

THIS DOCUMENT HAS BEEN DIGITALLY SIGNED AND SEALED BY:
Nicolo Franceschetti
2025.09.23 11:14:43 -05'00'

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PALMER ENGINEERING COMPANY 2817 ERICA PLACE NASHVILLE, TN 37204 NICOLO FRANCESCHETTI, P.E. NO. 127969

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING SHEETS IN ACCORDANCE OF TENN. CODE ANN. §62-2-306.

SHEET NAME	SHEET NO.
SIGNATURE SHEET	SIG-1
TITLE SHEET	1
INDEX AND STANDARD DRAWINGS	1A
PROJECT COMMITMENTS	1B
ESTIMATED BRIDGE QUANTITIES	2 (BR-133-147)
BRIDGE GENERAL AND SPECIAL NOTES	2A (BR-133-148
ESTIMATED ROADWAY QUANTITIES	2B
ROADWAY GENERAL AND SPECIAL NOTES	2C
ENVIRONMENTAL NOTES	2D
EPSC PLAN AND NOTES	3, 3A, 3B
TRAFFIC CONTROL PLAN AND NOTES	T1, T2, T3
LAYOUT OF BRIDGE TO BE REPAIRED	BR-133-146
SUPERSTRUCTURE REPAIRS	BR-133-149
DECK AND JOINT REPAIRS	BR-133-150
SUPERSTRUCTURE PAINTING DETAILS	BR-133-151
CONCRETE REPAIRS	BR-133-152
SCOUR REPAIR DETAILS	BR-133-153



THIS DOCUMENT HAS BEEN DIGITALLY SIGNED AND SEALED BY:

Parker, Arlene Digitally signed by Parker, Arlene Date: 2025.09.03 18:20:03-04'00'

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AECOM 1000 CORPORATE CENTRE DRIVE SUITE 250 FRANKLIN, TN 37067 ARLENE GROVE PARKER, P.E. NO. 128647

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING SHEETS IN ACCORDANCE OF TENN. CODE ANN. §62-2-306.

SHEET NAME	SHEET NO.
ESTIMATED BRIDGE LIGHTING QUANTITIES	BR-133-154
NAVIGATIONAL LIGHTING PLAN	BR-133-155
NAVIGATIONAL LIGHTING DETAILS (1)	BR-133-156
NAVIGATIONAL LIGHTING DETAILS (2)	BR-133-157
NAVIGATIONAL LIGHTING DETAILS (3)	BR-133-158

YEAR	PROJECT NO.	SHEET NO.
2025	53S095-M3-002	SIG-1

STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION

SIGNATURE SHEET

Index Of Sheets SEE SHEET 1A

STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION BUREAU OF ENGINEERING

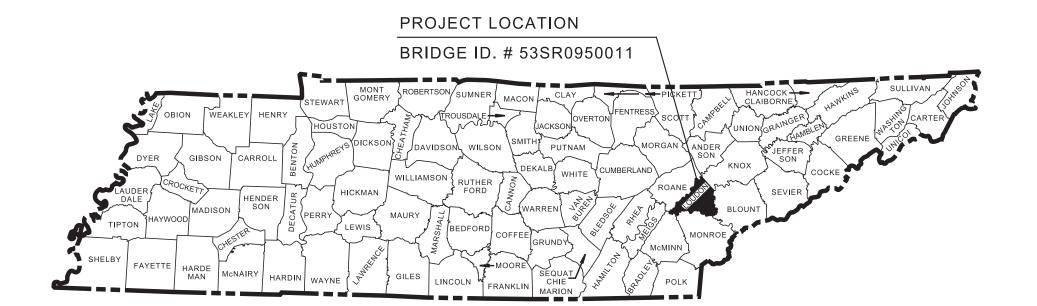
LOUDON COUNTY

BRIDGE OVER CLINCH RIVER / MELTON HILL LAKE, LM 10.72

PS&E PLANS

BRIDGE REPAIR

SR-95



APPROVED:

APPROVED:

DATE:

TENN.

FED. AID PROJ. NO.

STATE PROJ. NO.

53S095-M3-002

PS&E

PLANS

SEALED BY

BRIDGE NO: 53-SR095-10.72

SR-95	
AADT (2023)	9194
POSTED SPEED	45 MPH

SCALE: 1"= 1 MILE

TOTAL DISTURBED AREA = 0.2 ACRES

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 JANUARY 1, 2021 AND ADDITIONAL SPECIFICATIONS AND SPECIAL PROVISIONS CONTAINED IN THE PLANS AND IN THE PROPOSAL CONTRACT.

CHECKED BY: SCOTT WILSON, P.E.

TDOT REPAIR OFFICE PROJECT MANAGER: STEPHEN WILSON

DESIGNED BY: PALMER ENGINEERING COMPANY

DESIGNER: NICOLO FRANCESCHETTI, P.E.

53S095-M3-002

PIN NO. 084516.01

ROADWAY INDEX

SHEET NAME	SHEET NO.
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ESTIMATED BRIDGE QUANTITIES	2 (BR-133-147)
BRIDGE GENERAL AND SPECIAL NOTES	2A (BR-133-148)
ESTIMATED ROADWAY QUANTITIES	2B
ROADWAY GENERAL AND SPECIAL NOTES	2C
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EPSC PLAN AND NOTES	3, 3A, 3B
TRAFFIC CONTROL PLAN AND NOTES	T1, T2, T3
BRIDGE REPAIR SHEETS	BR-133-146 THRU BR-133-158

STANDARD DRAWINGS

DWG.	REV.	DESCRIPTION
D110 .		

ROADWAY DESIGN STANDARDS

RD-A-1	02-20-20	STANDARD ABBREVIATIONS A THROUGH L
RD-A-2		STANDARD ABBREVIATIONS M THROUGH Z
RD-L-1	02-20-20	STANDARD LEGEND
RD-L-1A		STANDARD LEGEND
RD-L-2	02-20-20	STANDARD LEGEND FOR UTILITY INSTALLATIONS
RD-L-5	07-30-24	STANDARD LEGEND FOR EROSION PREVENTION AND SEDIMENT CONTROL
RD-L-6	02-20-20	STANDARD LEGEND FOR EROSION PREVENTION AND SEDIMENT CONTROL

ROADWAY, PAVEMENT APPURTENANCES, AND FENCES

03-01-23 HIGH VISIBILITY FENCE

SAFETY DESIGN AND GUARDRAILS

10-01-24 CRASH CUSHION

DESIGN - TRAFFIC CONTROL

T-M-5	01-24-25	MARKING DETAIL FOR FREEWAYS
T-WZ-32	03-26-25	TRAFFIC CONTROL PLAN SIGNAL LAYOUT FOR TRAFF SIGNAL AT TWO LANE BRIDGE RECONSTRUCTION SIT
T-WZ-34	03-26-25	TRAFFIC CONTROL PLAN GENERAL NOTES FOR TRAF SIGNAL AT TWO LANE BRIDGE RECONSTRUCTION SIT
T-WZ-35	03-26-25	TRAFFIC CONTROL PLAN PAY ITEM AND SIGN DETAIL FOR TRAFFIC SIGNAL AT TWO LANE BRIDGE RECONSTRUCTION SITE
T-WZ-PBR2	03-26-25	DETAILS FOR WORKZONE CHANNELIZATION DEVICES
T-WZ-PCB1	03-26-25	10 FOOT PORTABLE CONCRETE BARRIER RAIL
T-WZ-PCB2	03-26-25	20 FOOT PORTABLE CONCRETE BARRIER RAIL
T-WZ-PCB2A	03-26-25	20 FOOT PORTABLE CONCRETE BARRIER RAIL STIFFENER TUBE
T-WZ-PCB3	03-26-25	PORTABLE CONCRETE BARRIER RAIL DETAILS
T-WZ-PCB4	07-22-25	PORTABLE CONCRETE BARRIER RAIL ANCHOR PIN DETAILS

EROSION PREVENTION AND SEDIMENT CONTROL

EC-STR-3C 03-01-23 SILT FENCE WITH WIRE BACKING

STANDARD TRAFFIC OPERATIONS

STANDARD STRUCTURE DRAWINGS				
Γ-S-20	07-30-25	SIGN DETAILS		
Γ-S-19	07-30-25	STANDARD STEEL SIGN SUPPORTS		
Γ-S-10	07-30-25	STANDARD MOUNTING DETAILS FLAT SHEET SIGNS ALUMINUM-STEEL DESIGN		

STD-1-1SS	07-09-25	SINGLE SLOPE CONCRETE PARAPET
SBR-2-115	06-15-16	GENERAL NOTES AND DETAILS FOR EXPANSION JOINT REPLACEMENT CONSTRUCTION TYPES "A" THRU "J" -1991
SBR-2-116	01-04-96	GENERAL DETAILS FOR STRIP SEAL EXPANSION JOINT REPLACEMENT CONSTRUCTION TYPES "A" THRU "J" - 1991
SBR-2-117	05-30-96	STRIP SEAL EXPANSION JOINTS – REPLACEMENT CONSTRUCTION DETAILS TYPES "A" AND "B" - 1991

BRIDGE INDEX

SHEET NAME	SHEET NO
LAYOUT OF BRIDGE TO BE REPAIRED	BR-133-146
ETSIMATED BRIDGE QUANTITIES	BR-133-147
BRIDGE GENERAL AND SPECIAL NOTES	BR-133-148
SUPERSTRUCTURE REPAIRS	BR-133-149
DECK AND JOINT REPAIRS	BR-133-150
SUPERSTRUCTURE PAINTING DETAILS	BR-133-151
CONCRETE REPAIRS	BR-133-152
SCOUR REPAIR DETAILS	BR-133-153
ESTIMATED BRIDGE LIGHTING QUANTITIES	BR-133-154
NAVIGATIONAL LIGHTING PLAN	BR-133-155
NAVIGATIONAL LIGHTING DETAILS (1)	BR-133-156
NAVIGATIONAL LIGHTING DETAILS (2	BR-133-157
NAVIGATIONAL LIGHTING DETAILS (3)	BR-133-158

LIST OF BRIDGE REFERENCE DRAWINGS

(TO BE PRINTED WITH PLANS)

BR-41-64, BR-41-66 THRU. 70, K-7-101 THRU. 106, K-7-106A

SEALED BY

PROJECT NO.

53S095-M3-002

53S095-M3-002

LAST REV. DATE

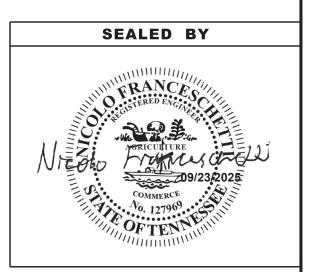
PS&E 2025

STATE OF TENNESSEE **DEPARTMENT OF TRANSPORTATION**

INDEX STANDARD DRAWINGS

TYPE	YEAR	PROJECT NO.	SHEET NO.
L&G	2025	53S095-M3-002	1B
PS&E	2025	53S095-M3-002	1B

PROJECT COMMITMENTS							
COMMITMENT ID	SOURCE DIVISION	DESCRIPTION	STA. / LOCATION				
EDHZ001	ENVIRONMENTAL DIVISION, HAZARDOUS MATERIALS	AN ASBESTOS CONTAINING MATERIAL (ACM) SURVEY WAS COMPLETED ON BRIDGE NO. 53SR0950011 SR-95 OVER CLINCH RIVER LM 10.72 (53-SR095-10.72). NO ASBESTOS WAS DETECTED. PLEASE SEE THE REPORT FOR FURTHER DETAILS AND PHOTOGRAPHS. NO SPECIAL ACCOMMODATIONS FOR DEMOLITION AND WASTE DISPOSAL ARE ANTICIPATED FOR THESE STRUCTURES AND THE MATERIAL CAN BE DEPOSITED IN A C&D LANDFILL. PRIOR TO THE DEMOLITION OR REHABILITATION OF ANY STRUCTURE (BRIDGE OR BUILDING), THE CONTRACTOR IS REQUIRED TO SUBMIT THE NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS STANDARD 10-DAY NOTICE OF DEMOLITION TO THE TDEC DIVISION OF AIR POLLUTION CONTROL (PER TDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (JANUARY 1, 2021) SECTIONS 107.08.D AND 202.03)	STA. / LOCATION BRIDGE NO. 53SR0950011				
EDEC001	ENVIRONMENTAL DIVISION, ECOLOGY	NO IN-STREAM CONSTRUCTION IN CLINCH RIVER WILL BE AUTHORIZED AS PART OF THE SR-95 BRIDGE REPAIR AT LM 10.72.	BRIDGE NO. 53SR0950011				
EDEC002	ENVIRONMENTAL DIVISION, ECOLOGY	ALL NECESSARY TREE CLEARING WITHIN PROJECT LIMITS WILL BE COMPLETED BETWEEN OCTOBER 1 AND MARCH 31.	BRIDGE NO. 53SR0950011				



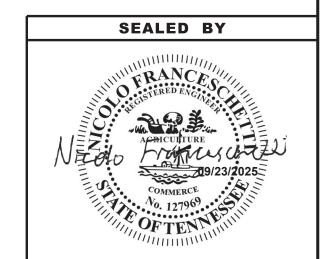
STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION

PROJECT COMMITMENTS

		ESTIMATED BRIDGE QUANTITIES						
	ITEM NO.	DESCRIPTION	UNIT	QUANTITY				
(1)	201-05.31	VEGETATION REMOVAL	LS	1				
(2)	603-02.15	REPAINT EXISTING BEARINGS	LS	1				
(3)	603-02.20	SPOT PAINTING EXISTING STEEL STRUCTURES	S.F.	1015				
(4)	603-05.20	CONTAINMENT & DISPOSAL OF WASTE(BR. NO. 53-SR95-10.72)	LS	1				
(5)	604-04.02	APPLIED TEXTURE FINISH (EXISTING STRUCTURES)	S.Y.	492				
Ī	604-10.32	EXPANSION JOINT REPAIRS (TYPE A)	L.F.	73				
(6)	604-10.34	CONCRETE OVERLAYED BRIDGE DECK REPAIR (FULL DEPTH)	S.Y.	10				
Ì	604-10.42	CONCRETE REPAIRS	C.F.	1				
(7)	604-10.55	CONCRETE (FOUNDATION REPAIRS)	C.Y.	6				
Ì	604-10.56	CONCRETE OVERLAYED BRIDGE DECK REPAIR (PARTIAL DEPTH)	S.Y.	50				
(8)	604-10.58	EPOXY INJECTION (INJECTION)	GAL.	3				
(8)	604-10.62	EPOXY INJECTION REPAIR (COMPLETE AND IN PLACE)	L.F.	24				
(9)	604-42.01	UNDERWATER DIVERS	DAY	2				
Ī	617-04.01	TYPE 1 THIN EPOXY OVERLAY (EPOXY-URETHANE)	S.Y.	2172				
(10)	709-02.02	SACKED SAND CEMENT RIPRAP	C.Y.	56				
Ī	713-02.26	CONCRETE BARRIER/PARAPET DELINEATOR	EACH	93				
(11)	714-16.01	NAVIGATIONAL LIGHTING	LS	1				
(12)	714-16.05	TEMPORARY NAVIGATIONAL LIGHTING	LS	1				

	FOOTNOTES
(1)	INCLUDES COST OF ALL LABOR, EQUIPMENT, AND MATERIALS NECESSARY FOR THE REMOVAL AND DISPOSAL OF VEGETATION WITHIN 10 FEET OF THE STRUCTURE, AND ANY OTHER LOCATIONS NECESSARY TO COMPLETE THE WORK, AS DIRECTED BY THE ENGINEER. WHERE POSSIBLE, STUMPS AND ROOTS ARE TO REMAIN TO PREVENT GROUND DISTURBANCE. ITEM COST ALSO INCLUDES REMOVA OF TRASH AND DEBRIS FROM THE SUBSTRUCTURES AND BELOW THE BRIDGES, REMOVAL OF FORMWORK UNDER DECK, AND CLEANING OF EXISTING DECK AND BRIDGE END DRAINS.
(2)	INCLUDES COST OF ALL LABOR, EQUIPMENT, AND MATERIALS NECESSARY FOR CLEANING AND REPAINTING ALL EXISTING BEARINGS.
(3)	INCLUDES COST OF ALL LABOR, EQUIPMENT, AND MATERIALS NECESSARY FOR CLEANING AND REPAINTING STEEL GIRDERS. REFER TO SUPERSTRUCTURE PAINTING DETAILS ON BR-133-151.
(4)	INCLUDES COST OF ALL LABOR, EQUIPMENT, AND MATERIALS NECESSARY FOR CONTAINMENT AND DISPOSAL OF ALL WASTE GENERATED DURING CLEANING AND REPAINTING OF GIRDERS AND BEARINGS.
(5)	INCLUDES ALL COSTS ASSOCIATED WITH APPLYING TEXTURE FINISH TO INDICATED AREAS. SEE DETAILS IN PLANS. ALSO INCLUDES COST OF SURFACE PREPARATION USING A HIGH PRESSURE WATER WASH TO REMOVE ALL LOOSE COATINGS, DEBRIS, ETC., AS DIRECTED BY THE ENGINEER
(6)	INCLUDES COST OF ALL LABOR, EQUIPMENT, AND MATERIALS NECESSARY FOR FULL DEPTH DECK REPAIRS, AS WELL AS AREAS THAT ARE MARKED FOR PARTIAL DEPTH, AND DURING REMOVAL TURN INTO FULL DEPTH.
(7)	INCLUDES COST OF ALL LABOR, EQUIPMENT, AND MATERIALS NECESSARY FOR PLACEMENT AND GROUT FILLING OF HYDROTEX GROUT BAGS, OR APPROVED EQUIVALENT, FOR THE REPAIR OF PIER 2 FOUNDATION UNDERMINING.
(8)	QUANTITY INCLUDES ALL CRACKS TO BE REPAIRED ON SUBSTRUCTURES.
(9)	INCLUDES COST OF ALL LABOR AND EQUIPMENT NECESSARY FOR THE UNDERWATER INSPECTION OF THE COMPLETED REPAIRS AND ARMORING AT THE PIER 2 FOUNDATION.
(10)	INCLUDES COST OF ALL LABOR, EQUIPMENT, AND MATERIALS NECESSARY FOR THE UNDERWATER PLACEMENT OF THE SACKED SAND CEMENT RIPRAP FOR ARMORING AT THE PIER 2 FOUNDATION.
(11)	INCLUDES ALL ITEMS AND LABOR NECESSARY TO REMOVE THE EXISTING MARINE NAVIGATIONAL LIGHTING SYSTEM AND PROVIDE ALL MATERIALS FOR A NEW COMPLETE LED NAVIGATION LIGHTING SYSTEM, INCLUDING CONNECTION TO THE EXISTING POWER SOURCE. REFER TO NAVIGATIONAL LIGHTING PLANS ON BR-133-154 THRU BR-133-158.
(12)	INCLUDES ALL COSTS TO PROVIDE TEMPORARY NAVIGATIONAL LIGHTING TO ALL EXISTING NAVIGATIONAL LIGHTING LOCATIONS THROUGH THE ENTIRE CONSTRUCTION PROCESS (6 LOCATIONS TOTAL). REFER TO NAVIGATIONAL LIGHTING PLANS ON BR-133-154 THRU BR-133-158.

_	CONST. NO.:								
Р	ROJECT	NO.	YEAR	SHEET NO.					
53	8S095-M	3-002	2025	2					
	REVISIONS								
NO.	DATE	BY	BRIEF	DESCRIPTION					



STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION

ESTIMATED BRIDGE QUANTITIES SR-95 OVER CLINCH RIVER BRIDGE NO. 53-SR095-10.72 FED. I.D. NO. 53SR0950011 LOUDON COUNTY 2025

PIN NO.: DESIGN BY:_ N. FRANCESCHETTI DATE: 09/2025 DATE: 09/2025 M. LOUCKS DRAWN BY: DATE: 09/2025 S. WILSON SUPERVISED BY: DATE: 09/2025 CHECKED BY:_ N. FRANCESCHETTI

BRIDGE GENERAL NOTES

SPECIFICATIONS & LOADING

- (1) **CONSTRUCTION SPECIFICATIONS**: STANDARD ROAD AND BRIDGE SPECIFICATIONS OF THE TENNESSEE DEPARTMENT OF TRANSPORTATION (JANUARY 1, 2021 EDITION), AND THE 4TH EDITION (2017) AASHTO LRFD BRIDGE CONSTRUCTION SPECIFICATIONS WITH INTERIMS.
- DESIGN SPECIFICATIONS: 10TH EDITION (2024) AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS WITH INTERIMS, AND THE 2ND EDITION (2011) AASHTO GUIDE SPECIFICATIONS FOR LRFD SEISMIC BRIDGE DESIGN WITH INTERIMS.

STEEL, CONCRETE, REINFORCING, AND FORMING

- (3) **REINFORCING STEEL**: SHALL BE ASTM A615 GRADE 60 UNLESS NOTED OTHERWISE. SEE SECTION 604 AND 907 OF THE STANDARD SPECIFICATIONS.
- (4) **NOTE:** MECHANICAL BAR SPLICERS MUST BE ON THE TDOT QUALIFIED PRODUCTS LIST 27. THE BAR SPLICERS SHALL MEET AASHTO LRFD SPECIFICATIONS FOR MECHANICAL CONNECTION. WHEN EPOXY COATING IS REQUIRED, THE EXPOSED THREADS SHALL BE REPAIRED AFTER SPLICING ACCORDING TO SECTION 907 OF THE STANDARD SPECIFICATIONS. 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 THE REINFORCING BARS, UNLESS NOTED OTHERWISE IN PLANS.
- 5) **CONCRETE CURING:** ALL CONCRETE IN REPAIR AREAS SHALL BE CURED ACCORDING TO THE STANDARD SPECIFICATIONS.

MISCELLANEOUS GENERAL NOTES

- (6) SHOP DRAWINGS: REFER TO SECTION 105.02 OF THE STANDARD SPECIFICATIONS. IF USING PAPER COPIES, SHOP DRAWINGS ARE TO BE SENT TO THE BRIDGE REPAIR OFFICE IN THE DIVISION OF STRUCTURES, FOR ELECTRONIC SUBMITTALS, SEE SECTION 105.02 OF THE STANDARD SPECIFICATIONS. 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 WITH TITLE BLOCKS NOT INCLUDING THE FOREGOING IDENTIFICATION WILL BE RETURNED FOR CORRECTION BEFORE ANY REVIEWS FOR APPROVAL ARE CONDUCTED.
- (7) **EXPANSION JOINTS (STRIP SEAL AND MODULAR):** FOR ADDITIONAL GENERAL NOTES APPLICABLE TO STRIP SEAL EXPANSION JOINTS, SEE STANDARD DRAWING NOS. SBR-2-115 AND SBR-2-116, ALSO SEE SECTION 623 OF THE STANDARD SPECIFICATIONS. .
- (8) SPECIAL NOTE TO CONTRACTOR: CONTRACTOR SHALL USE EXTREME CARE AND TAKE ANY MEASURES NECESSARY TO ENSURE THAT NO DEBRIS IS DROPPED INTO THE STREAM. ANY DEBRIS WHICH IS ALLOWED TO DROP ON THE BANKS BELOW THE BRIDGE SHALL NOT BE ALLOWED TO ENTER THE STREAM AND SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR. COST OF REMOVAL AND DISPOSAL OF DEBRIS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR OTHER ITEMS.
- (9) THE CONTRACTOR IS NOT ALLOWED TO USE A HYDRAULIC RAM MOUNTED ON A BACKHOE (COMMONLY CALLED A HOE RAM), MINI EXCAVATOR, OR OTHER EQUIPMENT FOR ANY CONCRETE REMOVAL.

- (10) **DEMOLITION:** THE CONTRACTOR SHALL TAKE SPECIAL CARE TO PROTECT ANY PARTS OF THE STRUCTURE THAT ARE NOT TO BE REMOVED SPECIFICALLY. FOR FULL DEPTH SLAB REMOVAL, EXCEPT OVER BEAMS, THE MAXIMUM HAMMER SIZE IS 90 POUND CLASS. FOR PARTIAL DEPTH SLAB REMOVAL AND ANY WORK OVER THE BEAMS, THE MAXIMUM HAMMER SIZE IS 60 POUND CLASS; CHIPPING HAMMERS OF THE 15 POUND CLASS SHALL BE USED TO REMOVE CONCRETE FROM BENEATH ANY REINFORCING STEEL. SAWING OR CUTTING OF THE CONCRETE IS ACCEPTABLE AS LONG AS ANY SPECIFIED PROJECTION OF THE EXISTING REINFORCING STEEL IS MAINTAINED. EXPANSION JOINT REMOVAL SHALL FOLLOW THE SAME RESTRICTIONS AS FULL DEPTH SLAB REMOVAL. ALL DEVICES PROPOSED FOR CONCRETE DEMOLITION SHALL MEET THE APPROVAL OF THE ENGINEER.
- (11) **NOTE**: LUMP SUM FOR NAVIGATIONAL LIGHTING INCLUDES ALL ITEMS AND LABOR NECESSARY TO MAKE THE NAVIGATIONAL LIGHTING COMPLETE AS SHOWN ON THE PLANS, INCLUDING CONNECTION TO THE EXISTING POWER SOURCE. NEW LIGHTING SHALL MEET COAST GUARD REGULATIONS. SHOP DRAWINGS FOR NAVIGATIONAL LIGHTING SUPPORT BRACKET MODIFICATIONS OR REPLACEMENT SUPPORTS SHALL BE SUBMITTED FOR APPROVAL.
- (12) 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 ALSO NOTIFY THE
 CORPS OF ENGINEERS INFORMING THEM OF WORK TO BE
 PERFORMED BEFORE ANY WORK OVER THE WATERWAY BEGINS. THE
 CONTRACTOR SHALL SUBMIT A DESCRIPTION OF WORK AND
 SKETCHES OF ANY FALSE WORK, 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 BEGINS.

CONTACT: ERIC WASHBURN
U.S. COAST GUARD
BRIDGE ADMINISTRA

BRIDGE ADMINISTRATOR 1222 SPRUCE STREET ST. LOUIS, MO 63103-2832

- (13) REQUIREMENTS AND RESTRICTIONS FOR PHASE CONSTRUCTION
 - A. A SINGLE 11 FOOT THROUGH TRAFFIC LANE SHALL BE MAINTAINED AT ALL TIMES.
- (14) FINISHING CONCRETE SURFACES: CONCRETE FINISHING SHALL BE IN ACCORDANCE WITH SECTION 604.21 OF THE STANDARD SPECIFICATIONS. A CLASS I FINISH FOLLOWED BY AN APPLIED TEXTURE FINISH SHALL BE USED IN LIEU OF A CLASS II FINISH. NO TEXTURE FINISH SHALL BE APPLIED PRIOR TO COMPLETION OF PAVING AND HAULING OPERATIONS AT THE BRIDGE SITE. THE APPLIED TEXTURE FINISH SHALL BE MEASURED AND PAID FOR UNDER ITEM NO. 604-04.02.
- (15) CONTAINMENT AND DISPOSAL: OUR RECORDS SHOW THAT THIS BRIDGE HAS OR HAS HAD LEAD-BASED/CHROMATE-BASED PAINT APPLIED TO IT DURING ITS HISTORY; THEREFORE, THE CONTRACTOR SHALL ASSUME THAT REMNANTS OF THAT PAINT REMAIN ON THE BRIDGE. SEE SECTION 603.13 OF THE STANDARD SPECIFICATIONS 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.
- (16) SPECIAL NOTE SURFACE PREPARATION FOR PAINT: OUR RECORDS SHOW THAT THIS BRIDGE HAS OR HAS HAD LEAD-BASED/CHROMATE-BASED PAINT APPLIED TO IT DURING ITS HISTORY. THEREFORE, THE CONTRACTOR SHALL ASSUME THAT REMNANTS OF THAT PAINT REMAIN ON THE BRIDGE ALONG WITH THE POSSIBILITY OF THE PRESENCE OF MILLSCALE. CONTRACTOR SHALL BID ACCORDINGLY.
- (17) 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.

PAINTING BEARINGS NOTES

- (18) PAINT: SHALL BE SYSTEM "B" (QPL 3.005) IN ACCORDANCE WITH SECTION 603.06 OF THE STANDARD SPECIFICATIONS. COLOR OF THE FINISH COAT SHALL COMPLY WITH AMS-STD-595A, FEDERAL STANDARD NO. 595A, 24110 BRIGHT GREEN. SEE SECTIONS 603 AND 910 OF THE STANDARD SPECIFICATIONS. ALL PRODUCTS USED IN THIS COATING SYSTEM, INCLUDING THINNERS, MUST BE SUPPLIED BY THE SAME MANUFACTURER.
- (19) **BEARING CLEANING:** ALL STEEL BEARINGS SHALL BE CLEANED AND PAINTED. CLEANING SHALL BE IN ACCORDANCE WITH SECTION 603.05(B.1) OF THE STANDARD SPECIFICATIONS. HAND (SSPC-SP 2) OR POWER (SSPC-SP 3) TOOL CLEANING SHALL REMOVE ALL RUST, SCALE, LOOSE PAINT, AND DIRT. THE COLOR OF THE FINISH COAT SHALL COMPLY WITH AMS-STD-595A, FEDERAL STANDARD NO. 595A, 24110 BRIGHT GREEN. SEE SECTIONS 603 AND 910 OF THE STANDARD SPECIFICATIONS.
- (20) APPLICATION: THE COATING APPLICATOR SHALL FOLLOW THE MANUFACTURER'S PRINTED INSTRUCTIONS AND SHALL HAVE THESE INSTRUCTIONS ON SITE DURING THE COURSE OF THE WORK.

SPOT PAINTING AREAS NOTES

- (21) SPOT CLEANING AND PAINTING: AREAS REQUIRING REPAINTING OF STEEL SHALL BE CLEANED IN ACCORDANCE WITH SECTION 603.05(B.1) OF THE STANDARD SPECIFICATIONS. HAND (SSPC-SP 2) OR POWER (SSPC-SP 3) 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" (QPL 3.005) PAINT SYSTEM IN ACCORDANCE WITH SECTION 603.06(B) OF STANDARD SPECIFICATIONS. THE COLOR OF THE FINISH COAT SHALL COMPLY WITH AMS-STD-595A, FEDERAL STANDARD NO. 595A, 24110 BRIGHT GREEN. SEE SECTIONS 603 AND 910 OF THE STANDARD SPECIFICATIONS.
- (22) SEE THE TDOT QUALIFIED PRODUCTS LIST 3.005 FOR ACCEPTABLE COATINGS FOR THE PAINT SYSTEM. THE SAME MANUFACTURER SHALL SUPPLY ALL PRODUCTS USED, INCLUDING THINNERS.

BRIDGE SPECIAL NOTES

- (1) FORMS AND FALSEWORK: ALL CONCRETE FORMS AND FALSEWORK SHALL BE REMOVED AFTER REPAIRS ARE COMPLETED. COST OF REMOVAL SHALL BE INCLUDED IN ITEMS BID ON. THIS WORK SHALL BE COMPLETED BEFORE FINAL PAYMENT IS APPROVED.
- AREAS OF REPAIR SHALL BE HIGH EARLY STRENGTH CONCRETE WITH A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 4,000 PSI. THE CONTRACTOR SHALL PROVIDE PROOF PRIOR TO BEGINNING WORK THAT THE PROPOSED CONCRETE MIX WILL OBTAIN THE REQUIRED PROPERTIES. PROOF SHALL BE PROVIDED BY AN INDEPENDENT TESTING COMPANY AND SUBMITTED TO THE MATERIALS AND TESTS DIVISION OF THE TENNESSEE DEPARTMENT OF TRANSPORTATION FOR APPROVAL. TRAFFIC SHALL NOT BE PERMITTED ON ANY REPAIR AREA UNTIL TEST SPECIMENS ATTAIN A COMPRESSIVE STRENGTH OF 3,000 P.S.I. AND THE CONCRETE HAS BEEN IN PLACE A MINIMUM OF EIGHTEEN (18) HOURS.
- (3) THE CONTRACTOR SHALL PROVIDE 100% CONVENTIONAL FALL PROTECTION FOR WORKS INSTALLING DECKING ABOVE 15 FEET
- (4) THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE STABILITY OF THE STRUCTURE DURING REPAIRS AND CONSTRUCTION
- (5) FRESHLY POURED CONCRETE SHALL NOT BE ALLOWED TO COME IN CONTACT WITH THE STREAM WATER.
- (6) ANY DAMAGE TO VEGETATED AREAS NOT SPECIFICALLY MENTIONED WITHIN THE PROJECT SCOPE SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE. THESE AREAS ARE TO BE RETURNED TO THEIR PRE-CONSTRUCTION STATE AND SHALL BE DETERMINED BY THE ENGINEER. ALL COSTS (LABOR AND MATERIALS) ASSOCIATED WITH THIS WORK SHALL BE INCLUDED IN ITEMS BID ON.

-	CONST. NO.:							
F	PROJECT NO. YEAR SHEET NO.							
5	3S095-M	3-002	2025	2A				
			REVISIONS					
VO.	DATE	BY	BRIEF	DESCRIPTION				

SEALED BY

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ACRICULTURE

POPULATION

COMMERCE

No. 127969

OF TEN

STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION

BRIDGE GENERAL AND SPECIAL NOTES
SR-95 OVER CLINCH RIVER
BRIDGE NO. 53-SR095-10.72
FED. I.D. NO. 53SR0950011
LOUDON COUNTY
2025

Palmer

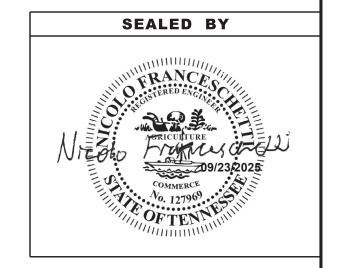
PIN NO.:	084516.01		
DESIGN BY:	N. FRANCESCHETTI	DATE:	09/202
DRAWN BY:	M. LOUCKS	DATE:	09/202
SUPERVISED BY:_	S. WILSON	DATE:	09/202
CHECKED BY:	N. FRANCESCHETTI	DATE:	09/202

	ITEM NO.	
(1)	209-08.02	TEMPORARYS
	403-01	BITUMINOUS N
	411-02.10	ACS MIX(PG70-
	411-12.02	SCORING SHO
	415-01.02	COLD PLANING
	707-08.11	HIGH-VISIBILIT
	709-05.06	MACHINED RIF
	709-05.08	MACHINED RIF
(2)	712-01	TRAFFIC CONT
(3)	712-02.10	PORTABLE BA
(3)	712-02.12	PORTABLE BA
(4)	712-02.60	TEMPORARY V
	712-04.01	FLEXIBLE DRU
	712-04.50	BARRIER RAIL
(5)	712-06	SIGNS (CONST
	712-09.02	REMOVABLE P
	712-09.04	REMOVABLE P
	713-16.01	CHANGEABLE
(6)	716-01.21	SNOWPLOWAE
	716-12.02	ENHANCED FL
	717-01	MOBILIZATION
(7)	730-40	TEMPORARYT

	ESTIMATED ROADWAY QUANTITIES						
	ITEM NO.	DESCRIPTION	UNIT	QUANTITY			
1) 2	209-08.02	TEMPORARY SILT FENCE (WITH BACKING)	L.F.	325			
4	403-01	BITUMINOUS MATERIAL FOR TACK COAT (TC)	TON	1.3			
4	411-02.10	ACS MIX(PG70-22) GRADING D	TON	195			
4	411-12.02	SCORING SHOULDERS (NON-CONTINUOUS) (16IN WIDTH)	L.M.	0.2			
4	415-01.02	COLD PLANING BITUMINOUS PAVEMENT	S.Y.	2934			
7	707-08.11	HIGH-VISIBILITY CONSTRUCTION FENCE	L.F.	325			
7	709-05.06	MACHINED RIP-RAP (CLASS A-1)	TON	86			
7	709-05.08	MACHINED RIP-RAP (CLASS B)	TON	1280			
2) 7	712-01	TRAFFIC CONTROL	LS	1			
3) 7	712-02.10	PORTABLE BARRIER RAIL (MASH TL-3)	L.F.	180			
3) 7	712-02.12	PORTABLE BARRIER RAIL, REDUCED DEFLECTION (MASH TL-3)	L.F.	660			
4) 7	712-02.60	TEMPORARY WORK ZONE CRASH CUSHION (MASH TL-3)	EACH	2			
7	712-04.01	FLEXIBLE DRUMS (CHANNELIZING)	EACH	18			
7	712-04.50	BARRIER RAIL DELINEATOR	EACH	68			
5) 7	712-06	SIGNS (CONSTRUCTION)	S.F.	1014			
7	712-09.02	REMOVABLE PAVEMENT MARKING (8" BARRIER LINE)	L.F.	8649			
7	712-09.04	REMOVABLE PAVEMENT MARKING (STOP LINE)	L.F.	24			
7	713-16.01	CHANGEABLE MESSAGE SIGN UNIT	EACH	2			
3) 7	716-01.21	SNOWPLOWABLE RAISED PAVEMENT MARKERS (BI-DIR) (1 COLOR)	EACH	16			
7	716-12.02	ENHANCED FLATLINE THERMO PVMT MRKNG (6IN LINE)	L.M.	0.7			
7	717-01	MOBILIZATION	LS	1			
7) 7	730-40	TEMPORARY TRAFFIC SIGNAL SYSTEM	EACH	1			

TYPE	YEAR	PROJECT NO.	SHEET NO.
L&G	2025	53S095-M3-002	2B
PS&E	2025	53S095-M3-002	2B

	FOOTNOTES
(1)	SEE SUBSECTION 209.07 OF THE STANDARD SPECIFICATIONS FOR MAINTENANCE AND REPLACEMENT. ALL EROSION PREVENTION AND SEDIMENT CONTROL QUANTITIES ARE TO BE USED AS DIRECTED BY THE ENGINEER. ALSO, INCLUDES COST OF SEDIMENT REMOVAL.
(2)	ALL COSTS ASSOCIATED WITH INSTALLING, STORING, AND RE-INSTALLING ALL TRAFFIC CONTROL DEVICES DURING AND BETWEEN THE DIFFERENT TRAFFIC CONTROL PHASES SHALL BE INCLUDED IN THE PRICE BID FOR EACH ITEM. DURING THE TIME BETWEEN DIFFERENT TRAFFIC CONTROL PHASES, THE CONTRACTOR SHALL STORE ALL TRAFFIC CONTROL DEVICES IN A PROPER LOCATION THAT WILL NOT INTERFERE WITH THE TRAFFIC FLOW. ALL WORK MUST MEET THE FULL APPROVAL OF THE TDOT ENGINEER.
(3)	ITEM INCLUDES COST OF INSTALLING AND RELOCATING PORTABLE BARRIER RAIL.
(4)	THIS ITEM SHALL BE A PORTABLE ENERGY ABSORBING TERMINAL MEETING THE REQUIREMENTS OF AASHTO MASH FOR TEST LEVEL 3. THE UNIT BID ITEM WILL INCLUDE FURNISHING AND INSTALLING ALL COMPONENTS AS SHOWN ON THE MANUFACTURER'S DRAWINGS.
(5)	ANY LOSS OR DAMAGE TO THE SIGNS SHALL BE PAID FOR BY THE CONTRACTOR.
(6)	NEW SNOWPLOWABLE PAVEMENT MARKERS SHALL BE THE COLOR YELLOW. INCLUDES ALL COSTS ASSOCIATED WITH REMOVING EXISTING SNOWPLOWABLE MARKERS WITHIN THE PROJECT LIMITS.
(7)	INCLUDES ALL SIGNALS NEEDED IN OPERATION TO COMPLETE THE ENTIRE SYSTEM INCLUDING, BUT NOT LIMITED TO, ANY ADDITIONAL SIGNALS (INCLUDING RESIDENTIAL DRIVEWAY TEMPORARY SIGNALS) FOR TRAFFIC CONTROL ON SR-95 AND DRIVEWAYS AND/OR SIDESTREETS ENTERING SR-95.



STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION

ESTIMATED ROADWAY QUANTITIES

GENERAL NOTES

GRADING

- ANY AREA THAT IS DISTURBED OUTSIDE LIMITS OF CONSTRUCTION DURING THE LIFE OF THIS PROJECT SHALL BE REPAIRED BY THE CONTRACTOR AT HIS EXPENSE.
- 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 (FEMA) WITHOUT APPROVAL BY FEMA. 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.

MISCELLANEOUS

NOTHING IN THE GENERAL NOTES OR SPECIAL PROVISIONS SHALI 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

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.

PAVEMENT MARKINGS

FINAL PAVEMENT MARKING

PERMANENT PAVEMENT LINE MARKINGS SHALL BE 6" ENHANCED FLATLINE THERMOPLASTIC INSTALLED TO PERMANENT STANDARDS AT THE END OF EACH DAY'S WORK. SHORT UNMARKED SECTIONS SHALL NOT BE ALLOWED. PAVEMENT MARKINGS WILL BE MEASURED AND PAID FOR UNDER ITEM NO. 716-12.02. ENHANCED FLATLINE THERMO PVMT MRKNG (6IN LINE), L.M. THE CONTRACTOR SHALL HAVE THE OPTION OF USING REFLECTORIZED PAINT INSTALLED TO PERMANENT STANDARDS AT THE END OF EACH DAY'S WORK AND THEN INSTALLING THE PERMANENT MARKINGS AFTER THE PAVING OPERATION IS COMPLETED. THE TEMPORARY MARKINGS FOR THE FINAL SURFACE WILL NOT BE MEASURED AND PAID FOR DIRECTLY, BUT THE COSTS ARE TO BE INCLUDED IN THE PRICE BID FOR THE PERMANENT MARKINGS.

DETOURS. LANE SHIFTS AND MEDIAN CROSS-OVERS

BEFORE OPENING THE LANE SHIFT TO TRAFFIC, THE TRANSITIONAL MARKINGS ON THE EXISTING ROADWAY MUST BE IN PLACE. THESE MARKINGS WILL BE MEASURED AND PAID FOR UNDER ITEM NO. 712-09.02 REMOVABLE PAVEMENT MARKING (8" BARRIER LINE) PER L.F. ALL EXISTING MARKINGS IN THE AREA OF THESE TRANSITIONAL MARKINGS SHALL BE OBLITERATED AND ALL EXISTING RAISED PAVEMENT MARKERS SHALL BE REMOVED TO ELIMINATE CONFLICTING MARKINGS. REMOVAL OF THE EXISTING CONFLICTING MARKINGS AND RAISED PAVEMENT MARKERS WILL NOT BE MEASURED AND PAID FOR DIRECTLY. BUT THE COST WILL BE INCLUDED IN ITEM NO. 712-01, TRAFFIC CONTROL, LUMP SUM.

SNOWPLOWABLE REFLECTIVE PAVEMENT MARKERS

REMOVE EXISTING SNOWPLOWABLE MARKERS PRIOR TO PAVING AND/OR COLD PLANING. REMOVE ALL ADHESIVES PRIOR TO PAVING. PATCH ANY HOLES OR DIVOTS RESULTING FROM THE REMOVAL OF A MARKER IN A MANNER WHICH ENSURES A UNIFORM PAVED SURFACE. PATCH WORK SHALL BE INCLUDED WITH COST OF OTHER ITEMS OF CONSTRUCTION.

PAVEMENT

PAVING

- THE CONTRACTOR SHALL BE REQUIRED TO PAVE IN THE DIRECTION OF TRAFFIC.
- THE CONTRACTOR SHALL BE REQUIRED TO COLD PLANE AND PAVE IN THE DIRECTION OF TRAFFIC.
- (10) THE CONTRACTOR SHALL ATTACH A DEVICE TO THE SCREED OF THE PAVER SUCH THAT MATERIAL IS CONFINED AT THE END GATE AND EXTRUDES THE ASPHALT MATERIAL IN SUCH A WAY THAT RESULTS IN A CONSOLIDATED WEDGE-SHAPE PAVEMENT EDGE OF APPROXIMATELY 25 TO 30 DEGREES AS IT LEAVES THE PAVER (MEASURED FROM A LINE PARALLEL TO THE PAVEMENT SURFACE.) THE DEVICE SHALL MEET THE REQUIREMENTS THAT ARE CURRENTLY SET FORTH IN SPECIAL PROVISION

SIGNING

(11) ALL SIGNS WHICH INTERFERE WITH CONSTRUCTION WILL BE RELOCATED OUTSIDE LIMITS OF CONSTRUCTION BY THE CONTRACTOR. UPON COMPLETION OF CONSTRUCTION, THE CONTRACTOR WILL RESTORE THE SIGNS TO ORIGINAL LOCATION. THE CONTRACTOR SHALL CHECK WITH THE REGIONAL TRAFFIC ENGINEER PRIOR TO MOVING ANY PERMANENT

CONSTRUCTION WORK ZONE & TRAFFIC CONTROL

- (12) 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.
- (13) 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.
- (14) 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.
- (15) TRAFFIC CONTROL DEVICES SHALL NOT BE DISPLAYED OR ERECTED UNLESS RELATED CONDITIONS ARE PRESENT NECESSITATING WARNING.
- (16) USE OF BARRICADES, PORTABLE BARRIER RAILS, 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.

- (17) 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 AN 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.
- (18) ALL DETOUR AND CONSTRUCTION SIGNING SHALL BE IN STRICT ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
- (19) ALL DETOURS SHALL BE PAVED, STRIPED, SIGNED, AND FLEXIBLE DRUMS ARE TO BE IN PLACE BEFORE IT IS OPENED TO TRAFFIC.
- (20) THE CONTRACTOR SHALL BE RESPONSIBLE FOR STAKING CONSTRUCTION SIGNS. THE COST OF THIS WORK SHALL BE INCLUDED IN ITEM NO. 712-06, SIGNS (CONSTRUCTION), S.F.

SPECIAL NOTES

DEMOLITION

DEMOLITION, REPAIR, OR REHABILITATION OF BRIDGES

- (1) THE CONTRACTOR SHALL VERIFY THAT AN ASBESTOS SURVEY HAS BEEN COMPLETED PRIOR TO ANY DEMOLITION, REPAIR OR REHABILITATIONS ACTIVITIES (NOT INCLUDING ASPHALT MILLING OR OVERLAY).
- ASBESTOS-CONTAINING MATERIALS (ACM) ABATEMENT IS THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE COMPLETED PRIOR TO ANY DEMOLITION, REPAIR OR REHABILITATION OF BRIDGE(S) ABATEMENT SHOULD BE ACCOMPLISHED PER SP202ACM SPECIAL PROVISION REGARDING REMOVAL OF ASBESTOS-CONTAINING MATERIALS. STATE OF TENNESSEE ASBESTOS ACCREDITATION REQUIREMENTS (TCA 1200-01-20) MANDATE THAT ACM ABATEMENT WORK BE PERFORMED BY AN ACCREDITED FIRM (CONTRACTOR) USING ACCREDITED ABATEMENT WORKERS AND SUPERVISORS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR SUBMITTING A NOTICE TO THE TDEC, DIVISION OF AIR POLLUTION CONTROL TEN (10) DAYS IN ADVANCE OF ANY ACM ABATEMENT, DEMOLITION, OR MAJOR REPAIR INVOLVING THE REMOVAL/REPLACEMENT OF A STRUCTURAL COMPONENT.

TYPE	YEAR	PROJECT NO.	SHEET NO.
L&G	2025	53S095-M3-002	2C
PS&E	2025	53S095-M3-002	2C

SEALED BY

STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION

ROADWAY GENERAL AND SPECIAL NOTES

ENVIRONMENTAL NOTES

ENVIRONMENTAL GENERAL NOTES

- SOIL MATERIALS MUST BE PREVENTED FROM ENTERING WATERS OF THE STATE/U.S. EPSC MEASURES TO PROTECT NATURAL RESOURCES AND WATER QUALITY SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD. APPROPRIATE EPSC MEASURES MUST BE INSTALLED ALONG THE BASE OF ALL FILLS AND CUTS, ON THE DOWNHILL SIDE OF STOCKPILED SOIL, AND ALONG NATURAL RESOURCES IN CLEARED AREAS TO PREVENT SEDIMENT MIGRATION INTO STREAMS. WETLANDS OR OTHER NATURAL FEATURES IN ACCORDANCE WITH TDOT STANDARDS. EPSC MEASURES SHALL BE INSTALLED ON THE CONTOUR. ENTRENCHED AND STAKED, AND EXTEND THE WIDTH OF THE AREA TO BE CLEARED.
- NEW CHANNEL CONSTRUCTION SHALL BE COMPLETED IN THE DRY AND STABILIZED FOR AT LEAST 72 HOURS PRIOR TO DIVERTING WATER FROM THE EXISTING AND/OR TEMPORARY CHANNEL
- INSTREAM EPSC DEVICES REQUIRE THE TDOT ENVIRONMENTAL DIVISION. PERMITS SECTION REVIEW AND MUST BE PROCESSED BY THE PERMITS SECTION TO OBTAIN WATER QUALITY PERMITS.
- THE OPERATION OF EQUIPMENT IN WATERS OF THE STATE/U.S., INCLUDING WETLANDS AND EPHEMERAL, INTERMITTENT, AND PERENNIAL STREAMS, IS NOT ALLOWED.
- THE WIDTH OF THE FILL ASSOCIATED WITH TEMPORARY CROSSINGS SHALL BE LIMITED TO THE MINIMUM NECESSARY FOR THE ACTUAL CROSSING, NOT TO EXCEED THE WIDTH SPECIFIED IN THE STANDARD DRAWING.
- STREAM BEDS SHALL NOT BE USED AS TRANSPORTATION ROUTES FOR CONSTRUCTION EQUIPMENT. TEMPORARY CULVERT CROSSINGS SHALL BE LIMITED TO ONE POINT PER STREAM AND EPSC MEASURES SHALL BE USED WHERE THE STREAM BANKS ARE DISTURBED. WHERE THE STREAMBED IS NOT COMPOSED OF BEDROCK, A PAD OF CLEAN ROCK SHALL BE USED AT THE CROSSING POINT AND CULVERTED TO PREVENT THE IMPOUNDMENT OF WATER FLOW. CLEAN ROCK IS ROCK OF VARIOUS TYPE AND SIZE, DEPENDING UPON APPLICATION, WHICH CONTAINS NO FINES, SOILS, OR OTHER WASTES OR CONTAMINANTS. OTHER MATERIALS USED FOR ALL TEMPORARY FILLS SHALL BE COMPLETELY REMOVED IN THEIR ENTIRETY AFTER THE WORK IS COMPLETED AND THE AFFECTED AREAS RETURNED TO PREEXISTING ELEVATIONS. ALL TEMPORARY CROSSINGS SHALL BE CONSTRUCTED IN ACCORDANCE WITH STD. DWG. EC-STR-25 UNLESS SPECIFICALLY ADDRESSED IN THE EPSC PLANS. ALTERNATIVELY, PLACING A TEMPORARY BRIDGE (E.G. BAILEY BRIDGE OR EQUIVALENT, TIMBERS, ETC.) FROM TOP OF BANK TO TOP OF BANK OR THE APPROPRIATE USE OF BARGES AT THE CROSSING TO AVOID DISTURBANCE OF THE STREAMBED IS AN ACCEPTABLE OPTION
- HEAVY EQUIPMENT WORKING IN WETLANDS WITH PERMITTED TEMPORARY IMPACTS SHALL BE PLACED ON MATS. OR OTHER MEASURES MUST BE TAKEN TO MINIMIZE SOIL DISTURBANCE AND COMPACTION UNLESS SPECIFICALLY ADDRESSED IN THE CONSTRUCTION PLANS. ANY MATS AND OTHER MEASURES USED FOR HEAVY EQUIPMENT SHALL BE REMOVED IN THEIR ENTIRETY AFTER THE WORK IS COMPLETED. ALL AFFECTED AREAS SHOULD BE RETURNED TO PRE-EXISTING CONDITIONS.
- WETLANDS SHALL NOT BE USED AS EQUIPMENT STORAGE, STAGING, OR TRANSPORTATION AREAS. UNLESS SPECIFICALLY PROVIDED FOR IN THE CONSTRUCTION PLANS AND PERMITS.
- THE CONTRACTOR SHALL TAKE APPROPRIATE STEPS PRIOR TO ANY CONSTRUCTION AND MAINTENANCE ACTIVITIES TO ENSURE THAT ENVIRONMENTAL FEATURES (E.G., STREAMS, WETLANDS, SPRINGS, ETC.) ARE NOT IMPACTED BEYOND PERMITTED LOCATIONS. IF THE CONTRACTOR OR TDOT INSPECTOR IS UNSURE OF THE IDENTITY OF AN ENVIRONMENTAL FEATURE, THE INSPECTOR SHALL CONTACT THE TDOT REGION ENVIRONMENTAL TECH GROUP IMMEDIATELY.

SPECIES

(10) NO ACTIVITY MAY SUBSTANTIALLY DISRUPT THE MOVEMENT OF THOSE SPECIES OF AQUATIC LIFE INDIGENOUS TO THE WATER BODY, INCLUDING THOSE SPECIES THAT NORMALLY MIGRATE THROUGH THE AREA.

PERMITS, PLANS & RECORDS

- (11) THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR AND OBTAIN ANY NECESSARY ENVIRONMENTAL PERMITS OR APPROVALS, INCLUDING BUT NOT LIMITED TO ARCHAEOLOGY, ECOLOGY, HISTORICAL, HAZARDOUS MATERIALS, AIR AND NOISE, TDEC ARAP/401, USACE SECTION 404, TVA SECTION 26A, AND TDEC NPDES PERMITS, FROM FEDERAL, STATE AND/OR LOCAL AGENCIES REGARDING ANY MATERIAL AND STAGING AREAS AND THE OPERATION OF ANY PROJECT-DEDICATED ASPHALT AND/OR CONCRETE PLANTS TO BE USED. ANY SUCH PERMITS SHALL BE SUPPLIED TO THE TDOT PROJECT RESPONSIBLE PARTY PRIOR TO THE USE OF THE PERMITTED AREA(S).
- (12) ANY DISAGREEMENT BETWEEN THE CONSTRUCTION PLANS, THE PROJECT AS CONSTRUCTED, AND THE PERMIT(S) ISSUED FOR THE PROJECT, SHALL BE BROUGHT TO THE ATTENTION OF THE TDOT PROJECT RESPONSIBLE PARTY. THE ENVIRONMENTAL DIVISION, 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.
- (13) IF A CHANGE IN PROJECT SCOPE OCCURS DURING CONSTRUCTION. INCLUDING VALUE ENGINEERING. THE TDOT PERMIT SECTION SHALL BE CONTACTED TO DETERMINE WHETHER PERMIT REVISIONS ARE NEEDED. THE ROADWAY DESIGN DIVISION SHALL BE CONTACTED TO DETERMINE IF ANY PLAN REVISIONS ARE NEEDED.
- (14) THE CONTRACTOR SHALL REVIEW ALL EXISTING PERMITS TO ENSURE THAT WORK AT PERMITTED SITES DOES NOT EXCEED EXPIRATION DATE. IF WORK IS GOING TO BE CONTINUED AFTER EXPIRATION DATES, THE CONTRACTOR SHALL CONTACT THE TDOT PROJECT RESPONSIBLE PARTY TO COMMENCE PERMIT RENEWAL PROCESS.
- ALL WATER QUALITY PERMITS SHALL BE POSTED NEAR THE MAIN ENTRANCE OF THE CONSTRUCTION SITE ACCESSIBLE TO THE PUBLIC. THE NAME, COMPANY NAME, EMAIL ADDRESS, TELEPHONE NUMBER AND ADDRESS OF THE PROJECT SITE OWNER, OPERATOR, OR A LOCAL CONTACT PERSON WITH A BRIEF DESCRIPTION OF THE PROJECT SHALL ALSO BE POSTED. IF POSTING THIS INFORMATION NEAR A MAIN ENTRANCE IS INFEASIBLE, THE INFORMATION SHALL BE PLACED IN A PUBLICLY ACCESSIBLE LOCATION NEAR WHERE THE CONSTRUCTION IS ACTIVELY UNDERWAY AND MOVED AS NECESSARY. THIS LOCATION SHALL BE POSTED AT THE CONSTRUCTION SITE. ALL POSTINGS SHALL BE MAINTAINED IN LEGIBLE CONDITION.

SUPPORT ACTIVITIES

(16) MATERIALS AND STAGING AREAS SHALL NOT AFFECT ANY WATERS OF THE STATE/U.S. UNLESS THESE AREAS ARE SPECIFICALLY COVERED BY ENVIRONMENTAL PERMITS, OBTAINED SOLELY BY THE CONTRACTOR. THE CONTRACTOR SHALL REVIEW ALL EXISTING PERMITS TO ENSURE THAT WORK AT PERMITTED SITES DOES NOT EXCEED EXPIRATION DATES. IF WORK IS GOING TO BE CONTINUED AFTER EXPIRATION DATES, THE CONTRACTOR SHALL CONTACT THE TDOT PROJECT RESPONSIBLE PARTY TO COMMENCE PERMIT RENEWAL PROCESS.

STREAMS. WETLANDS & BUFFER ZONES

(17) ONCE WATER IS DIVERTED INTO A NEWLY CONSTRUCTED AND STABILIZED RELOCATED STREAM / CHANNEL, THE ECOLOGY SECTION SHALL BE NOTIFIED. THE STREAM NAME, STREAM NUMBER, AND DATE THE WATER WAS DIVERTED INTO THE NEWLY CONSTRUCTED STREAM / CHANNEL SHALL BE SUPPLIED WITH THE NOTIFICATION.

ENVIRONMENTAL SPECIAL NOTES

ENVIRONMENTAL

(1) STAFF FROM THE TDOT ENVIRONMENTAL DIVISION COMPLIANCE AND FIELD SERVICES OFFICE SHALL BE INVITED TO ALL PRE-CONSTRUCTION

ECOLOGY

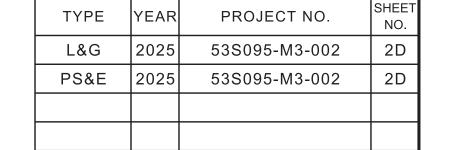
- STAFF FROM THE TDOT ENVIRONMENTAL DIVISION OR A DESIGNEE SHALL ADVISE THE CONTRACTOR DURING THE PRECONSTRUCTION MEETING WHEN ENVIRONMENTAL DIVISION PERSONNEL OR A DESIGNATED CONSULTANT WILL NEED TO BE ONSITE FOR WORK BEING DONE WHICH COULD AFFECT WATERS OF THE STATE/U.S. OR SPECIES.
- STAFF FROM THE TDOT ENVIRONMENTAL DIVISION OR A DESIGNEE SHALL ATTEND THE PRE-CONSTRUCTION MEETING FOR ALL PROJECTS WHICH HAVE THREATENED OR ENDANGERED SPECIES OR CRITICAL HABITAT PROXIMAL TO SCHEDULED WORK. THIS WILL PROVIDE THE OPPORTUNITY TO ENSURE THAT PERSONNEL INCLUDING THE CONTRACTOR'S PERSONNEL AND SUBCONTRACTORS ARE MADE AWARE OF THE NECESSARY PRECAUTIONS THAT MUST BE FOLLOWED
- ALL PROJECTS WITH LEGALLY PROTECTED SPECIES OR CRITICAL HABITAT IDENTIFIED SHALL HAVE MEASURES IN PLACE TO CONTAIN CONCRETE DUST, CEMENT DUST AND ALL OTHER MATERIALS. THESE MATERIALS ARE NOT ALLOWED TO ENTER WATERS OF THE STATE/U.S.

PROJECT COMMITMENTS

SEE PROJECT COMMITMENTS, SHEET 1B, FOR DETAILS RELATING TO SPECIAL ENVIRONMENTAL COMMITMENTS REQUIRED BY THIS PROJECT.

SCOPE OF WORK

(6) SEE PROJECT SCOPE OF WORK ON SHEET BR-133-146.



SEALED BY

STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION

ENVIRONMENTAL NOTES

EROSION PREVENTION AND SEDIMENT CONTROL GENERAL NOTES

DISTURBED AREA

- (1) IF DISTURBED ACREAGE IS EQUAL TO ONE ACRE OR MORE, PLEASE CONTACT TDOT ENVIRONMENTAL DIVISION, PERMITS SECTION AS SOON AS POSSIBLE BECAUSE AN NPDES PERMIT WILL BE REQUIRED.
- (2) AREAS TO BE UNDISTURBED SHALL BE CLEARLY MARKED IN THE FIELD BEFORE CONSTRUCTION ACTIVITIES BEGIN.
- (3) UNLESS OTHERWISE NOTED IN THE PLANS, THE CONTRACTOR SHALL NOT CLEAR/DISTURB ANY AREA BEYOND 15 FEET FROM SLOPE LINES.
- (4) PRE-CONSTRUCTION VEGETATIVE GROUND COVER SHALL NOT BE DESTROYED, REMOVED OR DISTURBED (I.E. CLEARING AND GRUBBING INITIATED) MORE THAN 14 CALENDAR DAYS PRIOR TO GRADING OR EARTH MOVING ACTIVITIES UNLESS THE AREA IS MULCHED, SEEDED WITH MULCH, OR OTHER TEMPORARY COVER IS APPLIED.
- 5) CLEARING, GRUBBING, AND OTHER DISTURBANCE TO RIPARIAN VEGETATION SHALL BE LIMITED TO THE MINIMUM NECESSARY FOR SLOPE CONSTRUCTION AND EQUIPMENT OPERATIONS. EXISTING VEGETATION, INCLUDING STREAM AND WETLAND BUFFERS (UNLESS PERMITTED), SHOULD BE PRESERVED TO THE MAXIMUM EXTENT POSSIBLE. UNNECESSARY VEGETATION REMOVAL IS PROHIBITED.

SEDIMENT CONTROL

- 6) EPSC MEASURES SHALL BE INSTALLED AND FUNCTIONAL PRIOR TO ANY EARTH MOVING OPERATIONS AND SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD EXCEPT AS SUCH WORK MAY BE NECESSARY TO INSTALL EPSC MEASURES.
- (7) TEMPORARY EPSC MEASURES MAY BE REMOVED AT THE BEGINNING OF THE WORKDAY BUT MUST BE REINSTALLED AT THE END OF THE WORKDAY OR BEFORE/DURING A PRECIPITATION EVENT.
- (8) THE CONTRACTOR SHALL ESTABLISH AND MAINTAIN A PROACTIVE METHOD TO PREVENT THE OFFSITE MIGRATION OR DEPOSIT OF SEDIMENT OFF THE PROJECT LIMITS (E.G. R.O.W., EASEMENTS, ETC.), INTO WATERS OF THE STATE/U.S., OR ONTO ROADWAYS USED BY THE GENERAL PUBLIC. IF SEDIMENT ESCAPES THE CONSTRUCTION SITE, OFFSITE ACCUMULATIONS OF SEDIMENT THAT HAVE NOT REACHED A STREAM MUST BE REMOVED AT A FREQUENCY SUFFICIENT TO MINIMIZE OFFSITE IMPACTS (E.G., FUGITIVE SEDIMENT THAT HAS ESCAPED THE CONSTRUCTION SITE AND HAS COLLECTED IN A STREET MUST BE REMOVED SO THAT IT IS NOT SUBSEQUENTLY WASHED INTO STORM SEWERS AND STREAMS BY THE NEXT RAIN AND/OR SO THAT IT DOES NOT POSE A SAFETY HAZARD TO USERS OF PUBLIC STREETS). ARRANGEMENTS CONCERNING REMOVAL OF SEDIMENT ON ADJOINING PROPERTY MUST BE NEGOTIATED WITH THE ADJOINING PROPERTY OWNER BEFORE REMOVAL OF SEDIMENT.
- (9) OFFSITE VEHICLE TRACKING OF SEDIMENTS AND THE GENERATION OF DUST SHALL BE MINIMIZED. A STABILIZED CONSTRUCTION EXIT (A POINT OF ENTRANCE/EXIT TO THE CONSTRUCTION PROJECT) SHALL BE PROVIDED TO REDUCE THE TRACKING OF MUD AND DIRT ONTO PUBLIC ROADS BY CONSTRUCTION VEHICLES.
- THE DEWATERING OF WORK AREAS, TRENCHES, FOUNDATIONS, EXCAVATIONS, ETC. THAT HAVE COLLECTED STORMWATER, WATER FROM VEHICLE WASH AREAS, OR GROUNDWATER SHALL BE EITHER HELD IN SETTLING BASINS OR TREATED BY FILTRATION AND/OR CHEMICAL TREATMENT PRIOR TO ITS DISCHARGE. ALL PHYSICAL AND/OR CHEMICAL TREATMENT WILL BE APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S GUIDELINES AND FULLY DESCRIBED IN THE EPSC PLANS. WATER DISCHARGED SHALL NOT CAUSE AN OBJECTIONABLE COLOR CONTRAST WITHIN THE RECEIVING NATURAL RESOURCE. WATER MUST BE HELD IN SETTLING BASINS UNTIL AT LEAST AS CLEAR AS THE RECEIVING WATERS. SETTLING BASINS SHALL NOT BE LOCATED CLOSER THAN 20 FEET FROM THE TOP BANK OF A STREAM. SETTLING BASINS AND SEDIMENT TRAPS SHALL BE PROPERLY DESIGNED ACCORDING TO THE SIZE OF THE DRAINAGE AREAS OR VOLUME OF WATER TO BE TREATED TREATED WATER MUST BE DISCHARGED THROUGH A PIPE OR WELL-VEGETATED OR LINED CHANNEL. SO THAT THE DISCHARGE DOES NOT CAUSE EROSION OR SEDIMENT TRANSPORT. DISCHARGES FROM BASINS AND IMPOUNDMENTS SHALL UTILIZE OUTLET STRUCTURES THAT ONLY WITHDRAW WATER FROM NEAR THE SURFACE OF THE BASIN OR IMPOUNDMENT. DISCHARGES MUST NOT CAUSE AN OBJECTIONABLE COLOR CONTRAST WITH THE RECEIVING STREAM.

INSPECTION. MAINTENANCE & REPAIR

- (11) THE TDOT CONSTRUCTION SUPERVISOR (OR THEIR DESIGNEE) AND THE CONTRACTOR'S RESPONSIBLE PARTY ARE RESPONSIBLE FOR INSPECTIONS. MAINTENANCE AND REPAIR ACTIVITIES ARE THE RESPONSIBILITY OF THE CONTRACTOR. THE TDOT CONSTRUCTION SUPERVISOR OR THEIR DESIGNEE SHALL COMPLETE THE EPSC INSPECTION REPORTS AND DISTRIBUTE COPIES PER THE CONTRACT.
- (12) TDOT CONSULTANTS AND CONTRACTOR STAFF RESPONSIBLE FOR THE INSPECTION, IMPLEMENTATION, MAINTENANCE, AND/OR REPAIR OF EPSC MEASURES SHALL SUCCESSFULLY COMPLETE THE TDEC "LEVEL 1 FUNDAMENTALS OF EROSION PREVENTION AND SEDIMENT CONTROL FOR CONSTRUCTION SITES" COURSE AND ANY REFRESHER COURSES AS REQUIRED TO MAINTAIN CERTIFICATION. TDOT STAFF AND SUPERVISORS RESPONSIBLE FOR THE INSPECTION, IMPLEMENTATION, MAINTENANCE, AND/OR REPAIR OF EPSC MEASURES SHALL SUCCESSFULLY COMPLETE THE TDOT "FUNDAMENTALS OF EROSION AND SEDIMENT CONTROL" CLASS AND ANY REFRESHER COURSES AS REQUIRED TO MAINTAIN CERTIFICATION.
- (13) EPSC CONTROLS SHALL BE INSPECTED ACCORDING TO PERMIT REQUIREMENTS TO VERIFY MEASURES HAVE BEEN INSTALLED AND MAINTAINED IN ACCORDANCE WITH TDOT STANDARD DRAWINGS, SPECIFICATIONS, AND GOOD ENGINEERING PRACTICES. EPSC INSPECTIONS SHALL BE DOCUMENTED ON THE TDOT EPSC INSPECTION REPORT.
- (14) DISCHARGE POINTS SHALL BE INSPECTED TO ASCERTAIN WHETHER EPSC MEASURES ARE EFFECTIVE IN PREVENTING EROSION AND CONTROLLING SEDIMENT INCLUDING SIGNIFICANT IMPACTS TO SURROUNDING NATURAL RESOURCES AND ADJACENT PROPERTY OWNERS. WHERE DISCHARGE LOCATIONS ARE INACCESSIBLE, NEARBY DOWN GRADIENT LOCATIONS SHALL BE INSPECTED. LOCATIONS WHERE VEHICLES ENTER AND EXIT THE SITE SHALL BE INSPECTED FOR EVIDENCE OF OFFSITE ROADWAY SEDIMENT TRACKING.
- (15) UPON CONCLUSION OF THE INSPECTIONS, EPSC MEASURES FOUND TO BE INEFFECTIVE SHALL BE REPAIRED, REPLACED, OR MODIFIED BEFORE THE NEXT RAIN EVENT, IF POSSIBLE, BUT IN NO CASE MORE THAN 24 HOURS AFTER THE INSPECTION OR WHEN THE CONDITION IS IDENTIFIED. IF THE REPAIR, REPLACEMENT OR MODIFICATION IS NOT PRACTICAL WITHIN THE 24 HOUR TIMEFRAME, WRITTEN DOCUMENTATION SHALL BE PROVIDED IN THE FIELD DIARY AND EPSC INSPECTION REPORT. AN ESTIMATED REPAIR, REPLACEMENT OR MODIFICATION SCHEDULE SHALL BE DOCUMENTED WITHIN 24 HOURS AFTER IDENTIFICATION.
- (16) INSPECTION, REPAIR, AND MAINTENANCE OF EPSC MEASURES SHALL 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 STEPS TO ENSURE THAT STRUCTURAL COMPONENTS OF EPSC MEASURES ARE NOT DAMAGED AND THUS MADE INEFFECTIVE. IF DAMAGE DOES OCCUR, THE CONTRACTOR SHALL REPAIR THE EPSC MEASURES AT THE CONTRACTOR'S OWN EXPENSE.
- (17) THE EPSC PLAN SHALL BE UPDATED WHENEVER EPSC INSPECTIONS INDICATE, OR WHERE STATE OR FEDERAL OFFICIALS DETERMINE EPSC MEASURES ARE PROVING INEFFECTIVE IN ELIMINATING OR SIGNIFICANTLY MINIMIZING POLLUTANT SOURCES OR ARE OTHERWISE NOT ACHIEVING THE GENERAL OBJECTIVES OF CONTROLLING POLLUTANTS IN STORM WATER DISCHARGES ASSOCIATED WITH THE CONSTRUCTION ACTIVITY.
- (18) SEDIMENT REMOVED FROM SEDIMENT CONTROL STRUCTURES SHALL BE PLACED AND TREATED IN A MANNER SO THAT THE SEDIMENT IS CONTAINED WITHIN THE PROJECT LIMITS AND DOES NOT MIGRATE ONTO ADJACENT PROPERTIES AND INTO WATERS OF THE STATE/U.S. COST FOR THIS TREATMENT SHALL BE INCLUDED IN PRICE BID FOR ITEM NO. 209-08.02 TEMPORARY SILT FENCE (WITH BACKING), L.F.

EROSION PREVENTION

- (19) CONSTRUCTION SHALL BE SEQUENCED AND STAGED TO MINIMIZE THE EXPOSURE TIME OF GRADED OR DENUDED SOIL AREAS, PRESERVE TOPSOIL, AND MINIMIZE SOIL COMPACTION.
- (20) THE ACCEPTED EPSC PLAN SHALL REQUIRE THAT EPSC MEASURES BE IN PLACE BEFORE CLEARING, GRUBBING, EXCAVATION, GRADING, CULVERT OR BRIDGE CONSTRUCTION, CUTTING, FILLING, OR ANY OTHER EARTHWORK OCCURS, EXCEPT AS SUCH WORK MAY BE NECESSARY TO INSTALL EPSC MEASURES.

- (21) NO WORK SHALL BE STARTED UNTIL THE CONTRACTOR'S PLAN FOR THE 2 OF OPERATIONS, INCLUDING THE PLAN FOR STAGING OF TEMPORARY AND PERMANENT EPSC MEASURES, HAS BEEN ACCEPTED BY THE TDOT RESPONSIBLE PARTY. THE CONTRACTOR'S EPSC PLAN SHALL INCORPORATE AND SUPPLEMENT, AS ACCEPTABLE, THE BASIC EPSC DEVICES ON THE EPSC PLAN.
- (22) TEMPORARY STABILIZATION SHALL BE INITIATED WITHIN 14 CALENDAR DAYS WHEN CONSTRUCTION ACTIVITIES ON A PORTION OF THE SITE ARE TEMPORARILY CEASED AND EARTH DISTURBING ACTIVITIES WILL NOT RESUME UNTIL AFTER 14 CALENDAR DAYS. PERMANENT STABILIZATION MEASURES IN DISTURBED AREAS SHALL BE INITIATED WITHIN 14 CALENDAR DAYS AFTER FINAL GRADING OF ANY PHASE OF CONSTRUCTION.
- (23) STEEP SLOPES SHALL BE TEMPORARILY STABILIZED NOT LATER THAN 7 DAYS AFTER CONSTRUCTION ACTIVITY ON THE SLOPE HAS TEMPORARILY OR PERMANENTLY CEASED. STEEP SLOPES ARE DEFINED AS A NATURAL OR CREATED SLOPE OF 35% GRADE OR GREATER REGARDLESS OF HEIGHT.
- (24) PERMANENT STABILIZATION WILL REPLACE TEMPORARY MEASURES AS SOON AS PRACTICABLE. PRIORITY SHALL BE GIVEN TO FINISHING OPERATIONS AND PERMANENT EPSC MEASURES OVER TEMPORARY EPSC MEASURES ON ALL PROJECTS.
- (25) TEMPORARY OR PERMANENT STABILIZATION MUST BE FREE OF FINES (SILT AND CLAY SIZED PARTICLES). UNPACKED GRAVEL CONTAINING FINES OR CRUSHER-RUN WILL NOT BE CONSIDERED SUFFICIENT STABILIZATION.
- (26) DELAYING THE PLANTING OF COVER VEGETATION UNTIL WINTER MONTHS OR DRY MONTHS SHOULD BE AVOIDED.

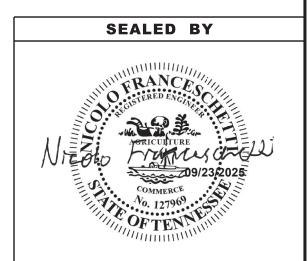
PERMITS, PLANS & RECORDS

(27) THE EPSC PLAN IS TO SERVE AS AN INITIAL GUIDE FOR SITE PERSONNEL AS THE CONSTRUCTION PROCESS DEVELOPS. IT MUST BE AMENDED, MODIFIED, AND UPDATED WHENEVER A CHANGE IN THE DESIGN OR CONSTRUCTION OF THE PROJECT OCCURS. THE STAGES DEPICTED IN THE EPSC PLANS MAY NOT COINCIDE WITH THE ACTUAL PHASES OF CONSTRUCTION ESTABLISHED BY THE CONTRACTOR DURING CONSTRUCTION, THUS MODIFICATIONS WILL BE REQUIRED TO ENSURE THE EPSC PLAN IS MAINTAINED TO DEPICT CURRENT SITE CONDITIONS. IT SHOULD BE MAINTAINED SUCH THAT IT WILL ALWAYS REFLECT THE MEASURES THAT ARE INSTALLED DURING THE VARIOUS PHASES OF CONSTRUCTION. IT IS IMPRACTICAL TO DETERMINE ALL THE INTERMEDIATE PHASES OF CONSTRUCTION THAT WILL OCCUR; THUS THESE DOCUMENTS WILL HAVE TO BE UPDATED THROUGHOUT THE LIFE OF THE CONSTRUCTION PROJECT.

GOOD HOUSEKEEPING MEASURES & WASTE DISPOSAL

- (28) THE CONTRACTOR SHALL ESTABLISH AND MAINTAIN A PROACTIVE METHOD TO PREVENT LITTER AND CONSTRUCTION WASTES FROM ENTERING WATERS OF THE STATE/U.S. THESE MATERIALS SHALL BE REMOVED FROM STORMWATER EXPOSURE PRIOR TO ANTICIPATED STORM EVENTS OR BEFORE BEING CARRIED OFFSITE BY WIND, OR OTHERWISE PREVENTED FROM BECOMING A POLLUTANT SOURCE FOR STORMWATER DISCHARGES. AFTER USE, MATERIALS USED FOR EPSC SHALL BE REMOVED FROM THE SITE.
- (29) 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. APPROPRIATE CONTAINMENT MEASURES FOR THESE AREAS SHALL BE USED.
- (30) CONTRACTORS SHALL PROVIDE DESIGNATED TRUCK WASHOUT AREAS ON THE SITE. THESE AREAS MUST BE SELF CONTAINED, NOT CONNECTED TO ANY STORMWATER OUTLET OF THE SITE, AND PROPERLY SIGNED. WASH DOWN OR WASTE DISCHARGE OF CONCRETE TRUCKS SHALL NOT BE PERMITTED ONSITE UNLESS PROPER SETTLEMENT AREAS HAVE BEEN PROVIDED IN ACCORDANCE WITH BOTH STATE AND FEDERAL REGULATIONS.
- (31) WHEEL WASH WATER SHALL BE COLLECTED AND ALLOWED TO SETTLE OUT SUSPENDED SOLIDS PRIOR TO DISCHARGE. WHEEL WASH WATER SHALL NOT BE DISCHARGED DIRECTLY INTO ANY STORMWATER SYSTEM OR STORMWATER TREATMENT SYSTEM.

TYPE	YEAR	PROJECT NO.	SHEET NO.
L&G	2025	53S095-M3-002	3
PS&E	2025	53S095-M3-002	3



STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION

EPSC PLAN AND NOTES

EPSC NOTES (CONT.)

