



**Request for Bid
Stream Crossing Stabilization Construction Pkg A
Addendum No. 3 to
RFB No. 405569.71.0410
August 20, 2020**



The following information encompasses Addendum No. 3 for the above referenced RFB. Bidders shall fully consider and acknowledge this Addendum in the preparation and submittal of its formal Bid. Failure to do so may result in the rejection of the Bid.

Section 1 – Updated 00370.3 Bid Pricing Information

Section 2 – Updated Drawings for Fletcher Creek East Site

All other conditions and requirements remain unchanged.

**Section 1
Updated 00370.3 Bid Pricing Information**

Table 00370.3.1 - Unit Price Bid Form

Bidder should refer to Section 00270, Instructions to Bidders, when completing this Bid Form. Bidder shall complete this form entirely and return it with Bidder's Bid.					
Bid Submitted by: (Company Name)					
00370.3 Bid Pricing Information					
00370.3.1 Unit Pricing					
Bidder proposes to complete the RFB Work based on firm, fixed, unit prices (US dollars), which prices multiplied by the final Work quantities would represent the full consideration to Bidder for its complete and satisfactory performance of the Work in compliance with all the terms and conditions of the RFB Documents. The Unit Prices in this Table include the cost of all the work which is required or implied by the RFB documents or which may be inferred therefrom, and which is customarily provided in furnishing a complete and finished work item of its kind. Further, any and all alterations, modifications, and adjustments to the work item, which is reasonably foreseeable or customarily encountered in providing and installing equipment, material, and services of the work item kind, will be performed without additional compensation.					
In the event of a Purchaser-approved change in the scope of Work for which a unit price from this Table is not applicable, as determined by the Purchaser, the Subcontractor shall provide a new unit price for review and acceptance by the Purchaser. Subcontractor shall provide all information requested by the Purchaser to substantiate the value of the new unit price.					
00370.3.1.1 Unit Prices Breakdown				Bidder Response Columns	
Item Number	Item Description	Unit of Measure	Estimated Quantity	Unit Price	Extension Price
71.0410 Stream Crossing Stabilization Construction Pkg A					
Fletcher Creek East					
00000-01	Mobilization	Lump Sum	1		\$ -
00000-02	Construction Stakes, Lines And Grades	Lump Sum	1		\$ -
01560-01	Geotextile (Type Iii) Erosion Control	Square Yard	1,200		\$ -
01560-02	Sediment Filter Bag (15' X 10')	Each	1		\$ -
01560-03	Temporary Silt Fence (With Backing)	Linear Foot	470 400		\$ -
01560-04	High-Visibility Construction Fence	Linear Foot	640 500		\$ -
01560-05	Construction Exit	Each	1		\$ -
02631-01	Mineral Aggr, Ty A Base, Grading D (2.03 Tons/Cy)	Ton	300		\$ -
01560-06	Temporary Crossing	Each	1		\$ -
01560-07	Stream By-Pass Pumping	Lump Sum	1		\$ -
01560-08	Sandbags	Each	6,000		\$ -
	Allowances (Curb/Gutter, Pavement, Sidewalk)	Allowance	4		\$ -
02370-01	Machined Rip-Rap (Class A-1) W/ Grout	Cubic Yard	400 150		\$ -
02370-02	Soil Compaction Test	Each	2		\$ -
02371-01	Reinforced Turf (Armormax)	Square Foot	7,200 6,150		\$ -
02382-01	Concrete Block Mat (Armorflex 50)	Square Foot	14,200 12,000		\$ -
02530-6.01	Locate And Expose Mainline Terminus	Each	1		\$ -
02530-6.06	Bypass Pumping	Lump Sum	1		\$ -
02530-6.11	Class A Concrete (Encasements/Supports)	Cubic Yard	70		\$ -
02630-4.01.A	Site Preparation And Restoration	Lump Sum	1		\$ -
02631-04	Unlined Channel	Linear Foot	150		\$ -
02632-07	Drainage Structure Removal	Each	1		\$ -
02920-4.01	Stripping And Replacing Topsoil	Cubic Yard	300 350		\$ -
02920-5.01	Seeding (With Mulch)	Unit	20		\$ -
02920-5.02	Seeding (Without Mulch)	Unit	20		\$ -
02950-4.01.A-1	Asphalt Pavement Removal/Replacement	Square Yard	30		\$ -
02950-4.01.B	Concrete Sidewalk Removal/Replacement	Square Yard	17		\$ -
02950-4.01.C	Concrete Curb & Gutter Removal/Replacement	Square Yard Linear Foot	45 100		\$ -
Fletcher Creek East - Subtotal Estimated Unit Price Value					\$ -

Item Number	Item Description	Unit of Measure	Estimated Quantity	Unit Price	Extension Price
Cypress Creek					
00000-01	Mobilization	Lump Sum	1		\$ -
00000-02	Construction Stakes, Lines And Grades	Lump Sum	1		\$ -
01560-01	Geotextile (Type Iii) Erosion Control	Square Yard	550		\$ -
01560-02	Sediment Filter Bag (15' X 10')	Each	1		\$ -
01560-03	Temporary Silt Fence (With Backing)	Linear Foot	200		\$ -
01560-04	High-Visibility Construction Fence	Linear Foot	350		\$ -
01560-05	Construction Exit	Each	1		\$ -
02631-01	Mineral Aggr, Ty A Base, Grading D (2.03 Tons/Cy)	Ton	110		\$ -
01560-07	Stream By-Pass Pumping	Lump Sum	1		\$ -
01560-08	Sandbags	Each	1,000		\$ -
	Allowances (Curb/Gutter, Pavement, Sidewalk)	Allowance	4		\$ -
02370-01.01	Machined Rip-Rap (Class A-1) (1.75 Tons/Cy)	Ton	400		\$ -
02370-02	Soil Compaction Test	Each	2		\$ -
02530-6.01	Locate And Expose Mainline Terminus	Each	1		\$ -
02530-6.03.02	24" Dip	Linear Foot	110		\$ -
02530-6.06	Bypass Pumping	Lump Sum	1		\$ -
02530-6.10	36" Steel Casing	Linear Foot	70		\$ -
02530-6.11	Class A Concrete (Encasements/Supports)	Cubic Yard	5		\$ -
02550-01	24" Harness Restraint	Each	2		\$ -
02551-01	24" Coupling	Each	6		\$ -
02630-4.01.A	Site Preparation And Restoration	Lump Sum	1		\$ -
02632-07	Drainage Structure Removal	Each	2		\$ -
02920-4.01	Stripping And Replacing Topsoil	Cubic Yard	150		\$ -
02920-5.01	Seeding (With Mulch)	Unit	10		\$ -
02950-4.01.A-1	Asphalt Pavement Removal/Replacement	Square Yard	30		\$ -
02950-4.01.C	Concrete Curb & Gutter Removal/Replacement	Square Yard Linear Foot	45 <u>100</u>		\$ -
Cypress Creek - Subtotal Estimated Unit Price Value					\$ -
71.0410 Stream Crossing Stabilization Construction Pkg A - TOTAL Estimated Unit Price Value					\$ -



**Request for Bid
Stream Crossing Stabilization Construction Pkg A
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RFB No. 405569.71.0410
August 20, 2020**



**Section 2
Updated Drawings for Fletcher Creek East Site**

(full resolution drawings are available on the SARP10 website <http://www.sarp10.com/projects>)

FLETCHER CREEK EAST (WN106375S) BANK STABILIZATION / GRADE CONTROL CITY OF MEMPHIS SEWER ASSESSMENT AND REHABILITATION PROGRAM (SARP10) MEMPHIS, TENNESSEE

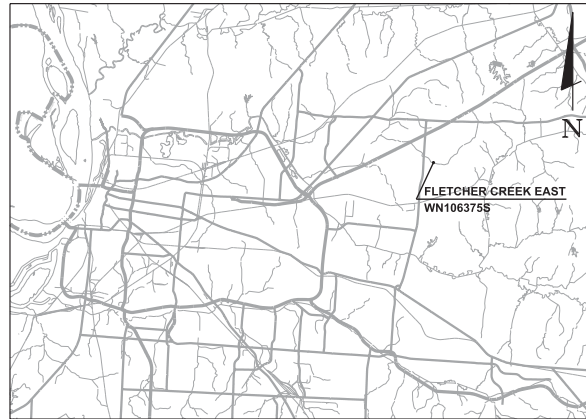
CITY COUNCIL

PATRICE ROBINSON, CHAIRWOMAN
 FRANK COLVETT JR, VICE CHAIRMAN
 RHONDA LOGAN, COUNCILWOMAN
 JAMITA SWEARENGEN, COUNCILWOMAN
 WORTH MORGAN, COUNCILMAN
 EDMUND FORD SR, COUNCILMAN
 MICHALYN EASTER-THOMAS, COUNCILWOMAN
 JB SMILEY JR, COUNCILMAN
 CHEYENNE JOHNSON, COUNCILWOMAN
 MARTAVIUS JONES, COUNCILMAN
 CHASE CARLISLE, COUNCILMAN
 J FORD CANALE, COUNCILMAN
 DR JEFF WARREN, COUNCILMAN

CITY ENGINEER

MANNY BELEN, P.E.

