANS. COST TO BE INCLUDED IN THE ITEMS FOR SILT FENCE)

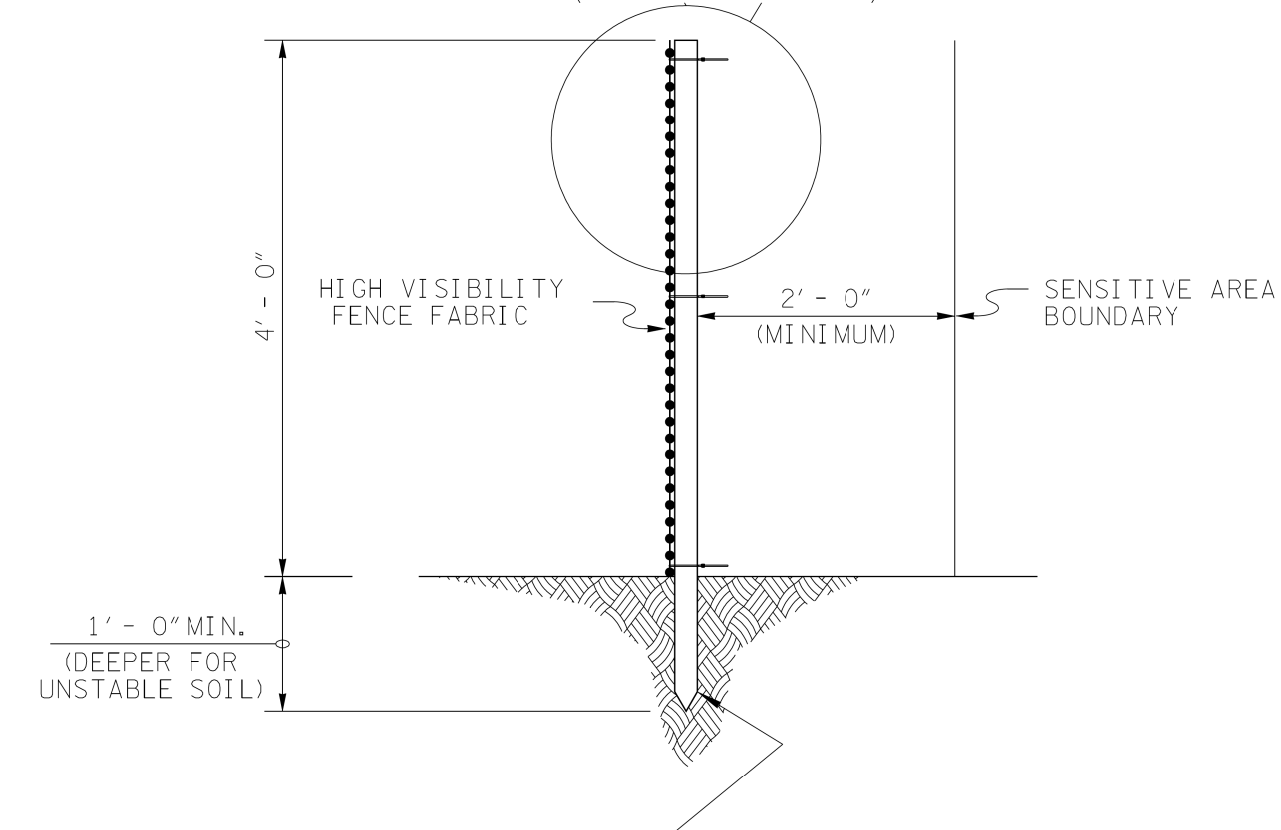
**02 SILT FENCE DETAIL**  
C7.21 SCALE: N.T.S.