- (32) IF PORTABLE SANITARY FACILITIES ARE PROVIDED ON CONSTRUCTION SITES, SANITARY WASTE SHALL BE COLLECTED FROM THE PORTABLE UNITS IN A TIMELY MANNER BY A LICENSED WASTE MANAGEMENT CONTRACTOR OR AS REQUIRED BY ANY REGULATIONS. THE CONTRACTOR SHALL OBTAIN ANY AND ALL NECESSARY PERMITS TO DISPOSE OF SANITARY WASTE.
- (33) ONLY CONSTRUCTION PRODUCTS NEEDED SHALL BE STORED ONSITE BY THE CONTRACTOR. THE CONTRACTOR SHALL STORE ALL MATERIALS UNDER COVER AND IN APPROPRIATE CONTAINERS. PRODUCTS MUST BE STORED IN ORIGINAL CONTAINERS AND LABELED. MATERIAL MIXING SHALL BE CONDUCTED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. THE CONTRACTOR'S RESPONSIBLE PARTY SHALL INSPECT MATERIALS STORAGE AREAS REGULARLY TO ENSURE PROPER USE AND DISPOSAL.
- (34) WHEN POSSIBLE, ALL PRODUCTS SHALL BE USED COMPLETELY BEFORE PROPERLY DISPOSING OF THE CONTAINER OFFSITE. THE MANUFACTURER'S DIRECTIONS FOR DISPOSAL OF MATERIALS AND CONTAINERS SHALL BE FOLLOWED.
- (35) ALL PAINT CONTAINERS SHALL BE TIGHTLY SEALED AND STORED WHEN NOT REQUIRED FOR USE. EXCESS PAINT SHALL BE DISPOSED OF ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS AND APPLICABLE STATE AND LOCAL REGULATIONS.
- 36) ALL HAZARDOUS WASTE MATERIALS SHALL BE DISPOSED OF IN A MANNER WHICH IS COMPLIANT WITH LOCAL OR STATE REGULATIONS. SITE PERSONNEL SHALL BE INSTRUCTED IN THESE PRACTICES, AND THE INDIVIDUAL DESIGNATED AS THE CONTRACTOR'S RESPONSIBLE PARTY SHALL BE RESPONSIBLE FOR SEEING THAT THESE PRACTICES ARE FOLLOWED. THE CONTRACTOR SHALL OBTAIN ANY AND ALL NECESSARY PERMITS TO DISPOSE OF HAZARDOUS MATERIAL.
- (37) OPEN BURNING IS PROHIBITED UNLESS IT IS SPECIFICALLY ALLOWED BY LAW. IF ALLOWED, NATURAL VEGETATION, TREES, AND UNTREATED LUMBER SHALL BE THE ONLY MATERIALS THAT CAN BE OPEN BURNED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL APPLICABLE STATE AND LOCAL PERMITS PRIOR TO ANY BURNING.
- (38) DISPOSAL OF ONSITE VEGETATION AND TREES BY CHIPPING THEM INTO MULCH IS PREFERABLE TO OPEN BURNING. THIS MULCH MAY BE USED AS AN ONSITE SOIL STABILIZATION MEASURE WHERE APPROPRIATE.
- (39) WASTE MATERIAL (EARTH, ROCK, ASPHALT, CONCRETE, ETC.) NOT REQUIRED FOR THE CONSTRUCTION OF THE PROJECT WILL BE DISPOSED OF BY THE CONTRACTOR. IMPACTS TO WATERS OF THE STATE/U.S. SHALL BE AVOIDED IF POSSIBLE. IF UNAVOIDABLE, THE CONTRACTOR WILL OBTAIN ANY AND ALL NECESSARY PERMITS INCLUDING, BUT NOT LIMITED TO NPDES, AQUATIC RESOURCES ALTERATION PERMIT(S), CORPS OF ENGINEERS SECTION 404 PERMITS, AND TVA SECTION 26A PERMITS TO DISPOSE OF WASTE MATERIALS.

SUPPORT ACTIVITIES

- (40) IF OFFSITE BORROW AND WASTE AREAS BECOME NECESSARY DURING THE LIFE OF THE PROJECT, THIS SUPPORT ACTIVITY SHALL BE ADDRESSED PER THE TDOT WASTE AND BORROW MANUAL.
- (41) MATERIALS AND STAGING AREAS SHALL BE LOCATED IN NON-WETLAND AREAS AND ABOVE THE 100-YEAR, FEDERAL EMERGENCY MANAGEMENT AGENCY FLOODPLAIN.
- (42) IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO SUPPLY EPSC PLANS FOR THE MATERIAL AND STAGING AREAS TO THE ENVIRONMENTAL DIVISION COMPLIANCE AND FIELD SERVICES OFFICE FOR REVIEW.

SPILL PREVENTION, MANAGEMENT & NOTIFICATION

- (43) ALL ONSITE VEHICLES SHALL BE MONITORED FOR LEAKS AND RECEIVE REGULAR PREVENTIVE MAINTENANCE TO REDUCE THE CHANCE OF LEAKAGE AND SPILLS.
- (44) FOR ALL HAZARDOUS MATERIALS STORED ONSITE, THE MANUFACTURER'S RECOMMENDED METHODS FOR SPILL CLEAN UP SHALL BE CLEARLY POSTED. SITE PERSONNEL SHALL BE MADE AWARE OF THE PROCEDURES AND THE LOCATIONS OF THE INFORMATION AND CLEANUP SUPPLIES.
- (45) APPROPRIATE CLEANUP MATERIALS AND EQUIPMENT SHALL BE MAINTAINED BY THE CONTRACTOR IN THE MATERIALS STORAGE AREA ONSITE AND UNDER COVER. SPILL RESPOSE EQUIPMENT SHALL BE INSPECTED AND MAINTAINED BY THE CONTRACTOR AS NECESSARY TO REPLACE ANY MATERIALS USED IN SPILL RESPONSE ACTIVITIES.

- (46) ALL SPILLS SHALL BE CLEANED IMMEDIATELY AFTER DISCOVERY AND THE MATERIALS DISPOSED OF PROPERLY. THE SPILL AREA SHALL BE KEPT WELL VENTILATED AND PERSONNEL WILL WEAR APPROPRIATE PROTECTIVE CLOTHING TO PREVENT INJURY FROM CONTACT WITH A HAZARDOUS SUBSTANCE.
- (47) THE CONTRACTOR'S RESPONSIBLE PARTY SHALL BE THE SPILL PREVENTION AND CLEANUP COORDINATOR. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT THE SITE SUPERINTENDENT HAS HAD APPROPRIATE TRAINING FOR HAZARDOUS MATERIALS HANDLING, SPILL MANAGEMENT, AND CLEANUP.
- (48) IF AN OIL SHEEN IS OBSERVED ON SURFACE WATER (E.G. SETTLING PONDS, DETENTION PONDS, SWALES), ACTION SHALL BE TAKEN IMMEDIATELY TO REMOVE THE MATERIAL CAUSING THE SHEEN. THE CONTRACTOR SHALL USE APPROPRIATE MATERIALS TO CONTAIN AND ABSORB THE SPILL. THE SOURCE OF THE OIL SHEEN WILL ALSO BE IDENTIFIED AND REMOVED OR REPAIRED AS NECESSARY TO PREVENT FURTHER RELEASES.
- (49) FERTILIZERS SHALL BE APPLIED ONLY IN THE AMOUNTS SPECIFIED. ONCE APPLIED, FERTILIZERS SHALL BE WORKED INTO THE SOIL TO LIMIT THE EXPOSURE TO STORMWATER.
- 50) IF A SPILL OCCURS THE CONTRACTOR'S RESPONSIBLE PARTY SHALL BE RESPONSIBLE FOR COMPLETING THE SPILL REPORTING FORM AND FOR REPORTING THE SPILL TO THE TDOT PROJECT RESPONSIBLE PARTY. 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.
- (51) WHERE A RELEASE CONTAINING A HAZARDOUS SUBSTANCE IN AN AMOUNT EQUAL TO OR IN EXCESS OF A REPORTABLE QUANTITY ESTABLISHED UNDER EITHER 40 CFR 117 OR 40 CFR 302 OCCURS DURING A 24 HOUR PERIOD, SEE THE LATEST TENNESSEE GENERAL PERMIT NO. TNR100000 STORMWATER DISCHARGES FROM CONSTRUCTION ACTIVITIES SECTION 5.1 FOR REPORTING REQUIREMENTS.
- (52) CONTRACTOR'S BULK FUEL AND PETROLEUM PRODUCTS STORED ONSITE OR ADJACENT TO THE R.O.W. IN ABOVE GROUND STORAGE CONTAINERS WITH A COMBINED CAPACITY OF 1320 GALLONS OR MORE SHALL HAVE SECONDARY CONTAINMENT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PREPARING A SPILL PREVENTION CONTROL AND COUNTERMEASURE (SPCC) PLAN FOR THE BULK STORAGE AND BE SOLELY RESPONSIBLE FOR OBTAINING ANY NECESSARY LOCAL, STATE, AND FEDERAL PERMITS. THE SPCC PLAN AND/OR PERMITS SHALL BE KEPT ONSITE AND A COPY PROVIDED TO THE TDOT PROJECT RESPONSIBLE PARTY PRIOR TO STORING 1320 GALLONS ON SITE.

STREAMS, WETLANDS & BUFFER ZONES

(53) ANY WORK WITHIN THE STREAM CHANNEL AREA (E.G., PIER FOOTING, RIP-RAP PLACEMENT, CULVERT/BRIDGE CONSTRUCTION, ETC.) SHALL BE SEPARATED FROM FLOWING WATER OR EXPECTED FLOW PATH AND PERFORMED DURING LOW FLOW CONDITIONS. ALL ITEMS USED WITHIN THE STREAM CHANNEL AREA FOR DIVERSION OF FLOW (OR EXPECTED FLOW), UNLESS SPECIFIED IN THE PLANS, SHALL NOT BE PAID FOR DIRECTLY BUT SHALL BE INCLUDED IN THE COST OF OTHER ITEMS. THIS NOTE EXCLUDES ANY ITEMS SPECIFIED IN THE PLANS FOR THE TEMPORARY DIVERSION CHANNELS (EC-STR-31) AND TEMPORARY DIVERSION CULVERTS (EC STR-32) FOR SINGLE BARREL CULVERT CONSTRUCTION.

EROSION PREVENTION AND SEDIMENT CONTROL SPECIAL NOTES

STREAMS, WETLANDS & BUFFER ZONES

- (1) FOR PROJECTS THAT DISCHARGE INTO KNOWN EXCEPTIONAL TENNESSEE WATERS OR WATERS IMPAIRED BY SILTATION, A 60 FOOT NATURAL RIPARIAN BUFFER ZONE ADJACENT TO AND ON BOTH SIDES OF THE RECEIVING STREAM WITH THIS DESIGNATION SHALL BE PRESERVED TO THE MAXIMUM EXTENT PRACTICABLE DURING CONSTRUCTION ACTIVITIES AT THE SITE. THE 60 FOOT CRITERION FOR THE WIDTH OF THE BUFFER ZONE CAN BE ESTABLISHED ON AN AVERAGE WIDTH BASIS AT A PROJECT, AS LONG AS THE MINIMUM WIDTH OF THE BUFFER ZONE IS MORE THAN 30 FEET AT ANY MEASURED LOCATION.
- (2) A 30 FOOT NATURAL RIPARIAN BUFFER ZONE ADJACENT TO AND ON BOTH SIDES OF THE RECEIVING STREAM SHALL BE PRESERVED TO THE MAXIMUM EXTENT PRACTICABLE DURING CONSTRUCTION ACTIVITIES AT THE SITE. THE 30 FOOT CRITERION FOR THE WIDTH OF THE BUFFER ZONE CAN BE ESTABLISHED ON AN AVERAGE WIDTH BASIS AT A PROJECT, AS LONG AS THE MINIMUM WIDTH OF THE BUFFER ZONE IS MORE THAN 15 FEET AT ANY MEASURED LOCATION. EVERY ATTEMPT SHALL BE MADE FOR CONSTRUCTION ACTIVITIES NOT TO TAKE PLACE WITHIN THE BUFFER ZONES.
- (3) BUFFER ZONES ARE NOT SEDIMENT CONTROL MEASURES AND MUST NOT BE RELIED UPON AS PRIMARY SEDIMENT CONTROL MEASURES. THE RIPARIAN BUFFER ZONE SHALL BE ESTABLISHED BETWEEN THE TOP OF THE STREAM BANK AND THE DISTURBED CONSTRUCTION AREA. EVERY ATTEMPT SHALL BE MADE FOR CONSTRUCTION ACTIVITIES NOT TO TAKE PLACE WITHIN THE BUFFER ZONES. BEST MANAGEMENT PRACTICES (BMPS) PROVIDING EQUIVALENT PROTECTION AS THE NATURAL RIPARIAN ZONE MAY BE USED. WHERE ISSUED, ARAP/401 REQUIREMENTS WILL PREVAIL IF IN CONFLICT WITH THESE BUFFER ZONE REQUIREMENTS.

ENVIRONMENTAL

(4) EXCEPT AS OTHERWISE SPECIFIED, THERE ARE NO KNOWN SPECIAL ENVIRONMENTAL FACTORS PRESENT ON THIS PROJECT THAT INDICATE A NEED FOR SEASONAL LIMITATIONS ON THE CLEARING, GRUBBING, EXCAVATION, GRADING, CUTTING OR FILLING OPERATIONS OR ON THE TOTAL AREA OF EXPOSED SOIL.

TYPE	YEAR	PROJECT NO.	SHEET NO.
L&G	2025	53S095-M3-002	3A
PS&E	2025	53S095-M3-002	3A

SEALED BY

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PRICULTURE

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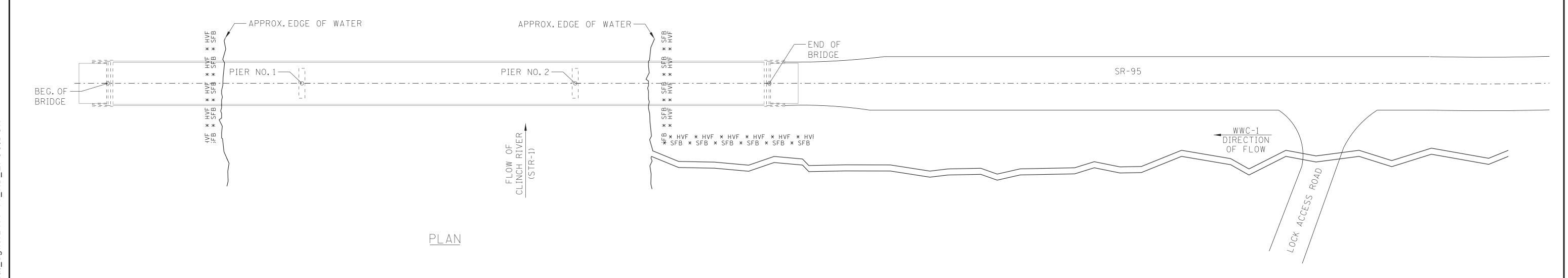
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STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION

EPSC PLAN AND NOTES

TYPE	YEAR	PROJECT NO.	SHEET NO.
L&G	2025	53S095-M3-002	3B
PS&E	2025	53S095-M3-002	3B



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EROSION PREVENTION AND SEDIMENT CONTROL LEGEND

SYMBOL ITEM STD. DWG.

* SFB * SFB SILT FENCE WITH WIRE BACKING EC-STR-3C

* HVF * HVF HIGH VISIBILITY FENCE S-F-1

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

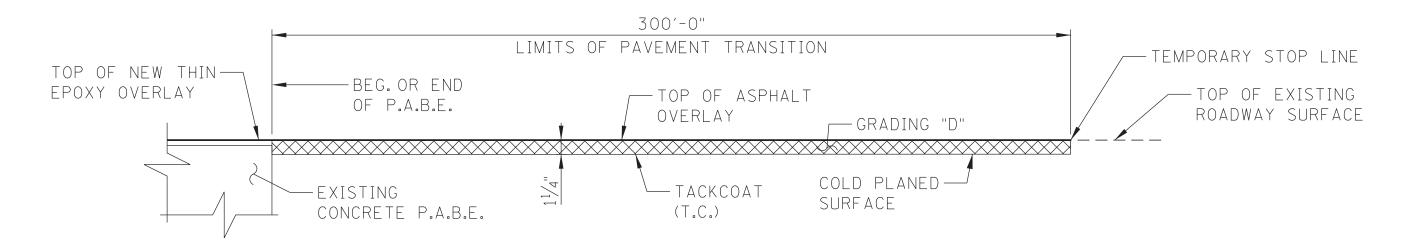
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EPSC PLAN AND NOTES

TRAFFIC CONTROL SIGN QUANTITIES SIZE (IN INCHES) SIGNS (CONST.)							
TYPE DESCRIPTION		SIZE L	(IN INC	W W	S.F.	SR-95	SIGNS (CONST. 712-06, S.F.
G20-2	END ROAD WORK	48	Х	24	8	2	16
M1-5	STATE ROUTE 95	45	Х	36	11.25	16	180
M4-8	DETOUR	30	Х	15	3.125	23	71.875
M6-1L	DIRECTION ARROW (LEFT)	30	Х	21	4.375	5	21.875
M6-1R	DIRECTION ARROW (RIGHT)	30	Х	21	4.375	6	26.25
M6-3	DIRECTIONAL ARROW (STRAIGHT)	30	Х	21	4.375	12	52.5
R10-6	STOP HERE ON RED	24	Х	36	6	2	12
R10-6(MOD)	STAY IN LANE TO EXTEND GREEN	30	Х	42	8.75	2	17.5
SPECIAL	MAINTAIN X MPH SPEED	36	Х	42	10.5	2	21
SPECIAL	MAXIMUM X MINUTE RED	42	Х	48	14	2	28
SPECIAL	SR 95 CLOSED TO WIDE LOADS OVER 12 FT.	108	Х	42	31.5	7	220.5
W1-4R	REVERSE CURVE (RIGHT)	48	Х	48	16	1	16
W16-2P	1000 FT (ADVISORY PLAQUE)	30	Х	24	5	2	10
W20-1	ROAD WORK AHEAD	48	Х	48	16	4	64
W20-1	ROAD WORK 1/2 MILE	48	Х	48	16	2	32
W20-1	ROAD WORK 1500 FT	48	Х	48	16	2	32
W20-1	ROAD WORK 1000 FT	48	Х	48	16	2	32
W20-1	ROAD WORK 500 FT	48	Х	48	16	2	32
W20-4	ONE LANE ROAD 1500 FT	48	Х	48	16	2	32
W20-7	FLAGGER (SYMBOL)	48	Х	48	16	2	32
W3-3	SIGNAL AHEAD	48	Х	48	16	2	32
W3-4	BE PREPARED TO STOP	48	Х	48	16	2	32
							1013.5

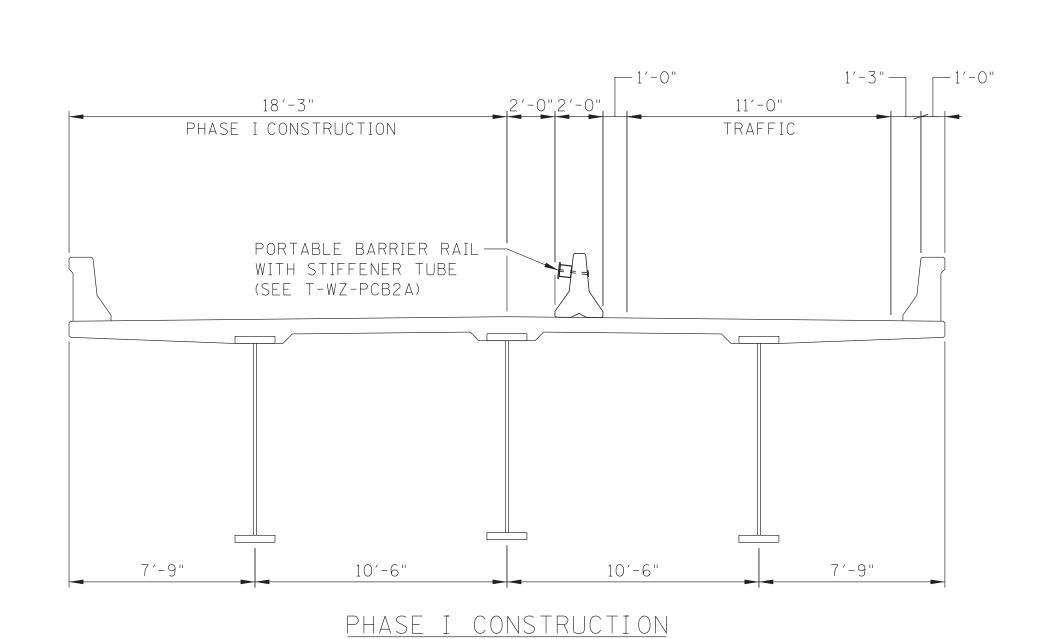
TRAFFIC CONTROL SPECIAL NOTES

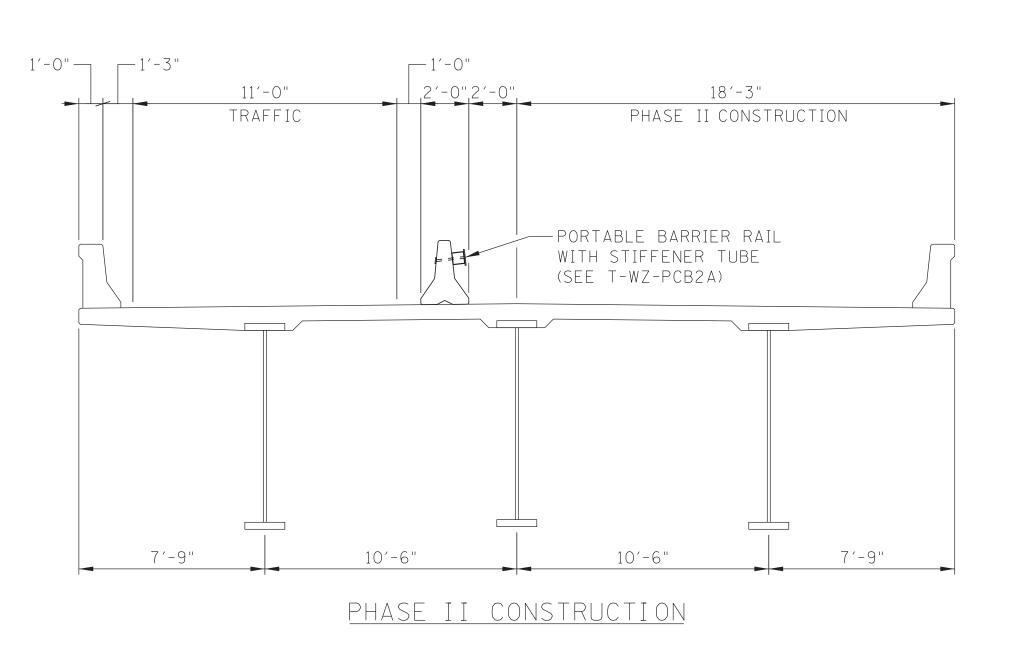
- 1. THESE TRAFFIC CONTROL PLANS DO NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF INSTALLING TRAFFIC CONTROL DEVICES IN ACCORDANCE WITH THE CURRENT EDITION OF THE "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES."
- 2. CONSTRUCTION SIGNING SHOWN IN THESE PLANS IS TO SERVE AS A GUIDE ONLY. OTHER SIGNS MAY BE REQUIRED DURING VARIOUS PHASES OF CONSTRUCTION.
- 3. THE CONTRACTOR IS REQUIRED TO PROVIDE LANE SHIFTS WHERE NECESSARY TO ROUTE TRAFFIC AROUND CONSTRUCTION.
- 4. NO TRAFFIC SHALL BE DETOURED OR ROADWAY CLOSED, ABANDONED, OR REMOVED WITHOUT THE PRIOR APPROVAL OF THE ENGINEER.
- 5. ADVANCE WARNING SIGNS ARE TO BE PLACED PRIOR TO BEGINNING OF CONSTRUCTION AND REMAIN IN PLACE UNTIL THE COMPLETION OF THIS PROJECT.
- 6. PERMANENT SIGNS AND PERMANENT MARKINGS SHALL BE IN PLACE BEFORE COMPLETED ROADWAYS ARE OPEN TO TRAFFIC.
- 7. SEE THE CURRENT EDITION OF THE "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES" FOR TRAFFIC DETAILS NOT SHOWN, GENERAL TRAFFIC CONTROL NOTES, AND SIGN DETAILS.
- 8. CONTRACTOR TO COVER ALL CONFLICTING SIGNS DURING CONSTRUCTION. COVERINGS SHALL BE REMOVED AT COMPLETION OF CONSTRUCTION. COST ASSOCIATED WITH COVERING AND UNCOVERING SIGNS TO BE INCLUDED IN ITEM 712-06, SIGNS (CONSTRUCTION).
- 9 THE CONTRACTOR IS TO COORDINATE ALL LANE CLOSURES WITH THE TDOT REGIONAL OFFICE AND THE COUNTY ENGINEER.
- 10. MINIMUM TRAVEL LANE WIDTH TO BE 11 FEET (STRIPED).
- 11. ALL PORTABLE CONCRETE BARRIERS (PCB) DEFLECT DURING AN IMPACT. CONTRACTOR SHALL EXERCISE CAUTION WHEN WORKING IMMEDIATELY BEHIND THE PCB.



ASPHALT PAVEMENT TRANSITION DETAIL

SEE SEC. 617 AND 906.04 OF THE TENNESSEE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.





STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SEALED BY

PROJECT NO.

53S095-M3-002

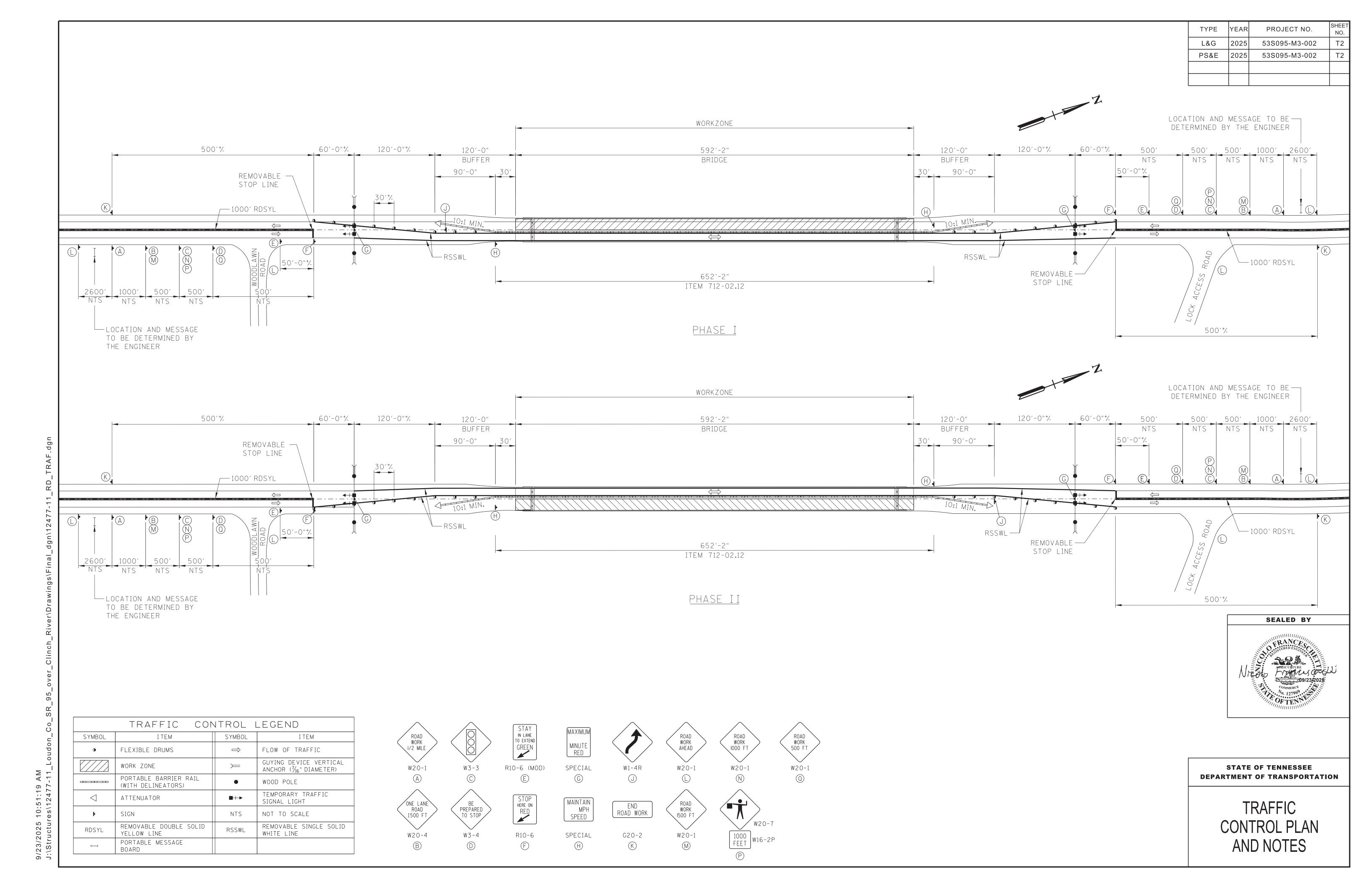
53S095-M3-002

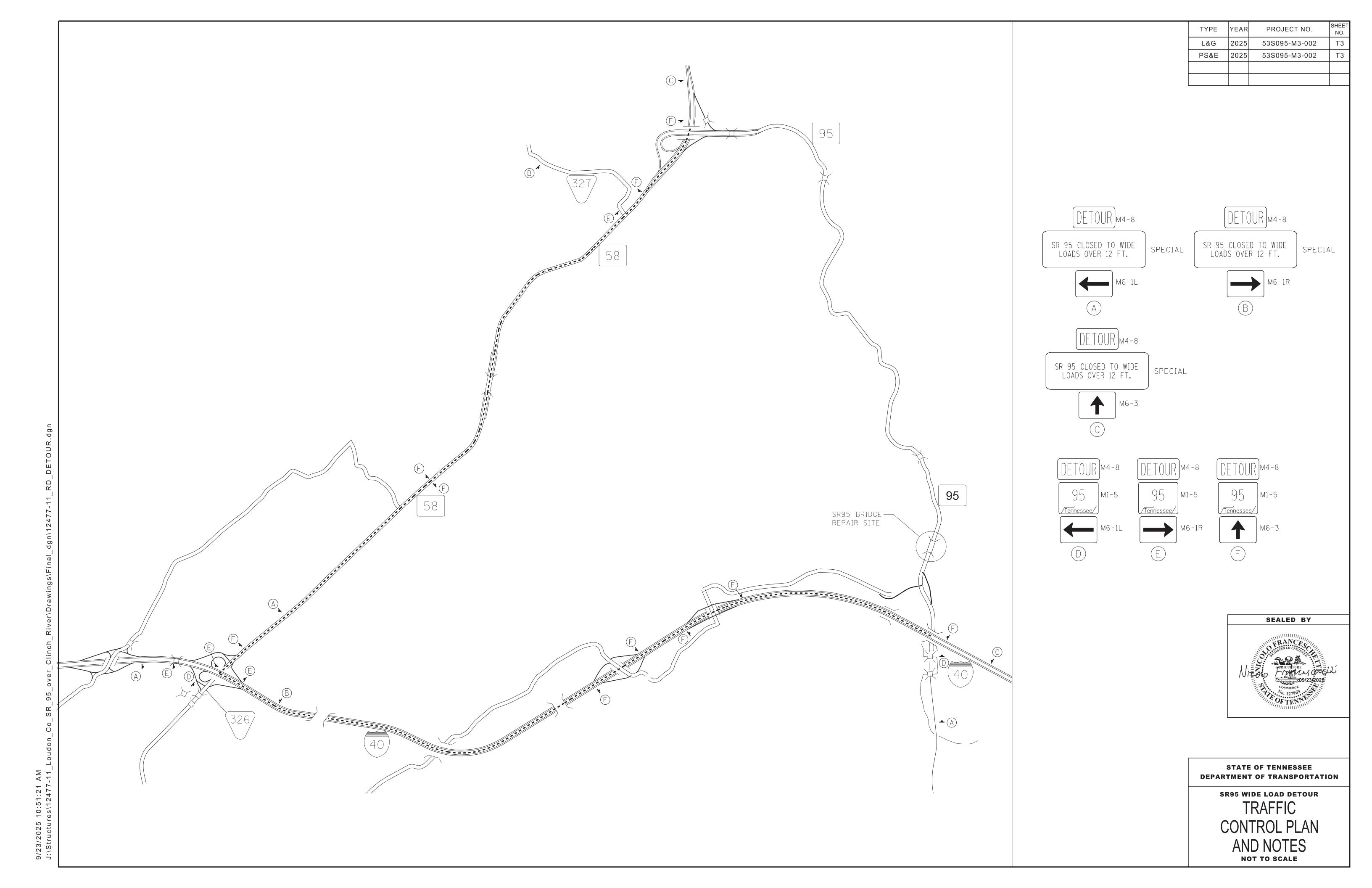
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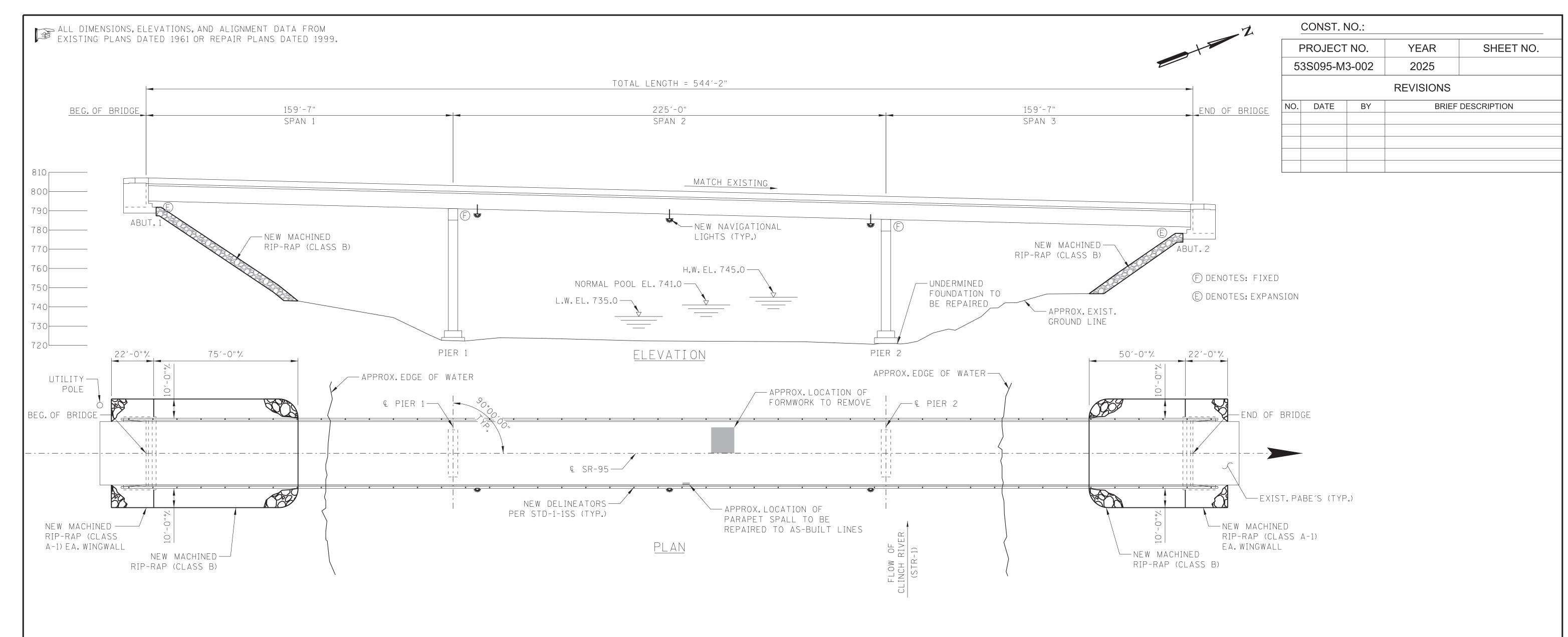
L&G |2025|

PS&E |2025|

TRAFFIC CONTROL PLAN AND NOTES







SCOPE OF WORK:

- 1. PROVIDE REQUIRED TRAFFIC CONTROL AND PHASED CONSTRUCTION MAINTAINING ONE LANE OF TRAFFIC USING A TRAFFIC LIGHT SYSTEM.
- 2. PROVIDE TRAFFIC CONTROL FOR A WIDE-LOAD DETOUR.
- 3. RECONSTRUCT THE CONCRETE OVERLAYED BRIDGE DECK AND CONCRETE PAVEMENT AT BRIDGE ENDS (PABE'S) IN AREAS OF FULL AND PARTIAL DEPTH REPAIR (UTILIZE 18 HOUR CONCRETE).
- 4. APPLY A THIN EPOXY OVERLAY ON CONCRETE BRIDGE DECK AND PABE'S WITH APPROPRIATE SKID RESISTANCE FOR VEHICULAR TRAFFIC.
- 5. CONSTRUCT ASPHALT PAVEMENT TRANSITIONS AT ENDS OF BRIDGE.
- 6. ADD DELINEATORS TO TOP OF PARAPETS.
- 7. HIGH PRESSURE WATER WASH AND TEXTURE COAT TOP AND INSIDE FACE OF PARAPETS (WHITE).
- 8. CLEAN AND MAINTAIN EXISTING DECK AND BRIDGE END DRAINS. COST TO BE INCLUDED IN ITEM NO. 201-05.31.
- 9. REPAIR PARAPET SPALL ON THE RIGHT PARAPET OF SPAN 2.COST TO BE INCLUDED IN ITEM NO.620-10.42.
- 10. REPLACE STRIP SEAL EXPANSION JOINTS AT BOTH ENDS OF THE BRIDGE.
- 11. CLEAN AND REPAINT GIRDER ENDS AND SPOT PAINT STEEL GIRDERS USING SYSTEM "B" AS SHOWN IN PLANS.
- 12. CLEAN AND REPAINT ALL THE BEARINGS USING SYSTEM "B".
- 13. REMOVE EXISTING AND INSTALL NEW NAVIGATIONAL LIGHTING.
- 14. REMOVE WOODEN FORMWORK FROM UNDERSIDE OF DECK IN SPAN 2. COST TO BE INCLUDED IN ITEM NO. 201-05.31.
- 15. REPAIR UNDERMINED FOUNDATION AND PROVIDE SCOUR COUNTERMEASURES AT PIER 2.
- 16. EPOXY-INJECT CRACKS AT ABUTMENTS.
- 17. REPAIR ERODED AREAS AT GUARDRAIL CONNECTIONS TO BRIDGE ENDS WITH CLASS A-1 RIP-RAP.
- 18. REPAIR ERODED EMBANKMENT AT ABUTMENTS WITH CLASS B RIP-RAP.
- 19. ALL DIRT/DEBRIS/TRASH SHALL BE REMOVED FROM SUBSTRUCTURES AND BELOW BRIDGE. COST TO BE INCLUDED IN ITEM NO. 201-05.31.
- 20. REMOVE VEGETATION INCLUDING TREES UNDER THE BRIDGE AND FOR A DISTANCE OF TEN FEET ALONG EACH SIDE OF THE BRIDGE AS DIRECTED BY THE ENGINEER (COST TO BE INCLUDED IN ITEM 201-05.31).

