

LOCATION SKETCH

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

BRIDGE CO	ORDINATES
LATITUDE	LONGITUDE
36°-01′-57.05′′	79°-48′-49 . 94′′

GENERAL NOTES

SEE TRANSPORTATION MANAGEMENT PLANS FOR LANE WIDTHS, SEQUENCING AND OTHER TRAFFIC CONTROL MEASURES FOR STAGING OF OVERLAY SURFACE PREPARATION AND POLYMER CONCRETE (PC) 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 REPAIR.

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 USED PLATFORMS, NETS, SCREEN 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 OF PHASING OF CONSTRUCTION, SEE TRANSPORTATION MANAGEMENT PLANS.

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 FALSEWORK AND FORMWORK, SEE SPECIAL PROVISIONS.

FOR SUBMITTAL OF WORKING DRAWINGS, SEE SPECIAL PROVISIONS.

FOR CRANE SAFETY, SEE SPECIAL PROVISIONS.

FOR GROUT FOR STRUCTURES, SEE SPECIAL PROVISIONS.

ALL PAVEMENT MARKING WILL BE IN ACCORDANCE WITH THE TRANSPORTATION MANAGEMENT PLANS.

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.

FOR SHOTBLASTING BRIDGE DECK AND CLASS II SURFACE PREPARATION, SEE OVERLAY SURFACE PREPARATION FOR POLYMER CONCRETE SPECIAL PROVISION.

FOR FINE MILLING, SEE SPECIAL PROVISIONS.

FOR CONCRETE DECK REPAIR FOR PC OVERLAY, PC MATERIALS, AND PLACING AND FINISHING PC OVERLAY, SEE POLYMER CONCRETE BRIDGE DECK OVERLAY SPECIAL PROVISION.

FOR EXPANSION JOINT SEAL REPAIR, SEE SPECIAL PROVISIONS.

FOR EPOXY COATING AND DEBRIS REMOVAL, SEE SPECIAL PROVISIONS.

PROJECT NO. _____ I-5955

_____ GUILFORD ____ COUNTY
BRIDGE NO. _____ 400327

Docusigned by:

SEAL

John Yannaccone 032492

781361754678456...

11/17/2022

SHEET 2 OF 2

STATE OF NORTH CAROLINA

DEPARTMENT OF TRANSPORTATION

RALEIGH

GENERAL DRAWING FOR BRIDGE ON I-40 EBL OVER SOUTH BUFFALO CREEK

GANNETT
Suite 900
Raleigh, NC 27603
919-420-7660
NC Lic. No. F-0270

DOCUMENT NOT CONSIDERE
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SIGNATURES COMPLETED

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	REVISIONS								
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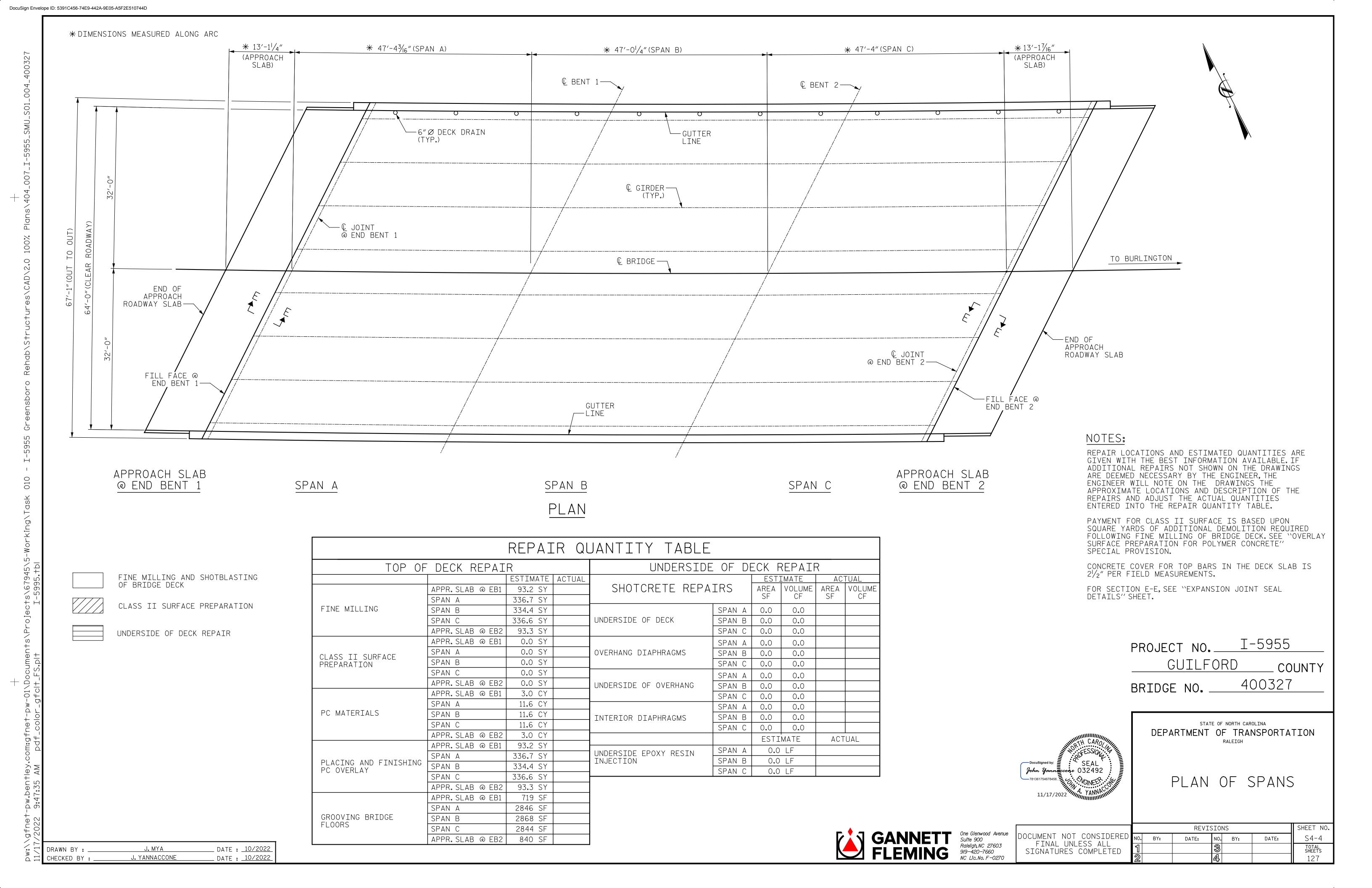
J. HARRIS _ DATE : <u>10/2022</u> DRAWN BY : J. YANNACCONE _ DATE : <u>10/2022</u> CHECKED BY : ___

