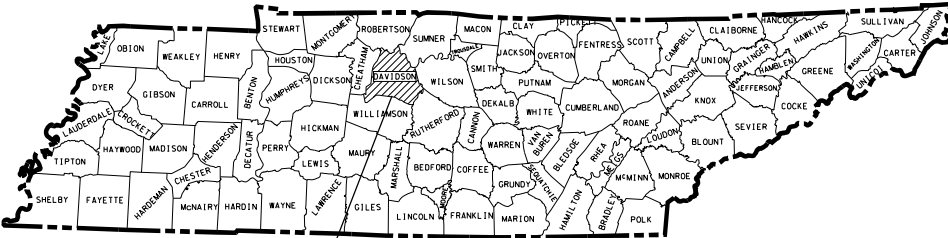


Index Of Sheets
See sheet IA

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF ENGINEERING
DAVIDSON COUNTY

TENN.	YEAR	SHEET NO.
	2016	1
FED. AID PROJ. NO.		
STATE PROJ. NO.	19013-4130-04	



I-65 OVER CUMBERLAND RIVER BRIDGE REPAIRS

STATE HIGHWAY NO. I-65 F.A.H.S. NO. I-65

DAVIDSON COUNTY
PROJECT NO. 19013-4130-04

BEGIN PROJECT NO.19013-4130-04 (CONST.)
I-65 (DAVIDSON COUNTY)

I-65 OVER CUMBERLAND RIVER
BRIDGE NO. 19-10065-10.25
CONST. PROJECT NO. 19013-4130-04

END PROJECT NO.19013-4130-04 (CONST.)
I-65 (DAVIDSON COUNTY)



SCALE: 1"= 2000'

SPECIAL NOTES

PROPOSALS MAY BE REJECTED BY THE COMMISSIONER IF ANY OF THE UNIT PRICES CONTAINED THEREIN ARE OBVIOUSLY UNBALANCED, EITHER EXCESSIVE OR BELOW THE REASONABLE COST ANALYSIS VALUE.

THIS PROJECT TO BE CONSTRUCTED UNDER THE STANDARD SPECIFICATIONS OF THE TENNESSEE DEPARTMENT OF TRANSPORTATION DATED MARCH 1, 2006 AND ADDITIONAL SPECIFICATIONS AND SPECIAL PROVISIONS CONTAINED IN THE PLANS AND IN THE PROPOSAL CONTRACT.

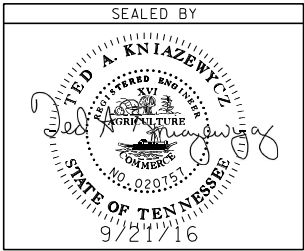
TDOT C.E. MANAGER 1 OR
TDOT DESIGN MANAGER 1 BRIAN EGLI, P.E.

DESIGNED BY GRESHAM SMITH AND PARTNERS
DESIGNER TED KNIAZEWCZ, P.E. CHECKED BY LARRY RIDLEN, P.E.

P.E. NO. 19013-4130-04

PIN NO. 121367.00

ROADWAY LENGTH 0.000 MILES
BRIDGE LENGTH 0.227 MILES
PROJECT LENGTH 0.227 MILES



APPROVED: Paul D. Degges
PAUL D. DEGGES, CHIEF ENGINEER

DATE: _____

APPROVED: John Schroer
JOHN SCHROER, COMMISSIONER

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED: _____
DIVISION ADMINISTRATOR DATE

INDEX OF SHEETS (CONSTRUCTION)

SHEET	DESCRIPTION
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1A-----	INDEX AND STANDARD DRAWINGS INDEX
2-----	ESTIMATED BRIDGE QUANTITIES
2A-----	BRIDGE GENERAL NOTES - SHEET 1 OF 2
2B-----	BRIDGE GENERAL NOTES - SHEET 2 OF 2
2C-----	GENERAL NOTES
2D-----	ITS NOTES AND ESTIMATED ROADWAY QUANTITIES
3-----	TRAFFIC CONTROL PLAN
4-----	EROSION PREVENTION AND SEDIMENT CONTROL PLAN
5-----	EXISTING UTILITIES

REFERENCE BRIDGE DRAWINGS

SHEET	DESCRIPTION
K-59-37 THROUGH K-59-50-----	ORIGINAL BRIDGE PLANS
BR-26-41 THROUGH BR-26-50-----	BRIDGE REPAIR PLANS

INDEX OF SHEETS (BRIDGE)

SHEET	DESCRIPTION
BR-122-175-----	LAYOUT OF BRIDGE TO BE REPAIRED (1 OF 2)
BR-122-176-----	LAYOUT OF BRIDGE TO BE REPAIRED (2 OF 2)
BR-122-177-----	ESTIMATED BRIDGE QUANTITIES
BR-122-178-----	BRIDGE GENERAL NOTES - SHEET 1 OF 2
BR-122-179-----	BRIDGE GENERAL NOTES - SHEET 2 OF 2
BR-122-180-----	SUPERSTRUCTURE DETAILS
BR-122-181-----	SUPERSTRUCTURE DETAILS
BR-122-182-----	REPAIR DETAILS
BR-122-183-----	ABUTMENT NO. 1
BR-122-184-----	ABUTMENT NO. 2
BR-122-185-----	ABUTMENT NO. 1 & 2 DETAILS
BR-122-186-----	BENT NO. 1
BR-122-187-----	BENT NO. 2
BR-122-188-----	GENERAL REPAIR DETAILS

STANDARD ROADWAY DRAWINGS

DWG. NO.	REV.	DESCRIPTION
ROADWAY DESIGN STANDARDS		
RD-A-1	12-18-99	STANDARD ABBREVIATIONS
RD-L-1	10-26-94	STANDARD LEGEND
RD-L-2	9-05-01	STANDARD LEGEND FOR UTILITY INSTALLATIONS
RD-L-5	5-01-08	STANDARD LEGEND FOR EROSION PREVENTION AND SEDIMENT CONTROL
RD-L-6	3-30-10	STANDARD LEGEND FOR EROSION PREVENTION AND SEDIMENT CONTROL
RD-L-7	5-24-12	STANDARD LEGEND FOR EROSION PREVENTION AND SEDIMENT CONTROL
RD01-S-11	4-04-03	DESIGN AND CONSTRUCTION DETAILS FOR ROADSIDE SLOPE DEVELOPMENT
RD01-SA-1	10-15-02	SAFETY APPROACH TO UNDERPASSES GRADING DESIGN & SLOPE PROTECTION

STANDARD ROADWAY DRAWINGS

DWG. NO.	REV.	DESCRIPTION
TRAFFIC CONTROL APPURTENANCES		
T-FAB-1	5-27-97	FLASHING YELLOW ARROW BOARD
T-M-5	4-23-13	MARKING DETAILS FOR EXPRESSWAYS AND FREEWAYS
T-PBR-1	6-30-09	INTERCONNECTED PORTABLE BARRIER RAIL
T-WZ-10	4-02-12	ADVANCE ROAD WORK SIGNING ON HIGHWAYS AND FREEWAYS
T-WZ-12	3-13-09	ONE LANE CLOSURE DETAIL FOR BRIDGES ON DIVIDED HIGHWAYS
T-WZ-18	3-13-09	SHOULDER CLOSURE DETAIL FOR FREEWAYS AND DIVIDED HIGHWAYS

EROSION PREVENTION AND SEDIMENT CONTROL

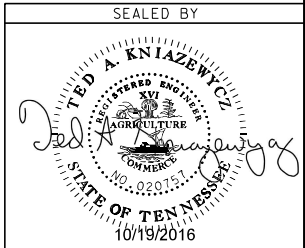
EC-STR-3B	8-01-12	SILT FENCE
EC-STR-3C	8-01-12	SILT FENCE WITH WIRE BACKING

STANDARD BRIDGE DRAWINGS

DWG. NO.	REV.	DESCRIPTION
RD01-SA-1	10-15-02	SAFETY APPROACH TO UNDERPASS GRADING DESIGN & SLOPE PROTECTION

TYPE	YEAR	PROJECT NO.	SHEET NO.
MAINT.	2016	19013-4130-04	1A

REV. 10-19-16: REVISED
ROADWAY INDEX



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

INDEX
AND
STANDARD
DRAWINGS

NOTE: "NO PROJECT COMMITMENTS SHEET INCLUDED IN THIS SET OF PLANS"

9/21/2016 \$PRF \$ Q:\2807126\B\8071b26bq.sht

PIN 121367.00
DESIGNED BY GRESHAM SMITH & PARTNERS DATE 3/2015
DRAWN BY G. YOUNG DATE 3/2015
SUPERVISED BY T. KNIAZEWYCZ DATE 3/2015
CHECKED BY K. MCALISTER DATE 8/2016



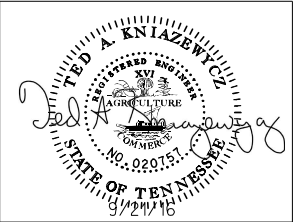
ESTIMATED BRIDGE QUANTITIES

			BRIDGE 1 I-65 OVER CUMBERLAND RIVER BR. NO 19-I0065-10.24								
ITEM NO.	DESCRIPTION	UNIT	BRIDGE QUANTITIES	SUPERSTRUCTURE	ABUT. NO. 1	BENT NO. 1	PIER NO. 1	PIER NO. 2	PIER NO. 3	BENT NO. 2	ABUT. NO. 2
(1) 602-10.05	BRACING REPAIRS	LS	1								
(2) 602-10.32	STRUCTURAL STEEL (REPAIRS)	LB	1775	1775							
(3) 602-10.34	MISCELLANEOUS STRUCTURAL STEEL REPAIRS	LB.	275	275							
(4) (6) 603-02.15	REPAINT EXISTING BEARINGS	LS	1								
(5) (6) 603-02.20	SPOT PAINTING EXISTING STEEL STRUCTURES	S.F.	1200	1200							
(7) 604-03.01	CLASS A CONCRETE (BRIDGES)	C.Y.	4		2						2
(8) 604-10.07	CONCRETE REMOVAL	LS	1								
604-10.18	REINFORCING STEEL (REPAIRS)	LB.	516		258						258
(9) 604-10.05	CONCRETE	S.F.	365		40	250				15	60
(10) 604-10.17	NON-PENETRATING CONCRETE SEAL	S.Y.	360		150	30				30	150
(11) 604-10.29	CONCRETE SLOPE PAVING REPAIRS	S.Y.	20		10						10
(9) 604-10.54	CONCRETE REPAIRS	S.F.	595		170					125	300
(9) (12) 604-10.62	EPOXY INJECTION REPAIR (COMPLETE AND IN PLACE)	L.F.	85		15	5				5	60
(9) 604-10.63	CONCRETE REPAIRS (CRACKS)	L.F.	50		15	5				5	25
709-01.02	RUBBLE STONE RIP-RAP	TON	325								325
709-02.01	RUBBLE STONE RIP-RAP (GROUTED)	C.Y.	80								80

FOOTNOTES:

- (1) NOTE: ITEM INCLUDES ALL NECESSARY TEMPORARY SUPPORT OF THE STRUCTURE FOR THE REPAIR ITEMS LISTED FOR DURING THE DURATION OF THE PROJECT. ALSO INCLUDES ANY NECESSARY FORMWORK TO STOP DEBRIS FROM FALLING INTO THE CUMBERLAND RIVER. BRACING PLANS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.
- (2) NOTE: ITEM INCLUDES FURNISHING ALL MATERIALS, TOOLS AND LABOR NECESSARY FOR COMPLETION OF STRUCTURAL STEEL REPAIRS TO THE BEARING STIFFENERS AS DESIGNATED IN THE PLANS. STRUCTURAL STEEL PLATE SHALL BE ASTM A36 AND AREAS OUTSIDE OF WELDING ZONES SHALL BE SHOP PRIMED . SEE DRAWING NO. BR-122-181 FOR ADDITIONAL DETAILS.
- (3) NOTE: ITEM INCLUDES FURNISHING ALL MATERIALS, TOOLS AND LABOR NECESSARY FOR COMPLETION OF STRUCTURAL STEEL REPAIRS TO THE DIAPHRAGM AT ABUTMENT NO. 2 AS DESIGNATED IN THE PLANS. STRUCTURAL STEEL SHAPES SHALL BE ASTM A36 AND AREAS OUTSIDE OF WELDING ZONES SHALL BE SHOP PRIMED . SEE DRAWING NO. BR-122-181 FOR ADDITIONAL DETAILS.
- (4) NOTE: INCLUDES HAND TOOL CLEANING AND REPAINTING OF BEARINGS AT ABUTMENT NO. 1 AND NO. 2. SEE SHEET BR-122-178 FOR BEARING PAINTING NOTES.
- (5) NOTE: INCLUDES SPOT PAINTING OF BEAM ENDS AND SUPPORT DIAPHRAGMS AT ABUTMENTS. SEE SHEET BR-122-178 FOR STEEL PAINTING NOTES.
- (6) NOTE: THE CONTRACTOR IS REQUIRED TO PROCEED ACCORDINGLY TO TAKE ALL MANDATORY SAFEGUARDS PRESCRIBED BY STATE AND FEDERAL LAW FOR BOTH WORKER PROTECTION AND HAZARDOUS MATERIALS DISPOSAL. GIRDERS, BRACING AREAS AND BEARINGS AT ABUTMENTS DESIGNATED BY THE ENGINEER SHALL BE CLEANED AND PAINTED. SEE BRIDGE GENERAL NOTES AND TENNESSEE STANDARD SPECIFICATIONS SECTION 602.49 AND 602.50 FOR ADDITIONAL INFORMATION.
- (7) NOTE: CONCRETE TO BE HIGH EARLY STRENGTH (10 DAY). SEE BRIDGE GENERAL NOTES FOR ADDITIONAL REQUIREMENTS.
- (8) NOTE: ITEM INCLUDES REMOVAL OF AREAS DESIGNATED IN THE PLANS INCLUDING STRUCTURAL STEEL MEMBERS TO BE REPAIRED OR REPLACED, AREAS OF DETERIORATION ON ABUTMENTS AND DAMAGED PORTIONS OF SLOPE PAVEMENT.
- (9) NOTE: THIS ITEM MAY BE INCREASED, DECREASED OR ELIMINATED FROM THE PROJECT AS DIRECTED BY THE ENGINEER.
- (10) NOTE: SEE BRIDGE GENERAL NOTE (34) ON SHEET BR-122-179 FOR ADDITIONAL INFORMATION.
- (11) NOTE: THIS ITEM INCLUDES ALL LABOR AND MATERIALS TO REPLACE DAMAGED AREAS OF EXISTING SLOPE PAVING ADJACENT TO THE ABUTMENT BEAMS AND OTHER AREAS DESIGNATED BY THE ENGINEER. REPAIR AREAS SHALL BE REINFORCED WITH WELDED WIRE FABRIC (#4 WIRE AT 6" CENTERS) LOCATED IN THE MIDDLE OF THE SLAB AND EXTENDING TO WITHIN 3" OF THE EDGE OF THE REPAIRS.
- (12) NOTE: THIS ITEM INCLUDES ALL LABOR AND MATERIALS TO PREPARE AND EPOXY INJECT EXISTING DAMAGED AREAS OF THE ABUTMENT ENDWALLS.

CONST. NO.			
PROJECT NO.		YEAR	SHEET NO.
19013-4130-04		2016	2
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
ESTIMATED BRIDGE
QUANTITIES
I-65 OVER
CUMBERLAND RIVER
BR. ID NO. 19-I0065-10.24
BR. NO. 19I00650145
DAVIDSON COUNTY
2016

9/21/2016 \$PRF \$ Q:\2807126\b\0871b26gn.sht

GENERAL NOTES

- (1)

SPECIFICATIONS: STANDARD ROAD AND BRIDGE SPECIFICATIONS OF THE TENNESSEE DEPARTMENT OF TRANSPORTATION. (JANUARY 2015 EDITION)
- (2)

DESIGN SPECIFICATIONS: 7TH EDITION AASHTO 2014 LRFD BRIDGE DESIGN SPECIFICATIONS WITH ADDENDA.
- (3)

DEMOLITION: THE CONTRACTOR SHALL TAKE SPECIAL CARE TO PROTECT ANY PARTS OF THE STRUCTURE THAT ARE NOT TO BE REMOVED SPECIFICALLY. THE CONTRACTOR IS NOT ALLOWED TO USE A HYDRAULIC RAM MOUNTED ON A BACKHOE (COMMONLY CALLED A HOE RAM) OR OTHER SIMILARLY HEAVY EQUIPMENT FOR ABUTMENT CONCRETE REMOVAL. PNEUMATIC HAMMERS MAY BE USED TO REMOVE UNSOUND CONCRETE. SAWING OR CUTTING OF THE CONCRETE IS ACCEPTABLE SO LONG AS ANY SPECIFIED PROJECTION OF THE EXISTING REINFORCING STEEL IS MAINTAINED. ALL DEVICES PROPOSED FOR CONCRETE DEMOLITION SHALL MEET THE APPROVAL OF THE ENGINEER.
- (4)

FORMS AND FALSEWORK: ALL CONCRETE FORM WORK AND FALSEWORK SHALL BE REMOVED AFTER REPAIRS ARE COMPLETED. COST OF FORMS, FALSEWORK, AND THIS WORK SHALL BE COMPLETED BEFORE FINAL PAYMENT IS APPROVED.
- (5)

SHOP DRAWINGS: SEE STANDARD SPECIFICATIONS 105.02 – SHOP DRAWINGS ARE TO BE SENT TO THE BRIDGE REPAIR OFFICE IN THE DIVISION OF STRUCTURES. EACH SHOP DRAWING SHALL CONTAIN IN THE TITLE BLOCK THE FOLLOWING: THE STATE PROJECT NUMBER, COUNTY, BRIDGE NAME, BRIDGE NUMBER (OR STRUCTURE TYPE AND NUMBER), STATION AND CONTRACT NUMBER. SHOP DRAWINGS WHOSE TITLE BLOCKS DO NOT INCLUDE THE FOREGOING IDENTIFICATION WILL BE RETURNED FOR CORRECTION BEFORE ANY REVIEWS FOR APPROVAL ARE CONDUCTED.
- (6)

REINFORCING STEEL: SEE SECTION 604 AND 907 OF THE STANDARD SPECIFICATIONS. REINFORCEMENT SHALL BE ASTM A615 GRADE 60 UNLESS NOTED OTHERWISE.
- (7)

MECHANICAL BAR SPLICERS: MUST BE ON THE APPROVED PRODUCTS LIST MAINTAINED BY THE DIVISION OF MATERIALS AND TESTS. THE BAR SPlicer SHALL MEET AASHTO STANDARD SPECIFICATIONS FOR MECHANICAL CONNECTION. WHEN EPOXY COATING IS REQUIRED, THE EXPOSED THREADS SHALL BE REPAIRED AFTER SPLICING ACCORDING TO THE STANDARD SPECIFICATIONS, SECTION 907. THE COST OF FURNISHING THE BAR SPLICERS, (AND EPOXY COATING WHEN REQUIRED) INCLUDING ALL LABOR AND MATERIALS NECESSARY FOR COMPLETE INSTALLATION, SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM NO. 604-10.18, LBS.
- (8)

QUICK-SET PATCHING MATERIAL: QUICK-SET PATCHING MATERIAL SHALL BE A POLYMER MODIFIED CEMENTITIOUS PATCHING MATERIAL. SEE T.D.O.T. QUALIFIED PRODUCTS LIST 13.009 POLY MOD CEMENT STRUCT PATCH VERT & OVER FOR ACCEPTABLE PATCHING MATERIALS.
- (9)

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE STABILITY OF THE STRUCTURE DURING CONSTRUCTION. DESIGN CALCULATIONS AND DETAILS OF TEMPORARY SUPPORT SYSTEM OR FALSEWORK REQUIRED SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND SHALL MEET WITH THE FULL SATISFACTION OF THE ENGINEER. . COST SHALL BE INCLUDED IN ITEM NO. 602-10.05, BRACING REPAIRS, L.S.