JIM STRICKLAND, MAYOR



LOCATION MAP

NOT TO SCALE

INDEX OF DRAWINGS

SHEET NO.	DESCRIPTION
C0.01	CIVIL COVER SHEET
C0.31	EXISTING CONDITIONS
C1.01	SITE PLAN AND PROFILE
C2.41	EROSION CONTROL PLAN PHASE I
C2.51	EROSION CONTROL PLAN PHASE II
C3.01	UTILITY PLAN AND PROFILE
C6.01	CROSS SECTIONS
C7.01	CIVIL DETAILS
C7.02	CIVIL DETAILS
C7.21	EROSION CONTROL DETAILS
C7.22	EROSION CONTROL DETAILS



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 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.
5. NEWLY CUT OR FILLED EMBANKMENTS SHALL BE SODDED OR SEEDED AND MULCHED TO ADEQUATELY PREVENT SOIL EROSION. STAKE SOD SLOPES 3:1 OR GREATER.
6. ALL GRADING WORK SHALL BE PERFORMED IN SUCH A MANNER THAT ADJACENT PROPERTIES ARE NOT DAMAGED OR ADVERSELY AFFECTED.
7. 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.
8. 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).
9. ALL AREAS TO BE FILLED SHALL BE PROPERLY CLEARED AND STRIPPED PRIOR TO BEGINNING THE FILLING OPERATION.
10. THE CONTRACTOR IS TO INSTALL EROSION AND SEDIMENT CONTROL SYSTEMS AND STRUCTURES AS NECESSARY TO PREVENT SEDIMENT LADEN WATER FROM LEAVING THE SITE.
11. ALL RIP-RAP SHALL BE PLACED ON NON-HOVEN GEOTEXTILE, OR APPROVED EQUAL.
12. 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 RIP-RAP, OR GROUTING OF ANY RIP-RAP WILL BE IN DRY CONDITIONS.
13. CONTRACTOR IS RESPONSIBLE FOR AND SHALL PAY FOR ALL PROJECT TESTING, SOIL AND OTHER MATERIAL TESTING SHALL BE PERFORMED BY A LICENSED GEOTECHNICAL FIRM.
14. 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 PERMITS. FOR SITE LOCATIONS OF EXISTING UTILITIES INCLUDING M.G.A.W., SOUTH CENTRAL BELL, AND/OR TVA, CALL 1-800-351-1111. FOR SEWER AND/OR WATER SERVICE LOCATIONS, CALL 901-958-9922.
3. CONTRACTOR SHALL MAINTAIN ACCESS TO ALL PROPERTIES.
4. CONTRACTOR SHALL NOTIFY THE CITY OF MEMPHIS CONSTRUCTION INSPECTION OFFICE AT 901-638-2462 A MINIMUM OF 24 HOURS PRIOR TO BEGINNING ANY CONSTRUCTION.
5. ALL AREAS IN CUT OR FILL WHERE VEGETATION HAS BEEN REMOVED SHALL BE SEEDED, MULCHED, FERTILIZED, AND/OR SODDED AS REQUIRED TO PREVENT EROSION, UNLESS OTHERWISE NOTED ON PLANS. SOD SLOPES AND 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 EXISTING DRAINAGE SYSTEM AND/OR ONTO ADJACENT PROPERTIES.
8. THE CONTRACTOR SHALL MAINTAIN BARRICADES, FENCES, GUARDS, AND FLAMEN AS REASONABLY NECESSARY TO ENSURE THE SAFETY OF ALL PERSONS AT OR NEAR THE PROJECT SITE DURING CONSTRUCTION. ALL CONSTRUCTION MATERIAL, INCLUDING, BUT NOT LIMITED TO, DIRT, CURB AND GRAVEL SHALL BE KEPT OFF EXISTING STREETS AT ALL TIMES. IN THE EVENT SUCH MUD, SOIL, DIRT, GRAVEL OR OTHER CONSTRUCTION MATERIAL IS WASHED, BLOWN, OR CARRIED INTO A STREET, THE DEVELOPER 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 'AE' (AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD EVENT DETERMINED BY DETAILED METHODS) AS PER FLOOD LINES ESTABLISHED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY AS SHOWN ON FLOOD INSURANCE RATE MAP NUMBER 47107C0218G, DATED FEBRUARY 06, 2013. THE NEAREST SFB IS 290.5.

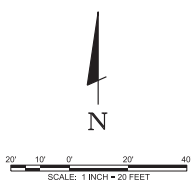
STREAM WATER FLOW WILL BE 6138 CFS IN THE EVENT OF A 100-YEAR STORM EVENT.

BENCHMARK NOTE:

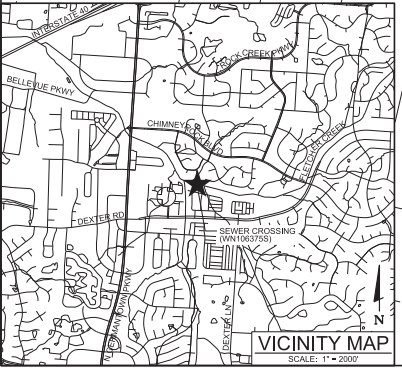
CITY OF MEMPHIS BENCHMARK #130 - CHIMNEYROCK BLVD. & KINGS CROSS LN: CITY MONUMENT IS LOCATED ON THE SE COR. AT P.I. OF FRONT OF SWALK AT S. END OF HCAR RAMP. 4' NE OF A MTL. ST. SIGN. 50' W. OF NW COR. HOUSE # 8391. ELEV. 308.05

LEGEND:

- EXISTING PROPERTY BOUNDARY
- EXISTING MINOR CONTOUR
- EXISTING MAJOR CONTOUR
- SA- EXISTING SANITARY SEWER LINE
- ⊙ EXISTING MANHOLE



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REVISION	DESCRIPTION OF CHANGE	APPROVAL DATE

FLETCHER CREEK EAST
BANK STABILIZATION/GRADE CONTROL
CORDOVA, TENNESSEE
ENGINEER: SARP10
ENGINEER: BARGE DESIGN SOLUTIONS, INC.

SEWER-BASIN: WN-10
DRAIN-BASIN: FLETCHER-CREEK

SHEET 2 OF 11

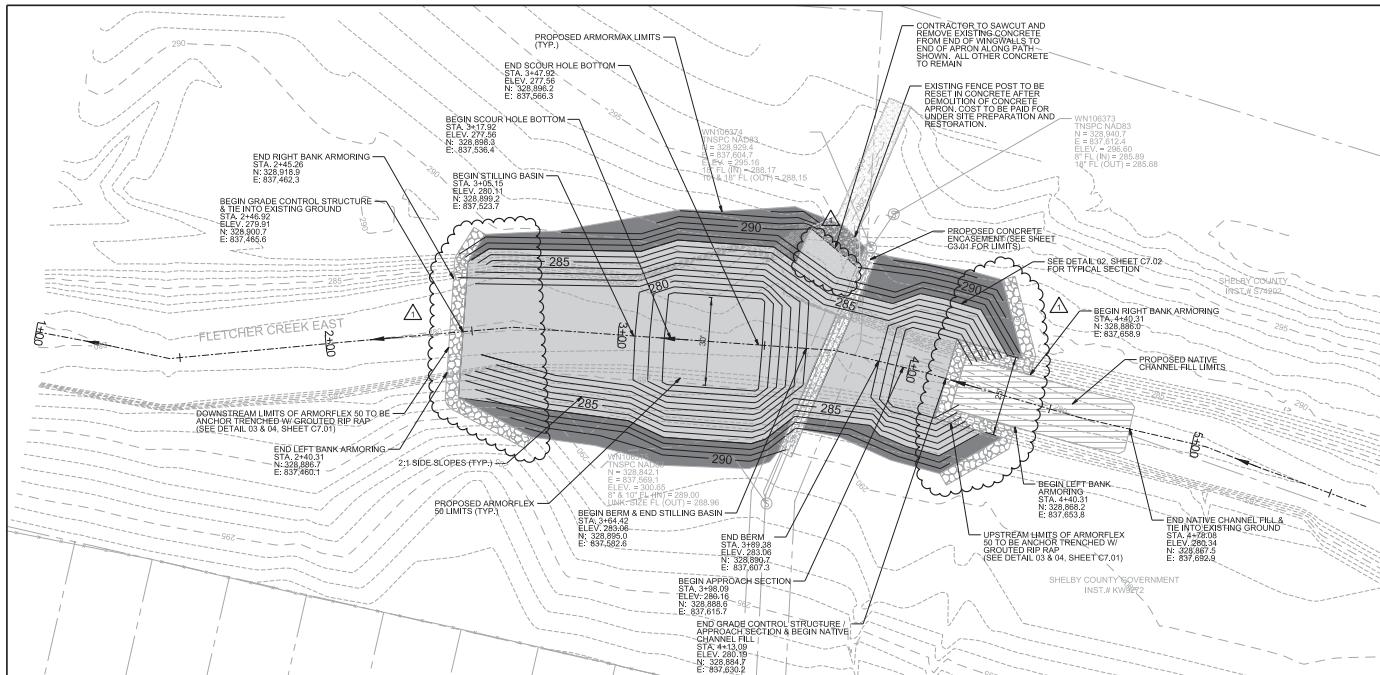
EXISTING-CONDITIONS
FLETCHER-CREEK-EAST
BANK-STABILIZATION/GRADE-CONTROL
CORDOVA, TENNESSEE

SURVEY: GEODESY DATE: 05/19 PROJECT NO.: 36592-02
DESIGN BY: BARGE DATE: 07/19 SCALE: 1" = 20'
REVIEWED

DEPUTY-CITY-ENGINEER DATE CITY-ENGINEER DATE

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2/3/2020
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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) 839-2482.
- ALL NEWLY CUT OR FILLED AREAS, LACKING ADEQUATE VEGETATION, SHALL BE SEEDED, MULCHED, FERTILIZED AND/OR SOILS 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 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 MLGW, SOUTH CENTRAL BELL, AND/OR TEXAS GAS COMPANY, CALL 1-800-351-1111. FOR SEWER LOCATIONS CALL 528-0055.
- 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.

