

### STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

# WAKE COUNTY

15BPR.144 30 F. A. PROJ. NO. DESCRIPTION 15BPR.144.1 15BPR.144.3 CONST.

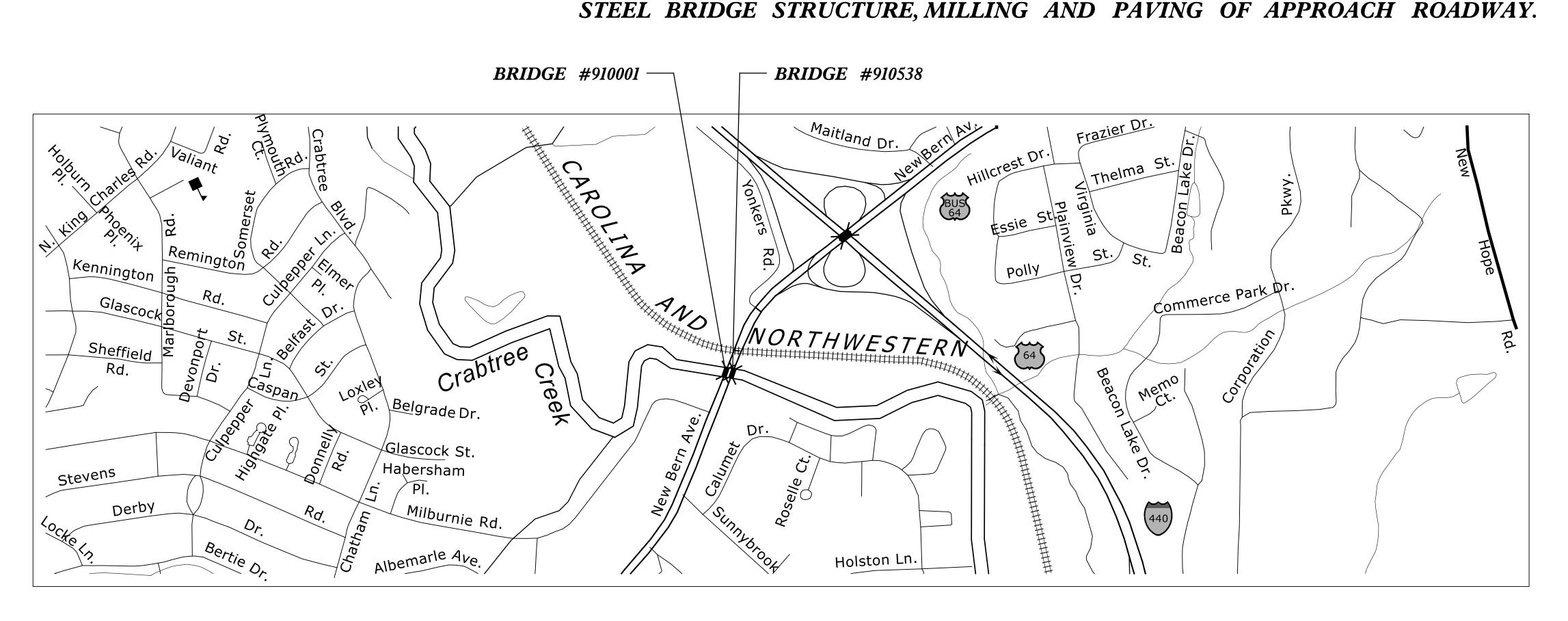
LOCATION: BRIDGE #910001 ON SR 2911 (NEW BERN AVENUE) WBL OVER CRABTREE CREEK, CRABTREE CREEK GREENWAY, AND

CAROLINA COASTAL RAILWAY

BRIDGE #910538 ON SR 2911 (NEW BERN AVENUE) EBL OVER CRABTREE CREEK, CRABTREE CREEK GREENWAY, AND

CAROLINA COASTAL RAILWAY

BRIDGE REHABILITATION – SCARIFICATION AND HYDRO-DEMOLITION OF DECK CONCRETE, LATEX MODIFIED TYPE OF WORK: CONCRETE-VERY EARLY STRENGTH OVERLAY, BEARING REPLACEMENT, JOINT REPLACEMENT, STEEL BEAM REPAIR, SUBSTRUCTURE REPAIR, CLEANING AND PAINTING OF EXISTING STEEL BRIDGE STRUCTURE AND EXISTING WEATHERING



#### VICINITY MAP - WAKE COUNTY

#### **DESIGN DATA** WAKE COUNTY

#910001 ADT 2019 = 21,500 #910538 ADT 2017 = 20,500 PROJECT LENGTH WAKE COUNTY

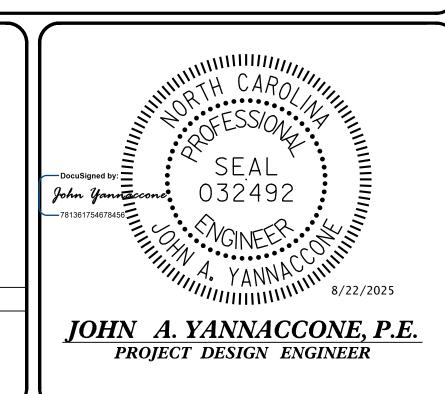
#910001 = 0.10 MILE #910538 = 0.10 MILE

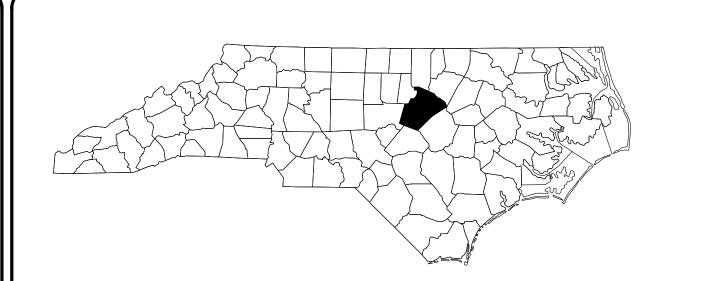


NCDOT PROJECT ENGINEER

2024 STANDARD SPECIFICATIONS

LETTING DATE: NOVEMBER 18, 2025





# STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

## WAKE COUNTY

STATE	STAT	STATE PROJECT REFERENCE NO.					
N.C.	14	1A	30				
STAT	E PROJ. NO.	F. A. PROJ. NO.	DESCRIPT	ION			
15BI	PR.144.1	_	P.E.				
15BF	PR.144.3	_	CONS	T.			

LOCATION: BRIDGE #910001 ON SR 2911 (NEW BERN AVENUE) WBL OVER CRABTREE CREEK, CRABTREE CREEK GREENWAY, AND

CAROLINA COASTAL RAILWAY

BRIDGE #910538 ON SR 2911 (NEW BERN AVENUE) EBL OVER CRABTREE CREEK, CRABTREE CREEK GREENWAY, AND

CAROLINA COASTAL RAILWAY

TYPE OF WORK: BRIDGE REHABILITATION – SCARIFICATION AND HYDRO-DEMOLITION OF DECK CONCRETE, LATEX MODIFIED CONCRETE-VERY EARLY STRENGTH OVERLAY, BEARING REPLACEMENT, JOINT REPLACEMENT, STEEL BEAM REPAIR, SUBSTRUCTURE REPAIR, CLEANING AND PAINTING OF EXISTING STEEL BRIDGE STRUCTURE AND EXISTING WEATHERING STEEL BRIDGE STRUCTURE, MILLING AND PAVING OF APPROACH ROADWAY.

