



Logan Colbert

PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED. THE SIGNATURE MUST BE VERIFIED ON THE ELECTRONIC DOCUMENTS.

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
PROJECT COMMITMENTS	1A
ESTIMATED BRIDGE QUANTITIES	2 (BR-132-480)
BRIDGE GENERAL NOTES.....	2A (BR-132-481)
ESTIMATED ROADWAY QUANTITIES.....	2B
GENERAL NOTES.....	2C
SPECIAL NOTES.....	2D
ENVIRONMENTAL NOTES.....	2E
EPSC PLAN AND NOTES.....	3-3B
TRAFFIC CONTROL PLANS AND NOTES	T1-T3
UTILITY NOTES AND UTILITY OWNERS.....	U1-1
LAYOUT OF BRIDGE TO BE REPAIRED	BR-132-479
SUPERSTRUCTURE	BR-132-482
SUPERSTRUCTURE REPAIRS	BR-132-483
SUBSTRUCTURE REPAIRS	BR-132-484
SUBSTRUCTURE REPAIRS	BR-132-485
SUBSTRUCTURE REPAIRS	BR-132-486
SUBSTRUCTURE REPAIRS	BR-132-487
CONCRETE REPAIR DETAILS	BR-132-488

**STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION**

SIGNATURE SHEET

J:\Structures\11685-34_Washington_Co_SR353_Nolichucky_River\Drawings\Final\11685-34_RD_TITLE.dgn 9/14/2023 1:07:32 PM

Index Of Sheets

SHEET NO.	DESCRIPTION
SIG-1.....	SIGNATURE SHEET
1.....	TITLE SHEET
1A.....	PROJECT COMMITMENTS
2.....	ESTIMATED BRIDGE QUANTITIES
2A.....	BRIDGE GENERAL NOTES
2B.....	ESTIMATED ROADWAY QUANTITIES
2C.....	GENERAL NOTES
2D.....	SPECIAL NOTES
2E.....	ENVIRONMENTAL NOTES
3-3B.....	EPSC PLAN AND NOTES
T1-T3.....	TRAFFIC CONTROL PLANS AND NOTES
U1-1.....	UTILITY NOTES AND UTILITY OWNERS

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF ENGINEERING

WASHINGTON COUNTY

BAILEY BRIDGE ROAD, BRIDGE OVER NOLICHUCKY RIVER, LM 0.45

BRIDGE REPAIR

STATE ROUTE 353

Standard Drawings

DRAWING NO.	CURRENT REVISION DATE	DESCRIPTION
-------------	-----------------------	-------------

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 MOUNTING DETAILS FLAT SHEET SIGNS ALUMINUM-STEEL
RD-L-1A	_____		_____	STANDARD LEGEND
RD-L-5	_____	02-20-20	_____	STANDARD LEGEND FOR EROSION PREVENTION AND SEDIMENT CONTROL

TRAFFIC CONTROL APPURTENANCES

T-M-1	_____	06-28-19	_____	DETAILS OF PAVEMENT MARKINGS FOR CONVENTIONAL ROADS AND MARKING ABBREVIATIONS
T-M-2	_____	06-28-19	_____	DETAILS OF PAVEMENT MARKINGS FOR CONVENTIONAL ROADS
T-S-10	_____	04-04-12	_____	STANDARD MOUNTING DETAILS FLAT SHEET SIGNS ALUMINUM-STEEL DESIGN
T-S-19	_____	06-12-20	_____	STANDARD STEEL SIGN SUPPORTS
T-S-20	_____	07-11-17	_____	SIGN DETAILS
T-WZ-32	_____	11-30-20	_____	TRAFFIC CONTROL PLAN SIGNAL LAYOUT FOR TRAFFIC SIGNAL AT TWO LANE BRIDGE RECONSTRUCTION SITE
T-WZ-34	_____	09-01-05	_____	TRAFFIC CONTROL PLAN GENERAL NOTES FOR TRAFFIC SIGNAL AT TWO LANE BRIDGE RECONSTRUCTION SITE
T-WZ-35	_____	04-02-12	_____	TRAFFIC CONTROL PLAN PAY ITEM AND SIGN DETAILS FOR TRAFFIC SIGNAL AT TWO LANE BRIDGE RECONSTRUCTION SITE
T-WZ-PCB2	_____	12-09-22	_____	20 FOOT PORTABLE CONCRETE BARRIER RAIL

EROSION PREVENTION AND SEDIMENT CONTROL

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

SAFETY APPURTENANCES

S-CC-1	_____	03-01-23	_____	CRASH CUSHION
--------	-------	----------	-------	---------------

ROADWAY, PAVEMENT APPURTENANCES, AND FENCES

S-F-1	_____	03-01-23	_____	HIGH VISIBILITY FENCE
-------	-------	----------	-------	-----------------------

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.

TDOT REPAIR OFFICE PROJECT MANAGER : ROCKY CHRISTY

DESIGNED BY : PALMER ENGINEERING COMPANY

DESIGNER : LOGAN COLBERT, P.E. CHECKED BY : SCOTT WILSON, P.E.

P.E. NO. 90S353-M3-003

PIN NO. 132623.01



SCALE: 1"= 1 MILE

TRAFFIC DATA

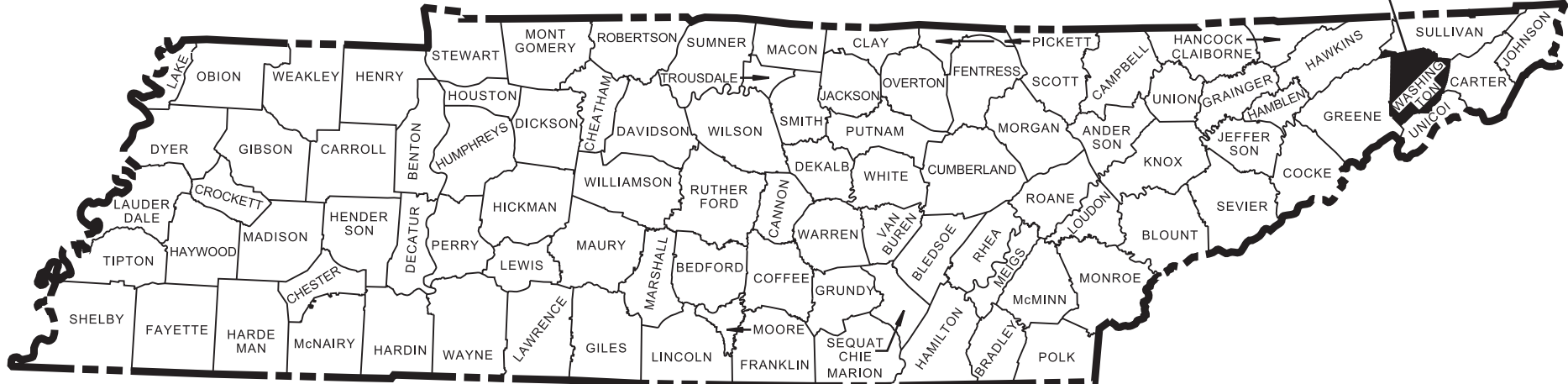
AADT (2021)	1,355
POSTED SPEED	45 MPH

TOTAL DISTURBED AREA = 0.1 ACRE

TENN.	YEAR	SHEET NO.
	2023	1
FED. AID PROJ. NO.		
STATE PROJ. NO.	90S353-M3-003	
FED. BRIDGE ID NO.	90S23860001	

PROJECT LOCATION

BRIDGE ID. # 90S23860001



LIST OF BRIDGE DRAWINGS

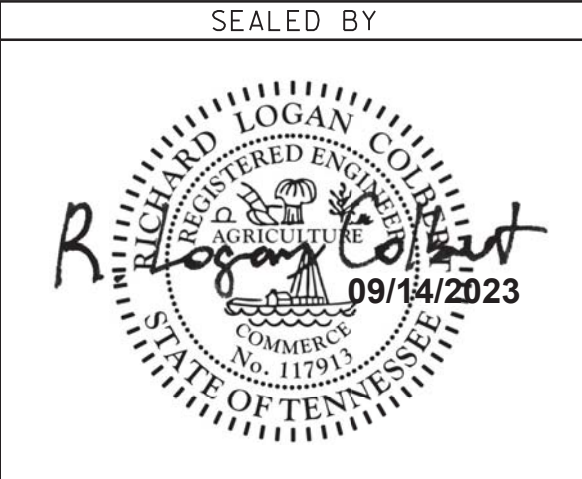
DRAWING	DRAWING NO.
LAYOUT OF BRIDGE TO BE REPAIRED	BR-132-479
ESTIMATED BRIDGE QUANTITIES	BR-132-480
BRIDGE GENERAL NOTES	BR-132-481
SUPERSTRUCTURE	BR-132-482
SUPERSTRUCTURE REPAIRS	BR-132-483
SUBSTRUCTURE REPAIRS	BR-132-484
SUBSTRUCTURE REPAIRS	BR-132-485
SUBSTRUCTURE REPAIRS	BR-132-486
SUBSTRUCTURE REPAIRS	BR-132-487
CONCRETE REPAIR DETAILS	BR-132-488

*LIST OF BRIDGE REFERENCE DRAWINGS

(★ DENOTES TO BE PRINTED WITH PLANS)

G-1-141, F-10-21 THRU F-10-23, E-2-10, AND F-10-13

SEALED BY



APPROVED:

WILL REID, CHIEF ENGINEER

DATE:

APPROVED:

HOWARD H. ELEY, COMMISSIONER

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED:

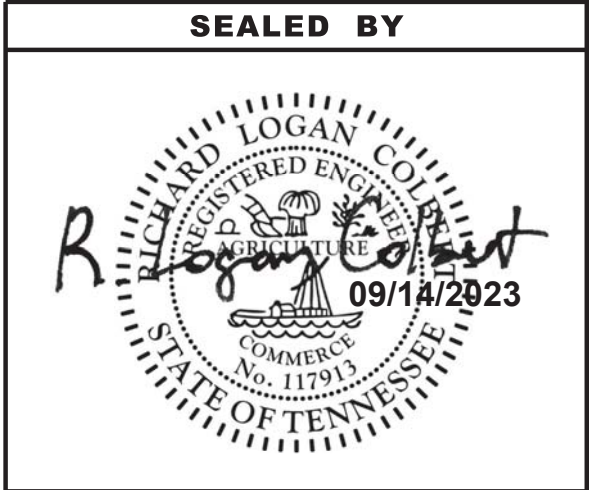
DIVISION ADMINISTRATOR

DATE

9/14/2023 1:07:33 PM J:\Structures\11685-34_Washington_Co_SR353_Nolichucky_River\Drawings\Final_dgn\11685-34_RD_PROJ_COMMIT.dgn

TYPE	YEAR	PROJECT NO.	SHEET NO.
BRIDGE REPAIR	2023	90S353-M3-003	1A

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. 90S23860001 SR-353 OVER NOLICHUCKY RIVER LM 0.45 (90-SR353-00.45). THE BRIDGE HAS ASBESTOS IN 116 DECK DRAINS AT 6% CHRYSOTILE AND 4% CROCIDOLITE, AND 2000 SQUARE FEET OF BEARING PADS AT 20% CHRYSOTILE. PLEASE SEE THE REPORT FOR FURTHER DETAILS AND PHOTOGRAPHS.	ENTIRE BRIDGE
EDHZ002	ENVIRONMENTAL DIVISION, HAZARDOUS MATERIALS	THE STATE OF TENNESSEE ASBESTOS ACCREDITATION REQUIREMENTS (TDEC RULES CHAPTER 1200-01-20) MANDATES THAT ACM ABATEMENT WORK BE PERFORMED BY AN ACCREDITED FIRM (CONTRACTOR) USING ACCREDITED ABATEMENT WORKERS AND SUPERVISORS. ABATEMENT OF THIS MATERIAL SHALL BE ACCOMPLISHED PER SP202ACM SPECIAL PROVISION REGARDING REMOVAL OF ASBESTOS-CONTAINING MATERIALS. ACM ABATEMENT SHOULD BE COMPLETED PRIOR TO ANY DEMOLITION ACTIVITIES IF POSSIBLE. 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).	ENTIRE BRIDGE
EDEC001	ENVIRONMENTAL DIVISION, ECOLOGY	CLIFF SWALLOW AND BARN SWALLOW NESTS, EGGS, OR BIRDS (YOUNG AND ADULTS) WILL NOT BE DISTURBED BETWEEN APRIL 15 AND JULY 31. FROM AUGUST 1 TO APRIL 14, NESTS MAY BE REMOVED OR DESTROYED, AND MEASURES MAY BE IMPLEMENTED TO PREVENT FUTURE NEST BUILDING AT THE SITE (E.G., CLOSING OFF AREA USING NETTING). EXCEPTION IF THERE ARE NO EGGS OR BIRDS (YOUNG OR ADULT) FOUND AT A SPECIFIC SITE BETWEEN APRIL 15 AND JULY 31, THE NESTS MAY BE REMOVED OR DESTROYED AND MEASURES MAY BE IMPLEMENTED TO PREVENT FUTURE NEST BUILDING AT THE SITE. ABSENCE OF EGGS AND BIRDS MUST BE DOCUMENTED BY USING APPROPRIATE MEANS FOR DETERMINATION, SUCH AS, BUT NOT LIMITED TO, SITE VISITS, PHOTOGRAPHS, AND OBSERVATIONS OF NO BIRDS USING THE NESTS.	ENTIRE BRIDGE
EDEC002	ENVIRONMENTAL DIVISION, ECOLOGY	NO WORK IN THE NOLICHUCKY RIVER WILL BE PERMITTED. IF WORK IN THE WATER WILL BE REQUIRED, THE REGION 1 ECOLOGY SECTION WILL BE CONTACTED IMMEDIATELY SO RECOORDINATION WITH TWRA AND USFWS CAN BE INITIATED AS NEEDED.	ENTIRE BRIDGE



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

PROJECT
COMMITMENTS

9/14/2023 1:07:37 PM J:\Structures\11685-34_Washington_Co_SR353_Nolichucky_River\Drawings\Final_dgn\11685-34_STR_EST QUANTS & NOTES1.dgn



PIN NO.:

132623.01

DESIGN BY:

R.L. COLBERT

DATE:

09/2023

DRAWN BY:

M.D. SIMPSON

DATE:

09/2023

SUPERVISED BY:

G.S. WILSON

DATE:

09/2023

CHECKED BY:

R.L. COLBERT

DATE:

09/2023

ESTIMATED BRIDGE QUANTITIES			
ITEM NO.	DESCRIPTION	UNIT	QUANTITY
(1) 201-05.31	VEGETATION REMOVAL	LS	1
(2) 604-10.05	CONCRETE	S.F.	99
(3) 604-10.14	REMOVE EXISTING WEARING SURFACE	LS	1
(4) 604-10.42	CONCRETE REPAIRS	C.F.	98
604-10.44	EXPANSION JOINT REPAIRS	L.F.	36
(5) 604-10.54	CONCRETE REPAIRS	S.F.	99
604-10.55	CONCRETE (FOUNDATION REPAIRS)	C.Y.	1
604-10.58	EPOXY INJECTION (INJECTION)	GAL.	54
604-10.62	EPOXY INJECTION REPAIR (COMPLETE AND IN PLACE)	L.F.	531

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 REMOVAL OF TRASH AND DEBRIS FROM THE SUBSTRUCTURES AND BELOW THE BRIDGES.
(2)	INCLUDES COST OF ALL LABOR, EQUIPMENT, AND MATERIALS NECESSARY TO PLACE HIGH EARLY STRENGTH CONCRETE FOR REPAIR AREAS AT LOCATIONS INDICATED IN PLANS.
(3)	INCLUDES COST OF ALL LABOR, EQUIPMENT, AND MATERIALS REQUIRED TO REMOVE AND DISPOSE OF THE EXISTING ASPHALT WEARING SURFACE (+/- 5" PER DECK SURVEY) WITHIN THE LIMITS OF THE BRIDGE, LEAVING 2" REMAINING ON THE BRIDGE DECK.
(4)	INCLUDES COST OF ALL LABOR, EQUIPMENT, AND MATERIALS REQUIRED FOR REPAIRING SPALLED OR DELAMINATED AREAS OF CONCRETE ON BEAMS AT LOCATIONS SHOWN IN THE PLANS.
(5)	INCLUDES COST OF ALL LABOR, EQUIPMENT, AND MATERIALS NECESSARY TO PLACE A POLYMER MODIFIED CEMENTITIOUS STRUCTURAL PATCHING MATERIAL FOR REPAIR AREAS AT LOCATIONS INDICATED IN PLANS.

CONST. NO.:

PROJECT NO.		YEAR	SHEET NO.
90S353-M3-003		2023	2
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION

SEALED BY



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

ESTIMATED BRIDGE QUANTITIES
SR-353 OVER NOLICHUCKY RIVER
BRIDGE NO. 90-SR353-00.45
FED. I.D. NO. 90S23860001
WASHINGTON COUNTY
2023

BR-132-480

9/14/2023 1:07:40 PM

J:\Structures\11685-34_Washington_Co_SR353_Nolichucky_River\Drawings\Final_dgn\11685-34_STR_EST_QUANTS & NOTES2.dgn

GENERAL NOTES

SPECIFICATIONS & LOADING

- (1) **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.
- (2) **DESIGN SPECIFICATIONS:** 9TH EDITION (2020) 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) **CONCRETE:** TO BE CLASS “A” (CAST-IN-PLACE) F’C = 3000 PSI EXCEPT AS NOTED OTHERWISE.
- (5) **CONCRETE CURING:** ALL CONCRETE IN REPAIR AREAS SHALL BE CURED ACCORDING TO THE STANDARD SPECIFICATIONS.

MISCELLANEOUS GENERAL NOTES

- (6) **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.
- (7) **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.
- (8) 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.
- (9) **QUICK-SET PATCHING MATERIAL:** QUICK-SET PATCHING MATERIAL SHALL BE A POLYMER MODIFIED CEMENTITIOUS PATCHING MATERIAL. SEE TDOT QUALIFIED PRODUCTS LIST 13.009 POLY MOD CEMENT STRUCT PATCH VERT & OVER FOR ACCEPTABLE PATCHING MATERIALS.
- (10) **REQUIREMENTS AND RESTRICTIONS FOR PHASE CONSTRUCTION**

A. A SINGLE 9'-6" TRAFFIC LANE (MINIMUM) SHALL BE MAINTAINED AT ALL TIMES.

SPECIAL NOTES

- (1) **HIGH EARLY STRENGTH CONCRETE:** CONCRETE FOR INDICATED AREAS OF REPAIR SHALL BE HIGH EARLY STRENGTH CONCRETE WITH A COMPRESSIVE STRENGTH OF F’C = 3,000 P.S.I. AT EIGHTEEN (18) HOURS. 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.
- (2) **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.
- (3) THE CONTRACTOR SHALL PROVIDE 100% CONVENTIONAL FALL PROTECTION FOR WORKERS 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 AREA DISTURBED OUTSIDE THE LIMITS OF THE CONSTRUCTION DURING THE LIFE OF THE PROJECT SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.