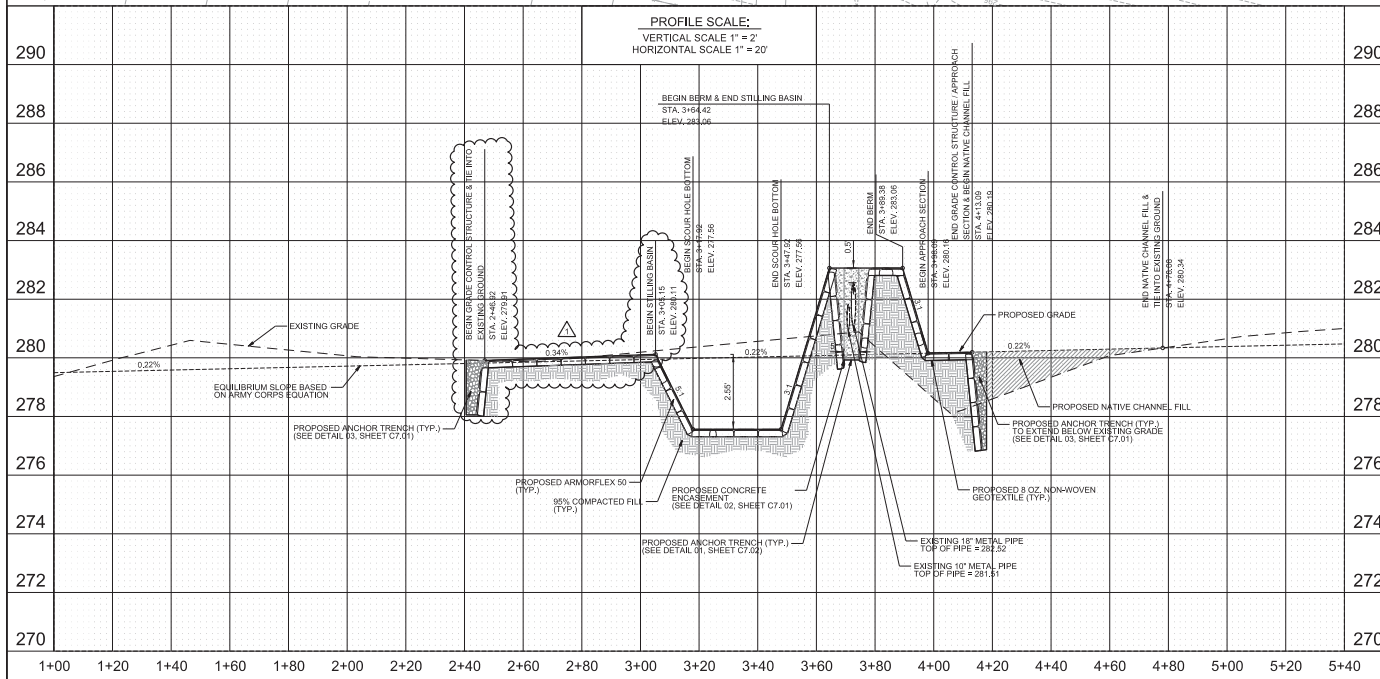
FLOOD HAZARD NOTE:

THE SUBJECT PROPERTY IS LOCATED IN A SPECIAL FLOOD HAZARD AREA ZONE "AE" (AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD EVENT DETERMINED BY DETAILED METHOD) AS PER FLOOD LINES ESTABLISHED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY AS SHOWN ON FLOOD INSURANCE RATE MAP NUMBER 47157C0316G, DATED FEBRUARY 06, 2013. THE NEAREST BFE IS 280.2.

STREAM WATER FLOW WILL BE 6138 CFS IN THE EVENT OF A 100-YEAR STORM EVENT.

BENCHMARK NOTE:

CITY OF MEMPHIS BENCHMARK #130 - CHIMNEYROCK BLVD. & KINGS CROSS LN; CITY MONUMENT IS LOCATED ON THE SE COR. AT P.I. OF FRONT OF SWALK AT S. END OF HCAP RAMP, 4 NE OF A MITL, ST. SIGN, 50' W, OF NW COR. HOUSE # 8391, ELEV. 308.55



LEGEND:

- EXISTING MINOR CONTOUR
- EXISTING MAJOR CONTOUR
- SA --- EXISTING SANITARY SEWER LINE
- ⊙ EXISTING MANHOLE
- PROPOSED MINOR CONTOUR
- 250 --- PROPOSED MAJOR CONTOUR
- PROPOSED STREAM CENTERLINE
- COORDINATE
- ▨ PROPOSED NATIVE CHANNEL FILL LIMITS
- ▨ PROPOSED ARMORFLEX 50 LIMITS
- ▨ PROPOSED ARMORFLEX LIMITS

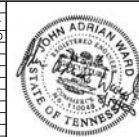
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SCALE: 1 INCH = 20 FEET

20' 10' 0' 20' 40'

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REVISION		
ITEM NO.	DESCRIPTION OF CHANGE	APPROVAL DATE
1	REVISION 1	8/19/2020

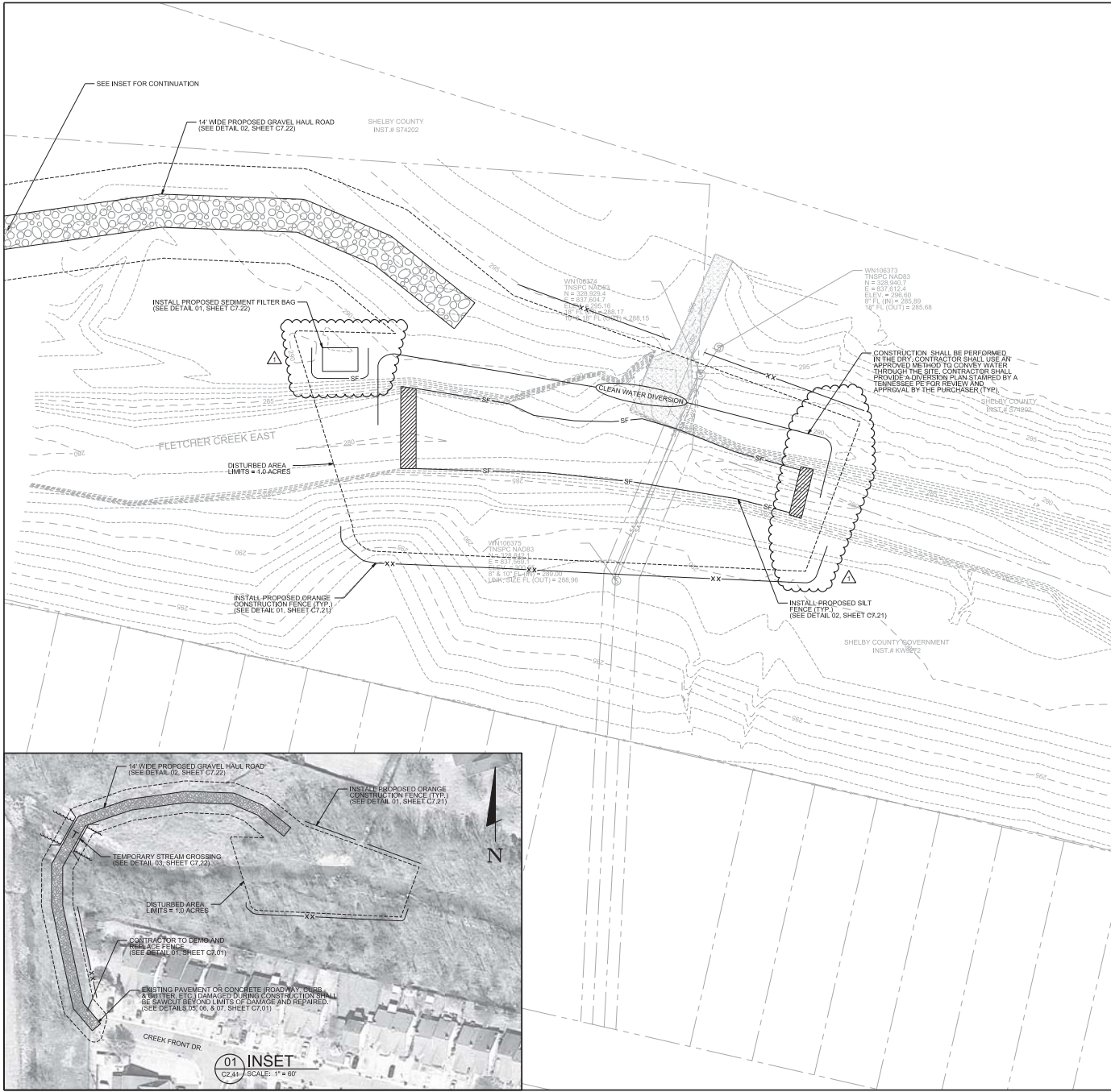


SEWER-BASIN: WN-10
DRAIN-BASIN: FLETCHER-CREEK

SHEET 3 OF 11
SITE-PLAN-AND-PROFILE
FLETCHER-CREEK-EAST
BANK-STABILIZATION/GRADE-CONTROL
CORDOVA, TENNESSEE

SURVEY: GEODESY DATE: 05/19 PROJECT NO.: 36592-02
DESIGN BY: BARGE DATE: 07/19 SCALE: 1" = 20'
REVIEWED

DEPUTY-CITY-ENGINEER DATE CITY-ENGINEER DATE



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. SILT FENCE TO BE INSTALLED ALONG TOE OF SLOPE AS SHOWN.
4. PERFORM REQUIRED EXCAVATION AND UTILITY WORK.
5. 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 PIPELAINING 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 SOODED 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 1.0 ACRES.
11. CONTRACTOR TO PROVIDE HYDRAULIC CALCULATIONS FOR TEMPORARY STREAM CROSSING FOR REVIEW AND APPROVAL BY THE PURCHASER.