**CONSTRUCTION SPECIFICATIONS**

- STONE FOR A STABILIZED CONSTRUCTION EXIT SHALL BE 2 INCH STONE, RECLAIMED STONE, OR RECYCLED CONCRETE EQUIVALENT.
- THE LENGTH OF THE STABILIZED EXIT SHALL NOT BE LESS THAN 50 FEET.
- THE THICKNESS OF THE STONE FOR THE STABILIZED EXIT SHALL NOT BE LESS THAN 6 INCHES.
- THE WIDTH OF THE EXIT SHALL NOT BE LESS THAN THE FULL WIDTH OF THE EXIT WHERE INGRESS OR EGRESS OCCURS OR 20 FEET, WHICH EVER IS GREATER.
- GEOTEXTILE FILTER CLOTH SHALL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING THE STONE. FABRIC SHALL BE 12 OZ./S.Y. NON-WOVEN.
- ALL SURFACE WATER THAT IS FLOWING TO OR DIVERTED TOWARD THE CONSTRUCTION EXIT SHALL BE PIPED BENEATH THE EXIT. IF PIPING IS IMPRACTICAL, A BERM WITH 5:1 SLOPES THAT CAN BE GROSSED BY VEHICLES MAY BE SUBSTITUTED FOR THE PIPE.
- THE EXIT SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOPDRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, WASHED, OR TRACKED ONTO PUBLIC RIGHT-OF-WAY MUST BE REMOVED PROMPTLY.

**03 TEMPORARY CONSTRUCTION EXIT DETAIL**  
C7.21 SCALE: N.T.S.



**01 CONSTRUCTION FENCE DETAIL**  
C7.21 SCALE: N.T.S.

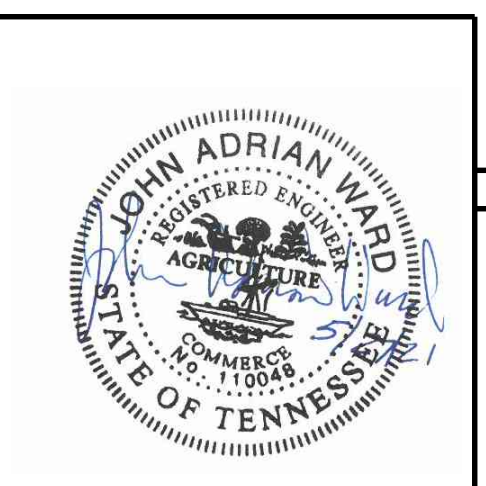
PERMANENT COVER SEEDING MIXTURES			
KIND	GROUP A % BY WEIGHT	GROUP B % BY WEIGHT	GROUP C % BY WEIGHT
LESPEDEZA (COMMON OR KOREAN)	20	-	-
SERICEA LESPEDEZA	15	-	50
KY. 31 FESCUE	40	55	30
ENGLISH RYE	15	20	15
WHITE DUTCH CLOVER	5	5	5
WEEPING LOVE GRASS	5	5	-
REDTOP	-	15	-
<b>TOTAL</b>	<b>100</b>	<b>100</b>	<b>100</b>

TIME OF SOWING & SEEDING MIXTURE REQUIRED	
FEBRUARY 1 TO AUGUST 1	USE GROUP A ONLY
MONTH OF AUGUST ONLY	USE EITHER GROUP A OR GROUP B
SEPTEMBER 1 TO DECEMBER 1	USE GROUP B ONLY
DECEMBER 1 TO FEBRUARY 1	DO NOT SOW ANY SEED
FEBRUARY 1 TO DECEMBER 1	USE GROUP C ONLY WHEN SPECIFIED ON PLANS OR CONTRACT DOCUMENTS