CONST. NO.:

PROJECT NO.		YEAR	SHEET NO.
90S353-M3-003		2023	2A
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION

SEALED BY



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

BRIDGE GENERAL NOTES
SR-353 OVER NOLICHUCKY RIVER
BRIDGE NO. 90-SR353-00.45
FED. I.D. NO. 90S23860001
WASHINGTON COUNTY
2023



PIN NO.:	132623.01	DATE:	09/2023
DESIGN BY:	R.L. COLBERT	DATE:	09/2023
DRAWN BY:	M.D. SIMPSON	DATE:	09/2023
SUPERVISED BY:	G.S. WILSON	DATE:	09/2023
CHECKED BY:	R.L. COLBERT	DATE:	09/2023

BR-132-481


9/14/2023 1:07:45 PM J:\Structures\11685-34_Washington_Co_SR353_Nolichucky_River\Drawings\Final_dgn\11685-34_RD_EST QUANTS.dgn

TYPE	YEAR	PROJECT NO.	SHEET NO.
BRIDGE REPAIR	2023	90S353-M3-003	2B

ESTIMATED ROADWAY QUANTITIES			
ITEM NO.	DESCRIPTION	UNIT	QUANTITY
209-08.02	TEMPORARY SILT FENCE (WITH BACKING)	L.F.	150
403-01	BITUMINOUS MATERIAL FOR TACK COAT (TC)	TON	1.5
411-01.10	ACS MIX(PG64-22) GRADING D	TON	220
415-01.02	COLD PLANING BITUMINOUS PAVEMENT	S.Y.	2375
707-08.11	HIGH-VISIBILITY CONSTRUCTION FENCE	L.F.	150
709-02.02	SACKED SAND CEMENT RIPRAP	C.Y.	23
712-01	TRAFFIC CONTROL	LS	1
712-02.10	PORTABLE BARRIER RAIL (MASH TL-3)	L.F.	600
712-02.60	TEMPORARY WORK ZONE CRASH CUSHION (MASH TL-3)	EACH	2
712-04.01	FLEXIBLE DRUMS (CHANNELIZING)	EACH	18
712-04.50	BARRIER RAIL DELINEATOR	EACH	22
712-05.01	WARNING LIGHTS (TYPE A)	EACH	8
712-06	SIGNS (CONSTRUCTION)	S.F.	579
712-07.03	TEMPORARY BARRICADES (TYPE III)	L.F.	48
712-09.02	REMOVABLE PAVEMENT MARKING (8" BARRIER LINE)	L.F.	7820
712-09.04	REMOVABLE PAVEMENT MARKING (STOP LINE)	L.F.	24
713-16.01	CHANGEABLE MESSAGE SIGN UNIT	EACH	4
716-01.21	SNOWPLOWABLE RAISED PAVEMENT MARKERS (BI-DIR)(1 COLOR)	EACH	39
716-12.02	ENHANCED FLATLINE THERMO PVMT MRKNG (6IN LINE)	L.M.	2
717-01	MOBILIZATION	LS	1
730-40	TEMPORARY TRAFFIC SIGNAL SYSTEM	EACH	1

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)	ITEM INCLUDES TEMPORARY SIGNALS AND 1 (ONE) HORIZON (OR APPROVED EQUAL) D.A.D. SIGNAL LOCATED AS SHOWN IN THE TRAFFIC CONTROL PLANS.

SEALED BY



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

ESTIMATED
ROADWAY
QUANTITIES

9/14/2023 1:07:49 PM J:\Structures\11685-34_Washington_Co_SR353_Nolichucky_River\Drawings\Final_dgn\11685-34_RD_GENERAL NOTES.dgn

GENERAL NOTES

GRADING

- (1) ANY AREA THAT IS DISTURBED OUTSIDE LIMITS OF CONSTRUCTION DURING THE LIFE OF THIS PROJECT SHALL BE REPAIRED BY THE CONTRACTOR AT HIS EXPENSE.
- (3) 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

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

ROAD CLOSURE

- (1) 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

- (8) 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

- (17) BEFORE OPENING THE LANE SHIFTS 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

- (19) 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

- (1) THE CONTRACTOR SHALL BE REQUIRED TO PAVE IN THE DIRECTION OF TRAFFIC.
- (2) THE CONTRACTOR SHALL BE REQUIRED TO COLD PLANE AND PAVE IN THE DIRECTION OF TRAFFIC.
- (3) 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 407SE.

RESURFACING

- (4) WHERE DIRECTED BY THE TDOT ENGINEER, THE CONTRACTOR SHALL BE REQUIRED TO SHAPE PUBLIC SIDE ROADS, BUSINESS ENTRANCES, AND PRIVATE DRIVES, AS WELL AS CLEANING OF EXISTING DRAINS BEFORE PLACING MATERIALS. ALL COSTS ARE TO BE INCLUDED IN THE PRICE BID FOR OTHER ITEMS OF CONSTRUCTION.
- (5) ALL PUBLIC SIDE ROADS SHALL BE PAVED ONE PAVER WIDTH THROUGH THE INTERSECTION AS A MINIMUM. A SATISFACTORY TRANSITION FROM THE NEW PAVEMENT TO THE EXISTING GRADE OF THE INTERSECTING PUBLIC ROAD OR BUSINESS ENTRANCE SHALL BE PROVIDED. SHOULD THE PAVEMENT OF THE INTERSECTING PUBLIC ROAD BE DISTRESSED, THE RESURFACING WIDTH MAY BE INCREASED TO THE NORMAL RIGHT OF WAY LINE.
- (6) PRIVATE DRIVEWAYS, FIELD ENTRANCES, AND BUSINESS ENTRANCES WILL BE RESURFACED A PAVER WIDTH (LANE WIDTH) AS A MINIMUM. A PAVEMENT TAPER TO TRANSITION THE NEW PAVEMENT SHALL BE REQUIRED, IT SHALL BE BASED ON AN ADDITIONAL ONE FOOT OF WIDTH PER ONE INCH DEPTH OF PAVEMENT. IF THE SHOULDER IS NARROW ENOUGH THAT THE SUM OF THE SHOULDER AND THE TRANSITION ARE LESS THAN A PAVER WIDTH, THE TRANSITION SHALL OCCUR WITHIN THE PAVER WIDTH. IF THE SUM OF THE SHOULDER AND THE TRANSITION IS GREATER THAN A PAVER WIDTH (LANE WIDTH), THE TRANSITION SHALL OCCUR OUTSIDE OF THE PAVER WIDTH.
- (9) IN ALL CASES, THE LENGTH OF THE PAVEMENT TRANSITION, THE THICKNESS AND WIDTH OF THE RESURFACING AND ANY ADDITIONAL PAVEMENT MATERIALS SHALL BE AS DIRECTED BY THE TDOT ENGINEER.

CONSTRUCTION WORK ZONE & TRAFFIC CONTROL

- (1) 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.
- (2) 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.
- (3) 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.
- (4) TRAFFIC CONTROL DEVICES SHALL NOT BE DISPLAYED OR ERECTED UNLESS RELATED CONDITIONS ARE PRESENT NECESSITATING WARNING.

- (5) 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.
- (6) 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.
- (7) ALL DETOUR AND CONSTRUCTION SIGNING SHALL BE IN STRICT ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
- (9) 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.

TYPE	YEAR	PROJECT NO.	SHEET NO.
BRIDGE REPAIR	2023	90S353-M3-003	2C

SEALED BY



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

9/14/2023 1:07:56 PM J:\Structures\11685-34_Washington_Co_SR353_Nolichucky_River\Drawings\Final_dgn\11685-34_RD_SPECIAL NOTES.dgn

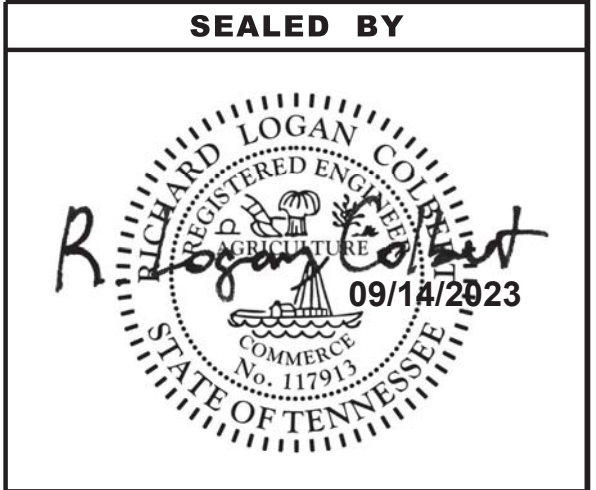
SPECIAL NOTES

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).
- (2) 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.
- (3) 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.
- (4) CONTRACTOR SHALL USE EXTREME CARE AND TAKE ANY MEASURE NECESSARY TO ENSURE THAT NO DEBRIS IS DROPPED INTO THE STREAM. THIS SHALL BE ACCOMPLISHED BY THE USE OF BASKETS, NETTING, WRAPPING, WORK PLATFORM, OR OTHER SIMILARLY EFFECTIVE MEANS. 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 REMOVING AND DISPOSING OF DEBRIS SHALL BE INCLUDED IN ITEMS BID ON.

TYPE	YEAR	PROJECT NO.	SHEET NO.
BRIDGE REPAIR	2023	90S353-M3-003	2D



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SPECIAL
NOTES

9/14/2023 1:08:06 PM J:\Structures\11685-34_Washington_Co_SR353_Nolichucky_River\Drawings\Final_dgn\11685-34_RD_EPSC_NOTES1.dgn

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.
- (10) 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

- (12) 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.
- (13) 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.
- (14) 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.
- (15) 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.
- (16) 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.
- (17) 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.
- (18) 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.
- (19) 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

- (20) CONSTRUCTION SHALL BE SEQUENCED AND STAGED TO MINIMIZE THE EXPOSURE TIME OF GRADED OR DENUDED SOIL AREAS, PRESERVE TOPSOIL, AND MINIMIZE SOIL COMPACTION.
- (21) 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.

- (22) NO WORK SHALL BE STARTED UNTIL THE CONTRACTOR’S PLAN FOR THE STAGING 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.
- (23) 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.
- (24) 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.
- (25) 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.
- (26) 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.
- (27) DELAYING THE PLANTING OF COVER VEGETATION UNTIL WINTER MONTHS OR DRY MONTHS SHOULD BE AVOIDED.

PERMITS, PLANS & RECORDS

- (28) 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.

TYPE	YEAR	PROJECT NO.	SHEET NO.
BRIDGE REPAIR	2023	90S353-M3-003	3

SEALED BY



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EPSC PLAN
& NOTES

9/14/2023 1:08:13 PM

J:\Structures\11685-34_Washington_Co_SR353_Nolichucky_River\Drawings\Final_dgn\11685-34_RD_EPSC_NOTES2.dgn

EROSION PREVENTION AND SEDIMENT CONTROL GENERAL NOTES (CONT.)

GOOD HOUSEKEEPING MEASURES & WASTE DISPOSAL

- (29) 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.
- (30) 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.
- (31) 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.
- (32) 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.
- (33) 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.
- (34) 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.
- (35) 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.
- (36) 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.
- (37) 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.
- (38) 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.
- (39) 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.

- (40) 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

- (41) 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.
- (42) MATERIALS AND STAGING AREAS SHALL BE LOCATED IN NON-WETLAND AREAS AND ABOVE THE 100-YEAR, FEDERAL EMERGENCY MANAGEMENT AGENCY FLOODPLAIN.
- (43) 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

- (44) ALL ONSITE VEHICLES SHALL BE MONITORED FOR LEAKS AND RECEIVE REGULAR PREVENTIVE MAINTENANCE TO REDUCE THE CHANCE OF LEAKAGE AND SPILLS.
- (45) 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.
- (46) APPROPRIATE CLEANUP MATERIALS AND EQUIPMENT SHALL BE MAINTAINED BY THE CONTRACTOR IN THE MATERIALS STORAGE AREA ONSITE AND UNDER COVER. SPILL RESPONSE EQUIPMENT SHALL BE INSPECTED AND MAINTAINED BY THE CONTRACTOR AS NECESSARY TO REPLACE ANY MATERIALS USED IN SPILL RESPONSE ACTIVITIES.
- (47) 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.
- (48) 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.
- (49) 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.
- (50) FERTILIZERS SHALL BE APPLIED ONLY IN THE AMOUNTS SPECIFIED. ONCE APPLIED, FERTILIZERS SHALL BE WORKED INTO THE SOIL TO LIMIT THE EXPOSURE TO STORMWATER.
- (51) 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.
- (52) 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. TNR1000000 STORMWATER DISCHARGES FROM CONSTRUCTION ACTIVITIES SECTION 5.1 FOR REPORTING REQUIREMENTS.

- (53) 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.

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. A JUSTIFICATION FOR USE AND DESIGN EQUIVALENCY SHALL BE DOCUMENTED WITHIN THE SWPPP. THE ENVIRONMENTAL AND ROADWAY DESIGN DIVISIONS SHALL REVIEW AND APPROVE THIS REVISION OF THE EPSC PLANS BEFORE DISTURBANCE OF THE SITE PROCEEDS, UNLESS PREVIOUSLY EXEMPT IN THE NPDES CONSTRUCTION GENERAL PERMIT. WHERE ISSUED, ARAP/401 REQUIREMENTS WILL PREVAIL IF IN CONFLICT WITH THESE BUFFER ZONE REQUIREMENTS.

TYPE	YEAR	PROJECT NO.	SHEET NO.
BRIDGE REPAIR	2023	90S353-M3-003	3A

SEALED BY

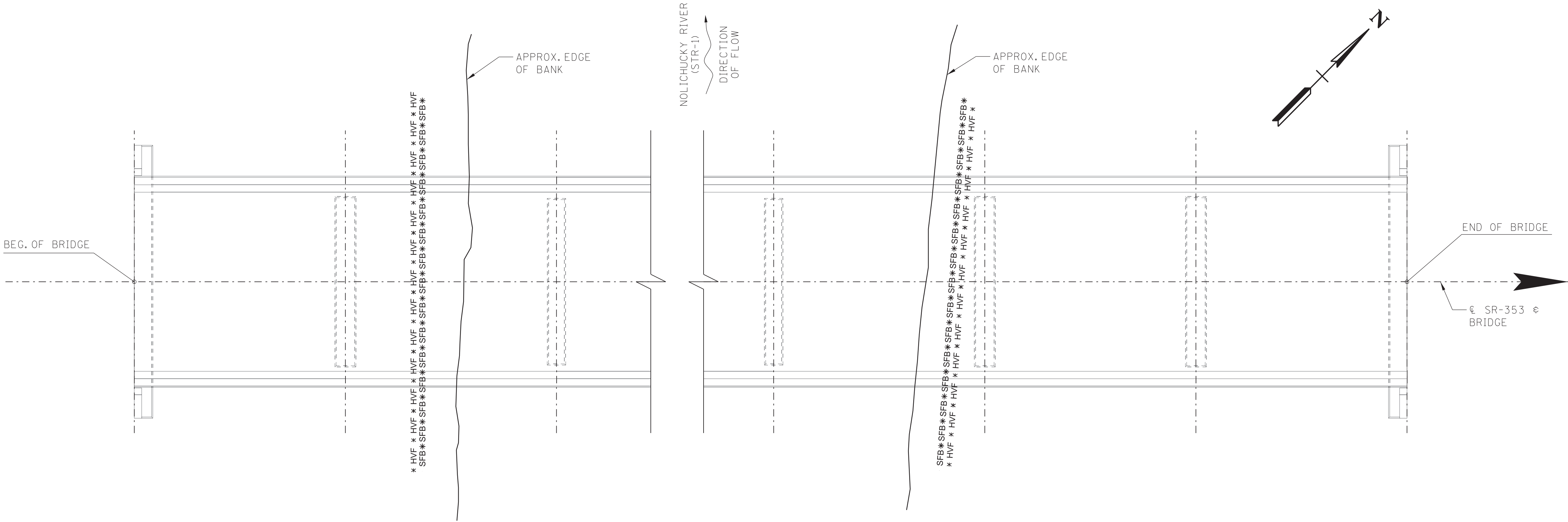


STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EPSC PLAN
& NOTES

9/14/2023 1:08:21 PM J:\Structures\11685-34_Washington_Co_SR353_Notchucky_River\Drawings\Final_dgn\11685-34_RD_EPSC.DGN

TYPE	YEAR	PROJECT NO.	SHEET NO.
BRIDGE REPAIR	2023	90S353-M3-003	3B



EPSC PLAN

THE CONTRACTOR SHALL USE ANY MEASURE NECESSARY TO ENSURE THAT CONSTRUCTION EQUIPMENT WILL NOT ENTER ANY PORTION OF STR-1 AND THAT THE STREAM AND SURROUNDING VEGETATION WILL NOT BE DISTURBED AND ARE PROTECTED FROM SEDIMENT AND OTHER POLLUTANTS EXCEPT AT THE PERMITTED LOCATIONS.

EROSION PREVENTION AND SEDIMENT CONTROL LEGEND		
SYMBOL	ITEM	STD. DWG.
SFB**SFB**SFB*	SILT FENCE WITH WIRE BACKING	EC-STR-3C
* HVF * HVF *	HIGH VISIBILITY FENCE	S-F-1

SEALED BY

R. Logan Collier
REGISTERED ENGINEER
No. 117913
09/14/2023
STATE OF TENNESSEE

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

EPSC PLAN
& NOTES

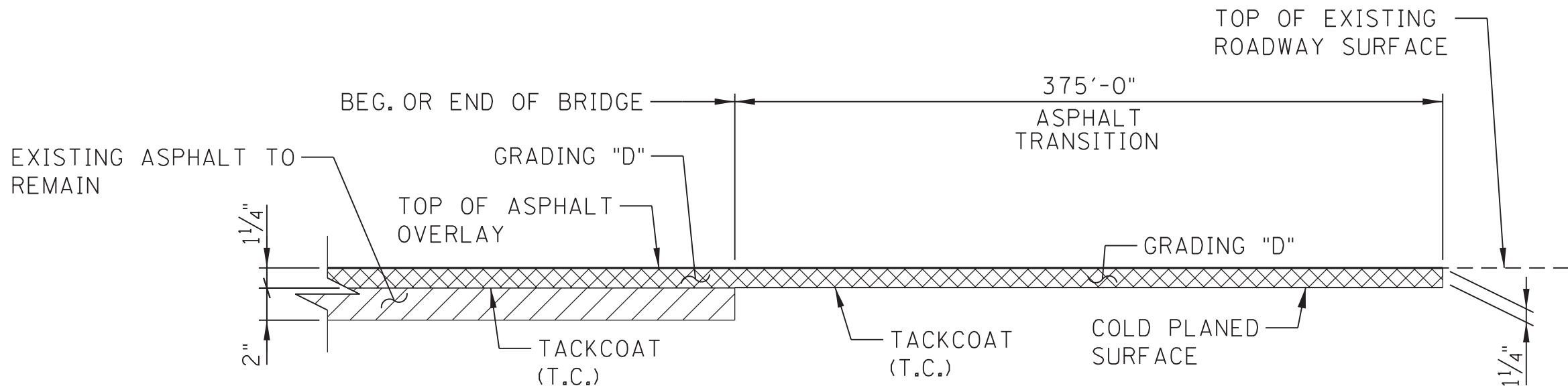
9/14/2023 1:08:28 PM J:\Structures\11685-34_Washington_Co_SR353_Nolichucky_River\Drawings\Final_dgn\11685-34_RD_SIGNS.dgn