- (10)

GROUTED BARS IN DRILLED HOLES: HORIZONTALLY DRILLED HOLES SHALL BE DRILLED 1/2 " IN DIAMETER LARGER THAN THE BAR, CLEANED, PACKED WITH NON-SHRINK GROUT AND THE BAR ROTATED (NOT DRIVEN) INTO ITS SEAT. VERTICALLY DRILLED HOLES SHALL BE DRILLED 1/4 " IN DIAMETER LARGER THAN THE BAR, CLEANED, PACKED WITH EPOXY GROUT AND BAR DRIVEN TO ITS SEAT. ALL GROUTING MATERIALS SHALL BE APPROVED BY TDOT MATERIALS AND TESTS.

STRUCTURAL STEEL NOTES

- (11)

APPROVAL OF MATERIALS: NO FABRICATION SHALL BE STARTED UNTIL THE MATERIALS INVOLVED HAVE BEEN APPROVED BY THE ENGINEER AND OR AS REQUIRED BY THE TDOT DIVISION OF MATERIALS & TESTS.
- (12)

IDENTITY OF MAIN MATERIALS: SEE SECTION 602 OF THE STANDARD SPECIFICATIONS.
- (13)

WELDING: SEE CURRENT EDITION OF THE AASHTO/AWS D1.5 BRIDGE WELDING CODE. CONTRACTOR IS TO SUBMIT WELDING PROCEDURE SPECIFICATIONS (BASED ON SUCCESSFUL TEST RESULTS AS RECORDED IN A PROCEDURE QUALIFICATION TEST RECORD, SEE AASHTO/AWS D1.5 SECTION 1.9 AND SECTION 5 (QUALIFICATION)) AND WELDER CERTIFICATIONS TO THE ENGINEER FOR REVIEW BEFORE WELDING WILL BE ALLOWED. WELDER CERTIFICATION SHALL INCLUDE PROOF OF CONTINUOUS WORK USING THE SPECIFIED WELDING PROCESS.
- (14)

WELDING PROCEDURE SPECIFICATIONS ARE NOT REQUIRED FOR TEMPORARY WELDS.
- (15)

THE WELDING PROCEDURE SPECIFICATIONS SHOULD BE ON SITE FOR WELDER AND INSPECTOR REVIEW. WELDING IS TO BE DONE BY THE CERTIFIED WELDER; SUPERVISION OF NON-CERTIFIED WELDER IS NOT PERMITTED. TDOT HAS THE OPTION OF HAVING THE WELDER RECERTIFIED IF QUESTIONABLE WORK IS OBSERVED; COST OF THIS RECERTIFICATION IS TO BE PAID FOR BY THE CONTRACTOR. WELDER QUALIFICATION POSITIONS FOR FILLET AND GROOVE WELDS: FLAT (F), HORIZONTAL (H), VERTICAL (V), OVERHEAD (OH), SEE FIG 5.4 OR FIG 5.5 IN AASHTO/AWS D1.5 FOR POSITION LIMITS.

QJALIFICATION TEST		TYPE OF WELD AND POSITION OF WELDING QUALIFIED PLATE	
WELD	POSITION	GROOVE	FILLET
GROOVE	1G	F	F,H
	2G	F,H	F,H
	3G	F,H,V	F,H,V
	4G	F,OH	F,H,OH
	3G AND 4G	ALL	ALL
FILLET	1F		F
	2F		F,H
	3F		F,H,V
	4F		F,H,OH
	3F AND 4F		ALL

FROM TABLE 5.7, WELDER QUALIFICATION – TYPE AND POSITION LIMITATIONS; AASHTO/AWS D1.5

- (16)

RADIOGRAPHIC, ULTRASONIC, AND MAGNETIC INSPECTION: SEE SECTION 602 OF THE STANDARD SPECIFICATIONS.
- (17)

STRUCTURAL STEEL: SHALL CONFORM TO ASTM A36 GRADE 36 UNLESS OTHERWISE NOTED.

STEEL PAINTING NOTES

- (18)

CONTAINMENT AND DISPOSAL: OUR RECORDS SHOW THAT THIS BRIDGE HAS OR HAS HAD LEAD/CHROMATE PAINT APPLIED TO IT DURING IT’S HISTORY; THEREFORE, THE CONTRACTOR SHALL ASSUME THAT REMNANTS OF THAT PAINT REMAIN ON THE BRIDGE. SEE TENNESSEE STANDARD SPECIFICATIONS SECTION 603.13 FOR SPECIAL PRECAUTIONS THAT MUST BE TAKEN IN THE REMOVAL; CONTAINMENT AND DISPOSAL OF THE SURFACE PREPARATION WASTE AND PAINT REMOVAL MEDIA; AND, WORKER AND PUBLIC SAFETY.
- (19)

SPECIAL NOTE SURFACE PREPARATION FOR PAINT: OUR RECORDS SHOW THAT THIS BRIDGE HAS OR HAS HAD LEAD/CHROMATE PAINT APPLIED TO IT DURING IT’S HISTORY; THEREFORE, THE CONTRACTOR SHALL ASSUME THAT REMNANTS OF THAT PAINT REMAIN ON THE BRIDGE ALONG WITH THE POSSIBILITY OF THE PRESENCE OF MILL SCALE. CONTRACTOR SHALL BID ACCORDINGLY.
- (20)

WORKER PROTECTION: OUR MAINTENANCE RECORDS INDICATE THAT THIS BRIDGE WAS ORIGINALLY PAINTED WITH MATERIALS CONTAINING LEAD AND/OR CHROMATES AND THE CONTRACTOR SHALL BE REQUIRED TO PROCEED ACCORDINGLY AND TAKE ALL MANDATORY SAFEGUARDS PRESCRIBED BY THE STATE AND FEDERAL LAW FOR WORKER PROTECTION AND HAZARDOUS MATERIALS DISPOSAL.
- (21)

SPOT CLEANING AND PAINTING: AREAS REQUIRING REPAINTING OF STEEL SHALL BE CLEANED IN ACCORDANCE WITH THE TENNESSEE STANDARD SPECIFICATIONS SECTION 603.05(A). HAND (SSPC-SP2) OR POWER (SSPC-SP3) TOOL CLEANING SHALL REMOVE ALL RUST, SCALE, LOOSE PAINT, AND DIRT. THESE AREAS SHALL BE SPOT PRIMED IMMEDIATELY AFTER CLEANING. CLEANED AND PRIMED STEEL SHALL RECEIVE A SYSTEM B OR C PAINT SYSTEM IN ACCORDANCE TO THE TENNESSEE STANDARD SPECIFICATIONS SUBSECTION 603.06(B). THE COLOR OF THE FINISH COAT SHALL COMPLY WITH THE FEDERAL STANDARD NO. 595C, FEDERAL SPEC. NO. 14110 (BRIGHT GREEN). SEE SECTIONS 603 AND 910 OF THE STANDARD SPECIFICATIONS.
- (22)

SEE THE TENNESSEE DEPARTMENT OF TRANSPORTATION’S QUALIFIED PRODUCTS LIST 3 FOR ACCEPTABLE COATINGS FOR THE PAINT SYSTEM. THE SAME MANUFACTURER SHALL SUPPLY ALL PRODUCTS USED, INCLUDING THINNERS.

BEARING PAINTING NOTES

- (23)

BEARING CLEANING AND PAINTING: ALL STEEL BEARINGS SHALL BE CLEANED AND PAINTED. CLEANING SHALL BE IN ACCORDANCE WITH THE TENNESSEE STANDARD SPECIFICATIONS SECTION 603.05(A). HAND (SSPC-SP2) OR POWER (SSPC-SP3) TOOL CLEANING SHALL REMOVE ALL RUST, SCALE LOOSE PAINT, AND DIRT. AFTER CLEANING, THE BEARINGS SHALL BE PAINTED WITH AN APPROVED EPOXY MASTIC PAINT APPLIED AT A MINIMUM DRY FILM THICKNESS OF 4.0 MILS. THE COLOR OF THE FINISH COAT SHALL COMPLY WITH THE FEDERAL STANDARD NO. 595C, FEDERAL SPEC. NO. 14110 (BRIGHT GREEN). SEE SECTIONS 603 AND 910 OF THE STANDARD SPECIFICATIONS.

- (24)

SEE THE TENNESSEE DEPARTMENT OF TRANSPORTATION’S QUALIFIED PRODUCTS LIST 3 FOR ACCEPTABLE BRANDS OF EPOXY MASTIC. THE SAME MANUFACTURER SHALL SUPPLY ALL PRODUCTS USED, INCLUDING THINNERS.
- (25)

APPLICATION: THE COATING APPLICATOR SHALL FOLLOW THE MANUFACTURER’S PRINTED INSTRUCTIONS AND SHALL HAVE THESE INSTRUCTIONS ON SITE DURING THE COURSE OF THE WORK.

CONCRETE STRENGTH AND CURE TIME NOTES

- (26)

FINISHING CONCRETE SURFACES: CONCRETE FINISHING SHALL BE IN ACCORDANCE WITH SECTION 604.22 OF THE STANDARD SPECIFICATIONS. A CLASS II FINISH FOLLOWED BY A NON-PENETRATING CONCRETE SEALER IN DESIGNATED AREAS SHALL BE USED.
- (27)

HIGH EARLY STRENGTH CONCRETE: THE MIX IS TO MEET THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS, CLASS “A”, EXCEPT: THE CEMENT CONTENT SHALL BE A MINIMUM OF 714 LBS., THE WATER CEMENT RATIO SHALL BE A MAXIMUM OF 0.40, NO FLY ASH REPLACEMENT WILL BE PERMITTED, AND THE MINIMUM 28 DAY COMPRESSIVE STRENGTH SHALL BE 3,500 PSI. TRAFFIC SHALL NOT BE PERMITTED ON ANY OF THE REPAIRED AREAS UNTIL TEST SPECIMENS ATTAIN A COMPRESSIVE STRENGTH OF 3,000 PSI MINIMUM AND THE CONCRETE HAS BEEN IN PLACE A MINIMUM OF TEN (10) DAYS.
- (28)

CONCRETE CURING: ALL CONCRETE IN REPAIR AREAS SHALL BE CURED ACCORDING TO THE STANDARD SPECIFICATIONS.

UTILITY NOTES

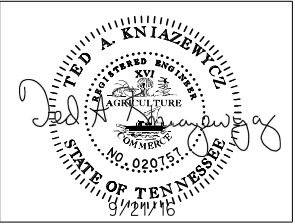
- (29)

THE LOCATIONS OF UTILITIES SHOWN WITHIN THESE PLANS ARE APPROXIMATE ONLY. EXACT LOCATIONS SHALL BE DETERMINED IN THE FIELD BY CONTACTING THE UTILITY COMPANIES INVOLVED. NOTIFICATION BY CALLING THE TENNESSEE ONE CALL SYSTEM, INC., AT 1-800-351-1111 AS REQUIRED BY TCA 65-31-106 IS REQUIRED.
- (30)

UNLESS OTHERWISE NOTED, ALL UTILITY ADJUSTMENTS WILL BE PERFORMED BY THE UTILITY OR IT’S REPRESENTATIVE. THE CONTRACTOR AND UTILITY OWNERS WILL BE REQUIRED TO COOPERATE WITH EACH OTHER IN ORDER TO EXPEDITE THE WORK REQUIRED BY THIS CONTRACT. ON CONTRACTS WHERE CONSTRUCTION STAKES, LINES, AND GRADES ARE CONTRACT ITEMS, THE CONTRACTOR WILL BE REQUIRED TO PROVIDE RIGHT-OF-WAY OR SLOPE STAKES, DITCH OR STREAM BED GRADES, OR OTHER ESSENTIAL SURVEY STAKING TO PREVENT CONFLICTS WITH THE HIGHWAY CONSTRUCTION. FREQUENTLY, THIS WILL BE REQUIRED AS THE FIRST ITEM OF WORK AND AT ANY LOCATION ON THE PROJECT DIRECTED BY THE ENGINEER.

CONST. NO.			
PROJECT NO.	YEAR	SHEET NO.	
19013-4130-04	2016	2A	
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BRIDGE GENERAL NOTES
SHEET 1 OF 2
I-65 OVER
CUMBERLAND RIVER
BR. ID NO. 19-I0065-10.24
BR. NO. 19I00650145
DAVIDSON COUNTY
2016



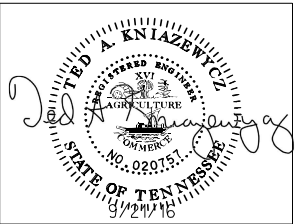
9/21/2016 \$PRF \$ Q:\2807126\0871b26gn2.sht

- (31) THE CONTRACTOR WILL PROVIDE ALL NECESSARY PROTECTIVE MEASURES TO SAFEGUARD EXISTING UTILITIES FROM DAMAGE DURING CONSTRUCTION OF THIS PROJECT. IN THE EVENT THAT SPECIAL EQUIPMENT IS REQUIRED TO WORK OVER AND AROUND THE UTILITIES, THE CONTRACTOR WILL BE REQUIRED TO FURNISH SUCH EQUIPMENT. THE COST OF PROTECTING UTILITIES FROM DAMAGE AND FURNISHING SPECIAL EQUIPMENT WILL BE INCLUDED IN THE PRICE BID FOR OTHER ITEMS OF CONSTRUCTION.
- (32) PRIOR TO SUBMITTING HIS BID, THE CONTRACTOR WILL BE SOLELY RESPONSIBLE FOR CONTACTING OWNERS OF ALL AFFECTED UTILITIES IN ORDER TO DETERMINE THE EXTENT TO WHICH UTILITY RELOCATIONS AND/OR ADJUSTMENTS WILL HAVE UPON THE SCHEDULE OF WORK FOR THE PROJECT. WHILE SOME WORK MAY BE REQUIRED 'AROUND' UTILITY FACILITIES THAT WILL REMAIN IN PLACE, OTHER UTILITY FACILITIES MAY NEED TO BE ADJUSTED CONCURRENTLY WITH THE CONTRACTOR'S OPERATIONS. ADVANCE CLEAR CUTTING MAY BE REQUIRED BY THE ENGINEER AT ANY LOCATION WHERE CLEARING IS CALLED FOR IN THE SPECIFICATIONS AND CLEAR CUTTING IS NECESSARY FOR A UTILITY RELOCATION. ANY ADDITIONAL COST WILL BE INCLUDED IN THE UNIT PRICE BID FOR OTHER ITEMS
- (33) THE CONTRACTOR SHALL NOTIFY EACH UTILITY OWNER OF HIS PLAN OF OPERATION IN THE AREA OF THE UTILITIES. PRIOR TO COMMENCING WORK, THE CONTRACTOR SHALL CONTACT THE UTILITY OWNERS AND REQUEST THEM TO PROPERLY LOCATE THEIR RESPECTIVE UTILITY ON THE GROUND. THIS NOTIFICATION SHALL BE GIVEN AT LEAST THREE (3) BUSINESS DAYS PRIOR TO COMMENCEMENT OF OPERATIONS AROUND THE UTILITY IN ACCORDANCE WITH TCA 65-31-106.
- (34) CONCRETE SEALER: CONCRETE SEALER SHALL BE APPLIED TO ABUTMENTS NO. 1 & NO. 2 AND THE TOP SURFACES OF RENT CAPS 1 AND 5. CONCRETE SEALER SHALL BE APPLIED TO THE FRONT VERTICAL FACE OF THE ABUTMENT BACKWALL, THE FRONT AND TOP OF THE ABUTMENT BEAM PLUS ANY OTHER AREAS THAT ARE DEEMED NECESSARY BY THE ENGINEER. CONCRETE SHALL BE CLEAN AND DRY BEFORE APPLYING THE CONCRETE SEAL, AND THE THICKNESS OF THE SEAL SHALL BE AS RECOMMENDED BY THE SEALANT MANUFACTURER. ACCEPTABLE CONCRETE SEALERS ARE INCLUDED IN THE QUALIFIED PRODUCTS LIST FOR NON-PENETRATING CONCRETE SEALS MAINTAINED BY THE DIVISION OF MATERIALS AND TESTS. THE SEALER SHALL BE CLEAR OR SIMILAR TO THE COLOR OF EXISTING CONCRETE SURFACES TO BE SEALED.

SPECIAL NOTES

- (35) MATERIALS, CONSTRUCTION, AND WORKMANSHIP WILL BE IN ACCORDANCE WITH STANDARD ROAD AND BRIDGE SPECIFICATIONS OF THE TENNESSEE DEPARTMENT OF HIGHWAYS (CURRENT EDITION).
- (36) SPECIAL NOTE TO CONTRACTOR: CONTRACTOR SHALL USE EXTREME CARE AND TAKE ANY MEASURE NECESSARY TO INSURE THAT NO DEBRIS IS DROPPED INTO THE RIVER. ANY DEBRIS, WHICH IS ALLOWED TO DROP ON THE BANKS BELOW THE BRIDGE, SHALL NOT BE ALLOWED TO ENTER THE RIVER AND SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR. COST OF REMOVING AND DISPOSING OF DEBRIS SHALL BE INCLUDED IN ITEMS BID ON.
- (37) SPECIAL NOTE CONCERNING WORK OVER A NAVIGABLE WATERWAY: THE CONTRACTOR SHALL COMPLY FULLY WITH ANY REQUIREMENTS ESTABLISHED BY THE CORPS OF ENGINEERS, U.S. COAST GUARD, AND ANY OTHER AGENCIES WHICH MAY HAVE JURISDICTION RELATIVE TO CONSTRUCTION WORK OVER A NAVIGABLE STREAM WHICH IS APPLICABLE TO THIS CONTRACT, AND WHICH MAY NOT BE COVERED BY EXISTING PERMITS. THE CONTRACTOR SHALL NOTIFY THE CORPS OF ENGINEERS INFORMING THEM OF WORK TO BE PERFORMED BEFORE ANY WORK OVER THE WATERWAY IS BEGUN. THE CONTRACTOR SHALL SUBMIT A DESCRIPTION OF WORK AND SKETCHES OF ANY FALSEWORK, SCAFFOLDING, DEBRIS CONTAINMENT SYSTEMS, ETC... WHICH MAY BE REQUIRED DURING CONSTRUCTION WHICH MAY ENCROACH UPON THE VERTICAL AND/OR HORIZONTAL CLEARANCES FOR WATERWAY TRAFFIC TO THE U.S. COAST GUARD FOR APPROVAL BEFORE ANY WORK IS BEGUN.
- CONTACT: ERIC WASHBURN
U.S. COAST GUARD
BRIDGE ADMINISTRATOR
1222 SPRUCE STREET
ST. LOUIS, MO 63103-2832
- (38) NOTE: CONTRACTOR SHALL INSURE THAT ALL NAVIGATIONAL LIGHTING COMPONENTS ARE FULLY FUNCTIONAL AND OPERATING THROUGHOUT THE DURATION OF THE PROJECT.