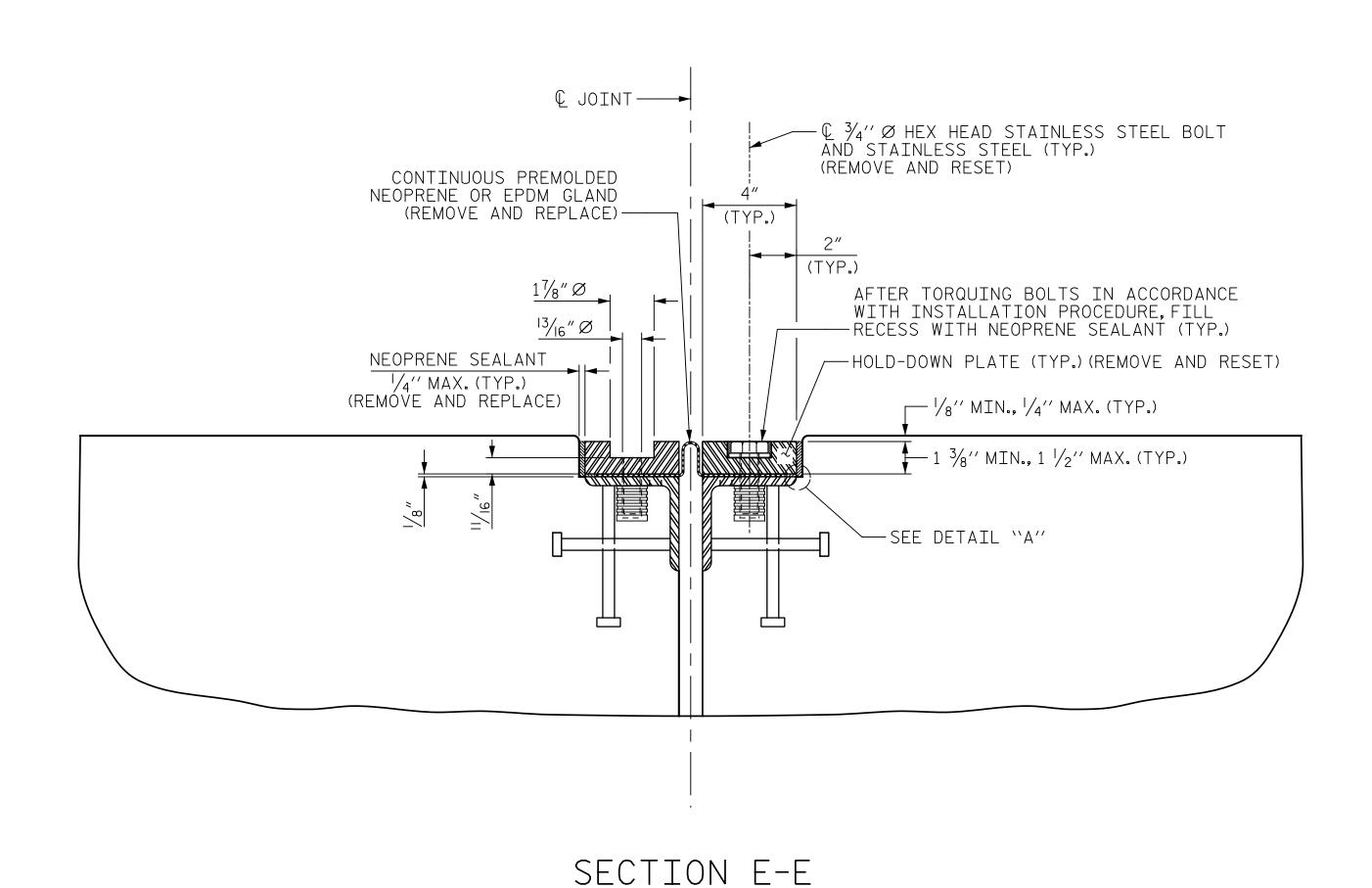
GANNETT

One Glenwood Avenue
Suite 900
Raleigh, NC 27603
919-420-7660
NC Lic. No. F-0270

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

S4-3 DATE: DATE: TOTAL SHEETS





SECTION NORMAL TO JOINT -- STEEL SUPERSTRUCTURE

REPAIR INSTALLATION PROCEDURE

LOOSEN THE EXISTING BOLTS AND HOLD-DOWN PLATES TO REMOVE AND REPLACE THE EXISTING GLAND. REMOVE THE EXISTING NEOPRENE SEALANT AND CLEAN THE EXISTING BASE ANGLE OF OIL, GREASE AND OTHER LATENTS.

LAY THE NEW GLAND ON THE BASE ANGLE AND FIELD MARK THE NEW GLAND FOR THE BOLT HOLES. HOLES IN THE NEW GLAND SHALL BE PUNCHED 7/8" IN DIAMETER WITH A HAND PUNCH.

IN ORDER TO CHECK FOR PROPER ALIGNMENT, PLACE THE NEW GLAND HOLD-DOWN PLATES ON THE BASE ANGLE. DO NOT APPLY NEW NEOPRENE SEALANT. BOLT THE HOLD-DOWN PLATES TO THE BASE ANGLE, BUT DO NOT TIGHTEN. THE ENGINEER WILL INSPECT THE JOINT SEAL DEVICE FOR PROPER ALIGNMENT.

AFTER INSPECTION, REMOVE THE HOLD-DOWN PLATES AND NEW GLAND, APPLY NEW NEOPRENE SEALANT TO THE BASE ANGLE IN ACCORDANCE WITH THE "INSTALLATION SKETCH". PLACE NEW GLAND AND HOLD-DOWN PLATES ON THE BASE ANGLE. BOLT THE HOLD-DOWN PLATES TO THE BASE ANGLE ASSEMBLY AND TORQUE THE BOLTS TO 88 FT-LBS WITH A TORQUE WRENCH. CHECK THE TORQUE AFTER THREE (3) HOURS AND, IF NECESSARY. RETIGHTEN TO 88 FT-LBS. A FINAL CHECK SHALL BE MADE AT SEVEN (7) DAYS. TORQUE SHALL NOT BE LESS THAN 80 FT-LBS AFTER SEVEN (7) DAYS.

AFTER PROPER TORQUING, CLEAN THE BOLT HOLE RECESSES AND THE RECESS BETWEEN THE JOINT SEAL DEVICE AND CONCRETE, COMPLETELY FILL THESE RECESSES WITH NEW NEOPRENE SEALANT.

GENERAL NOTES

ALL HOLD-DOWN BOLTS SHALL CONFORM TO ASTM F593 ALLOY 304 STAINLESS STEEL AND WASHERS SHALL CONFORM TO ASTM F844 EXCEPT THEY SHALL BE MADE FROM ALLOY 304 STAINLESS STEEL.

A PREMOLDED CORRUGATED OR NON-CORRUGATED GLAND SHALL BE USED FOR JOINTS SKEWED BETWEEN 50° THRU 130°. FOR JOINTS SKEWED LESS THAN 50° OR MORE THAN 130°. ONLY A CORRUGATED GLAND SHALL BE USED.

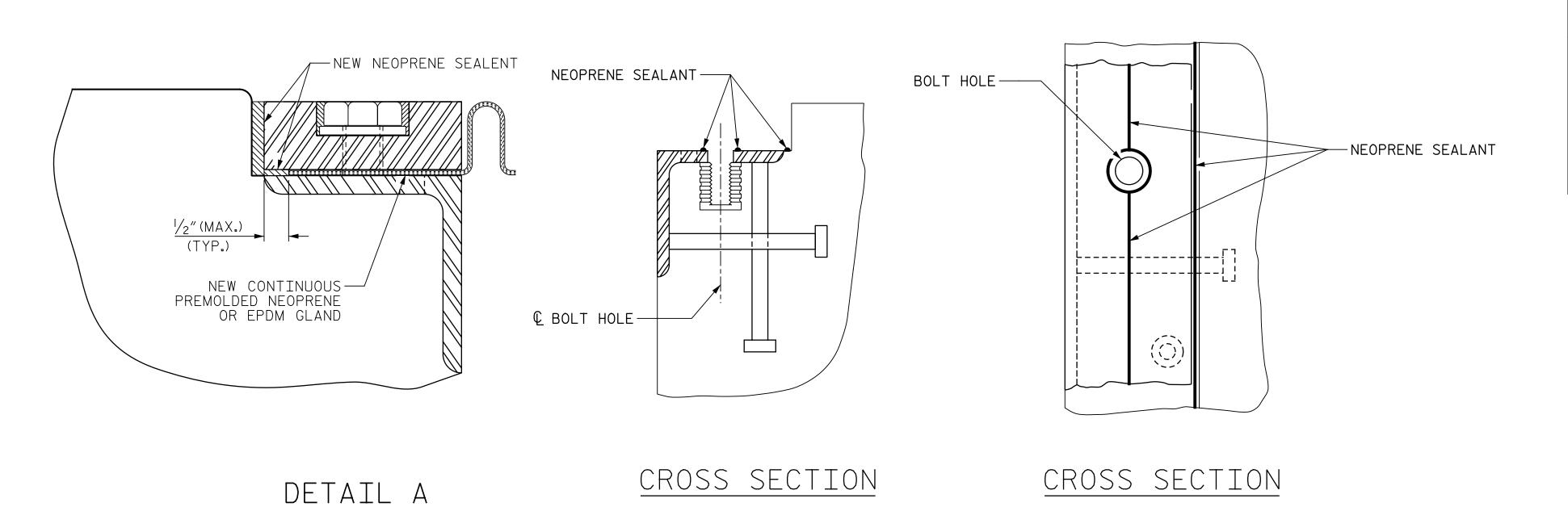
THE FINISHED EXPANSION SEAL DEVICE SHALL BE A MINIMUM "AND A MAXIMUM OF "BELOW THE TOP OF SLAB.

FOR EXPANSION JOINT SEAL REPAIR, SEE SPECIAL PROVISIONS.

NO SEPARATE PAYMENT WILL BE MADE FOR REMOVING AND REINSTALLING MEDIAN AND BARRIER RAIL COVER PLATES. THE ENTIRE COST OF THIS WORK SHALL BE INCLUDED IN THE UNIT PRICE BID FOR "EXPANSION JOINT SEAL REPAIR".

CLEAN AND REMOVE DEBRIS FROM THE TOP OF THE END BENT CAPS AND APPLY EPOXY PROTECTIVE COATING, EPOXY COATING SHALL BE APPLIED TO THE TOP SURFACE OF THE CAPS. THE CONTRACTOR SHALL NOT COAT THE AREA OF THE CAPS BENEATH THE ELASTOMERIC BEARINGS. FOR EPOXY COATING, SEE SPECIAL PROVISIONS.

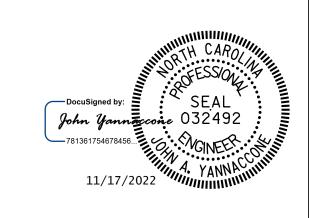
MOVEMENT AND SETTING AT JOINT						
LOCATION	SKEW ANGLE	TOTAL MOVEMENT (ALONG (RDWY)	PERPENDICULAR JOINT OPENING AT 45° F	PERPENDICULAR JOINT OPENING AT 60° F	PERPENDICULAR JOINT OPENING AT 90° F	
END BENT 1	115°-48′-27″	7/16″	17/16″	13/8″	13/16″	
END BENT 2	117°-14′-48″	7/ ₁₆ "	¹⁵ /16″	7/8″	11/16"	



INSTALLATION SKETCH

SUMMARY OF QUANTITIES						
LOCATION	l .	JOINT SEAL AIRS	EPOXY COATING			
LOCATION	ESTIMATED (LIN. FT)	ACTUAL (LIN.FT)	ESTIMATED (SQ.FT)	ACTUAL (SQ.FT)		
END BENT 1	73.0		182			
END BENT 2	74.0		184			