TYPE	YEAR	PROJECT NO.	SHEET NO.
BRIDGE REPAIR	2023	90S353-M3-003	T1

TRAFFIC CONTROL SIGN QUANTITIES				
TYPE	DESCRIPTION	SIZE	EACH	SIGNS (CONST.) 712-06, S.F.
G20-2A	END ROAD WORK	36"x18"	2	9
M1-5	STATE ROUTE 353	30"x24"	15	75
M4-8	DETOUR	24"x12"	18	36
M6-1L	DIRECTIONAL ARROW (LEFT)	21"x15"	5	10.9375
M6-1R	DIRECTIONAL ARROW (RIGHT)	21"x15"	3	6.5625
M6-3	DIRECTIONAL ARROW (STRAIGHT)	21"x15"	10	21.875
R10-6	STOP HERE ON RED	24"x36"	2	12
R10-6 (MOD)	STAY IN LANE TO EXTEND GREEN	30"x42"	2	17.5
R10-11	NO TURN ON RED	24"x30"	1	5
SPECIAL	SR 353 CLOSED TO WIDE LOADS OVER 9.5 FT	78"x30"	3	48.75
SPECIAL	ONE LANE BRIDGE ON SR 353 SOUTH 5 MILES AHEAD (9.5 FT HORIZ. CLEARANCE)	78"x48"	1	26
SPECIAL	ONE LANE BRIDGE ON SR 353 SOUTH 1 MILE AHEAD (9.5 FT HORIZ. CLEARANCE)	78"x48"	2	52
SPECIAL	MAXIMUM XX MINUTE RED	42"x48"	2	28
SPECIAL	MAINTAIN XX MPH SPEED	42"x36"	2	21
SPECIAL	WAIT TURN ONLY IN DIRECTION OF ARROW	24"x30"	1	5
W1-4R	REVERSE CURVE (RIGHT)	36"x36"	1	9
W1-4L	REVERSE CURVE (LEFT)	36"x36"	1	9
W3-3	SIGNAL AHEAD (SYMBOL)	36"x36"	2	18
W3-4	BE PREPARED TO STOP	36"x36"	2	18
W16-2	1000 FEET (ADVISORY PLAQUE)	24"x18"	2	6
W20-1	ROAD WORK AHEAD	36"x36"	4	36
W20-1	ROAD WORK 1500 FEET	36"x36"	2	18
W20-1	ROAD WORK 1000 FEET	36"x36"	2	18
W20-1	ROAD WORK 500 FEET	36"x36"	2	18
W20-3	ROAD CLOSED 500 FEET	36"x36"	2	18
W20-4	ONE LANE ROAD 1500 FEET	36"x36"	2	18
W20-7A	FLAGGER AHEAD (SYMBOL)	36"x36"	2	18
TOTAL				578.625

TRAFFIC CONTROL SPECIAL NOTES

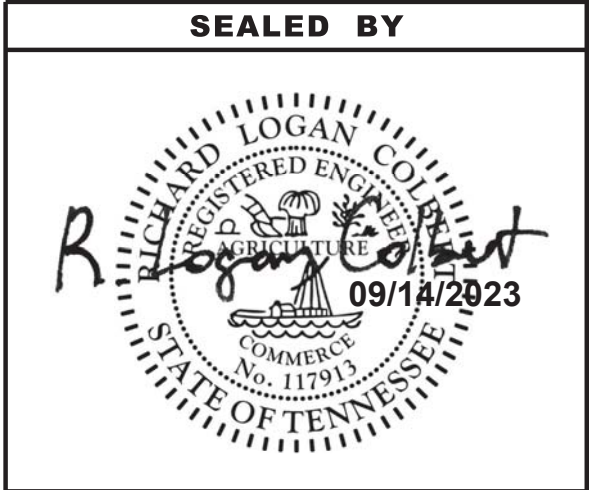
- THESE TRAFFIC CONTROL PLANS DO NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF INSTALLING TRAFFIC CONTROL DEVICES IN ACCORDANCE WITH THE CURRENT EDITION OF THE "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES."
- CONSTRUCTION SIGNING SHOWN IN THESE PLANS IS TO SERVE AS A GUIDE ONLY. OTHER SIGNS MAY BE REQUIRED DURING VARIOUS PHASES OF CONSTRUCTION.
- THE CONTRACTOR IS REQUIRED TO PROVIDE LANE SHIFTS WHERE NECESSARY TO ROUTE TRAFFIC AROUND CONSTRUCTION.
- NO TRAFFIC SHALL BE DETOURED OR ROADWAY CLOSED, ABANDONED, OR REMOVED WITHOUT THE PRIOR APPROVAL OF THE ENGINEER.
- ADVANCE WARNING SIGNS ARE TO BE PLACED PRIOR TO BEGINNING OF CONSTRUCTION AND REMAIN IN PLACE UNTIL THE COMPLETION OF THIS PROJECT.
- PERMANENT SIGNS AND PERMANENT MARKINGS SHALL BE IN PLACE BEFORE COMPLETED ROADWAYS ARE OPEN TO TRAFFIC.
- SEE THE CURRENT EDITION OF THE "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES" FOR TRAFFIC DETAILS NOT SHOWN, GENERAL TRAFFIC CONTROL NOTES, AND SIGN DETAILS.
- 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).
- THE CONTRACTOR IS TO COORDINATE ALL LANE CLOSURES WITH THE TDOT REGIONAL OFFICE AND THE COUNTY ENGINEER.
- MINIMUM TRAVEL LANE WIDTH TO BE 9'-6" (STRIPED). SEE CONSTRUCTION PHASING ON SHEET BR-132-482.
- ALL FREESTANDING 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.

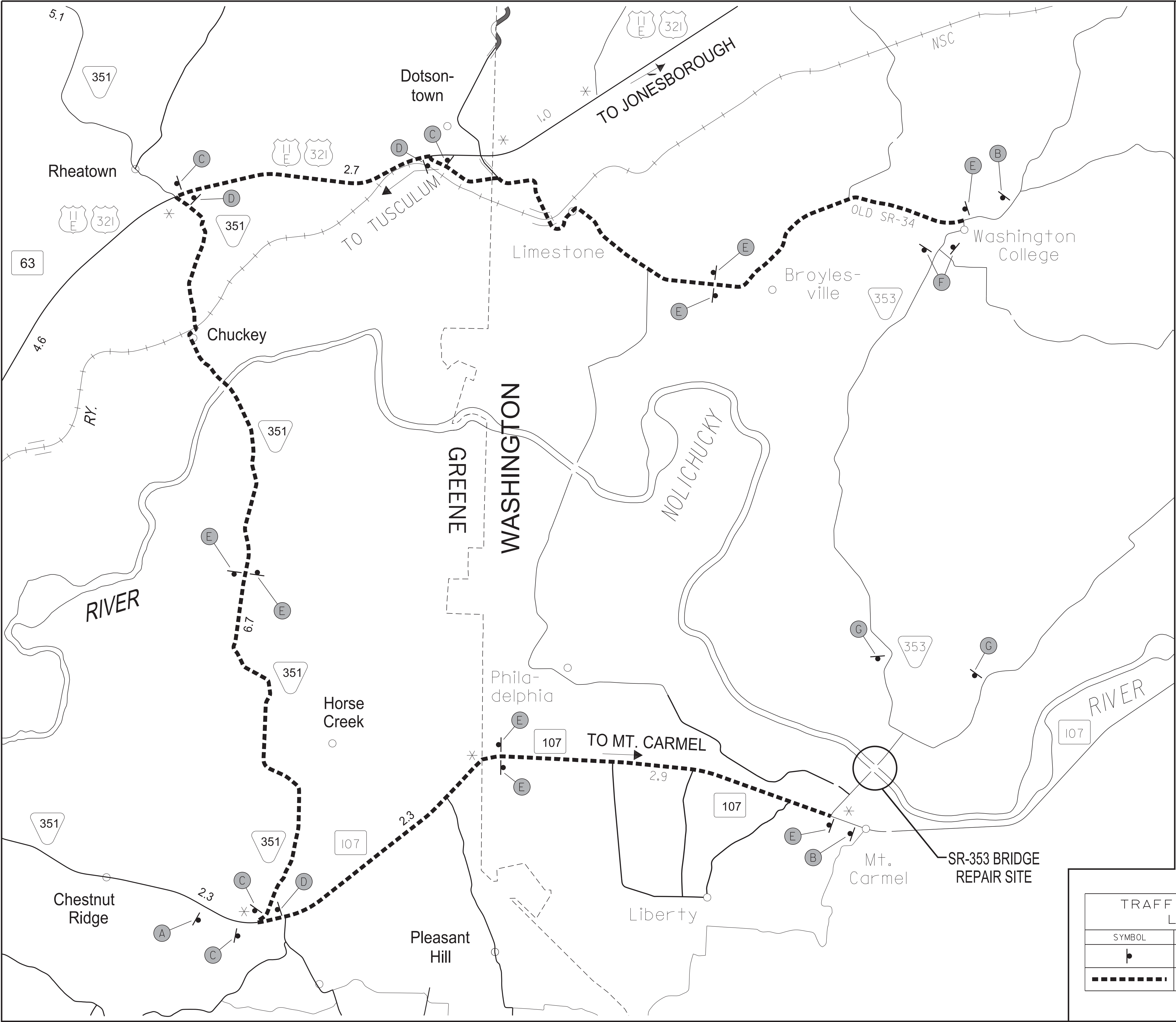
THE ASPHALT TRANSITION SHALL EXTEND DOWN BILL MAULK ROAD AND MOORE ROAD. SEE THE RESURFACING NOTES ON SHEET 2C FOR MORE INFORMATION.



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

TRAFFIC
CONTROL PLANS
AND NOTES

9/14/2023 1:08:35 PM J:\Structures\11685-34_Washington_Co_SR353_Nolichucky_River\Drawings\Final.dgn\11685-34_RD_TRAF_DETOUR.dgn



TRAFFIC CONTROL LEGEND	
SYMBOL	ITEM
	SIGN
	DETOUR ROUTE

TYPE	YEAR	PROJECT NO.	SHEET NO.
BRIDGE REPAIR	2023	90S353-M3-003	T3

SR 353 CLOSED TO WIDE LOADS OVER 9.5' FT
SPECIAL

DETOUR M4-8
← M6-1L
A

SR 353 CLOSED TO WIDE LOADS OVER 9.5' FT
SPECIAL

DETOUR M4-8
↑ M6-3
B

DETOUR M4-8
353 M1-5
Tennessee
← M6-1L
C

DETOUR M4-8
353 M1-5
Tennessee
→ M6-1R
D

DETOUR M4-8
353 M1-5
Tennessee
↑ M6-3
E

ONE LANE BRIDGE ON SR353 SOUTH
5 MILES AHEAD
9.5 FT HORIZ. CLEARANCE
F
SPECIAL

ONE LANE BRIDGE ON SR353 SOUTH
1 MILES AHEAD
9.5 FT HORIZ. CLEARANCE
G
SPECIAL

SEALED BY

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

S.R. 353 WIDE LOAD DETOUR

TRAFFIC CONTROL PLANS AND NOTES

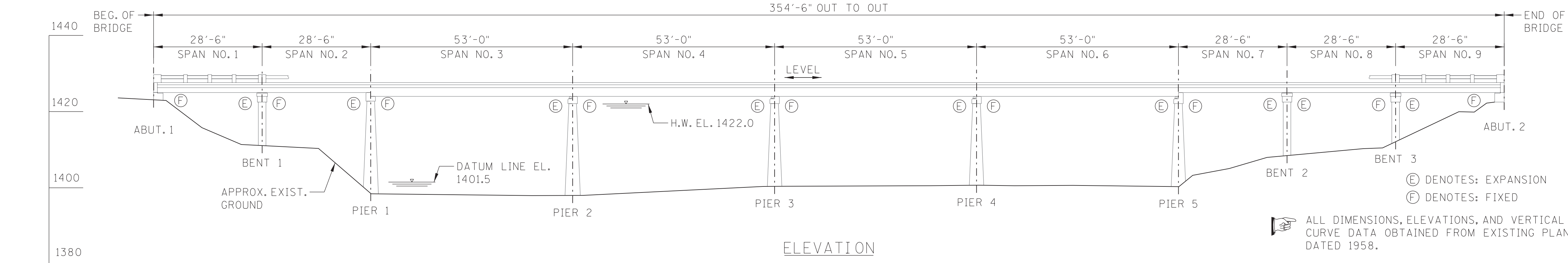
NOT TO SCALE

9/14/2023 1:08:36 PM

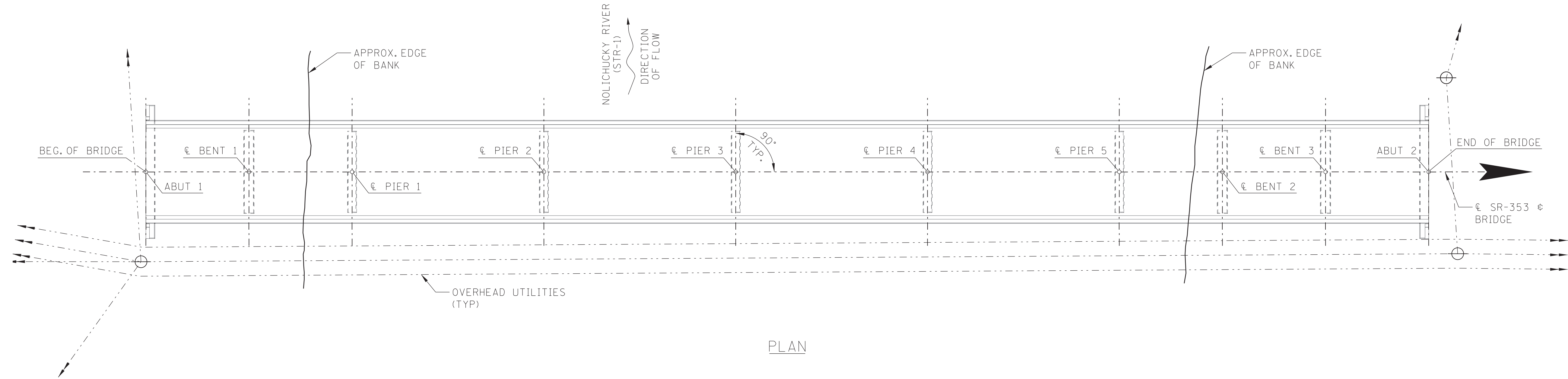
J:\Structures\11685-34_Washington_Co_SR353_Nolichucky_River\Drawings\Final_dgn\11685-34_STR_LAY.DGN



PIN NO.:	132623.01	DATE:	09/2023
DESIGN BY:	R.L. COLBERT	DATE:	09/2023
DRAWN BY:	M.D. SIMPSON	DATE:	09/2023
SUPERVISED BY:	G.S. WILSON	DATE:	09/2023
CHECKED BY:	R.L. COLBERT	DATE:	09/2023



ELEVATION



PLAN

SCOPE OF WORK:

1. PROVIDE TRAFFIC CONTROL AND PHASED CONSTRUCTION MAINTAINING ONE LANE OF TRAFFIC USING A TRAFFIC LIGHT SYSTEM.
2. REMOVE ALL BUT 2" OF EXISTING ASPHALT WEARING SURFACE.
3. PLACE NEW 1 1/4" GRADING D ASPHALT OVERLAY ON TOP OF REMAINING EXISTING PAVEMENT.
4. CONSTRUCT ASPHALT PAVEMENT TRANSITIONS (ALONG SR-353 AND SIDE ROADS).
5. REPAIR DAMAGED/DETERIORATED AREAS OF CONCRETE ON BEAMS.
6. REPAIR DAMAGED/DETERIORATED AREAS OF CONCRETE ON DIAPHRAGMS AND SUBSTRUCTURE UNITS.
7. EPOXY-INJECT CRACKS IN BEAMS AND SUBSTRUCTURE UNITS.
8. STABILIZE SLOPE AT ABUTMENT 1 UTILIZING SACKED SAND CEMENT.
9. ENCASE EXPOSED PILE AT ABUTMENT 2.
10. CLEAN AND MAINTAIN EXISTING JOINTS IN CONCRETE CURBS.
11. CLEAN AND MAINTAIN EXISTING DECK DRAINS (COST TO BE INCLUDED IN OTHER ITEMS BID ON).
12. REMOVE ALL DIRT/DEBRIS/TRASH FROM SUBSTRUCTURES AND BELOW BRIDGE (COST TO BE INCLUDED IN VEGETATION REMOVAL).
13. REMOVE VEGETATION FOR A DISTANCE OF TEN FEET ALONG EACH SIDE OF THE BRIDGES AS DIRECTED BY THE ENGINEER.

LIST OF BRIDGE DRAWINGS

DRAWING	DRAWING NO.	LAST REV. DATE
LAYOUT OF BRIDGE TO BE REPAIRED	BR-132-479	
ESTIMATED BRIDGE QUANTITIES	BR-132-480	
BRIDGE GENERAL NOTES	BR-132-481	
SUPERSTRUCTURE	BR-132-482	
SUPERSTRUCTURE REPAIRS	BR-132-483	
SUBSTRUCTURE REPAIRS	BR-132-484	
SUBSTRUCTURE REPAIRS	BR-132-485	
SUBSTRUCTURE REPAIRS	BR-132-486	
SUBSTRUCTURE REPAIRS	BR-132-487	
CONCRETE REPAIR DETAILS	BR-132-488	

LIST OF BRIDGE REFERENCE DRAWINGS

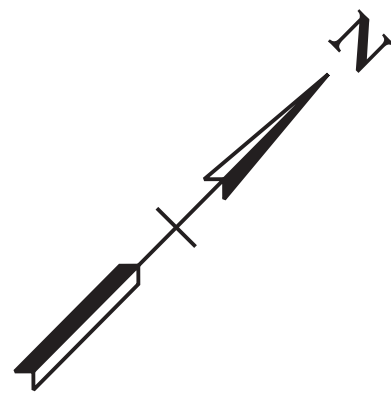
(TO BE PRINTED WITH PLANS)

G-1-141, F-10-21 THRU F-10-23, E-2-10
AND F-10-13

CONST. NO.:

PROJECT NO.		YEAR	SHEET NO.
90S353-M3-003		2023	
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION

ALL DIMENSIONS, ELEVATIONS, AND VERTICAL CURVE DATA OBTAINED FROM EXISTING PLANS DATED 1958.