### INDEX OF DRAWINGS

SHEET NO.	DESCRIPTION
1	TITLE SHEET
1A	INDEX OF DRAWINGS
S-1	TOTAL BILL OF MATERIAL
	BRIDGE NO. 910001
S1–1 TO S1–2	GENERAL DRAWINGS
<b>S1</b> –3	TYPICAL SECTION SURFACE PREPARATION DETAILS
S1–4 TO S1–6	DECK REPAIRS
S1 <b>–</b> 7	JOINT DETAILS
S1 <del>-</del> 8	SUBSTRUCTURE REPAIRS
S1 <b>-</b> 9	APPROACH MILLING AND TYPICAL ROADWAY SECTIONS
	BRIDGE NO. 910538
S2-1 TO S2-2	GENERAL DRAWINGS
S2-3	TYPICAL SECTION SURFACE PREPARATION DETAILS
S2-4 TO S2-7	DECK REPAIRS
S2 <b>–</b> 8	JOINT DETAILS
S2-9 TO S2-10	BEAM REPAIR LOCATIONS
S2–11	STEEL BEAM REPAIR DETAILS
S2-12 TO S2-13	BEARING REPLACEMENT
S2–14	BRIDGE JACKING
S2 <b>–</b> 15	SUBSTRUCTURE REPAIRS
S2–16	APPROACH MILLING AND TYPICAL ROADWAY SECTIONS
	STANDARD DETAILS
SD-1	OVERHANG UNDERSIDE AND DIAPHRAGM REPAIR DETAILS
SD-2	TYPICAL CAP AND COLUMN REPAIR DETAILS
SN	STANDARD NOTES

	———— TOTAL BILL OF MATERIAL ————										
BRIDGE NO.	INCIDENTAL MILLING	ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C	ASPHALT BINDER FOR PLANT MIX	GROOVING BRIDGE FLOORS	CLASS II SURFACE PREPARATION	SHOTCRETE REPAIRS	PEDESTRIAN PROTECTION	FIELD MEASURING	CLEANING AND PAINTING EXISTING WEATHERING STEEL FOR BRIDGE #_	CLEANING AND REPAINTING OF BRIDGE #_	POLLUTION CONTROL
	SQ. YDS.	TONS	TONS	SQ. FT.	SQ. YDS.	CU. FT.	LUMP SUM	LUMP SUM	LUMP SUM	LUMP SUM	LUMP SUM
910001	450	51	4	16,754	0.5	1.2	LUMP SUM	-	LUMP SUM	<del>-</del>	LUMP SUM
910538	595	69	5	21,089	2.0	18.1	LUMP SUM	LUMP SUM	LUMP SUM	LUMP SUM	LUMP SUM*
TOTAL	1,045	120	9	37,843	2.5	19.3	LUMP SUM	LUMP SUM	LUMP SUM	LUMP SUM	LUMP SUM

					TOTAL	BILL (	OF MAT	ERIAL -				
BRIDGE NO.	PAINTING CONTAINMENT FOR BRIDGE #_	FOAM JOINT SEALS FOR PRESERVATION	LATEX MODIFIED CONCRETE OVERLAY- VERY EARLY STRENGTH	ELASTOMERIC CONCRETE FOR PRESERVATION	BRIDGE JOINT DEMOLITION	EPOXY COATING	BEAM REPAIR CUT-OUT	SCARIFYING BRIDGE DECK	HYDRO-DEMOLITION OF BRIDGE DECK	PLACING & FINISHING OF LATEX MODIFIED CONCRETE OVERLAY- VERY EARLY STRENGTH	TYPE II BRIDGE JACKING BRIDGE NO	ELASTOMERIC BEARING, MODIFIED
	LUMP SUM	LIN. FT.	CU. YDS.	CU. FT.	SQ. FT.	SQ. FT.	LBS.	SQ. YDS.	SQ. YDS.	SQ. YDS.	EA.	EA.
910001	LUMP SUM	91.0	98.0	21.8	88	320	-	2,015.8	2,015.8	2,015.8	-	-
910538	LUMP SUM*	504.5	121.8	121.4	486	434	515	2,506.6	2,506.6	2,506.6	14	56
TOTAL	LUMP SUM	595.5	219.8	143.2	574	754	515	4,522.4	4,522.4	4,522.4	14	56

#### NOTE:

\* BRIDGE 910358 CONSISTS OF PAINTED STEEL BEAMS AND WEATHERING STEEL BEAMS. REFER TO THE SPECIAL PROVISIONS "PAINTING EXISTING STRUCTURE" AND "PAINTING EXISTING WEATHERING STEEL STRUCTURE" TO DETERMINE THE REQUIREMENTS FOR EACH BEAM TYPE FOR THE BID ITEMS "POLLUTION CONTROL" AND "PAINTING CONTAINMENT FOR BRIDGE #\_\_".

AT THE TIME OF PREPARATION OF THESE PLANS, IT WAS NOT ANTICIPATED THAT THE ITEM(S) LISTED BELOW WOULD BE REQUIRED. HOWEVER, IT MAY BE DETERMINED IN THE FIELD THAT THE FOLLOWING ITEM(S) LISTED, OR OTHER WORK WILL BE NECESSARY TO PROPERLY COMPLETE THE INTENDED BRIDGE PRESERVATION/REHABILITATION WORK. THE CONTRACTOR SHALL BE PREPARED TO PERFORM SUCH WORK IN A TIMELY MANNER, AS DETERMINED IN THE FIELD. SUCH WORK SHALL BE CONSIDERED EXTRA WORK AND SHALL BE ADDRESSED AS PER ARTICLE 104-7 OF THE STANDARD SPECIFICATIONS. PROJECT SPECIAL PROVISIONS THAT OUTLINE REQUIREMENTS FOR THESE POTENTIAL ADDITIONAL WORK ITEMS HAVE BEEN PROVIDED IN THE PROJECT DOCUMENTS, BUT NO QUANTITIES HAVE BEEN LISTED. ACTUAL PAY ITEMS, QUANTITIES, AND COSTS WILL BE ESTABLISHED, AS REQUIRED, IF EXTRA WORK IS ENCOUNTERED.

**UNANTICIPATED ITEMS:** CLASS III SURFACE PREPARATION VOLUMETRIC MIXER TYPE I BRIDGE JACKING BRIDGE NO.\_\_ PROJECT NO. 15BPR.144

**WAKE** 

910001 BRIDGE: \_ 910538

STATE OF NORTH CAROLINA

COUNTY

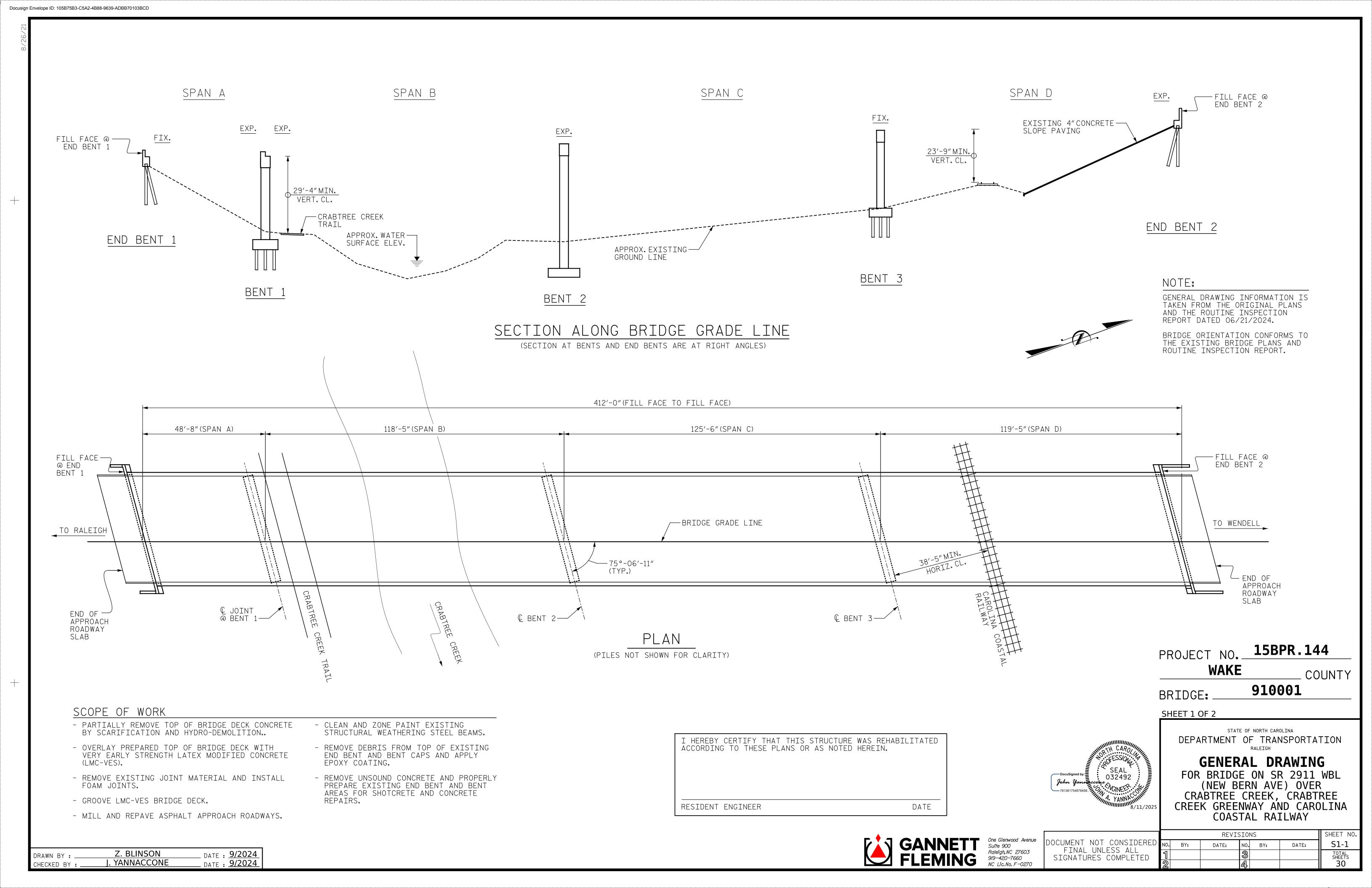


DEPARTMENT OF TRANSPORTATION RALEIGH

TOTAL BILL **OF MATERIAL** 

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
STGNATURES COMPLETED

			REVI	10I2	VS.		SHEET NO.
NOT CONSIDERED	NO.	BY:	DATE:	NO.	BY:	DATE:	S-1
UNLESS ALL ES COMPLETED	1			3			TOTAL SHEETS
20 001111 22125	2			4			30



#### LOCATION SKETCH

INFORMATION INDICATED ON THE LOCATION SKETCH SHALL BE CONSIDERED GENERAL INFORMATION ONLY. THE CONTRACTOR SHALL CONFIRM, THROUGH OTHER SOURCES, SPECIFIC INFORMATION REGARDING BRIDGES, ROADWAYS, UTILITIES, THÉ SURROUNDING AREA, AND ANY OTHER ASPECTS THAT MAY BE NECESSARY TO PERFORM AND COMPLETE THE PROJECT.