**04 COVER SEEDING MIXTURE DETAIL**  
C7.21 SCALE: N.T.S.

REVISION		
ITEM NO.	DESCRIPTION OF CHANGE	APPROVAL DATE
0	100% SUBMITTAL	04/30/2021

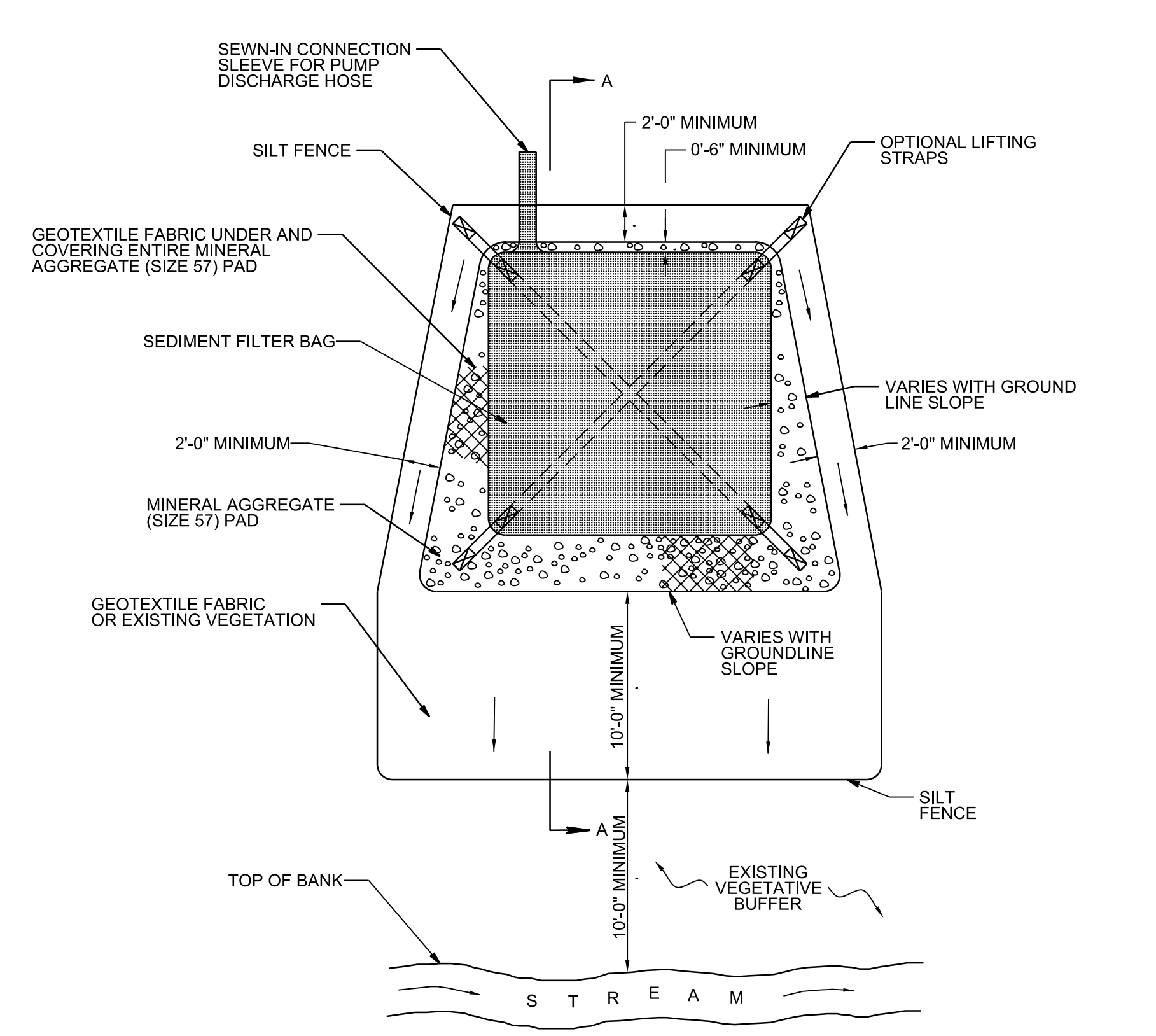


SEWER-BASIN: WN-07  
DRAIN-BASIN: WOLF-RIVER

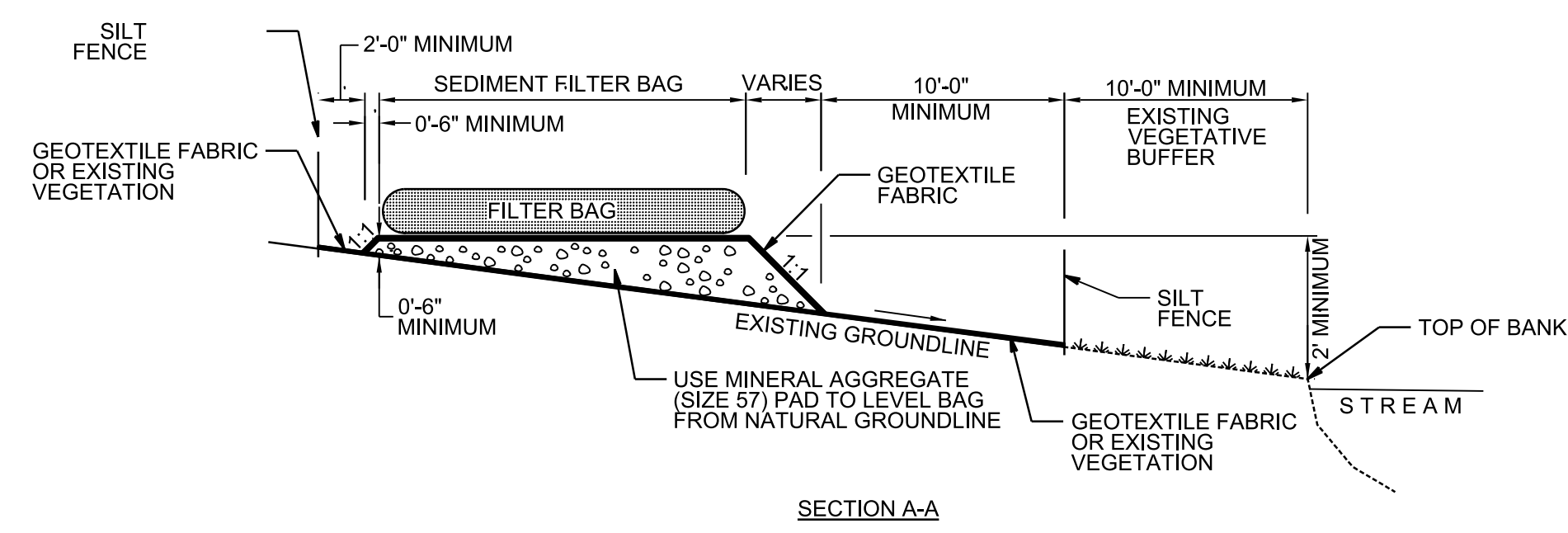
SHEET 9 OF 10  
**EROSION-CONTROL-DETAILS**  
WOLF-RIVER-TRIBUTARY  
BANK-STABILIZATION/GRADE-CONTROL  
CORDOVA, TENNESSEE

WOLF RIVER TRIBUTARY  
SANITARY SEWER INTERCEPTOR  
CORDOVA, TENNESSEE  
DEVELOPER: SARP10  
ENGINEER: BARGE DESIGN SOLUTIONS, INC.

SURVEY: GEODESY DATE: 04/20 PROJECT NO.: 36592-02  
DESIGN BY: BARGE DATE: 04/21 SCALE: N.T.S.  
REVIEWED  
DEPUTY-CITY-ENGINEER DATE CITY-ENGINEER DATE