CONST. NO. _____			
PROJECT NO.		YEAR	SHEET NO.
19013-4130-04		2016	2B
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BRIDGE GENERAL NOTES
SHEET 2 OF 2
I-65 OVER
CUMBERLAND RIVER
BR. ID NO. 19-I0065-10.24
BR. NO. 19I00650145
DAVIDSON COUNTY
2016

PIN 121367.00

DESIGNED BY GRESHAM SMITH & PARTNERS DATE 3/2015
DRAWN BY G. YOUNG DATE 3/2015
SUPERVISED BY T. KNIAZEWYCZ DATE 3/2015
CHECKED BY K. MCALISTER DATE 8/2016



GRESHAM
SMITH AND
PARTNERS

GENERAL NOTES

GRADING

- (1) ANY AREA THAT IS DISTURBED OUTSIDE LIMITS OF CONSTRUCTION DURING *THE LIFE OF THIS PROJECT SHALL BE REPAIRED BY THE CONTRACTOR AT HIS EXPENSE.*
- (2) THE CONTRACTOR SHALL NOT DISPOSE OF ANY MATERIAL EITHER ON OR OFF STATE-OWNED R.O.W. IN A REGULATORY FLOOD WAY AS DEFINED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY WITHOUT APPROVAL BY SAME. ALL MATERIAL SHALL BE DISPOSED OF IN UPLAND (NON-WETLAND) AREAS AND ABOVE ORDINARY HIGH WATER OF ANY ADJACENT WATERCOURSE. THIS DOES NOT ELIMINATE THE NEED TO OBTAIN ANY OTHER LICENSES OR PERMITS THAT MAY BE REQUIRED BY ANY OTHER FEDERAL, STATE OR LOCAL AGENCY.

GUARDRAIL

- (3) THE CONTRACTOR SHALL NOT REMOVE ANY SECTIONS OF EXISTING GUARDRAIL TO REWORK SHOULDERS OR FLATTEN SLOPES UNTIL THE ENGINEER CONCURS IN THE NECESSITY OF REMOVAL DUE TO CONSTRUCTION REQUIREMENTS AND THE APPROPRIATE WARNING DEVICES ARE INSTALLED. THE PROPOSED GUARDRAIL, INCLUDING ANY ANCHOR SYSTEM, SHALL BE INSTALLED QUICKLY TO MINIMIZE TRAFFIC EXPOSURE TO ANY HAZARD. NO PAYMENT WILL BE MADE FOR A SECTION OF PROPOSED GUARDRAIL, INCLUDING ANCHORS, UNTIL IT IS COMPLETE IN PLACE.
- (4) IF ANY APPROACH END OF A SECTION OF GUARDRAIL OR BRIDGE RAIL MUST TEMPORARILY BE LEFT INCOMPLETE AND EXPOSED TO TRAFFIC, THE CONTRACTOR SHALL USE TWO (2) TEMPORARY BARRICADES OR DRUMS WITH TYPE A LIGHTS AND ROUNDED END ELEMENTS AS MINIMUM MEASURES TO PROTECT TRAFFIC FROM THE HAZARD OF AN EXPOSED END. ALL COST OF FURNISHING AND INSTALLING A TEMPORARY ROUNDED END ELEMENT SHALL BE INCLUDED IN THE COST OF THE PROPOSED GUARDRAIL.

MISCELLANEOUS

- (5) NOTHING IN THE GENERAL NOTES OR SPECIAL PROVISIONS SHALL RELIEVE THE CONTRACTOR FROM HIS RESPONSIBILITIES TOWARD THE SAFETY AND CONVENIENCE OF THE GENERAL PUBLIC AND THE RESIDENTS ALONG THE PROPOSED CONSTRUCTION AREA

ROAD CLOSURE

- (6) NO LESS THAN SEVEN (7) DAYS PRIOR TO THE CLOSURE OF THE ROAD, THE CONTRACTOR SHALL NOTIFY THE FOLLOWING INDIVIDUALS OR AGENCIES COMPLETELY DESCRIBING THE AFFECTED ROADS AND THE APPROXIMATE DURATION OF THE CONSTRUCTION: THESE PARTIES INCLUDE, BUT ARE NOT LIMITED TO: (1) LOCAL LAW ENFORCEMENT OFFICE, (2) LOCAL FIRE DEPARTMENT, (3) AMBULANCE SERVICE, (4) LOCAL SCHOOL SUPERINTENDENT, (5) UNITED STATES POSTAL SERVICE, AND (6) LOCAL ROAD SUPERINTENDENT.

CONSTRUCTION WORK ZONE & TRAFFIC CONTROL

- (7) ADVANCED WARNING SIGNS SHALL NOT BE DISPLAYED MORE THAN FORTY-EIGHT (48) HOURS BEFORE PHYSICAL CONSTRUCTION BEGINS. SIGNS MAY BE ERECTED UP TO ONE WEEK BEFORE NEEDED, IF THE SIGN FACE IS FULLY COVERED.
- (8) IF THE CONTRACTOR MOVES OFF THE PROJECT, HE SHALL COVER OR REMOVE ALL UNNEEDED SIGNS AS DIRECTED BY THE ENGINEER. COSTS OF REMOVAL, COVERING, AND REINSTALLING SIGNS SHALL NOT BE MEASURED AND PAID FOR SEPARATELY, BUT ALL COSTS SHALL BE INCLUDED IN THE ORIGINAL UNIT PRICE BID FOR ITEM NO 712-06, SIGNS (CONSTRUCTION) PER SQUARE FOOT.
- (9) A LONG TERM BUT SPORADIC USE WARNING SIGN, SUCH AS A FLAGGER SIGN, MAY REMAIN IN PLACE WHEN NOT REQUIRED PROVIDED THE SIGN FACE IS FULLY COVERED.
- (10) TRAFFIC CONTROL DEVICES SHALL NOT BE DISPLAYED OR ERECTED UNLESS RELATED CONDITIONS ARE PRESENT NECESSITATING WARNING.
- (11) USE OF BARRICADES, PORTABLE BARRIER RAILS, VERTICAL PANELS, AND DRUMS SHALL BE LIMITED TO THE IMMEDIATE AREAS OF CONSTRUCTION WHERE A HAZARD IS PRESENT. THESE DEVICES SHALL NOT BE STORED ALONG THE ROADWAY WITHIN THIRTY (30) FEET OF THE EDGE OF THE TRAVELED WAY BEFORE OR AFTER USE UNLESS PROTECTED BY GUARDRAIL, BRIDGE RAIL, AND/OR BARRIERS INSTALLED FOR OTHER PURPOSES FOR ROADWAYS WITH CURRENT ADT'S LESS THAN 1500 AND DESIGN SPEED OF LESS THAN 60 MPH. THIS DISTANCE SHALL INCREASE TO FORTY-FIVE (45) FEET FOR ROADWAYS WITH CURRENT ADT'S OF 1500 OR GREATER AND DESIGN SPEED OF 60 MPH OR GREATER OR ON THE

- OUTSIDE OF A HORIZONTAL CURVE. THESE DEVICES SHALL BE REMOVED FROM THE CONSTRUCTION WORK ZONE WHEN THE ENGINEER DETERMINES THEY ARE NO LONGER NEEDED. WHERE THERE IS INSUFFICIENT RIGHT-OF-WAY TO PROVIDE FOR THIS REQUIRED SETBACK, THE CONTRACTOR SHALL DETERMINE THE ALTERNATE LOCATIONS AND REQUEST THE ENGINEER'S APPROVAL TO USE THEM.
- (12) THE CONTRACTOR SHALL NOT BE PERMITTED TO PARK ANY VEHICLES OR CONSTRUCTION EQUIPMENT DURING PERIODS OF INACTIVITY, WITHIN THIRTY (30) FEET OF THE EDGE OF PAVEMENT WHEN THE LANE IS OPEN TO TRAFFIC UNLESS PROTECTED BY GUARDRAIL, BRIDGE RAIL, AND/OR BARRIERS INSTALLED FOR OTHER PURPOSES FOR ROADWAYS WITH CURRENT ADT'S LESS THAN 1500 AND DESIGN SPEED OF LESS THAN 60 MPH. THIS DISTANCE SHALL BE INCREASED TO FORTY-FIVE (45) FEET FOR ROADWAYS WITH CURRENT ADT'S OF 1500 OR GREATER AND DESIGN SPEED OF 60 MPH OR GREATER OR ON THE OUTSIDE OF A HORIZONTAL CURVE. PRIVATELY OWNED VEHICLES SHALL NOT BE ALLOWED TO PARK WITHIN THIRTY (30) FEET OF A OPEN TRAFFIC LANE AT ANY TIME UNLESS PROTECTED AS DESCRIBED ABOVE FOR ROADWAYS WITH CURRENT ADT'S LESS THAN 1500 AND DESIGN SPEED OF LESS THAN 60 MPH. THIS DISTANCE SHALL BE INCREASED TO FORTY-FIVE (45) FEET FOR ROADWAYS WITH CURRENT ADT'S OF 1500 OR GREATER AND DESIGN SPEED OF 60 MPH OR GREATER OR ON THE OUTSIDE OF A HORIZONTAL CURVE.. WHERE THERE IS INSUFFICIENT RIGHT-OF-WAY TO PROVIDE FOR THIS REQUIRED SETBACK, THE CONTRACTOR SHALL DETERMINE THE ALTERNATE LOCATIONS AND REQUEST THE ENGINEER'S APPROVAL TO USE THEM.
- (13) ALL DETOUR AND CONSTRUCTION SIGNING SHALL BE IN STRICT ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
- EROSION PREVENTION AND SEDIMENT CONTROL DISTURBED AREA**
- (14) ALL DISTURBED AREAS SHALL BE PROPERLY STABILIZED AS SOON AS PRACTICABLE. PRIORITY SHALL BE GIVEN TO FINISHING OPERATIONS AND PERMANENT EPSC MEASURES OVER TEMPORARY EPSC MEASURES ON ALL PROJECTS.
- SEDIMENT CONTROL**
- (15) OFFSITE VEHICLE TRACKING OF SEDIMENTS AND THE GENERATION OF DUST SHALL BE MINIMIZED. A STABILIZED CONSTRUCTION ACCESS (A POINT OF ENTRANCE/EXIT TO THE CONSTRUCTION PROJECT) SHALL BE PROVIDED, AS NEEDED, TO REDUCE THE TRACKING OF MUD AND DIRT ONTO PUBLIC ROADS BY CONSTRUCTION VEHICLES.
- (16) TEMPORARY EPSC MEASURES MAY BE REMOVED AT THE BEGINNING OF THE WORKDAY, BUT MUST BE REPLACED AT THE END OF THE WORKDAY.
- STREAM/WETLAND**
- (17) THE OPERATION OF EQUIPMENT IN WATERS OF THE STATE/U.S., INCLUDING WETLANDS, SHALL BE ONLY AS SHOWN ON THE PROJECT PLANS AND/OR AS SO SPECIFIED IN THE ARAP/401, SECTION 404 PERMIT(S) AND/OR TVA26(A). IF APPLICABLE. ANY ADDITIONAL PERMITS REQUIRED BY THE CONTRACTOR'S METHOD OF OPERATION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN, AFTER RECEIVING THE APPROVAL OF TDOT ENVIRONMENTAL DIVISION.
- (18) WETLANDS SHALL NOT BE USED AS EQUIPMENT STORAGE, STAGING, OR TRANSPORTATION AREAS, UNLESS PROVIDED FOR IN THE PLANS.
- INSPECTION, MAINTENANCE, REPAIR**
- (19) EPSC CONTROLS WILL BE MAINTAINED IN ACCORDANCE WITH TDOT STANDARD DRAWINGS AND GOOD ENGINEERING PRACTICES.
- (20) INSPECTION, REPAIR, AND MAINTENANCE OF EPSC MEASURES / STRUCTURES IS TO BE PERFORMED ON A REGULAR BASIS. SEDIMENT SHALL BE REMOVED FROM SEDIMENT CONTROL STRUCTURES WHEN THE DESIGN CAPACITY HAS BEEN REDUCED BY FIFTY PERCENT (50%). DURING SEDIMENT REMOVAL, THE CONTRACTOR SHALL TAKE CARE TO ENSURE THAT STRUCTURAL COMPONENTS OF EPSC MEASURES ARE NOT DAMAGED AND THUS MADE INEFFECTIVE. IF DAMAGE DOES OCCUR, THE CONTRACTOR SHALL REPAIR THE STRUCTURES AT THE CONTRACTOR'S OWN EXPENSE.
- SWPPP, PERMITS, PLANS, RECORDS**
- (21) THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR AND OBTAIN ANY NECESSARY ENVIRONMENTAL PERMITS OR APPROVALS, INCLUDING BUT NOT LIMITED TO TDEC ARAP/401, USACE SECTION 404, TVA SECTION 26A, AND TDOT NPDES PERMITS, FROM FEDERAL, STATE AND/OR LOCAL AGENCIES REGARDING THE OPERATION OF ANY PROJECT-DEDICATED ASPHALT AND/OR CONCRETE PLANTS.

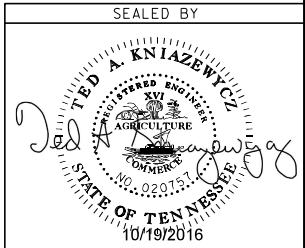
- (22) ANY DISAGREEMENT BETWEEN THE PROJECT PLANS, THE PROJECT AS CONSTRUCTED, AND THE PERMIT(S) ISSUED FOR THE PROJECT, SHALL BE BROUGHT TO THE ATTENTION OF THE TDOT PROJECT ENGINEER. THE ENVIRONMENTAL DIVISION, ROADWAY DESIGN DIVISION, AND HEADQUARTERS CONSTRUCTION OFFICE SHALL BE CONTACTED IN THESE INSTANCES AND DECIDE WHICH HAS PRECEDENCE AND WHETHER PERMIT OR PLANS REVISIONS ARE NEEDED. IN GENERAL, PERMIT CONDITIONS WILL PREVAIL.
- (23) IF A CHANGE IN PROJECT SCOPE OCCURS DURING CONSTRUCTION, INCLUDING VALUE ENGINEERING, THE ENVIRONMENTAL DIVISION SHALL BE CONTACTED TO DETERMINE WHETHER PERMIT REVISIONS OR MODIFICATIONS OF THE SWPPP ARE NEEDED. THE ROADWAY DESIGN DIVISION SHALL BE CONTACTED TO DETERMINE IF ANY PLAN REVISIONS ARE NEEDED.

LITTER, DEBRIS, WASTE, PETROLEUM

- (24) THE CONTRACTOR SHALL ESTABLISH AND MAINTAIN A PROACTIVE METHOD TO PREVENT LITTER, CONSTRUCTION DEBRIS, AND CONSTRUCTION WASTES FROM ENTERING WATERS OF THE STATE/U.S. THESE MATERIALS WILL BE PICKED UP AND REMOVED FROM STORMWATER EXPOSURE PRIOR TO ANTICIPATED STORM EVENTS. AFTER USE, MATERIALS USED FOR EPSC WILL BE REMOVED FROM THE SITE.
- (25) THE CONTRACTOR SHALL TAKE APPROPRIATE STEPS TO ENSURE THAT PETROLEUM PRODUCTS OR OTHER CHEMICAL POLLUTANTS ARE PREVENTED FROM ENTERING WATERS OF THE STATE/U.S. ALL EQUIPMENT REFUELING, SERVICING, AND STAGING AREAS SHALL COMPLY WITH ALL LOCAL, STATE, AND FEDERAL LAWS, RULES, REGULATIONS, AND ORDINANCES, INCLUDING THOSE OF THE NATIONAL FIRE PROTECTION ASSOCIATION (NFPA). APPROPRIATE CONTAINMENT MEASURES FOR THESE AREAS SHALL BE USED. ALL SPILLS MUST BE REPORTED TO THE APPROPRIATE AGENCY, AND MEASURES SHALL BE TAKEN IMMEDIATELY TO PREVENT THE POLLUTION OF WATERS OF THE STATE/U.S., INCLUDING GROUNDWATER, SHOULD A SPILL OCCUR.