#### GENERAL NOTES

SEE CONTRACT DOCUMENTS FOR LANE WIDTHS, SEQUENCING AND OTHER TRAFFIC CONTROL MEASURES FOR STAGING OF OVERLAY SURFACE PREPARATION AND LATEX MODIFIED CONCRETE-VERY EARLY STRENGTH PLACEMENT.

THE CONTRACTOR'S ATTENTION IS CALLED TO THE FACT THAT DUE TO THE NATURE OF PRESERVATION PROJECTS, THE EXTENT OF WORK CANNOT ALWAYS BE ACCURATELY DETERMINED PRIOR TO COMMENCEMENT OF WORK. REPAIR LOCATIONS AND ESTIMATES OF QUANTITIES ARE GIVEN WITH THE BEST INFORMATION AVAILABLE. IF ADDITIONAL REPAIRS NOT SHOWN ON THE DRAWINGS ARE DEEMED NECESSARY BY THE ENGINEER, THE ENGINEER SHALL NOTE ON THE DRAWINGS THE APPROXIMATE LOCATION AND DESCRIPTION OF THE REPAIRS.

EXISTING DIMENSIONS AND BRIDGE CONDITION ARE FROM THE BEST INFORMATION AVAILABLE. THE CONTRACTOR SHALL FIELD VERIFY THE INFORMATION SHOWN ON THE PLANS AND NOTIFY THE ENGINEER IF ACTUAL DIMENSIONS AND CONDITIONS DIFFER.

THE CONTRACTOR SHALL HAVE NO CLAIM WHATSOEVER AGAINST THE DEPARTMENT FOR ANY DELAYS OR ADDITIONAL COST INCURRED BASED ON DIFFERENCES BETWEEN WHAT IS SHOWN ON THE PLANS AND THE ACTUAL CONDITIONS AT THE PROJECT SITE.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO FOLLOW ALL STATE AND FEDERAL SAFETY REQUIREMENTS.

WORK ON THE BRIDGE SHALL BE PERFORMED SO AS NOT TO ALLOW DEBRIS TO FALL BELOW, EXCEPT WHERE THE CONTRACTOR'S PLAN USES PLATFORMS, NETS, SCREENS OR OTHER PROTECTIVE DEVICES TO CATCH THE MATERIAL. THE CONTRACTOR SHALL SUBMIT PLANS FOR CONSTRUCTION IN ACCORDANCE WITH ARTICLE 402-2 OF THE STANDARD SPECIFICATIONS AND THE PROJECT SPECIAL PROVISIONS.

ANY DAMAGE TO EXISTING REINFORCING STEEL DURING CONTRACTOR'S OPERATIONS SHALL BE REPAIRED AS DIRECTED BY THE ENGINEER AND PERFORMED AT NO ADDITIONAL COST TO THE DEPARTMENT.

FOR CONTROL OF TRAFFIC AND LIMITS ON PHASING OF CONSTRUCTION, SEE CONTRACT DOCUMENTS.

PRIOR TO BEGINNING WORK, THE CONTRACTOR SHALL SUBMIT FOR REVIEW AND APPROVAL A COMPLETE SEQUENCE OF TASKS FOR EACH OPERATION AFFECTING THE BRIDGE SURFACE AND/OR TRAFFIC.

FOR OTHER DESIGN DATA AND GENERAL NOTES, SEE SHEET SN.

FOR SUBMITTAL OF WORKING DRAWINGS, SEE SPECIAL PROVISIONS.

FOR FALSEWORK AND FORMWORK, SEE SPECIAL PROVISIONS.

FOR CRANE SAFETY, SEE SPECIAL PROVISIONS.

FOR GROUT FOR STRUCTURES, SEE SPECIAL PROVISIONS.

THE RAILROAD TRACK TOP OF RAIL TO BOTTOM OF BEAM VERTICAL CLEARANCES ON THE PLANS ARE FROM THE BEST INFORMATION AVAILABLE. PRIOR TO BEGINNING BRIDGE CONSTRUCTION, VERIFY THE TOP OF RAIL TO BOTTOM OF BEAM CLEARANCES AND REPORT ANY VARIATIONS TO THE ENGINEER. ANY PLAN REVISIONS NECESSARY TO ACHIEVE THE REQUIRED MINIMUM CLEARANCE WILL BE PROVIDED BY THE DEPARTMENT.

ALL PAVEMENT MARKING WILL BE IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

EXISTING JOINTS AND DECK DRAINS SHALL BE SEALED PRIOR TO BEGINNING SURFACE PREPARATIONS OF THE BRIDGE DECK. THE CONTRACTOR SHALL TAKE CARE THAT ANY CONSTRUCTION DEBRIS THAT COLLECTS IN THE DRAINS IS CONTAINED, DRAINS IN SHOULDERS OF ADJACENT TRAVEL LANES SHALL BE KEPT FREE AND CLEAR OF DEBRIS.

LONGITUDINAL CONSTRUCTION JOINTS OF OVERLAYS SHALL BE LOCATED ALONG THE CENTERLINE OR EDGE OF TRAVEL LANES.

INASMUCH AS THE PAINT SYSTEM ON THE EXISTING STRUCTURAL STEEL CONTAINS LEAD, THE CONTRACTOR'S ATTENTION IS DIRECTED TO ARTICLE 107-1 OF THE STANDARD SPECIFICATIONS. ANY COSTS RESULTING FROM COMPLIANCE WITH APPLICABLE STATE OR FEDERAL REGULATIONS PERTAINING TO HANDLING OF MATERIALS CONTAINING LEAD BASED PAINT SHALL BE INCLUDED IN THE BID PRICE FOR ITEMS ASSOCIATED WITH THE CLEANING AND REPAINTING OF

FOR PAINTING EXISTING STRUCTURE, SEE SPECIAL PROVISIONS.

FOR PAINTING CONTAINMENT AND POLLUTION CONTROL, SEE PAINTING EXISTING WEATHERING STEEL STRUCTURES SPECIAL PROVISION.

FOR PAINTING EXISTING WEATHERING STEEL STRUCTURES. SEE SPECIAL PROVISIONS.

FOR SHOTCRETE REPAIRS. SEE SPECIAL PROVISIONS.

FOR BRIDGE JOINT DEMOLITION, SEE SPECIAL PROVISIONS.

FOR OVERLAY OF BRIDGE WITH LATEX MODIFIED CONCRETE-VERY EARLY STRENGTH, SEE SPECIAL PROVISION.

FOR LMC OVERLAY SURFACE PREPARATION, SEE SPECIAL PROVISIONS.

THE CONTRACTOR MUST COLLECT, TREAT AND DISPOSE OF RUN-OFF WATER FROM THE HYDRO-DEMOLITION PROCESS, SEE LMC OVERLAY SURFACE PREPARATION SPECIAL PROVISION.

FOR ELASTOMERIC CONCRETE FOR PRESERVATION, SEE SPECIAL PROVISIONS.

FOR FOAM JOINT SEALS FOR PRESERVATION, SEE SPECIAL PROVISIONS.

FOR EPOXY COATING AND DEBRIS REMOVAL, SEE SPECIAL PROVISIONS.

FOR PEDESTRIAN PROTECTION, SEE SPECIAL PROVISIONS.

FOR CONCRETE FOR DECK REPAIR, SEE SPECIAL PROVISIONS.

FOR VOLUMETRIC MIXER, SEE SPECIAL PROVISIONS.