PROJECT NO. I-5955GUILFORD _ COUNTY 400327 BRIDGE NO. ____



STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

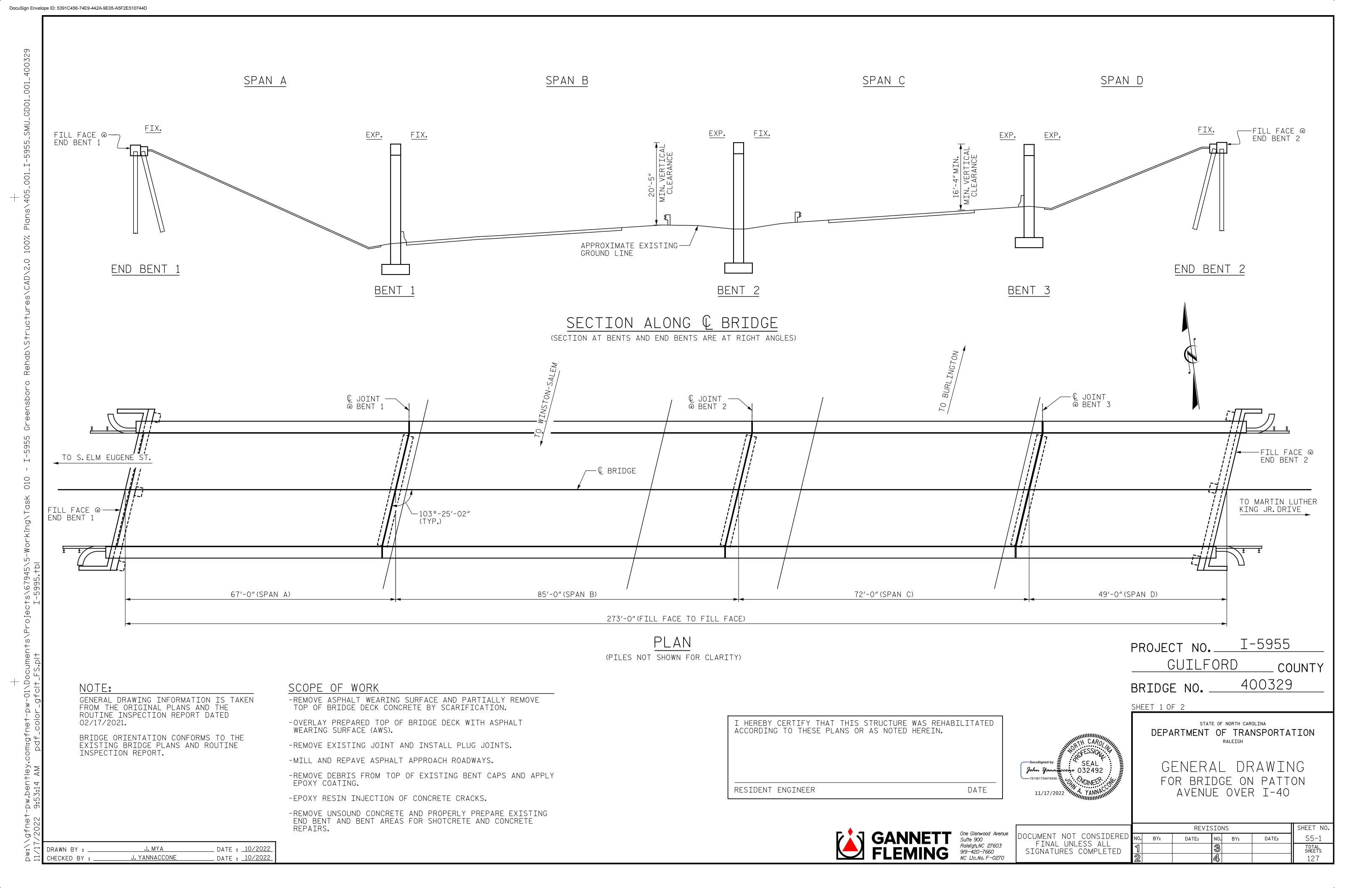
EXPANSION JOINT SEAL DETAILS

S4-5

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DATE : <u>10/2022</u> _ DATE : <u>10/2022</u> J. YANNACCONE





LOCATION SKETCH

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BRIDGE CO	ORDINATES
LATITUDE	LONGITUDE
36°-02′-26.63′′	79°-46′-43.36′′

GENERAL NOTES

PROVISIONS.

SEE TRANSPORTATION MANAGEMENT PLANS FOR LANE WIDTHS, SEQUENCING AND OTHER TRAFFIC CONTROL MEASURES FOR STAGING OF ASPHALT WEARING SURFACE (AWS).

FOR NEW ASPHALT PLACEMENT, SEE STANDARD SPECIFICATIONS.

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.

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THE CONTRACTOR SHALL PERFORM ALL WORK WITH CARE SO THAT THE EXISTING STRUCTURE WHICH IS TO REMAIN IN PLACE WILL NOT BE DAMAGED. IF THE CONTRACTOR DAMAGES ANY PART OF THE EXISTING STRUCTURE WHICH IS TO REMAIN IN PLACE, THE DAMAGED AREA SHALL BE REPAIRED OR REPLACED IN A MANNER SATISFACTORY TO THE ENGINEER AT NO ADDITIONAL COST TO THE DEPARTMENT.

ANY DAMAGE TO EXISTING REINFORCING STEEL, DURING CONTRACTOR'S OPERATIONS, SHALL BE REPATRED 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 TRANSPORTATION MANAGEMENT PLANS.

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

FOR SUBMITTAL OF WORKING DRAWINGS, SEE SPECIAL PROVISIONS.

FOR FALSEWORK AND FORMWORK. SEE SPECIAL

FOR CRANE SAFETY, SEE SPECIAL PROVISIONS.

FOR GROUT FOR STRUCTURES, SEE SPECIAL PROVISIONS.

FOR MAINTENANCE AND PROTECTION OF TRAFFIC BENEATH EXISTING STRUCTURE, SEE SPECIAL PROVISIONS.

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

THE CONTRACTOR SHALL TAKE CARE DURING JOINT REHAB OPERATIONS NOT TO DROP ANY MATERIAL BELOW THE BRIDGE WITHOUT PROTECTIVE DEVICES BELOW TO CATCH THE MATERIAL, ANY MATERIAL THAT FALLS BELOW THE BRIDGE SHALL BE CONTAINED, REMOVED AND DISPOSED OF BY THE CONTRACTOR AT NO EXTRA COST TO THE DEPARTMENT, IF THE ENGINEER DETERMINES THAT PROTECTIVE DEVICES ARE NOT ADEQUATE OR NOT BEING EMPLOYED, THE WORK SHALL BE SUSPENDED UNTIL ADEQUATE PROTECTION IS PROVIDED.

FOR ASPHALT PLUG JOINT FOR PRESERVATION, SEE SPECIAL PROVISIONS.

FOR CONCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.

FOR EPOXY COATING AND DEBRIS REMOVAL, SEE SPECIAL PROVISIONS.

FOR CONCRETE DECK REPAIR FOR ASPHALT OVERLAY, SEE SPECIAL PROVISIONS.

FOR CLASS IB SURFACE PREPARATION AND ASPHALT OVERLAY ON THE BRIDGE DECK, SEE BRIDGE DECK ASPHALT OVERLAY SPECIAL PROVISION.

AFTER MILLING THE ASPHALT WEARING SURFACE OF THE BRIDGE DECK, THE ENGINEER WILL LOCATE AND MARK DECK REPAIR AREAS AREAS MARKED FOR DECK REPAIR SHALL BE PREPARED AND REPAIRED IN ACCORDANCE WITH THE CONCRETE DECK REPAIR FOR ASPHALT OVERLAY SPECIAL PROVISION.

THE ASPHALT PLUG JOINTS FOR PRESERVATION SHALL BE INSTALLED AFTER PLACEMENT OF THE PROPOSED ASPHALT WEARING SURFACE.

> PROJECT NO. I-5955 GUILFORD COUNTY 400329 BRIDGE NO.

SHEET 2 OF 2

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH

GENERAL DRAWING FOR BRIDGE ON PATTON AVENUE OVER I-40



FLEMING 919-420-7660 NC Lic. No. F-0270

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	FINAL UNLESS ALL
	SIGNATURES COMPLETED

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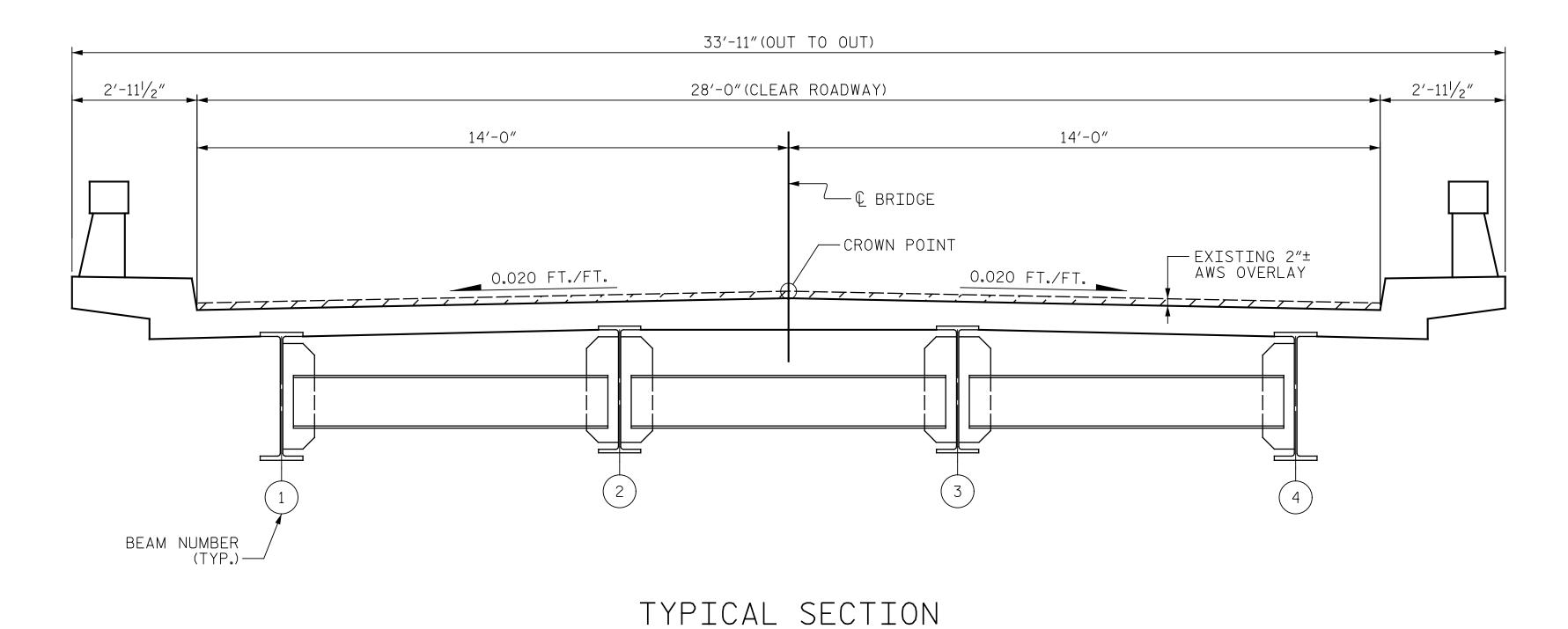
J. HARRIS