TYPE	YEAR	PROJECT NO.	SHEET NO.
MAINT.	2016	19013-4130-04	2C

REV.10-19-16: REVISED NOTES



ITS NOTES

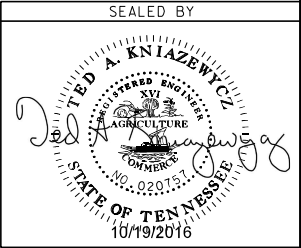
- (1) THIS WORK IS REQUIRED TO MAINTAIN THE EXISTING TDOT ITS FIBER OPTIC INFRASTRUCTURE. ALL ITS WORK MUST BE PERFORMED BY A QUALIFIED ITS CONTRACTOR OR SUBCONTRACTOR AT PER THE SP725. REFER TO THE 725 SPECIAL PROVISION FOR ALL PROCEDURES AND SPECIFICATIONS RELATED TO ITS. ITS CONDUIT CONTAINING THE MAIN LINE 72F FIBER OPTIC CABLE CURRENTLY RUNS IN FRONT OF AREAS TO BE REPAIRED ON ABUTMENTS 1 AND 2. THE ITS PORTION OF THIS PROJECT SHALL BE ACCOMPLISHED IN TWO PHASES. PHASE ONE SHALL TEMPORARILY RELOCATE THE TDOT ITS FIBER AND CONDUIT OUT OF THE WAY OF THE BRIDGE REPAIR AREAS. PHASE TWO WILL REQUIRE THE INSTALLATION OF NEW ITS STRUCTURE CONDUIT IN THE VICINITY OF THE ABUTMENTS AND RUN NEW FIBER BETWEEN THE EXISTING SPLICES AT EITHER END OF THE BRIDGE.
- PHASE 1
- 1.) THE CONTRACTOR MUST CONTACT RYAN LYTLE (AT THE TDOT TRANSPORTATION MANAGEMENT CENTER TMC 615-350-3427) PRIOR TO WORKING ON THE TDOT ITS FIBER INFRASTRUCTURE.
- 2.) THE 72F FIBER SHALL BE DISCONNECTED AT THE SPLICE IN THE PULL BOX LOCATED AT 36° 11' 32.34"N, 86° 46' 52.50"W.
- 3.) THE 72F FIBER SHALL BE PULLED BACK TO THE PULL BOX AT ABUTMENT 1 (36° 11' 30.60"N, 86° 47' 06.48"W) TEMPORARILY.
- 4.) THE STRUCTURE CONDUIT SHALL BE REMOVED IN THE VICINITY OF THE ABUTMENT REPAIRS. USE ITEM "STRUCTURE CONDUIT BANK (REMOVE)" 725-22.65. INSURE THAT ENOUGH OF THE STRUCTURE CONDUIT IS REMOVED TO PROVIDE WORKING ROOM FOR BRIDGE REPAIRS. THIS WORK SHALL BE ACCOMPLISHED AT BOTH ABUTMENTS.
- 5.) INSTALL TEMPORARY CONDUIT OUT OF THE WAY OF THE WORK AREA WHICH WILL ALLOW THE TEMPORARY RECONNECTION OF THE 72F FIBER. USE ITEM 725-02.16 CONDUIT (STRUCTURES- TEMPORARY 1.25" HDPE) FOR TEMPORARY CONDUIT. ANY HANGERS OR OTHER REQUIRED HARDWARE SHALL BE INCLUDED IN THIS ITEM. THIS WORK SHALL BE ACCOMPLISHED AT BOTH ABUTMENTS.
- 6.) REINSTALL THE 72F FIBER THRU THE NEW TEMPORARY CONDUIT AND THE EXISTING STRUCTURE CONDUIT IN ORDER TO RESPLICE AT THE PULL BOX LOCATED AT 36° 11' 32.34"N, 86° 46' 52.50"W. ONLY THE FIBERS IN THE BLUE AND ORANGE TUBES WILL NEED TO BE SPLICED AT THIS TIME (24 SPLICES). AFTER THE FIBER IS SPLICED, CONTACT RYAN LYTLE AT THE TDOT TMC FOR VERIFICATION OF SYSTEM PERFORMANCE.
- 7.) CONDUCT ABUTMENT REPAIR AS PER THESE PLANS.
- PHASE II
- 1.) AFTER THE BRIDGE REPAIR IS COMPLETE, REPEAT STEPS 2 AND 3 FROM PHASE I.
- 2.) INSTALL NEW STRUCTURE CONDUIT IN THE AREAS WHERE IT WAS REMOVED AS PER SP725 USING ITEM "STRUCTURE CONDUIT BANK (TYPE 4)" 725-22.64.
- 3.) NEW 72F FIBER SHALL BE INSTALLED FROM THE 72F SPLICE LOCATED IN THE PULL BOX ROUGHLY 20' WEST OF CCTV 33 AT 36° 11' 30.60"N, 86° 47' 08.04"W TO THE PREVIOUSLY USED SPLICE IN THE PULL BOX AT 36° 11' 32.34"N, 86° 46' 52.50"W. NEW FIBER SHALL BE RECONNECTED IN THE SAME CONFIGURATION AS WAS REMOVED.
- 6.) FIBER OPTIC CABLE IN PULL BOXES SHALL BE NEATLY ARRANGED AND LACED WITH APPROVED CABLE TIES, IN ACCORDANCE WITH INDUSTRY STANDARD PRACTICE.
- 7.) 25' OF EXTRA FIBER SHALL BE COILED IN ALL TYPE D PULL BOXES (24"X36") AND 200' OF EXTRA FIBER SHALL BE COILED IN ALL TYPE E PULL BOXES (30"X48").
- 8.) ALL 72 FIBERS WILL BE TESTED IN ACCORDANCE WITH THE SP725 FROM FIELD JUNCTION CABINET FJF TO FJH.

ESTIMATED ROADWAY QUANTITIES			
ITEM NO.	DESCRIPTION	UNIT	QUANTITY
209-08.02	TEMPORARY SILT FENCE (WITH BACKING)	L F.	900
705-08.11	PORTABLE IMPACT ATTENUATOR NCHRP350 TL-3	EACH	2
712-01	TRAFFIC CONTROL	LS	1
712-02.02	INTERCONNECTED PORTABLE BARRIER RAIL	L F.	2200
712-04.01	FLEXIBLE DRUMS (CHANNELIZING)	EACH	65
712-05.01	WARNING LIGHTS (TYPE A)	EACH	40
712-06	SIGNS (CONSTRUCTION)	S.F.	480
712-08.03	ARROW BOARD (TYPE C)	EACH	2
712-09.01	REMOVABLE PAVEMENT MARKING LINE	L F.	8600
713-16.01	CHANGEABLE MESSAGE SIGN UNIT	EACH	3
717-01	MOBILIZATION	LS	1
712-04.50	PORTABLE BARRIER RAIL DELINEATOR	EACH	100
725-22.64	STRUCTURE CONDUIT BANK (TYPE 4)	L F.	400
725-22.65	STRUCTURE CONDUIT BANK (REMOVE)	L F.	400
725-23.10	FIBER OPTIC CABLE (72 F)	L F.	1650
725-23.25	FIBER OPTIC CLOSURE (72 F)	EACH	2
725-23.28	FIBER OPTIC SPLICE FUSION	EACH	192
725-02.16	CONDUIT (STRUCTURES - TEMPORARY 1.25" HDPE)	L F.	400

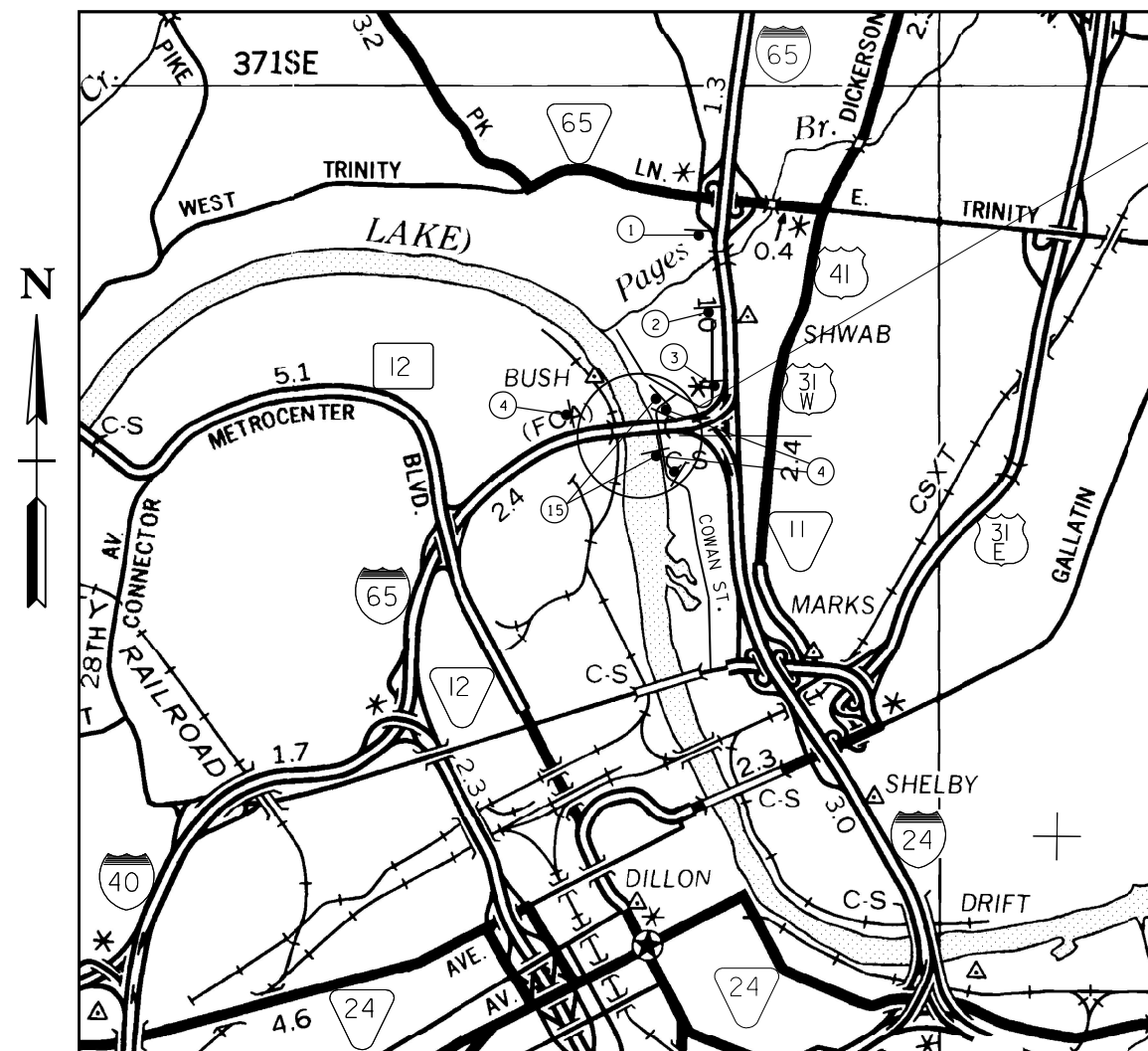
- (1) COORDINATE WITH T.D.O.T. CONSTRUCTION DIVISION FOR LOCATION AND MESSAGE FOR CHANGEABLE MESSAGE SIGN.
- (2) SEE SPECIAL PROVISIONS 725 FOR DESCRIPTION AND SPECIFICATIONS FOR THESE ITEMS.
- (3) REMOVAL AND TEMPORARY INSTALLATION OF THE EXISTING 72F FIBER WILL NOT BE PAID FOR DIR BUT THE COST WILL BE INCLUDED IN THE COST OF OTHER ITEMS.

TYPE	YEAR	PROJECT NO.	SHEET NO.
MAINT.	2016	19013-4130-04	20

REV.10-19-16: ADDED SHEET



TYPE	YEAR	PROJECT NO.	SHEET NO.
MAINT.	2016	19013-4130-04	3



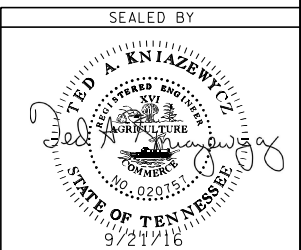
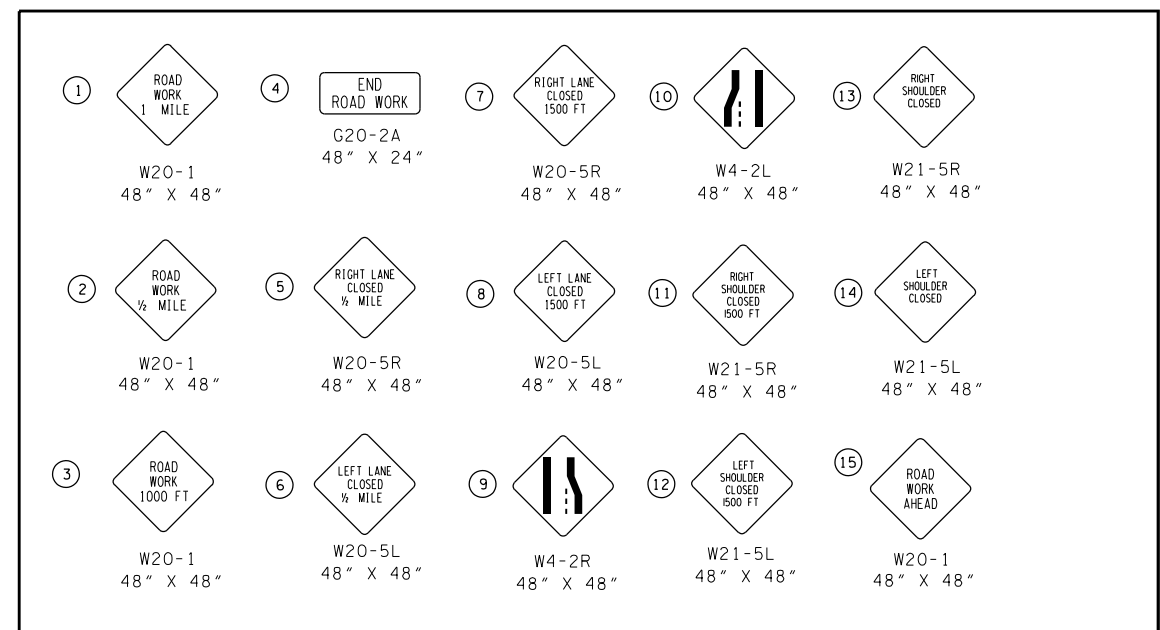
LAYOUT AND ADVANCE SIGNING FOR ONE LANE CLOSURES

NOT TO SCALE

** FOR TRAFFIC CONTROL LAYOUTS AND
 DETAILS DURING BRIDGE REPAIRS
 SEE STANDARD DRAWINGS
 T-WZ-10, T-WZ-12, AND T-WZ-18

TRAFFIC CONTROL QUANTITIES			
ITEM NO.	DESCRIPTION	UNIT	QUANTITY
705-08.11	PORTABLE IMPACT ATTENUATOR NCHRP350 TL-3	EACH	2
712-01	TRAFFIC CONTROL	LS	1
712-02.02	INTERCONNECTED PORTABLE BARRIER RAIL	L.F.	2200
712-04.01	FLEXIBLE DRUMS (CHANNELIZING)	EACH	65
712-04.50	PORTABLE BARRIER RAIL DELINEATOR	EACH	100
712-05.01	WARNING LIGHTS (TYPE A)	EACH	40
712-06	SIGNS (CONSTRUCTION)	S.F.	480
712-08.03	ARROW BOARD (TYPE C)	EACH	2
712-09.01	REMOVABLE PAVEMENT MARKING LINE	L.F.	8600
713-16.01	CHANGEABLE MESSAGE SIGN UNIT	EACH	2

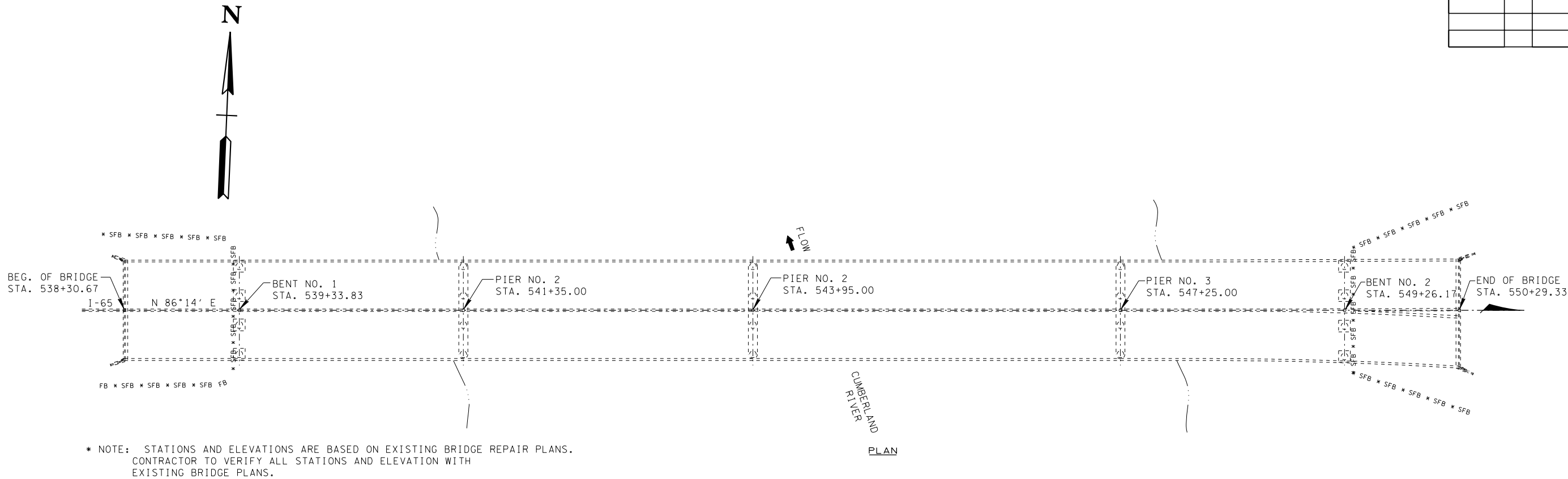
712-06 SIGNS (CONSTRUCTION)				
MUTCD DESIGNATION	DESCRIPTION	QUANTITY	SIGN FACE DIMENSIONS	TOTAL SQ. FT.
G20-2A	END ROAD WORK	4	48 "x24 "	32
W20-1	ROAD WORK 1 MILE	2	48 "x48 "	32
W20-1	ROAD WORK ½ MILE	2	48 "x48 "	32
W20-1	ROAD WORK 1000 FT	2	48 "x48 "	32
W20-1	ROAD WORK AHEAD	2	48 "x48 "	32
W20-5L	LEFT LANE CLOSED ½ MILE	2	48 "x48 "	32
W20-5L	LEFT LANE CLOSED 1500 FT	2	48 "x48 "	32
W20-5R	RIGHT LANE CLOSED ½ MILE	2	48 "x48 "	32
W20-5R	RIGHT LANE CLOSED 1500 FT	2	48 "x48 "	32
W21-5L	LEFT SHOULDER CLOSED 1500 FT	2	48 "x48 "	32
W21-5L	LEFT SHOULDER CLOSED	2	48 "x48 "	32
W21-5R	RIGHT SHOULDER CLOSED 1500 FT	2	48 "x48 "	32
W21-5R	RIGHT SHOULDER CLOSED	2	48 "x48 "	32
W4-2L	LEFT LANE MERGE	2	48 "x48 "	32
W4-2R	RIGHT LANE MERGE	2	48 "x48 "	32
			TOTAL	480



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL PLAN

TYPE	YEAR	PROJECT NO.	SHEET NO.
MAINT.	2016	19013-4130-04	4

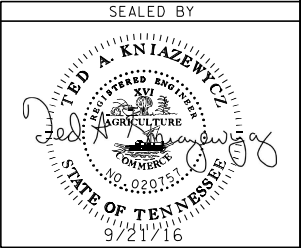


A)

EROSION PREVENTION AND SEDIMENT CONTROL LEGEND		
SYMBOL	ITEM	STD. DWG.
* SFB * SFB * SFB *	SILT FENCE WITH WIRE BACKING	EC-STR-3C

NOTES:
A) ALL QUANTITIES TO BE USED AT THE DISCRETION OF THE ENGINEER.