STATE ROUTE 353
POSTED SPEED LIMIT = 45 M.P.H.
AADT (2021) = 1,355

SEALED BY



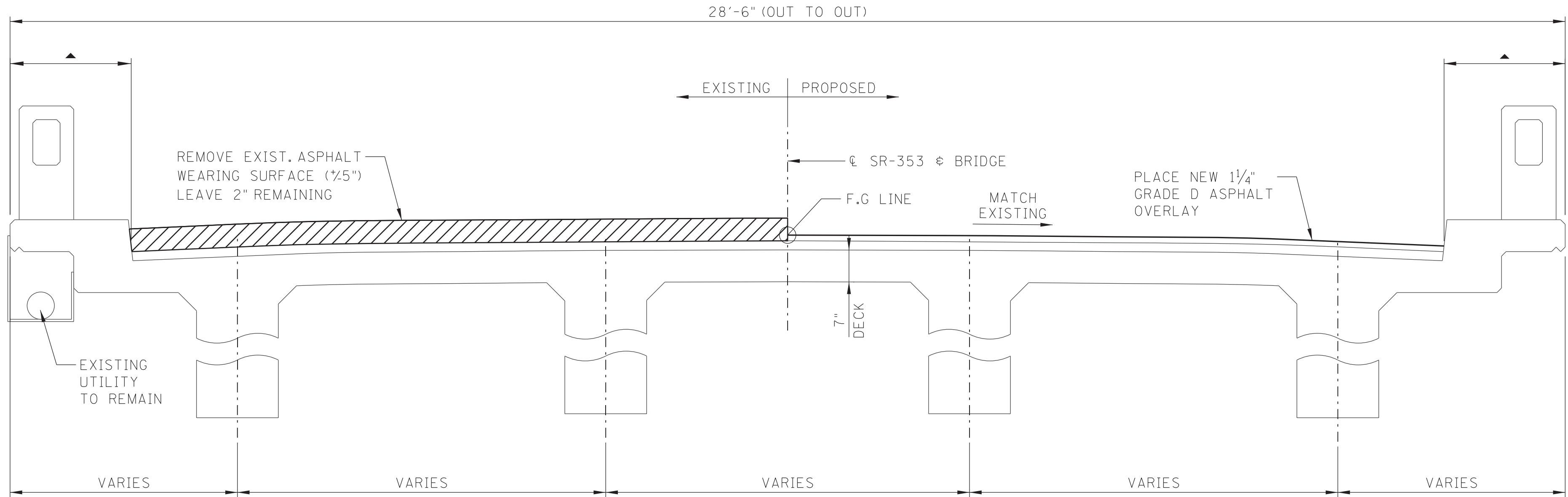
STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

LAYOUT OF BRIDGE TO BE REPAIRED
SR-353 OVER NOLICHUCKY RIVER
BRIDGE NO. 90-SR353-00.45
FED. I.D. NO. 90S23860001
WASHINGTON COUNTY
2023

BR-132-479

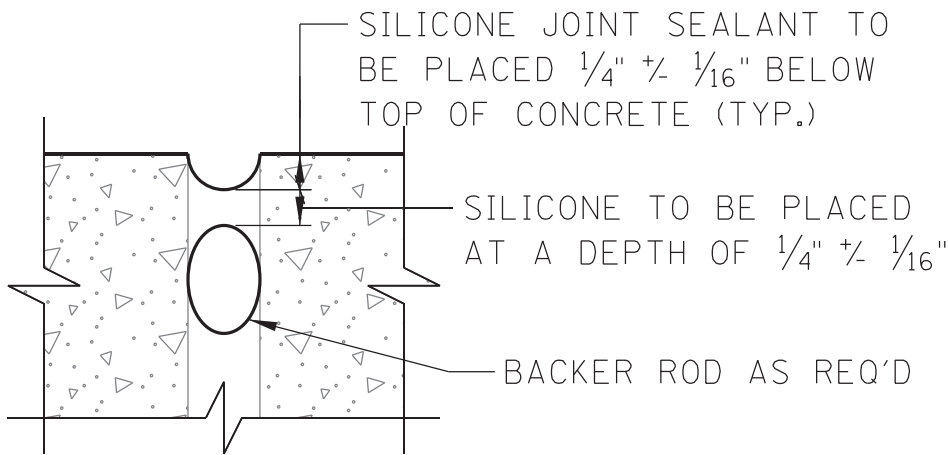
CONST. NO.:

PROJECT NO.		YEAR	SHEET NO.
90S353-M3-003		2023	
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION



TYPICAL
(LOOKING AHEAD)

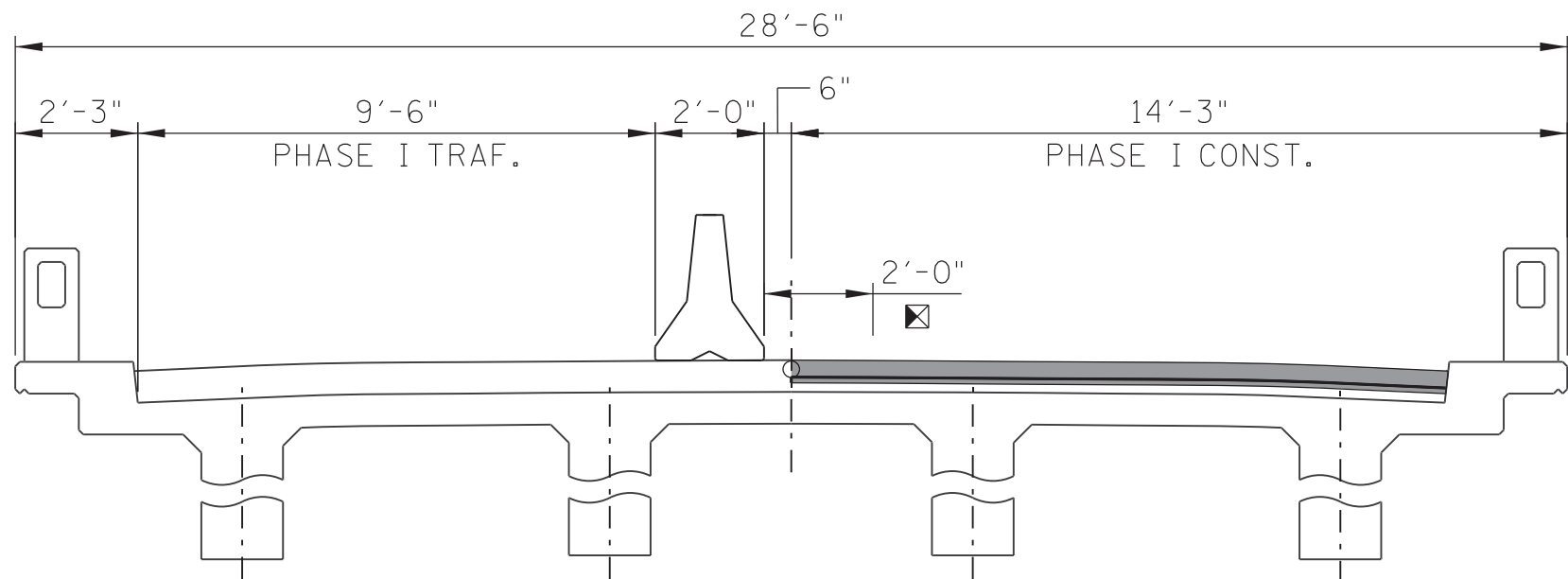
▲ DENOTES: LIMITS OF PAYMENT FOR ITEM NO. 604-10.44, EXPANSION JOINT REPAIRS, L.F. SEE JOINT SEAL DETAIL THIS SHEET.



JOINT SEAL DETAIL @ CURBS
(TYPICAL AT ALL PIERS AND BENTS)

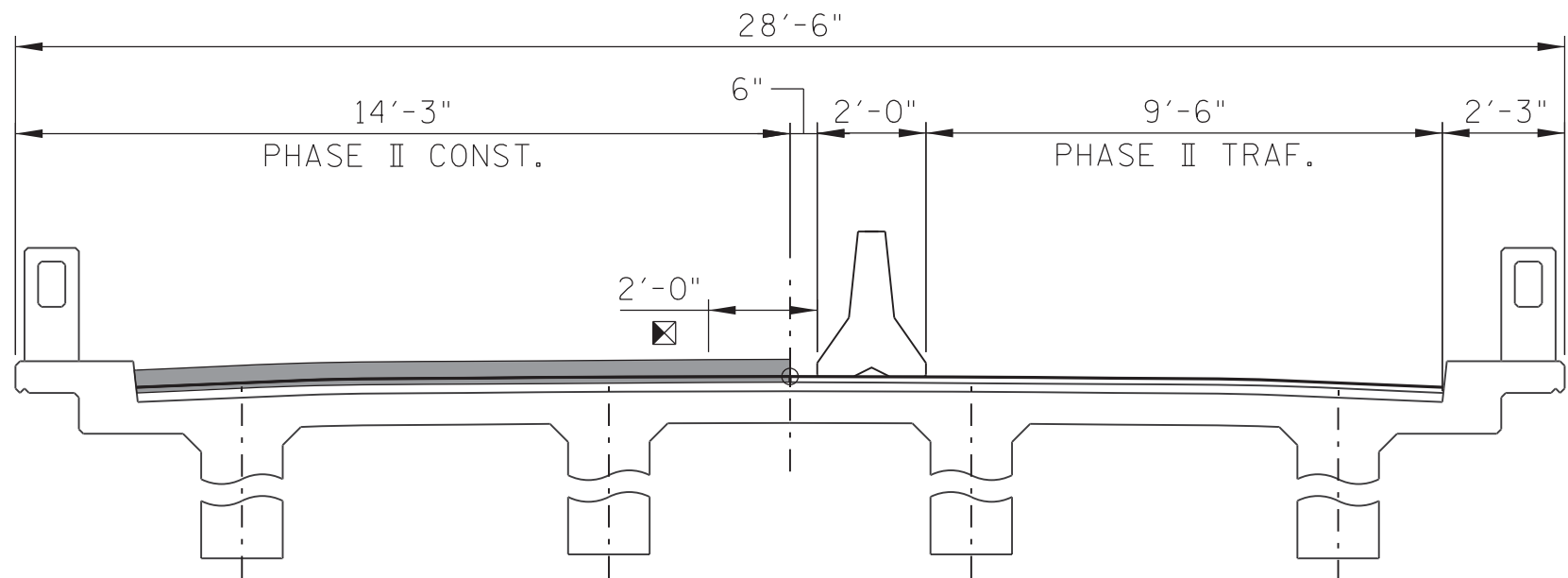
REMOVE ALL DEBRIS/LOOSE MATERIAL PRIOR TO PLACING SEALANT.

ALL COSTS ASSOCIATED WITH CLEANING AND SEALING JOINT OPENINGS THROUGH CURBS AT PIERS AND BENTS TO BE INCLUDED IN ITEM NO. 604-10.44 EXPANSION JOINT REPAIRS, L.F.



CONSTRUCTION PHASE I
(LOOKING AHEAD)

■ DENOTES: AREA TO BE REMOVED



CONSTRUCTION PHASE II
(LOOKING AHEAD)

■ DENOTES: AREA TO BE REMOVED

⊠ WORKERS SHALL USE EXTREME CAUTION WHILE WORKING IN THE DYNAMIC REFLECTION ZONE.

SEALED BY



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE
SR-353 OVER NOLICHUCKY RIVER
BRIDGE NO. 90-SR353-00.45
FED. I.D. NO. 90S23860001
WASHINGTON COUNTY
2023

BR-132-482

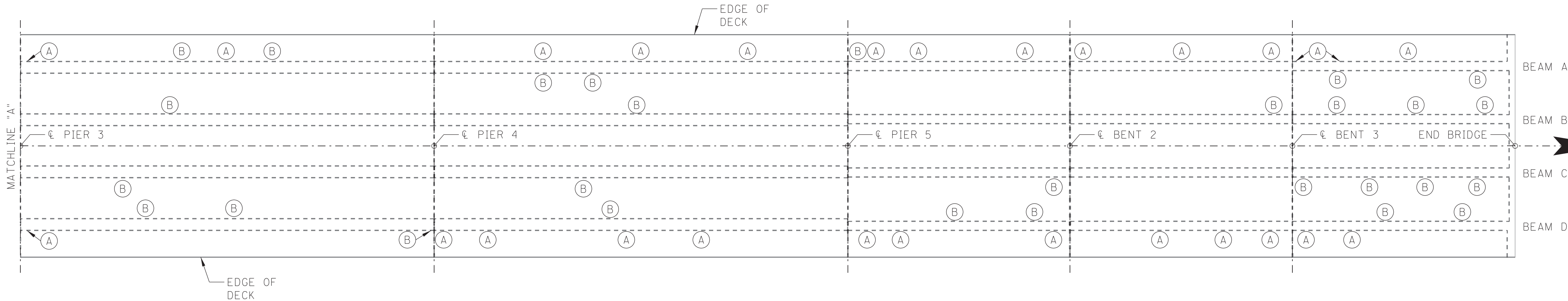
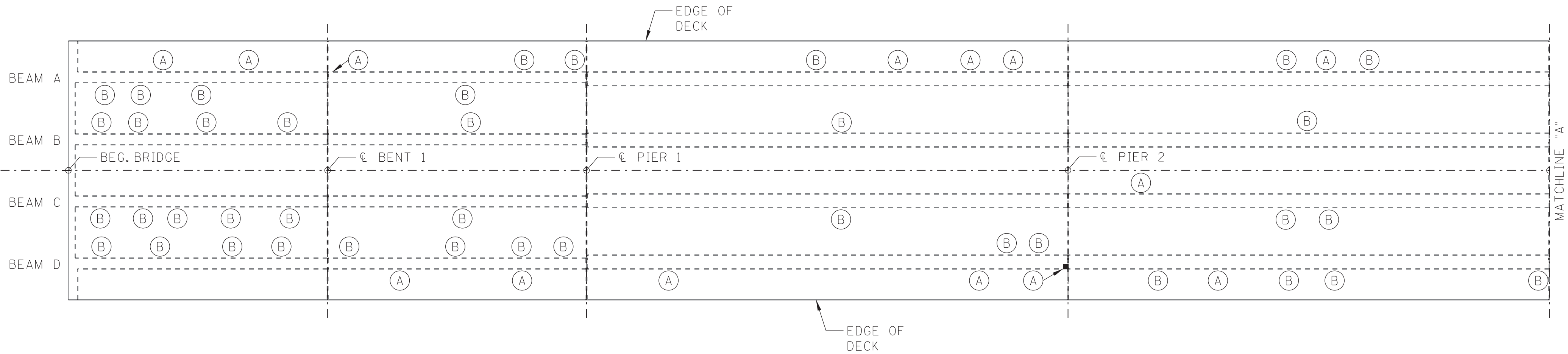


PIN NO.: 132623.01
DESIGN BY: R.L. COLBERT DATE: 09/2023
DRAWN BY: M.D. SIMPSON DATE: 09/2023
SUPERVISED BY: G.S. WILSON DATE: 09/2023
CHECKED BY: R.L. COLBERT DATE: 09/2023

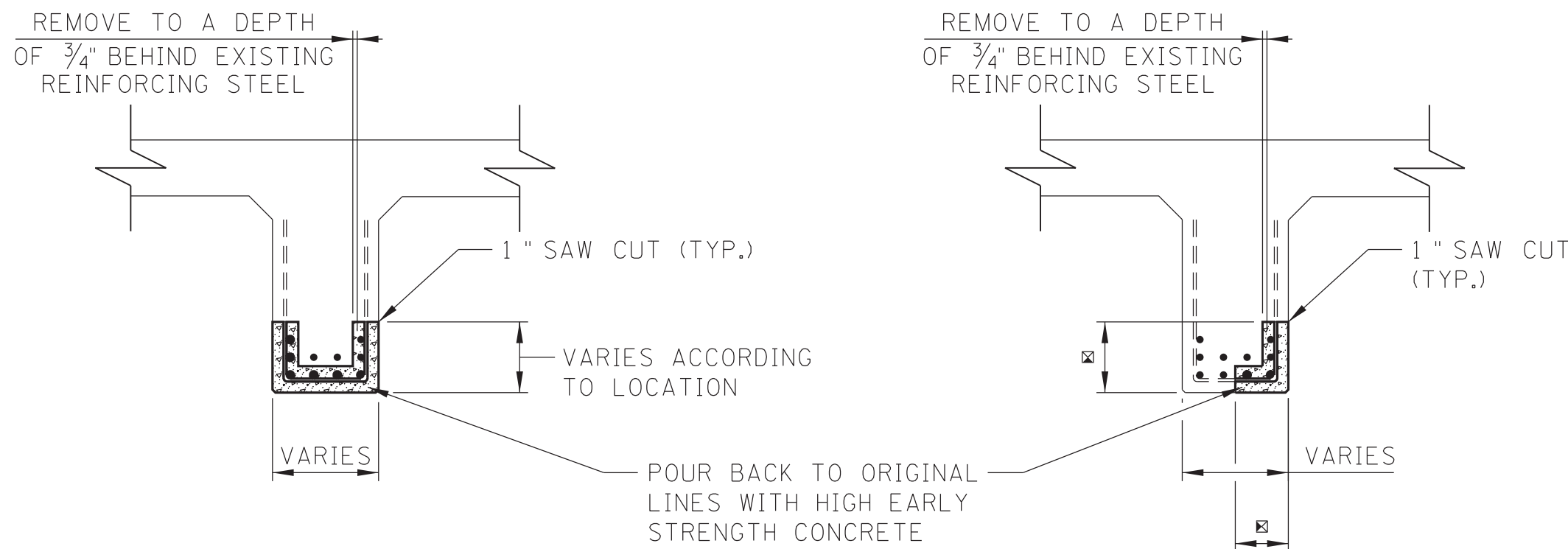
9/14/2023 1:08:39 PM J:\Structures\11685-34_Washington_Co_SR353_Nolichucky_River\Drawings\Final_dgn\11685-34_STR_FRAME.DGN



PIN NO.: 132623.01
DESIGN BY: R.L. COLBERT DATE: 09/2023
DRAWN BY: M.D. SIMPSON DATE: 09/2023
SUPERVISED BY: G.S. WILSON DATE: 09/2023
CHECKED BY: R.L. COLBERT DATE: 09/2023



FRAMING PLAN



SEE FRAMING PLAN ABOVE FOR APPROX. LIMITS AND LOCATIONS. FINAL LIMITS AND LOCATIONS OF REPAIRS TO BE DESIGNATED BY THE ENGINEER.

BEAM REPAIR DETAILS

BEAM REPAIR NOTES

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. ALL EXISTING REINFORCING STEEL SHALL BE COMPLETELY CLEANED TO THE SATISFACTION OF THE ENGINEER BEFORE REPOURING. ANY REINFORCING STEEL DAMAGED DURING THIS WORK SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE STABILITY OF THE STRUCTURE DURING REPAIRS TO THE BEAMS. DETAILS OF ANY TEMPORARY SUPPORT SYSTEM OR FALSEWORK REQUIRED SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND SHALL MEET WITH THE FULL SATISFACTION OF THE ENGINEER BEFORE THE BEGINNING OF ANY BEAM REPAIR. COST TO BE INCLUDED IN ITEM NO. 604-10.42, CONCRETE REPAIRS, C.F.

CONST. NO.:

PROJECT NO.		YEAR	SHEET NO.
90S353-M3-003		2023	
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION

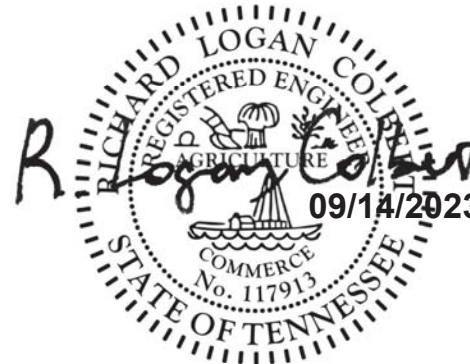
ESTIMATED QUANTITIES

LOCATION OF REPAIR	ITEM 604-10.42 APPROX. REPAIR AREAS (C.F.)	ITEM 604-10.62 APPROX. REPAIR AREAS (L.F.)
SPAN 1	5	21
SPAN 2	4	66
SPAN 3	14	72
SPAN 4	3	91
SPAN 5	7	68
SPAN 6	17	56
SPAN 7	23	20
SPAN 8	18	4
SPAN 9	7	37
TOTAL	98	435

(A) DENOTES AREA TO BE REPAIRED UNDER ITEM NO. 604-10.42. SEE THIS SHEET FOR DETAILS SHOWING AREAS OF EXISTING SPALLED OR DELAMINATED CONCRETE SURFACES TO BE REMOVED AND REPAIRED.

(B) DENOTES CRACK(S) TO BE REPAIRED UNDER ITEM NO. 604-10.62. SEE EPOXY INJECTION NOTES ON SHEET BR-132-488.