CHECKED BY : __

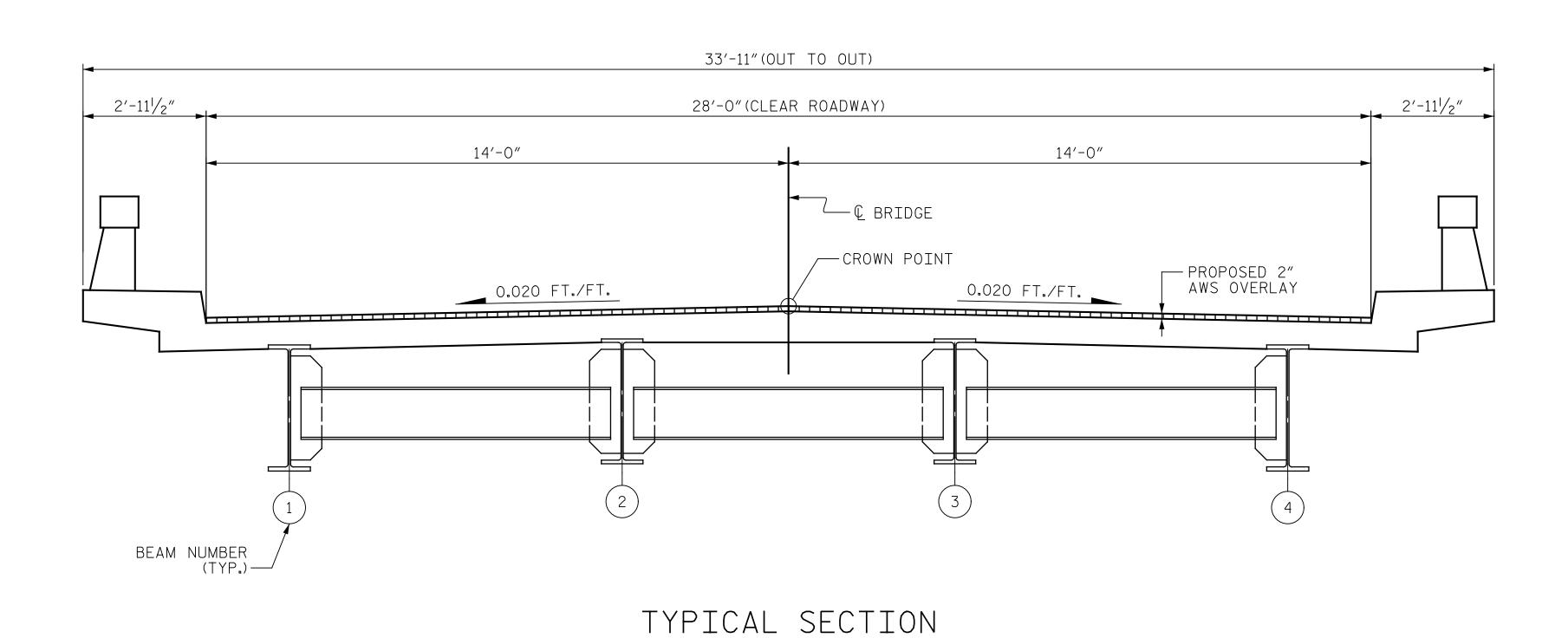
J. YANNACCONE

_ DATE : <u>10/2022</u>

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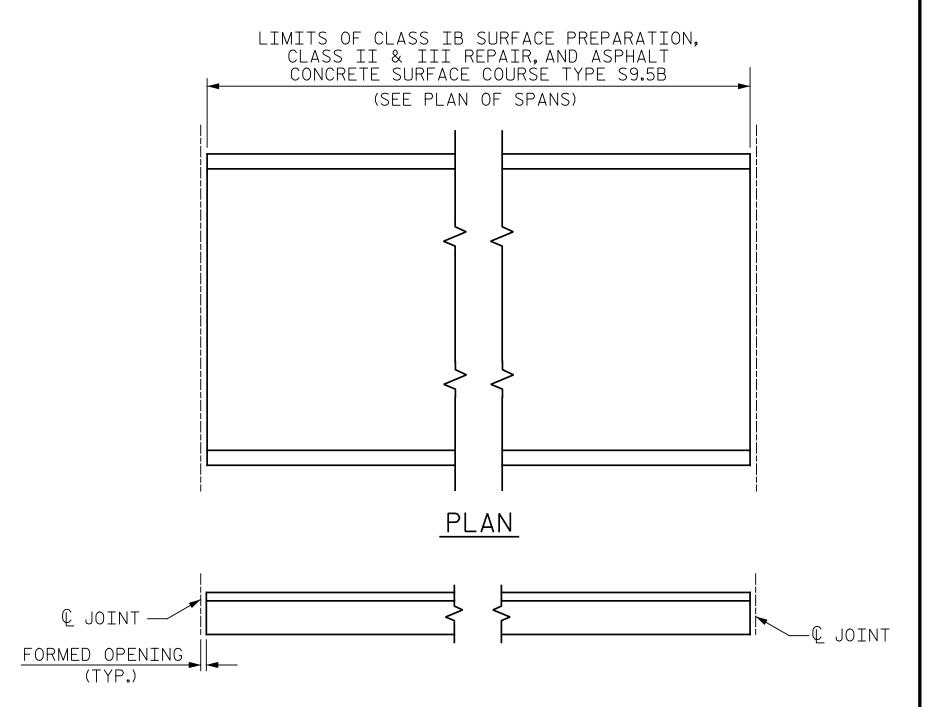
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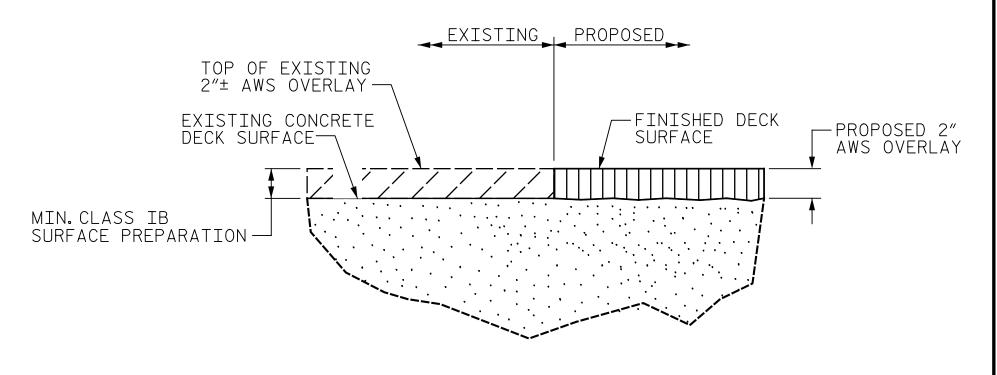
NOTES:

SEE TRAFFIC MANAGEMENT PLANS FOR LANE WIDTHS, SEQUENCING, AND OTHER TRAFFIC CONTROL MEASURES FOR STAGING OF OVERLAY SURFACE PREPARATION AND ASPHALT WEARING SURFACE (AWS) PLACEMENT.