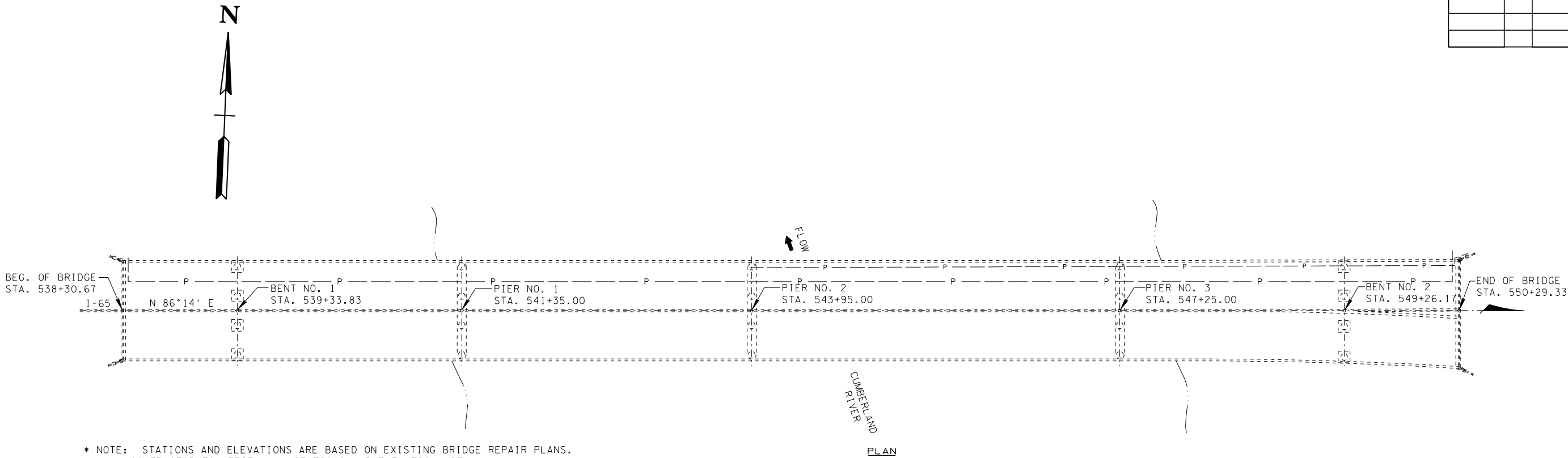
EROSION PREVENTION AND SEDIMENT CONTROL QUANTITIES			
ITEM NO.	DESCRIPTION	UNIT	QUANTITY
209-08.02	TEMPORARY SILT FENCE (WITH BACKING)	L.F.	900



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EROSION PREVENTION AND SEDIMENT CONTROL PLAN

TYPE	YEAR	PROJECT NO.	SHEET NO.
MAINT.	2016	19013-4130-04	5



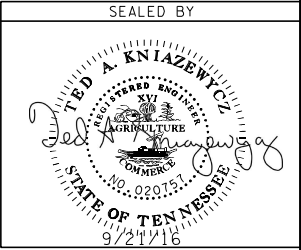
* NOTE: STATIONS AND ELEVATIONS ARE BASED ON EXISTING BRIDGE REPAIR PLANS.
CONTRACTOR TO VERIFY ALL STATIONS AND ELEVATION WITH
EXISTING BRIDGE PLANS.

UTILITY CONTACTS

NASHVILLE ELECTRIC SERVICE
1214 CHURCH ST ROOM 353
NASHVILLE, TN 37246
HANK DUNNING
HDUNNING@NESPOWER.COM
615-747-3530

TDOT-ITS SECTION
ROB BENSHOOF
615-253-0052
JAMES K POLK BLDG.
505 DEADERICK STREET
NASHVILLE, TN 37243

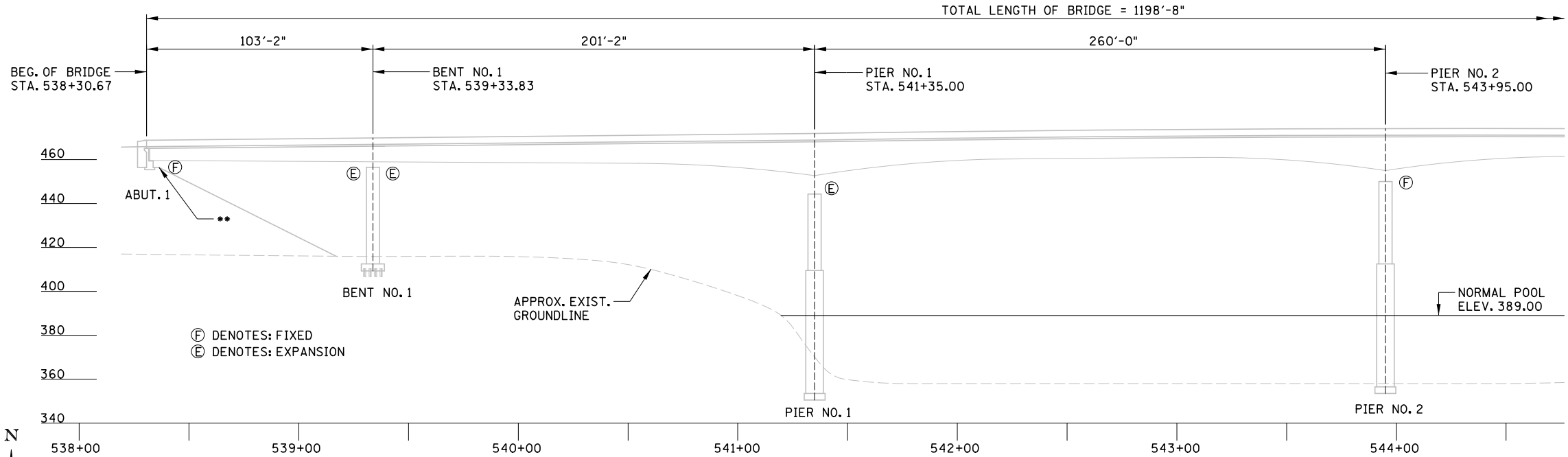
TDOT-ITS SECTION
6603 CENTENNIAL BLVD. BLDG. "R"
NASHVILLE, TN, 37243
LOUIS FRIEDMANN (TMC MANAGER)
LOUIS.P.FRIEDMAN@TN.GOV
615-350-3306
RYAN LYTLE
RYAN.LYTLE@TN.GOV
NETWORK OPS ADMINISTRATOR
615-350-3427



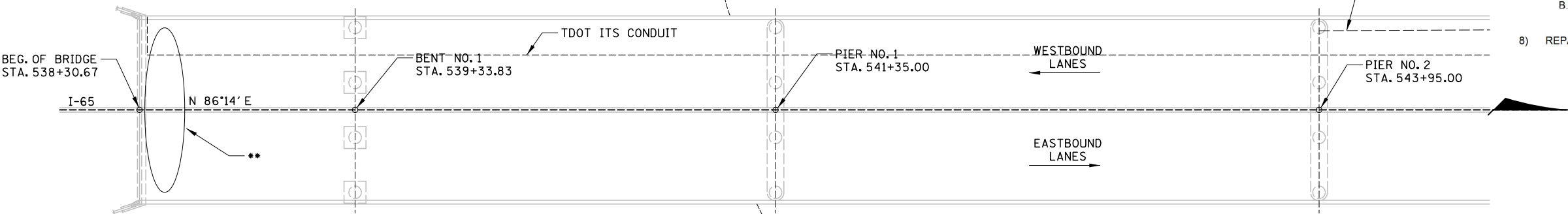
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EXISTING
UTILITIES

9/21/2016
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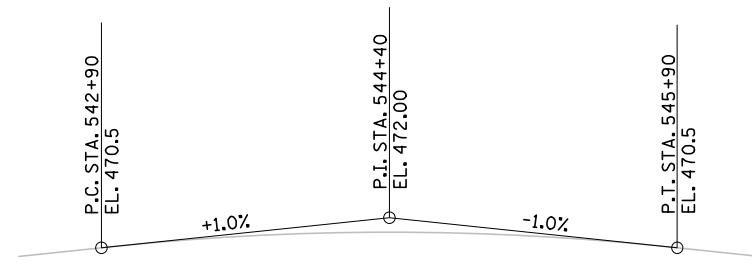


ELEVATION



NOTE: STATIONS AND ELEVATIONS ARE BASED ON EXISTING BRIDGE REPAIR PLANS. CURVE IS DRAWN AS CONCEPTUAL AND NOT ACTUAL. CONTRACTOR TO VERIFY ALL STATIONS, ELEVATIONS AND CURVE INFORMATION WITH EXISTING BRIDGE PLANS.

** DENOTES: AREAS OF CONCRETE SLOPE PAVING REPAIR (ITEM NO. 604-10.29)



*NOTE: ELEVATIONS BASED ON EXISTING PLANS DWG. NO. K-59-37

PLAN

LIST OF BRIDGE DRAWINGS

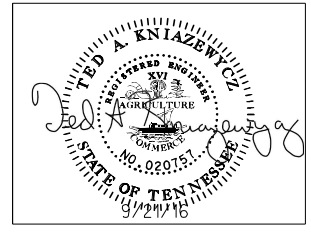
DWG. NO.	LAST REV. DATE	DRAWING
BR-122-175		LAYOUT OF BRIDGE TO BE REPAIRED (1 OF 2)
BR-122-176		LAYOUT OF BRIDGE TO BE REPAIRED (2 OF 2)
BR-122-177		ESTIMATED BRIDGE QUANTITIES
BR-122-178		BRIDGE GENERAL NOTES - SHEET 1 OF 2
BR-122-179		BRIDGE GENERAL NOTES - SHEET 2 OF 2
BR-122-180		SUPERSTRUCTURE DETAILS
BR-122-181		SUPERSTRUCTURE DETAILS
BR-122-182		REPAIR DETAILS
BR-122-183		ABUTMENT NO. 1
BR-122-184		ABUTMENT NO. 2
BR-122-185		ABUTMENT NO. 1 & 2 DETAILS
BR-122-186		BENT NO. 1
BR-122-187		BENT NO. 2
BR-122-188		GENERAL REPAIR DETAILS

LIST OF REFERENCE DRAWINGS

(TO BE PRINTED WITH PLANS)

K-59-37 THRU K-59-50 (ORIGINAL BRIDGE PLANS)

BR-26-41 THRU BR-26-50 (BRIDGE REPAIR PLANS)

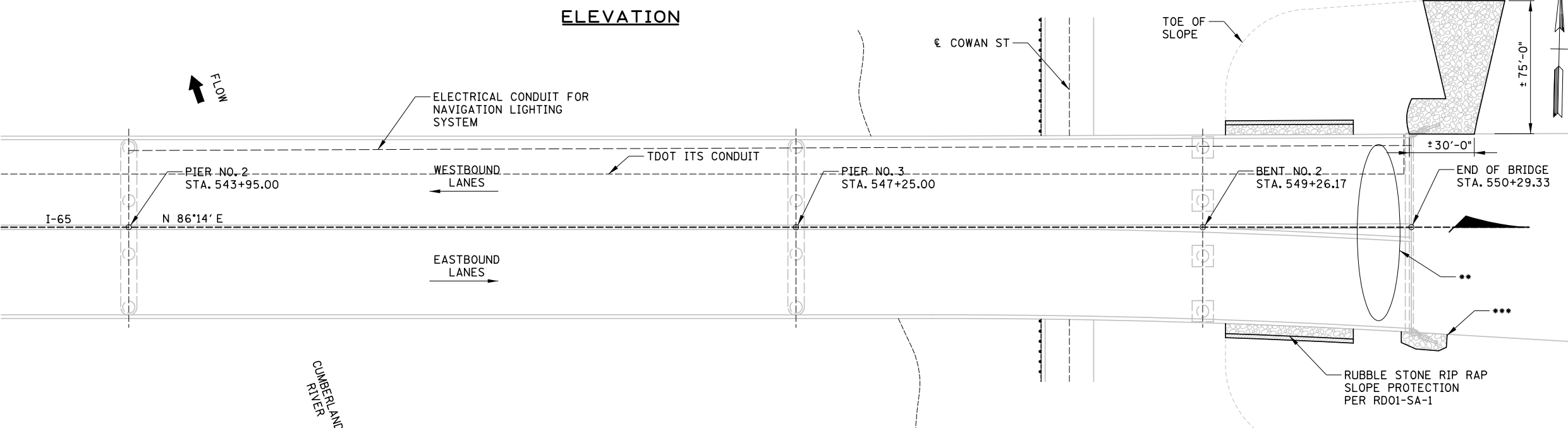
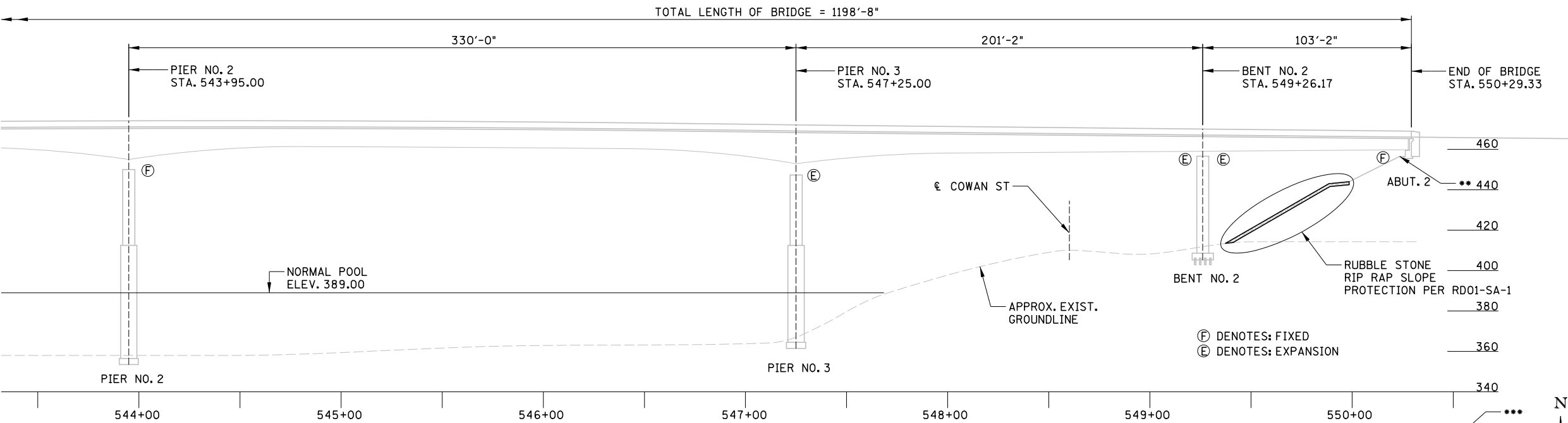


STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
LAYOUT OF BRIDGE
TO BE REPAIRED (1 OF 2)
I-65 OVER
CUMBERLAND RIVER
BR. ID NO. 19-10065-10.24
BR. NO. 19100650145
DAVIDSON COUNTY
2016

CONST. NO. _____			
PROJECT NO.	YEAR	SHEET NO.	
19013-4130-04	2016		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION

SCOPE OF WORK

- COMPLETE ABUTMENT REPAIRS INCLUDING:
 - REPAIR RISER BLOCKS;
 - SHIFT TRAFFIC AND SUPPORT BEAMS AS REQUIRED UNDER TRAFFIC;
 - SPALL REPAIRS ON ABUTMENT BEAMS;
 - SPALL, CRACK REPAIRS AND EPOXY INJECTION ON WINGWALLS AND ENDWALLS;
 - ADD SUPPLEMENTAL REINFORCING STEEL AS REQUIRED;
 - USE CLASS "A" CONCRETE (10 DAY) WHERE APPLICABLE;
- REPAIR DAMAGED AREAS OF SLOPE PAVEMENT ADJACENT TO ABUTMENTS;
- COMPLETE REPAIRS TO BENTS NO. 1 & NO. 2 INCLUDING:
 - CONCRETE REPAIRS TO EXTERIOR COLUMNS;
 - CONCRETE REPAIRS TO UPPER STRUT/CAP BEAM;
- RESET EXISTING BEARINGS AT ABUTMENTS (AS REQUIRED);
- HAND-TOOL CLEAN AND PAINT ALL EXISTING BEARINGS AT ABUTMENTS;
- SPOT-PAINT AREAS DESIGNATED BY THE ENGINEER AT REPAIR LOCATIONS.
- COMPLETE STRUCTURAL STEEL REPAIRS INCLUDING:
 - EXTERIOR BEARING STIFFENER REPAIRS AT PIERS;
 - REPLACE CROSS-FRAME BOTTOM STRUT - CENTER BAY AT ABUTMENTS NO. 2,
- REPAIR VOIDS IN SIDE SLOPES AT ABUTMENT NO. 2 WITH GROUTED RIP-RAP.



ELEVATION

PLAN

LIST OF STANDARD DRAWINGS

DRAWING NO.	LAST REV. DATE	DRAWING
RD01-SA-1	10-15-02	SAFETY APPROACH TO UNDERPASSES GRADING DESIGN & SLOPE PROTECTION

NOTE: STATIONS AND ELEVATIONS ARE BASED ON EXISTING BRIDGE REPAIR PLANS. CURVE IS DRAWN AS CONCEPTUAL AND NOT ACTUAL. CONTRACTOR TO VERIFY ALL STATIONS, ELEVATIONS AND CURVE INFORMATION WITH EXISTING BRIDGE PLANS.

** DENOTES: AREAS OF CONCRETE SLOPE PAVING REPAIR (ITEM NO. 604-10.29)
*** DENOTES: REPAIR SLOPE DEGRADATION BY FILLING VOIDS WITH RUBBLE STONE RIP RAP (GROUTED) (ITEM NO. 709-02.01) TO MATCH ANGLE OF EXISTING SIDE SLOPES

CONST. NO. _____			
PROJECT NO.		YEAR	SHEET NO.
19013-4130-04		2016	
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION

9/21/2016
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PIN 121367.00

DESIGNED BY: GRESHAM SMITH & PARTNERS

DRAWN BY: G. YOUNG

SUPERVISED BY: T. KNAZEWYCZ


CHECKED BY: K. MCALISTER

DATE: 3/2015

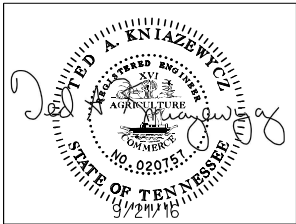
DATE: 3/2015

DATE: 3/2015

DATE: 8/2016

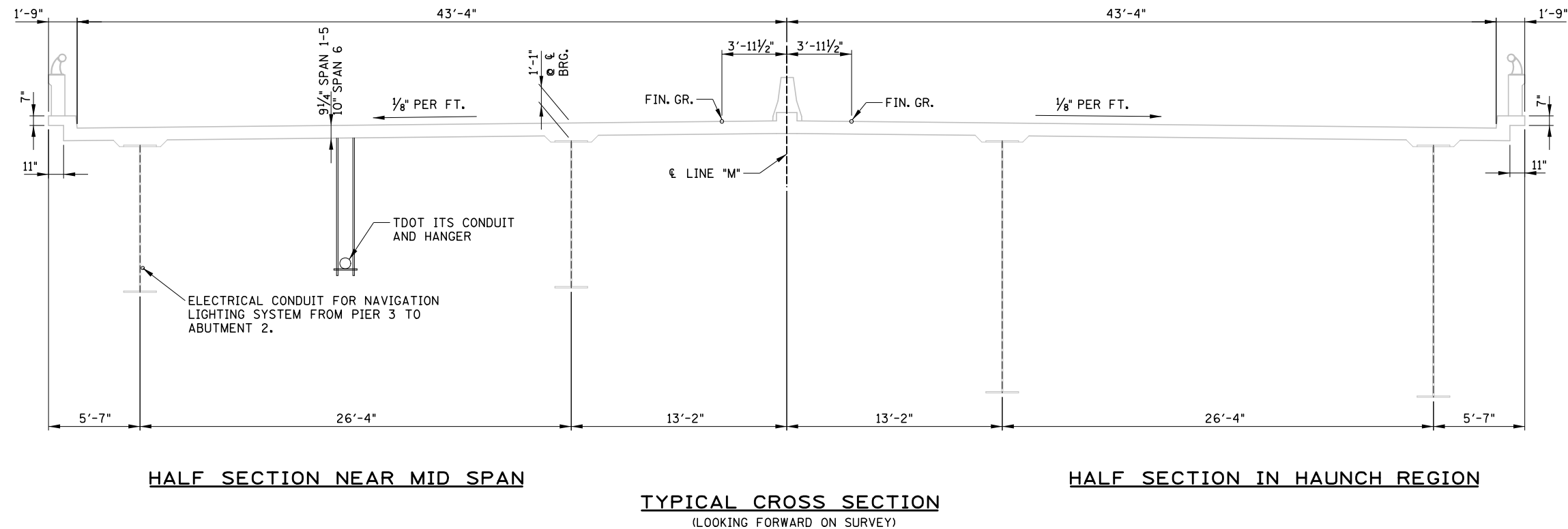


GRESHAM
SMITH AND
PARTNERS



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
LAYOUT OF BRIDGE
TO BE REPAIRED (2 OF 2)
I-65 OVER
CUMBERLAND RIVER
BR. ID NO. 19-I0065-10.24
BR. NO. 19I00650145
DAVIDSON COUNTY
2016