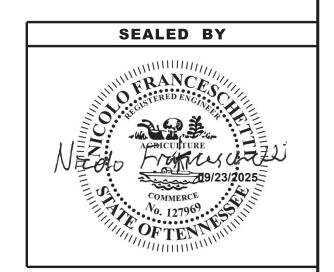
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<u>LIST OF BRIDGE</u>	<u>Drawings</u>	
DRAWING	DRAWING NO.	LAST REV. DATE
LAYOUT OF BRIDGE TO BE REPAIRED	BR-133-146	
ESTIMATED BRIDGE QUANTITIES	BR-133-147	
BRIDGE GENERAL AND SPECIAL NOTES	BR-133-148	
SUPERSTRUCTURE REPAIRS	BR-133-149	
DECK AND JOINT REPAIRS	BR-133-150	
SUPERSTRUCTURE PAINTING DETAILS	BR-133-151	
CONCRETE REPAIRS	BR-133-152	
SCOUR REPAIR DETAILS	BR-133-153	
ESTIMATED BRIDGE LIGHTING QUANTITIES	BR-133-154	
NAVIGATIONAL LIGHTING PLAN	BR-133-155	
NAVIGATIONAL LIGHTING DETAILS (1)	BR-133-156	
NAVIGATIONAL LIGHTING DETAILS (2)	BR-133-157	
NAVIGATIONAL LIGHTING DETAILS (3)	BR-133-158	

LIST OF BRIDGE REFERENCE DRAWINGS (TO BE PRINTED WITH PLANS)

BR-41-64, BR-41-66 THRU 70, K-7-101 THRU 106, K-7-106A

STATE ROUTE 95 POSTED SPEED LIMIT = 45 M.P.H. AADT (2023) = 9194



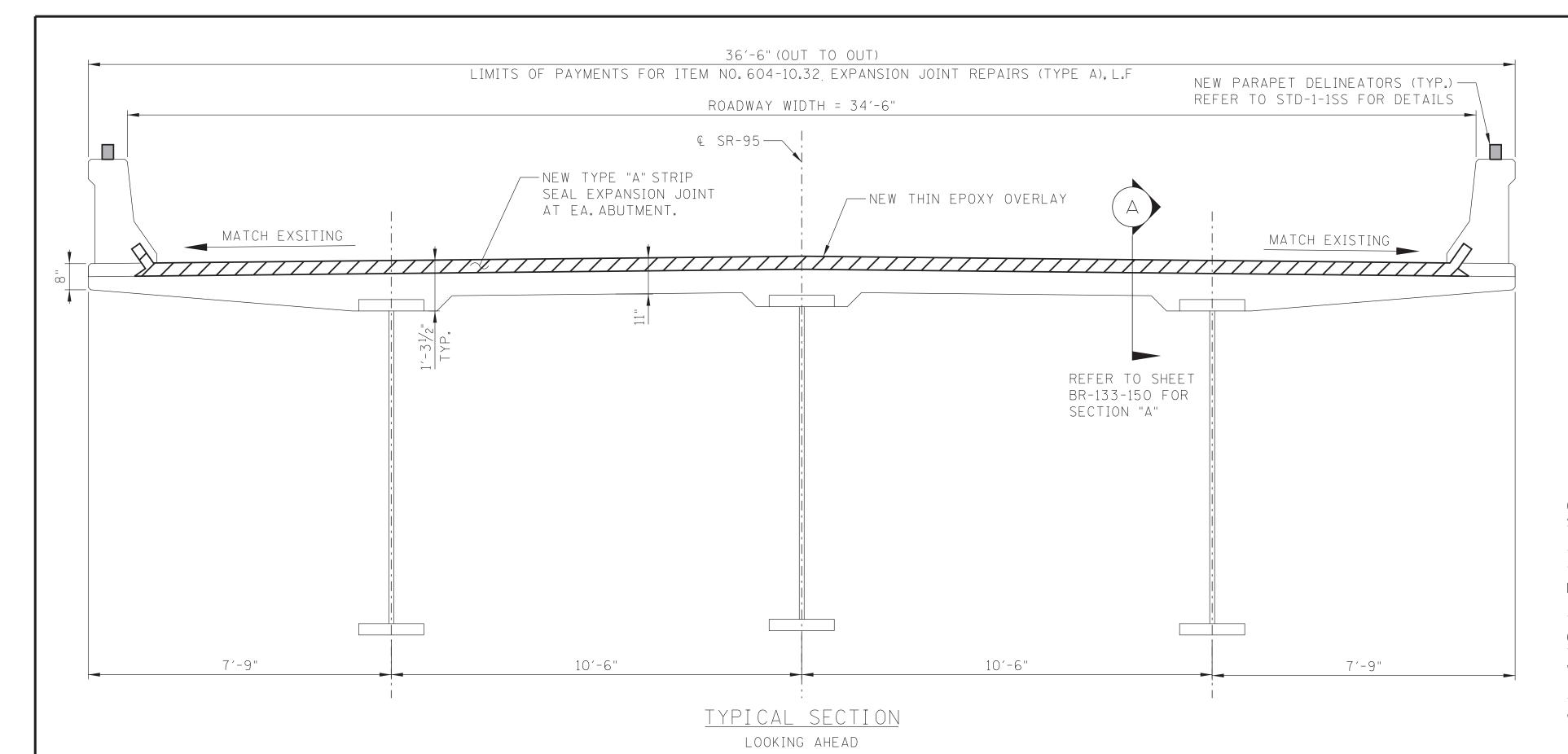
STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION

LAYOUT OF BRIDGE TO BE REPAIRED SR-95 OVER CLINCH RIVER BRIDGE NO. 53-SR095-10.72 FED. I.D. NO. 53SR0950011 LOUDON COUNTY 2025

Palmer

PIN NO.: 084516.01 DESIGN BY: N. FRANCESCHETTI DATE: 09/2025 DRAWN BY: M. LOUCKS DATE: 09/2025 SUPERVISED BY: S. WILSON DATE: 09/2025 CHECKED BY: N. FRANCESCHETTI DATE: 09/2025

BR-133-146



DENOTES EXTENTS OF NEW TYPE "A" STRIP SEAL EXP. JOINT SEE SHEET.

BR-133-150 FOR DETAILS.

PROJECT NO. YEAR SHEET NO.
53S095-M3-002 2025

REVISIONS

NO. DATE BY BRIEF DESCRIPTION

APPLIED TEXTURE FINISH SKETCH

CONST. NO.:

TYP.EACH SIDE OF BRIDGE

COST OF TEXTURE COATING SHALL BE INCLUDED IN ITEM NO.604-04.02, APPLIED TEXTURE FINISH (EXISTING STRUCTURES), S.Y.

THE CONTRACTOR SHALL USE CONTAINMENT SCREENS OR OTHER MEASURES AS NECESSARY TO PREVENT ANY TEXTURE COATING FROM ENTERING THE ENVIRONMENT. CONTAINMENT MEASURES SHALL BE APPROVED BY THE ENGINEER. AND COST SHALL BE INCLUDED IN ITEMS BID ON.

THE EXISTING SURFACES THAT ARE TO RECEIVE A TEXTURE FINISH SHALL BE FREE OF ALL FLAKING TEXTURE COATING, RUST, DIRT, OIL, AND OTHER FOREIGN SUBSTANCES PRIOR TO THE APPLICATION OF THE TEXTURE FINISH. THE SURFACE SHALL BE CLEANED TO THE COMPLETE SATISFACTION OF THE ENGINEER USING A HIGH PRESSURE WATER WASH. COST TO BE INCLUDED IN ITEM NO.604-04.02.

THE WASH WATER IS TO BE FILTERED, AND PAINT CHIPS AND DEBRIS SHALL BE COLLECTED PRIOR TO RELEASE OF WATER.

THIN EPOXY OVERLAY NOTES

THE TOP OF THE NEW OVERLAY SHALL CONFORM TO THE EXISTING CROSS SLOPE AND GRADE OF THE EXISTING BRIDGE.

TYPE 1 THIN EPOXY OVERLAY SYSTEM - USE DECK PRETREATMENT/PRIMER PER MANUFACTURER'S RECOMMENDATION, AND 2 LIFTS OF AN EPOXY-URETHANE COPOLYMER AND AGGREGATE. TYPE 1 OVERLAY SHALL BE APPLIED MECHANICALLY USING METERED EQUIPMENT; HAND MIXING OF MATERIAL IS NOT PERMITTED.

THIN OVERLAY SYSTEM SHALL BE FROM THE QUALIFIED PRODUCTS LIST 23.005 TYPE 1 THIN OVERLAY (EPOXY URETHANE). MINIMUM OVERLAY THICKNESS SHALL BE $\frac{3}{8}$ ".

APPLICATION EQUIPMENT SHOULD:

- A) BE CAPABLE OF METERING, MIXING AND DISTRIBUTING THE POLYMER AND PRETREATMENT TO MANUFACTURER'S RECOMMENDATION.
- B) USE AN APPLICATION MACHINE THAT FEATURES POSITIVE DISPLACEMENT VOLUMETRIC METERING PUMPS CONTROLLED BY A HYDRAULIC POWER UNIT.
- C) STORE COMPONENTS IN TEMPERATURE CONTROLLED RESERVOIRS CAPABLE OF MAINTAINING 100 DEGREES FAHRENHEIT (PLUS OR MINUS 10 DEGREES) TO ENSURE OPTIMAL MIXING.
- D) CHECK MIXING RATIO AT THE PUMP OUTLETS AS WELL AS CYCLE COUNTING CAPABILITIES TO MONITOR OUTPUT ON STANDARD FEATURES.
- E) USE MOTIONLESS IN-LINE MIXING SO AS TO NOT OVERLY SHEAR THE MATERIAL TO ENTRAP AIR IN THE MIX.
- F) MAXIMIZE MATERIAL WORKING TIME BY MIXING IT IMMEDIATELY BEFORE DISPENSING.

AGGREGATE SHALL BE ANGULAR, HAVING LESS THAN 0.2% MOISTURE AND FREE OF DIRT, CLAY, ASPHALT AND OTHER FOREIGN OR ORGANIC MATERIALS. AGGREGATE FOR ALL LAYERS SHALL BE BAUXITE OR FLINT ROCK PRODUCTS FLINT, AND MEET THE FOLLOWING GRADATION:

 SIEVE SIZE
 % PASSING

 NO. 6
 95-100

 NO. 10
 10-35

 NO. 20
 0-3

FULL AND PARTIAL DEPTH DECK REPAIR SHALL CURE A MINIMUM OF 28 DAYS BEFORE THE OVERLAY IS PLACED. THE 28 DAYS MAY BE WAIVED IF THE OVERLAY MANUFACTURER PROVIDES A METHOD OF TESTING THE REPAIRED AREAS AND APPROVES THE PLACEMENT BY LETTER. TRAFFIC SHALL BE ALLOWED TO USE THE BRIDGE DURING THE CURING PERIOD OF THE PATCHES BUT NOT AFTER SHOTBLASTING. MAGNESIUM PHOSPHATE BASED MATERIALS WILL NOT BE ALLOWED.

Palmer

 PIN NO.:
 084516.01

 DESIGN BY:
 N. FRANCESCHETTI
 DATE: 09/2025

 DRAWN BY:
 M. LOUCKS
 DATE: 09/2025

 SUPERVISED BY:
 S. WILSON
 DATE: 09/2025

 CHECKED BY:
 N. FRANCESCHETTI
 DATE: 09/2025

THE CONCRETE DECK SURFACE SHALL BE CLEANED BY SHOTBLASTING TO REMOVE ANY OIL, DIRT, RUBBER, TRAFFIC STRIPING, OR ANY OTHER POTENTIAL DETRIMENTAL MATERIAL SUCH AS CURING COMPOUND AND LAITANCES, WHICH THE MANUFACTURER AND ENGINEER'S OPINION WOULD PREVENT PROPER BONDING AND CURING OF THE MATERIAL. IN AREAS WHERE SHOTBLASTING EQUIPMENT CAN NOT REACH (I.E., ALONG CURBS AND BRIDGE RAILS) SANDBLASTING IS PERMITTED TO AN EXTENT TO THE ENGINEER'S AND MANUFACTURER'S APPROVAL. IMMEDIATELY BEFORE APPLICATION, ALL PREPARED SURFACES SHALL BE CLEANED WITH COMPRESSED AIR OR VACUUMED TO REMOVE DUST AND DEBRIS. THE CONTRACTOR IS TO PREVENT THE TRACKING OF TACK COAT AND CONSTRUCTION DEBRIS ACROSS THE BRIDGE DECK PRIOR TO THE APPLICATION OF THE THIN EPOXY OVERLAY. MILLING THE BRIDGE DECK WILL NOT BE AN OPTION FOR TACK COAT OR DEBRIS REMOVAL. REMOVAL SHALL BE AT THE CONTRACTOR'S EXPENSE.

ALL SURFACES THAT ARE TREATED SHALL BE DRY AT THE TIME OF APPLICATION. THE OVERLAY SHALL NOT BE APPLIED WHEN IT HAS RAINED 24 HOURS PRIOR TO, OR RAIN IS FORECAST WITHIN 8 HOURS AFTER, APPLICATION. THE MOISTURE CONTENT IN THE DECK SUBSTRATE SHALL BE TESTED. MOISTURE IS NOT TO EXCEED 4.5 PERCENT WHEN MEASURED BY ELECTRONIC METER. IF THE TEST SHOWS EXCESS MOISTURE, THE DECK SHALL CONTINUE TO DRY BEFORE APPLICATION PROCEEDS.

BLUSHING (A WAXY SURFACE COATING ON THE EPOXY) IS CAUSED BY THE REACTION OF MOISTURE WITH THE HARDENING AGENT. BLUSHING CREATES A SURFACE THAT MAKES FUTURE LAYERS DIFFICULT TO ADHERE. LIFTS THAT SHOW SIGNS OF BLUSHING SHALL BE REMOVED AND REPLACED PRIOR TO APPLICATION OF THE NEXT. THE COST TO REMOVE AND REPLACE THESE AREAS SHALL BE AT THE CONTRACTOR'S EXPENSE.

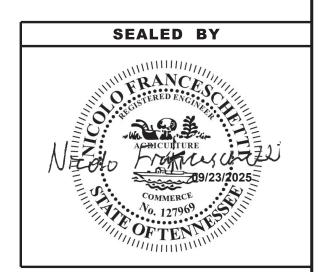
TRAFFIC, OTHER THAN APPLICATION EQUIPMENT, SHALL NOT BE ALLOWED ON ANY PORTION OF THE DECK THAT HAS BEEN SHOTBLASTED OR WHERE PART OF THE APPLICATION HAS BEEN PLACED.

SEE MANUFACTURER'S RECOMMENDATIONS FOR REQUIRED AMBIENT AND SURFACE TEMPERATURES AND HUMIDITY LIMITS FOR APPLICATION.

THE MANUFACTURER SHALL HAVE A REPRESENTATIVE ON THE JOB SITE AT ALL TIMES DURING APPLICATION AND CURE TIME. THE REPRESENTATIVE, ALONG WITH CONSULTATION WITH ENGINEER, MAY SUSPEND ANY ITEM OF WORK THAT IS SUSPECT AND DOES NOT MEET THE REQUIREMENTS OF THE SPECIFICATIONS. WORK SHALL NOT RESUME UNTIL THE ENGINEER AND REPRESENTATIVE ARE SATISFIED THAT APPROPRIATE REMEDIAL ACTION HAS BEEN TAKEN BY THE CONTRACTOR.

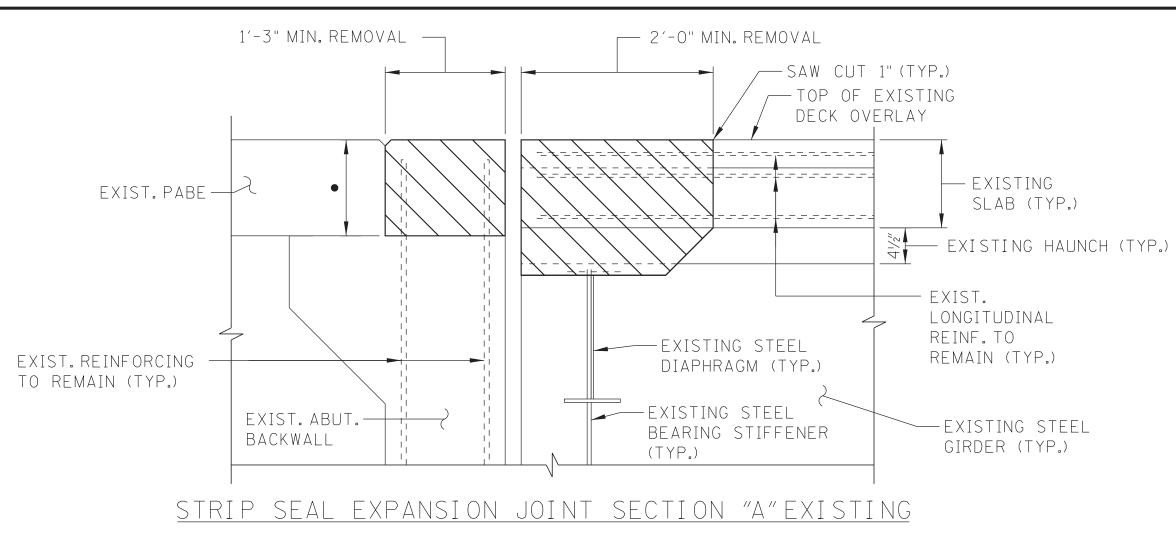
ALL COSTS FOR AGGREGATE, EPOXY FOR MINIMUM OF TWO LIFTS, SURFACE PREPARATION, LABOR AND ANY OTHER MISCELLANEOUS MATERIALS REQUIRED TO PLACE THIN OVERLAY SHALL BE INCLUDED IN ITEM NO. 617-04.01, TYPE 1 THIN EPOXY OVERLAY (EPOXY URETHANE), SY.

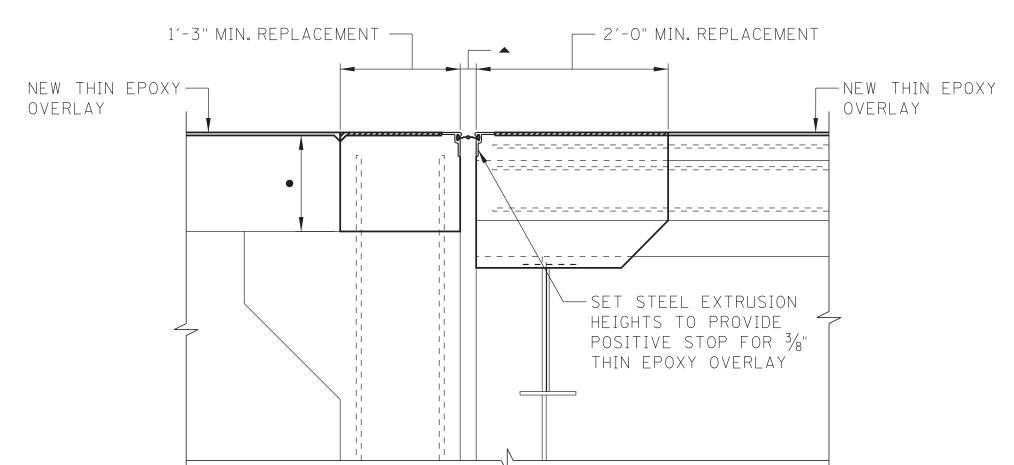
THICKNESS VERIFICATION: THE PROJECT ENGINEER SHALL BE NOTIFIED OF THE NUMBER OF GALLONS USED ON THE PROJECT WITH NOTARIZED QUANTITY STATEMENTS FROM THE CONTRACTOR AND THE MANUFACTURER. THE CONTRACTOR SHALL VERIFY TO TDOT THAT THE OVERLAY IS AN AVERAGE OF AT LEAST 3/8" THICK AT THREE RANDOM LOCATIONS AGREED UPON BY THE PROJECT ENGINEER AND THE MATERIAL MANUFACTURER REPRESENTATIVE. IF 3/8" AVERAGE IS NOT ACHIEVED, A RETEST SHALL BE PERFORMED IN ADJOINING AREAS. THIN AREAS SHALL BE RE-COATED AS DESCRIBED ABOVE BY THE CONTRACTOR AND RE-VERIFIED AT NO ADDITIONAL COST TO TDOT. THIS VERIFICATION SHALL CONSIST OF CORES MADE BY THE CONTRACTOR WITH A CORING BIT NOT LESS THAN 1-1/2" DIAMETER, THE TESTED AREAS SHALL BE REPAIRED BY THE CONTRACTOR BEFORE FINAL ACCEPTANCE BY THE PROJECT ENGINEER.



STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE REPAIRS SR-95 OVER CLINCH RIVER BRIDGE NO. 53-SR095-10.72 FED. I.D. NO. 53SR0950011 LOUDON COUNTY 2025





STRIP SEAL EXPANSION JOINT SECTION "A" PROPOSED ITEM NO. 604-10.32, EXPANSION JOINT REPAIRS (TYPE A), L.F. TYP. BOTH ABUTMENTS

SHOWING PORTIONS OF BACKWALL, HEADER, DIAPHRAGM, AND SLAB TO BE REPLACED FOR CONSTRUCTION OF NEW STRIP SEAL JOINT.

- ▲ DENOTES: SET EXPANSION JOINT OPENING 2" AT 60°F. (ACTUAL SETTING AS PER TEMPERATURE CHART ON EXPANSION JOINT SHOP DRAWINGS.)
- 1'-0" MIN. LIMITS OF EXISTING CONCRETE ABUTMENT BACKWALL REMOVAL AND REPLACEMENT. SEE TYPICAL SECTION AT ABUTMENT BACKWALL (TYPE "A") ON STD. DWG. SBR-2-117 AND REFERENCE DRAWINGS FOR DETAILS NOT SHOWN.

NEW CONCRETE HEADERS SHALL BE HIGH EARLY STRENGTH CONCRETE IN ACCORDANCE WITH SBR-2-115. THE ONLY EXCEPTION TO BE MADE IS THE MINIMUM CURE TIME REQUIRED IS 18 HOURS.

SEE STD. DWG.'S SBR-2-115, SBR-2-116, AND SBR-2-117 FOR ALL OTHER NOTES AND DETAILS NOT SHOWN.

EXPANSION JOINT REPLACEMENT SHALL BE CONSTRUCTED IN PHASES. THE STEEL PORTIONS OF THE EXPANSION JOINT SHALL BE FABRICATED IN SECTIONS TO COORDINATE WITH PHASED CONSTRUCTION. REFER TO SHEET T1 FOR PHASED CONSTRUCTION DETAILS. THE SECTIONS ARE TO BE CONNECTED WITH A FULL PENETRATION BUTT WELD. THE ELASTOMERIC SEAL SHALL BE A SINGLE CONTINUOUS PIECE FOR FULL LENGTH OF EXPANSION JOINT.

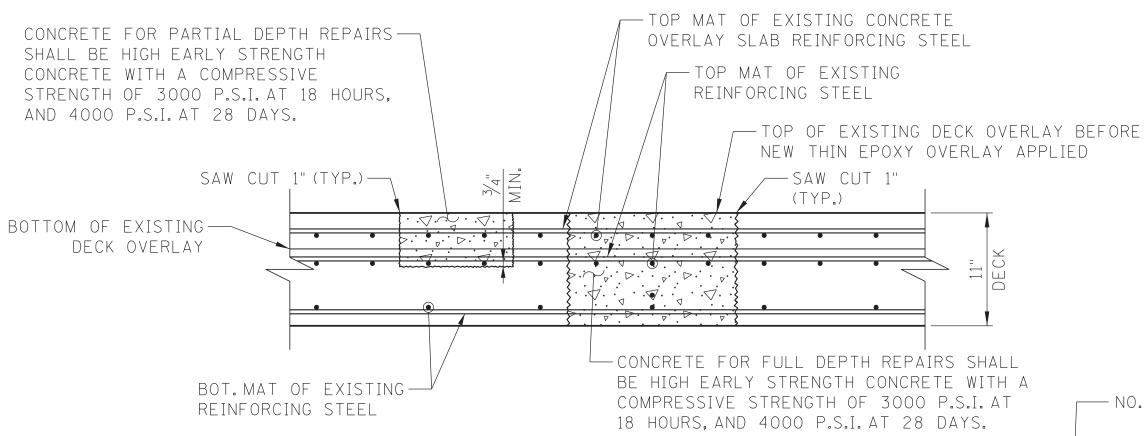
PROVISIONS SHALL BE MADE WHEN REMOVING PORTIONS OF DECK AND PARAPETS TO PROTECT THE EXISTING LONGITUDINAL AND VERTICAL REINFORCING STEEL FROM DAMAGE. THE EXISTING REINFORCING STEEL SHALL BE COMPLETELY CLEANED, MAINTAINED, AND INCORPORATED INTO THE NEW CONSTRUCTION. PROVIDE 2" MINIMUM COVER FOR REINFORCING STEEL. SHOULD THE EXISTING REINFORCING REQUIRE EPOXY COATING UPON CLEANING, THE CONTRACTOR WILL BE REQUIRED TO USE A QUALIFIED PRODUCT TO MAKE ANY NECESSARY TOUCH-UPS. NO ADDITIONAL COMPENSATION WILL BE PROVIDED FOR THIS AS THIS IS CONSIDERED INCIDENTAL TO THE WORK.

REMOVED PORTIONS OF THE PARAPET ON EACH SIDE OF THE JOINT SHALL BE REPLACED TO AS-BUILT LINES. CARE SHALL BE TAKEN TO ENSURE CONSISTENT LINES (NO SNAG POINTS) ARE ON EACH SIDE OF THE JOINT ALONG THE FACE OF THE BARRIER. ALL COST ASSOCIATED WITH THIS WORK ARE TO BE INCLUDED IN ITEM 604-10.32, EXPANSION JOINT REPAIRS (TYPE A), L.F.

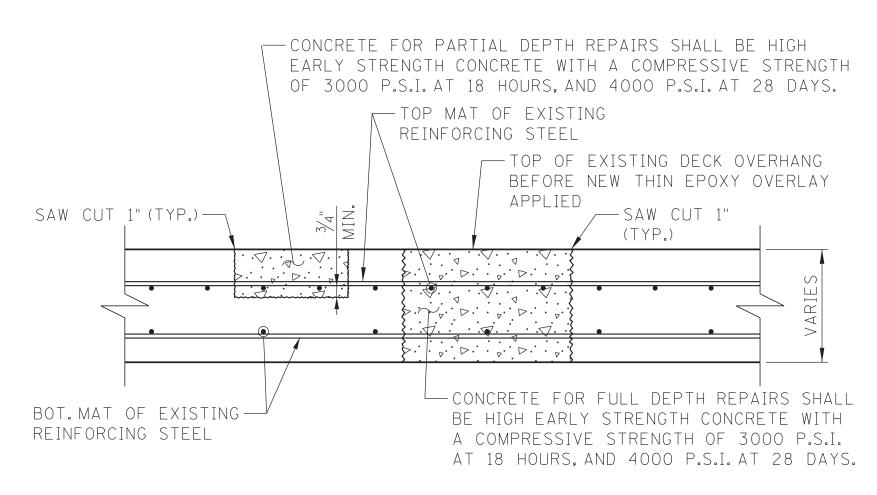
BRIDGE LIGHTING SYSTEM MUST BE DE-ENERGIZED PRIOR TO REMOVING PORTIONS OF THE DECK FOR JOINT REPLACEMENT. EXTREME CARE SHALL BE TAKEN TO AVOID DAMAGING EXISTING CONDUIT UNDERNEATH THE DECK. ANY DAMAGE SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.

THE COST OF ALL LABOR, MATERIALS, AND EQUIPMENT NECESSARY TO REPLACE THE EXPANSION JOINT AT ABUTMENTS, INCLUDING REMOVAL OF EXISTING JOINT HEADERS AND PORTIONS OF SLAB TO BE INCLUDED IN THE COST BID FOR ITEM 604-10.32, EXPANSION JOINT REPAIRS (TYPE A), L.F.

084516.01 N. FRANCESCHETTI DATE: 09/2025 M. LOUCKS DATE: 09/2025 SUPERVISED BY: S. WILSON DATE: 09/2025 CHECKED BY: N. FRANCESCHETTI DATE: 09/2025



SECTION CUT SHOWING 41/2" DECK OVERLAY



SECTION CUT SHOWING DECK OVERHANG

<u>DETAILS SHOWING FULL AND PARTIAL DEPTH DECK & PABE REPAIR</u>

REMOVE CONCRETE IN ALL DELAMINATED AREAS TO A DEPTH OF $\frac{3}{4}$ " BELOW THE TOP MAT OF REINFORCING STEEL OF THE ORIGINAL DECK. ALL REINFORCING STEEL IN AREAS OF DECK AND PABE REPAIR SHALL BE COMPLETELY CLEANED. AREAS OF CONCRETE REMOVAL SHALL BE DESIGNATED BY PERSONNEL FROM HEADQUARTERS, BRIDGE INSPECTION AND REPAIR OFFICE. INSPECTIONS TO DETERMINE AREAS OF DECK AND PABE REPAIR SHALL BE SCHEDULED WITH THE BRIDGE REPAIR OFFICE AT LEAST THREE (3) DAYS IN ADVANCE. DECK AND PABE REPAIRS WILL BE PAID FOR UNDER ITEM NO. 604-10.56, CONCRETE OVERLAYED BRIDGE DECK REPAIR (PARTIAL DEPTH), S.Y., AND ITEM NO. 604-10.34, CONCRETE OVERLAYED BRIDGE DECK REPAIR (FULL DEPTH), S.Y. DURING PARTIAL DEPTH REPAIRS, SHOULD DETERIORATED CONCRETE BE ENCOUNTERED WHICH APPEARS TO RUN FULL DEPTH IN THE DECK OR PABE, THE ENGINEER MAY DESIGNATE THESE AREAS TO BE REPAIRED UNDER ITEM NO.604-10.34. POWER DRIVEN HAND TOOLS USED FOR THE REMOVAL OF UNSOUND CONCRETE IN MAKING FULL AND PARTIAL DEPTH REPAIRS ARE SUBJECT TO THE FOLLOWING RESTRICTIONS:

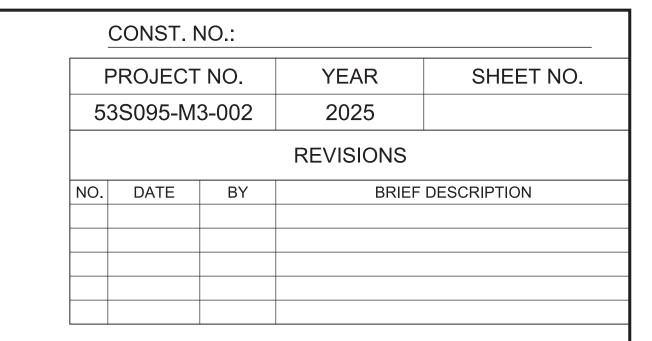
1. FULL DEPTH REPAIRS, EXCEPT OVER GIRDERS - PNEUMATIC HAMMERS HEAVIER THAN A 90-POUND CLASS SHALL NOT BE USED.

2. PARTIAL DEPTH REPAIRS AND ANY WORK OVER GIRDERS - PNEUMATIC HAMMERS HEAVIER THAN NOMINAL 60-POUND CLASS SHALL NOT BE USED.

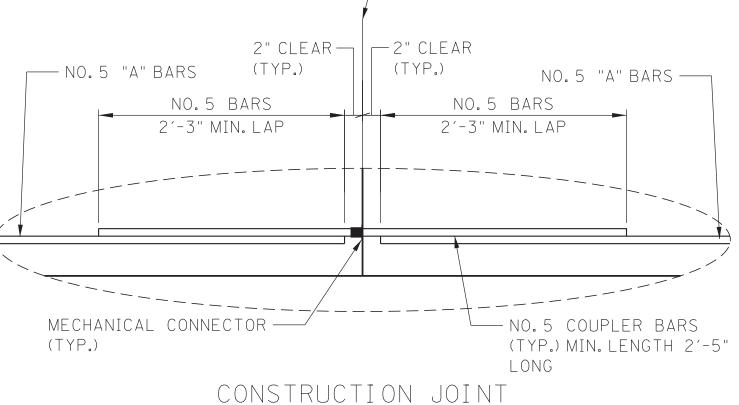
3. CHIPPING HAMMERS OF THE 15-POUND CLASS SHALL BE USED TO REMOVE CONCRETE FROM BENEATH ANY REINFORCING STEEL.

WHEN REMOVING CONCRETE FROM THE LIMITS SHOWN, CARE SHALL BE TAKEN NOT TO DAMAGE EXISTING REINFORCING STEEL. EXISTING REINFORCING STEEL THAT IS EXPOSED DURING REMOVAL OF PORTIONS OF CONCRETE DECK OR PABE SHALL BE THOROUGHLY CLEANED AND MAINTAINED. ANY DAMAGE TO EXISTING REINFORCING STEEL DURING CONCRETE REMOVAL SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE STABILITY OF THE STRUCTURE DURING REPAIRS. EXTENSIVE AREAS OF DECK REMOVAL WILL REQUIRE A SUPPORT SYSTEM FOR THE GIRDER AND DETAILS SUBMITTED TO THE ENGINEER FOR APPROVAL.



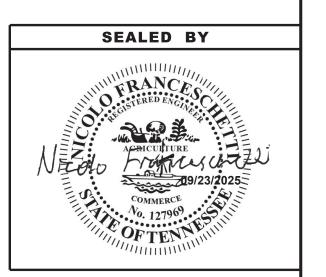
- CONSTRUCTION JOINT



MECHANICAL SPLICE DETAIL

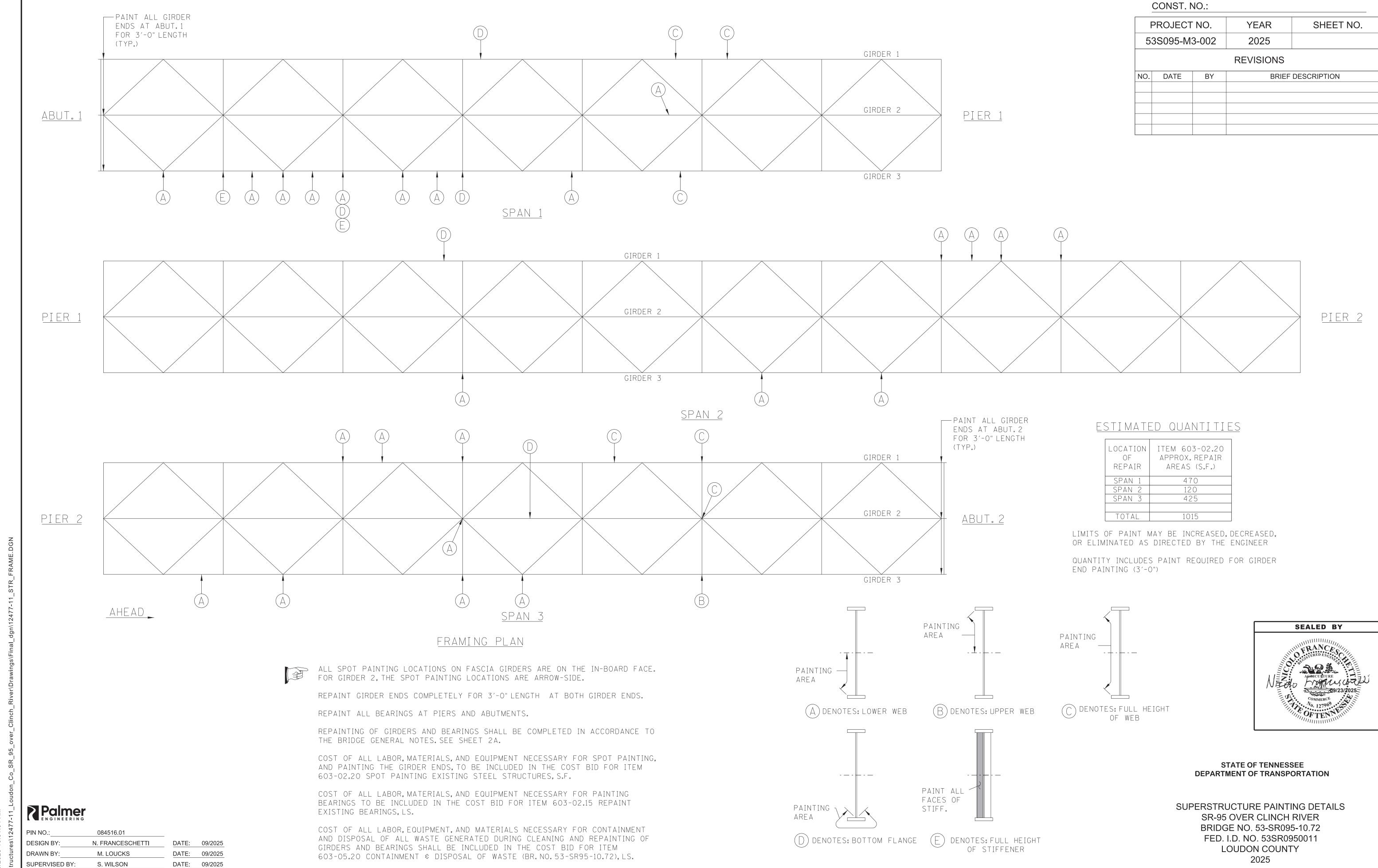
REFER TO STD. DWG. SBR-2-117 FOR ADDITIONAL DETAILS OF NO. 5 "A" BARS NOT SHOWN.

COST OF MECHANICAL CONNECTORS WITH COUPLER BARS USED FOR CONSTRUCTION OF THE NEW ABUTMENT EXPANSION JOINTS TO BE INCLUDED UNDER ITEM NO. 604-10.32, EXPANSION JOINT REPAIR, (TYPE A) L.F.



STATE OF TENNESSEE **DEPARTMENT OF TRANSPORTATION**

DECK AND JOINT REPAIRS SR-95 OVER CLINCH RIVER BRIDGE NO. 53-SR095-10.72 FED. I.D. NO. 53SR0950011 LOUDON COUNTY 2025



025 10:51:34 AM

CHECKED BY:

N. FRANCESCHETTI

DATE: 09/2025

BR-133-151

UNLESS OTHERWISE NOTED, THE INTENT OF THIS SPECIFICATION IS FOR DESIGNATED CRACKS TO BE INJECTED THEIR FULL LENGTH AND DEPTH.

DESIGNATED CRACKS SHALL BE INJECTED WITH AN APPROVED EPOXY RESIN ADHESIVE FILLING ALL VOIDS FOR THE CRACK DEPTH OR THICKNESS OF THE MEMBER.