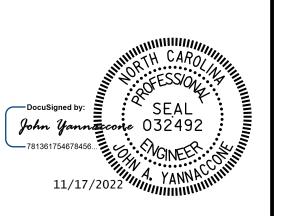
ELEVATION

PAY LIMITS FOR OVERLAY BID ITEMS



DETAIL FOR AWS OVERLAY

PROJECT NO. I-5955 GUILFORD ___ COUNTY BRIDGE NO. 400329

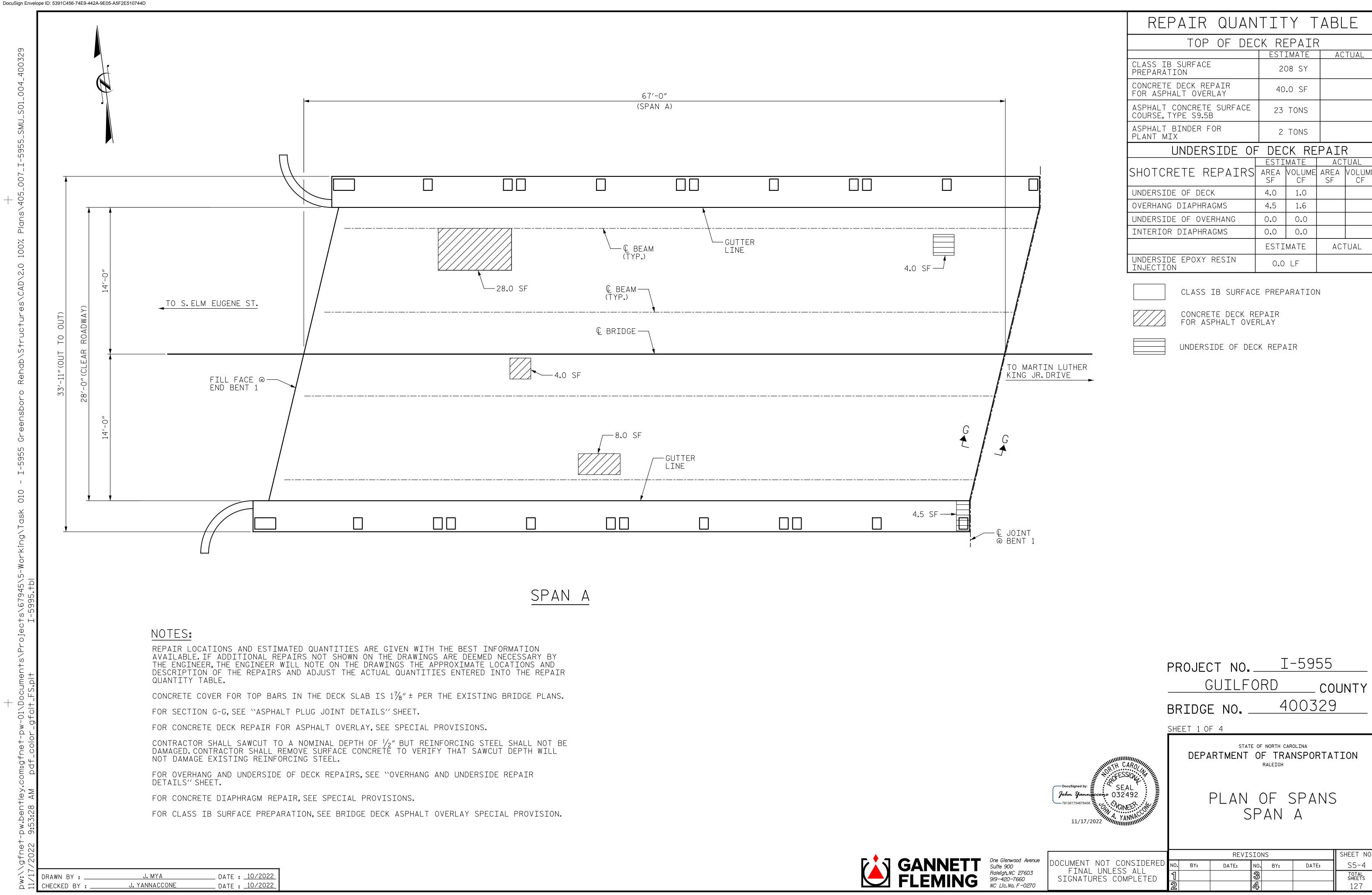


STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

TYPICAL SECTION AND SURFACE PREPARATION DETAILS

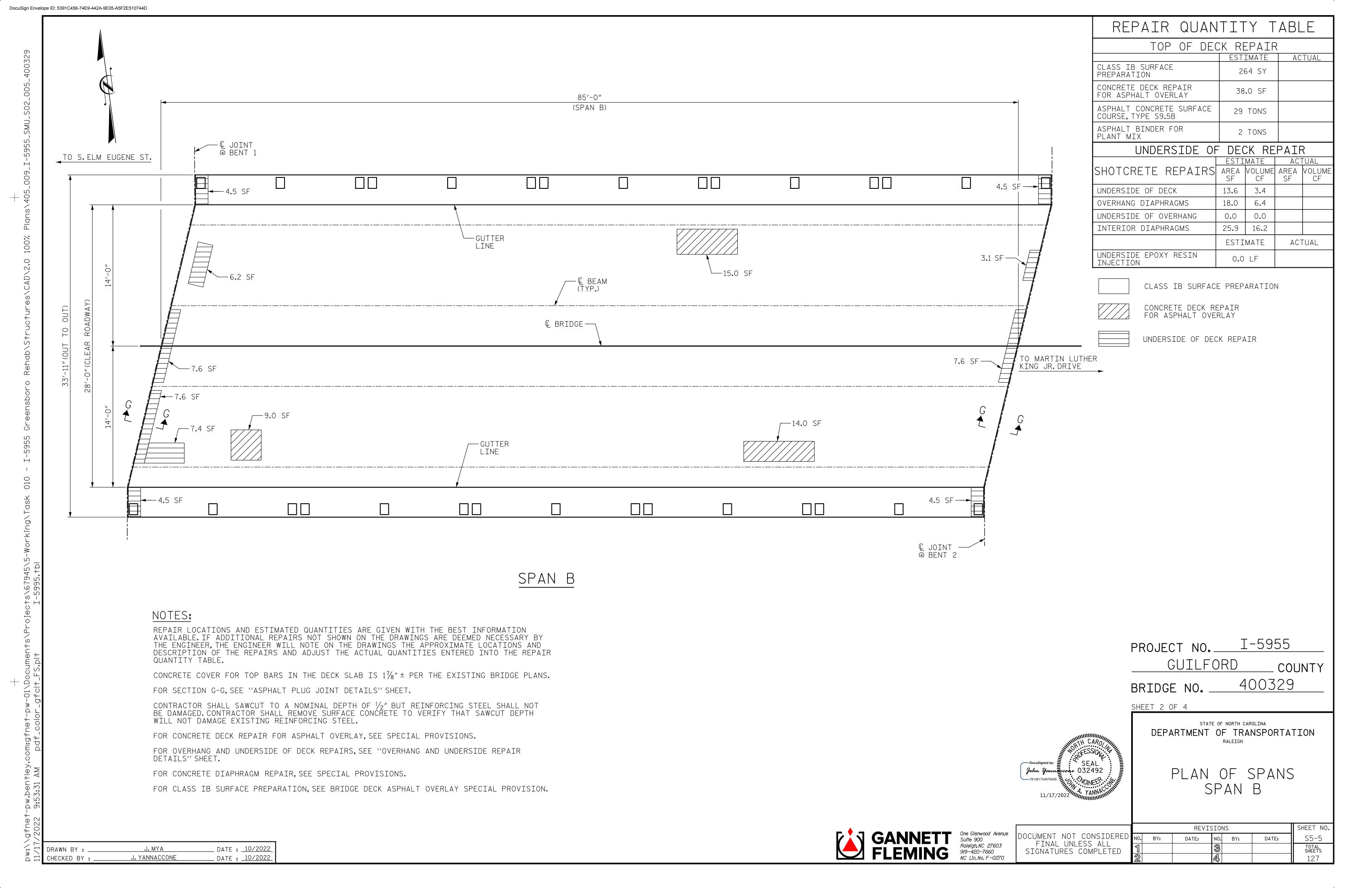
GANNETT FLEMING	One Glenwood Avenue Suite 900 Raleigh, NC 27603 919—420—7660 NC Lic. No. F—0270
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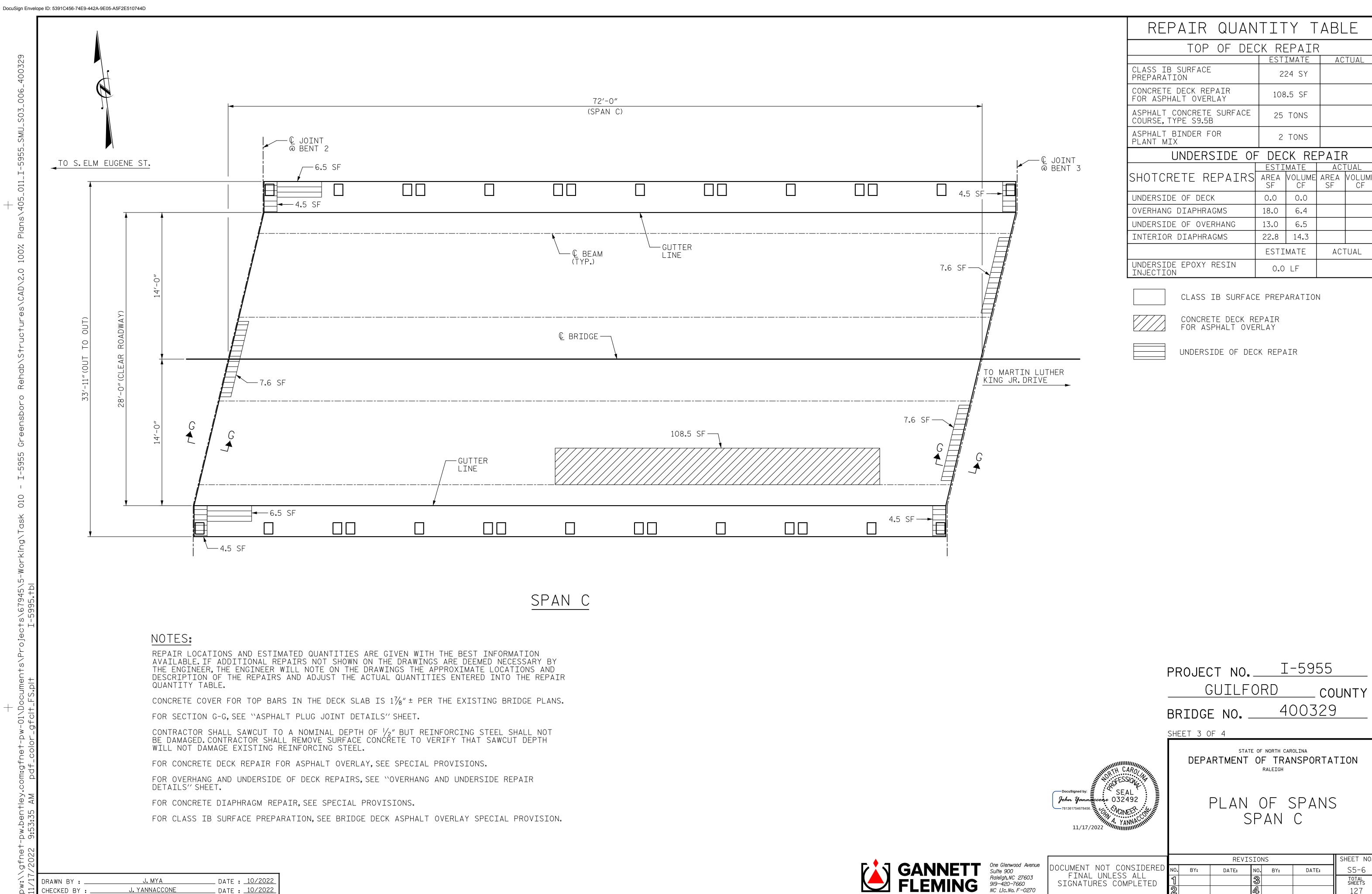
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SHEET NO. S5-4 DATE:

ACTUAL





FLEMING

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6.4

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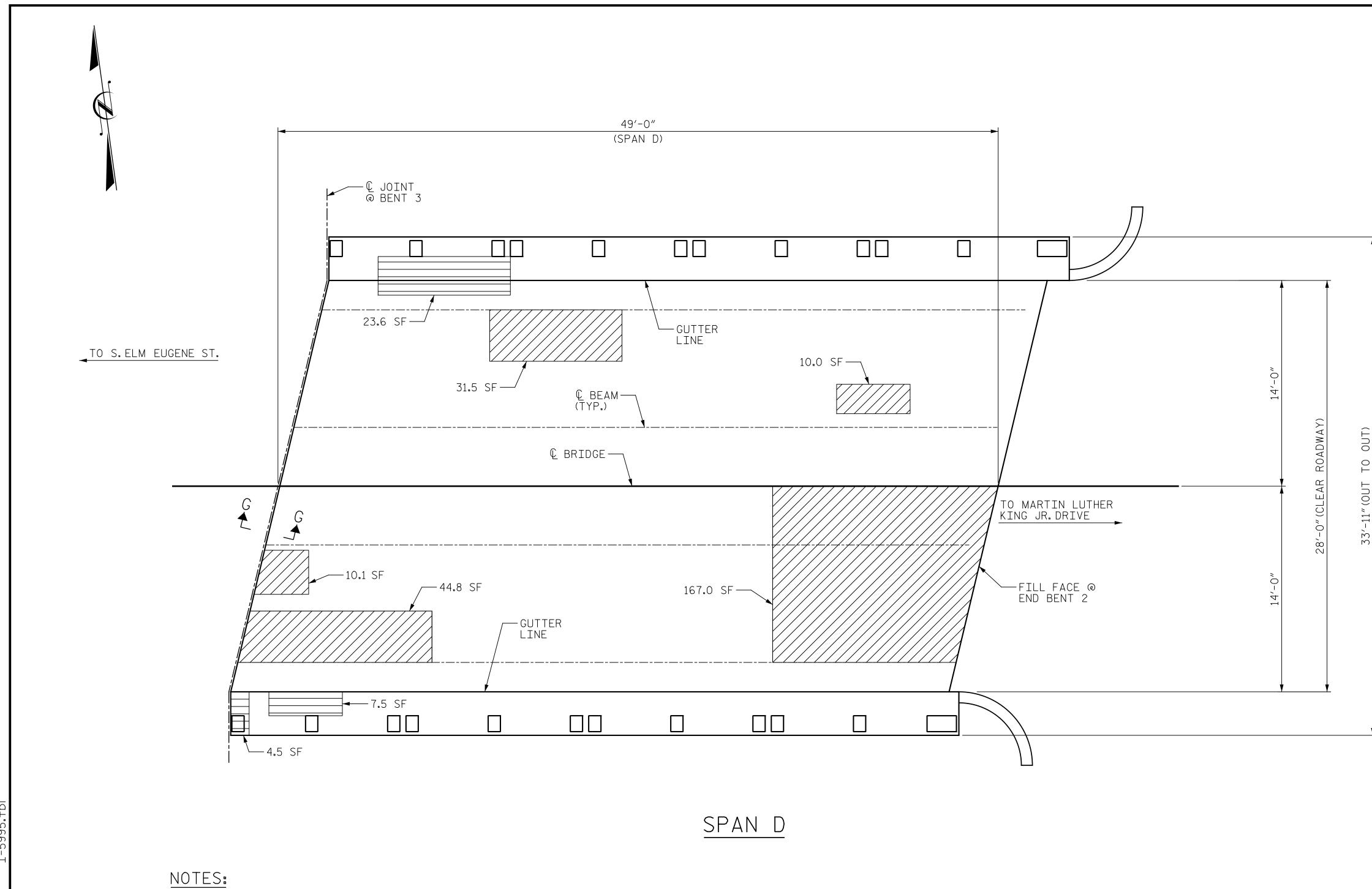
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COUNTY

SHEET NO.

S5-6

DATE:



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 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 1%" \pm PER THE EXISTING BRIDGE PLANS.

FOR SECTION G-G, SEE "ASPHALT PLUG JOINT DETAILS" SHEET.

CONTRACTOR SHALL SAWCUT TO A NOMINAL DEPTH OF $\frac{1}{2}$ " BUT REINFORCING STEEL SHALL NOT BE DAMAGED. CONTRACTOR SHALL REMOVE SURFACE CONCRETE TO VERIFY THAT SAWCUT DEPTH WILL NOT DAMAGE EXISTING REINFORCING STEEL.

FOR OVERHANG AND UNDERSIDE OF DECK REPAIRS, SEE "OVERHANG AND UNDERSIDE REPAIR DETAILS" SHEET.

FOR CLASS IB SURFACE PREPARATION, SEE BRIDGE DECK ASPHALT OVERLAY SPECIAL PROVISION.

PROJECT NO. I-5955

GUILFORD

REPAIR QUANTITY TABLE

TOP OF DECK REPAIR

UNDERSIDE OF DECK REPAIR

0.0

4.5

31.1

0.0

ESTIMATE

0.0 LF

SHOTCRETE REPAIRS AREA VOLUME AREA VOLUM

CLASS IB SURFACE PREPARATION

CONCRETE DECK REPAIR FOR ASPHALT OVERLAY

UNDERSIDE OF DECK REPAIR

CLASS IB SURFACE

CONCRETE DECK REPAIR

ASPHALT CONCRETE SURFACE

FOR ASPHALT OVERLAY

COURSE, TYPE S9.5B

UNDERSIDE OF DECK

OVERHANG DIAPHRAGMS

INTERIOR DIAPHRAGMS

UNDERSIDE OF OVERHANG

UNDERSIDE EPOXY RESIN INJECTION

ASPHALT BINDER FOR

PREPARATION

PLANT MIX

ESTIMATE ACTUAL

152 SY

263.4 SF

17 TONS

1 TONS

ESTIMATE |

0.0

1.6

15.6

ACTUAL

COUNTY 400329

SHEET NO.

S5-7

DATE:

SHEET 4 OF 4

BRIDGE NO. ___

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH

> PLAN OF SPANS SPAN D

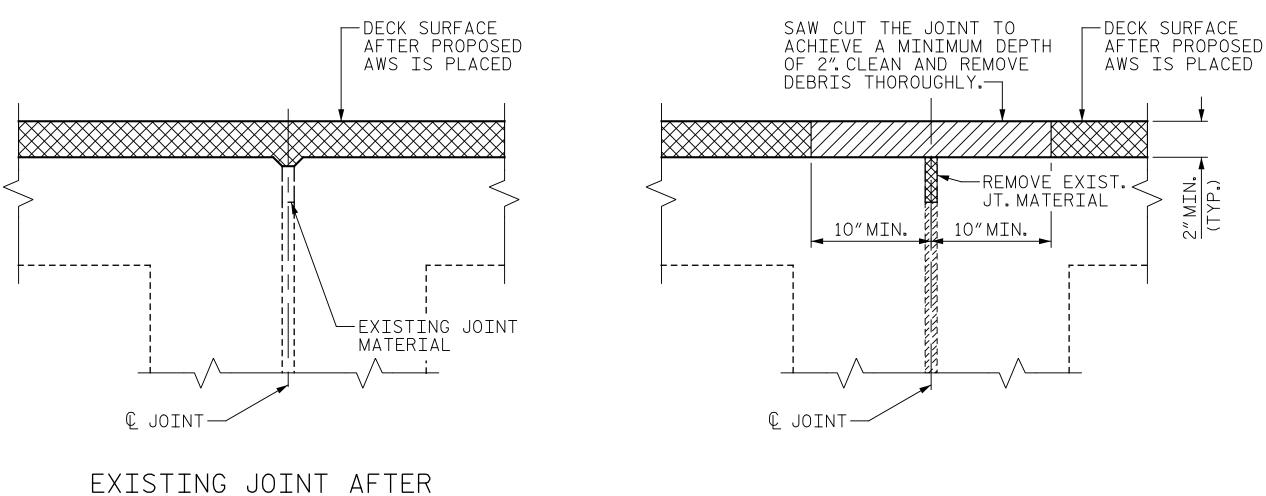


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FOR CONCRETE DECK REPAIR FOR ASPHALT OVERLAY, SEE SPECIAL PROVISIONS.