FLOOD HAZARD NOTE:

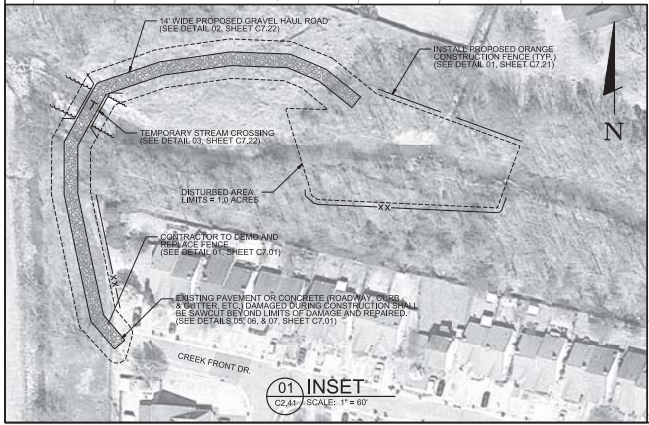
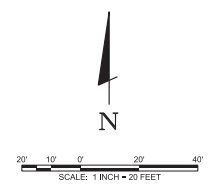
THE SUBJECT PROPERTY IS LOCATED IN A SPECIAL FLOOD HAZARD AREA ZONE "AE" (AREAS SUBJECT TO INUNDATION BY THE 1-PERCENT ANNUAL CHANCE FLOOD EVENT DETERMINED BY DETAILED METHODS) AS PER FLOOD LINES ESTABLISHED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY AS SHOWN ON FLOOD INSURANCE RATE MAP NUMBER 47150C0316G, DATED FEBRUARY 06, 2013. THE NEAREST BFE IS 280.5. STREAM WATER FLOW WILL BE 6138 CFS IN THE EVENT OF A 100-YEAR STORM EVENT.

BENCHMARK NOTE:

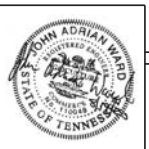
CITY OF MEMPHIS BENCHMARK #130 - CHAMBEROOK BLVD. & KING'S CROSS LN. CITY MONUMENT IS LOCATED ON THE SE COR. AT P.I. OF FRONT OF SWALK AT S. END OF HICAR PAMP. 4' NE OF A MTL. ST. SIGN. 91' W. OF NW COR. HOUSE # 6391. ELEV. 308.05

LEGEND:

- EXISTING MINOR CONTOUR
- - - - - EXISTING MAJOR CONTOUR
- - - - - ORANGE CONSTRUCTION FENCE
- - - - - SILT FENCE
- - - - - DISTURBED AREA LIMITS
- ▨ SANDBAG BERM
- ▨ CONSTRUCTION EXIT



REVISION	APPROVAL
ITEM NO. 1	DATE 8/19/2020



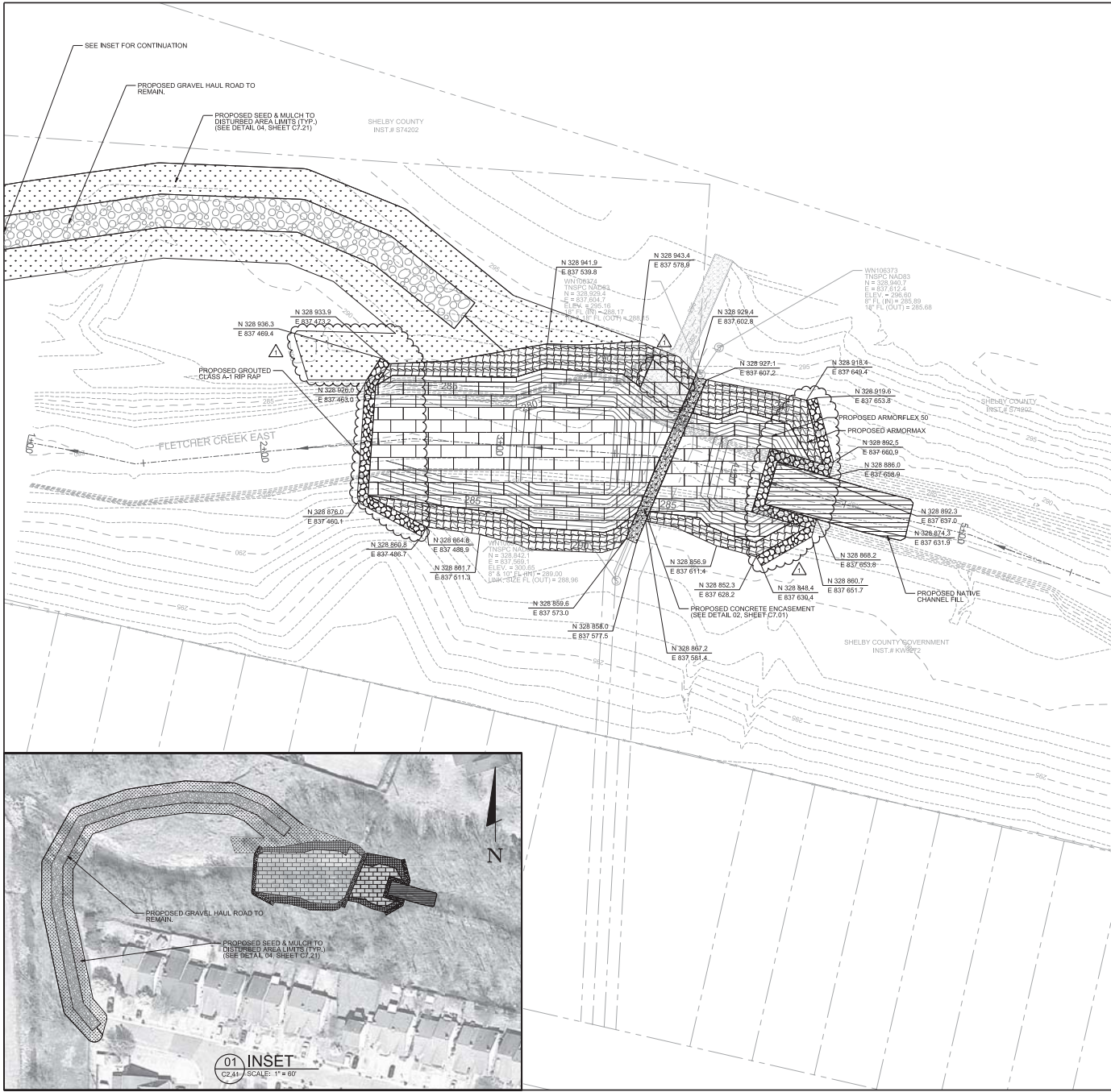
SEWER-BASIN: WN-10
DRAIN-BASIN: FLETCHER-CREEK
SHEET 4 OF 11

**EROSION CONTROL - PLAN - PHASE - I
FLETCHER - CREEK - EAST
BANK - STABILIZATION / GRADE - CONTROL
CORDOVA, TENNESSEE**

SURVEY: GEODESY DATE: 05/19 PROJECT NO.: 36592-02
DESIGN BY: BARGE DATE: 07/19 SCALE: 1" = 20'
REVIEWED
DEPUTY-CITY-ENGINEER DATE CITY-ENGINEER DATE

FLETCHER CREEK EAST
BANK STABILIZATION/GRADE CONTROL
CORDOVA, TENNESSEE
DEVELOPER: SARGO
ENGINEER: BARGE DESIGN SOLUTIONS, INC.

8/19/2020
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PHASE II SEQUENCING NOTES:

1. MAINTAIN BMPs INSTALLED DURING PHASE I.
2. STABILIZE SITE AS SHOWN. ALL OTHER DISTURBED AREAS NOT RECEIVING GROUTED CLASS A-1 RIP-RAP OR NATIVE MATERIAL WILL BE SEEDED AND MULCHED.
3. REMOVE BMPs WHEN SITE IS STABLE.

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 MUDD/RT 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 1.0 ACRES.

FLOOD HAZARD NOTE:

THE SUBJECT PROPERTY IS LOCATED IN A SPECIAL FLOOD HAZARD AREA ZONE "AE" (AREAS SUBJECT TO INUNDATION BY THE 1-PERCENT ANNUAL CHANCE FLOOD EVENT DETERMINED BY DETAILED METHODS AS PER FLOOD LINES ESTABLISHED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY AS SHOWN ON FLOOD INSURANCE RATE MAP NUMBER 0710703195, DATED FEBRUARY 08, 2013. THE NEAREST BFE IS 290.5.

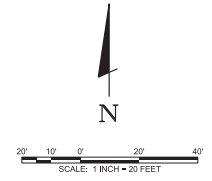
STREAM WATER FLOW WILL BE 6138 CFS IN THE EVENT OF A 100-YEAR STORM EVENT.

BENCHMARK NOTE:

CITY OF MEMPHIS BENCHMARK #130 - CHIMNEYROCK BLVD. & KINGS CROSS LN. CITY MONUMENT IS LOCATED ON THE SE COR. AT P.I. OF FRONT OF SWALK AT S. END OF H/CAP RAMP. 4' NE OF A MTL. ST. SIGN. 50' W. OF NW COR. HOUSE # 8391. ELEV. 308.05

LEGEND:

- - - - - EXISTING MINOR CONTOUR
- - - - - EXISTING MAJOR CONTOUR
- - - - - PROPOSED MINOR CONTOUR
- - - - - PROPOSED MAJOR CONTOUR
- [Pattern] PROPOSED GROUTED CLASS A-1 RIP RAP
- [Pattern] PROPOSED NATIVE CHANNEL FILL
- [Pattern] PROPOSED ARMORFLEX 50
- [Pattern] PROPOSED ARMORMAX
- [Pattern] PROPOSED SEED & MULCH
- [Pattern] PROPOSED GRAVEL HAUL ROAD



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REVISION		
ITEM NO.	DESCRIPTION OF CHANGE	APPROVAL DATE
1	REVISION 1	8/19/2020