CONST. NO. _____			
PROJECT NO.		YEAR	SHEET NO.
19013-4130-04		2016	
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION

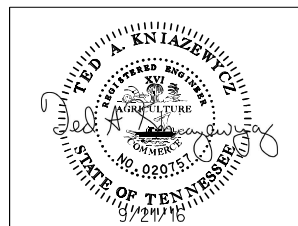


9/21/2016
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PIN 121367.00
 DESIGNED BY: GRESHAM SMITH & PARTNERS
 DRAWN BY: G. YOUNG
 SUPERVISED BY: T. KNIAZEWYCZ
 CHECKED BY: K. MCALISTER

DATE: 3/2015
 DATE: 3/2015
 DATE: 3/2015
 DATE: 8/2016


 GRESHAM
SMITH AND
PARTNERS



STATE OF TENNESSEE
 DEPARTMENT OF TRANSPORTATION
 SUPERSTRUCTURE DETAILS
 I-65 OVER
 CUMBERLAND RIVER
 BR. ID NO. 19-I0065-10.24
 BR. NO. 19I00650145
 DAVIDSON COUNTY
 2016

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9/21/2016
\$PRF \$

PIN 121367.00
DESIGNED BY: GRESHAM SMITH & PARTNERS
DRAWN BY: G. YOUNG
SUPERVISED BY: T. KNIAZEWCY
CHECKED BY: K. MCALISTER

DATE: 3/2015
DATE: 3/2015
DATE: 3/2015
DATE: 8/2016

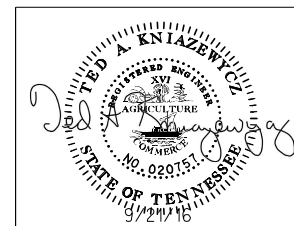


GRESHAM
SMITH AND
PARTNERS

REPLACE LOWER
CROSS-FRAME
WT 8x13 MEMBER
(ABUT. NO. 2 ONLY)

DETAIL "X"
(BID ITEM NO. 602-10.34)

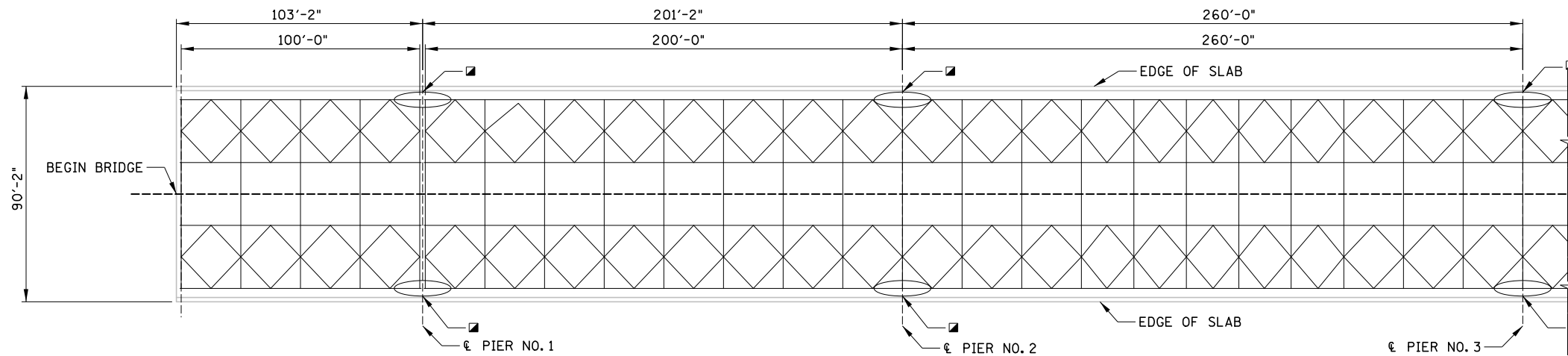
SEE BRIDGE REFERENCE DRAWINGS FOR
ADDITIONAL DETAILS AND DIMENSIONS
AND BRIDGE GENERAL NOTES FOR
ADDITIONAL REQUIREMENTS.



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
SUPERSTRUCTURE DETAILS

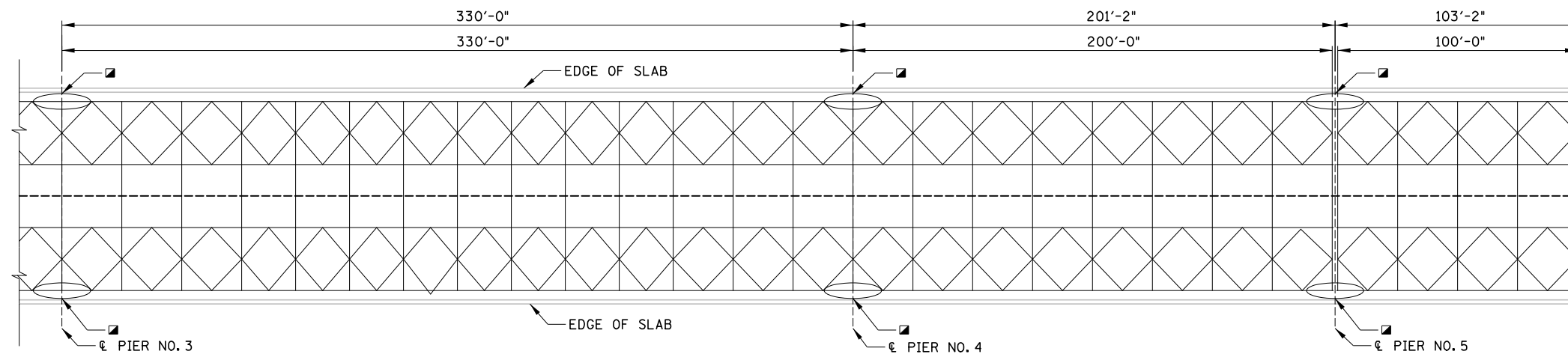
I-65 OVER
CUMBERLAND RIVER
BR. ID NO. 19-10065-10.24
BR. NO. 19100650145
DAVIDSON COUNTY
2016

BR-122-181



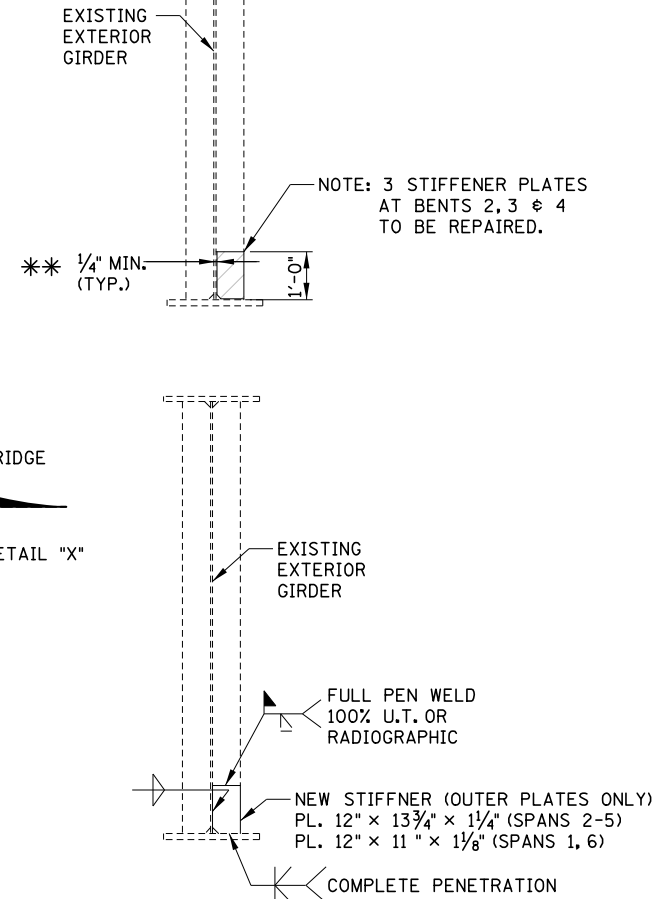
■ DENOTES: EXTERIOR BEARING STIFFENER REPAIR LOCATIONS.
SEE DETAILS ON THIS SHEET.

FRAMING PLAN



■ DENOTES: EXTERIOR BEARING STIFFENER REPAIR LOCATIONS.
SEE DETAILS ON THIS SHEET.

FRAMING PLAN

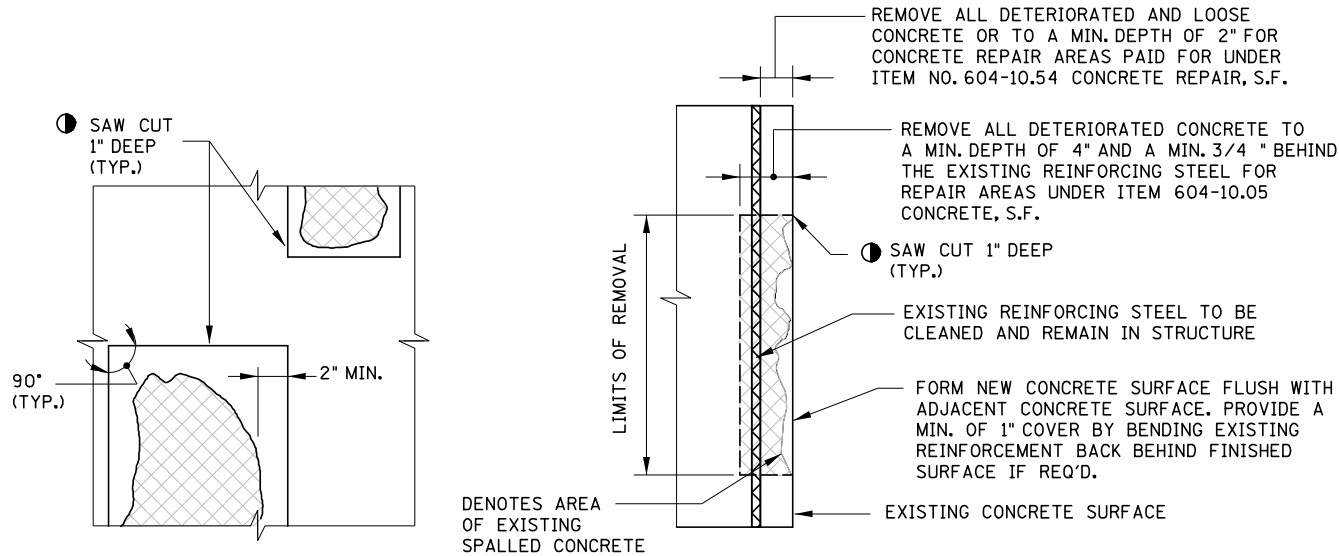


STIFFNER TO BE REPAIRED
(BID ITEM NO. 604-10.32)

■ DENOTES: 1' OF EACH BEARING STIFFENER
TO BE REMOVED AND REPLACED

** DENOTES: AFTER REMOVAL OF STIFFNER PLATE
THE ADDITIONAL 1/4" LEFT PROJECTING
SHALL BE GROUND FLUSH WITH WEB

9/21/2016 \$PRF \$ Q:\2807126\B\8071b26s3.sht



SPALLED CONCRETE REPAIR DETAIL

NOT TO SCALE

SEE DRAWING BR-122-188 FOR ADDITIONAL DETAILS AND REQUIREMENTS

- SAW CUT EXISTING CONCRETE 1" DEEP SO AS TO OBTAIN A RECTANGULAR AREA. ALL EXISTING REINFORCING SHALL BE CAREFULLY PRESERVED AND BLAST CLEANED.



DENOTES: AREA OF EXISTING SPALLED CONCRETE

NOTES:

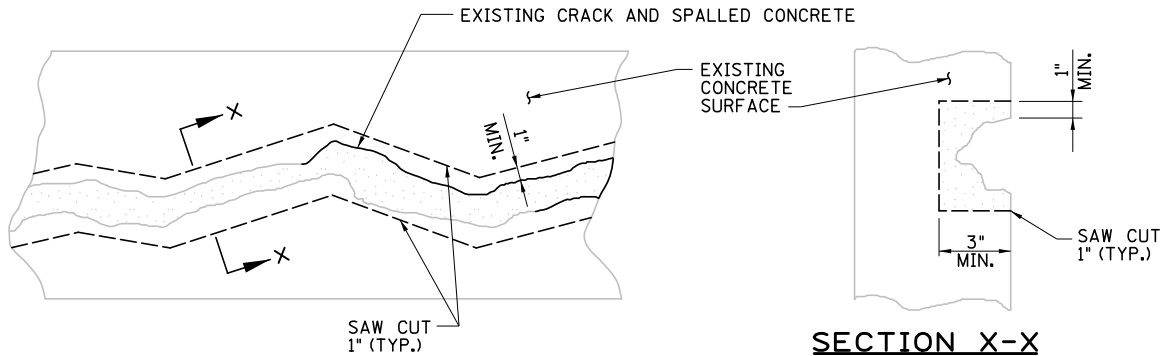
BRACING: THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE STABILITY OF THE STRUCTURE DURING REPAIRS. DETAILS OF ANY TEMPORARY SUPPORT SYSTEM OR FALSEWORK REQUIRED SHALL BE SUBMITTED TO THE ENGINEER BEFORE ANY REPAIR IS BEGUN. COST TO BE INCLUDED IN THE UNIT PRICE BID FOR ITEM NO. 602-10.05.

CONCRETE FOR FULL DEPTH REPAIRS SHALL BE HIGH EARLY STRENGTH (TEN DAY).

FOR HIGH EARLY STRENGTH CONCRETE NOTES, SEE DRAWING BR-122-179 (SHEET 2A).

CONCRETE SEALER SHALL BE APPLIED TO ABUTMENT NO.1 AND NO.2 AND TOP OF BENT 1 AND 2 COLUMNS AND STRUTS. CONCRETE SEALER SHALL BE APPLIED TO THE FRONT VERTICAL FACE OF THE ABUTMENT BACKWALL, THE FRONT AND TOP OF THE ABUTMENT BEAM AND OTHER AREAS DESIGNATED BY THE ENGINEER.

CONCRETE SHALL BE CLEAN AND DRY BEFORE APPLYING THE CONCRETE SEAL AND THE THICKNESS OF THE SEAL SHALL BE AS RECOMMENDED BY THE SEALANT MANUFACTURER. ACCEPTABLE CONCRETE SEALERS ARE INCLUDED IN THE QUALIFIED PRODUCTS LIST FOR NON-PENETRATING CONCRETE SEALS MAINTAINED BY THE DIVISION OF MATERIALS AND TESTS. THE SEALER SHALL BE CLEAR OR SIMILAR TO THE COLOR OF THE EXISTING CONCRETE SURFACE TO BE SEALED. THE COST OF THE SEALER, COMPLETE AND IN PLACE, SHALL BE INCLUDED IN ITEM 604-10.17

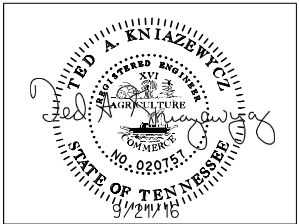


SECTION X-X

DETAIL SHOWING CRACKED CONCRETE SURFACE TO BE REPAIRED

NOTE: THE CONTRACTOR MAY OBTAIN A LIST OF ACCEPTABLE BRANDS OF EPOXY CONCRETE FROM THE TENNESSEE DEPARTMENT OF TRANSPORTATION, DIVISION OF MATERIALS AND TEST.

NOTE: COST OF SAW CUTTING, REMOVING SPALLED CONCRETE, NEW EPOXY CONCRETE, LABOR, AND ANY MISCELLANEOUS MATERIALS NECESSARY TO COMPLETE THE REPAIRS AS SHOWN TO BE INCLUDED IN ITEM NO. 604-10.63, CONCRETE REPAIRS (CRACKS), L.F.



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

REPAIR DETAILS

I-65 OVER
CUMBERLAND RIVER
BR. ID NO. 19-I0065-10.24
BR. NO. 19I00650145
DAVIDSON COUNTY
2016

PIN 121367.00

DESIGNED BY: GRESHAM SMITH & PARTNERS
DRAWN BY: G. YOUNG
SUPERVISED BY: T. KNIAZEWYCZ
CHECKED BY: K. MCALISTER

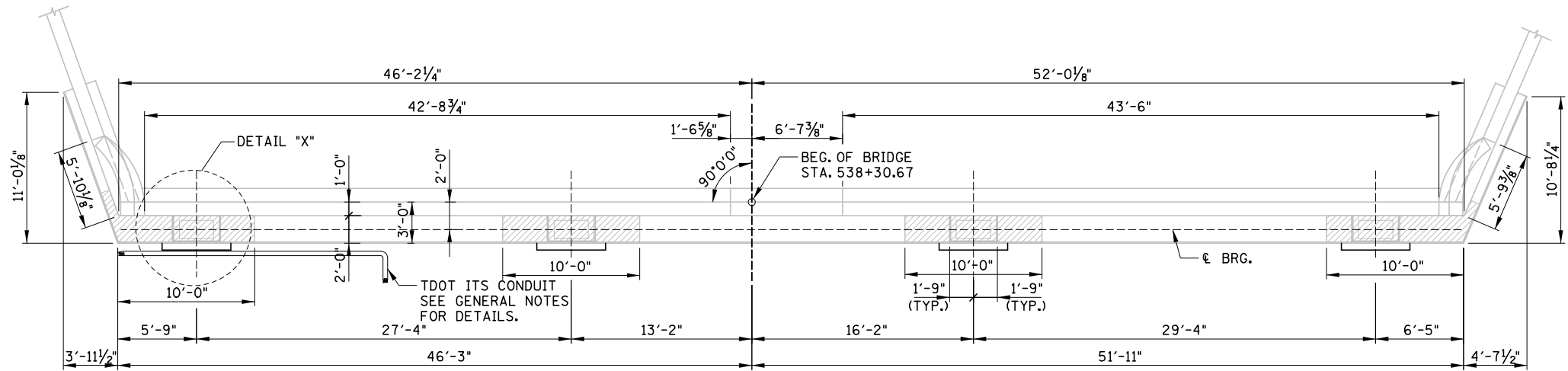
DATE: 3/2015
DATE: 3/2015
DATE: 3/2015
DATE: 8/2016



GRESHAM
SMITH AND
PARTNERS

BR-122-182

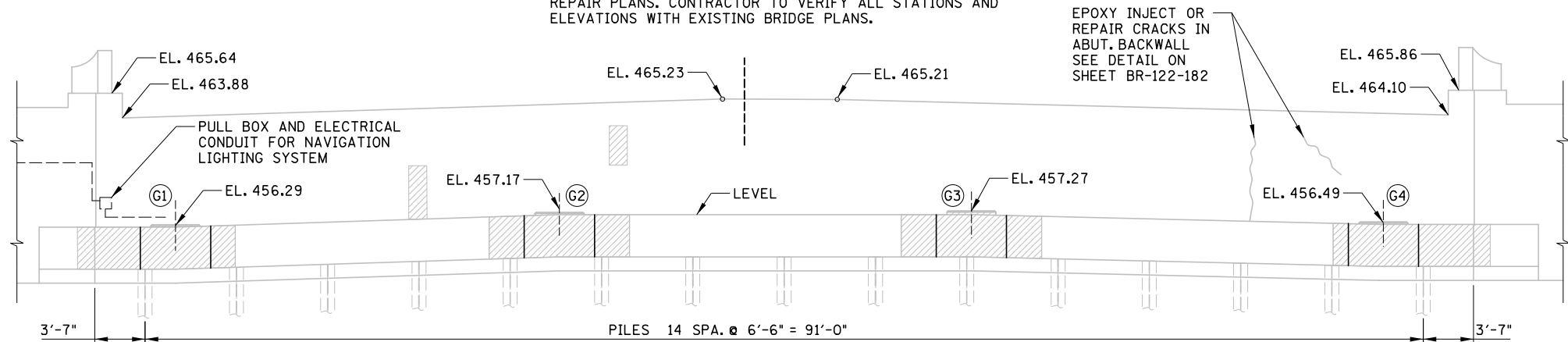
CONST. NO.		
PROJECT NO.	YEAR	SHEET NO.
19013-4130-04	2016	
REVISIONS		
NO.	DATE	BY
		BRIEF DESCRIPTION



PLAN

(ABUT. 2 LOOKING FORWARD ON SURVEY)
NOTE: STATIONS AND ELEVATIONS ARE BASED ON EXIST. BRIDGE REPAIR PLANS. CONTRACTOR TO VERIFY ALL STATIONS AND ELEVATIONS WITH EXISTING BRIDGE PLANS.