BRIDGE COORDINATES LONGITUDE LATITUDE 35°-47′-28.29″ | 78°-35′-10.70″

> 15BPR.144 PROJECT NO. **WAKE** COUNTY

910001 BRIDGE:

SHEET 2 OF 2

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH

GENERAL DRAWING FOR BRIDGE ON SR 2911 WBL (NEW BERN AVE) OVER CRABTREE CREEK, CRABTREE CREEK GREENWAY AND CAROLINA

SHEET NO

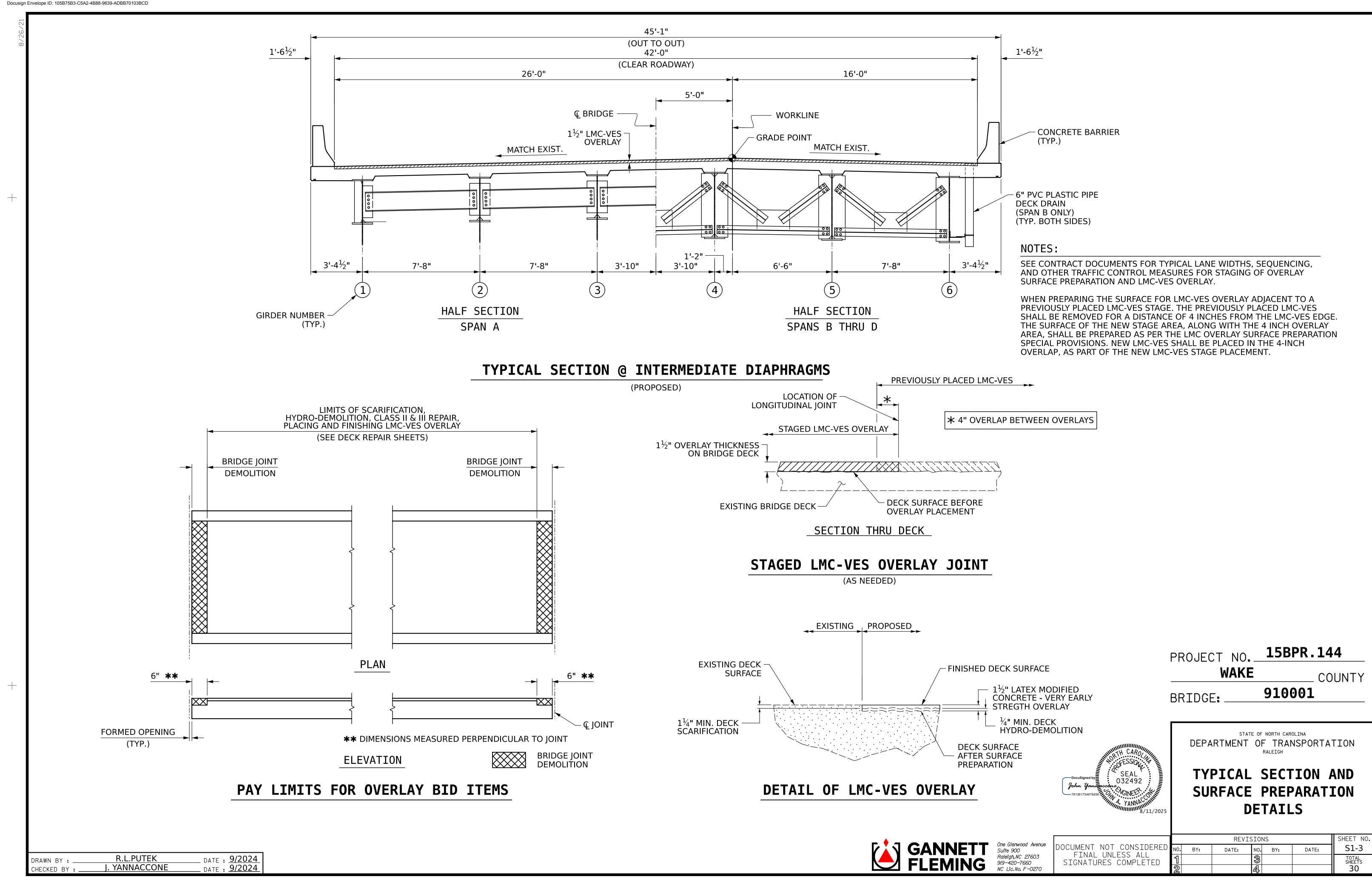
S1-2

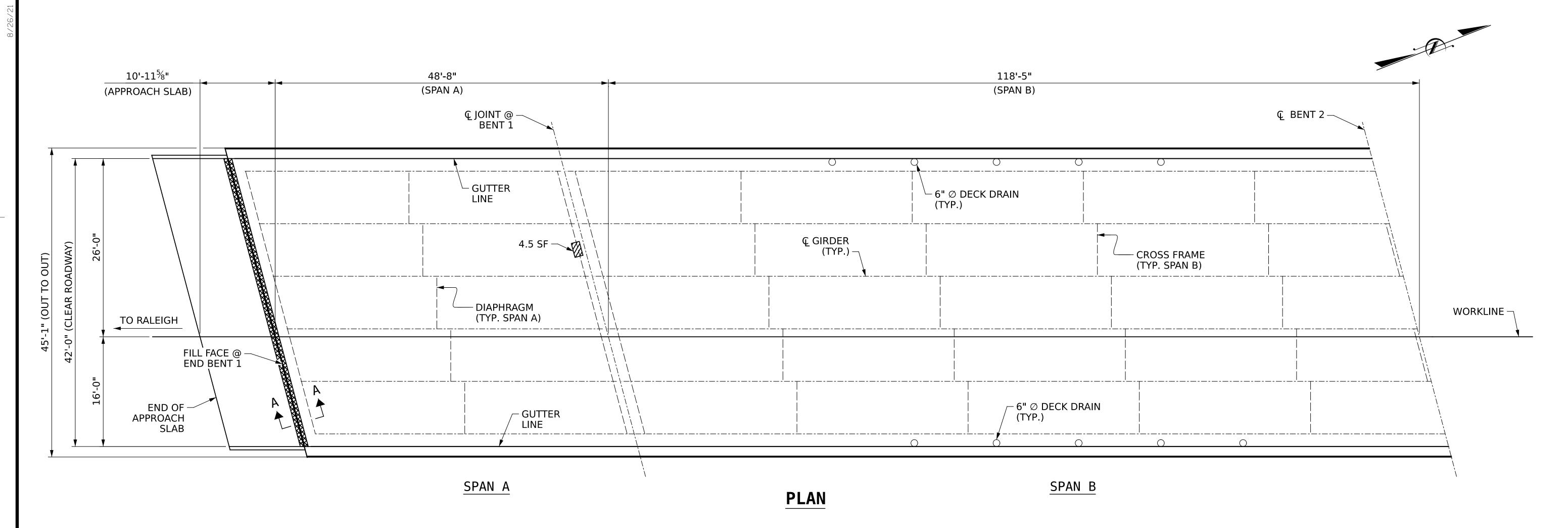
TOTAL SHEETS 30

OCUMENT NOT CONSIDEREI FINAL UNLESS ALL SIGNATURES COMPLETED

COASTAL RAILWAY REVISIONS DATE: DATE: BY:

Z. BLINSON \_ DATE : <u>9/2024</u> DRAWN BY : \_ DATE : 9/2024 I. YANNACCONE CHECKED BY : .





		A2-DUIL	I QUANT.	ITY REPAIR TA	DLE 				
DECK	SURFACE REPAIR & APPRO	ACH SLAB REPA	AIR		DECK UNDERS	SIDE REPA	IR		
		ESTIMATE	ACTUAL			EST	MATE	AC <sup>-</sup>	ΓUAL
	APPROACH SLAB @ END BENT 1	56.0 SQ. YDS.		SH0TCRET	E REPAIRS	AREA	VOLUME	AREA	VOLUME
SCARIFYING BRIDGE DECK	SPAN A	217.8 SQ. YDS.				SF	CF	SF	CF
J. N. J. G. J. J. G. K.	SPAN B	550.9 SQ. YDS.		UNDERSIDE	SPAN A	0.0	0.0		
HYDRO-	APPROACH SLAB @ END BENT 1	56.0 SQ. YDS.		OF DECK	SPAN B	0.0	0.0		
DEMOLITION	EMOLITION SPAN A 217.8 SQ. YDS. INTERIOR	SPAN A	0.0	0.0					
OF BRIDGE DECK	SPAN B	550.9 SQ. YDS.		DIAPHRAGMS	SPAN B	0.0	0.0		
	APPROACH SLAB @ END BENT 1	22 SQ. FT.		OVERHANG	SPAN A	0.0	0.0		
BRIDGE JOINT DEMOLITION	SPAN A	22 SQ. FT.		DIAPHRAGMS	SPAN B	0.0	0.0		
22.102.11011	SPAN B	0.0 SQ. FT.		UNDERSIDE	SPAN A	0.0	0.0		
CLASS II	APPROACH SLAB @ END BENT 1	0.0 SQ. YDS.		OF OVERHANG	SPAN B	0.0	0.0		
SURFACE	SPAN A	0.5 SQ. YDS.					ESTIMATE	<u> </u>	CTUAL
PREPARATION	SPAN B	0.0 SQ. YDS.		UNDERSIDE EPOXY	SPAN A		0.0 LIN.FT		
LATEX MODIFIED	APPROACH SLAB @ END BENT 1	2.7 CU. YDS.		RESIN INJECTION	SPAN B		0.0 LIN.FT		
CONCRETE-VERY	SPAN A	10.6 CU. YDS.			ART REPRESENT ESTIMATED UNDERSIDE OF DECK REPAIR TOTALS AFTER				
EARLY STRENGTH	SPAN B	26.8 CU. YDS.		REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MININ 2" CLEAR TO SAW CUT. SEE REPAIR DETAILS.				MINIMU (	VĮ
				<b></b>					