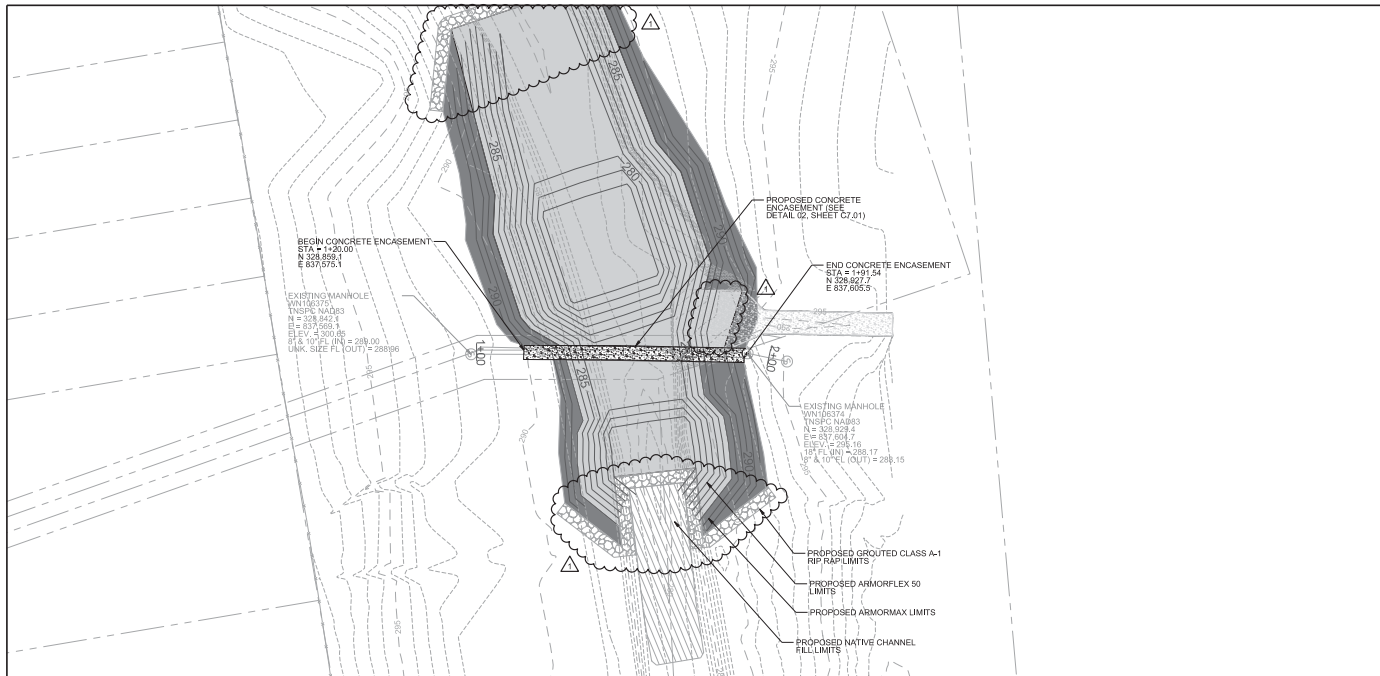
SEWER-BASIN: WN-10
DRAIN-BASIN: FLETCHER-CREEK C2.51

SHEET 5 OF 11
EROSION-CONTROL-PLAN-PHASE-II
FLETCHER-CREEK-EAST
BANK-STABILIZATION/GRADE-CONTROL
CORDOVA, TENNESSEE

FLETCHER CREEK EAST
BANK STABILIZATION/GRADE CONTROL
CORDOVA, TENNESSEE
DEVELOPER: SAMPRO
ENGINEER: BARGE DESIGN SOLUTIONS, INC.

SURVEY: GEODESY DATE: 05/19 PROJECT NO.: 36592-02
DESIGN BY: BARGE DATE: 07/19 SCALE: 1" = 20'
REVIEWED
DEPUTY-CITY-ENGINEER DATE CITY-ENGINEER DATE

8/19/2020
M
W/Travis



SANITARY SEWER NOTES:

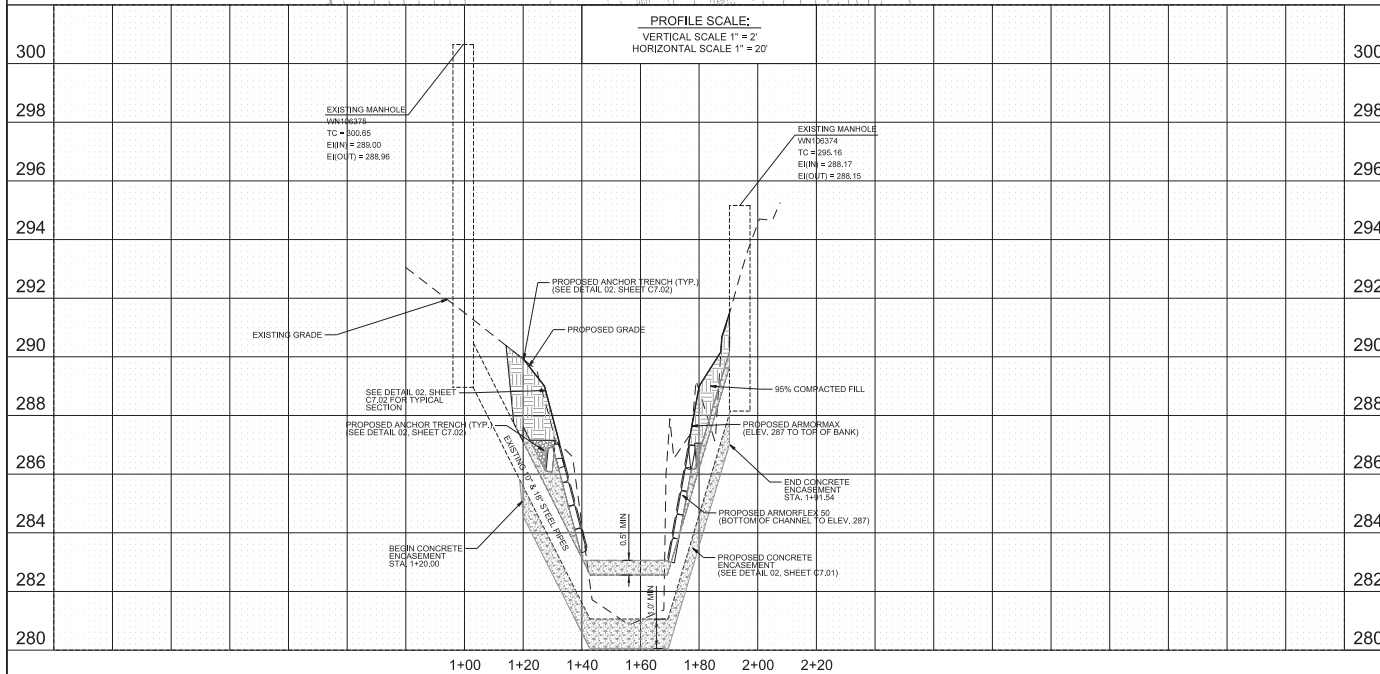
1. ALL SEWER CONSTRUCTION SHALL BE IN ACCORDANCE WITH SPECIFICATIONS AND STANDARD DETAILS OF SARP10.
2. AFTER COMPLETION OF THE SANITARY SEWER, THE CONTRACTOR IS RESPONSIBLE FOR THE TELEVISIONING OF THE LINES PRIOR TO FINAL ACCEPTANCE. THE VIDEO TAPING MUST BE COORDINATED WITH THE SARP10. ALL COSTS WILL BE BORNE BY THE CONTRACTOR.
3. UPON COMPLETION OF CONSTRUCTION OF SEWER IMPROVEMENTS, THE CONTRACTOR SHALL PROVIDE SARP10 WITH A COMPLETE SET OF AS-BUILT PLANS ON MOIST ERASABLE MYLARS IN REVERSE AND IN DIGITAL (.DWG) FORMAT. SEWER PLANS SHALL BE SEALED BY A LICENSED PROFESSIONAL ENGINEER OR A REGISTERED LAND SURVEYOR.
4. COST FOR HANDLING LIVE SANITARY SEWER FLOW TO BE MERGED INTO THE TOTAL PRICE BID AND NO ADDITIONAL PAYMENT WILL BE ALLOWED. FLOW MUST BE BYPASSED INTO OTHER LIVE SANITARY SEWER MANHOLE.
5. CONTRACTOR TO PROTECT EXISTING SANITARY SEWER LINES DURING THE INSTALLATION OF THE GROUTED RIP RAP AND CONCRETE ENCASUREMENT. ANY DAMAGE TO THE EXISTING LINES WILL BE REPLACED AT THE CONTRACTORS EXPENSE.

FLOOD HAZARD NOTE:

THE SUBJECT PROPERTY IS LOCATED IN A SPECIAL FLOOD HAZARD AREA ZONE 'AE' (AREAS SUBJECT TO INUNDATION BY THE 1-PERCENT ANNUAL CHANCE FLOOD EVENT DETERMINED BY DETAILED METHODS) AS PER FLOOD LINES ESTABLISHED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY AS SHOWN ON FLOOD INSURANCE RATE MAP NUMBER 47150203R6C, DATED FEBRUARY 06, 2015. THE NEAREST BFE IS 290.5.
STREAM WATER FLOW WILL BE 6138 CFS IN THE EVENT OF A 100-YEAR STORM EVENT.