THE EPOXY RESIN ADHESIVE SHALL BE ON THE CURRENT QUALIFIED PRODUCTS LIST MAINTAINED BY THE DIVISION OF MATERIALS AND TEST. ALL CRACKS SHALL BE INJECTED USING AN ADHESIVE SUITABLE FOR THE FIELD CONDITIONS (CRACK WIDTH, TEMPERATURE, HUMIDITY, ETC.) RECOMMENDED BY THE ADHESIVE MANUFACTURER AS SHOWN ON MATERIAL DATA SHEETS. FOLLOWING INJECTION, ALL INJECTION PORTS AND CAPPING MATERIAL SHALL BE REMOVED FROM EXPOSED SURFACES LEAVING THE SURFACE SMOOTH AND FLUSH WITH THE SURROUNDING CONCRETE SURFACES. THIS WORK ALSO INCLUDES MAKING ANY EXISTING INJECTION PORTS (FROM A PREVIOUS REPAIR PROJECT) SMOOTH AND FLUSH WITH THE SURROUNDING CONCRETE SURFACES.

THE CONTRACTOR SHALL HAVE SUFFICIENT EXPERIENCE AND TRAINING TO PERFORM THE EPOXY INJECTION IN ACCORDANCE WITH THESE PLANS. PRIOR TO PERFORMING ANY WORK, THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER A WRITTEN PROCEDURE FOR PERFORMING THE EPOXY INJECTION. THE PROCEDURE SHALL DESCRIBE IN DETAIL HOW THE WORK WILL BE PERFORMED. THE PROCEDURE SHALL INCLUDE, BUT NOT BE LIMITED TO THE FOLLOWING INFORMATION:

- 1) DESCRIPTION OF EQUIPMENT.
 - A. THE INJECTION EQUIPMENT SHALL BE OF THE TYPE THAT MIXES ADHESIVE COMPONENTS AT THE INJECTION HEAD.
 - B. THE INJECTION EQUIPMENT SHALL BE CAPABLE OF DISCHARGING MIXED ADHESIVE AT ANY PRESSURE UP TO 300 PSI. THE INJECTION EQUIPMENT SHALL BE EQUIPPED WITH GAUGES WHICH CAN MEASURE THE INJECTION PRESSURE AND VOLUME.
- 2) EQUIPMENT CALIBRATION PROCEDURES AND SCHEDULE.
- 3) MATERIALS TO BE USED (INCLUDING MANUFACTURER DATA SHEETS).
- A. CAPPING MATERIAL
- B. EPOXY ADHESIVE (TYPE TO BE APPROPRIATE FOR CRACK SIZES TO BE INJECTED).
- 4) PORT SPACING
- A. PORT SPACING SHALL NOT BE LESS THAN THE THICKNESS OF THE CONCRETE IN THAT LOCATION.
- 5) INJECTION SEQUENCE
 - A.INJECTION SHALL PROCEED FROM LOWER END OF CRACK ALONG ADJACENT PARTS.
 - B. SKIPPING OF PORTS DURING INJECTION SHALL NOT BE ALLOWED.

THE CONTRACTOR SHALL HAVE THE MANUFACTURER'S INSTRUCTIONS FOR PROPORTIONING AND MIXING AVAILABLE AT THE JOB SITE AT ALL TIMES AND SHALL ENSURE THAT THE EQUIPMENT IS SUPPLYING THE MIXED ADHESIVE IN THE CORRECT PROPORTIONS.

TO ENSURE PROPER MIXING AND PROPORTIONING, SAMPLES SHALL BE TAKEN FROM THE INJECTOR HEAD. SAMPLES SHALL BE TAKEN AT THE START OF EACH WORKDAY AND EACH TIME THE ADHESIVE RESERVOIRS ARE REFILLED. THE SAMPLES SHALL BE IN A TEST CUP. THE SAMPLE SHALL BE MONITORED TO ENSURE THAT THE CURE TIME IS IN COMPLIANCE WITH THE MANUFACTURER'S DATA SHEETS. IF THE SAMPLES DO NOT CURE IN THE SPECIFIED TIME THEN THE EQUIPMENT USED TO PRODUCE THE SAMPLE SHALL NOT BE USED UNTIL THE PROBLEM IS CORRECTED.

CORE SAMPLES SHALL BE TAKEN AS VERIFICATION OF THE QUALITY OF WORK. THE CONTRACTOR SHALL TAKE ONE (1) TWO (2) INCH DIAMETER (FULL DEPTH OF CONCRETE AT LOCATION CORED) CORE SAMPLE STARTING WITH THE FIRST REPAIR LOCATION THEN EVERY TENTH REPAIR LOCATION AFTERWARDS WORK SHALL NOT PROCEED UNTIL THE CORE SAMPLE IS TAKEN AND ACCEPTED. ALL CORE SAMPLES AND HOLES SHALL BE INDEXED FOR FUTURE REFERENCE. THE ENGINEER SHALL DESIGNATE ALL LOCATIONS TO BE CORED. IF ANY CORES SHOW UNACCEPTABLE RESULTS, ALL WORK SHALL BE STOPPED UNTIL THE CONTRACTOR SUBMITS A PROPOSAL FOR CORRECTING UNACCEPTABLE WORK.

THE INITIAL CORE WILL ALSO SERVE TO QUALIFY THE FOREMAN FOR THIS WORK. IF AT ANY TIME A NEW FOREMAN IS USED, HE SHALL BE QUALIFIED WITH A CORE SAMPLE.

THE CONTRACTOR, AT HIS EXPENSE, SHALL REPAIR ALL CORE HOLES WITH AN APPROVED CEMENTITIOUS PATCHING MATERIAL.

CORE SAMPLES SHALL BE VISUALLY INSPECTED TO CONFIRM THAT CRACKS ARE COMPLETELY FILLED WITH ADHESIVE. ANY CORE HAVING LESS THAN 95% OF THE CRACK FILLED WITH ADHESIVE SHALL BE CONSIDERED UNACCEPTABLE AND BE REJECTED.

CORE SAMPLES SHALL BE TESTED FOR BOND STRENGTH. SAMPLES MAY BE FRACTURED BY HAMMER BLOW TO CRACK AREA OR THROWN AT A HARD SURFACE. IF ADHESIVE FAILURE OCCURS BEFORE CONCRETE FAILURE, THE CORE SHALL BE CONSIDERED UNACCEPTABLE AND REJECTED.

PAYMENT FOR EPOXY INJECTION CRACK REPAIR SHALL BE MADE UNDER ITEM NUMBERS:

604-10.62, EPOXY INJECTION REPAIR (COMPLETE AND IN PLACE), L.F. AND

604-10.58, EPOXY INJECTION (INJECTION), GAL

PRICE BID FOR ITEM NUMBER 604-10.62, EPOXY INJECTION REPAIR (COMPLETE AND IN PLACE), L.F., SHALL INCLUDE COST OF ALL LABOR AND MATERIALS (EXCEPT ADHESIVE) FOR GRINDING, FOR SURFACE PREPARATION, CRACK PREPARATION, CAPPING, INJECTION OF ADHESIVE, ALL SAMPLING AND TESTING, REMOVAL OF CAPPING MATERIAL AND PORTS. AND OTHER INCIDENTALS. CRACKS SHALL BE MEASURED FOR PAYMENT ALONG THE LENGTH OF THE VISIBLE SURFACE CRACK.

PRICE BID ALSO INCLUDES ALL COSTS ASSOCIATED WITH MAKING THE EXISTING INJECTION PORTS (FROM A PREVIOUS REPAIR PROJECT) SMOOTH AND FLUSH WITH THE SURROUNDING CONCRETE SURFACE.

PRICE BID FOR ITEM NUMBER 604-10.58, EPOXY INJECTION (INJECTION), GAL, SHALL INCLUDE COST FOR ADHESIVE MATERIAL INJECTED ONLY.

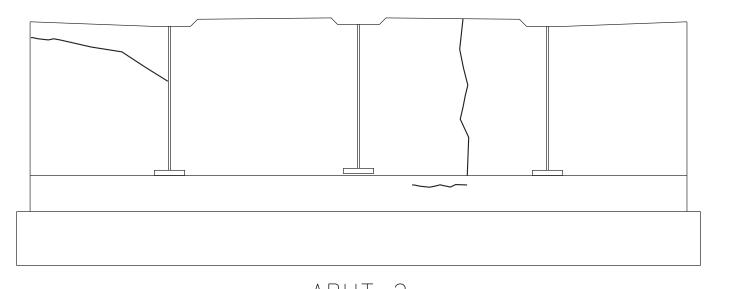
NO PAYMENT SHALL BE MADE FOR REWORK DEEMED NECESSARY BY FAILURE OF ADHESIVE SAMPLES OR CORE SAMPLES.

ALL WORK INCLUDING SAMPLING AND TESTING SHALL BE IN THE PRESENCE OF THE ENGINEER OR HIS REPRESENTATIVE OR CONTRACT INSPECTORS. ANY WORK DONE WITHOUT INSPECTORS PRESENT SHALL NOT BE PAID FOR. THE CONTRACTOR SHALL PROVIDE THE ENGINEER WITH WEEKLY SCHEDULES OF WORK TO BE PERFORMED. SCHEDULES SHALL BE SUBMITTED AT LEAST THREE (3) DAYS IN ADVANCE OF WORK TO BE DONE. THE ENGINEER SHALL BE NOTIFIED OF ANY CHANGE IN THE SCHEDULE A MINIMUM OF TWENTY-FOUR (24) HOURS IN ADVANCE OF CHANGE.

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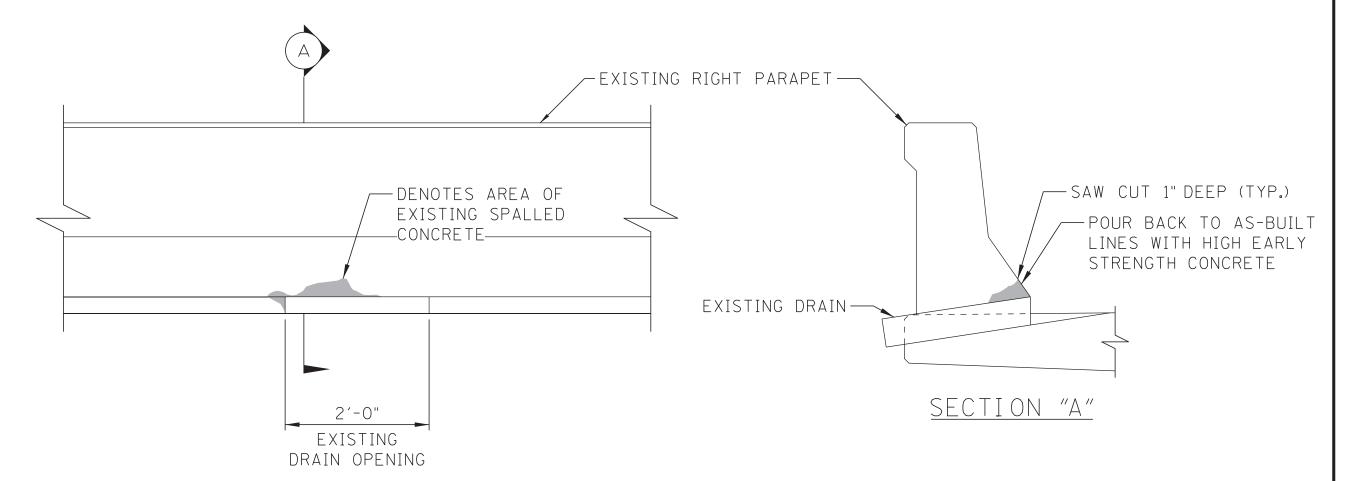
ABUT. 1

LOOKING BACK



ABUT. 2 Looking ahead CONST. NO.:

|     | PROJECT | NO.   | YEAR      | SHEET NO.   |
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| 5   | 3S095-M | 3-002 | 2025      |             |
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| NO. | DATE    | BY    | BRIEF     | DESCRIPTION |
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## PARAPET SPALL REPAIR DETAIL

REMOVE CONCRETE TO A DEPTH OF 4" MIN. OR 3/4" BEHIND ANY EXISTING REINFORCING STEEL. SEE LAYOUT SHEET ON BR-133-146 FOR PARAPET REPAIR LOCATION.

CONTRACTOR SHALL ENSURE THAT FULL DRAIN OPENING IS MAINTAINED UPON COMPLETION OF REPAIRS AS SHOWN.

THE COST OF REMOVING PORTIONS OF THE EXISTING CONCRETE WITHIN THE LIMITS SHOWN, SAW CUTTING, COMPLETELY CLEANING EXISTING REINFORCING STEEL, HIGH EARLY STRENGTH CONCRETE, FORMING, LABOR, AND ALL MISCELLANEOUS MATERIAL NECESSARY TO COMPLETE THE REPAIRS AS SHOWN SHALL BE INCLUDED IN PRICE BID FOR ITEM NO. 604-10.42, CONCRETE REPAIRS, C.F.

CONTRACTOR TO TAKE EXTREME CARE WHEN REMOVING DELAMINATED CONCRETE SO AS NOT TO DAMAGE EXISTING REINFORCING STEEL. ANY DAMAGE INCURRED SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE. ALL EXISTING REINFORCING STEEL SHALL BE COMPLETELY CLEANED TO THE SATISFACTION OF THE ENGINEER BEFORE REPOURING.

# SEALED BY RANCE RANCE RANCE PARICULTURE ACRICULTURE POPULATION OF TENNING OF TENNI

#### ESTIMATED QUANTITIES

| LOCATION<br>OF<br>REPAIR | ITEM 604-10.62<br>APPROX.REPAIR<br>AREAS (L.F.) |
|--------------------------|-------------------------------------------------|
| ABUT.1                   | 3                                               |
| ABUT.2                   | 21                                              |
|                          |                                                 |
| TOTAL                    | 24                                              |

DENOTES CRACK TO BE
REPAIRED UNDER ITEM NO.
604-10.58 AND 604-10.62.
SEE THIS SHEET FOR
EPOXY INJECTION NOTES.

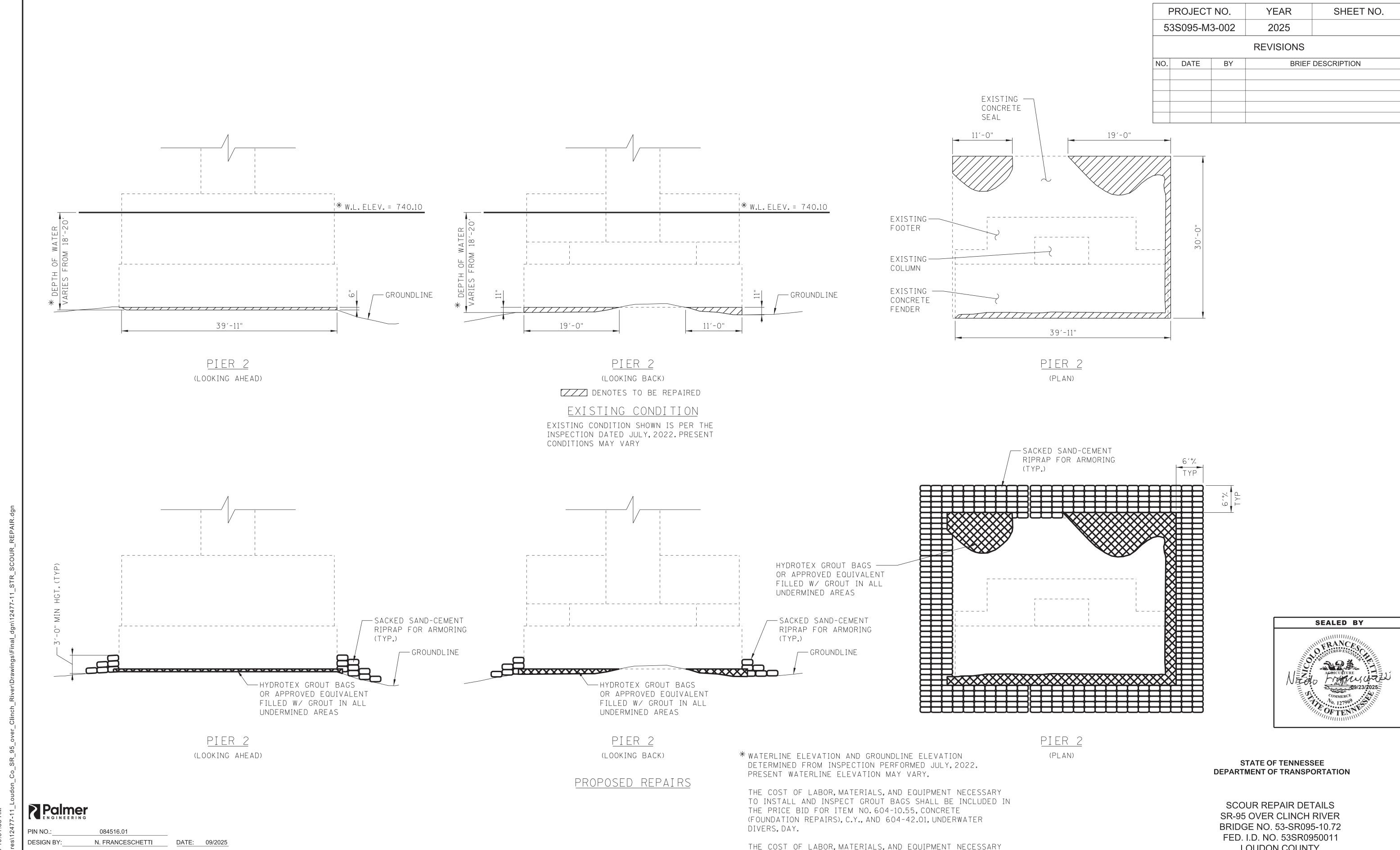
STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION

CONCRETE REPAIRS
SR-95 OVER CLINCH RIVER
BRIDGE NO. 53-SR095-10.72
FED. I.D. NO. 53SR0950011
LOUDON COUNTY
2025

# PIN NO:

| PIN NO.:       | 084516.01        | _     |         |
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| DESIGN BY:     | N. FRANCESCHETTI | DATE: | 09/2025 |
| DRAWN BY:      | M. LOUCKS        | DATE: | 09/2025 |
| SUPERVISED BY: | S. WILSON        | DATE: | 09/2025 |
| CHECKED BY:    | N. FRANCESCHETTI | DATE: | 09/2025 |

BR-133-152



TO INSTALL SACKED SAND-CEMENT RIPRAP SHALL BE INCLUDED

IN THE PRICE BID FOR ITEM NO.709-02.02, SACKED SAND

CEMENT RIPRAP, C.Y.

DRAWN BY:

SUPERVISED BY:

CHECKED BY:

M. LOUCKS

S. WILSON

N. FRANCESCHETTI

DATE: 09/2025

DATE: 09/2025

DATE: 09/2025

BR-133-153

LOUDON COUNTY

2025

CONST. NO.:

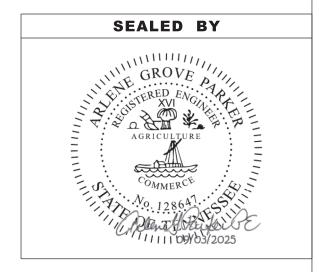
## NOTES:

- 1. INCLUDES ALL ITEMS AND LABOR NECESSARY TO REMOVE THE EXISTING MARINE NAVIGATIONAL LIGHTS AND PROVIDING NEW LED NAVIGATIONAL LIGHTS, ANCHOR BOLTS, PLATES AND ANY OTHER MATERIALS NECESSARY FOR MOUNTING AND SUPPORTING THE NEW LIGHT UNITS AT BRIDGE NO. 53-SR095-10.72. FOR NOTES AND DETAILS SEE DRAWING BR-133-146 THRU BR-133-158. THE CONTRACTOR SHALL FURNISH NAVIGATION LIGHTING IN ACCORDANCE WITH THE COAST GUARD PERMIT, SHOP DRAWINGS FOR NAVIGATION LIGHTING SUPPORT BRACKETS SHALL BE SUBMITTED FOR APPROVAL.
- 2. INCLUDE THE COSTS TO PROVIDE TEMPORARY NAVIGATIONAL LIGHTING AT ALL EXISTING NAVIGATIONAL LIGHT LOCATIONS THROUGHOUT THE ENTIRE CONSTRUCTION PROCESS (6 LOCATIONS TOTAL). NAVIGATIONAL LIGHTS SHALL BE SOLAR POWERED TO PROVIDE SERVICE WHEN PERMANENT NAVIGATIONAL LIGHTING IS NOT OPERATIONAL. TEMPORARY NAVIGATIONAL LIGHTING SYSTEM SHALL MEET THE FULL APPROVAL OF THE ENGINEER FROM TDOT.
- 3. COSTS OF ALL LABOR AND MATERIALS NECESSARY TO REMOVE AND REPLACE THE EXISTING ENTIRE MARINE NAVIGATION LIGHTING SYSTEM SHALL BE INCLUDED UNDER ITEM NO. 714-16.01, NAVIGATIONAL LIGHTING, LS.
- 4. THE COST SHALL INCLUDE THE REMOVAL OF THE EXISTING MARINE NAVIGATION LIGHTS AND ALL EXISTING JUNCTION/PULL BOXES, CONDUITS AND CONDUCTORS, ON/UNDER THE BRIDGE AND IN THE GROUND (CONDUCTORS ONLY) BACK TO THE SERVICE POLE. THE COST SHALL INCLUDE THE REMOVAL OF THE EXISTING NAVIGATION LIGHTING SYSTEM ELEMENTS FROM THE EXISTING POWER SERVICE POLE. THESE INCLUDE THE EXISTING ENCLOSURE, UTILITY METER, WEATHERHEAD, PHOTOCELL, DUPLEX RECEPTACLE, AND ALL APPLICABLE CONDUCTORS, CONDUITS AND MOUNTING EQUIPMENT.
- 5. THE COST SHALL INCLUDE THE INSTALLATION OF THE NEW NAVIGATIONAL LIGHTS INCLUDING ALL ANCHOR BOLTS, PLATES AND OTHER MATERIALS NEEDED FOR MOUNTING AND SUPPORTING THE NEW LIGHT UNITS. ALL CONNECTIONS AND MEMBERS USED IN THE LIGHT SUPPORT SYSTEM SHALL BE CAPABLE OF CARRYING ALL LIVE AND DEAD LOADS AND SHALL BE DESIGNED BY A REGISTERED PROFESSIONAL STRUCTURAL ENGINEER IN THE STATE OF TENNESSEE.
- 6. THE COST SHALL INCLUDE THE INSTALLATION OF A NEW WEATHERHEAD, UTILITY METER, PANELBOARD CABINET AND MAIN DISCONNECT SWITCH, MOUNTED TO THE EXISTING SERVICE POLE, AND ALL NECESSARY CONDUCTORS, CONDUITS AND MOUNTING EQUIPMENT FOR THE INSTALLATION.
- 7. THE COST SHALL INCLUDE THE INSTALLATION OF NEW CONDUIT AND JUNCTION BOXES TO ALLOW FOR PROTECTION OF THE NEW MARINE NAVIGATION LIGHTING CIRCUIT(S), INCLUDING ALL STRAPS AND EXPANSION FITTINGS NECESSARY FOR MOUNTING AND SUPPORTING THE CONDUIT AND JUNCTION BOXES.
- 8. THE COST SHALL INCLUDE THE INSTALLATION OF NEW CONDUCTORS IN THE NEW CONDUIT FOR THE CONNECTION OF THE NEW MARINE NAVIGATION LIGHTING CIRCUIT.
- 9. ITEM NO. 714-16.05, TEMPORARY NAVIGATION LIGHTING, LS, INCLUDES COSTS OF ALL LABOR AND MATERIALS NECESSARY TO INSTALL TEMPORARY NAVIGATION LIGHTS AT ALL 6 EXISTING NAVIGATION LIGHT LOCATIONS DURING THE CONSTRUCTION PROCESS. NAVIGATION LIGHTS SHALL BE SOLAR POWERED TO ALLOW FOR CONTINUED AND UNINTERUPTED OPERATION WHEN PERMANENT NAVIGATION LIGHTING IS NOT OPERATIONAL. THE TEMPORARY NAVIGATION LIGHTING SYSTEM SHALL MEET ALL REQUIREMENTS OF THE COAST GUARD NAVIGATION LIGHT PERMIT REQUIREMENTS AND APPROVAL OF THE ENGINEER FROM TDOT.



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| SUPERVISED BY: | GRR       | DATE: | 09/202 |
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STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION

ESTIMATED BRIDGE LIGHTING QUANTITIES
SR-95 OVER CLINCH RIVER
BRIDGE NO. 53-SR095-10.72
FED. I.D. NO. 53SR0950011
LOUDON COUNTY
2025

#### **GENERAL NOTES:**

- 1. BID ITEM NO. 714-16.01, NAVIGATIONAL LIGHTING, LS, INCLUDES ALL ITEMS AND LABOR NECESSARY TO REMOVE THE EXISTING MARINE NAVIGATIONAL LIGHTING SYSTEM AND PROVIDE ALL MATERIALS AND LABOR FOR A NEW COMPLETE LED NAVIGATION LIGHTING SYSTEM. INCLUDING CONNECTION TO THE EXISTING POWER SOURCE AND REFURBISHING THE MOUNTING SUPPORTS AND PROVIDING ALL OTHER MATERIAL NECESSARY FOR MOUNTING AND SUPPORTING THE NEW LIGHT UNITS AT BRIDGE 53-SR095-10.72. THE CONTRACTOR SHALL FURNISH NAVIGATION LIGHTING IN ACCORDANCE WITH THE COAST GUARD PERMIT REQUIREMENTS. SHOP DRAWINGS FOR NAVIGATIONAL LIGHTING SUPPORT BRACKET MODIFICATIONS OR REPLACEMENT SUPPORTS SHALL BE SUBMITTED FOR APPROVAL
- 2. BID ITEM NO. 714-16.05, TEMPORARY NAVIGATIONAL LIGHTING, LS, INCLUDES ALL COSTS TO PROVIDE TEMPORARY NAVIGATIONAL LIGHTING AT ALL EXISTING NAVIGATIONAL LIGHT LOCATIONS THROUGHOUT THE ENTIRE CONSTRUCTION PROCESS (6 LOCATIONS TOTAL). NAVIGATIONAL LIGHTS SHALL BE SOLAR POWERED TO PROVIDE SERVICE WHEN PERMANENT NAVIGATIONAL LIGHTING IS NOT OPERATIONAL. TEMPORARY NAVIGATION LIGHTING SYSTEM SHALL MEET THE FULL APPROVAL OF THE COAST GUARD AND THE ENGINEER FROM TDOT.
- 3. ALL WORK SHALL BE PERFORMED IN A MANNER ALLOWING FOR CONTINUED OPERATION OF MARINE NAVIGATION LIGHTING FROM SUNSET TO SUNRISE. EACH LIGHT REMOVED SHALL BE REPLACED WITH A TEMPORARY LIGHT BEFORE 5:00 PM OR TWO HOURS BEFORE SUNSET WHICHEVER OCCURS FIRST. TEMPORARY LIGHTING SHALL BE TESTED EACH DAY PRIOR TO SUNSET TO ENSURE PROPER OPERATION.
- 4. ELECTRICAL DEMOLITION AND INSTALLATION WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE NFPA 70 (2023) NATIONAL ELECTRICAL CODE. NFPA 101 (2024) LIFE SAFETY CODE. STATE ELECTRICAL CODE AND LOCAL ELECTRICAL CODE.

5. EXISTING POWER SERVICE IS 240/120V, 1PH, 3W. COORDINATE WITH THE

- 6. INSTALL SOLAR POWERED TEMPORARY NAVIGATION LIGHTS ADJACENT TO EACH EXISTING FIXTURE, U.S. COAST GUARD APPROVED, PRIOR TO DISCONNECTION OF EXISTING CIRCUIT (6 LOCATIONS).
- 7. AFTER REMOVAL OF THE EXISTING LIGHT UNITS, THE CONTRACTOR SHALL TAKE PRECISE MEASUREMENTS OF THE EXISTING MOUNTING AND SUPPORT LOCATIONS, INCLUDING THE MOUNTING PLATE BOLT PATTERN AND FIXTURE AND COUNTERWEIGHT STEM LENGTHS, TO PREPARE FOR THE INSTALLATION OF THE NEW LED NAVIGATION LIGHT UNITS.
- 8. THE CONTRACTOR SHALL REPLACE THE EXISTING NAVIGATION LIGHT MOUNTING SYSTEM WITH A NEW MOUNTING SYSTEM PER THE PLANS AND AS REQUIRED BY THE NAVIGATION LIGHT SWIVEL ASSEMBLY. THE STRUCTURAL MOUNTING PLATE SIZE AND BOLT PATTERN SHALL BE COORDINATED WITH THE NAVIGATION LIGHT.
- 9. REMOVE ALL BRIDGE LIGHTING JUNCTION/PULL BOXES, EXPOSED CONDUITS AND CONDUCTORS LOCATED ON/UNDER THE BRIDGE, AND ALL CONDUCTORS IN THE GROUND, BACK TO THE SERVICE POINT.
- 10. REMOVE EXISTING NAVIGATION LIGHTING SYSTEM ELEMENTS FROM THE EXISTING POWER SERVICE POLE. THESE INCLUDE THE EXISTING MAIN DISCONNECT, UTILITY METER, WEATHERHEAD, PHOTOCELL, DUPLEX RECEPTACLE AND ALL APPLICABLE CONDUCTORS, CONDUITS AND MOUNTING EQUIPMENT.
- 11. MAKE ELECTRICAL CONNECTIONS TO EVERYTHING FURNISHED AND/OR INSTALLED BY THIS CONTRACT. WHETHER INDICATED OR NOT ON THE ELECTRICAL DRAWINGS.

- 12.EACH NEW NAVIGATION LIGHTING CIRCUIT(S) SHALL UTILIZE ONE #10 AWG STRANDED GREEN INSULATED EQUIPMENT GROUND.
- 13.ALL EXPOSED CONDUIT SHALL BE GRS. ALL UNDERGROUND CONDUIT SHALL BE PVC. ALL CONDUITS AND FITTINGS SHALL BE SEALED WATERTIGHT. MOUNTING BEAM CLAMPS AND STRAPS MUST BE RATED AND LISTED FOR OUTDOOR USE ONLY. SPRING STEEL FASTENERS SHALL NOT BE ALLOWED.
- 14.ALL ELECTRICAL MATERIALS MUST MEET OR EXCEED NEC. ANSI. AND MUST BE UL LISTED.
- 15.THE MARINE NAVIGATIONAL LIGHT MANUFACTURER SHALL BE B&B ROADWAY, PHAROS MARINE AUTOMATIC POWER, OR APPROVED EQUAL AND MUST MEET ALL COAST GUARD SPECIFICATIONS INCLUDING 33 CFR 118.65 "LIGHTS ON FIXED BRIDGE".
- 16.ALL EQUIPMENT, SUPPORTS, MOUNTING HARDWARE AND APPURTENANCES SHALL BE HEAVY DUTY, CORROSION RESISTANT 316 STAINLESS STEEL, AND SUITABLE FOR OUTDOOR MARINE ENVIRONMENT INSTALLATION.
- 17.LED FIXTURES SHALL HAVE A MINIMUM 50,000 HOUR LIFETIME AND SHALL MEET ALL VISUAL REQUIREMENTS OF 33 CFR 118, LED LIGHTS SHALL BE MOUNTED WITH INTERNAL SHOCK AND VIBRATION ISOLATORS.
- 18. INSTALL CONDUIT EXPANSION FITTINGS AT ALL EXPANSION JOINTS.
- 19.THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER FOR APPPROVAL SHOP DRAWINGS FOR CABINETS, MOUNTING BRACKETS AND OTHER STRUCTURAL ITEMS PRIOR TO THE PURCHASE OR FABRICATION OF THESE ITEMS.

**UTILITY CONTACT:** LENOIR CITY UTILITIES BOARD P.O. BOX 449 7698 CREEKWOOD PARK BLVD. LENOIR CITY, TN 37772 CONTACT: H. ADAM DUNCAN, PE OFFICE PHONE: 865-988-0789

MOBILE PHONE: 865-809-2439

EMAIL: ADUNCAN@LCUB.COM

PROJECT NO. SHEET NO. YEAR 53S095-M3-002 2025

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## **LEGEND**

360° GREEN CHANNEL CENTER MARINE

SERVICE POLE WITH METER, DISCONNECT, AND CABINET/PANELBOARD

## STATE OF TENNESSEE **DEPARTMENT OF TRANSPORTATION**

NAVIGATIONAL LIGHTING PLAN SR-95 OVER CLINCH RIVER BRIDGE NO. 53-SR095-10.72 FED. I.D. NO. 53SR0950011 LOUDON COUNTY 2025

NAVIGATION LIGHT, MOUNTED TO SIDE OF **BRIDGE** 

BR-133-155

POWER COMPANY FOR SERVICE WORK, CONSTRUCTION AND TOTAL LENGTH = 544'-2" (DIS)CONNECTION. • 180° RED PIER NAVIGATION LIGHT. MOUNTED TO SIDE OF BRIDGE 159'-7" 225'-0" 159'-7" END OF BRIDGE BEG. OF BRIDGE SPAN 2 SPAN 3 SPAN 1 (J) NEW 6"x6"x6" (MIN.) STAINLESS STEEL MATCH EXISTING **NEMA 4X JUNCTION BOX WITH** CONTINUOUS HINGE COVER AND TO SOUTH CAPTIVE-TYPE 1 TAMPER RESISTANT ABUTMENT SCREWS ABUT. **JUNCTION BOX** J NEW 12"x12"x6" (MIN.) STAINLESS STEEL, **NEMA 4X JUNCTION BOX WITH** ABUT. 2 - TO CONTINUOUS HINGE COVER AND CONTROLLER CAPTIVE-TYPE 1 TAMPER RESISTANT CABINET H.W.EL.745.0 — (F) DENOTES: FIXED SCREWS NORMAL POOL EL. 741.0 — (E) DENOTES: EXPANSION - CONDUIT EXPANSION JOINT L.W. EL. 735.0 — 740 - APPROX. EXIST. GROUND LINE SEE BR-133-158 ---- NEW 1" GALVANIZED RIGID STEEL PIER 1 ELEVATION PIER 2 CONDUIT WITH NEW CONDUCTORS, MOUNTED TO ABUTMENT AND PARAPET APPROX.EDGE OF WATER--APPROX.EDGE OF WATER UTILITY — NEW 1.25" PVC CONDUIT WITH NEW POLE CONDUCTORS, UNDERGROUND END OF BRIDGE SEALED BY € SR-95— BEG. OF BRIDGE -

AECOM 084516.01 PIN NO.: **DESIGN BY** UCM DATE: 09/2025 DATE: 09/2025 DRAWN BY: DATE: 09/2025 SUPERVISED BY: GRR CHECKED BY: GRR DATE: 09/2025 **KEYED NOTES:** 

- (1) INSTALL U.S. COAST GUARD APPROVED SOLAR POWERED TEMPORARY NAVIGATION LIGHTS ADJACENT TO EACH EXISTING FIXTURE, PRIOR TO DISCONNECTION OF EXISTING CIRCUIT (6 LOCATIONS). REMOVE EXISTING MARINE NAVIGATIONAL LIGHT SYSTEM INCLUDING CONDUCTORS, CONDUITS, AND JUNCTION BOXES. INSTALL A NEW LED MARINE NAVIGATION LIGHTING SYSTEM INCLUDING CONDUCTORS AND CONDUITS TO THE NEAREST JUNCTION BOXES. VERIFY CORRRECT LIGHT OPERATION BEFORE REMOVAL OF THE TEMPORARY LIGHT FIXTURE (TYPICAL 6).
- $\langle 2 \rangle$  INSTALL NEW JUNCTION BOXES FOR THE CONNECTION OF THE NEW MARINE NAVIGATION LIGHT, MOUNTED TO PARAPET, AND NEAR THE PIVOT SUPPORT BRACE.
- (3) EXISTING UTILITY POWER POLE TO BE MAINTAINED. REMOVE EXISTING ELECTRICAL EQUIPMENT AND INSTALL NEW MAIN DISCONNECT CABINET, WEATHERHEAD, PHOTOCELL, CONDUITS AND UTILITY METER BASE.

PLAN

- $\langle 4 \rangle$  INSTALL 1.25" PVC CONDUIT UNDERGROUND FROM SERVICE POLE TO JUNCTION BOX LOCATED AT ABUT. NO. 1.
- (5) ROUTE 1" GRS CONDUIT SYSTEM WITH BRIDGE LIGHTING CONDUCTORS ATTACHED TO BRIDGE BETWEEN JUNCTION BOXES LOCATED FROM ABUT. NO. 1 AND PIER 2, TO INCLUDE BRANCH RUNS, TO ALL 6 FIXTURE LOCATIONS FOR THE CONNECTION OF THE NEW MARINE NAVIGATION LIGHTS. MAKE ALL FINAL CONNECTIONS TO EQUIPMENT. PROVIDE EXPANSION FITTINGS AT CONDUIT MOVEMENT LOCATIONS. PROVIDE LIQUIDTIGHT FLEXIBLE NONMETALLIC CONDUIT FROM JUNCTION BOXES TO NAVIGATION LIGHTS.
- (6) INSTALL A NEW NAVIGATION LIGHTING CIRCUIT HOMERUN AND BRANCH SYSTEM FROM THE MARINE LIGHTING MAIN DISCONNECT TO THE JUNCTION BOX LOCATED AT ABUT. NO. 1 AND OUT TO ALL NAVIGATION FIXTURES. MAKE ALL FINAL CONNECTIONS TO EQUIPMENT

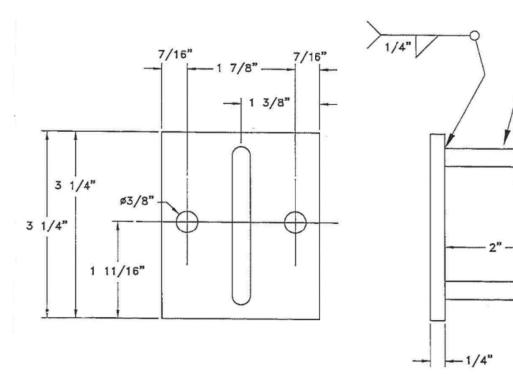
CONST. NO.: PROJECT NO.

SHEET NO. YEAR 53S095-M3-002 2025

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2 1/2" 2 1/2" R1 1/4" 1 1/8"



- 5/16" DIA ROD

**PLATE HOOK** ONE PER SWIVEL REQUIRED

**PLATE RING** ONE PER SWIVEL REQUIRED

FINISH: HOT DIP GALVANIZED

#### SUBMITTA L / SHOP DRAWING NOTE

THE LIGHTING SUPPORT SYSTEMS SHALL BE DESIGNED, SUBMITTED, AND APPROVED BY A STRUCTURAL ENGINEER LICENSED IN THE STATE OF TENNESSEE.