SEALED BY



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

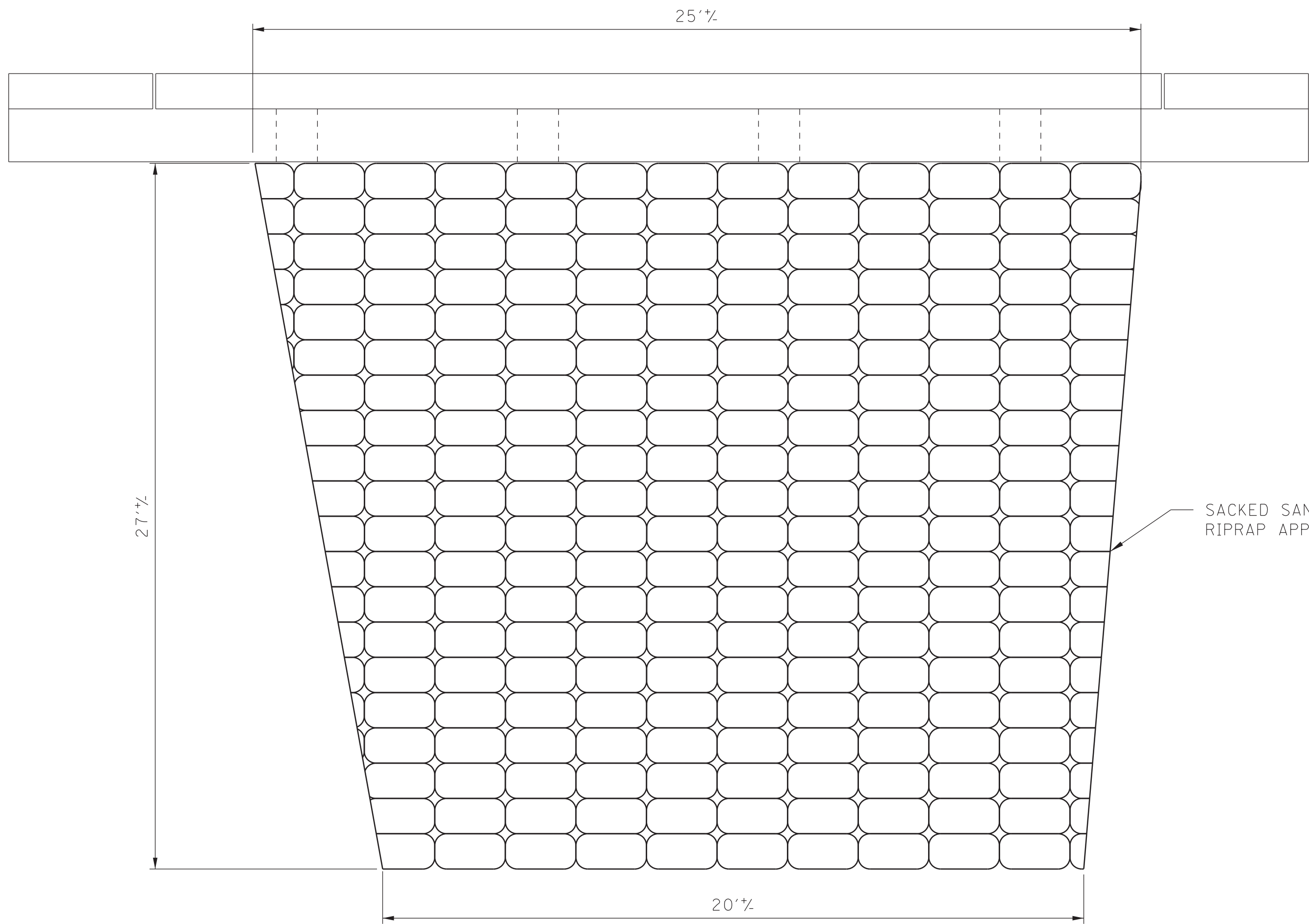
SUPERSTRUCTURE REPAIRS
SR-353 OVER NOLICHUCKY RIVER
BRIDGE NO. 90-SR353-00.45
FED. I.D. NO. 90S23860001
WASHINGTON COUNTY
2023

BR-132-483

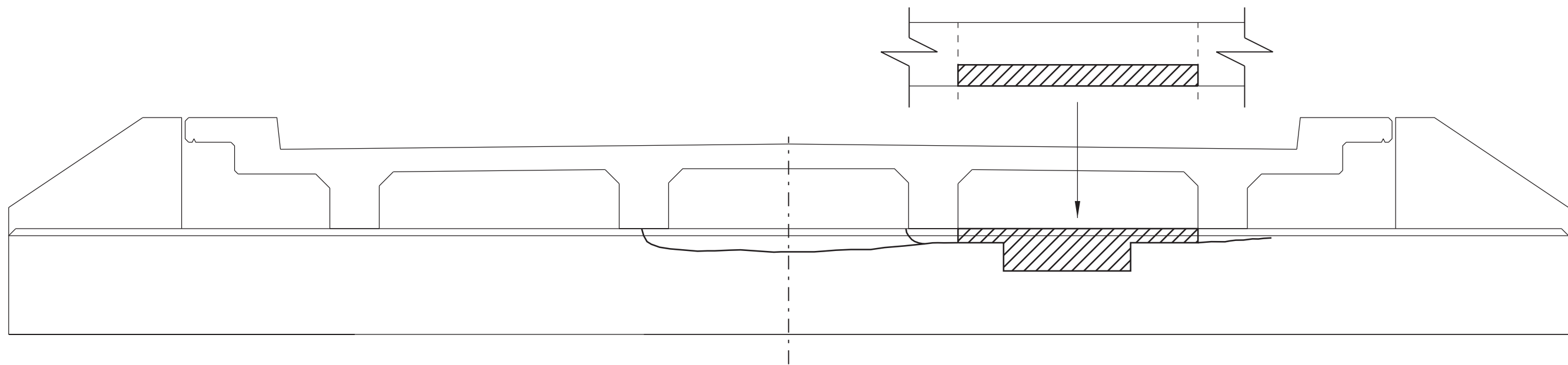
9/14/2023 1:08:40 PM J:\Structures\11685-34_Washington_Co_SR353_Nolichucky_River\Drawings\Final_dgn\11685-34_STR_SUB.DGN



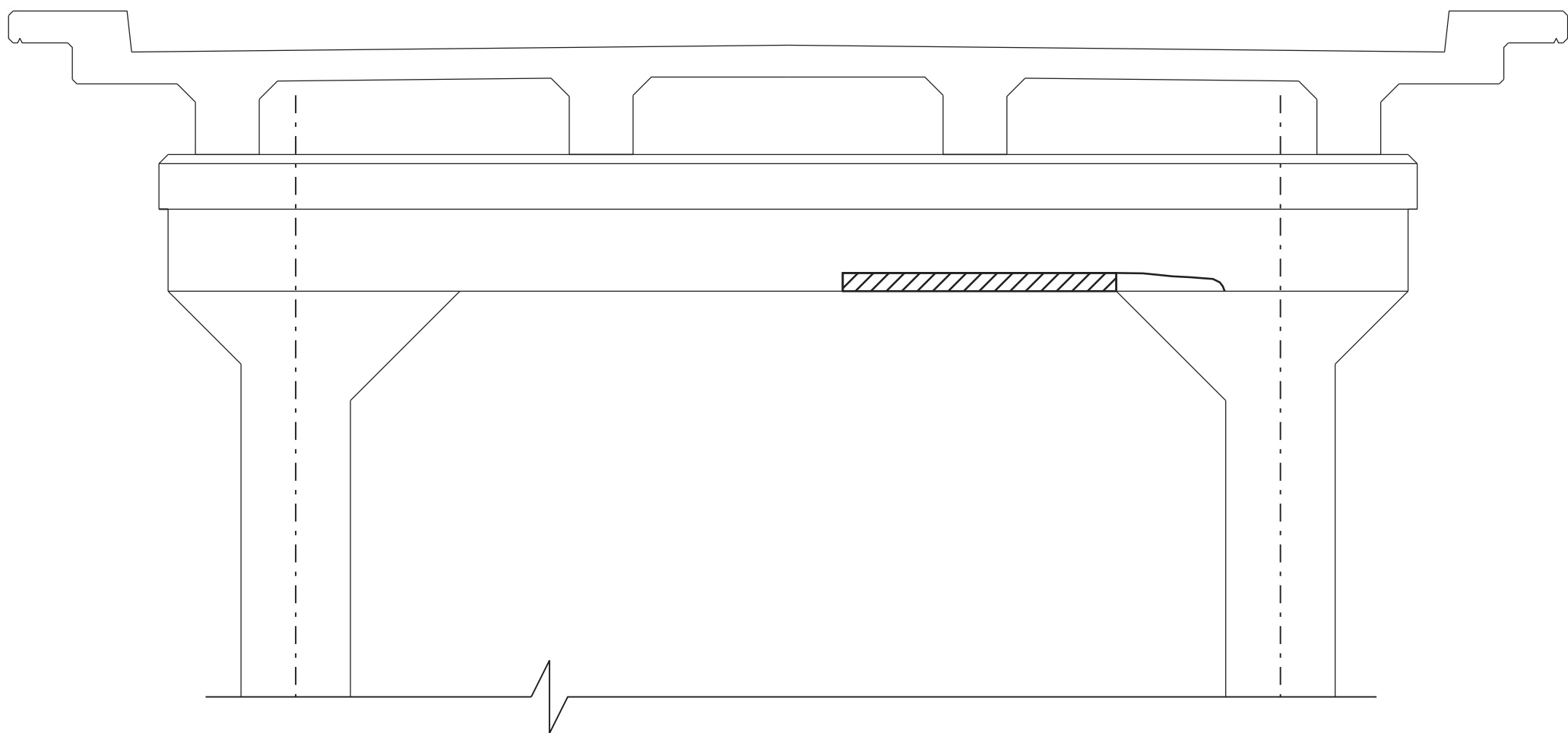
PIN NO.:	132623.01	DATE:	09/2023
DESIGN BY:	R.L. COLBERT	DATE:	09/2023
DRAWN BY:	M.D. SIMPSON	DATE:	09/2023
SUPERVISED BY:	G.S. WILSON	DATE:	09/2023
CHECKED BY:	R.L. COLBERT	DATE:	09/2023



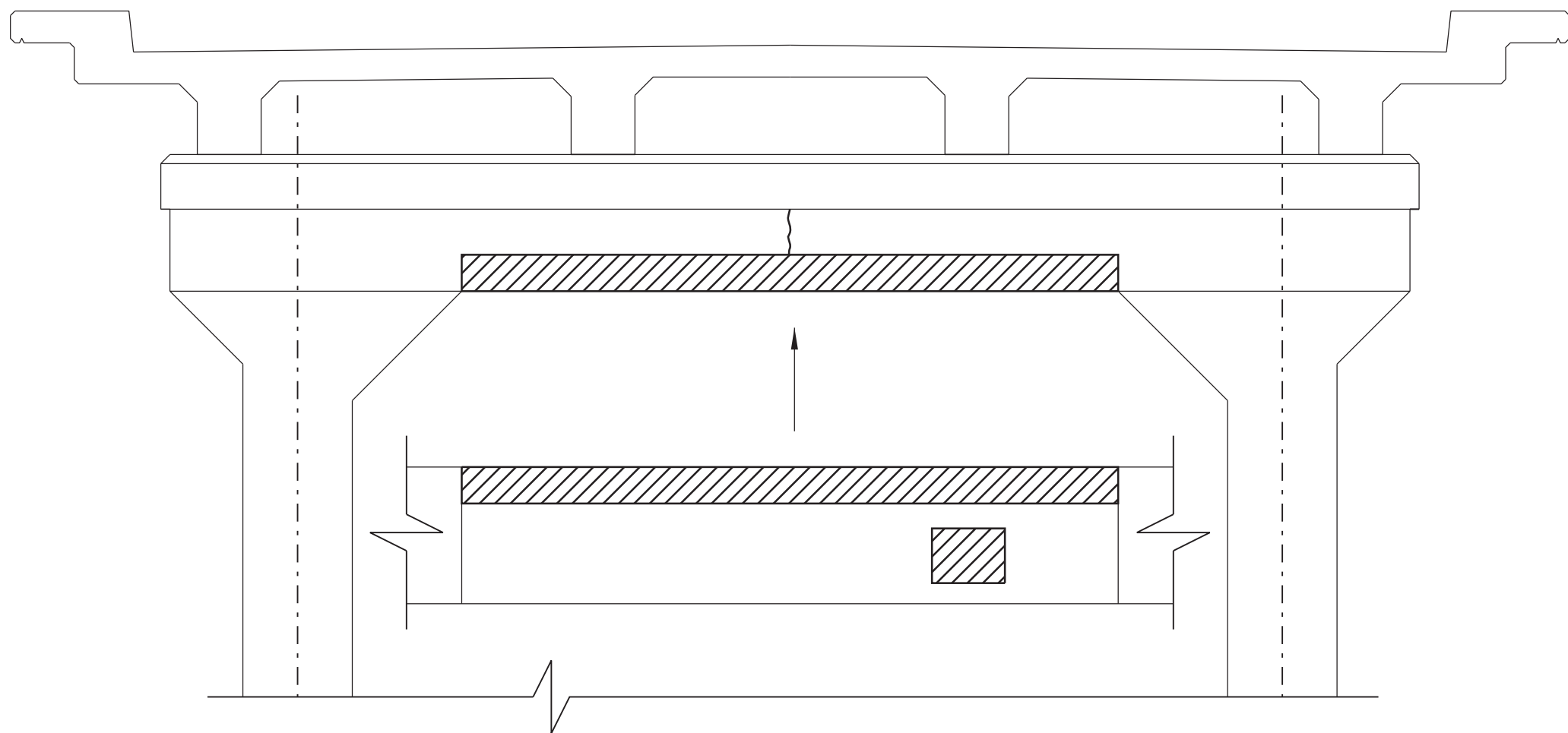
ABUT 1 PLAN VIEW



ABUT 1
(LOOKING BACK)



BENT 1
(LOOKING AHEAD)



BENT 1
(LOOKING BACK)

ESTIMATED QUANTITIES

LOCATION OF REPAIR	ITEM 604-10.05 AND/OR 604-10.54 APPROX. REPAIR AREAS (S.F.)	ITEM 604-10.62 APPROX. REPAIR AREAS (L.F.)
ABUT 1	7	14
BENT 1	20	3
TOTAL	27	17

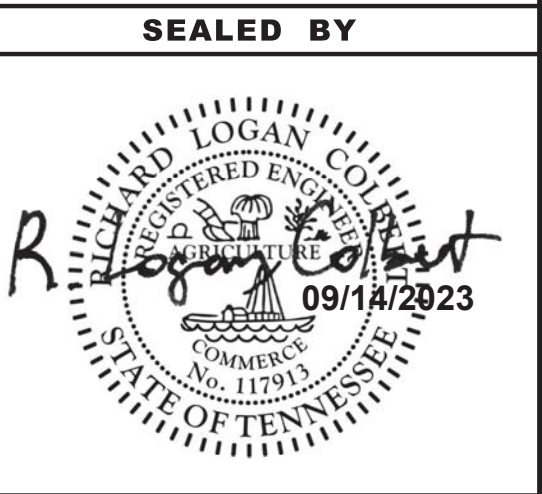
- DENOTES AREA TO BE REPAIRED UNDER ITEM NO. 604-10.05 AND/OR 604-10.54. FOR DETAILS SHOWING AREAS OF EXISTING SPALLED OR DELAMINATED CONCRETE SURFACES TO BE REMOVED AND REPAIRED, SEE SHEET BR-132-488.
- DENOTES CRACK TO BE REPAIRED UNDER ITEM NO. 604-10.62. SEE EPOXY INJECTION NOTES ON SHEET BR-132-488.
- DENOTES AREA OF FILL SLOPE TO BE FILLED WITH SACK SAND-CEMENT RIP-RAP. COST TO BE INCLUDED IN ITEM 709-02.02.

CONST. NO.:

PROJECT NO.		YEAR	SHEET NO.
90S353-M3-003		2023	
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SUBSTRUCTURE REPAIRS
SR-353 OVER NOLICHUCKY RIVER
BRIDGE NO. 90-SR353-00.45
FED. I.D. NO. 90S23860001
WASHINGTON COUNTY
2023



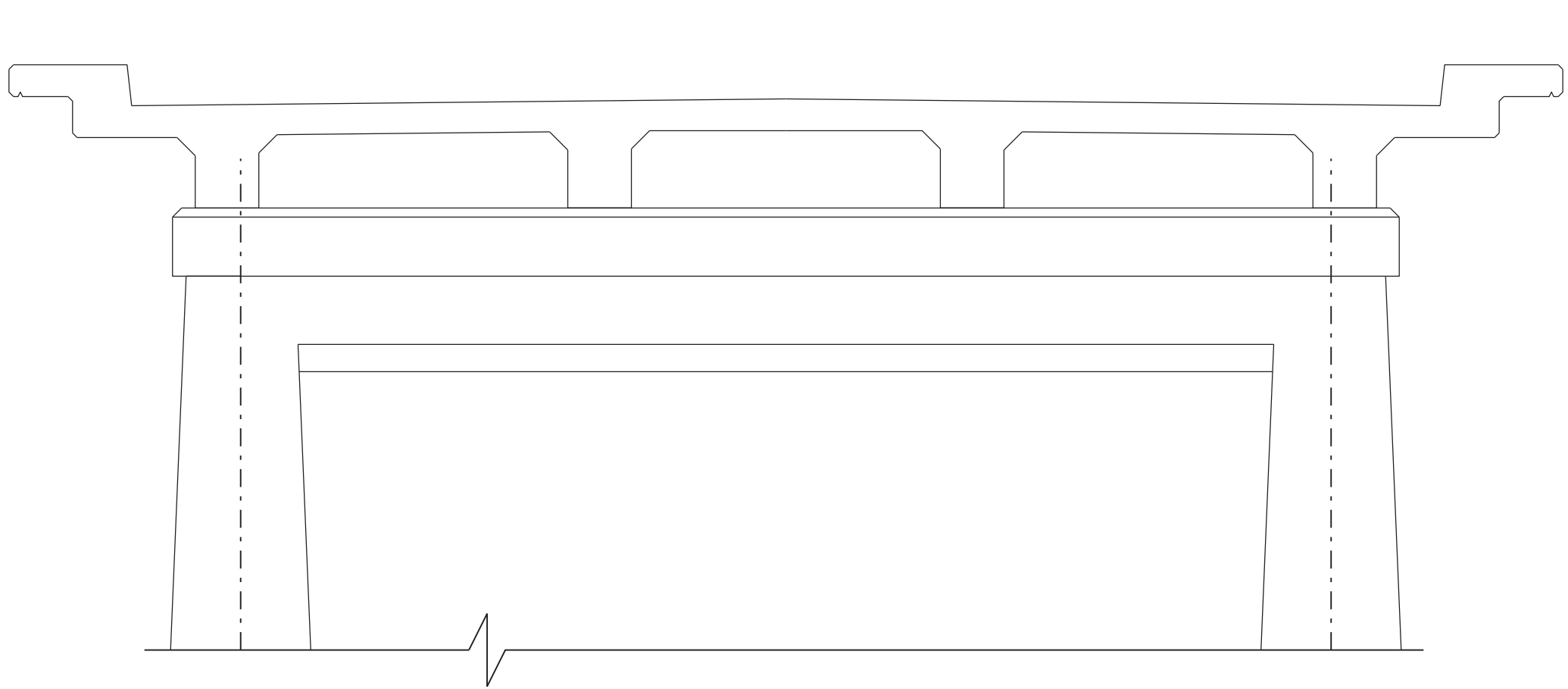
CONST. NO.:

PROJECT NO.		YEAR		SHEET NO.	
90S353-M3-003		2023			
REVISIONS					
NO.	DATE	BY	BRIEF DESCRIPTION		

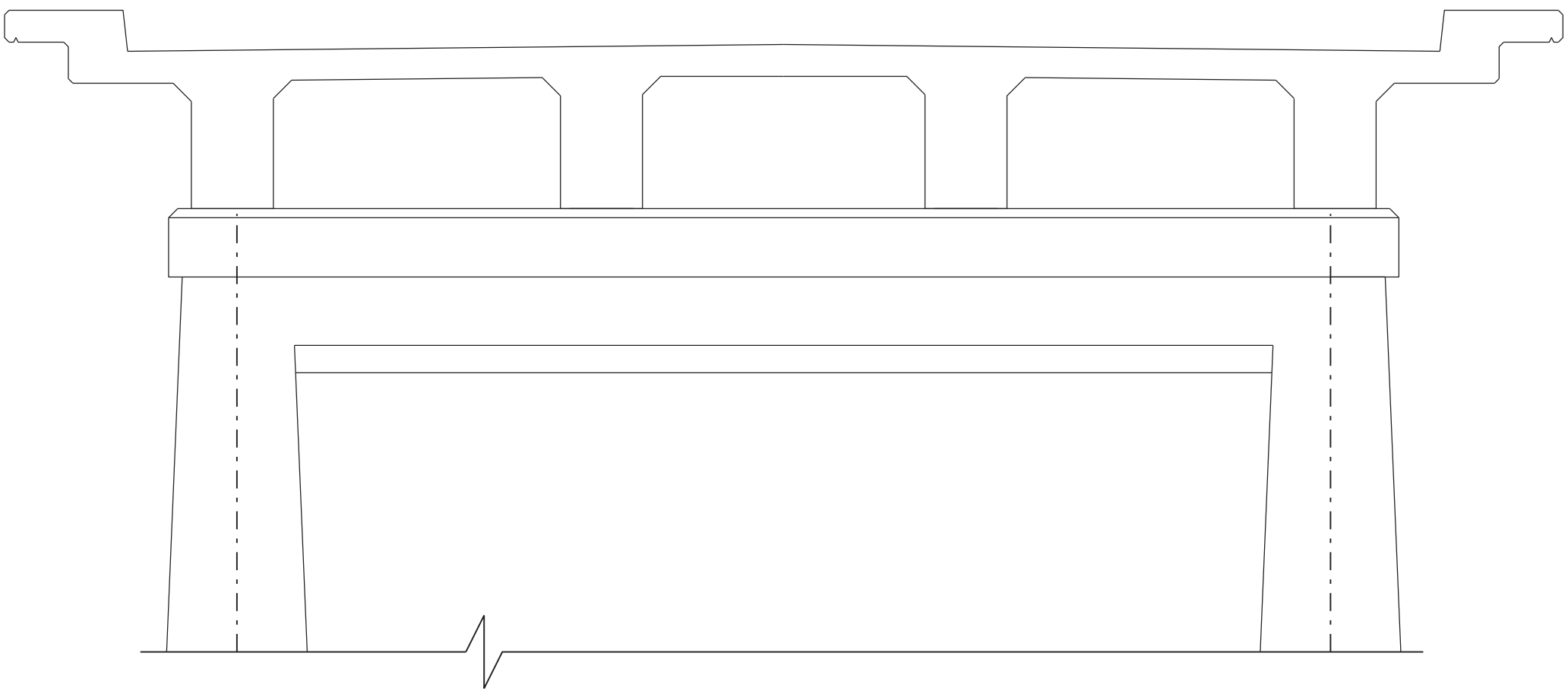
ESTIMATED QUANTITIES

LOCATION OF REPAIR	ITEM 604-10.05 AND/OR 604-10.54 APPROX. REPAIR AREAS (S,F.)	ITEM 604-10.62 APPROX. REPAIR AREAS (L,F.)
PIER 1	-	-
PIER 2	31	-
TOTAL	31	-

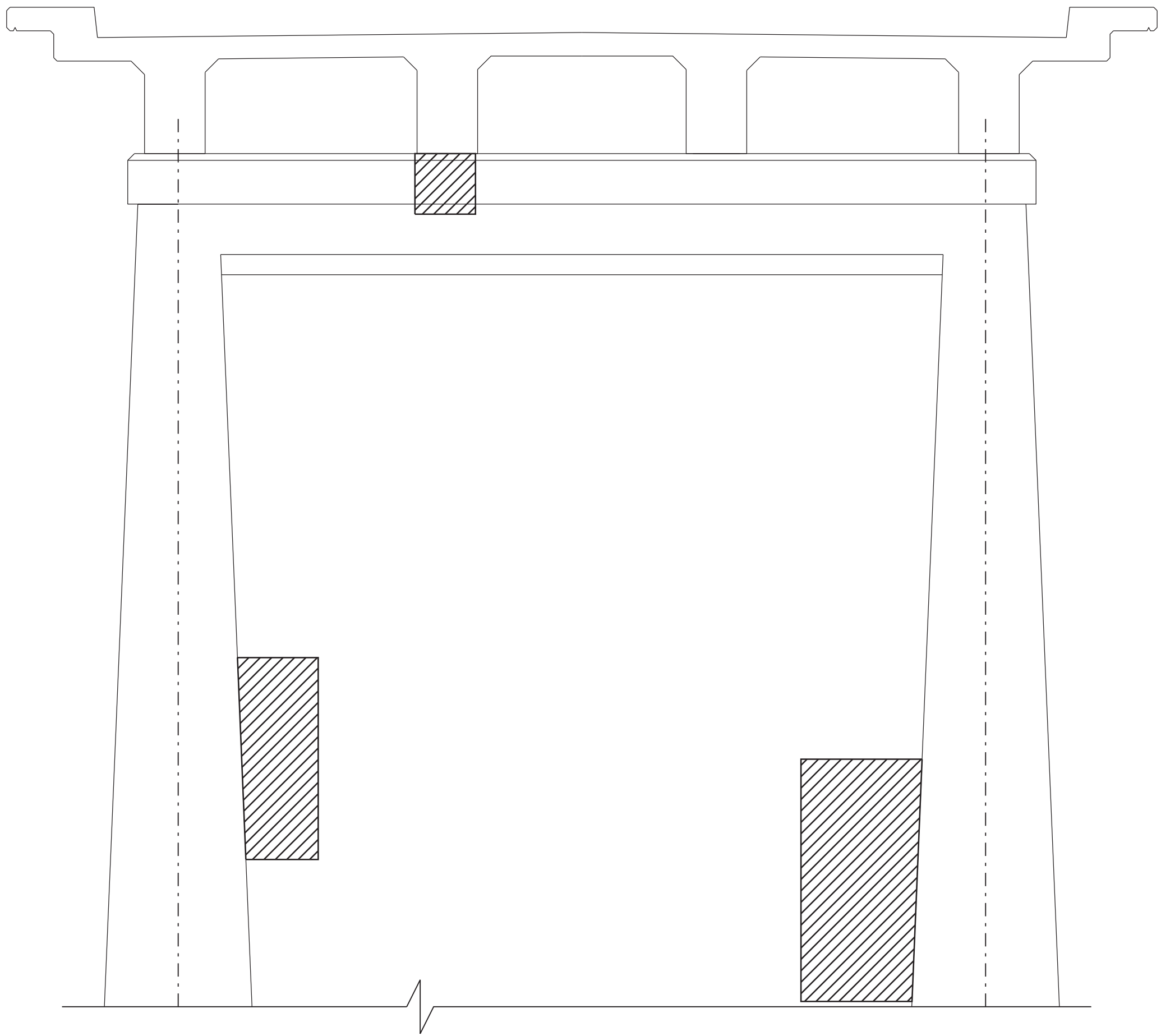
- DENOTES AREA TO BE REPAIRED UNDER ITEM NO. 604-10.05 AND/OR 604-10.54. FOR DETAILS SHOWING AREAS OF EXISTING SPALLED OR DELAMINATED CONCRETE SURFACES TO BE REMOVED AND REPAIRED, SEE SHEET BR-132-488.
- DENOTES CRACK TO BE REPAIRED UNDER ITEM NO. 604-10.62. SEE EPOXY INJECTION NOTES ON SEE SHEET BR-132-488.



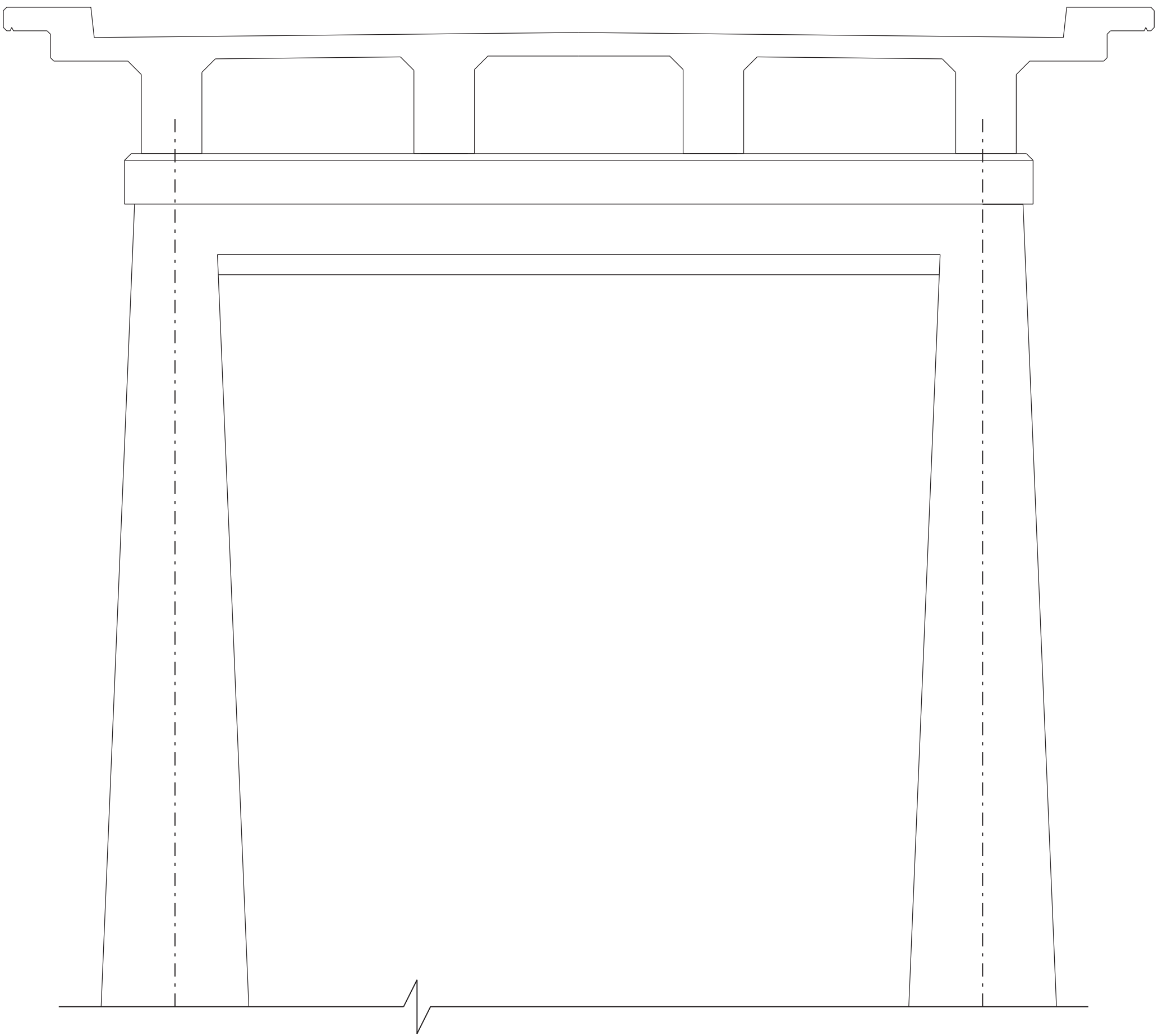
PIER 1
(LOOKING AHEAD)



PIER 1
(LOOKING BACK)



PIER 2
(LOOKING AHEAD)



PIER 2
(LOOKING BACK)

SEALED BY



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SUBSTRUCTURE REPAIRS
SR-353 OVER NOLICHUCKY RIVER
BRIDGE NO. 90-SR353-00.45
FED. I.D. NO. 90S23860001
WASHINGTON COUNTY
2023