FOR CONCRETE DIAPHRAGM REPAIR, SEE SPECIAL PROVISIONS.

_ DATE : <u>10/2022</u> J. MYA DRAWN BY : J. YANNACCONE _ DATE : <u>10/2022</u> CHECKED BY : _



AWS IS PLACED ₽ ¼"×8"×48" 2"MIN. (TYP.) 10" MIN. 10" MIN. ------SEE ASPHALT JOINT DETAIL

--BINDER + AGGREGATE MATRIX

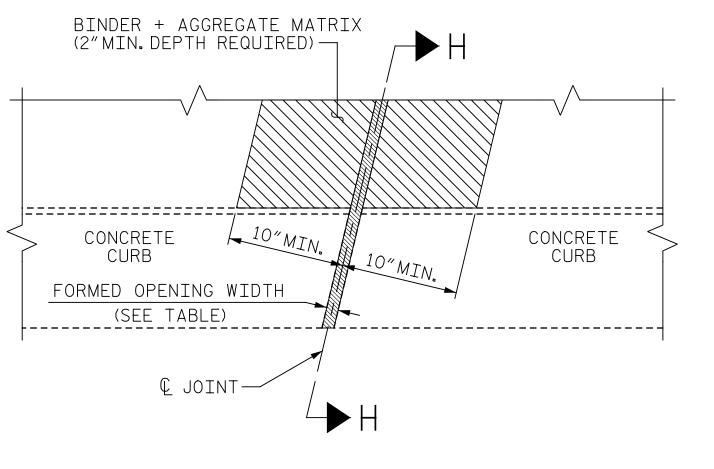
(2"MIN. DEPTH REQUIRED)

PROPOSED JOINT

€ JOINT-

DEMOLITION PREPARATION

SECTION G-G (TYP.AT BENTS)



AWS PLACEMENT



_ DATE : <u>10/2022</u>

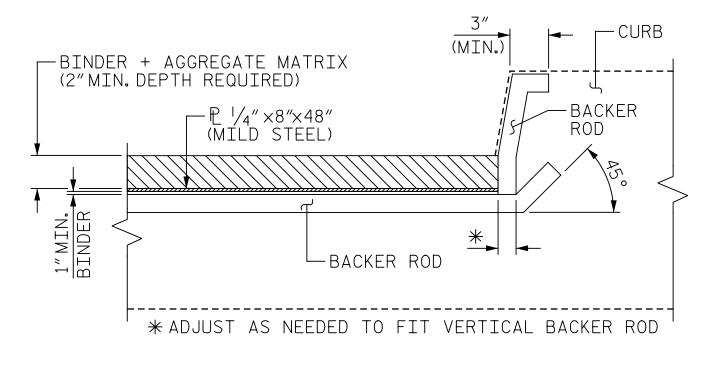
_ DATE : <u>10/2022</u>

J. HARRIS

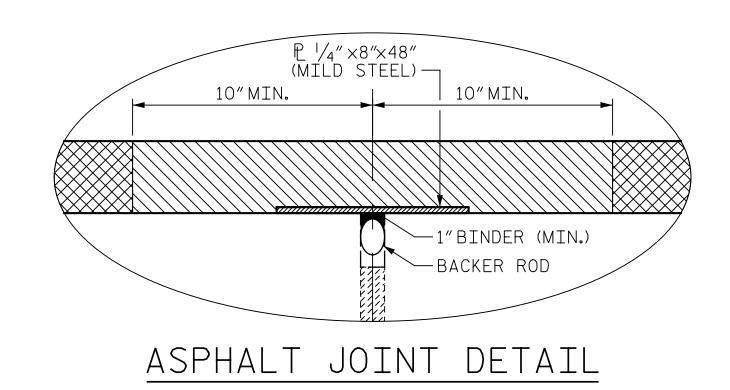
J. YANNACCONE

DRAWN BY

CHECKED BY : .



SECTION H-H (PROPOSED JOINT SEAL)



NOTES:

-DECK SURFACE

AFTER PROPOSED

THE CONTRACTOR SHALL FIELD VERIFY THE EXISTING JOINT OPENING PRIOR TO ORDERING JOINT SEAL MATERIAL. IF THE ACTUAL OPENING VARIES FROM TO OPENING INDICATED IN THE DETAIL BY MORE THAN $\frac{1}{4}$, NOTIFY THE ENGINEER, REVISION OF THE JOINT SEAL SIZE MIGHT BE NECESSARY.

THE CONTRACTOR SHALL TAKE CARE DURING JOINT REPAIR OPERATIONS NOT TO DROP ANY MATERIAL THAT FALLS BELOW THE BRIDGE WITHOUT PROTECTIVE DEVICES BELOW TO CATCH THE MATERIAL, ANY MATERIAL THAT FALLS BELOW THE BRIDGE SHALL BE CONTAINED, REMOVED AND DISPOSED OF BY THE CONTRACTOR AT NO EXTRA COST TO THE DEPARTMENT. IF THE ENGINEER DETERMINES THAT THE PROTECTIVE DEVICES ARE NOT ADEQUATE OR NOT BEING EMPLOYED. THE WORK SHALL BE SUSPENDED UNTIL ADEQUATE PROTECTION IS PROVIDED.

THE CONTRACTOR WILL NOT BE PERMITTED TO FORM THE JOINTS IN LIEU OF SAWING THE JOINT.

THE INSTALLED BACKER ROD AND SILICONE SEALANT SHALL BE WATER TIGHT.

FOR EXCAVATION BELOW THE BOTTOM OF THE PLANNED JOINT DECK DEMOLITION, CONCRETE FOR DECK REPAIRS SHALL BE PLACED IN THE EXCAVATED AREA TO THE ELEVATION AT BOTTOM OF THE PROPOSED ASPHALT JOINT DETAIL SHOWN.

DEMOLISH BRIDGE JOINT AREA SUCH THAT THE BOTTOM OF THE EXCAVATION SHALL BE REASONABLY FLAT AND LEVEL AND TO THE NECESSARY DEPTH. SUCH THAT ASPHALT JOINT SHALL BE FOUNDED ON CONCRETE OR REPAIR CONCRETE SUBSTRATE.

PRIOR TO ASPHALT JOINT REPAIR/REPLACEMENT, PERFORM DECK SURFACE REPAIR IN ACCORDANCE WITH "PLAN OF SPAN" SHEETS.

BACKER ROD SHALL BE INSTALLED AS PER MANUFACTURER'S RECOMMENDATIONS.

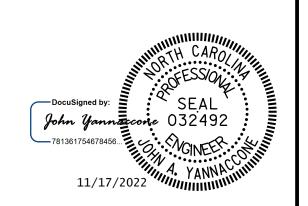
FOR ASPHALT PLUG JOINTS FOR PRESERVATION. SEE SPECIAL PROVISIONS.

FOR CONCRETE DECK REPAIR FOR ASPHALT OVERLAY, SEE SPECIAL PROVISIONS.

SEE ROADWAY PLANS FOR MILLING AND OVERLAY OF THE BRIDGE DECK.

LOCATION	ASPHALT PLUG JOINT FOR PRESERVATION (LIN. FT.)	FORMED OPENING WIDTH PER EXISTING BRIDGE PLANS	TOTAL THEORETICAL MOVEMENT PERPENDICULAR TO THE JOINT
BENT 1	31.0	1"	1/2"
BENT 2	31.0	1"	5/8″
BENT 3	31.0	11/4"	15/16"