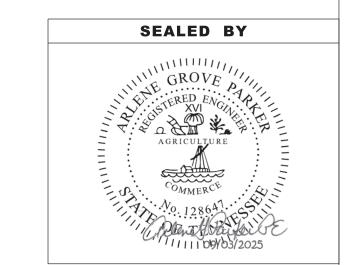
#### **INSTALLATION NOTES**

- 1. NEW COUNTERWEIGHT AND PULL CHAIN SHALL BE SIZED TO ALLOW FOR ONE PERSON TO BE ABLE TO LIFT THE NAVIGATION LIGHT FIXTURE FOR MAINTENANCE.
- 2. THE NEW LIGHT FIXTURE, CONDUIT STEM, COUNTERWEIGHT, AND PULL CHAIN SHALL BE PROVIDED BY THE SAME MANUFACTURER.
- 3. COST OF ALL LABOR AND MATERIALS NECESSARY TO REPLACE THE EXISTING MARINE NAVIGATION LIGHTS SHALL BE INCLUDED UNDER ITEM NO. 714-16.01, NAVIGATION LIGHTS, L.S.
- 4. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO THE ENGINEER FOR REVIEW AND APPROVAL OF THE NAVIGATION LIGHT ASSEMBLY.
- 5. PLATE RING AND PLATE HOOK SHALL BE ATTACHED TO PARAPET WALL. SEE STRUCTURAL PLANS FOR PARAPET WALL DETAILS.

6. FOR DIMENSIONS OF OTHER STRUCTURAL MEMBERS, REFER TO

AS THE BOTTOM OF ADJACENT GIRDER.

- STRUCTURAL DRAWINGS. 7. TOP OF NAVIGATION LIGHT HOUSING SHALL BE AT THE SAME ELEVATION
- 8. LIQUID TIGHT CONDUIT AND CABLES FROM JUNCTION BOX TO NAVIGATION LIGHT SHALL BE INCLUDED IN THE COST OF THE NAVIGATION LIGHTING SYSTEM.



#### STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION

NAVIGATION LIGHTING DETAILS (1) SR-95 OVER CLINCH RIVER BRIDGE NO. 53-SR095-10.72 FED. I.D. NO. 53SR0950011 LOUDON COUNTY 2025

**AECOM** 

PIN NO.: 084516.01 DESIGN BY: UCM DATE: 09/2025 DATE: 09/2025 DRAWN BY: CAM SUPERVISED BY: GRR DATE: 09/2025 CHECKED BY: GRR DATE: 09/2025

- NAVIGATION LED LIGHT

2-360 DEGREE GREEN (MID CHANNEL)

4-180 DEGREE RED (CHANNEL MARGINS)

## NAVIGATION LIGHT FIXTURE AND LOCKING SWIVEL ASSEMBLY

NOT TO SCALE

BR-133-156

#### UNDERGROUND DETECTABLE WARNING TAPE

NOTES:

- 1. POWER MARKING TAPES SHALL BE DETECTABLE TYPE CONSTRUCTION
- WITH RED BACKGROUND AND BLACK LETTERING.

  2. TAPE SHALL BE DETECTABLE, DURABLE, HIGHLY VISIBLE, RESISTANT TO ELEMENTS, MEETING AND/OR EXCEEDING ALL INDUSTRY STANDARDS.
- BODY ALLOWS 8" OF
  CONDUIT MOVEMENT

  REDUCER

  S.S. BOLTS AND
  S.S. CLAMPS

  CONDUIT

  BUSHING
  (INSULATORS)

  GLAND NUT
  S.S. BOLTS AND
  S.S. CLAMPS

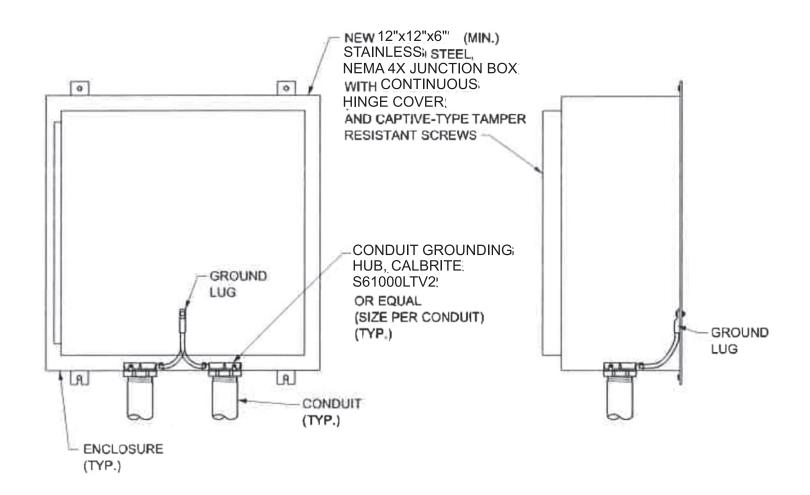
  CONDUIT

  BONDING
  JUMPER

#### **EXPANSION FITTING**

NOTES

- 1. INSTALL AT EXPANSION JOINTS
- QUANTITY OF EXPANSION FITTINGS MAY VARY FROM WHAT IS SHOWN ON THE PLANS.



## CONDUIT GROUNDING DETAIL

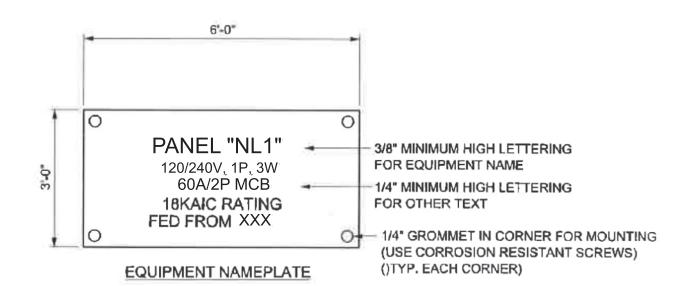
NOTE

ALL SERVICE, FEEDER, AND BRANCH CIRCUIT CONDUITS SHALL BE GROUNDED ON BOTH ENDS

PANEL FRONT VIEW

NOTES:

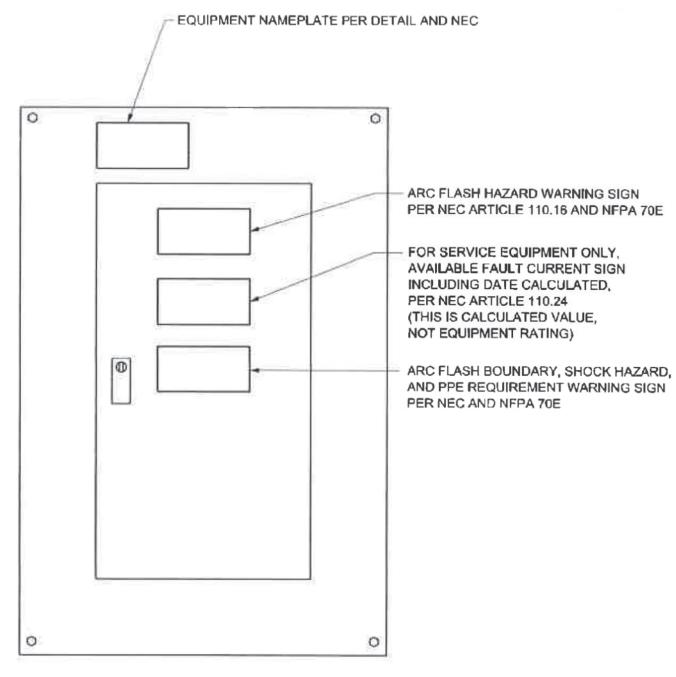
INSTALL ALL NAMEPLATES AND WARNING SIGNS IN ACCORDANCE WITH NEC AND NFPA 70E REQUIREMENTS.
 INSTALL NAMEPLATES AND WARNING SIGNS ON ALL ELECTRICAL EQUIPMENT, INCLUDING BUT NOT LIMITED TO, SWITCHBOARDS, PANELBOARDS, TRANSFORMERS, SWITCHES, CONTROL PANELS, AND MOTOR CONTROL CENTERS.
 EXTERIOR EQUIPMENT SHALL HAVE WEATHER-RESISTANT, NON-FADING NAMEPLATES AND SIGNAGE.
 REFER TO SPECIFICATIONS FOR ADDITIONAL NAMEPLATE AND SIGNAGE REQUIREMENTS.



#### NOTES:

- 1. INSTALL 2-PLEX ACRYLIC, WHITE ON BLACK CORE, MULTIPLE LINES TEXT, CUSTOM ENGRAVED NAME PLATES.
- MOUNT WITH STAINLESS STEEL SCREWS.
   SEAL SCREW HOLES WITH SILICONE RUBBER.
- SEAL SCREW HOLES WITH SILICONE RUBBER
   NAMEPLATE INFORMATION SHALL INCLUDE:
  - A. IDENTIFICATION NAME
  - B. VOLTAGE SYSTEM
    C. AMPACITY RATING AND TYPE
  - D. EQUIPMENT AIC RATING
  - E. FEEDER DESCRIPTION

TYPICAL ENGRAVED NAMEPLATE AND SIGNAGE DETAIL



## NON-ENCASED ELECTRICAL DUCT DETAIL

4" TOPSOIL (TYP.)

3" DETECTABLE WARNING TAPE

CONST. NO.:

PROJECT NO.

53S095-M3-002

BY

NO. DATE

YEAR

2025

REVISIONS

SHEET NO.

BRIEF DESCRIPTION

NOTES:

- 1. CONTRACTOR SHALL STAKE THE DUCT INSTALLATION PLAN AND ELEVATION FOR NEW ELECTRICAL DUCTS TO AVOID EXISTING UTILITIES. STAKING PLAN SHALL BE APPROVED BY OWNER AND ENGINEER PRIOR TO WORK.
- CONTRACTOR SHALL ADJUST THE DEPTH OF THE ELECTRICAL DUCTS AS REQUIRED
  TO MAINTAIN THE MINIMUM COVER REQUIREMENT INDICATED AND AVOID EXISTING UTILITIES.
   NOT USED
- 4. OFFSETS AND BENDS OVER 1-DEGREES AND ELBOWS IN PVC CONDUIT RUNS SHALL BE SCHEDULE 80 PVC CONDUIT.
- 5. NO PVC SHALL EMERGE FROM THE GROUND OR CONCRETE SLAB

REPLACE SOIL

EXISTING GROUND

BACKFILL USING WELL-GRADED

BASE COURSE -

4" BED OF SAND OR SELECT BACKFILL

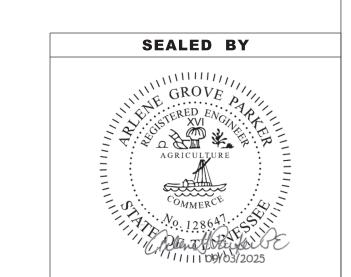
CRUSHED AGGREGATE

AFTER SETTLING

2" MIN.

- PVC SHALL CONVERT TO GALVANIZED RIGID STEEL CONDUIT PRIOR TO ITS EMERGENCE.
- INSTALL CONDUCTORS AND CABLES AS NOTED ON THE DRAWING.
   MINIMUM COVER REQUIREMENT FOR DUCT BANKS UNDER ROADS SHALL BE 24".
- 8. MARKER TAPE SHALL BE A DETECTABLE TYPE CONSTRUCTION WITH RED BACKGROUND
- AND BLACK LETTERING. "CAUTION BURIED ELECTRICAL LINE BELOW".

  9. ROCK REMOVAL SHALL BE CONSIDERED SUBSIDIARY TO DUCT INSTALLATION.



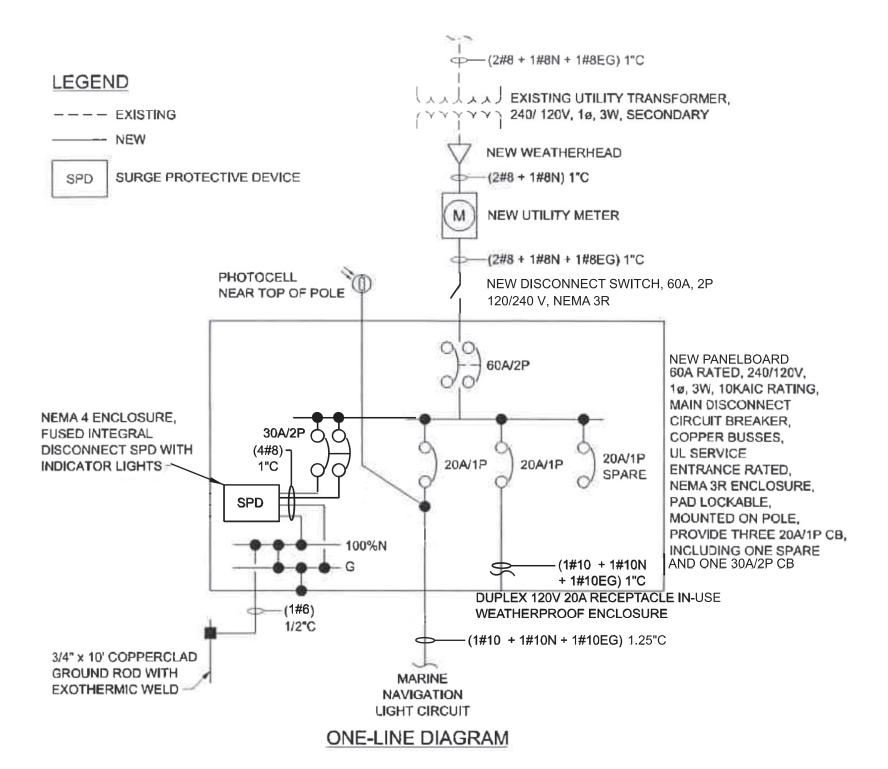
STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION

NAVIGATION LIGHTING DETAILS (2) SR-95 OVER CLINCH RIVER BRIDGE NO. 53-SR095-10.72 FED. I.D. NO. 53SR0950011 LOUDON COUNTY 2025

| NDW: | AECOM     |
|------|-----------|
| က    | BINI NO : |

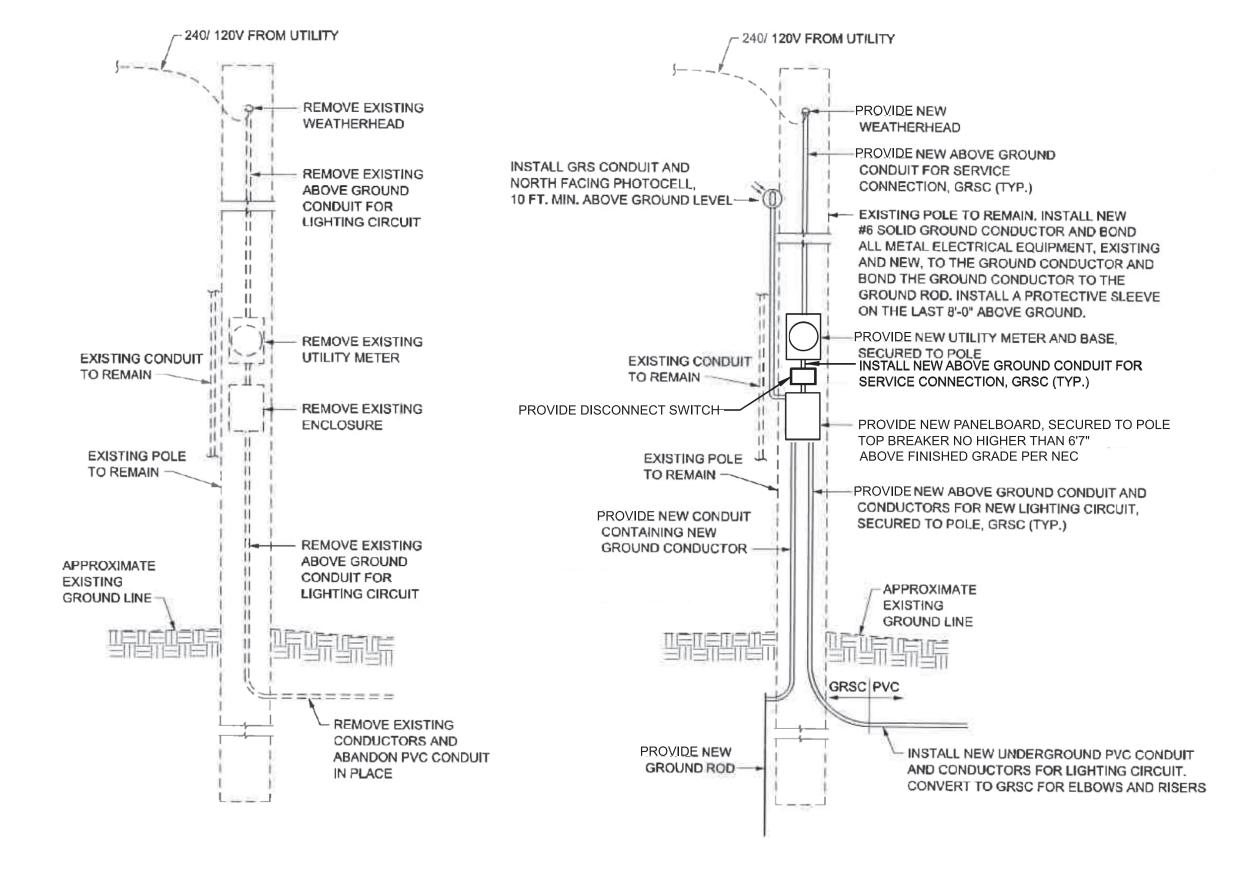
| PIN NO.:       | 084516.01 |       |        |
|----------------|-----------|-------|--------|
| DESIGN BY:     | UCM       | DATE: | 09/202 |
| DRAWN BY:      | CAM       | DATE: | 09/202 |
| SUPERVISED BY: | GRR       | DATE: | 09/202 |
| CHECKED BY:    | GRR       | DATE: | 09/202 |

**AECOM** 



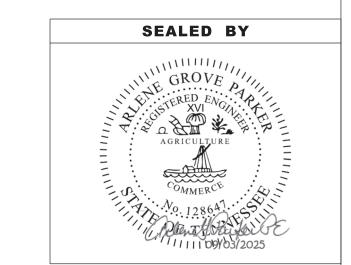
1. ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE NFPA 70 (2023) NATIONAL ELECTRICAL CODE, NFPA 101 (2024) LIFE SAFETY CODE, STATE ELECTRICAL CODE, AND LOCAL ELECTRICAL CODE.

- 2. COORDINATE THE ELECTRICAL POWER SUPPLY WITH SUPPLIED EQUIPMENT.
- COORDINATE ALL ELECTRICAL WORK AND POWER OUTAGES WITH TOOT AND POWER UTILITY.
- 4. CONDUCTORS SHALL BE A MINIMUM TYPE THHN/THWN-2.
- 5, EQUIPMENT SHORT CIRCUIT CURRENT RATINGS AND AVAILABLE INTERRUPTING CURRENT RATINGS SHALL BE FULLY RATED TO INTERRUPT SYMMETRICAL SHORT CIRCUIT CURRENT AVAILABLE AT TERMINALS. SERIES RATED SYSTEMS SHALL NOT BE USED. CONTRACTOR SHALL OBTAIN FROM UTILITY OR CALCULATE AVAILABLE FAULT CURRENT TO INCLUDE ON PANELBOARD LABEL.
- 6. PROVIDE EUQIPMENT GROUNDING CONDUCTOR IN ALL FEEDER AND BRANCH CIRCUITS.
- 7. PROVIDE CONDUCTORS AND CABLES IN CONDUIT UNLESS NOTED OTHERWISE.
- 8. PROVIDE LUGS AND JUNCTION BOXES AS REQUIRED TO FIT WIRING.
- 9. ALL WIRING SHALL BE COPPER.
- 10. PROVIDE NEW PANEL SCHEDULES IN ALL ELECTRICAL PANELS INDICATING WORK PERFORMED.
- 11. PROVIDE NEW PERMANENT LABELS ON PANELBOARDS INDICATING WORK PERFORMED.



EXISTING NAVIGATIONAL LIGHTING SERVICE POLE REMOVAL DETAIL

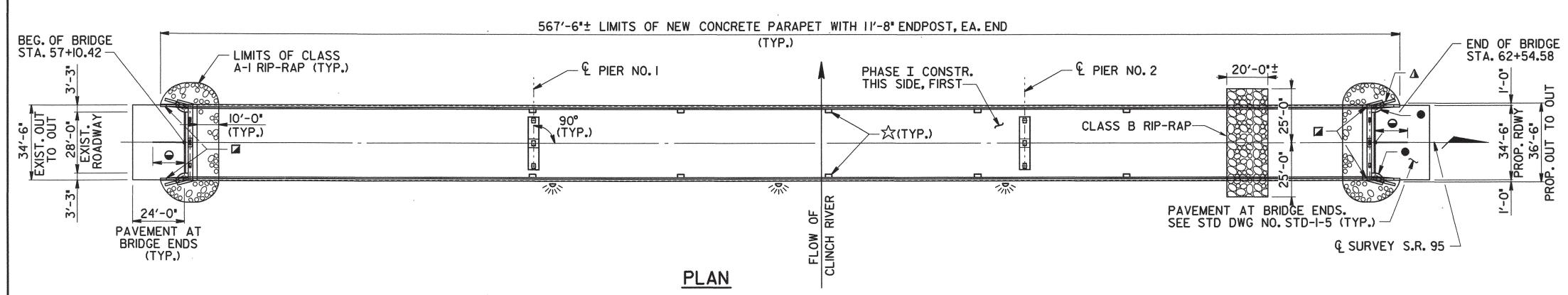
**NEW NAVIGATIONAL** LIGHTING SERVICE POLE INSTALLATION DETAIL



#### STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION

NAVIGATION LIGHTING DETAILS (3) SR-95 OVER CLINCH RIVER BRIDGE NO. 53-SR095-10.72 FED. I.D. NO. 53SR0950011 LOUDON COUNTY 2025

PIN NO.: 084516.01 **DESIGN BY:** UCM DATE: 09/2025 DRAWN BY: CAM DATE: 09/2025 SUPERVISED BY: GRR DATE: 09/2025 CHECKED BY: GRR DATE: 09/2025



DENOTES: EXISTING NAVIGATIONAL LIGHTING TO BE MAINTAINED DURING CONSTRUCTION. SEE DETAILS ON DWG. NO. BR-41-68 FOR TEMPORARY AND FINAL SUPPORT DETAILS.

- DENOTES: NEW II'-8" CONCRETE PARAPET ENDPOST REQUIRED AT ENDS OF WINGS. SEE STD. DWG. NO. STD-I-I.
- DENOTES: NEW PARAPET DRAINS TO BE PROVIDED AS SHOWN. FOR DETAILS SEE DWG. NO. STD-I-2.
- DENOTES: NEW 4'-0"x8'-7" BRIDGE END DRAIN REQUIRED AT THIS LOCATION. FOR DETAILS SEE STANDARD DWG. NOS. STD-I-6, STD-I-7 AND STD-I-9.
- PREVENT EROSION. THE SAME IS REQUIRED FOR OTHER SIDE DURING PHASE II. COST TO BE INCLUDED IN BID PRICE OF OTHER ITEMS.

△ DENOTES: FILL DRAIN WITH ASPHALT (GRADING "E") TO PREVENT HAZARD

TO TRAFFIC DURING PHASE I. PROVIDE RIP-RAP AS REQUIRED TO

→ DENOTES: 10'-0" LIMITS OF SHEET PILE.

| PARAPET | DRAIN     | LOCATIONS |
|---------|-----------|-----------|
| 5       | STA. 58+  | 70        |
| 5       | STA. 59+  | 38        |
| 5       | STA. 60+  | 06        |
| 5       | STA. 60+  | 74        |
|         | STA. 61+4 | 12        |

NOTE: COST OF TEN (10) PARAPET DRAINS TO BE INCLUDED IN THE UNIT PRICE BID FOR CONCRETE PARAPET.

## GENERAL SCOPE OF WORK

- REMOVE EXISTING 4"± ASPHALT OVERLAY FOR ENTIRE LENGTH OF BRIDGE AND FOR A 50 FOOT TRANSITION LENGTH BEYOND EACH BRIDGE END. SEE DETAIL ON SHEET NO. 2A.
- 2. PROVIDE REQUIRED TRAFFIC CONTROL TO MAINTAIN ONE LANE OF TRAFFIC ON THE EXISTING BRIDGE.
- 3. CONSTRUCT NEW ASPHALT APPROACH TRANSITIONS AS SHOWN IN DETAIL ON SHEET NO. 2A.
- 4. REMOVE PORTIONS OF THE EXISTING SLAB AT THE ABUTMENTS WITHIN LIMITS SHOWN AND RECONSTRUCT SLAB ENDS WITH NEW STRIP SEAL EXPANSION JOINT. SEE DETAILS AND NOTES ON DWG. NO. BR-41-68.
- 5. REMOVE EXISTING CANTILEVERS AND BRIDGERAILS FOR ENTIRE LENGTH OF BRIDGE. SCARIFY EXISTING DECK 1°, PLACE EPOXY COATED REINFORCEMENT AND POUR 41/2" NEW CONCRETE OVERLAY AND CANTILEVERS. SEE DWG. NO. BR-41-66.
- 6. INSTALL NEW CONCRETE PARAPET WITH ENDPOSTS AND PARAPET DRAINS (WHERE SHOWN). SEE STANDARD DWG. NOS. STD-I-I. STD-I-2 AND DWG. NO. BR-4I-67.
- 7. REMOVE PORTIONS OF EXISTING GUARDRAIL AND INSTALL NEW METAL GUARDRAIL ATTACHMENT AT BRIDGE ENDS AT ALL FOUR CORNERS OF THE EXISTING BRIDGE. FOR DETAILS, SEE SHEET 2A AND S-GR-SERIES. REPLACE TERMINAL ANCHORS AT SOUTH END.
- 8. RECONSTRUCT CONCRETE SLAB IN AREAS OF PARTIAL AND FULL DEPTH DECK REPAIRS WITHIN LIMITS DESIGNATED BY THE ENGINEER AS SHOWN IN DETAIL ON DWG. NO. BR-41-66. DECK REPAIR CONCRETE TO BE PLACED MONOLITHICALLY WITH NEW 41/2" CONCRETE OVERLAY.

- REPLACE GUSSET PLATES FOR BOTTOM LATERAL BRACING IN THE POSITIVE MOMENT REGIONS AS SHOWN IN THE DETAILS ON DWG. NO. BR-41-68.
- IO. REMOVE THE ABUTMENT ENDWALLS WITHIN THE LIMITS SHOWN AND RECONSTRUCT AS SHOWN IN THE DETAILS ON DWG. NO. BR-41-69.
- II. REMOVE AND RECONSTRUCT THE ABUTMENT WINGWALLS AS SHOWN IN DETAILS ON DWG. NO. BR-41-70. INSTALL FOUR TIE-BACKS AT ABUTMENT AS SHOWN IN DETAILS ON DWG. NO. BR-41-69.
- 12. MAINTAIN SUPPORT AND OPERATION OF EXISTING NAVIGATIONAL LIGHTING DURING CONSTRUCTION. REINSTALL PERMANENT SUPPORT MEMBERS AS SHOWN IN DETAILS ON DWG. NO. BR-41-68.
- 13. BLAST CLEAN AND PAINT ALL EXISTING STRUCTURAL STEEL AND BEARING DEVICES. SEE CLEANING AND PAINTING NOTE ON DWG. BR-41-65.
- 14. APPLY HIGH MOLECULAR WEIGHT METHACRYLATE (HMWM) CRACK SEAL IN LONGITUDINAL CONSTRUCTION JOINT. SEALER SHALL BE APPLIED AFTER ALL CONCRETE HAS BEEN IN PLACE A MINIMUM OF TEN DAYS.
- 15. PROVIDE CLASS A-I AND CLASS B RIP-RAP AT ABUTMENTS WITHIN LIMITS SHOWN ON THIS SHEET.
- 16. CONSTRUCT PAVEMENT AT BRIDGE ENDS. SEE STANDARD DWG. NO. STD-I-5.

| *************************************** |                               |      |              |               |  |  |  |  |  |  |  |  |  |
|-----------------------------------------|-------------------------------|------|--------------|---------------|--|--|--|--|--|--|--|--|--|
| PI                                      | ROJECT                        | NO.  | YEAR         | SHEET NO.     |  |  |  |  |  |  |  |  |  |
| 5.                                      | 3011-420                      | 9-04 | 1999         |               |  |  |  |  |  |  |  |  |  |
|                                         | REVISIONS                     |      |              |               |  |  |  |  |  |  |  |  |  |
| NO.                                     | NO. DATE BY BRIEF DESCRIPTION |      |              |               |  |  |  |  |  |  |  |  |  |
| 1                                       | 1-18-00                       | LWM  | Dates in Lis | T OF DRAWINGS |  |  |  |  |  |  |  |  |  |
|                                         |                               |      |              |               |  |  |  |  |  |  |  |  |  |
|                                         |                               |      |              |               |  |  |  |  |  |  |  |  |  |
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|                                         |                               |      |              |               |  |  |  |  |  |  |  |  |  |
|                                         |                               |      |              |               |  |  |  |  |  |  |  |  |  |

## LIST OF DRAWINGS

| DWG. NO. | LAST REV. DATE | DRAWING          |
|----------|----------------|------------------|
|          | 1-18-00        |                  |
|          | 1-18-00        | SUPERSTRUCTURE   |
| BR-4I-69 |                | ABUTMENT DETAILS |

## LIST OF STANDARD DRAWINGS

|   |             | LIST OF STANDARD | DIAMINOS                                                                |
|---|-------------|------------------|-------------------------------------------------------------------------|
|   | DWG. NO.    | LAST REV. DATE   | DRAWING                                                                 |
| * | STD-I-I     | 5-2I-99          | BRIDGE RAILING CONCRETE PARAPET                                         |
|   |             |                  | STEEL SLIDER PLATE ASSEMBLIES                                           |
|   |             |                  | FOR CONCRETE PARAPET AND                                                |
|   |             |                  | BRIDGE DECK DRAIN DETAILS                                               |
| * | ₹STD-I-5    | 9-6-99           | REINFORCED CONCRETE PAVEMENT                                            |
|   |             | 4 00 07          | AT BRIDGE ENDS                                                          |
|   | STD-I-6     | 4-28-97          | BRIDGE END DRAIN DETAILS 2'x8'-7" AND 4'x8'-7" WITH PAVEMENT            |
|   |             |                  | AT BRIDGE ENDS                                                          |
| * | : STD-I-7   | 5-21-99          | BRIDGE END DRAIN DETAILS 2'x8'-7"                                       |
| * | . 510 1 1   |                  | AND 4'x8'-7" WITH PAVEMENT                                              |
|   |             |                  | AT BRIDGE ENDS                                                          |
|   | STD-I-9     | 5-0I-95          | BRIDGE END DRAIN DETAILS 4'x8'-7"                                       |
|   |             |                  | WITH PAVEMENT AT BRIDGE ENDS                                            |
|   | STD-I0-I    | 5-I I-92         | MISCELLANEOUS ABUTMENT AND                                              |
|   |             |                  | DRAINAGE DETAILS                                                        |
|   | SBR-2-115   | I-04-96          | GENERAL NOTES AND DETAILS FOR                                           |
|   |             |                  | EXPANSION JOINT REPLACEMENT                                             |
|   | CDD 2-UC    | 1-04-96          | CONSTRUCTION TYPES "A" THROUGH "J" - 199 GENERAL DETAILS FOR STRIP SEAL |
|   | 3DR-2-110   |                  | EXPANSION JOINT REPLACEMENT                                             |
|   |             |                  | CONSTRUCTION DETAILS TYPES                                              |
|   |             |                  | "A" THROUGH "J" - 1991                                                  |
|   | SBR-2-117   | 5-30-96          | STRIP SEAL EXPANSION JOINTS                                             |
|   |             |                  | REPLACEMENT CONSTRUCTION DETAILS                                        |
| ı |             |                  | TYPE "A" AND TYPE "B" - 1991                                            |
|   | S-GR-SERIES | VARIES           | STANDARD GUARDRAIL DETAILS                                              |
|   |             |                  |                                                                         |

## \*LIST OF REFERENCE DRAWINGS

| DWG. NO.     |                    | DRAWING  |          |      |
|--------------|--------------------|----------|----------|------|
| K-7-IOI THRU | K-7-I07, K-I I-I39 | EXISTING | BRIDGE P | LANS |

#### LIST OF SPECIAL PROVISIONS

| NO.   | LAST | REV. | DATE | REGARDI     | NG_     |         |        |
|-------|------|------|------|-------------|---------|---------|--------|
| 105A  |      | * *  |      | <br>APPROV  | AL OF S | HOP DR  | AWINGS |
| 602   |      | * *  |      | <br>STEEL S | STRUCTL | IRES    |        |
| 6045  |      | * *  |      | <br>STRIP S | EAL EXP | PANSION | JOINTS |
| 604CR |      | * *  |      | <br>REPAIR  | OF BRID | GE DECK | CRACKS |

\*DENOTES: THESE DRAWINGS ARE TO BE PRINTED WITH PLANS. \* \* DENOTES: CURRENT REVISION DATE, AS PER CONTRACT DOCUMENTS.

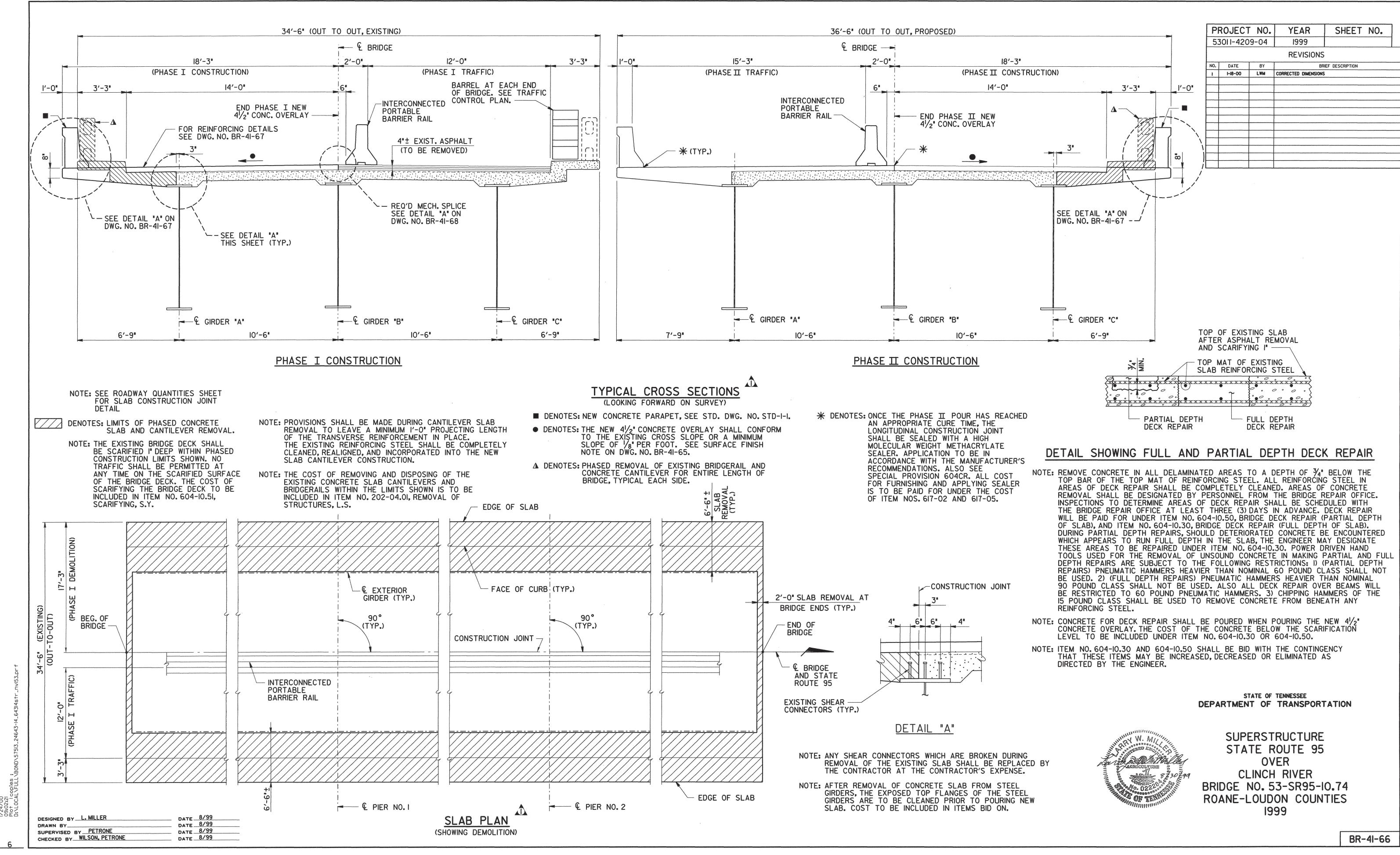
STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION



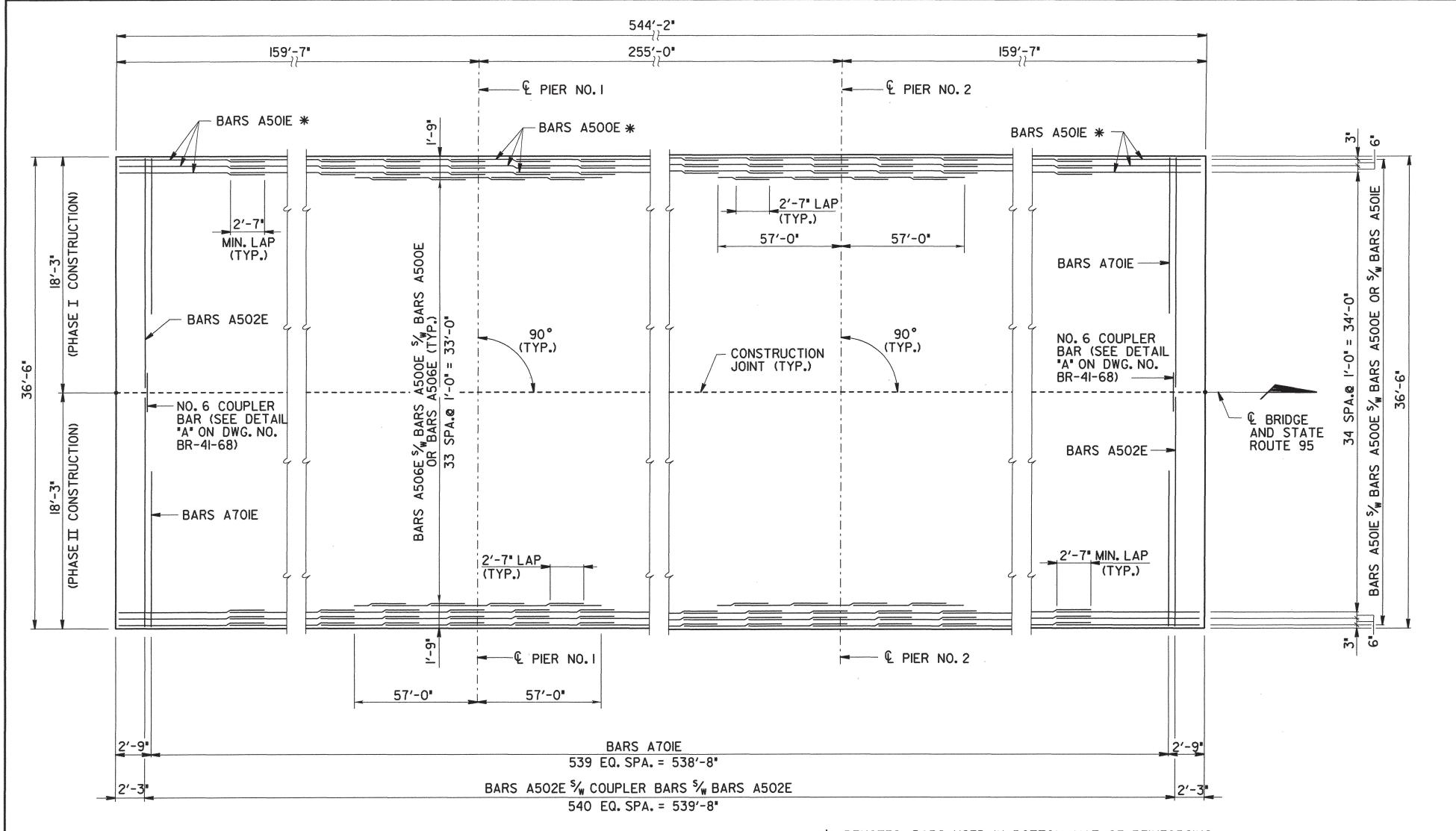
LAYOUT OF BRIDGE STATE ROUTE 95 OVER CLINCH RIVER BRIDGE NO. 53-SR95-I0.74 ROANE-LOUDON COUNTIES

DATE 8/99 DESIGNED BY L. MILLER DATE 8/99 DRAWN BY. SUPERVISED BY PETRONE DATE 8/99 CHECKED BY WILSON, PETRONE DATE 8/99

BR-4I-64



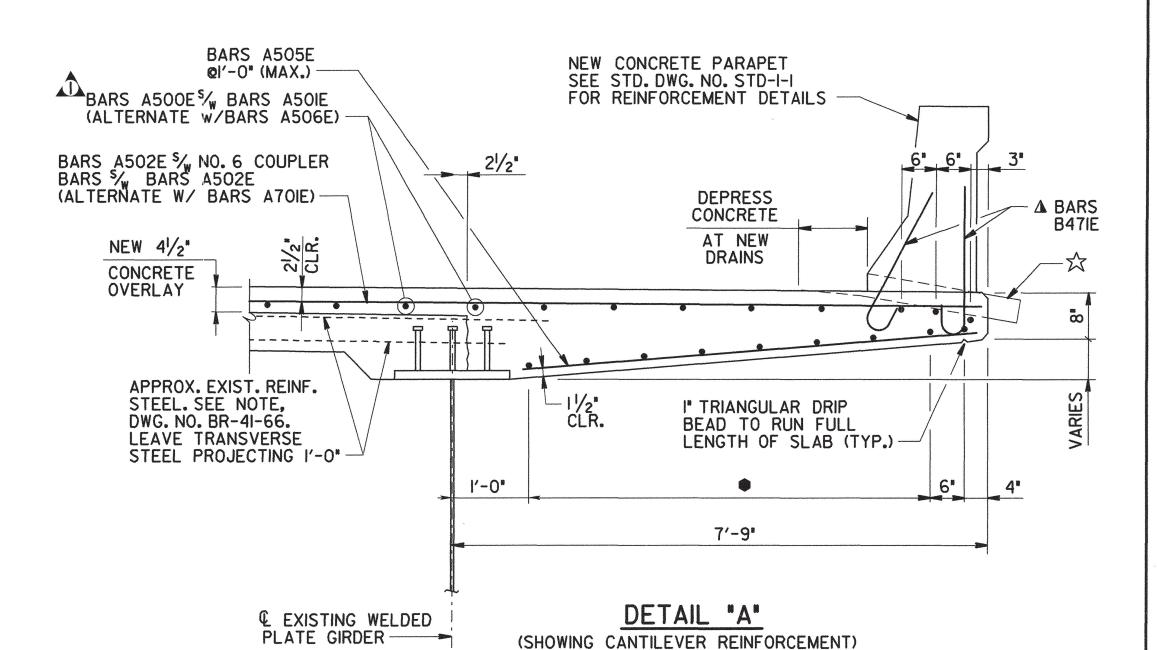
B.0.\_\_



BILL OF STEEL BAR | SIZE | NO. REQ'D. | LENGTH A500E 30'-0" 5 A50IE 114 26'-6" 1082 A502E 17'-11" A505E 5 1082 6'-8" A506E 136 17'-2" 1080 12'-0" A70IE 2172 2'-10" B47IE 4 1082 COUPLER 6 3'-0"

NOTE: ALL REINFORCING STEEL SHALL BE EPOXY COATED. THE COST OF EPOXY COATED REINFORCING STEEL TO BE INCLUDED IN ITEM NO. 604-10.18, REINFORCING STEEL (REPAIRS), LBS.