PAYMENT FOR CLASS II AND CLASS III SURFACE PREPARATION IS BASED ON THE

SQUARE YARDS OF ADDITIONAL DEMOLITION REQUIRED FOLLOWING HYDRO-DEMOLITION

OF THE BRIDGE DECK. SEE "LMC OVERLAY SURFACE PREPARATION" SPECIAL PROVISION.

56.0 SQ. YDS.

217.8 SQ. YDS.

550.9 SQ. YDS.

455 SQ. FT.

1806 SQ. FT.

4597 SQ. FT.

APPROACH SLAB @ END BENT 1

APPROACH SLAB @ END BENT 1

\_ DATE : <u>9/2024</u>

DATE: 9/2024

SPAN A

SPAN B

SPAN A

SPAN B

J. YANNACCONE

PLACING AND

**FINISHING** 

LMC-VES

GROOVING

BRIDGE **FLOORS** 

DRAWN BY :

CHECKED BY : \_

#### NOTES:

REPAIR LOCATIONS AND ESTIMATED QUANTITIES ARE GIVEN WITH THE BEST INFORMATION AVAILABLE. IF ADDITIONAL REPAIRS NOT SHOWN ON THE DRAWINGS ARE DEEMED NECESSARY BY THE ENGINEER, THE ENGINEER WILL NOTE ON THE DRAWINGS THE APPROXIMATE LOCATIONS AND DESCRIPTION OF THE REPAIRS AND ADJUST THE ACTUAL QUANTITIES ENTERED INTO THE REPAIR QUANTITY TABLE.

CONCRETE COVER FOR TOP BARS IN THE DECK SLAB IS  $2\frac{1}{2}$ " PER THE EXISTING BRIDGE PLANS.

FOR SECTION A-A, SEE "JOINT DETAILS" SHEET.

FOR LMC OVERLAY SURFACE PREPARATION, SEE SPECIAL PROVISIONS.

FOR LATEX MODIFIED CONCRETE OVERLAY-VERY EARLY STRENGTH, SEE SPECIAL PROVISIONS.

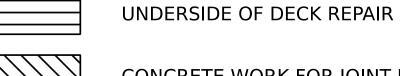
FOR BRIDGE JOINT DEMOLITION, SEE SPECIAL PROVISIONS.



SCARIFYING BRIDGE DECK

BRIDGE JOINT DEMOLITION

CLASS II SURFACE PREPARATION



CONCRETE WORK FOR JOINT REPLACEMENT

ERI

**EPOXY RESIN INJECTION** 

PROJECT NO. 15BPR.144 **WAKE** COUNTY

910001 BRIDGE:

SHEET 1 OF 3

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

DECK REPAIRS

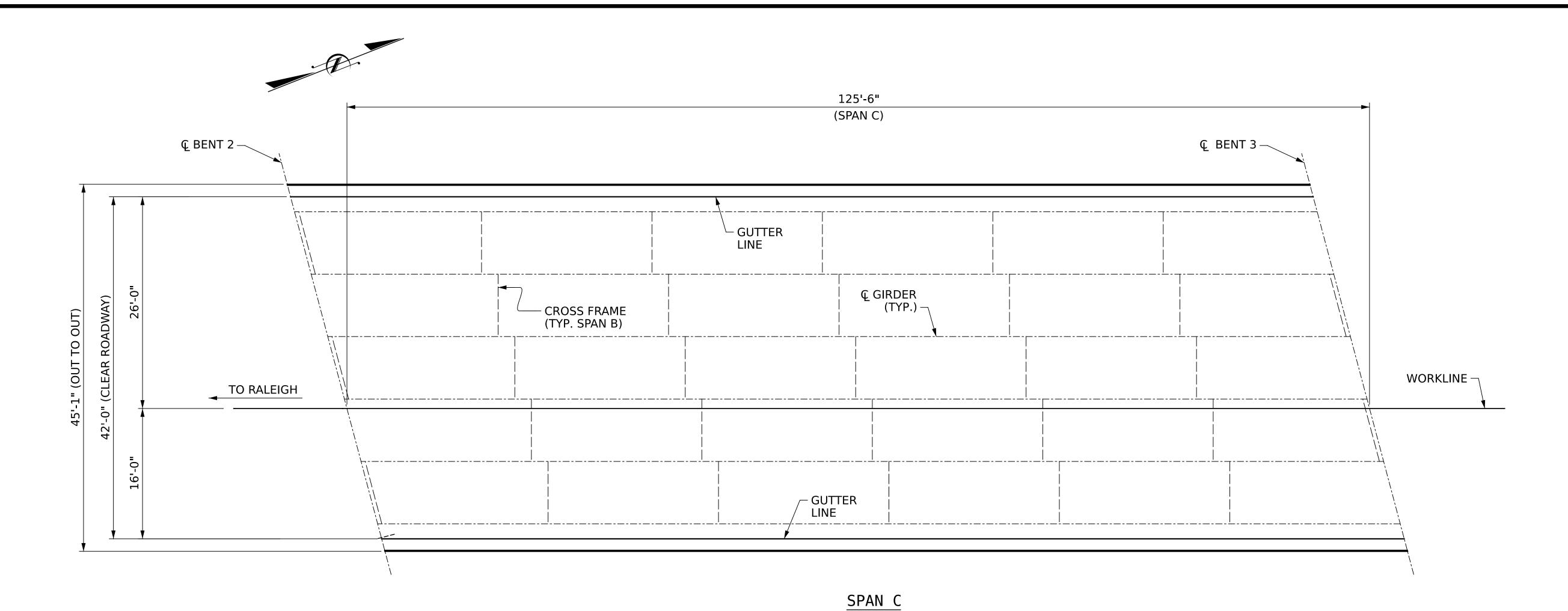
PLAN OF SPANS A-B WITH APPROACH SLAB

S1-4

TOTAL SHEETS 30

REVISIONS DOCUMENT NOT CONSIDERED FINAL UNLESS ALL DATE: NO. BY: DATE: SIGNATURES COMPLETED





#### DECK SURFACE REPAIR & APPROACH SLAB REPAIR DECK UNDERSIDE REPAIR ESTIMATE ACTUAL **ESTIMATE** ACTUAL SHOTCRETE REPAIRS AREA VOLUME AREA SF VOLUME SPAN C 585.7 SQ. YDS. UNDERSIDE SPAN C 0.0 0.0 OF DECK SPAN C 585.7 SQ. YDS. OF BRIDGE DECK INTERIOR SPAN C 0.0 0.0 DIAPHRAGMS SPAN C 0.0 SQ. FT. OVERHANG SPAN C 0.0 0.0 **DIAPHRAGMS** 0.0 SQ. YDS. SPAN C

UNDERSIDE

OF OVERHANG

**UNDERSIDE EPOXY** 

RESIN INJECTION

AS-BUILT QUANTITY REPAIR TABLE

VALUES IN CHART REPRESENT ESTIMATED UNDERSIDE OF DECK REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1" BEHIND REBAR AND MINIMUM 2" CLEAR TO SAW CUT. SEE REPAIR DETAILS.

SPAN C

SPAN C

0.0

**ESTIMATE** 

0.0 LIN.FT.

0.0

PAYMENT FOR CLASS II AND CLASS III SURFACE PREPARATION IS BASED ON THE SQUARE YARDS OF ADDITIONAL DEMOLITION REQUIRED FOLLOWING HYDRO-DEMOLITION OF THE BRIDGE DECK. SEE "LMC OVERLAY SURFACE PREPARATION" SPECIAL PROVISION.