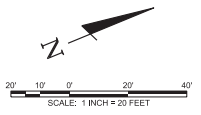
BENCHMARK NOTE:

CITY OF MEMPHIS BENCHMARK #130 - CHIMNEY ROCK BLVD. & KINGS CROSS LN; CITY MONUMENT IS LOCATED ON THE SE COR., AT P.I. OF FRONT OF SWALK AT S. END OF H/CAIP RAMP, 4' NE OF A MTL. ST. SIGN, 50' W. OF NW COR. HOUSE # 8391, ELEV. 308.05



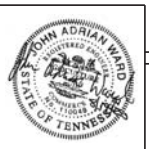
LEGEND:

- EXISTING MINOR CONTOUR
- - - EXISTING MAJOR CONTOUR
- SA - EXISTING SANITARY SEWER LINE
- ⊙ EXISTING MANHOLE
- PROPOSED MINOR CONTOUR
- 250 - PROPOSED MAJOR CONTOUR
- - - PROPOSED SEWER CENTERLINE
- COORDINATE
- [Pattern] PROPOSED GROUTED CLASS A-1 RIP RAP LIMITS
- [Pattern] PROPOSED NATIVE CHANNEL FILL LIMITS
- [Pattern] PROPOSED ARMORFLEX 50 LIMITS
- [Pattern] PROPOSED ARMORMAX LIMITS



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REVISION	DESCRIPTION OF CHANGE	APPROVAL DATE
1	REVISION 1	8/19/2020



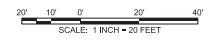
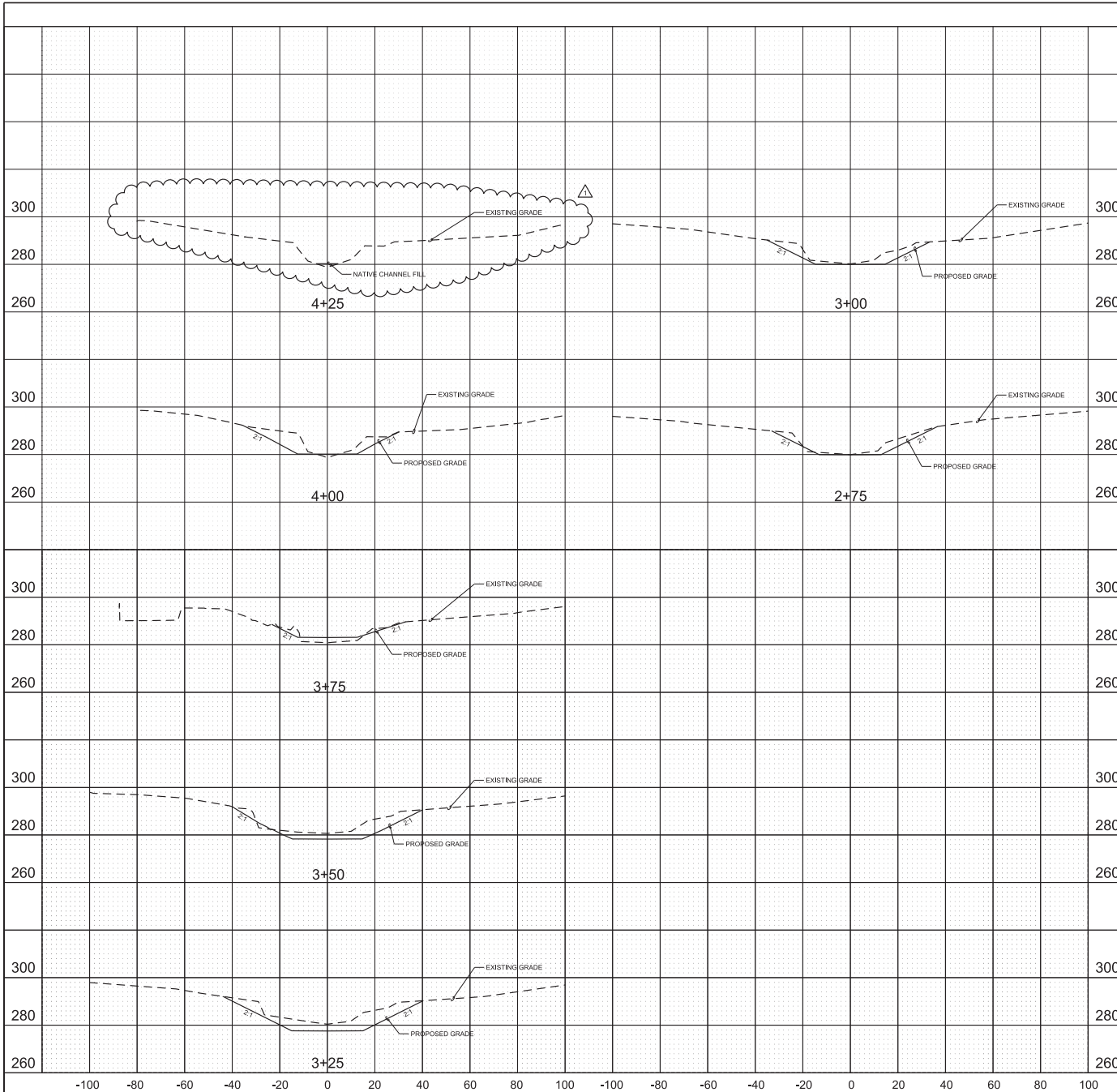
SEWER-BASIN: WN-10
DRAIN-BASIN: FLETCHER-CREEK
SHEET 6 OF 11

**UTILITY-PLAN-AND-PROFILE
FLETCHER-CREEK-EAST
BANK-STABILIZATION/GRADE-CONTROL
CORDOVA, TENNESSEE**

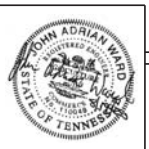
FLETCHER CREEK EAST
BANK STABILIZATION/GRADE CONTROL
CORDOVA, TENNESSEE
DEVELOPER: SARP10
ENGINEER: BARGE DESIGN SOLUTIONS, INC.

SURVEY: GEODESY DATE: 05/19 PROJECT NO.: 36592-02
DESIGN BY: BARGE DATE: 07/19 SCALE: 1" = 20'
REVIEWED: _____
DEPUTY-CITY-ENGINEER DATE CITY-ENGINEER DATE

8/19/2020
JTB/PLP



REVISION		
ITEM NO.	DESCRIPTION OF CHANGE	APPROVAL DATE
1	REVISION 1	8/19/2020



SEWER-BASIN: WN-10
 DRAIN-BASIN: FLETCHER-CREEK
 SHEET 7 OF 11

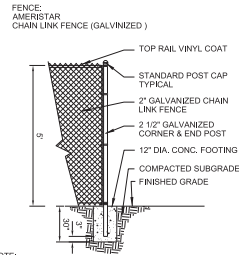
**CROSS-SECTIONS
 FLETCHER-CREEK-EAST
 BANK-STABILIZATION/GRADE-CONTROL
 CORDOVA, TENNESSEE**

SURVEY: GEODESY DATE: 05/19 PROJECT NO.: 36592-02
 DESIGN BY: BARGE DATE: 07/19 SCALE: 1" = 20'
 REVIEWED

FLETCHER CREEK EAST
 BANK STABILIZATION/GRADE CONTROL
 CORDOVA, TENNESSEE
 DEVELOPER: SBRPG
 ENGINEER: BARGE DESIGN SOLUTIONS, INC.

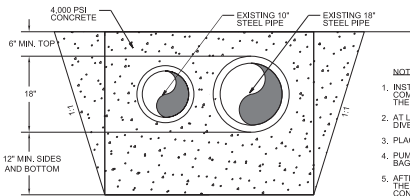
DEPUTY-CITY-ENGINEER DATE CITY-ENGINEER DATE

8/19/2020
 M:W:Franklin



NOTE: COST TO RESET POST TO BE COVERED UNDER 'SITE PREPARATION AND RESTORATION'.

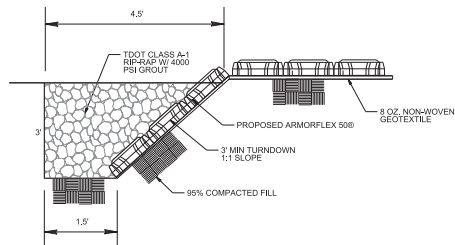
01 CHAIN LINK FENCE DETAIL
C7.01 SCALE: N.T.S.



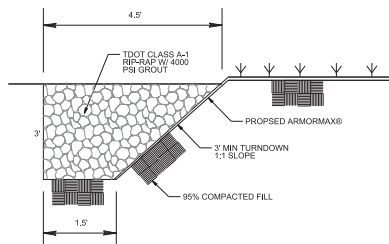
- NOTES:**
1. INSTALL ALL EROSION CONTROL NECESSARY TO COMPLETE CROSSING PRIOR TO EXCAVATION IN THE STREAM CHANNEL.
 2. AT LOW FLOW CONDITIONS, BYPASS PUMP OR DIVERT STREAM FLOW AROUND EXCAVATION.
 3. PLACE SILT FENCE ON EACH SIDE OF CHANNEL.
 4. PUMP ANY TRAPPED WATER TO A SEDIMENT FILTER BAG.
 5. AFTER INSTALLING PIPE AND CONCRETE, CONSTRUCT THE CHANNEL TO THE PROPOSED GRADES AND CONTOURS AND STABILIZE WITH GROUTED RIP-RAP.

SECTION

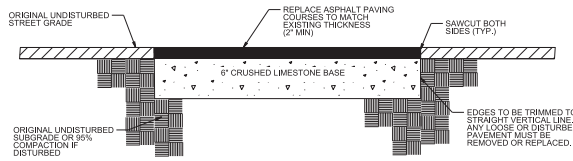
02 CONCRETE ENCASEMENT DETAIL
C7.01 SCALE: N.T.S.



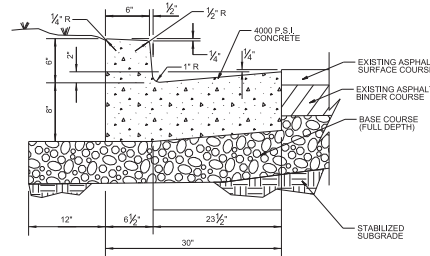
03 TYPICAL ARMORFLEX 50 ANCHOR TRENCH - UPSTREAM & DOWNSTREAM EDGES
C7.01 SCALE: N.T.S.



04 TYPICAL ARMORMAX ANCHOR TRENCH - UPSTREAM & DOWNSTREAM EDGES
C7.01 SCALE: N.T.S.

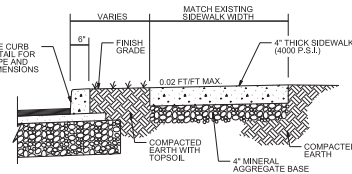


05 TYPICAL PAVEMENT REPAIR DETAIL
C7.01 SCALE: N.T.S.



- NOTES:**
1. 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.
 2. EXACT CURB DIMENSIONS MAY BE ALTERED SLIGHTLY TO FIT STANDARD EXTRUDED CURB MACHINES, BUT SUCH VARIANCES MUST BE APPROVED BY THE ENGINEER.
 3. SEE PAVING DETAILS FOR PAVEMENT SECTIONS, SUBBASE, SUBGRADE, AND COMPACTION REQUIREMENTS.