/// DENOTES: AREAS OF EXISTING SPALLED CONCRETE. SEE SPALL REPAIR DETAIL ON SHEET BR-122-188.



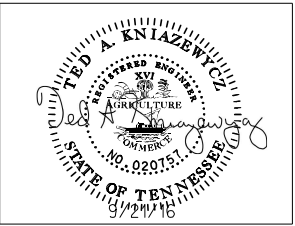
ELEVATION

(ABUT. 2 LOOKING FORWARD ON SURVEY)
NOTE: STATIONS AND ELEVATIONS ARE BASED ON EXIST. BRIDGE REPAIR PLANS. CONTRACTOR TO VERIFY ALL STATIONS AND ELEVATIONS WITH EXISTING BRIDGE PLANS.

/// DENOTES: AREAS OF EXISTING SPALLED CONCRETE. SEE SPALL REPAIR DETAIL ON SHEET BR-122-188.

ESTIMATED QUANTITIES

LOCATION	ITEM NO. 604-10.05 CONCRETE (BRIDGES) S.F.	ITEM NO. 604-10.54 CONCRETE REPAIRS S.F.	ITEM NO. 604-10.29 CONCRETE SLOPE PAVING REPAIRS S.Y.	ITEM NO. 604-10.62 EPOXY INJECTION REPAIR (COMPLETE AND IN-PLACE) (L.F.)	ITEM NO. 604-10.63 CONCRETE REPAIRS (CRACKS) S.Y.
ABUT 2	60	300	10	60	25

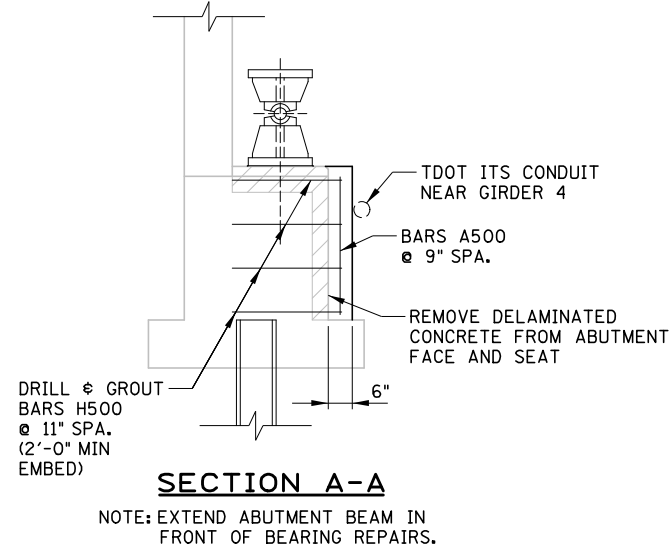
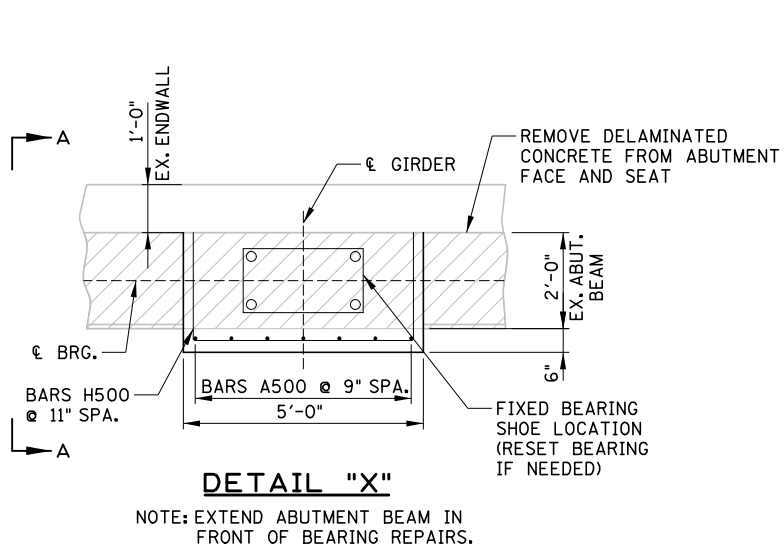


STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

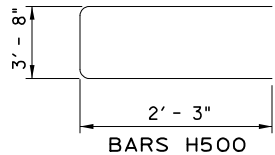
ABUTMENT NO. 2

I-65 OVER
CUMBERLAND RIVER
BR. ID NO. 19-10065-10.24
BR. NO. 19100650145
DAVIDSON COUNTY
2016

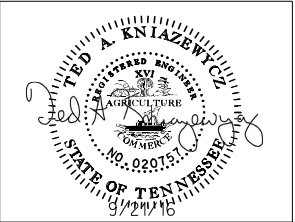
CONST. NO. _____			
PROJECT NO.		YEAR	SHEET NO.
19013-4130-04		2016	
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION



ABUT. NO. 1 & 2 (EACH) (REGULAR)									
BAR	LOCATION	SIZE	NO. REQ'D	BENDING DIMENSIONS					LENGTH
				A	B	C	D		
A500	ABUT BEAM	5	28						3'-8"
H500	ABUT BEAM	5	16	4'-6"	2'-3"				9'-0"



ESTIMATED QUANTITIES - PER ABUT.			
LOCATION	ITEM NO. 604-03.01 CLASS 'A' CONCRETE (BRIDGES) C.Y.	ITEM NO. 604-03.02 STEEL REINFORCEMENT (BRIDGES) LB	ITEM NO. 604-10.17 NON-PENETRATING CONCRETE SEAL (S.Y.)
ABUT 1	2	258	150
ABUT 2	2	258	150

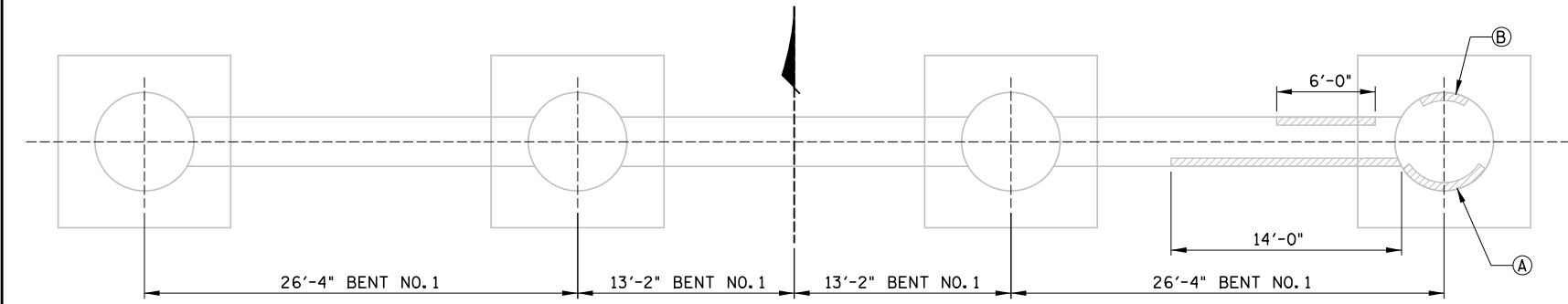


STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
ABUTMENT NOS. 1 & 2
DETAILS
I-65 OVER
CUMBERLAND RIVER
BR. ID NO. 19-I0065-10.24
BR. NO. 19I00650145
DAVIDSON COUNTY
2016

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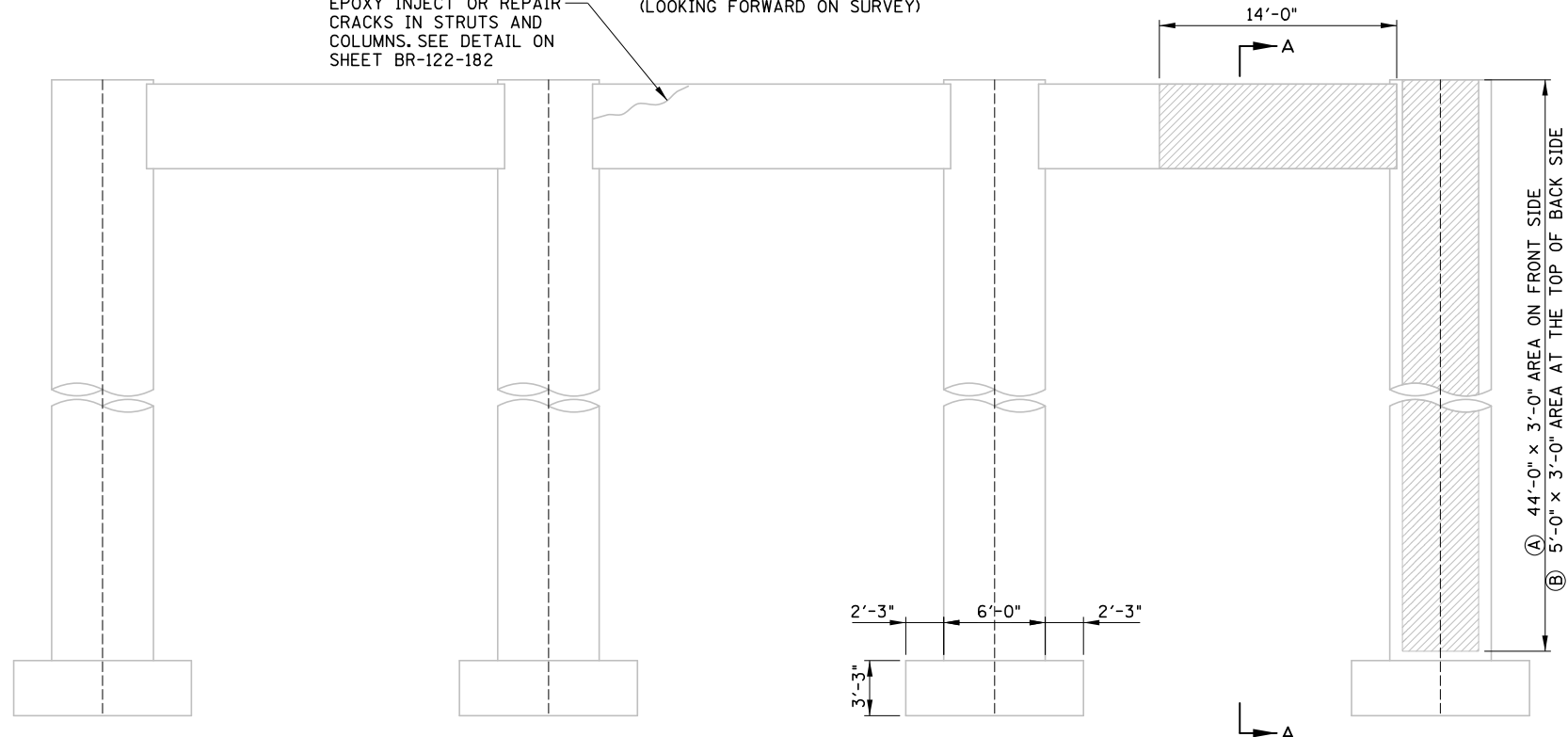
9/21/2016
\$PRF \$
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PIN 121367.00
DESIGNED BY: GRESHAM SMITH & PARTNERS
DRAWN BY: G. YOUNG
SUPERVISED BY: T. KNIAZEWYCZ
CHECKED BY: K. MCALISTER
DATE: 3/2015
DATE: 3/2015
DATE: 3/2015
DATE: 8/2016



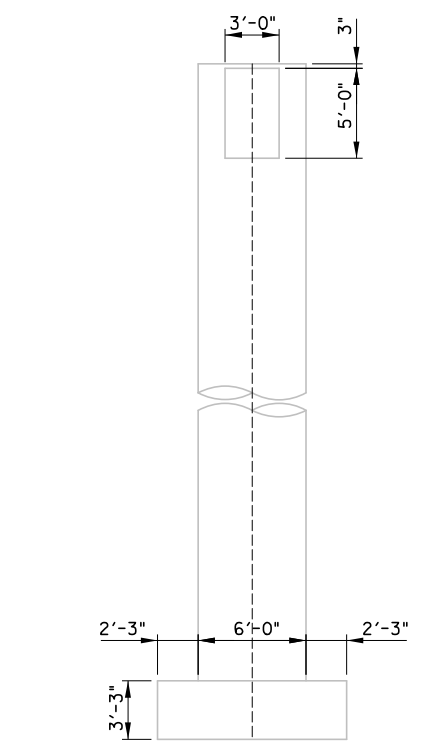
EPOXY INJECT OR REPAIR
CRACKS IN STRUTS AND
COLUMNS. SEE DETAIL ON
SHEET BR-122-182

EXISTING PLAN
(LOOKING FORWARD ON SURVEY)



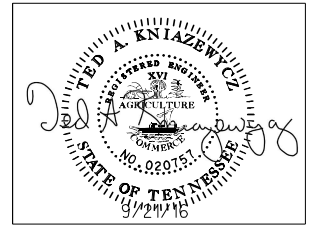
EXISTING ELEVATION
(LOOKING FORWARD ON SURVEY)

DENOTES; AREAS OF EXISTING
SPALLED CONCRETE. SEE SPALL
REPAIR DETAIL ON SHEET BR-122-188



EXISTING SECTION A-A

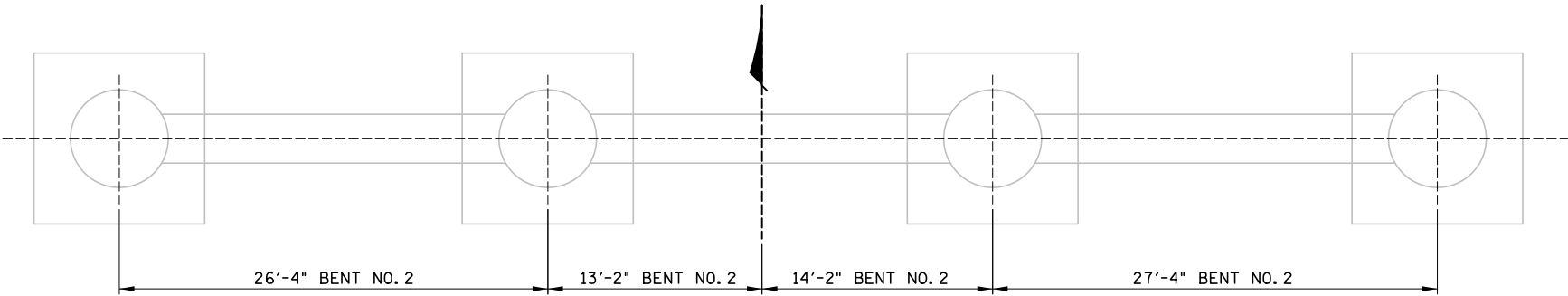
ESTIMATED QUANTITIES - BENT 1					
LOCATION	ITEM NO. 604-10.05 CONCRETE (BRIDGES) S.F.	ITEM NO. 604-10.54 CONCRETE REPAIRS S.F.	ITEM NO. 604-10.17 NON-PENETRATING CONCRETE SEAL S.Y.	ITEM NO. 604-10.62 EPOXY INJECTION REPAIR (COMPLETE AND IN-PLACE) L.F.	ITEM NO. 604-10.63 CONCRETE REPAIRS (CRACKS) L.F.
BENT 1	250	0	30	5	5



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BENT NO. 1
I-65 OVER
CUMBERLAND RIVER
BR. ID NO. 19-I0065-10.24
BR. NO. 19I00650145
DAVIDSON COUNTY
2016