**PLAN** 

ACTUAL

REPAIR LOCATIONS AND ESTIMATED QUANTITIES ARE GIVEN WITH THE BEST INFORMATION AVAILABLE. IF ADDITIONAL REPAIRS NOT SHOWN ON THE DRAWINGS ARE DEEMED NECESSARY BY THE ENGINEER, THE ENGINEER WILL NOTE ON THE DRAWINGS THE APPROXIMATE LOCATIONS AND DESCRIPTION OF THE REPAIRS AND ADJUST THE ACTUAL QUANTITIES ENTERED INTO THE REPAIR QUANTITY TABLE.

CONCRETE COVER FOR TOP BARS IN THE DECK SLAB IS  $2\frac{1}{2}$ " PER THE EXISTING BRIDGE PLANS.

FOR LMC OVERLAY SURFACE PREPARATION, SEE SPECIAL PROVISIONS.

FOR LATEX MODIFIED CONCRETE OVERLAY-VERY EARLY STRENGTH, SEE SPECIAL PROVISIONS.

SCARIFYING BRIDGE DECK

BRIDGE JOINT DEMOLITION

CLASS II SURFACE PREPARATION

UNDERSIDE OF DECK REPAIR

**EPOXY RESIN INJECTION** 

CONCRETE WORK FOR JOINT REPLACEMENT

15BPR.144 PROJECT NO.\_

**WAKE** COUNTY

910001 BRIDGE:

SHEET 2 OF 3

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH

DECK REPAIRS

SPAN C



ERI

GANNETT FLEMING	One Glenwood Avenue Suite 900 Raleigh, NC 27603 919-420-7660 NC Lic. No. F-0270	DOCUMEN FIN SIGNA

DOCUMENT NOT CONSIDERED
DOCOMENT NOT CONSTDENED
FINAL UNLESS ALL
SIGNATURES COMPLETED
STONATONES COMILECTED

		SHEET NO.				
NO.	BY:	DATE:	NO.	BY:	DATE:	S1-5
1			3			TOTAL SHEETS
2			4			30

J. MYA DRAWN BY : . J. YANNACCONE DATE : 9/2024 CHECKED BY : \_

SPAN C

SPAN C

SPAN C

SCARIFYING

**BRIDGE DECK** 

HYDRO-

**DEMOLITION** 

**BRIDGE JOINT** 

DEMOLÍTION

CLASS II

SURFACE

PREPARATION

LATEX MODIFIED CONCRETE-VERY

**EARLY STRENGTH** 

PLACING AND

FINISHING

LMC-VES

**GROOVING** 

BRIDGE

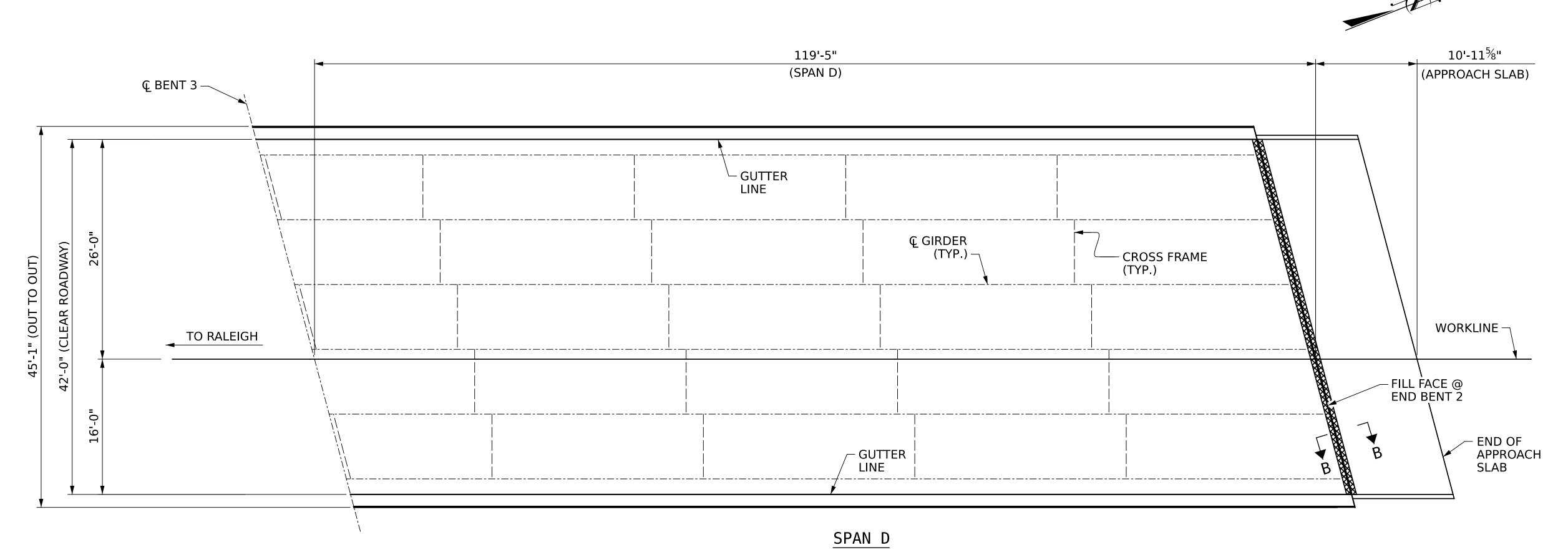
**FLOORS** 

\_ DATE : <u>9/2024</u>

28.5 CU. YDS.

585.7 SQ. YDS.

4895 SQ. FT.



### **PLAN**

		AS-BUIL	Γ QUANT:	ITY REPAIR TA	BLE				
DEC	K SURFACE REPAIR & APPRO	ACH SLAB REPA	AIR		DECK UNDER	SIDE REPA	IR		
		ESTIMATE	ACTUAL			EST	IMATE	AC <sup>-</sup>	TUAL
SCARIFYING	SPAN D	549.4 SQ. YDS.		SH0TCRE <sup>-</sup>	ΓΕ REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
BRIDGE DECK	APPROACH SLAB @ END BENT 2	56.0 SQ. YDS.		UNDERSIDE	CDAN D	0.0			
HYDRO-	SPAN D	549.4SQ. YDS.		OF DECK	SPAN D	0.0	0.0		
DEMOLITION OF BRIDGE DECK	APPROACH SLAB @ END BENT 2	56.0 SQ. YDS.		INTERIOR DIAPHRAGMS	SPAN D	0.0	0.0		
BRIDGE JOINT	SPAN D	22 SQ. FT.		OVERHANG DIAPHRAGMS	SPAN D	0.0	0.0		
DEMOLITION	APPROACH SLAB @ END BENT 2	22 SQ. FT.		UNDERSIDE	654415				
CLASS II	SPAN D	0.0 SQ. YDS.		OF OVERHANG	SPAN D	0.0	0.0		
SURFACE PREPARATION							ESTIMATE		CTUAL
FREFARATION	APPROACH SLAB @ END BENT 2	0.0 SQ. YDS.		UNDERSIDE EPOXY	SPAN D		0.0 LIN.FT		
_ATEX MODIFIED	SPAN D	26.7 CU. YDS.		RESIN INJECTION	3.7.11		OTO LITTER I		
CONCRETE-VERY EARLY STRENGTH	APPROACH SLAB @ END BENT 2	2.7 CU. YDS.		VALUES IN CHART REPRE REMOVAL OF UNSOUND 2" CLEAR TO SAW CUT. S	CONCRETE, MINIMUM				

PAYMENT FOR CLASS II AND CLASS III SURFACE PREPARATION IS BASED ON THE

SQUARE YARDS OF ADDITIONAL DEMOLITION REQUIRED FOLLOWING HYDRO-DEMOLITION

OF THE BRIDGE DECK. SEE "LMC OVERLAY SURFACE PREPARATION" SPECIAL PROVISION.

549.4 SQ. YDS.

56.0 SQ. YDS.

4546 SQ. FT.

455 SQ. FT.

#### NOTES:

REPAIR LOCATIONS AND ESTIMATED QUANTITIES ARE GIVEN WITH THE BEST INFORMATION AVAILABLE. IF ADDITIONAL REPAIRS NOT SHOWN ON THE DRAWINGS ARE DEEMED NECESSARY BY THE ENGINEER, THE ENGINEER WILL NOTE ON THE DRAWINGS THE APPROXIMATE LOCATIONS AND DESCRIPTION OF THE REPAIRS AND ADJUST THE ACTUAL QUANTITIES ENTERED INTO THE REPAIR QUANTITY TABLE.

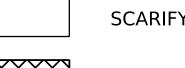
CONCRETE COVER FOR TOP BARS IN THE DECK SLAB IS  $2\frac{1}{2}$ " PER THE EXISTING BRIDGE PLANS.

FOR SECTION B-B, SEE "JOINT DETAILS" SHEET.

FOR LMC OVERLAY SURFACE PREPARATION, SEE SPECIAL PROVISIONS.