06 TYPICAL CURB & GUTTER REPAIR DETAIL
C7.01 SCALE: N.T.S.



- NOTES:**
1. PREFORMED 1/2" EXPANSION JOINTS SHALL BE EQUALLY SPACED AT 24" MAX. CENTERS, WITH 1/4" CONTRACTION JOINTS EQUALLY SPACED AT 6" MAX. CENTERS BETWEEN EXPANSION JOINTS.

07 TYPICAL SIDEWALK REPAIR DETAIL
C7.01 SCALE: N.T.S.

REVISION		
ITEM NO.	DESCRIPTION OF CHANGE	APPROVAL DATE



SEWER-BASIN: WN-10
DRAIN-BASIN: FLETCHER-CREEK

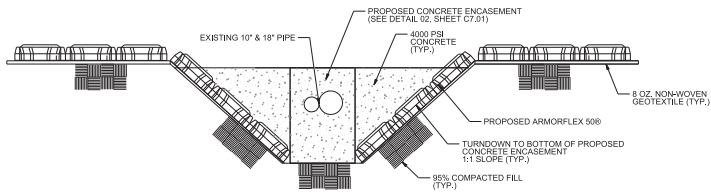
C7.01

SHEET 8 OF 11
CIVIL-DETAILS
FLETCHER-CREEK-EAST
BANK-STABILIZATION/GRADE-CONTROL
CORDOVA, TENNESSEE

FLETCHER CREEK-EAST
BANK STABILIZATION/GRADE CONTROL
CORDOVA, TENNESSEE
DEVELOPER: SARGO
ENGINEER: BARGE DESIGN SOLUTIONS, INC.

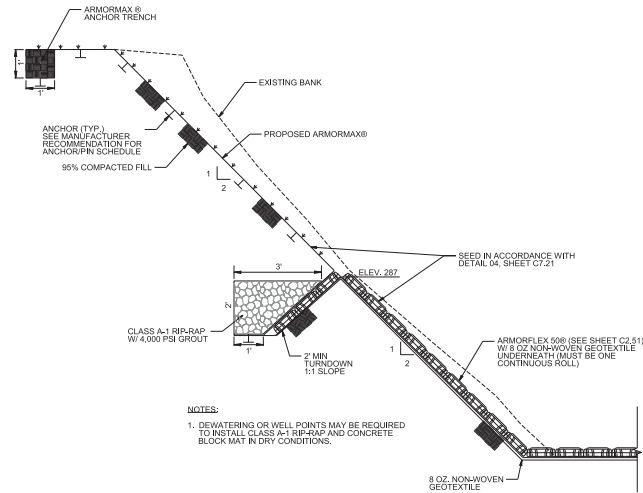
SURVEY: GEODESY DATE: 05/19 PROJECT NO.: 36592-02
DESIGN BY: BARGE DATE: 07/19 SCALE: 1" = 20'
REVIEWED
DEPUTY-CITY-ENGINEER DATE CITY-ENGINEER DATE

2/3/2020 10:41 AM
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TYPICAL ARMORFLEX 50 ANCHOR TRENCH - CONCRETE ENCASEMENT

01
C7.02
SCALE: N.T.S.



TYPICAL SECTION - ARMORMAX & ARMORFLEX 50

02
C7.02
SCALE: N.T.S.

NOTES:
1. DEWATERING OR WELL POINTS MAY BE REQUIRED TO INSTALL CLASS A-1 RIP-RAP AND CONCRETE BLOCK MAT IN DRY CONDITIONS.

REVISION		
ITEM NO.	DESCRIPTION OF CHANGE	APPROVAL DATE



SEWER-BASIN: WN-10
DRAIN-BASIN: FLETCHER-CREEK

C7.02

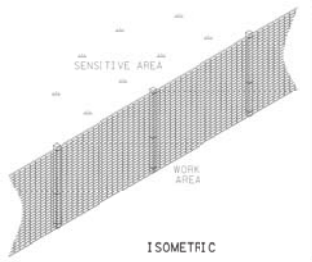
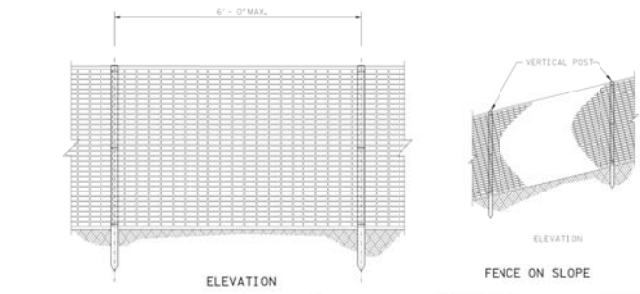
SHEET 9 OF 11
CIVIL-DETAILS
FLETCHER-CREEK-EAST
BANK-STABILIZATION/GRADE-CONTROL
CORDOVA, TENNESSEE

FLETCHER CREEK-EAST
BANK STABILIZATION/GRADE CONTROL
CORDOVA, TENNESSEE
DEVELOPER: SARGO
ENGINEER: BARGE DESIGN SOLUTIONS, INC.

SURVEY: GEODESY DATE: 05/19 PROJECT NO.: 36592-02
DESIGN BY: BARGE DATE: 07/19 SCALE: 1" = 20'
REVIEWED

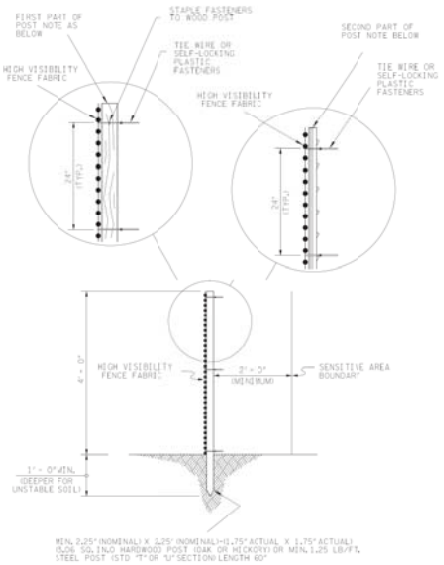
DEPUTY-CITY-ENGINEER DATE CITY-ENGINEER DATE

2/3/2020
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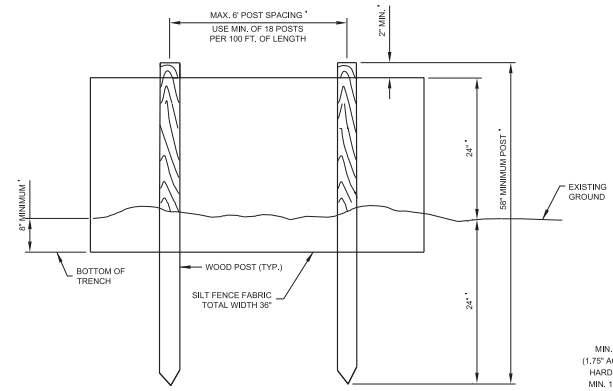


GENERAL NOTES

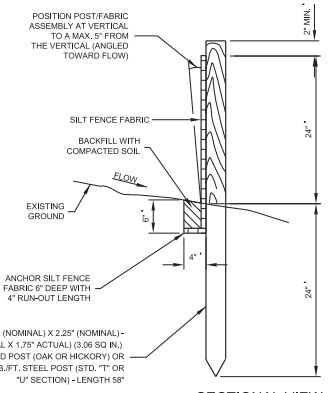
- HIGH VISIBILITY FENCE IS INTENDED TO BE PLACED TO PREVENT DISTURBANCE OF SENSITIVE AREAS, TRAIL BUFFERS, AND OTHER AREAS REQUIRED TO BE LEFT UNDISTURBED DURING CONSTRUCTION. IT MAY ALSO BE USED TO MAINTAIN APPROVED CLEARANCE LIMITS FOR CONTROLLED ACCESS AREAS ON THE PROJECT SITE.
- HIGH VISIBILITY FENCE FABRIC SHALL BE UNWASHED, UNPAINTED, ORANGE COLORED MESH MANUFACTURED FROM POLYPROPYLENE OR POLYETHYLENE. IT SHALL BE FULLY STABILIZED IN TRAILWAY RESISTANCE.
- HIGH VISIBILITY FENCE FABRIC MAY BE MADE FROM RECYCLED MATERIALS. MATERIALS SHALL NOT CONTAIN EROSION-CONTROL MEDIA THAT CAN OBSCURE THE PHYSICAL OR CHEMICAL CHARACTERISTICS OF THE ORIGINAL FABRIC.
- HIGH VISIBILITY FENCE FABRIC SHALL HAVE A MINIMUM 4 FOOT WIDTH AND SHALL BE FASTENED TO THE UNDERCUT PRIOR TO PLACING THE STONE. WIDTH AND SPACING SHALL BE SPECIFIED AS FOLLOWS:
- STEEL POST SHALL BE ROLLED FROM HIGH CARBON STEEL AND SHALL HAVE A MINIMUM WEIGHT OF 7.25 LB/FT. POST SHALL BE HOT-DIPPED GALVANIZED OR PAINTED. STEEL POST MAY BE EQUIPPED WITH HOLLOW END PLATE HAVING A MINIMUM AREA OF 14 SQUARE INCHES. IF POSTS ARE USED THE FASTENERS SHALL BE STAPLED TO THE POST.
- HIGH VISIBILITY FENCE FABRIC SHALL BE FASTENED TO THE POST USING TIE WIRE OR SELF-LOCKING PLASTIC FASTENERS WITH A MAXIMUM 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 CONTRACTOR'S EXPENSE ON THE SAME DAY THE DAMAGE OCCURS.
- HIGH VISIBILITY FENCE SHALL BE PAID FOR UNDER THE FOLLOWING ITEM NUMBER:
 NOT-OR-11 HIGH VISIBILITY CONSTRUCTION FENCE, PER LF
 PAYMENT SHALL INCLUDE ALL MATERIALS AND LABOR NECESSARY FOR CONSTRUCTION, MAINTENANCE, AND REMOVAL OF HIGH VISIBILITY FENCE.