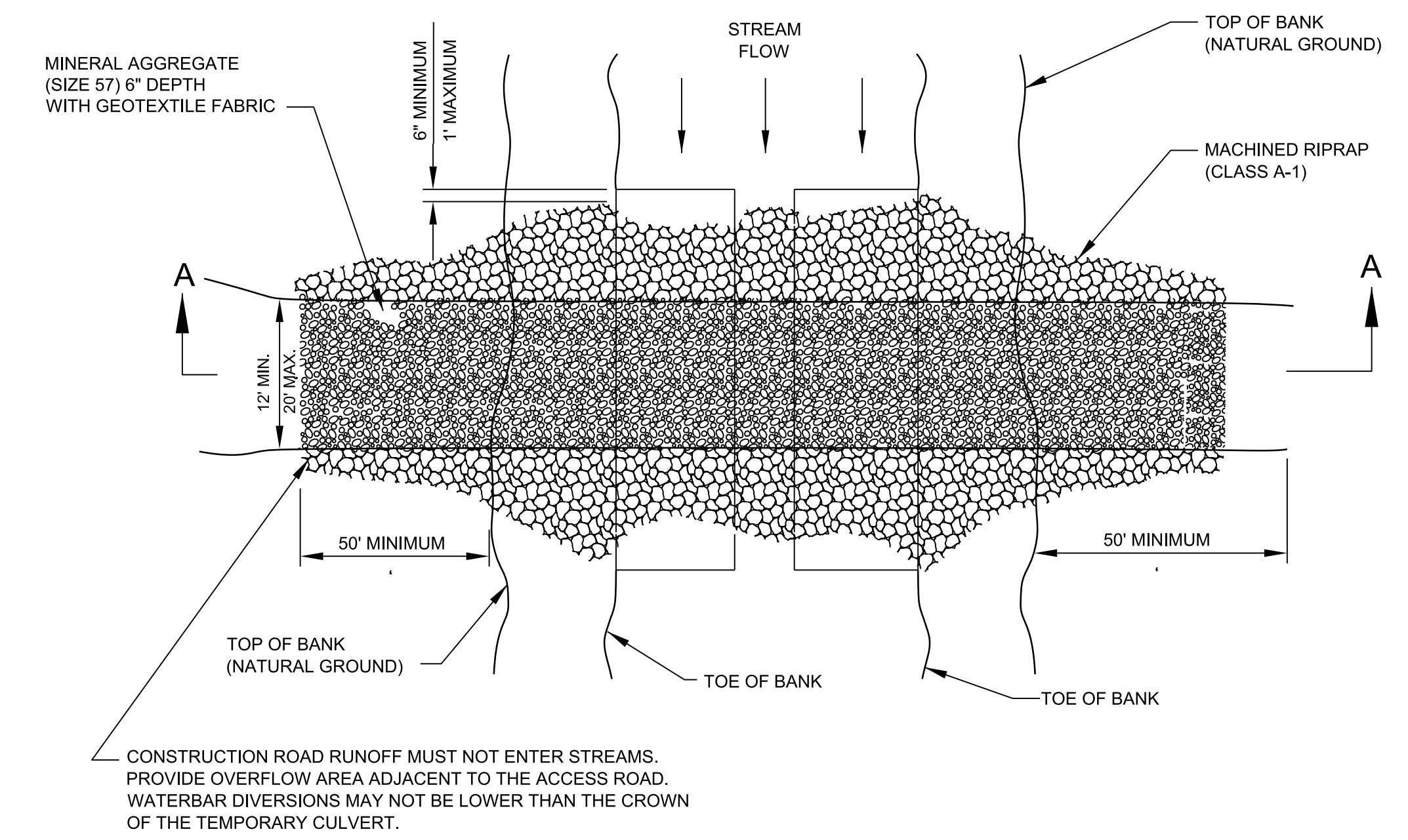


PLAN VIEW

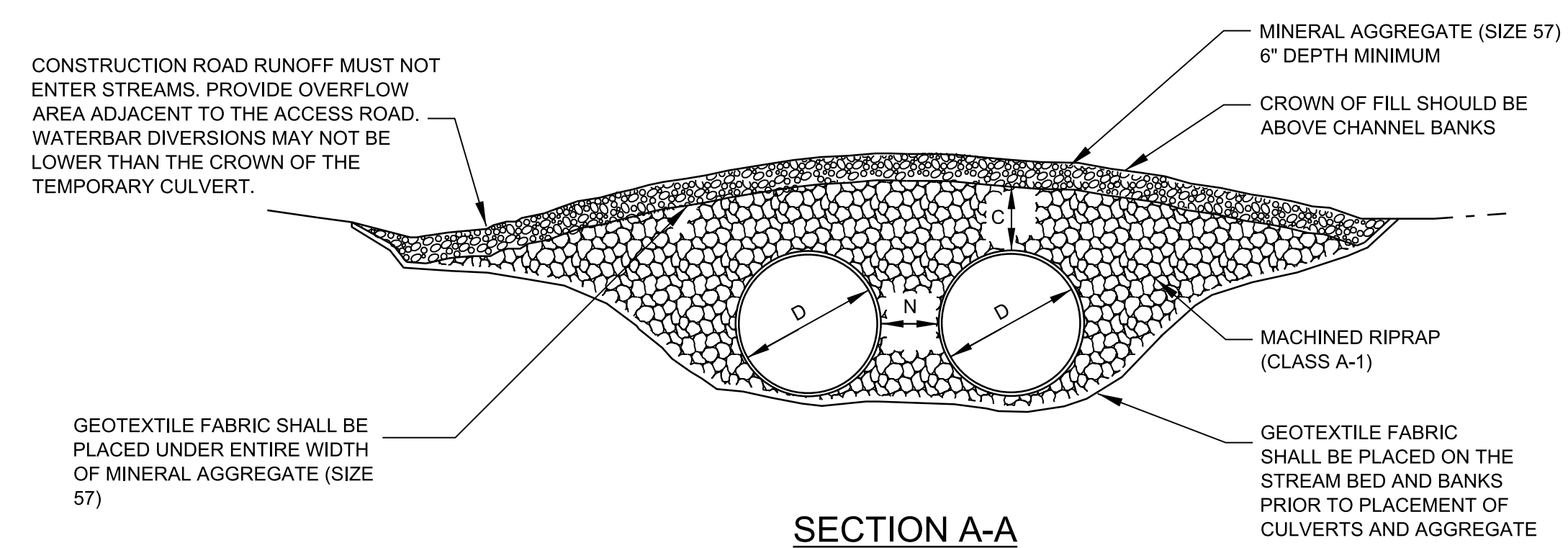


SECTION A-A

01 SEDIMENT FILTER BAG DETAIL  
C7.22 SCALE: N.T.S.



PLAN VIEW OF TEMPORARY CULVERT CROSSING

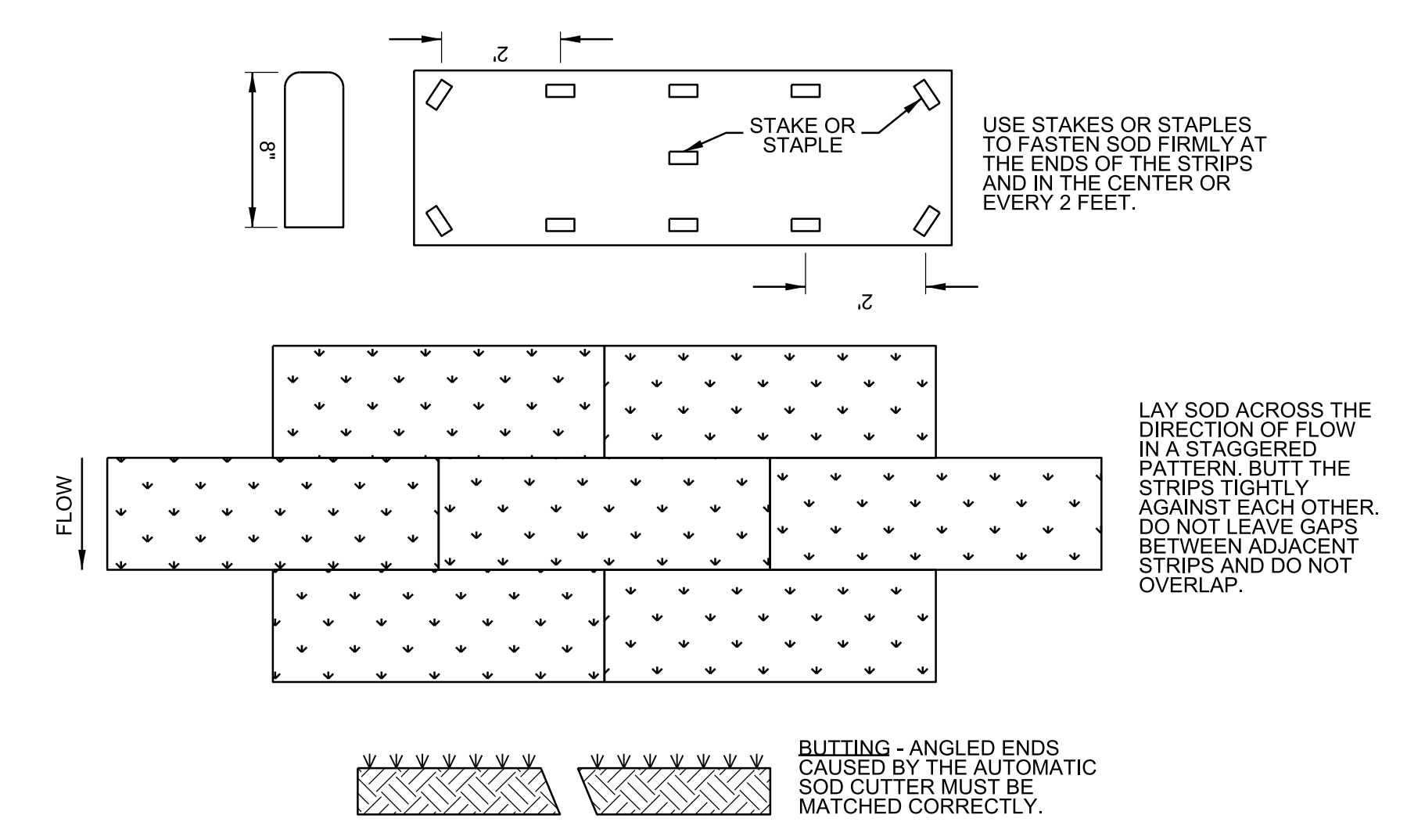


SECTION A-A

C = 1/2 DIAMETER OF PIPE OR 18" WHICHEVER IS GREATER  
 N = 1/2 DIAMETER OF PIPE OR 12" WHICHEVER IS GREATER  
 D = 36"

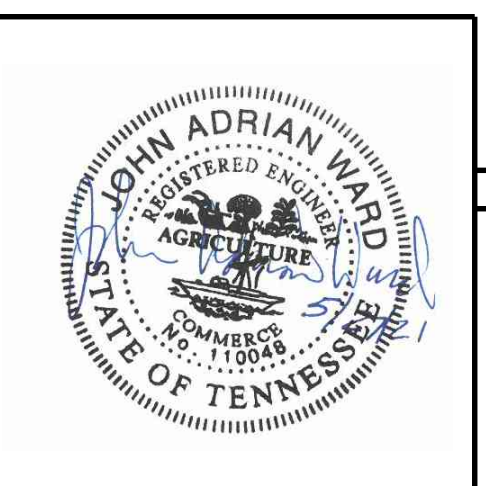