FOR LATEX MODIFIED CONCRETE OVERLAY-VERY EARLY STRENGTH, SEE SPECIAL PROVISIONS.

FOR BRIDGE JOINT DEMOLITION, SEE SPECIAL PROVISIONS.



SCARIFYING BRIDGE DECK

BRIDGE JOINT DEMOLITION

CLASS II SURFACE PREPARATION



CONCRETE WORK FOR JOINT REPLACEMENT

ERI **EPOXY RESIN INJECTION** 

PROJECT NO. 15BPR.144 **WAKE** COUNTY 910001 BRIDGE:

SHEET 3 OF 3

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

DECK REPAIRS

SPAN D WITH APPROACH SLAB

REVISIONS S1-6 DATE: NO. BY: DATE: TOTAL SHEETS 30

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

\_ DATE : <u>9/2024</u> DRAWN BY : DATE: 9/2024 J. YANNACCONE CHECKED BY : \_

SPAN D

SPAN D

APPROACH SLAB @ END BENT 2

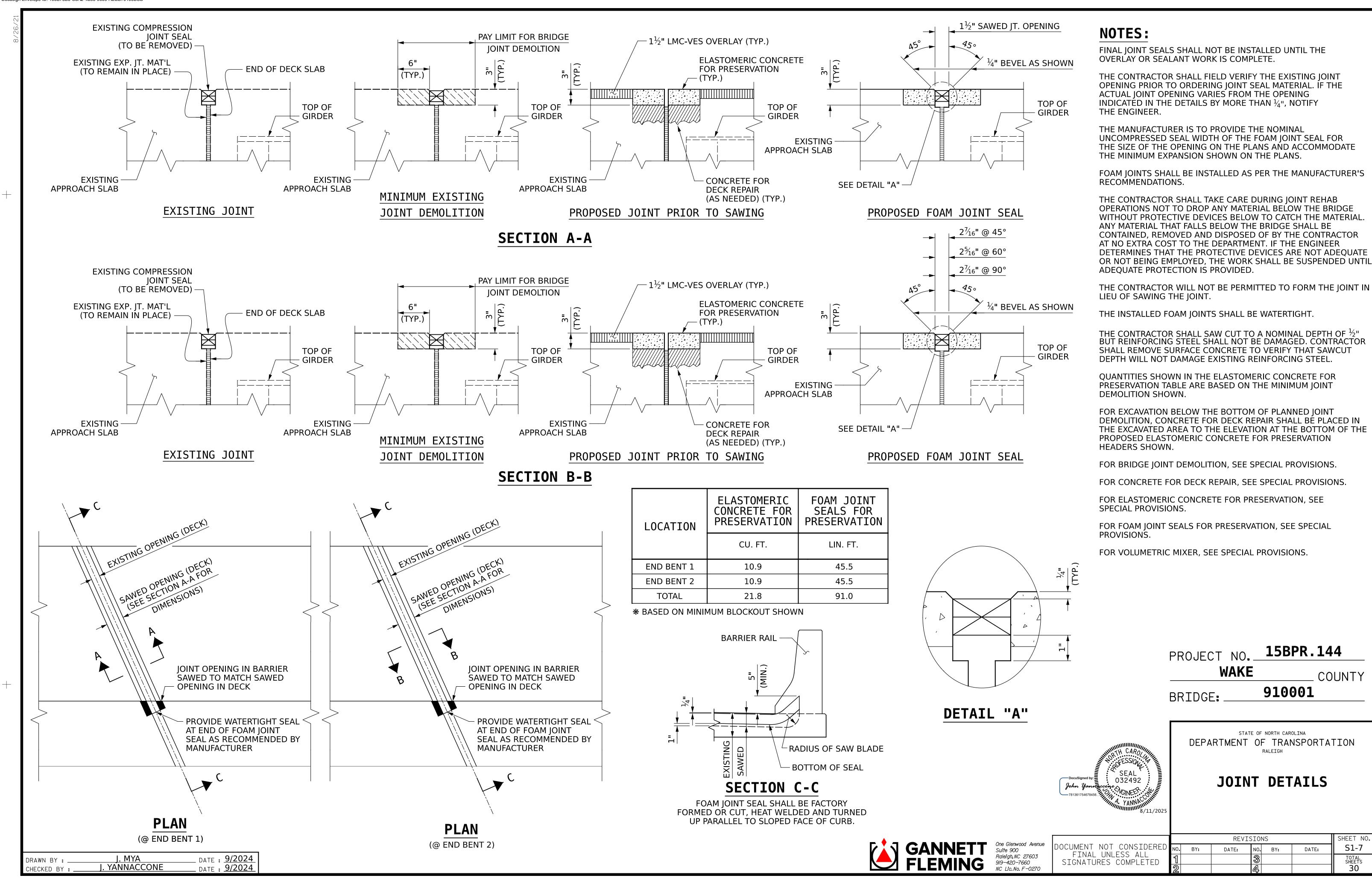
APPROACH SLAB @ END BENT 2

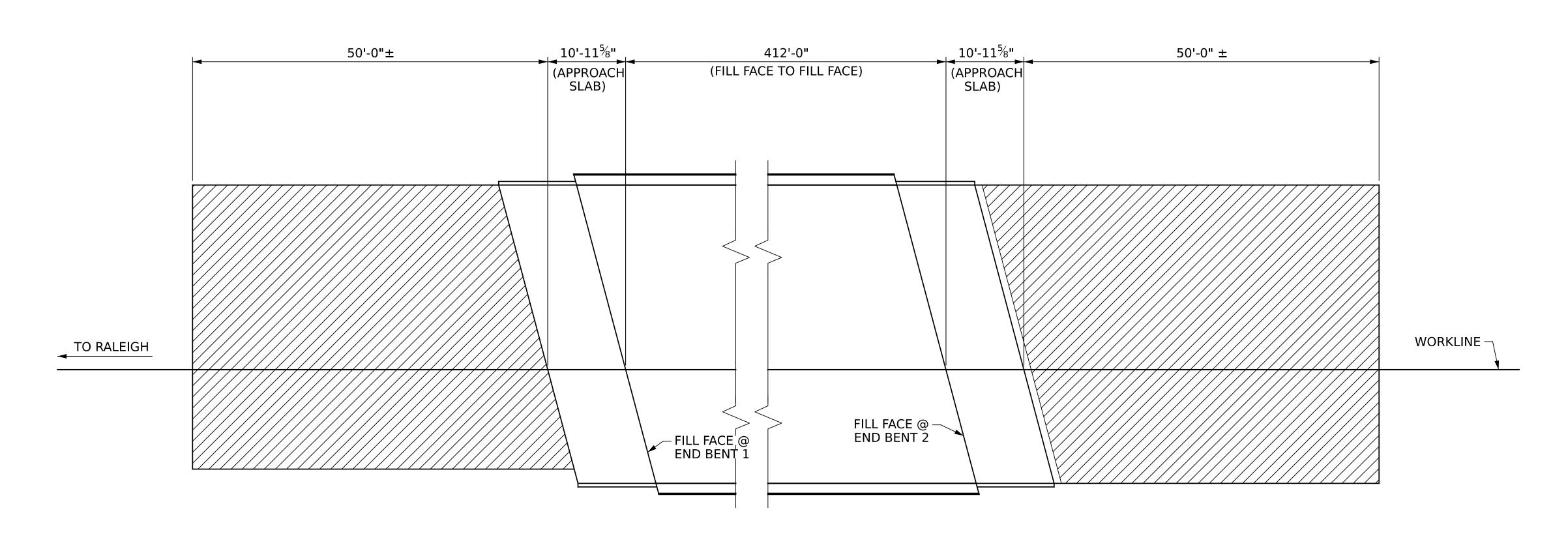
PLACING AND

FINISHING

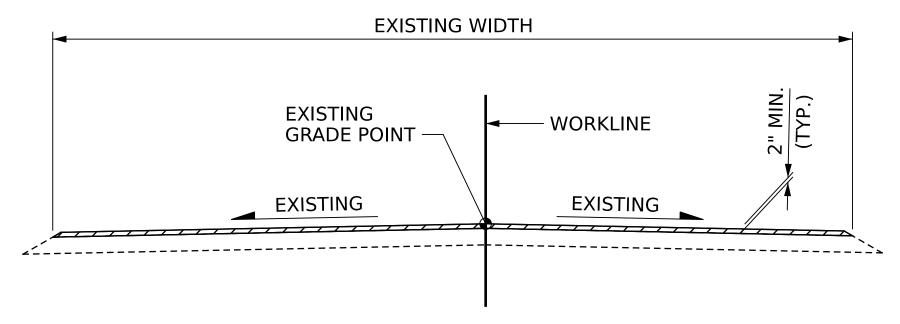
LMC-VES

GROOVING BRIDGE **FLOORS** 



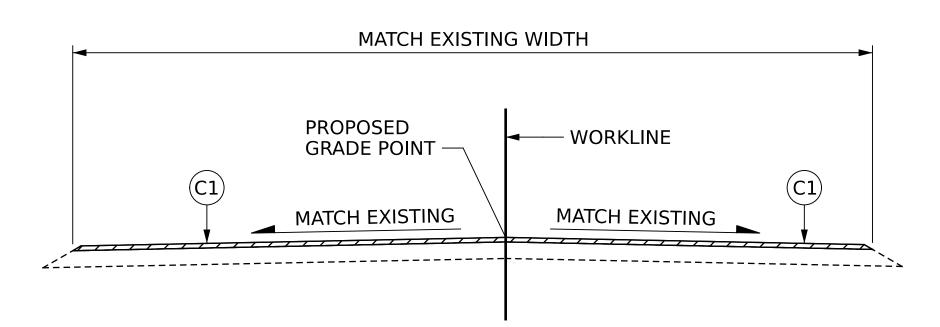


**PLAN** 



#### TYPICAL ROADWAY MILLING SECTION

(MILLING DEPTH VARIES, SEE NOTES)