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



ELEVATION VIEW

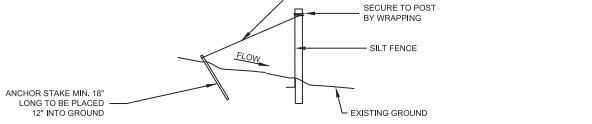


SECTIONAL VIEW

MIN. 2.25" (NOMINAL) X 2.25" (NOMINAL) - (1.75" ACTUAL X 1.75" ACTUAL) (3.06 SQ IN.)
 HARDWOOD POST (OAK OR HICKORY) OR
 MIN. 1.25 LB/FT. STEEL POST (STD. "1" OR "1/2" SECTION) - LENGTH 58"

SILT FENCE NOTES

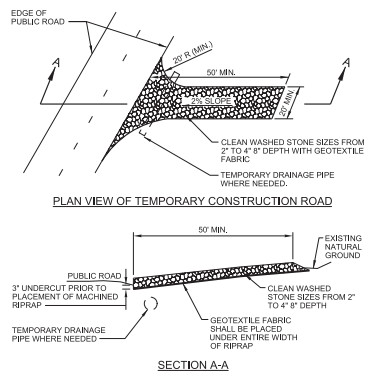
- FILTER CLOTH SHALL MEET THE REQUIREMENTS OF THE STANDARD SPECIFICATION FOR GEOTEXTILES AASHTO DESIGNATION M208, SEDIMENT CONTROL, SELF-SUPPORTED.
- THE FILTER MATERIAL SHALL BE STAPLED TO THE STAKES, HEAVY DUTY WIRE STAPLES WITH 1/2 INCH WIDTH SHALL BE USED AND EVENLY SPACED WITH AT LEAST FOUR PER 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.
- BINDING WIRE OR TWINE SHALL REMAIN ON STRAW BALES.
- PLACE STRAW BALES ON ALL DOWN STREAM SIDES OF ALL SILT FENCES.
- STRAW BALES TO BE PLACED END TO END AGAINST THE SILT FENCE.
- 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 TENSING 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.



PLAN VIEW OF TEMPORARY CONSTRUCTION ROAD

SECTION A-A

CONSTRUCTION SPECIFICATIONS

- STONE FOR A STABILIZED CONSTRUCTION ENTRANCE SHALL BE 2 INCH STONE, RECLAIMED STONE, OR RECYCLED CONCRETE EQUIVALENT.
- THE LENGTH OF THE STABILIZED ENTRANCE SHALL NOT BE LESS THAN 50 FEET.
- THE THICKNESS OF THE STONE FOR THE STABILIZED ENTRANCE SHALL NOT BE LESS THAN 6 INCHES.
- THE WIDTH OF THE ENTRANCE SHALL NOT BE LESS THAN THE FULL WIDTH OF THE ENTRANCE 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./SQ. Y. NON-WOVEN.
- ALL SURFACE WATER THAT IS FLOWING TO OR DIVERTED TOWARD THE CONSTRUCTION ENTRANCE SHALL BE PIPED BENEATH THE ENTRANCE. IF PIPING IS IMPRACTICAL, A BERM WITH 5:1 SLOPES THAT CAN BE CROSSED BY VEHICLES MAY BE SUBSTITUTED FOR THE PIPE.
- THE ENTRANCE 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 RIGHTS-OF-WAY MUST BE REMOVED PROMPTLY.

PERMANENT COVER SEEDING MIXTURES				
MIXTURE	GROUP A		GROUP B	
	% BY WEIGHT	% BY WEIGHT	% BY WEIGHT	% BY WEIGHT
LESPEDEZA COMMON OR KOREAN	20	-	-	-
SERICEA LESPEDEZA	15	-	-	50
RYE ST FESCUE	40	55	-	30
ENGLISH RYE	15	20	-	15
WHITE DITCH CLOVER	5	5	-	5
KEEPING/LOWE GRASS	5	-	-	-
RETOP	-	15	-	-
TOTAL	100	100	100	100

04 COVER SEEDING MIXTURES
 C7.21 SCALE: N.T.S.

REVISION

ITEM NO.	DESCRIPTION OF CHANGE	APPROVAL DATE

LOWE ADRIAN WOOD
 REGISTERED PROFESSIONAL ENGINEER
 STATE OF TENNESSEE

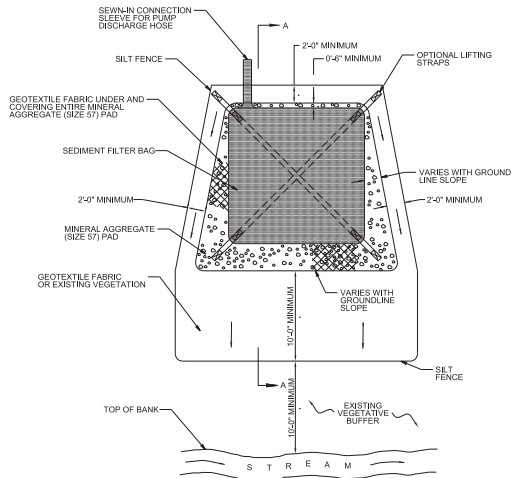
SEWER-BASIN: WN-10
 DRAIN-BASIN: FLETCHER-CREEK
 SHEET 10 OF 11

**EROSION-CONTROL-DETAILS
 FLETCHER-CREEK-EAST
 BANK-STABILIZATION/GRADE-CONTROL
 CORDOVA, TENNESSEE**

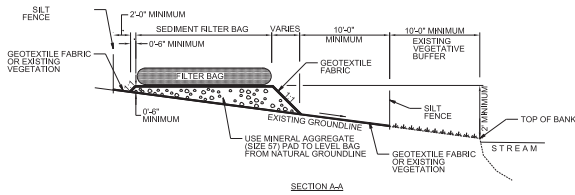
SURVEY: GEODESY DATE: 05/19 PROJECT NO.: 36592-02
 DESIGN BY: BARGE DATE: 07/19 SCALE: N.T.S.
 REVIEWED

FLETCHER CREEK EAST
 BANK STABILIZATION/GRADE CONTROL
 CORDOVA, TENNESSEE
 DEVELOPER: SARGO
 ENGINEER: BARGE DESIGN SOLUTIONS, INC.

DEPUTY-CITY-ENGINEER DATE CITY-ENGINEER DATE

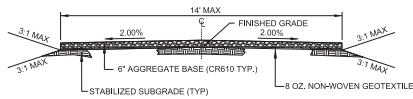


PLAN VIEW



SECTION A-A

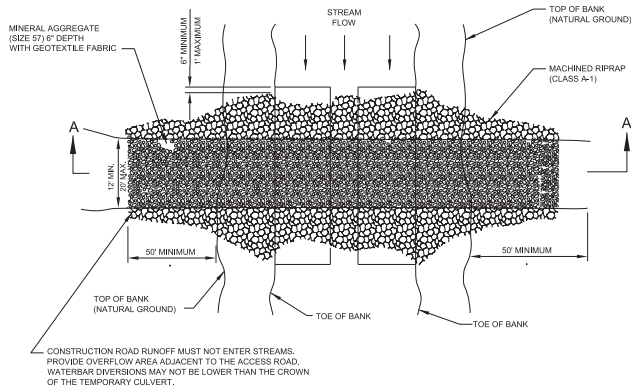
01 SEDIMENT FILTER BAG DETAIL
C7.22 SCALE: N.T.S.



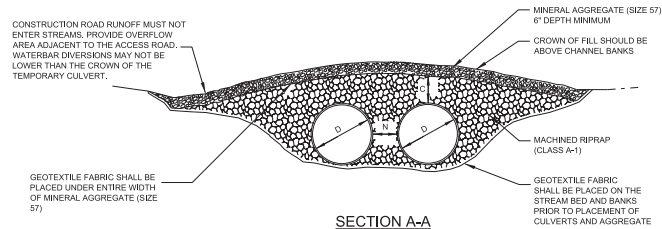
NOTES:

1. PLACE CR610 (TYP.) IN TWO COMPACTED LIFTS TO 100% STANDARD PROCTOR ASTM D698.
2. PLACE SEPARATION GEOTEXTILE FABRIC BETWEEN SUBGRADE AND AGGREGATE BASE.
3. FILL TO ACHIEVE SUBGRADE ELEVATION. SUBGRADE TO BE PLACED ON STABLE EXISTING GROUND AFTER IT HAS BEEN GRUBBED, STRIPPED, AND PROPPROLLED TO SHOW STABILITY.
4. IF UNSTABLE UNDERCUT AS NEEDED AND APPROVE BY ENGINEER.
5. SIDE SLOPES NO STEEPER THAN 1V:3H AND VEGETATE AS NEEDED FOR EROSION PROTECTION.
6. HAUL ROAD TO BE PAID FOR UNDER "CONSTRUCTION EXIT".

02 TYPICAL HAUL ROAD 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					
	0.5%	1.0%	1.5%	2.0%	2.5%	3.0%
36"	46.8	50.4	49.5	47.8	46.6	45.8
RIPRAP	B	B	B	B	B/C	B/C

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

REVISION		
ITEM NO.	DESCRIPTION OF CHANGE	APPROVAL DATE



SEWER-BASIN: WN-10
DRAIN-BASIN: FLETCHER-CREEK

SHEET 11 OF 11

EROSION-CONTROL-DETAILS
FLETCHER-CREEK-EAST
BANK-STABILIZATION/GRADE-CONTROL
CORDOVA, TENNESSEE

SURVEY: GEODESY DATE: 05/19 PROJECT NO.: 36592-02
DESIGN BY: BARGE DATE: 07/19 SCALE: N.T.S.
REVIEWED

FLETCHER CREEK EAST
BANK STABILIZATION/GRADE CONTROL
CORDOVA, TENNESSEE
DEVELOPER: SARGIS
ENGINEER: BARGE DESIGN SOLUTIONS, INC.

DEPUTY-CITY-ENGINEER DATE CITY-ENGINEER DATE

C7.22