BR-132-485



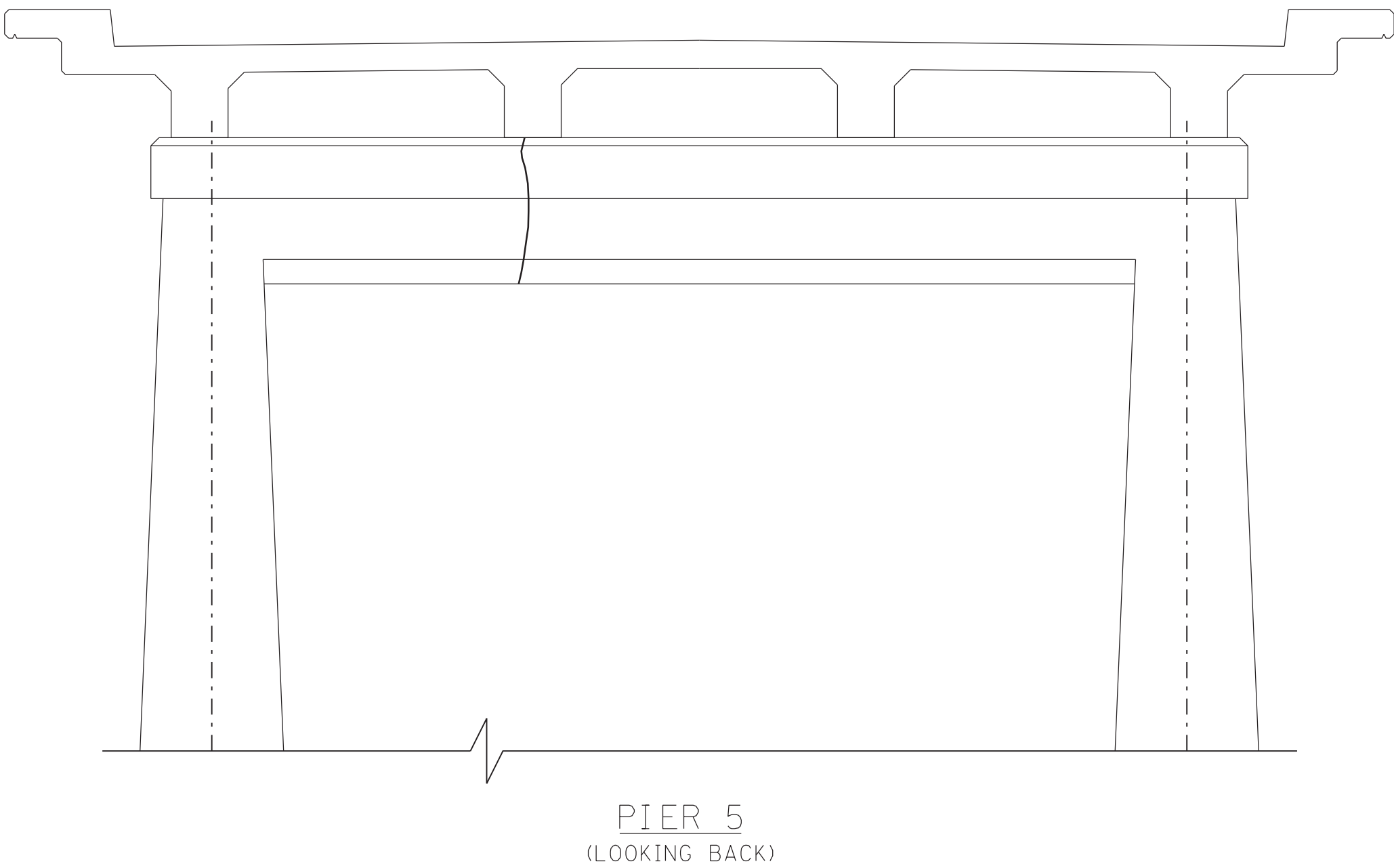
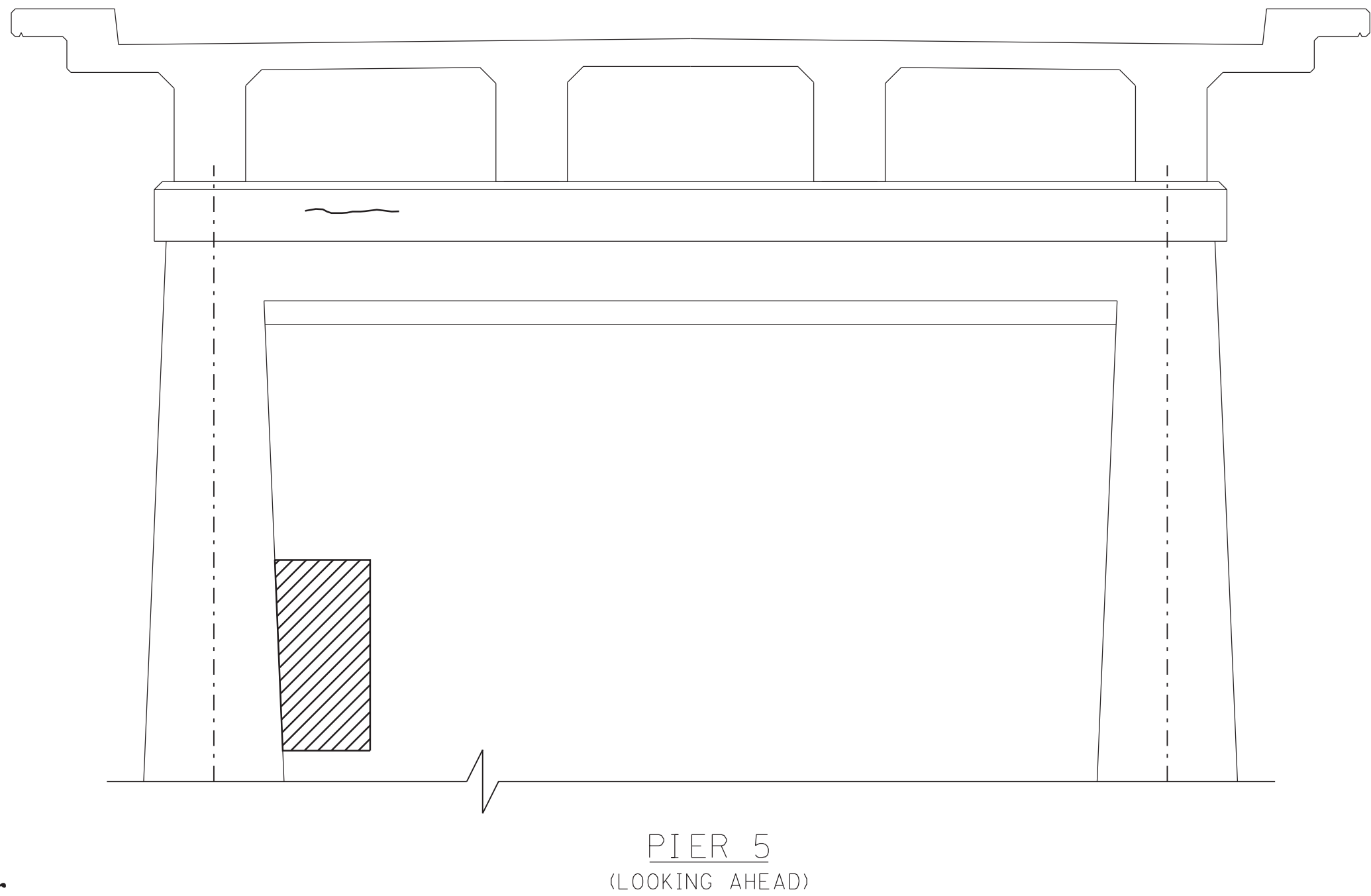
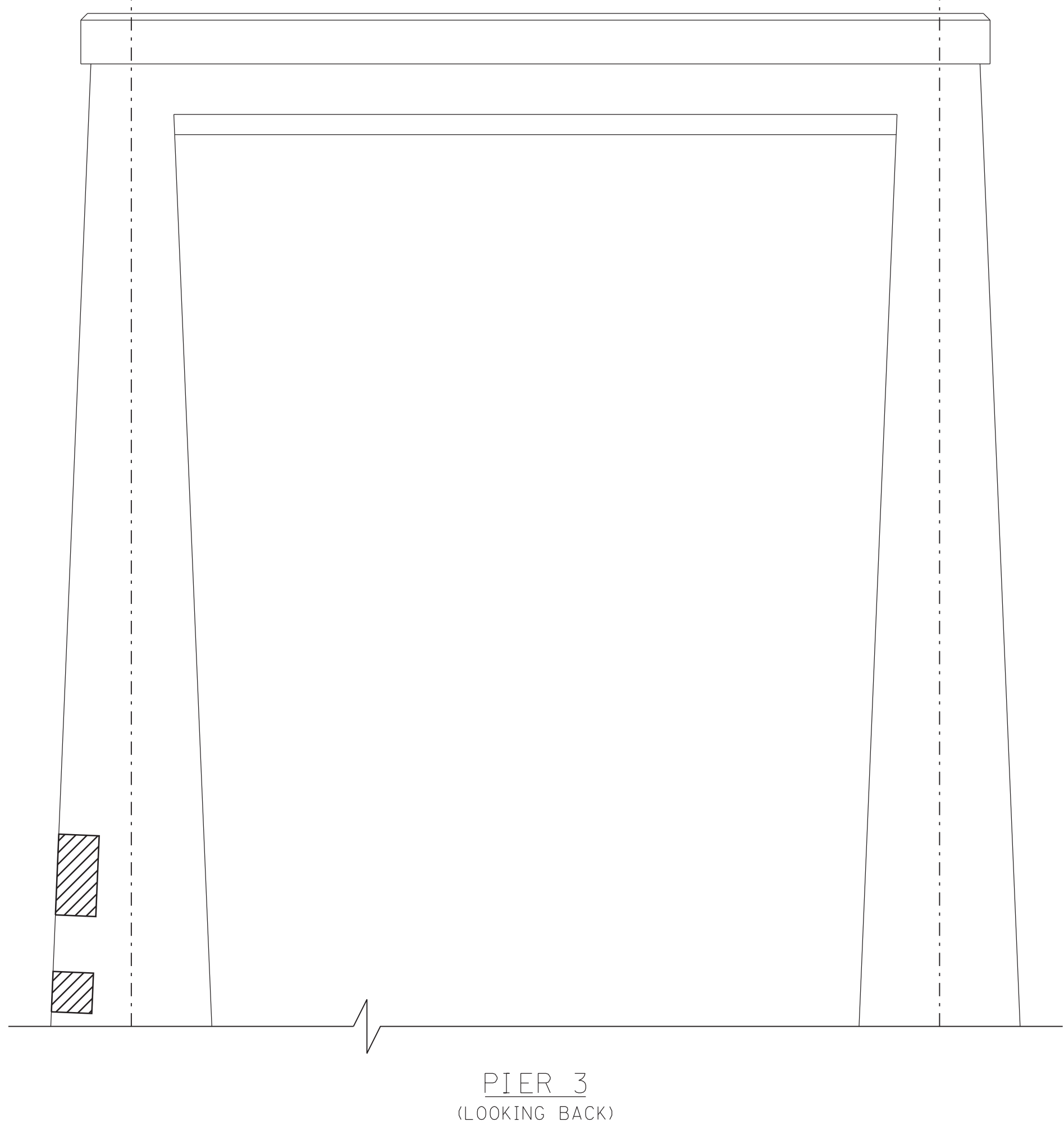
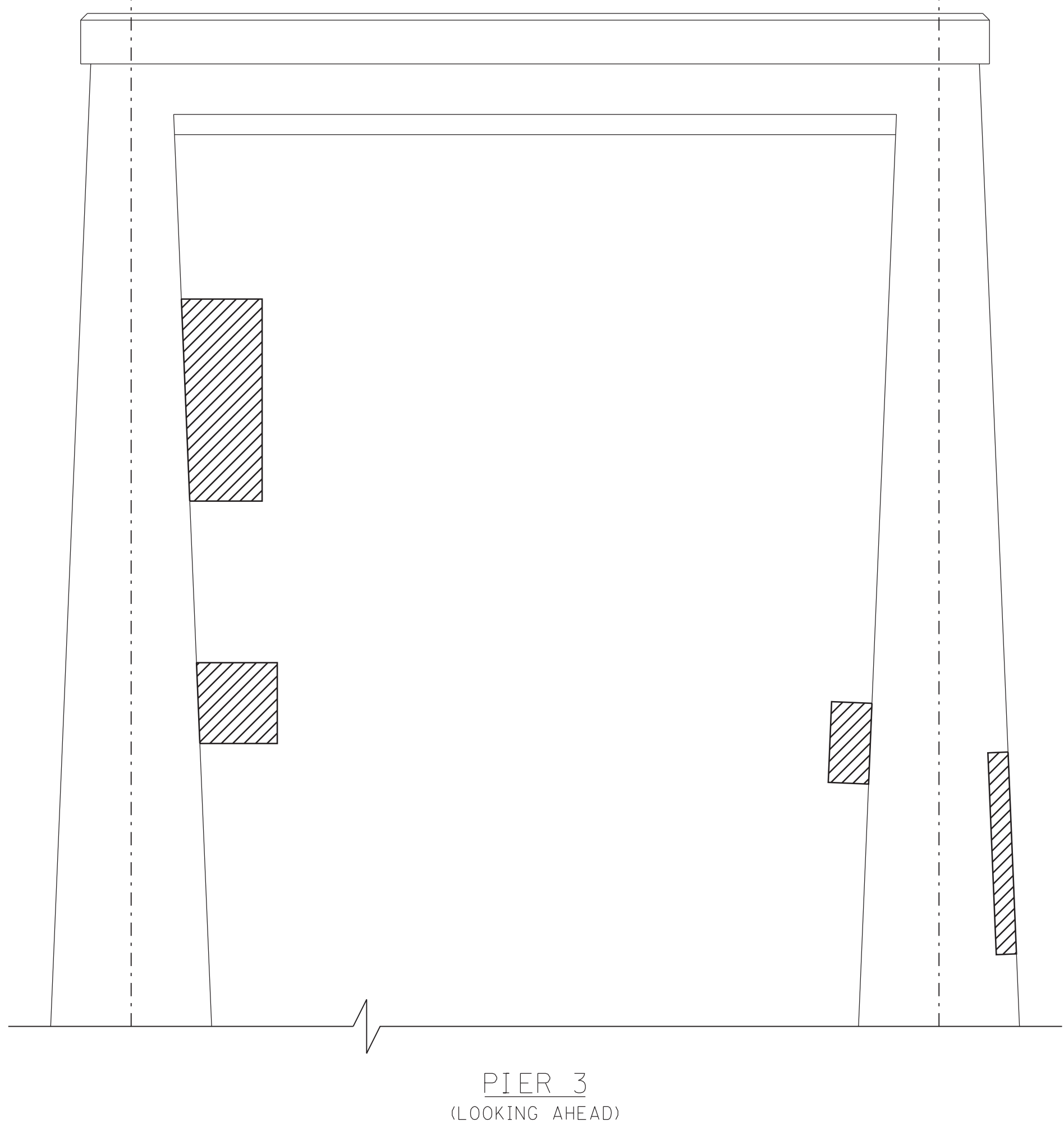
PIN NO.: 132623.01
DESIGN BY: R.L. COLBERT DATE: 09/2023
DRAWN BY: M.D. SIMPSON DATE: 09/2023
SUPERVISED BY: G.S. WILSON DATE: 09/2023
CHECKED BY: R.L. COLBERT DATE: 09/2023

9/14/2023 1:08:41 PM

J:\Structures\11685-34_Washington_Co_SR353_Nolichucky_River\Drawings\Final_dgn\11685-34_STR_SUB.DGN



PIN NO.:	132623.01	
DESIGN BY:	R.L. COLBERT	DATE: 09/2023
DRAWN BY:	M.D. SIMPSON	DATE: 09/2023
SUPERVISED BY:	G.S. WILSON	DATE: 09/2023
CHECKED BY:	R.L. COLBERT	DATE: 09/2023





CONST. NO.:

PROJECT NO.		YEAR	SHEET NO.
90S353-M3-003		2023	
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION

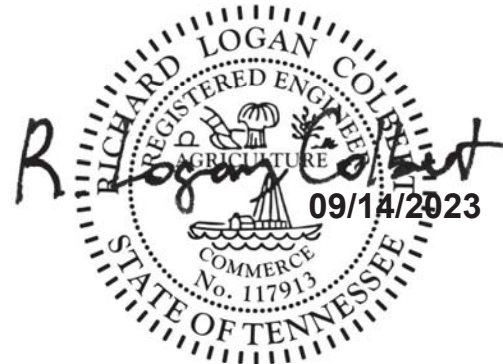
ESTIMATED QUANTITIES

LOCATION OF REPAIR	ITEM 604-10.05 AND/OR 604-10.54 APPROX. REPAIR AREAS (S.F.)	ITEM 604-10.62 APPROX. REPAIR AREAS (L.F.)
PIER 3	22	-
PIER 4	-	-
PIER 5	8	6
TOTAL	30	6

 DENOTES AREA TO BE REPAIRED UNDER ITEM NO. 604-10.05 AND/OR 604-10.54. FOR DETAILS SHOWING AREAS OF EXISTING SPALLED OR DELAMINATED CONCRETE SURFACES TO BE REMOVED AND REPAIRED, SEE SHEET BR-132-488.

 DENOTES CRACK TO BE REPAIRED UNDER ITEM NO. 604-10.62. SEE EPOXY INJECTION NOTES ON SEE SHEET BR-132-488.

SEALED BY



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SUBSTRUCTURE REPAIRS
SR-353 OVER NOLICHUCKY RIVER
BRIDGE NO. 90-SR353-00.45
FED. I.D. NO. 90S23860001
WASHINGTON COUNTY
2023

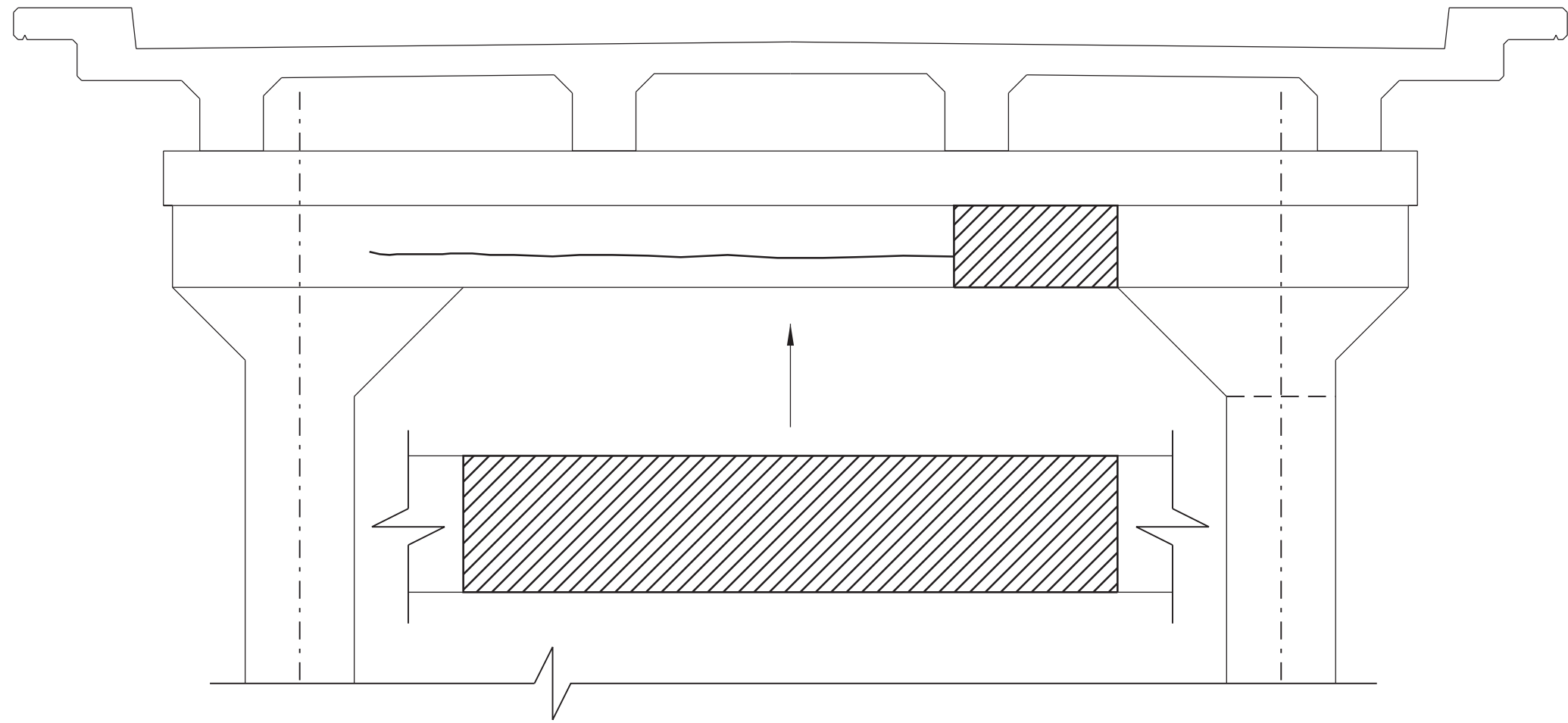
BR-132-486

9/14/2023 1:08:41 PM

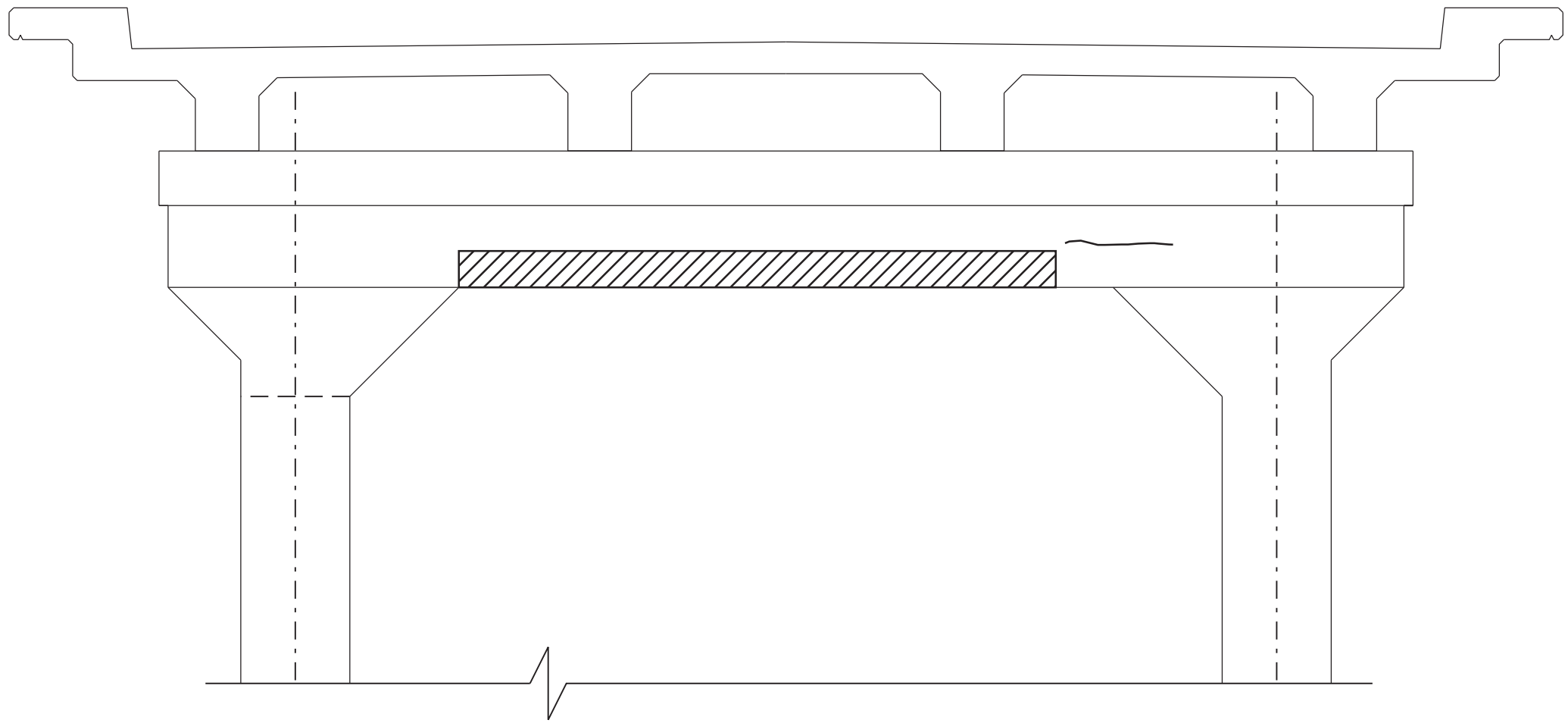
J:\Structures\11685-34_Washington_Co_SR353_Nolichucky_River\Drawings\Final_dgn\11685-34_STR_SUB.DGN