TYPICAL FINAL ROADWAY SECTION

NOTES:

INCIDENTAL MILLING - EXISTING APPROACH ASPHALT PAVEMENT TO BE MILLED AS NECESSARY TO ATTAIN MINIMUM 2" DEPTH OF NEW ASPHALT PAVEMENT. NEW ASPHALT PAVEMENT SHALL BE OF THICKNESS NECESSARY TO CREATE A SMOOTH TRANSITION BETWEEN THE ROADWAY AND THE BRIDGE DECK.

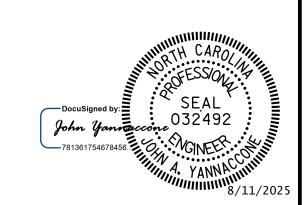
INCIDENTAL MILLING

PROPOSED VARIABLE DEPTH ASPHALT CONCRETE SURFACE COURSE. TYPE S9.5C AT AN AVERAGE RATE OF 112 LBS. PER SQ. YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT LESS THAN 1½" IN DEPTH OR GREATER THAN 2" IN DEPTH.

AS-BUILT REPAIR QUANTITY TABLE							
DESCRIPTION	ESTIMATE	ACTUAL					
INCIDENTAL MILLING	450 SY						
ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C	51 TONS						
ASPHALT BINDER FOR PLANT MIX	4 TONS						

PROJECT NO. 15BPR. 144 **WAKE** COUNTY 910001

BRIDGE:



STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

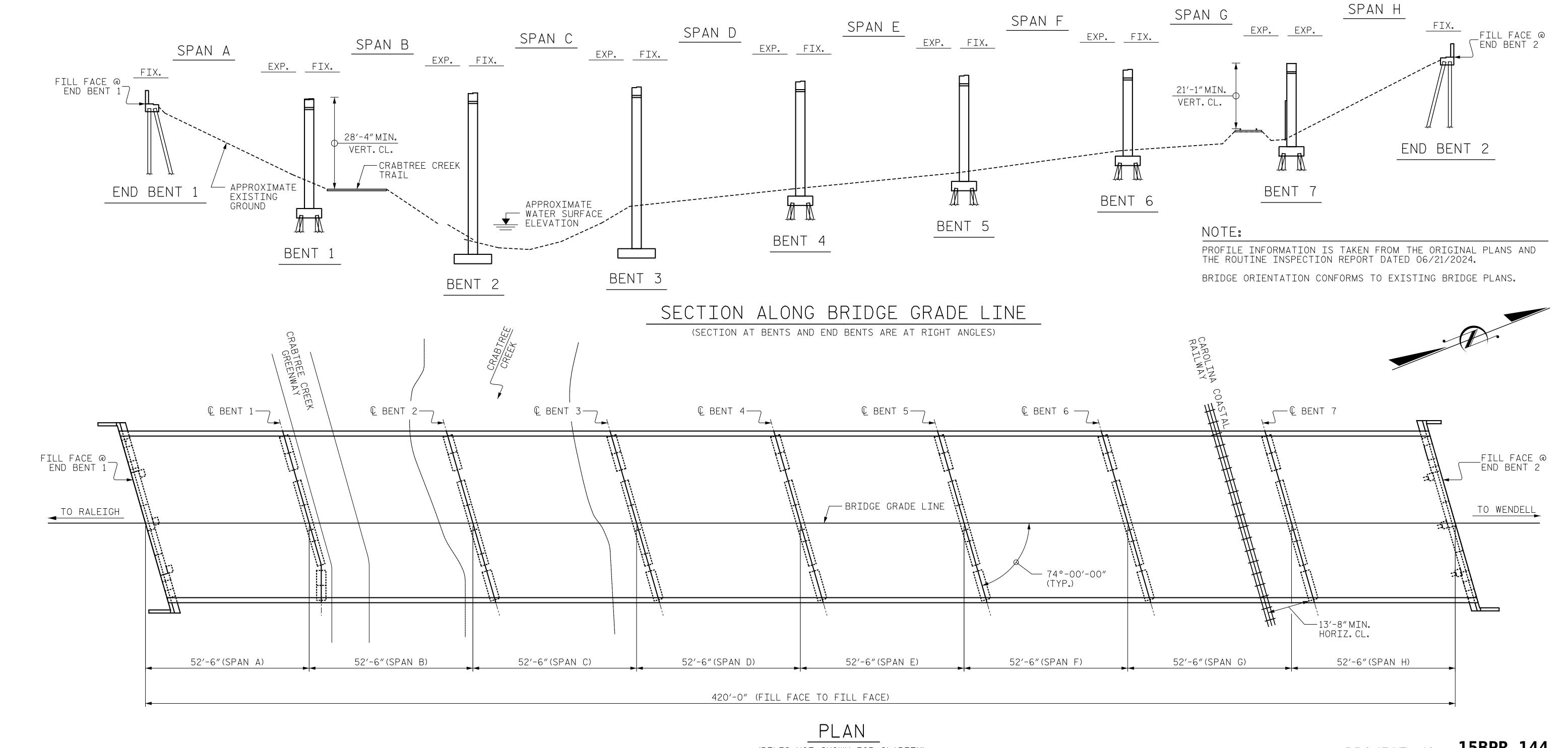
APPROACH MILLING AND TYPICAL ROADWAY SECTIONS

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LL FTFD	1			3			TOTAL SHEETS
	2			4			30

\_\_ DATE : <u>9/2024</u> \_\_ DATE : <u>9/2024</u> J. MYA DRAWN BY : \_ J. YANNACCONE CHECKED BY : \_





#### SCOPE OF WORK

- PARTIALLY REMOVE TOP OF BRIDGE DECK CONCRETE BY SCARIFICATION AND HYDRO-DEMOLITION.
- OVERLAY PREPARED TOP OF BRIDGE DECK WITH VERY EARLY STRENGTH LATEX MODIFIED CONCRETE (LMC-VES).
- REMOVE EXISTING JOINT MATERIAL AND INSTALL FOAM JOINTS.
- GROOVE LMC-VES BRIDGE DECK.
- MILL AND REPAVE ASPHALT APPROACH ROADWAYS.
- CLEAN AND ZONE PAINT EXISTING STRUCTURAL WEATHERING STEEL BEAMS.
- CLEAN, REPAIR AND PAINT EXISTING STRUCTURAL STEEL BEAMS.
- REPLACE EXISTING BEARINGS.

- REMOVE DEBRIS FROM TOP OF EXISTING END BENT AND BENT CAPS AND APPLY EPOXY COATING.
- REMOVE UNSOUND CONCRETE AND PROPERLY PREPARE EXISTING END BENT AND BENT AREAS FOR SHOTCRETE AND CONCRETE REPAIRS.

(PILES NOT SHOWN FOR CLARITY)

HEREBY CERTIFY THAT THIS STRUCTURE WAS REHABILITATED ACCORDING TO THESE PLANS OR AS NOTED HEREIN. RESIDENT ENGINEER DATE

PROJECT NO. 15BPR.144

**WAKE** COUNTY

910538 BRIDGE:

SHEET 1 OF 2

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH

#### GENERAL DRAWING

FOR BRIDGE ON SR 2911 EBL (NEW BERN AVE) OVER CRABTREE CREEK, CRABTREE CREEK GREENWAY AND CAROLINA COASTAL RAILWAY

REVISIONS S2-1 DATE: NO. BY: DATE: TOTAL SHEETS 30

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Z. BLINSON \_ DATE : <u>9/2024</u> DRAWN BY : . J. YANNACCONE DATE : 9/2024 CHECKED BY : \_\_