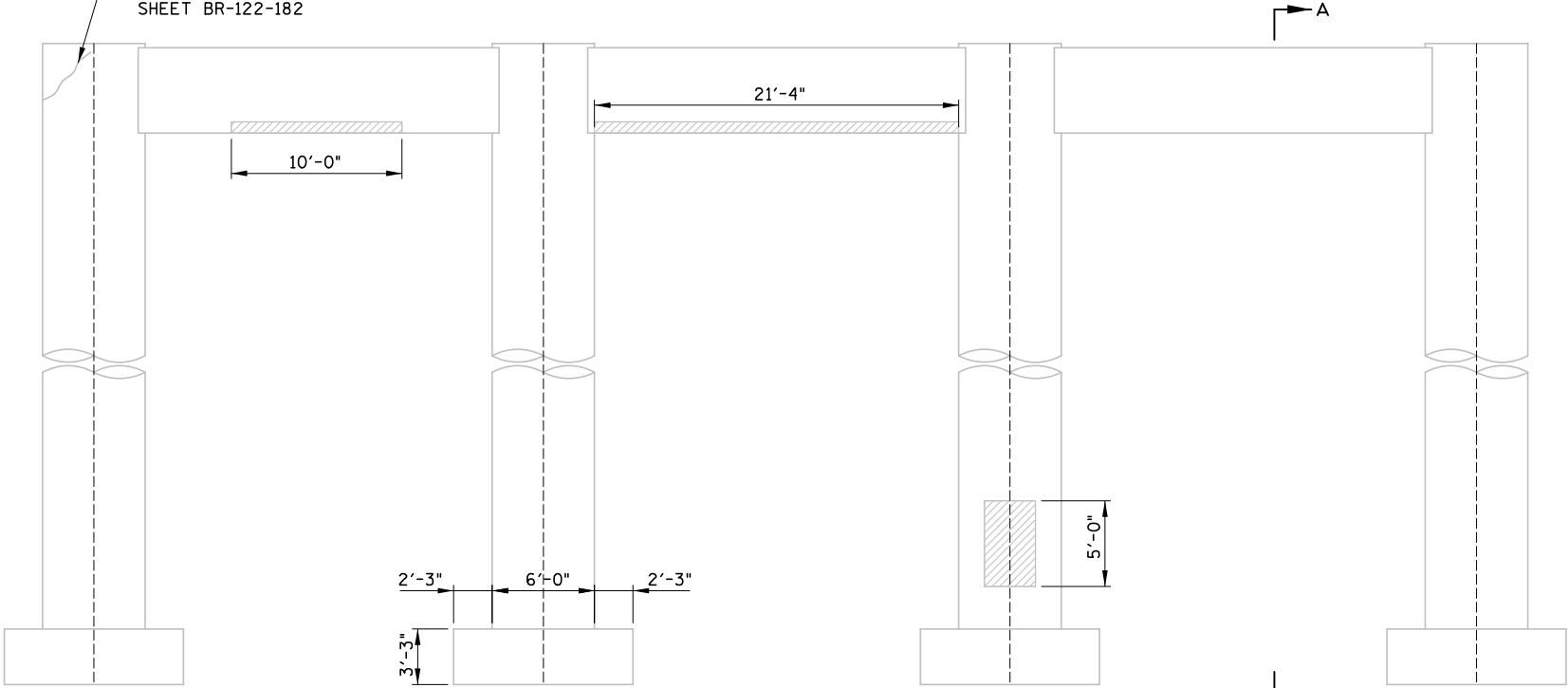
CONST. NO. _____			
PROJECT NO.	YEAR	SHEET NO.	
19013-4130-04	2016		
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION

CONST. NO. _____		
PROJECT NO.	YEAR	SHEET NO.
19013-4130-04	2016	
REVISIONS		
NO.	DATE	BY
		BRIEF DESCRIPTION




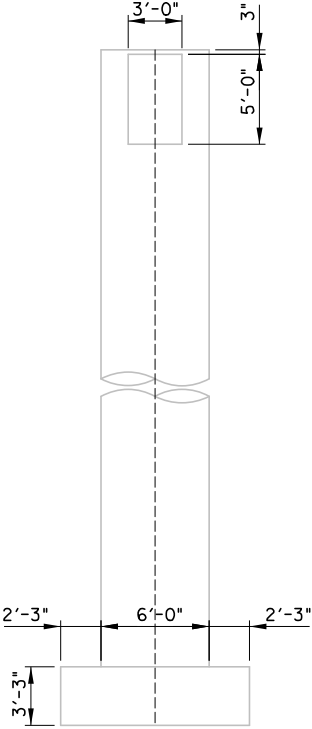
EPOXY INJECT OR REPAIR
CRACKS IN STRUTS AND
COLUMNS. SEE DETAIL ON
SHEET BR-122-182

EXISTING PLAN
(LOOKING FORWARD ON SURVEY)



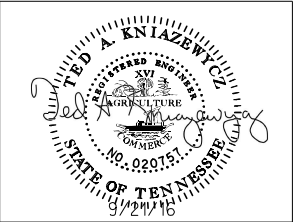
EXISTING ELEVATION
(LOOKING FORWARD ON SURVEY)

 DENOTES; AREAS OF EXISTING
SPALLED CONCRETE. SEE SPALL
REPAIR DETAIL ON SHEET BR-122-188



EXISTING SECTION A-A

ESTIMATED QUANTITIES - BENT 2					
LOCATION	ITEM NO. 604-10.05 CONCRETE (BRIDGES) S.F.	ITEM NO. 604-10.54 CONCRETE REPAIRS S.F.	ITEM NO. 604-10.17 NON-PENETRATING CONCRETE SEAL S.Y.	ITEM NO. 604-10.62 EPOXY INJECTION REPAIR (COMPLETE AND IN-PLACE) L.F.	ITEM NO. 604-10.63 CONCRETE REPAIRS (CRACKS) L.F.
BENT 2	15	125	30	5	5



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

BENT NO. 2

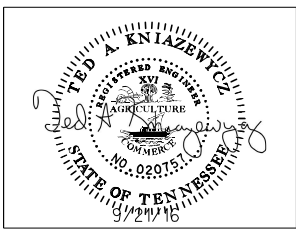
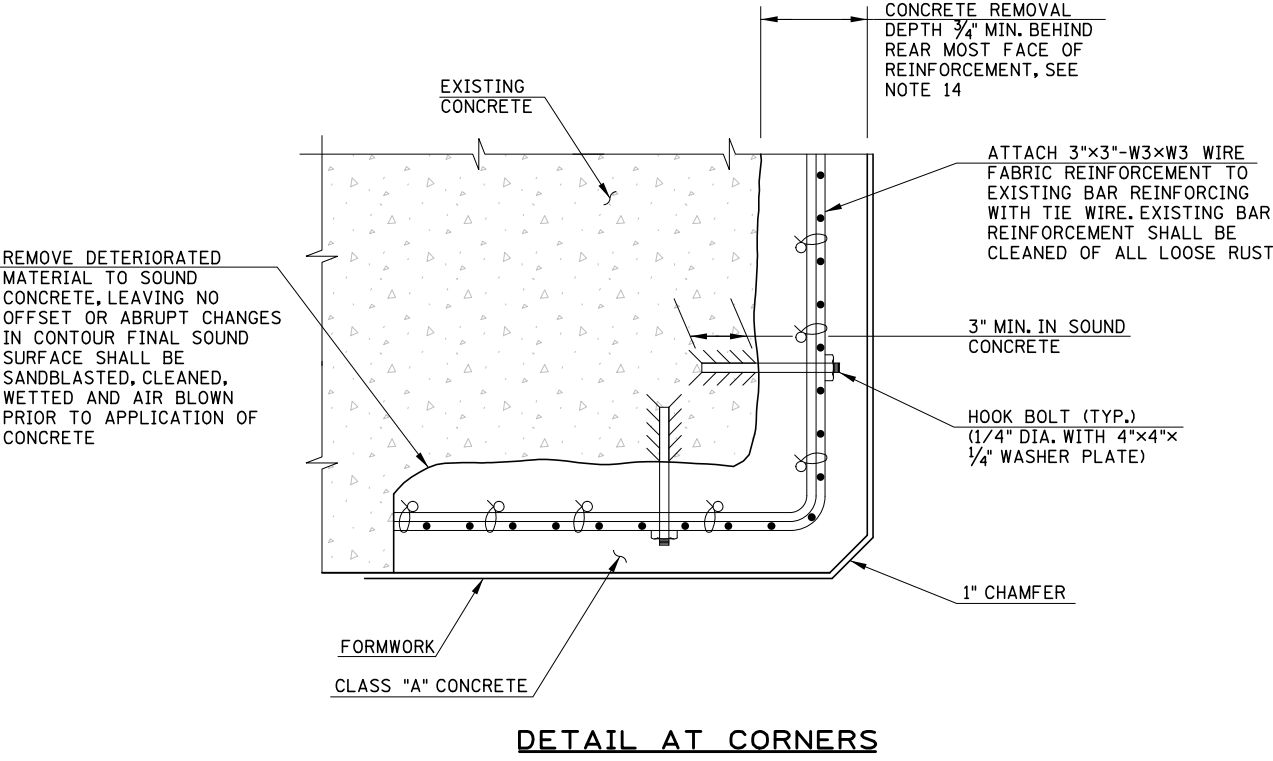
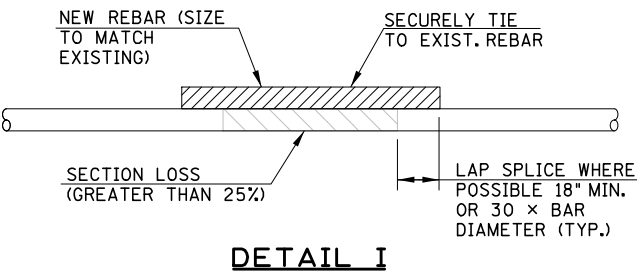
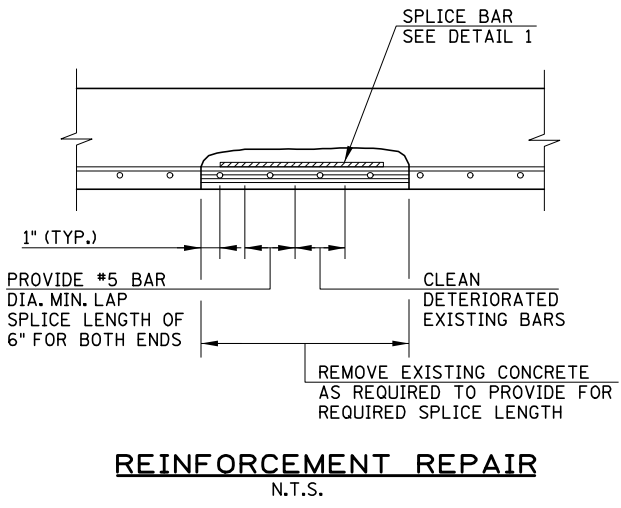
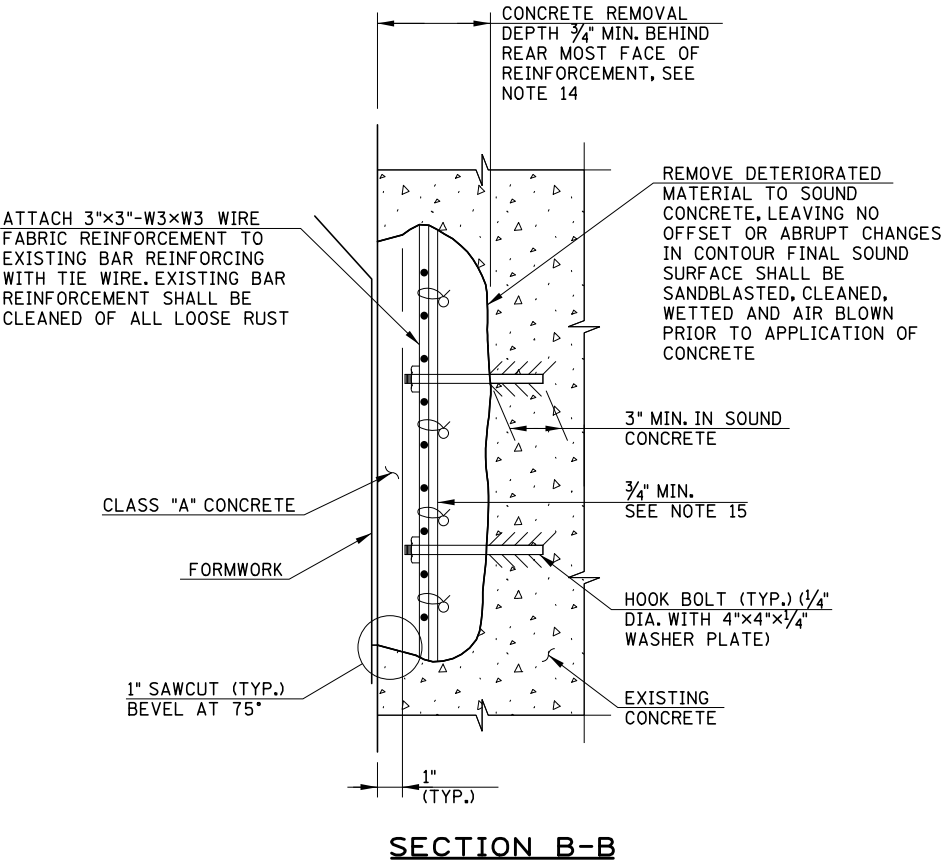
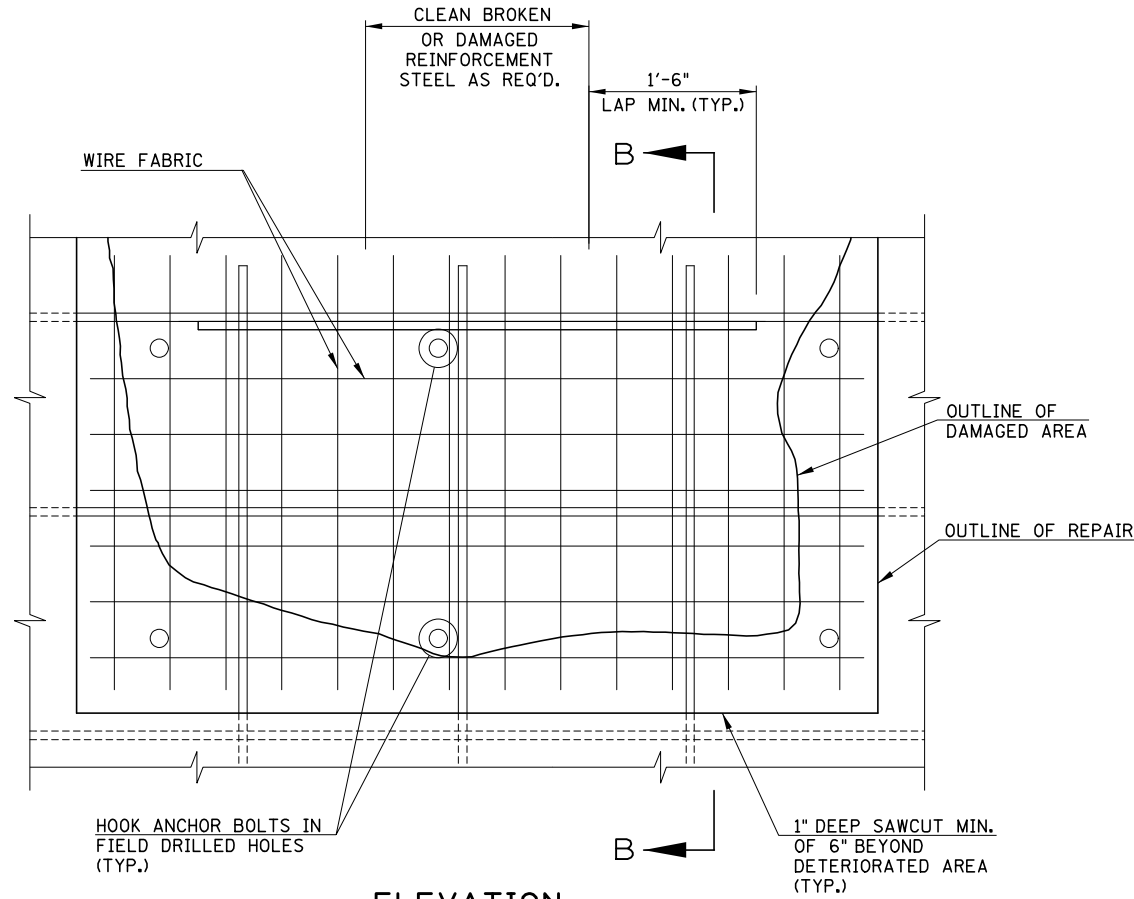
I-65 OVER
CUMBERLAND RIVER
BR. ID NO. 19-I0065-10.24
BR. NO. 19I00650145
DAVIDSON COUNTY
2016



CONST. NO.		
PROJECT NO.	YEAR	SHEET NO.
19013-4130-04	2016	
REVISIONS		
NO.	DATE	BY
		BRIEF DESCRIPTION

NOTES:

- THE CONTRACTOR SHALL VERIFY IN THE FIELD THE EXTENT OF ALL SPALL AND/OR DELAMINATED DAMAGE. ALL SPALLED OR DELAMINATED AREAS NOT INDICATED ON THESE DRAWINGS SHALL BE REPAIRED AS DIRECTED AND APPROVED BY THE ENGINEER.
- REPAIR DETAILS APPLY TO ALL HOLLOW AREAS AND SPALLS IN EITHER PIERS OR ABUTMENTS AND OTHER AREAS DESIGNATED IN THE PLANS.
- SURFACE PREPARATION, PROPORTION AND MIXING OF MATERIALS, APPLICATION OF MATERIALS, AND REPAIR PROCEDURES SHALL BE IN ACCORDANCE WITH SPECIFICATIONS.
- NEW CONCRETE PATCHES SHALL MATCH SHAPE OF EXISTING CONCRETE SURFACES UNLESS NOTED OTHERWISE.
- ALL EXPOSED REINFORCEMENT WITHIN REPAIR AREA SHALL BE CLEANED, AND SAND BLASTED. BROKEN PORTION OF REBARS SHALL BE REMOVED AND LAP SPICED WITH NEW REBARS.
- IF CORRODED REINFORCING BARS HAVE SECTION LOSSES EXCEEDING 25% THE CORRODED BARS SHALL BE REPLACED IN ACCORDANCE WITH THE REINFORCEMENT REPAIR DETAIL SHOWN ON THIS SHEET.
- ALL CRACKS WHICH ARE ASSOCIATED WITH DELAMINATION SHALL BE CUT OUT TOGETHER WITH THE DELAMINATED CONCRETE.
- TO THE EXTENT REASONABLE LIMITS OF ALL PATCHES IN ELEVATION SHALL MAINTAIN HORIZONTAL AND VERTICAL LINES UNLESS NOTED OTHERWISE.
- IF REPAIR AREA EXTENDS NEAR EDGE OF MEMBER, DO NOT REMOVE DAMAGED REINFORCEMENT NEAR EDGE WITHIN MINIMUM LAP SPICE LENGTH.
- HOOK BOLTS SHALL BE SPACED AT 1'-0" CENTERS FOR REPAIRS LESS THAN 3" THICK AND 1'-6" FOR GREATER DEPTH.
- IF REPAIR INCLUDES A CORNER OF MEMBER, PROVIDE HOOK BOLTS IN BOTH SURFACES.
- WHERE NEW REINFORCING BAR HAS BEEN DETERMINED TO BE REQUIRED, BILL OF STEEL IS SHOWN ON THE REPAIR DRAWING. ADDITIONAL BAR NOT INDICATED ON THE DRAWINGS SHALL BE PROVIDED AS ORDERED BY THE ENGINEER.
- NOTIFY THE ENGINEER IF DEPTH OF DETERIORATED CONCRETE FOUND EXCEEDS THE MINIMUM LIMIT SPECIFIED.
- FOR AREAS WITH ONLY SURFACE DETERIORATION, THE ENGINEER MAY ELECT TO USE ITEM 604-10.05 WHICH DOES NOT REQUIRE THE REMOVAL OF CONCRETE BEHIND THE EXISTING REBAR.
- HOOK BOLTS AND WIRE FABRIC SHALL BE INCLUDED IN PRICE BID FOR CONCRETE REPAIRS, ITEM 604-10.54, OR CONCRETE, ITEM 604-10.05 AS DESIGNATED BY THE ENGINEER.



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
GENERAL REPAIR DETAILS
I-65 OVER
CUMBERLAND RIVER
BR. ID NO. 19-10065-10.24
BR. NO. 19100650145
DAVIDSON COUNTY
2016

9/21/2016
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