PROJECT NO. YEAR SHEET NO. 53011-4209-04 1999 **REVISIONS** DATE BY BRIEF DESCRIPTION LWM CORRECTED NEG. MOMENT REINF.



LENGTH

BARS A

2'-4"

BARS B47IE

- DENOTES: BARS A50IE 5/W BARS A500E 5/W BARS A50IE, 7 EQ. SPA.
- △ DENOTES: WHEN POURING CANTILEVERS, PROVISIONS SHALL BE MADE FOR SETTING REINFORCING STEEL FOR PARAPET. THE PARAPET SHALL NOT BE POURED UNTIL THE CANTILEVERS ARE POURED AND CURED. SEE STD. DWG. NO. STD-I-I.

☆ DENOTES: NEW PARAPET DRAIN. SEE STD. DWG. NO. STD-I-2. FOR LOCATIONS SEE DWG. NO. BR-41-64.

NOTE: NEW CONCRETE SLAB CANTILEVERS SHALL BE POURED CONCURRENTLY WITH NEW 41/2" CONCRETE OVERLAY AND INCLUDED IN THE QUANTITY FOR ITEM NO. 604-03.35, CLASS "L" CONCRETE (BRIDGE DECK), C.Y.



## ESTIMATED QUANTITIES

| CLASS "L" | REINFORCING |
|-----------|-------------|
| CONCRETE  | STEEL       |
| C.Y.      | LBS.        |
| 460       | 107,296     |

STATE OF TENNESSEE

SUPERSTRUCTURE DETAILS

STATE ROUTE 95 OVER CLINCH RIVER BRIDGE NO. 53-SR95-I0.74 ROANE-LOUDON COUNTIES 1999

(SHOWING REINFORCEMENT)

\* DENOTES: BARS USED IN BOTTOM MAT OF REINFORCING STEEL AT CANTILEVERS. SEE DETAIL "A", THIS

SHEET.

BRIDGE SCREED

| STATION             | 56+86.42 | 56+98.42 | 57+10.42 | 57+12.50 | 57+28.25 | 57+44.00 | 57+59.75 | 57+75.50 | 57+91.25 | 58+07.00 | 58+22.75 | 58+38.50 | 58+54.25 | 58+70.00 | 58+92.50 | 59+15.00 | 59+37.50 | 59+60.00 | 59+82.50 | 60+05.00 |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| EDGES OF SLAB       | 100.41   | 100.11   | 99.81    | 99.76    | 99.36    | 98.97    | 98.58    | 98.18    | 97.79    | 97.40    | 97.00    | 96.61    | 96.21    | 95.82    | 95.26    | 94.70    | 94.13    | 93.57    | 93.01    | 92.45    |
| & GIRDERS "A" & "C" | 100.49   | 100.19   | 99.89    | 99.84    | 99.44    | 99.05    | 98.66    | 98.26    | 97.87    | 97.48    | 97.08    | 96.69    | 96.30    | 95.90    | 95.34    | 94.78    | 94.21    | 93.65    | 93.09    | 92.53    |
| & GIRDER "B"        | 100.60   | 100.30   | 100.00   | 99.95    | 99.55    | 99.16    | 98.77    | 98.37    | 97.98    | 97.59    | 97.19    | 96.80    | 96.40    | 96.01    | 95.45    | 94.89    | 94.32    | 93.76    | 93.20    | 92.64    |
| STATION             | 60+27.50 | 60+50.00 | 60+72.50 | 60+95.00 | 61+10.75 | 61+26.50 | 61+42.25 | 61+58.00 | 61+73.75 | 61+89.50 | 62+05.25 | 62+21.00 | 62+36.75 | 62+52.50 | 62+54.58 | 62+66.58 | 62+78.58 |          |          |          |
| EDGES OF SLAB       | 91.88    | 91.32    | 90.76    | 90.20    | 89.80    | 89.41    | 89.01    | 88.62    | 88.23    | 87.83    | 87.44    | 87.05    | 86.65    | 86.26    | 86.21    | 85.91    | 85.61    |          |          |          |
| & GIRDERS "A" & "C" | 91.96    | 91.40    | 90.84    | 90.28    | 89.88    | 89.49    | 89.10    | 88.70    | 88.31    | 87.91    | 87.52    | 87.13    | 86.73    | 86.34    | 86.29    | 85.99    | 85.69    |          |          |          |
| & GIRDER "B"        | 92.07    | 91.51    | 90.95    | 90.39    | 89.99    | 89.60    | 89.20    | 88.81    | 88.42    | 88.02    | 87.63    | 87.24    | 86.84    | 86.45    | 86.40    | 86.10    | 85.80    |          |          |          |

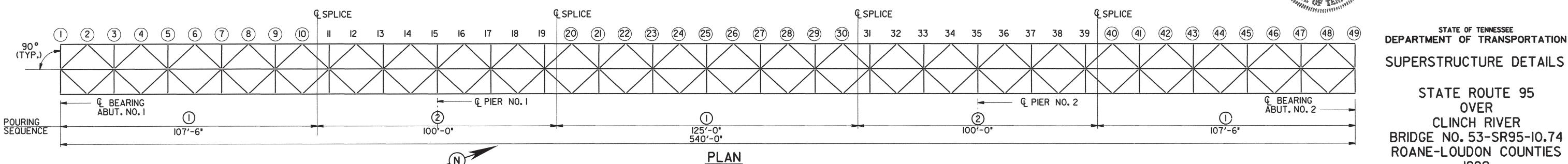
NOTE: SCREED ELEVATIONS ARE BASED ON AN ASSUMED ELEVATION OF 100.00 AT STA. 57+10.42 AT CENTERLINE OF GIRDER "B". CONTRACTOR SHALL VERIFY THAT THE EXISTING LONGITUDINAL SLOPE IS -2.50%. NOTIFY THE

ENGINEER IF SLOPE DEVIATES FROM THIS VALUE.

DATE 8/99 DATE 8/99

DATE 8/99

DATE 8/99



(LOCATION OF GUSSET REPLACEMENTS) NOTE: ANY PANEL LOCATION NUMBER CIRCLED INDICATES AREA OF GUSSET PLATE REPAIR. TWO (2) PLATES REQUIRED PER LOCATION.

DECK CONCRETE POURING SEQUENCE: ALL POURS SHALL BE MADE IN NUMERICAL SEQUENCE.

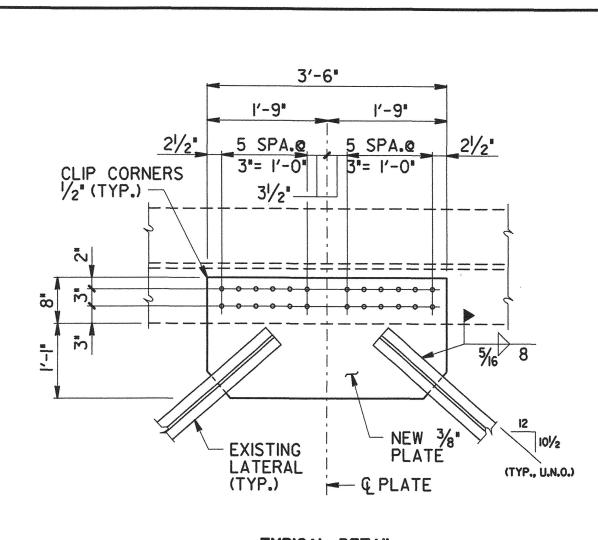
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DESIGNED BY L. MILLER

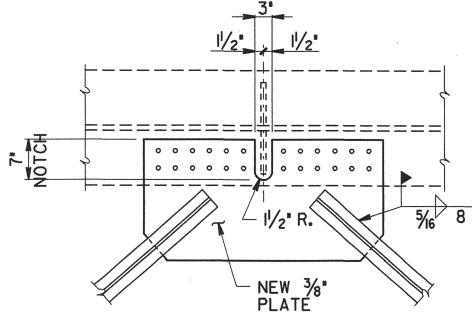
SUPERVISED BY PETRONE

CHECKED BY WILSON, PETRONE

DRAWN BY\_\_\_\_



## TYPICAL DETAIL THIRTY TWO (32) PLATES REQUIRED



NOTE: FOR ADDITIONAL INFORMATION, SEE TYPICAL DETAIL, THIS SHEET.

DETAIL @ CROSS FRAMES
TWENTY SIX (26) PLATES REQUIRED



NOTE: ALL GUSSET PLATES SHALL BE A36 STEEL.

NOTE: BEFORE FABRICATION, ALL DIMENSIONS FOR STEEL GUSSET PLATES SHALL BE FIELD VERIFIED.

NOTE: FOR GUSSET PLATE LOCATION, SEE FRAMING PLAN ON DRAWING NO. BR-41-67.

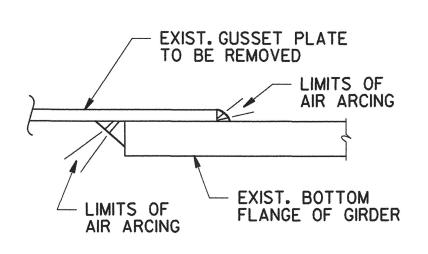
NOTE: GUSSET PLATE REMOVAL AND REPLACEMENT PROCEDURE SHALL BE ALTERNATED. THERE SHALL NOT BE ANY TWO SIDE BY SIDE GUSSET PLATES REMOVED AT THE SAME TIME.

NOTE: COST OF CUTTING, WELDING, DRILLING, GRINDING ETC. AND ANY MISCELLANEOUS MATERIALS OR INCIDENTALS NECESSARY TO COMPLETE THE WORK AS SHOWN SHALL BE INCLUDED IN ITEM NO 602-10.39

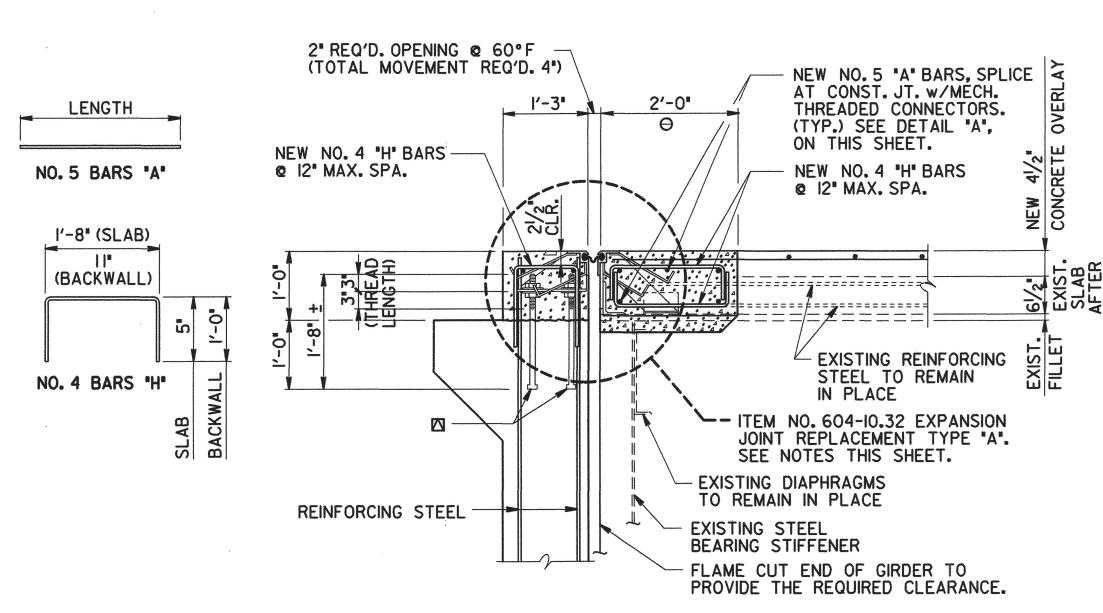
NOTE: CARE SHALL BE TAKEN DURING AIR ARCING SO AS NOT TO GOUGE INTO THE BOTTOM FLANGE OF THE GIRDER (SEE DETAIL "A"). IF THE CONTRACTOR CUTS INTO THE FLANGE WITH THE AIR ARC, A REPAIR PROCEDURE SHALL BE SUBMITTED TO THE ENGINEER. A UT OR RADIOGRAPHIC TESTING OF THE REPAIR AREA MAY BE REQUIRED.

NOTE: ONCE THE GUSSET PLATE HAS BEEN REMOVED THE REMAINDER OF THE WELD IS TO BE GROUND FLUSH WITH THE FLANGE.

NOTE: CONTRACTOR IS TO SUPPORT CROSS FRAME MEMBERS PRIOR TO REMOVING THE EXISTING GUSSET PLATES.



DETAIL "A"
(SHOWING LIMITS OF AIR ARCING)



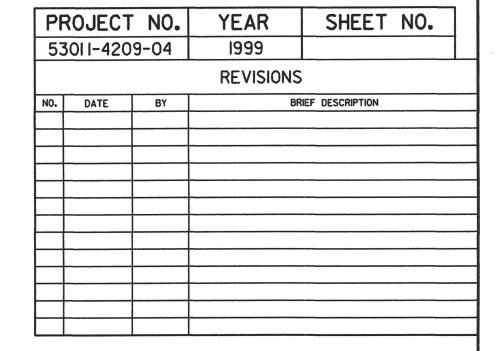
## TYPICAL SECTION AT ABUTMENTS "A" AND "B"

O DENOTES: LIMITS OF EXISTING CONCRETE REMOVAL AND RECONSTRUCTION.

☑ DENOTES: TWO (2) 1/8" DIA. BOLTS WITH 2 HEX NUTS AND 2- 31/2"×31/2"×1/4" SQUARE WASHERS PER BOLT, LOCATED OPPOSITE BRIDGE SLAB LEVELING ASSEMBLIES. FOR ADDITIONAL DETAILS, SEE STD. DWG. NO. SBR-2-116.

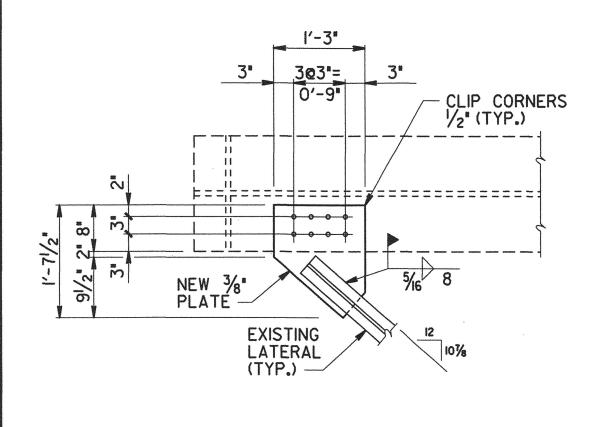
NOTE: COST OF FLAME CUTTING THE END OF THE GIRDERS TO BE INCLUDED IN ITEM NO. 604-10.32

NOTE: AFTER CONCRETE HAS REACHED AN APPROPRIATE CURE TIME, THE PERIMETER OF THE CONCRETE JOINT HEADER AND THE CONSTRUCTION JOINT SHALL BE SEALED WITH A HIGH MOLECULAR WEIGHT METHACRYLATE SEALER. APPLICATION TO BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. ALSO SEE SPECIAL PROVISION 604CR. ALL COST FOR FURNISHING AND APPLYING SEALER IS TO BE PAID FOR UNDER THE COST OF ITEM NOS. 617-02 AND 617-05.



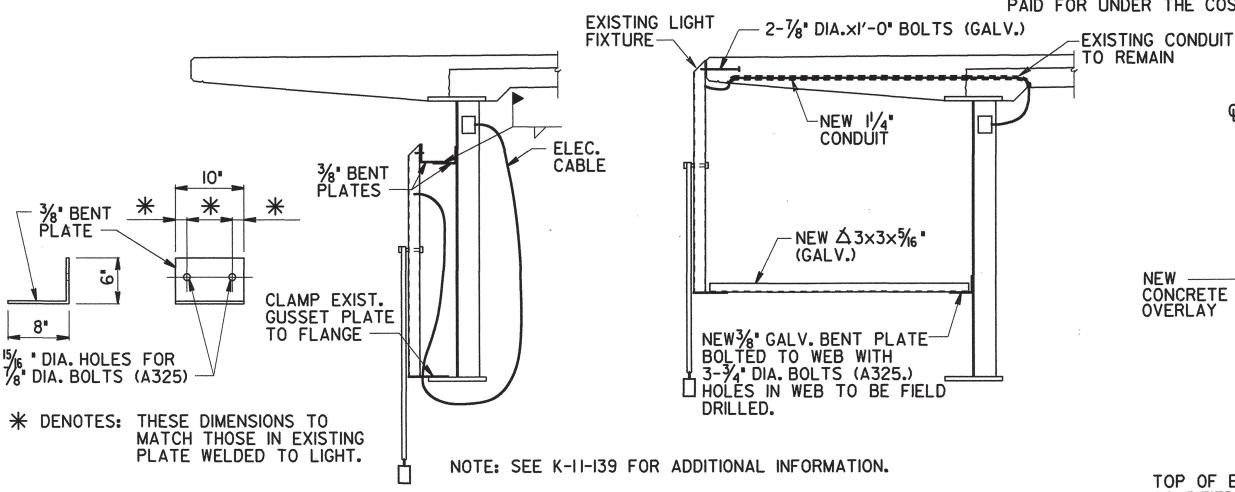
## NOTES:

- EXPANSION JOINT REPLACEMENT DETAILS SHOWN THIS SHEET ARE FOR GENERAL INFORMATION ONLY. FOR COMPLETE DETAILS AND NOTES, SEE STD. DWG. NOS. SBR-2-II5, SBR-2-II6, SBR-2-II7. ALSO SEE SPECIAL PROVISION 604S.
- 2. EXPANSION JOINT REPLACEMENT SHALL BE CONSTRUCTED IN PHASES AS SHOWN ON DWG. NO. BR-4I-66. THE STEEL PORTIONS OF THE EXPANSION DEVICE SHALL BE FABRICATED IN SECTIONS IN ORDER TO MAINTAIN ONE (I) TRAFFIC LANE AT ALL TIMES. THE SECTIONS ARE TO BE CONNECTED WITH A FULL PENETRATION BUTT WELD. THE ELASTOMERIC SEAL SHALL BE ONE PIECE FOR FULL LENGTH OF EXPANSION JOINT INCLUDING CURB FACE PROJECTIONS.
- 3. EXPANSION JOINT OPENING SHALL BE SET ACCORDING TO TEMPERATURE CHART SHOWN ON APPROVED EXPANSION JOINT SHOP DRAWINGS.
- 4. PROVISIONS SHALL BE MADE BY THE CONTRACTOR TO ENSURE THAT THE VERTICAL ALIGNMENT OF THE NEW STEEL EXTRUSION AND CONCRETE HEADER SURFACES CONFORM TO THE EXISTING ROADWAY PROFILE.
- 5. PROVISIONS SHALL BE MADE DURING SLAB REMOVAL TO PROTECT THE EXISTING LONGITUDINAL REINFORCING STEEL FROM DAMAGE. THIS STEEL SHALL BE COMPLETELY CLEANED, REALIGNED, AND INCORPORATED INTO THE NEW CONSTRUCTION.
- 6. THE COST OF REMOVING PORTIONS OF THE EXISTING SLAB AND SIDEWALK WITHIN THE LIMITS SHOWN, SAW CUTTING, COMPLETELY CLEANING EXISTING REINFORCING STEEL, CLASS "L" CONCRETE, EPOXY COATED REINFORCING STEEL, FORMING AND ALL MISCELLANEOUS MATERIAL NECESSARY FOR CONSTRUCTING THE NEW SECTIONS AS SHOWN SHALL BE INCLUDED IN PRICE BID FOR ITEM NO. 604-10.32.
- 7. ALL EXPANSION JOINT DEVICES SHALL BE EXTENDED UPWARD TO A MINIMUM HEIGHT OF 9" AT INTERSECTION WITH CONCRETE PARAPETS. SEE STD. DWG. NO. BR-2-II6 FOR ADDITIONAL DETAILS.



FOUR (4) PLATES REQUIRED

GUSSET PLATE REPLACEMENT DETAILS



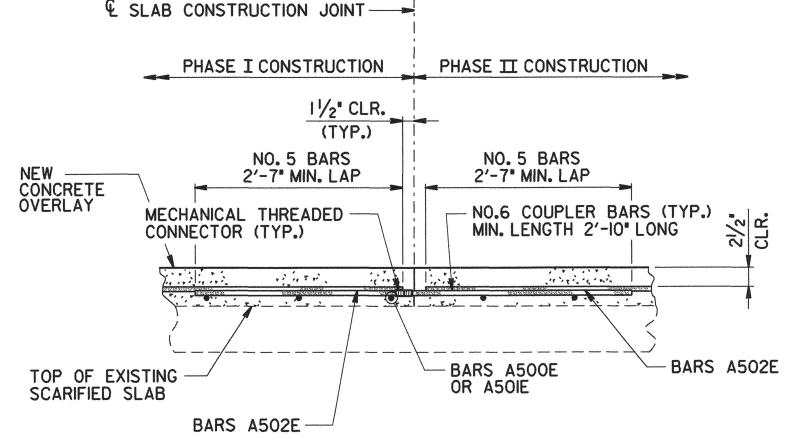
TEMPORARY LOCATION

FINAL LOCATION

## LOCATIONS FOR NAVIGATION LIGHTS

NOTE: THE COST OF RELOCATING NAVIGATION LIGHTS SHALL BE INCLUDED IN THE PRICE BID FOR ITEM NO. 602-10.14.

NOTE: NAVIGATION LIGHTING SHALL BE OPERATIONAL DURING ALL NIGHT-TIME HOURS THROUGHOUT THIS PROJECT. ALL WORK TO RELOCATE THE LIGHTS SHALL BE DONE DURING DAYLIGHT HOURS AND SHALL BE COMPLETED WITH LIGHTS MADE OPERATIONAL BEFORE NIGHTFALL.



DETAIL "A"

NOTE: THE COST OF MECHANICAL THREADED CONNECTORS WITH COUPLER BARS WITHIN THE AREA OF NEW CONCRETE HEADER SHALL BE INCLUDED UNDER ITEM NO 604-I0.32 EXPANSION JOINT REPAIR, L.F. INSTALLATION MUST MEET WITH THE FULL APPROVAL OF THE ENGINEER.

NOTE: COST OF MECHANICAL THREADED CONNECTORS WITH COUPLER BARS WITHIN THE CONCRETE LIFT AND ABUTMENT ENDWALLS SHALL BE PAID FOR IN ITEM NO. 604-IO.I8 REINFORCING STEEL (REPAIRS), LBS.



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE DETAILS

OVER
CLINCH RIVER
BRIDGE NO. 53-SR95-IO.74
ROANE-LOUDON COUNTIES
1999

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DESIGNED BY L. MILLER

DATE 8/99

DRAWN BY DATE 8/99

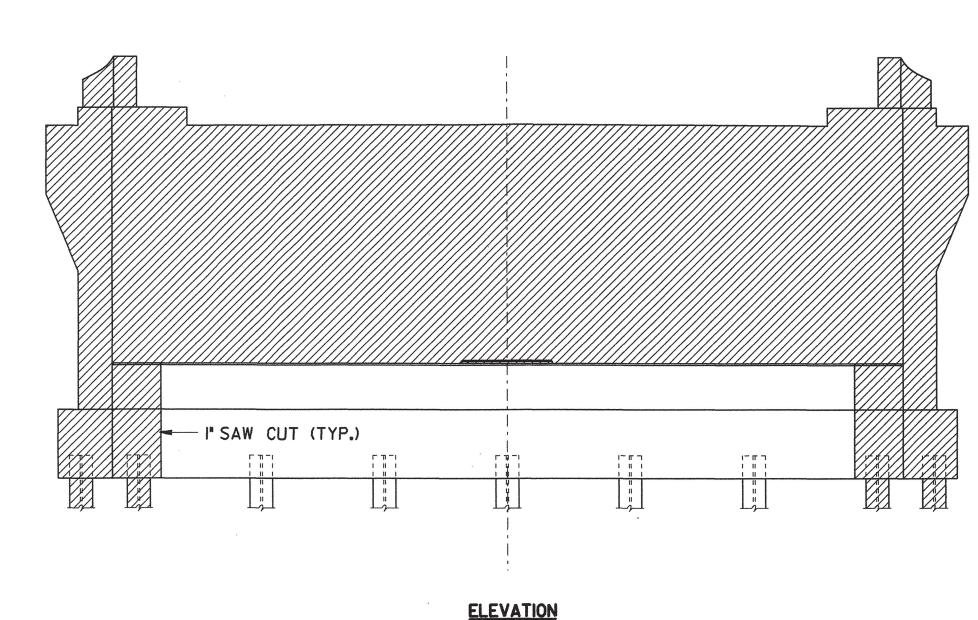
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CHECKED BY WILSON, PETRONE

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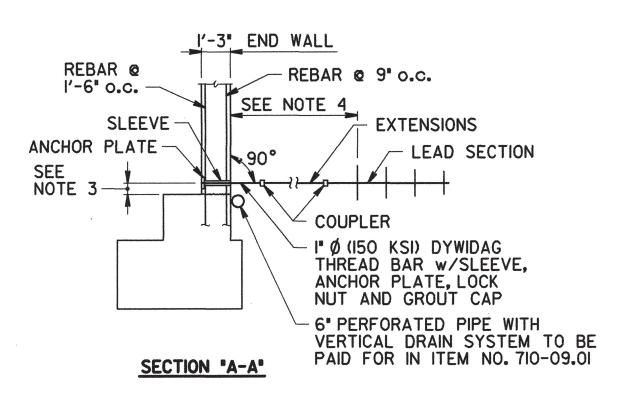


DENOTES: PORTION OF EXISTING ABUTMENT TO BE REMOVED.

\* DENOTES: HORIZONTAL REINFORCING PROJECTING FROM THE ABUTMENT BEAM SHALL BE PRESERVED, CLEANED, STRAIGHTENED AND INCORPORATED INTO THE NEW

## ABUTMENT DEMOLITION

DATE 8/99 DESIGNED BY L. MILLER DATE 8/99 DRAWN BY\_\_\_\_ SUPERVISED BY PETRONE DATE 8/99 CHECKED BY WILSON, PETRONE DATE 8/99



## NOTES FOR ABUTMENT REPAIRS:

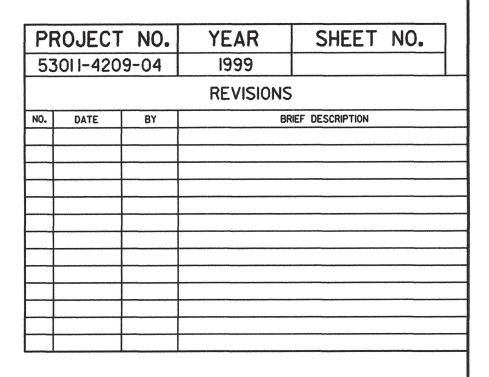
COST OF BRIDGE RAIL AND POST IS TO BE INCLUDED IN THE COST OF BRIDGE RAIL SYSTEM.

SEE STANDARD DRAWING NO. STD-10-1 FOR BACKFILL AND DRAINAGE DETAILS.

DURING WORK AT ABUTMENTS, ELECTRICAL SERVICE TO NAVIGATION LIGHTS SHALL BE MAINTAINED. CONDUIT. WIRING AND JUNCTION BOXES SHALL BE REINSTALLED AFTER CONCRETE WORK IS COMPLETED.

THE COST OF REMOVING PORTIONS OF THE EXISTING CONCRETE WITHIN THE LIMITS SHOWN, SAW CUTTING, COMPLETELY CLEANING EXISTING REINFORCING STEEL. CLASS "A" CONCRETE, LABOR AND ALL MISCELLANEOUS MATERIAL NECESSARY TO COMPLETE THE REPAIRS AS SHOWN SHALL BE INCLUDED IN THE PRICE BID FOR ITEM NO. 604-03.01, CLASS "A" CONCRETE, C.Y.

AT LEAST THE TOP 12" OF THE BACKWALL SHALL BE POURED CONCURRENTLY WITH THE EXPANSION JOINT CLOSURE POUR.

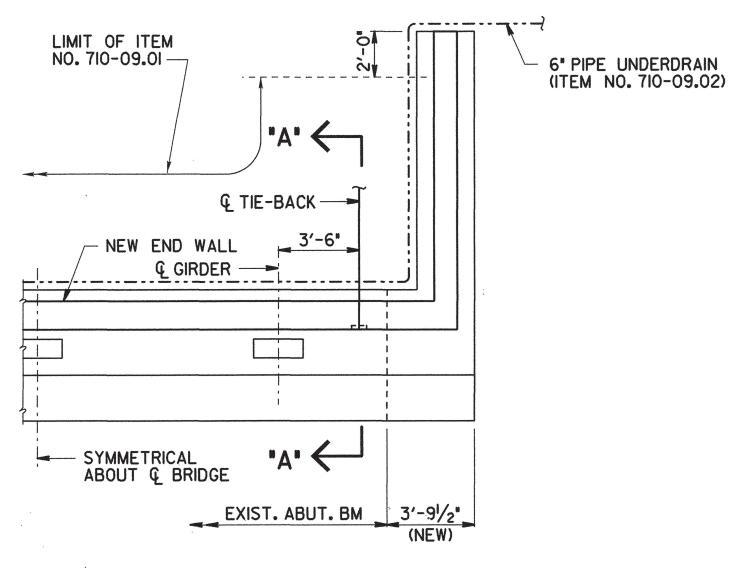


- NEW PAVEMENT AT

BARS F640E@I2"

BRIDGE ENDS, SEE STD.

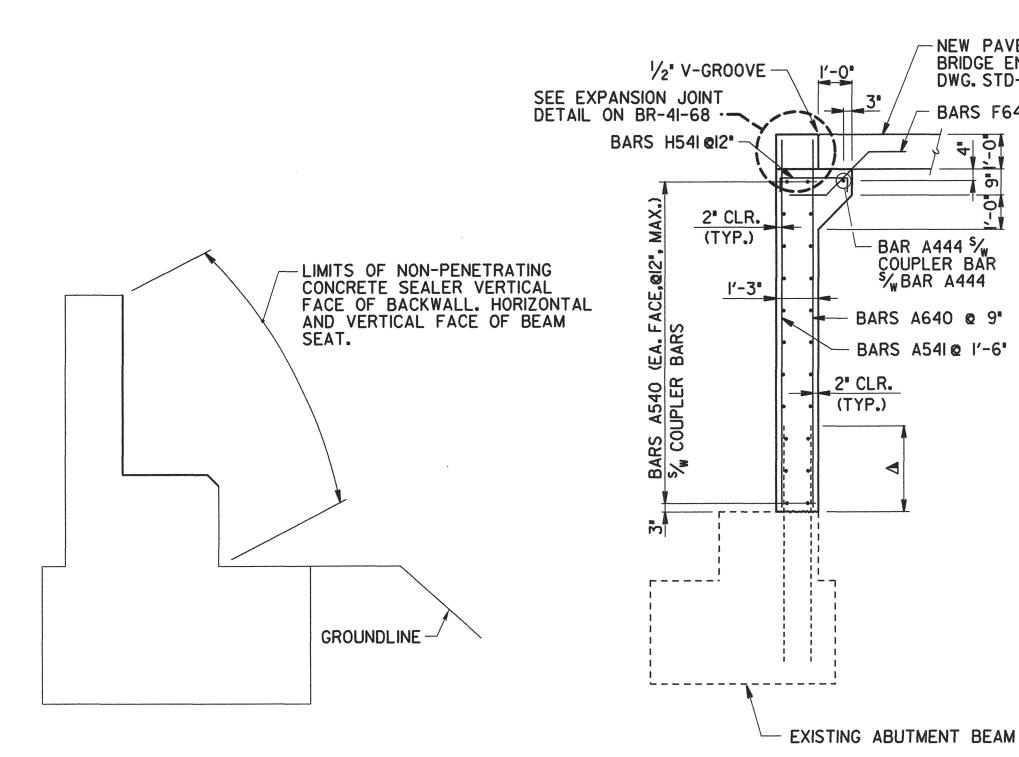
DWG. STD-I-5. (TYP.)



## TIE-BACK DETAILS

## NOTES FOR TIE-BACK INSTALLATION:

- I. THE TIE-BACK SYSTEM SHOWN HERE IS BASED ON PRODUCTS AS MANUFACTURED BY THE A.B. CHANCE COMPANY, CENTRALIA, MO. (573-682-8414). INSTALLATION SHALL CONFORM TO MANUFACTURER'S SPECIFICATIONS. ALTERNATES MAY BE SUBMITTED FOR REVIEW.
- 2. FINAL TENSION FORCE IN TIE-BACK AT LOCK-OFF SHALL BE 13 KIPS.
- 3. THIS DIMENSION SHALL BE THE MINIMUM NECESSARY TO PERMIT TENSIONING THE TIE-BACK.
- 4. MINIMUM DISTANCE FROM FACE OF CONCRETE TO FIRST HELIX SHALL BE 15'-0". LEAD SECTION SHALL BE AN SSI50 WITH 8", 10", 12" AND 14" HELIXES (CATALOG NO. CI14-0100). MINIMUM INSTALLATION TORQUE SHALL BE 2800 FOOT/POUNDS. IF THE MINIMUM EMBEDMENT IS REACHED WITHOUT ACHIEVING THE MINIMUM TORQUE, NOTIFY THE ENGINEER.
- 5. AFTER TIE-BACK IS STRESSED AND LOCKED OFF, COAT NUT, ANCHOR PLATE AND END OF BAR WITH EPOXY PAINT (SCOTCHKOTE 202 OR 213, BY 3M OR APPROVED EQUAL). INSTALL GROUT CAP AND FILL SLEEVE AND CAP WITH NON-SHRINK GROUT (SIKAGROUT 212 OR APPROVED EQUAL).
- 6. ANCHORS SHALL BE PERFORMANCE TESTED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS BEFORE END WALL IS CONSTRUCTED. AFTER APPROVAL OF TEST RESULTS, CONSTRUCT END WALL, STRESS TIE-BACK TO 13 KIPS AND LOCK OFF BEFORE PLACING BACKFILL.
- 7. COST OF INSTALLING TIE-BACKS, INCLUDING ALL LABOR, EQUIPMENT, AND MATERIALS FOR INSTALLING, TESTING AND GROUTING, SHALL BE INCLUDED IN THE PRICE BID ITEM NO. 604-10.90, MISCELLANEOUS BRIDGE ITEMS, L.S.



△ DENOTES: WHEN DEMOLISHING EXISTING BACKWALL, CONTRACTOR SHALL PRESERVE A MINIMUM OF 2'-6" OF THE EXISTING VERTICAL REINFORCING. THESE BARS SHALL BE CLEANED, STRAIGHTENED AND INCORPORATED INTO THE NEW WORK.