PIPE DIAMETER (INCHES)	AVERAGE CHANNEL SLOPE						FLOW (CFS)
	0.5%	1.0%	1.5%	2.0%	2.5%	3.0%	
2 - 36	51.1	72.3	88.5	102.2	114.3	125.1	
RIPRAP	B	B	B	B	B/C	B/C	

02 TEMPORARY CULVERT CROSSING DETAIL  
C7.22 N.T.S.



03 SOD INSTALLATION DETAIL  
7.22 SCALE: N.T.S.

REVISION		
ITEM NO.	DESCRIPTION OF CHANGE	APPROVAL DATE
0	100% SUBMITTAL	04/30/2021



SEWER-BASIN: WN-07  
 DRAIN-BASIN: WOLF-RIVER  
 SHEET 10 OF 10

EROSION-CONTROL-DETAILS  
 WOLF-RIVER-TRIBUTARY  
 BANK-STABILIZATION/GRADE-CONTROL  
 CORDOVA, TENNESSEE

WOLF RIVER TRIBUTARY  
 SANITARY SEWER INTERCEPTOR  
 CORDOVA, TENNESSEE  
 DEVELOPER: SARP10  
 ENGINEER: BARGE DESIGN SOLUTIONS, INC.

SURVEY: GEODESY DATE: 04/20 PROJECT NO.: 36592-02  
 DESIGN BY: BARGE DATE: 04/21 SCALE: N.T.S.  
 REVIEWED  
 DEPUTY-CITY-ENGINEER DATE CITY-ENGINEER DATE

5/28/2021 12:27:34 PM JAWard