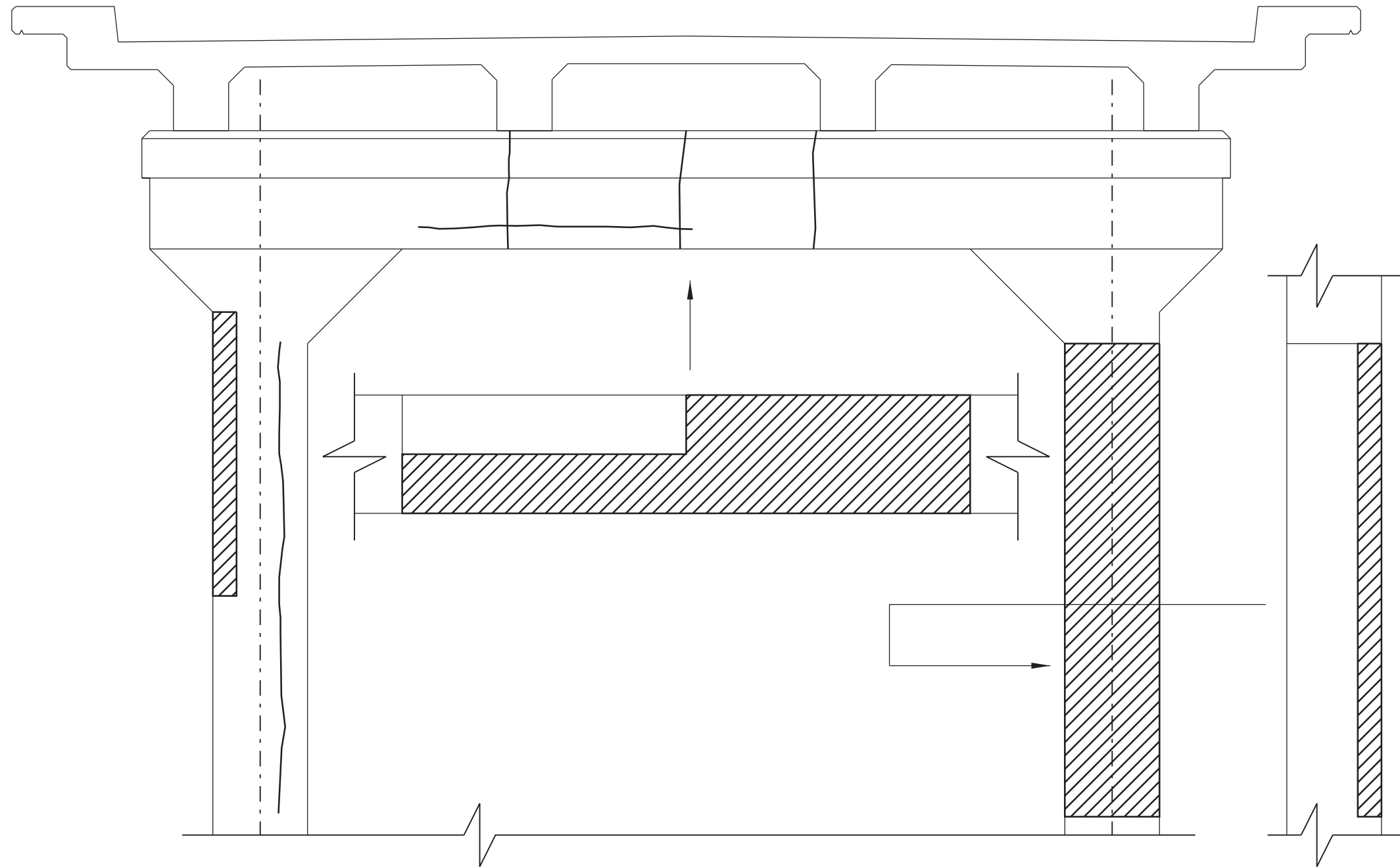
PIN NO.:	132623.01	DATE:	09/2023
DESIGN BY:	R.L. COLBERT	DATE:	09/2023
DRAWN BY:	M.D. SIMPSON	DATE:	09/2023
SUPERVISED BY:	G.S. WILSON	DATE:	09/2023
CHECKED BY:	R.L. COLBERT	DATE:	09/2023



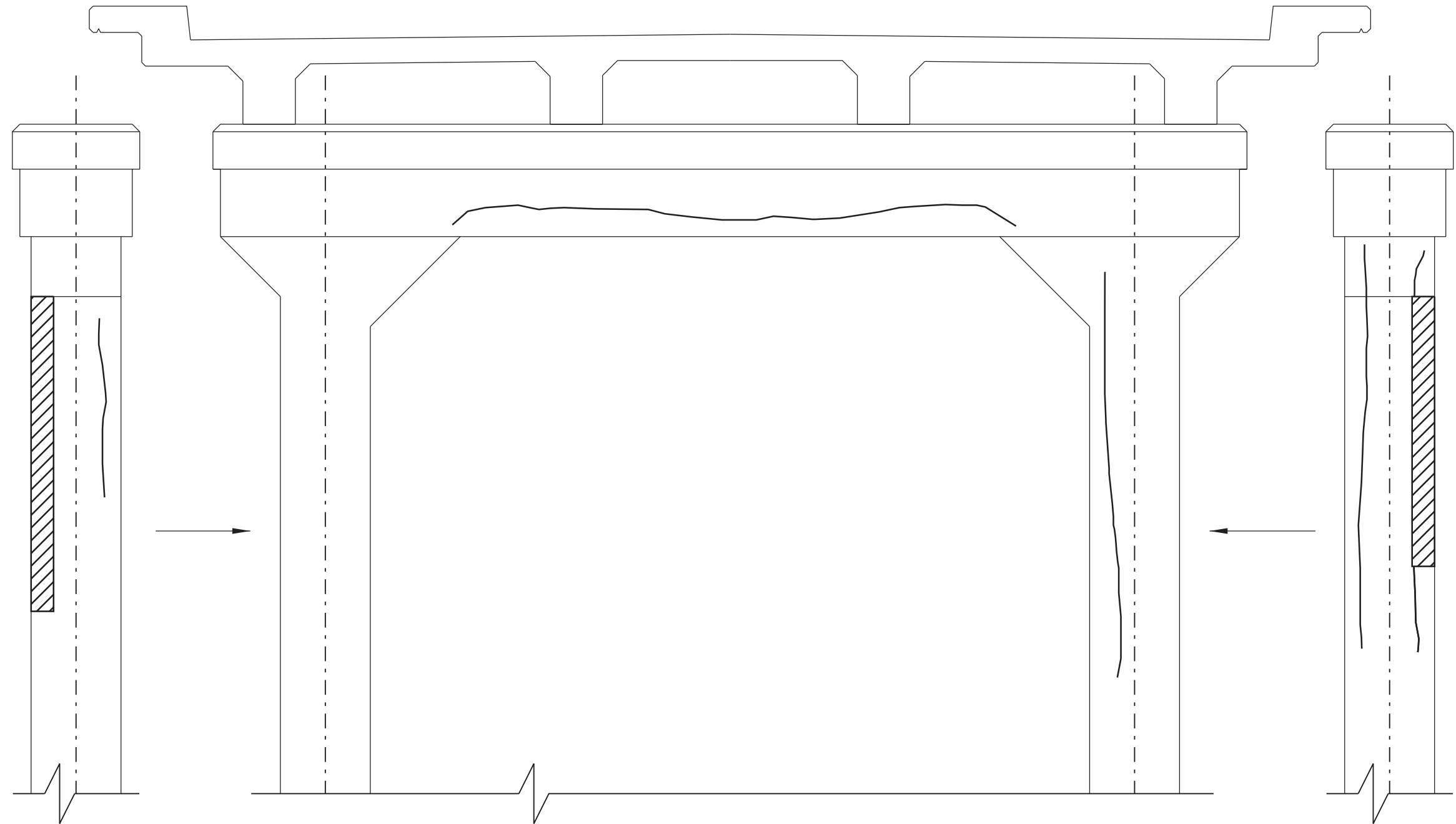
BENT 2
(LOOKING AHEAD)



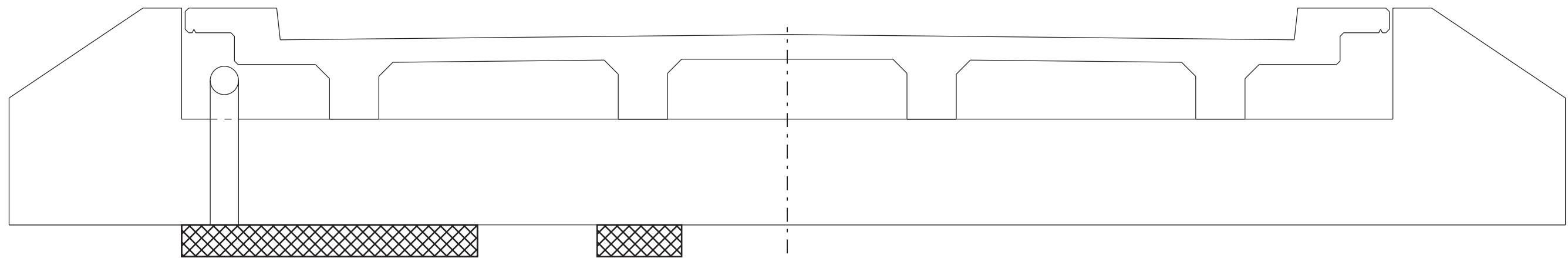
BENT 2
(LOOKING BACK)



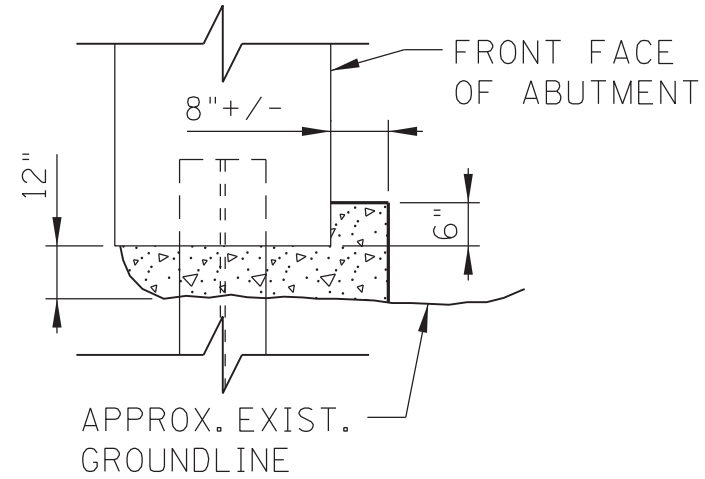
BENT 3
(LOOKING AHEAD)



BENT 3
(LOOKING BACK)



ABUT 2
(LOOKING AHEAD)



ABUTMENT VOID REPAIR

ALL COSTS ASSOCIATED WITH REPAIR OF VOID AREA, INCLUDING ALL LABOR AND MISCELLANEOUS MATERIALS, SHALL BE INCLUDED IN ITEM NO. 604-10.55, CONCRETE (FOUNDATION REPAIRS), C.Y.

CONST. NO.:

PROJECT NO.		YEAR	SHEET NO.
90S353-M3-003		2023	
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION

ESTIMATED QUANTITIES

LOCATION OF REPAIR	ITEM 604-10.05 AND/OR 604-10.54 APPROX. REPAIR AREAS (S.F.)	ITEM 604-10.62 APPROX. REPAIR AREAS (L.F.)	ITEM 604-10.55 APPROX. REPAIR AREAS (C.Y.)
BENT 2	44	14	-
BENT 3	66	59	-
ABUT. 2	-	-	1
TOTAL	110	73	1

- DENOTES AREA TO BE REPAIRED UNDER ITEM NO. 604-10.05 AND/OR 604-10.54. FOR DETAILS SHOWING AREAS OF EXISTING SPALLED OR DELAMINATED CONCRETE SURFACES TO BE REMOVED AND REPAIRED, SEE SHEET BR-132-488.
- DENOTES CRACK TO BE REPAIRED UNDER ITEM NO. 604-10.62. SEE EPOXY INJECTION NOTES ON SEE SHEET BR-132-488.
- DENOTES VOIDED AREAS UNDER ABUTMENT TO BE FILLED WITH CONCRETE. COST TO BE INCLUDED IN ITEM NO. 604-10.55. SEE ABUTMENT VOID REPAIR DETAIL THIS SHEET.

SEALED BY



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

SUBSTRUCTURE REPAIRS
SR-353 OVER NOLICHUCKY RIVER
BRIDGE NO. 90-SR353-00.45
FED. I.D. NO. 90S23860001
WASHINGTON COUNTY
2023

BR-132-487



PIN NO.:	132623.01	
DESIGN BY:	R.L. COLBERT	DATE: 09/2023
DRAWN BY:	M.D. SIMPSON	DATE: 09/2023
SUPERVISED BY:	G.S. WILSON	DATE: 09/2023
CHECKED BY:	R.L. COLBERT	DATE: 09/2023

SPECIAL NOTES FOR EPOXY INJECTION

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.

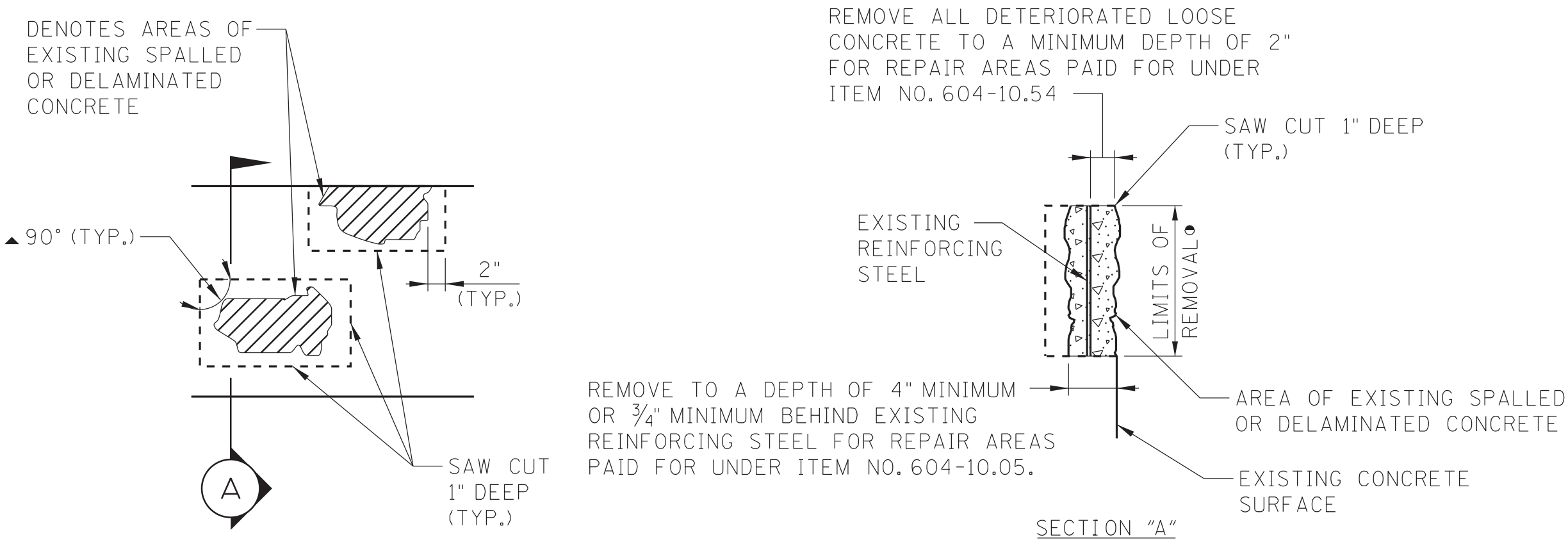
PRICE BID FOR ITEM NUMBER 604-10.58, EPOXY INJECTION (INJECTION), GAL, SHALL INCLUDE COST FOR ADHESIVE MATERIAL INJECTED ONLY.

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.

CONST. NO.:

PROJECT NO.		YEAR	SHEET NO.
90S353-M3-003		2023	
REVISIONS			
NO.	DATE	BY	BRIEF DESCRIPTION



DETAILS SHOWING AREAS OF EXIST. SPALLED OR DELAMINATED CONCRETE SURFACES TO BE REMOVED AND REPAIRED

- DEMOTES: LIMITS AND LOCATION OF REPAIRS TO BE DESIGNATED BY THE ENGINEER.
- ▲ DEMOTES: SAW CUT EXISTING CONCRETE SURFACES SO AS TO OBTAIN SQUARED CORNERS.

EXTREME CARE SHALL BE TAKEN WHEN REMOVING THE EXISTING SPALLED OR DELAMINATED CONCRETE SO AS NOT TO DAMAGE THE EXISTING REINFORCING STEEL. ALL EXPOSED EXISTING REINFORCING STEEL SHALL RECEIVE A COMPLETE CLEANING TO REMOVE ALL RUST. ALL EXISTING REINFORCEMENT SHALL REMAIN IN PLACE. ALL WORK MUST MEET WITH THE FULL APPROVAL OF THE ENGINEER.

THE ENGINEER SHALL HAVE THE OPTION OF DESIGNATING A SPALLED OR DELAMINATED AREA TO BE REPAIRED UNDER ITEM NO. 604-10.05 OR 604-10.54. PATCHING MATERIAL FOR ITEM NO. 604-10.05 SHALL BE HIGH EARLY STRENGTH CONCRETE. PATCHING MATERIAL FOR ITEM NO. 604-10.54 SHALL BE A POLYMER MODIFIED CEMENTITIOUS STRUCTURAL PATCHING MATERIAL. SEE QUALIFIED PRODUCTS LIST (SECTION B, OPL 13.009).

COST OF SAW CUTTING, REMOVING SPALLED OR DELAMINATED CONCRETE, CLEANING, PATCHING MATERIAL, LABOR, AND ANY MISCELLANEOUS MATERIALS NECESSARY TO COMPLETE THE REPAIRS AS SHOWN TO BE INCLUDED IN ITEM NO. 604-10.54, CONCRETE REPAIRS, S.F. OR ITEM NO. 604-10.05, CONCRETE, S.F.

DURING SUBSTRUCTURE REPAIRS, ANY EXISTING REINFORCING STEEL EXHIBITING MORE THAN 20 PERCENT SECTION LOSS SHALL BE REPAIRED. EITHER NEW IN-KIND REINFORCING SHALL BE SPICED TO THE EXISTING BARS OR THE BARS SHALL BE REPLACED AS DIRECTED BY THE ENGINEER. THE COST OF ANY NEW REINFORCING STEEL REQUIRED TO COMPLETE THE REPAIRS SHALL BE INCLUDED IN ITEM NO. 604-10.05, CONCRETE, S.F. ANY DAMAGE TO EXISTING REINFORCING STEEL DURING CONCRETE REMOVAL SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.

THE ENGINEER SHALL DESIGNATE ALL SPALLED OR DELAMINATED CONCRETE REPAIR AREAS IN THE FIELD. QUANTITIES GIVEN ARE APPROXIMATE.

POWER DRIVEN HAND TOOLS USED FOR REMOVAL OF UNSOUND CONCRETE ARE SUBJECT TO THE FOLLOWING RESTRICTIONS:

1. PNEUMATIC HAMMERS HEAVIER THAN THE 35 LB. CLASS SHALL NOT BE USED.
2. CHIPPING HAMMERS OF THE 15 LB. CLASS SHALL BE USED TO REMOVE CONCRETE FROM BEHIND REINFORCING STEEL.

PNEUMATICALLY PLACED CONCRETE IS NOT ALLOWED.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

CONCRETE REPAIR DETAILS
SR-353 OVER NOLICHUCKY RIVER
BRIDGE NO. 90-SR353-00.45
FED. I.D. NO. 90S23860001
WASHINGTON COUNTY
2023

BR-132-488

SEALED BY



UTILITIES INDEX

SHEET NAME	SHEET NUMBER
N/A	U1 SERIES

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
BUREAU OF ENGINEERING

WASHINGTON COUNTY

S.R. 353: (BAILEY BRIDGE ROAD), BRIDGE OVER NOLICHUCKY RIVER, L.M. 0.45

STATE HIGHWAY NO. U.S. ROUTE NO.

SPECIAL NOTE

NO UTILITY OWNERS WERE IDENTIFIED IN THE PROJECT LIMITS.

UTILITIES IN
ROADWAY CONTRACT

N/A	N/A
-----	-----

UTILITIES NOT IN
ROADWAY CONTRACT

N/A	N/A
-----	-----

TENN.	YEAR	SHEET NO.
	2023	U1-1
FED. AID PROJ. NO.		
STATE PROJ. NO.	90S353-M3-003	

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

UTILITY NOTES,
UTILITY OWNERS

\$\$\$\$SYTIME\$\$\$\$\$\$\$\$
\$\$\$\$DGN\$PEC\$\$\$\$\$\$\$\$