## SECTION AT ENDWALL

## CONCRETE SEAL DETAIL (TYPICAL AT ABUTMENTS "A" AND "B")

NOTE: BEFORE APPLYING ANY CONCRETE SEALER, ALL SURFACES TO BE SEALED SHALL BE COMPLETELY CLEANED OF ALL DEBRIS AND FOREIGN MATERIALS. THE SURFACE CONDITIONS OF THE CONCRETE TO BE SEALED SHALL MEET THE REQUIREMENTS OF THE SEALANT MANUFACTURER. THE THICKNESS OF THE CONCRETE SEAL SHALL BE AS RECOMMENDED BY THE SEALANT MANUFACTURER. ALL WORK MUST MEET WITH THE FULL SATISFACTION OF THE ENGINEER.

NOTE: NON-PENETRATING SEALANT SHALL BE APPLIED TO CONCRETE SURFACES AFTER ALL REPAIR WORK TO ABUTMENT WALL HAS BEEN ACCOMPLISHED.

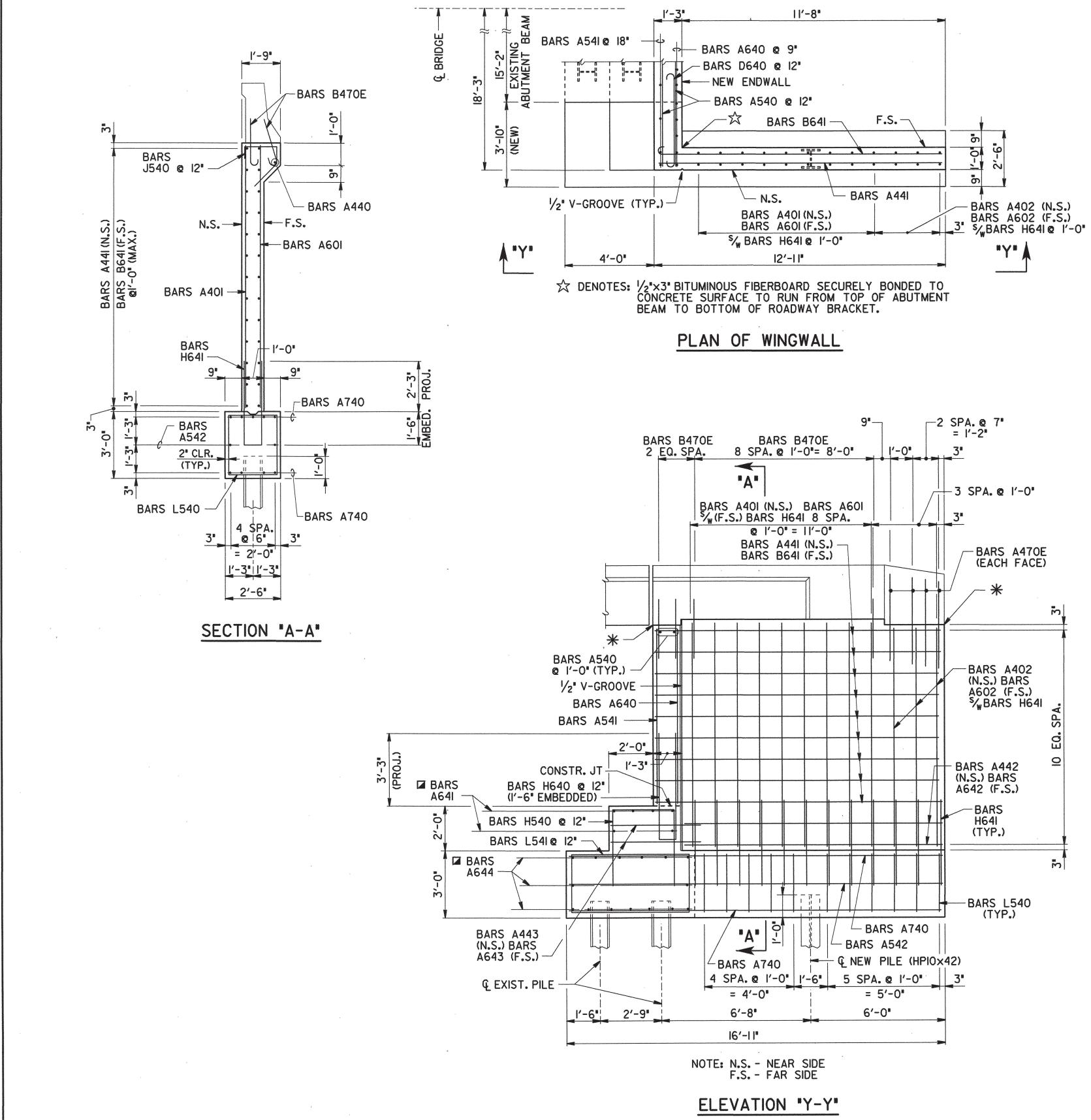
NOTE: THE ACCEPTABLE BRANDS OF CONCRETE SEALER SHALL BE APPROVED BY THE TENNESSEE DEPARTMENT OF TRANSPORTATION, DIVISION OF MATERIALS AND TEST. THE COLOR OF THE SEALER SHALL BE CLEAR OR SIMILAR TO THE COLOR OF THE EXISTING CONCRETE SURFACES TO BE SEALED.

NOTE: THE COST OF THE CONCRETE SEALER, COMPLETE AND IN PLACE, SHALL BE PAID FOR UNDER ITEM NO. 604-10.17, NON-PENETRATING CONCRETE SEAL, S.Y.

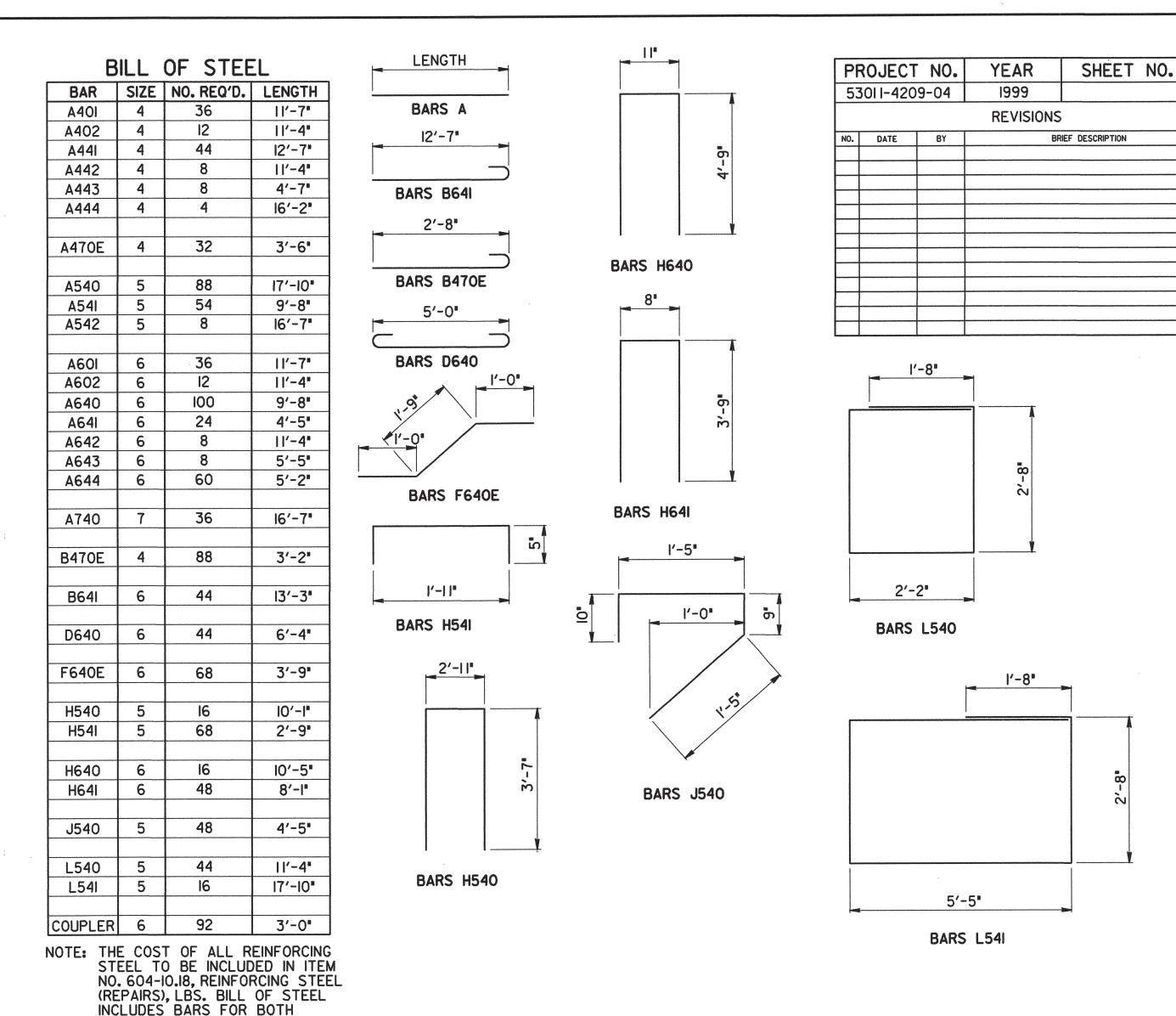
STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION

ABUTMENTS NO. 1 & 2 STATE ROUTE 95 **OVER** CLINCH RIVER BRIDGE NO. 53-SR95-IO.74 ROANE-LOUDON COUNTIES

BR-41-69



★ DENOTES: TOP OF WINGWALL TO MATCH GRADE OF SHOULDER.
DENOTES: THESE BARS SHALL BE DRILLED AND GROUTED INTO THE EXISTING ABUTMENT BEAM. MINIMUM EMBEDMENT SHALL BE I'-6". THE COST OF DRILLING AND GROUTING TO BE INCLUDED IN ITEM 604-10.18.



## NOTES FOR ABUTMENT REPAIRS:

ABUTMENTS.

NOTE: ALL BAR MARKS ENDING WITH

"E" DENOTE EPOXY COATING.

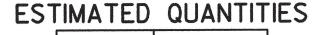
WHEN POURING WINGWALLS, PROVISIONS SHALL BE MADE FOR SETTING REINFORCING STEEL FOR WINGPOSTS AND PARAPETS. FOR DETAILS OF WINGPOST AND PARAPET SEE STANDARD DRAWING NO. STD-I-I.

WING BEAM PILES (MAXIMUM LENGTH OF 20 FEET) SHALL BE DRIVEN TO THE PLANS TIP ELEVATION OR REFUSAL. SEISMIC ATTACHMENT IS NOT REQUIRED FOR WINGBEAM PILES.

COST FOR DRIVING NEW WINGBEAM PILES SHALL BE PAID FOR UNDER ITEM NO. 606-02.03.

## PILE ELEVATIONS

|          |       | TIP    | CUTOFF |
|----------|-------|--------|--------|
| ABUTMENT | NO. I | 768.90 | 789.90 |
| ABUTMENT | NO. 2 | 755.18 | 776.18 |



| CLASS "A"<br>CONCRETE<br>C.Y. | REINFORCING<br>STEEL<br>LBS. |
|-------------------------------|------------------------------|
| 87                            | 11, 941                      |
|                               |                              |

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION



ABUTMENT DETAILS
STATE ROUTE 95
OVER
CLINCH RIVER
BRIDGE NO. 53-SR95-IO.74
ROANE-LOUDON COUNTIES
1999

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DESIGNED BY L. MILLER

SUPERVISED BY PETRONE

CHECKED BY WILSON, PETRONE

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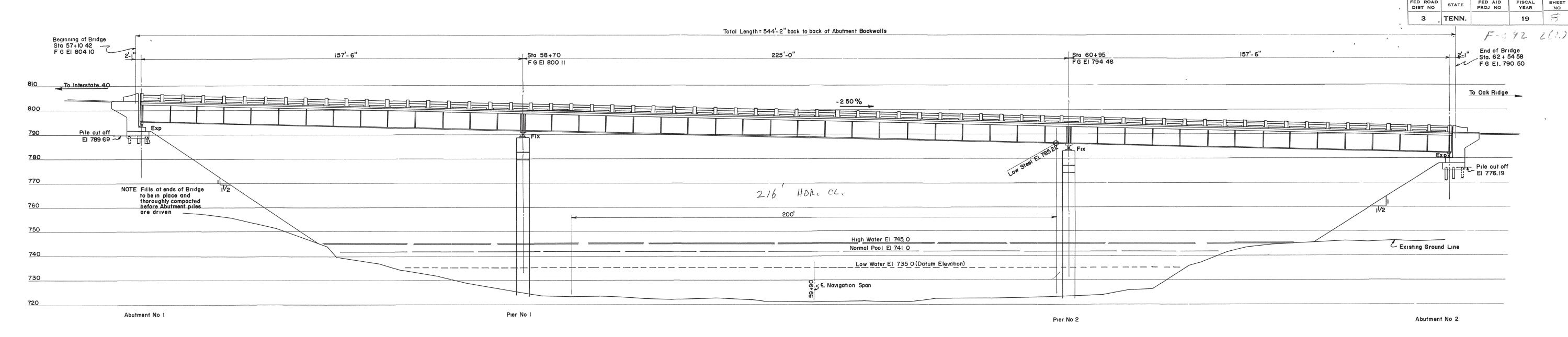
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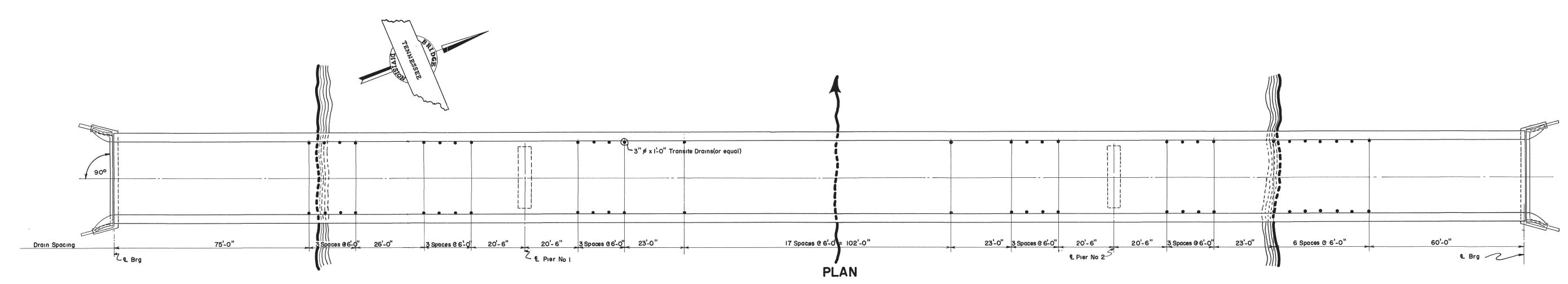
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BR-4I-70

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## **ELEVATION LOOKING WEST**



## GENERAL NOTES

SPECIFICATIONS. Standard Road & Bridge Specifications of the Tennessee Department of Highways. LOADING. H20-S-16-44

CONCRETE: To be Class "A".

REINFORCING STEEL: To be intermediate or hard grade. See Specifications. Standard Hook details as recommended by CR.S.I. shall apply.

STRUCTURAL STEEL: See Notes on Dwg No K-7-103.

WELDED STEEL STRUCTURES. See Special Provisions regarding Welded Girder Structures. RADIOGRAPHIC INSPECTION: See Notes on Dwg. K-7-103.

FORMS & FINISH: See Specifications.

HIGH TENSILE BOLTS See Field Connection Notes on Dwg. No K-7-103.

STUD WELDING: See Special Provisions.

ROCK FOUNDATIONS: See Specifications.

PILES. To be 10" @ 42 #. PAINT Basic Lead Silico Chromate. See Special Provisions regarding Section 132 Steel Structures (Painting).

## ROCK SOUNDING NOTE

For Rock Sounding Sketch see Dwg. No. K-7-IQ7.

## HANDRAIL NOTE

Build Handrail according to Standard Drawing H-5-110 except use End Post as shown on Dwg. K-7-105 with 64 spaces @ L = 6-111/4½, Q= 541-0" Dimensions shown are the same for both sides of the Bridge.

## FOUNDATION NOTE

When foundations for Piers have been uncovered holes 6'deep shall be drilled into the rock at points designated by the Engineer.

#### PILE NOTE

All piles shall be driven to rock or a minimum bearing of 36 Tons

#### ESTIMATED QUANTITIES

| Excavation |     |         | Class 'A' Steel - Lbs. |                                                                     |                                                                                                                                                                                                                                                  | Rock                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Seal Concrete<br>Class"A" Conc.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|------------|-----|---------|------------------------|---------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Dry        | Wet | Rock    |                        | Reinforcing                                                         | Structural                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                             | Lin.Ft                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | +10% Cement                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|            |     |         | 526 2                  | 161,923                                                             |                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|            |     |         | 60.0                   | 4778                                                                |                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|            |     | 45.0    | 202 6                  | 29,665                                                              |                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|            |     | 450     | 192 4                  | 28,307                                                              |                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|            |     |         | 600                    | 4778                                                                |                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 20         | 20  | 9.00    | 1041.2                 | 229,451                                                             | Lump Sum                                                                                                                                                                                                                                         | 60                                                                                                                                                                                                                                                          | 1400                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 1082                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 70 Co. Yds.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|            | Dry | Dry Wet | Dry Wet Rock 45.0 45.0 | Dry Wet Rock Class A Cu Yds.  526 2 60.0 45.0 202 6 45 0 192 4 60 0 | Dry         Wet         Rock         Cu Yds.         Reinforcing           526 2         161,923           60.0         4778           45.0         202 6         29,665           45 0         192 4         28,307           60 0         4778 | Dry         Wet         Rock         Cu Yds.         Reinforcing Structural           526 2         161,923           60.0         4778           45.0         202 6         29,665           45 0         192 4         28,307           60 0         4778 | Dry         Wet         Rock         Class'All Cu Yds.         Reinforcing Structural         Drilling Lin.Ft.           526 2         161,923         60.0         4778         45.0         202 6         29,665         29,665         29,665         60.0         4778         60.0         4778         60.0         4778         60.0         4778         60.0         4778         60.0         4778         60.0         4778         60.0         4778         60.0         4778         60.0         4778         60.0         4778         60.0         4778         60.0         4778         60.0         4778         60.0         4778         60.0         4778         60.0         4778         60.0         4778         60.0         4778         60.0         4778         60.0         4778         60.0         4778         60.0         4778         60.0         4778         60.0         4778         60.0         4778         60.0         4778         60.0         4778         60.0         4778         60.0         60.0         4778         60.0         60.0         4778         60.0         4778         60.0         60.0         60.0         60.0         4778         60.0         60.0         60.0 | Dry         Wet         Rock         Class'A'' Cu Yds.         Reinforcing Structural         Drilling Lin.Ft.         Steel Piles Lin.Ft           526 2         161,923         526 2         161,923         526 2         161,923         526 2         161,923         526 2         161,923         526 2         161,923         526 2         161,923         526 2         161,923         526 2         161,923         526 2         161,923         526 2         161,923         526 2         161,923         526 2         161,923         526 2         161,923         526 2         161,923         526 2         161,923         526 2         161,923         526 2         161,923         526 2         161,923         526 2         161,923         526 2         161,923         526 2         161,923         526 2         161,923         526 2         161,923         526 2         161,923         526 2         161,923         526 2         161,923         526 2         161,923         526 2         161,923         526 2         161,923         526 2         161,923         526 2         161,923         526 2         161,923         526 2         161,923         526 2         161,923         526 2         161,923         526 2         161,923         526 2 | Dry         Wet         Rock         Class'A' Cu Yds.         Reinforcing Structural         Drilling Lin.Ft.         Steel Piles Lin.Ft         Handrail Lin.Ft           526 2         161,923         60.0         4778         60.0         4778         60.0         60.0         4778         60.0         60.0         60.0         60.0         60.0         60.0         60.0         60.0         60.0         60.0         60.0         60.0         60.0         60.0         60.0         60.0         60.0         60.0         60.0         60.0         60.0         60.0         60.0         60.0         60.0         60.0         60.0         60.0         60.0         60.0         60.0         60.0         60.0         60.0         60.0         60.0         60.0         60.0         60.0         60.0         60.0         60.0         60.0         60.0         60.0         60.0         60.0         60.0         60.0         60.0         60.0         60.0         60.0         60.0         60.0         60.0         60.0         60.0         60.0         60.0         60.0         60.0         60.0         60.0         60.0         60.0         60.0         60.0         60.0         60.0         60.0 <td< td=""></td<> |

NOTE: Cost of 3" f Transite Drains (or equal) shall be included in unit price bid for Class"A" Concrete. \*Lump Sum: Total weight Structural Steel 776,900lbs includes Bearing Devices, Roadway Expansion Devices, Shear Connectors and 6200 lbs. weld metal. See Special Note on Dwg. K-7-104.

The Contractor will be required to adjust anchors of the present pontoon bridge The location of anchors will be furnished by the Division Office. The cost for adjusting the anchors shall be included in the items bid on.

SPECIAL NOTE-PIER SEAL

If in the opinion of the engineer, the contractor has made every effort to dewater the cofferdam, but is unsucessful he may be permitted to pour a seal, the dimensions of which, if permitted, shall be determined in the field. In no event shall the horizontal payment limits of this seal extend more than three feet beyond the limit of the footing.

#### LIST OF DRAWINGS Handrail-See Note this sheet

Layout Superstructure-Steel Details Abutments No. I & 2 Piers No. 1 & 2

Pile Splice Detail Sounding Data Havigation Lighting Required 90-3" Transite Drains (or equal) I-0" long.

#### K-7-102,K-7-103,K-7-104 K-7-105 K-7-106 G-10-42

K-7-107 K-11-139

DWG. NO.

H-5-110

K-7-101

STATE OF TENNESSEE

DEPARTMENT OF HIGHWAYS

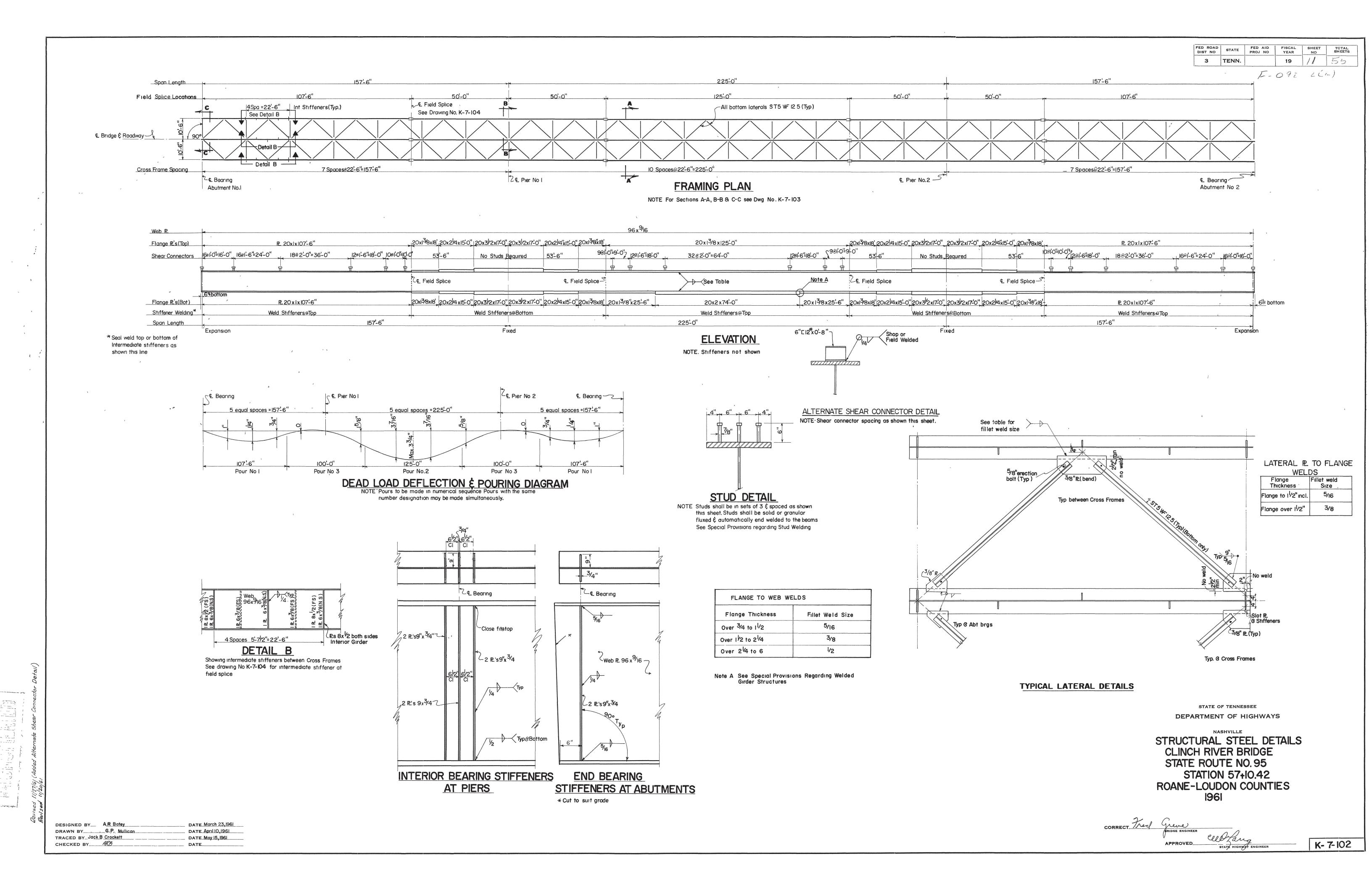
NASHVILLE

LAYOUT OF BRIDGE CLINCH RIVER BRIDGE STATE ROUTE 95 STA. 57+10.42 ROANE-LOUDON COUNTIES 1961

CORRECT Feel Greve GRIDGE ENGINEER APPROVED\_\_\_\_

K-7-101

| DESIGNED BY | A. P. Batey | DATE         |
|-------------|-------------|--------------|
| DRAWN BY    | GPMUllican_ | DATE 3.73 G/ |
| TRACED BY   | Millian     | DATE 5 /6 G/ |
| CHECKED BY  | ARB         | DATE         |



F-092-2(2)



## ESTIMATED QUANTITIES FOR DECK

| Concrete Class "A" | 526.2    | Cu.Yds. |
|--------------------|----------|---------|
| Reinforcing Steel  | 161, 923 | Lbs.    |

## **NOTES**

Structural Steel shall be ASTM A373 except the following members. Laterals, Cross-frames, Diaphragms and Gusset plates which may be ASTM A7.

Field Connections shall be welding and 78"\$\noting\$ High-Strength Bolts as shown on plans. For High Strength Bolts see AASHO Specifications Article 2.10.20 with amendments thereto.All High Strength Bolted connections are the friction type.

Paint: Basic Lead Silico Chromate: See Special Provisions regarding Section 132 Steel Structures (Painting)
No Shop paint shall be applied to the top surfaces of the top flanges or in way of field welds or
High Strength Bolts. Girder splices and other field connections shall be cleaned and primed
before forming slab.

Welding & Radiographic Inspection: See Special Provisions regarding Welded Girder Structures.

The cost of all radiographic inspection is to be included in the price bid for Structural Steel. See also notes on Drawing K-7-104.

Bearings See Drawing No. K-7-104.

Roadway Expansion Devices See Drawing No. K-7-104.

<u>Camber</u>: Girders shall be cambered to compensate for dead load deflection. See Drawing No. K-7-102 for Dead Load Deflection Diagram.

<u>Concrete Dēck</u>- The concrete deck shall not be poured until all Structural Steel is erected and all welding or bolting is complete.

For General Notes see Drawing No. K-7-101.

For ofher Structural Steel details see Drawings K-7-102, K-7-104.

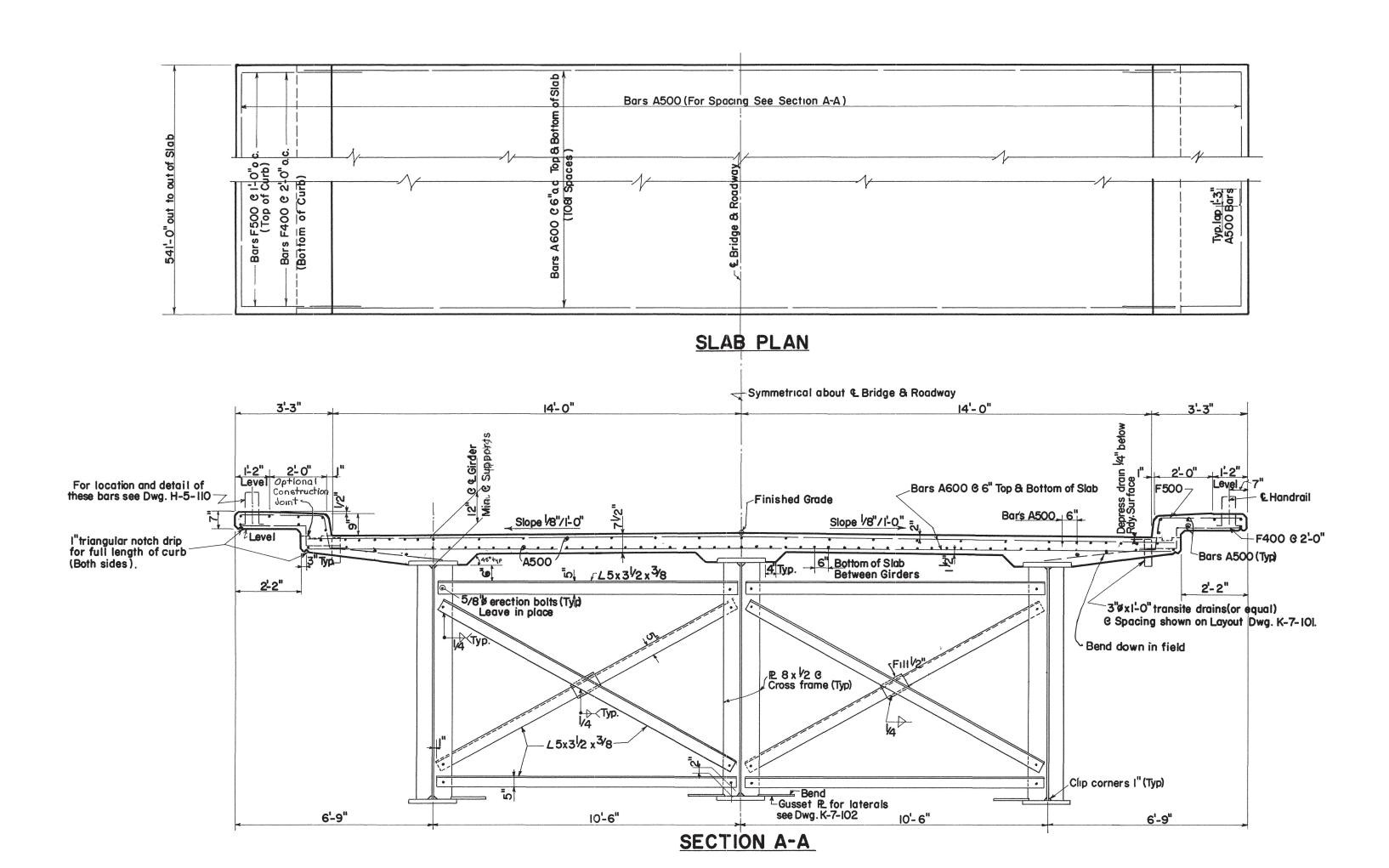
STATE OF TENNESSEE

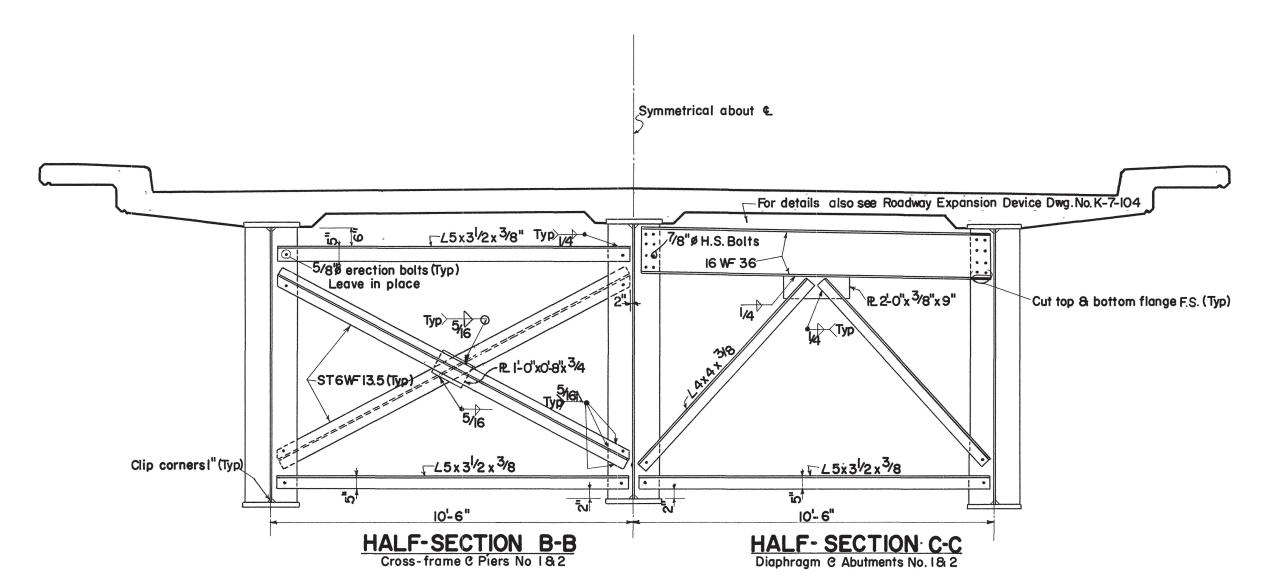
DEPARTMENT OF HIGHWAYS

NASHVILLE

STRUCTURAL STEEL DETAILS
CLINCH RIVER BRIDGE
STATE ROUTE NO. 95
STA. 57+10.42
ROANE-LOUDON COUNTIES
1961







NOTE: Dimensions & details not shown same as Section A-A
Gusset Rs for laterals not shown. See lateral details Dwg. K-7-102.

DESIGNED BY A. D. Batey

DATE 3-23-6/

DRAWN BY G. P. Mullican

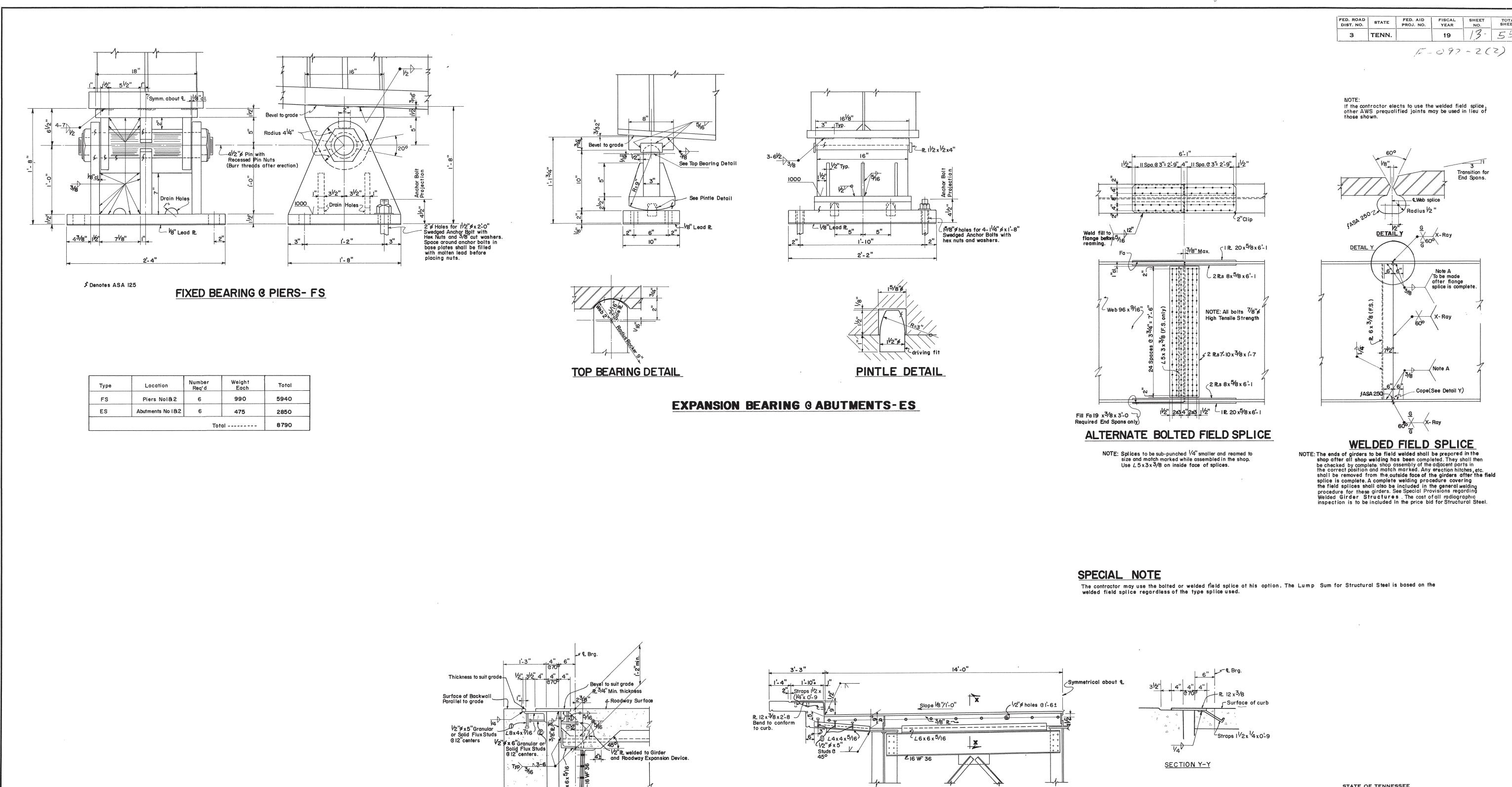
DATE 3-30-6/

TRACED BY AB DATE

DATE

Wised 4/2/62 Added Optional Construction Jo

K-7-103



SECTION'X-X

Section shown @ Abutment No.1 Similar & Abutment No. 2

DESIGNED BY A.C. Batey DATE\_\_\_\_ DATE 5-22-0/ TRACED BY Mullican

DRAWN BY\_\_\_\_

HALF ELEVATION OF ROADWAY EXPANSION DEVICE

NOTE: 2 Sets required. Total Estimated Weight 2 Sets 5000 lbs.

STATE OF TENNESSEE DEPARTMENT OF HIGHWAYS

NASHVILLE

STRUCTURAL STEEL DETAILS CLINCH RIVER BRIDGE STATE ROUTE NO.95 STA. 57+10.42 **ROANE-LOUDON COUNTIES** 

CORRECT. Tred Greve ARIDGE ENGINEER APPROVED\_\_\_

K-7-104