PROJECT NO. I-5955 GUILFORD _ COUNTY 400329 BRIDGE NO. ____

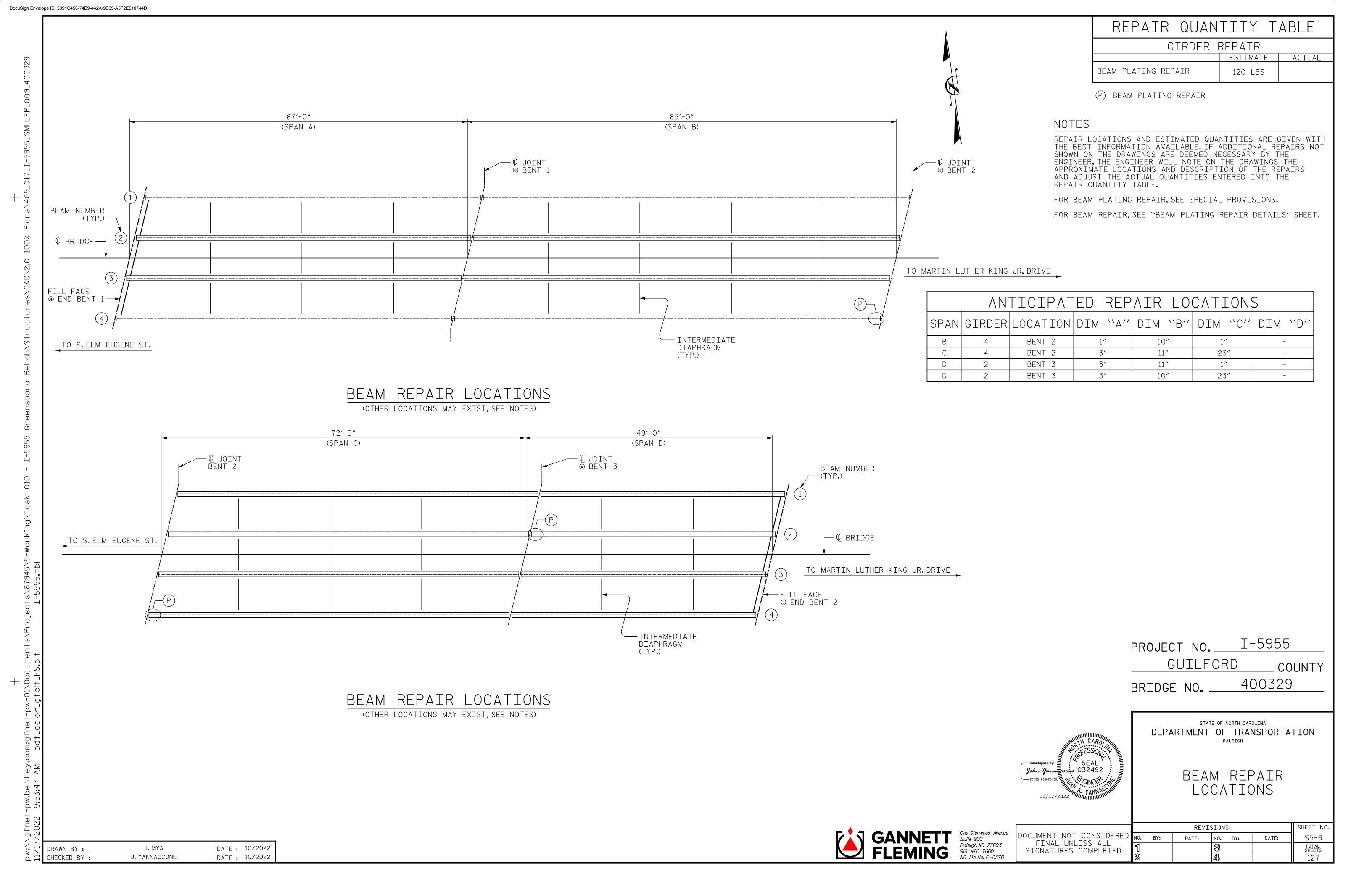


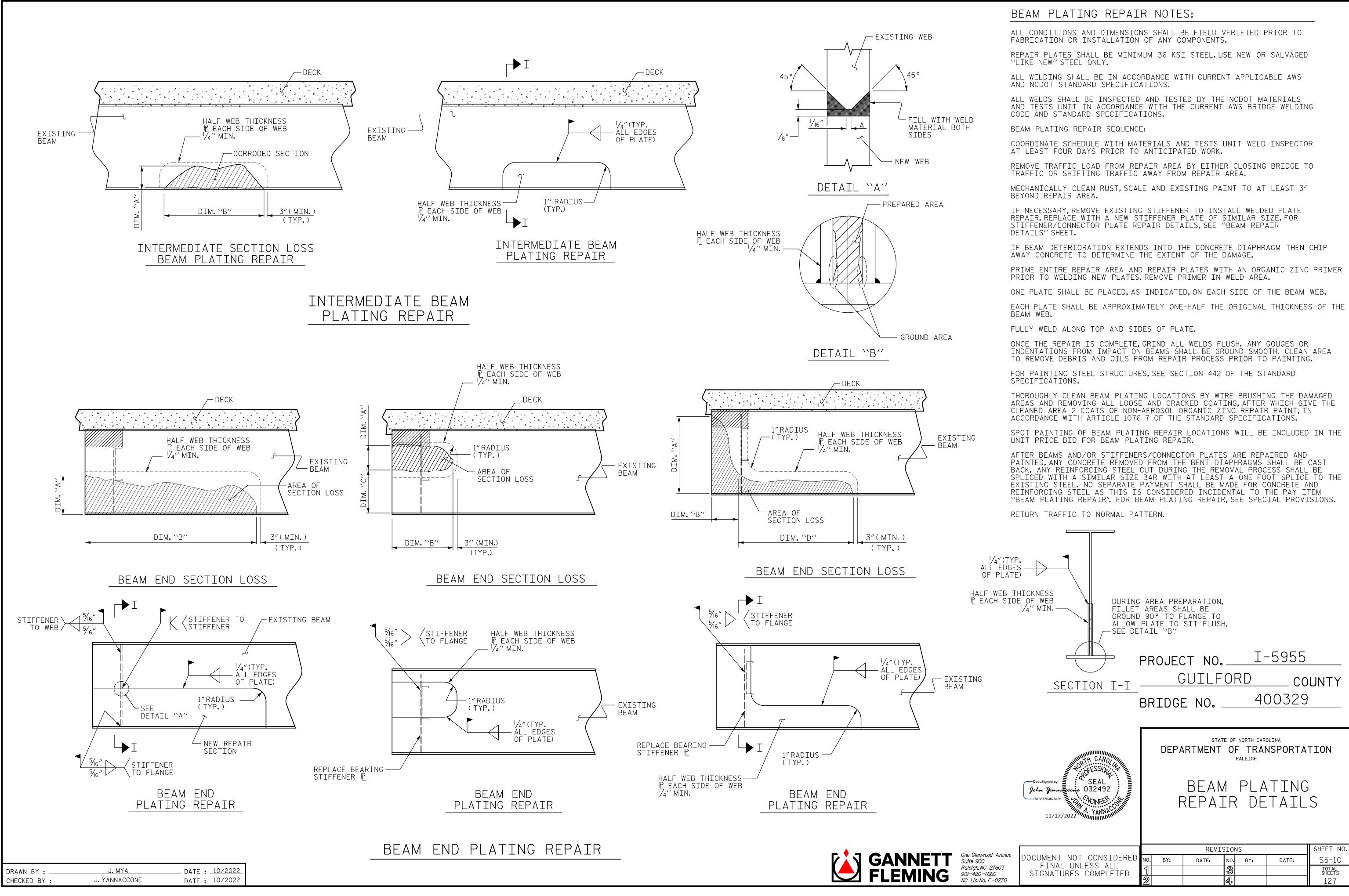
STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

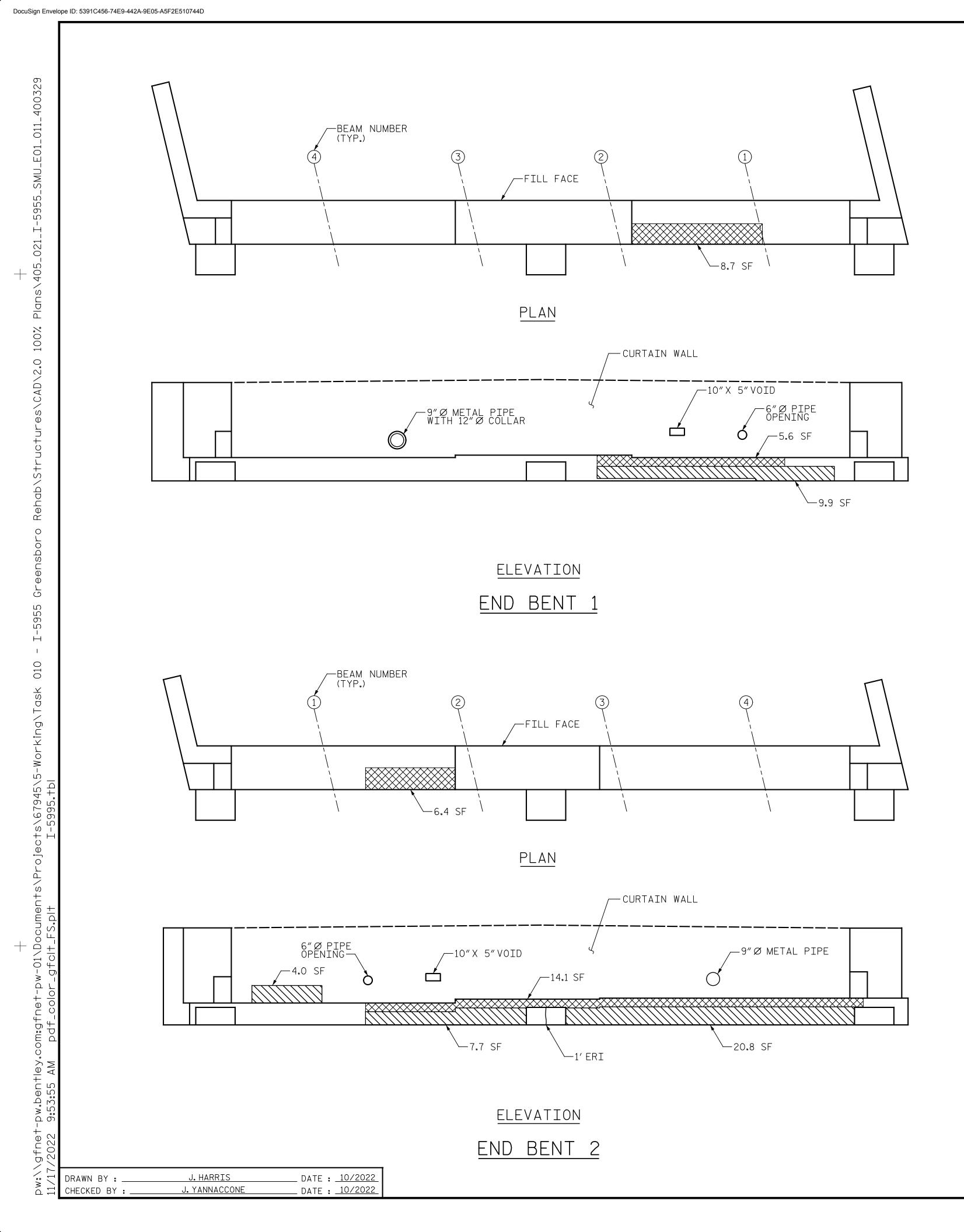
> ASPHALT PLUG JOINT DETAILS

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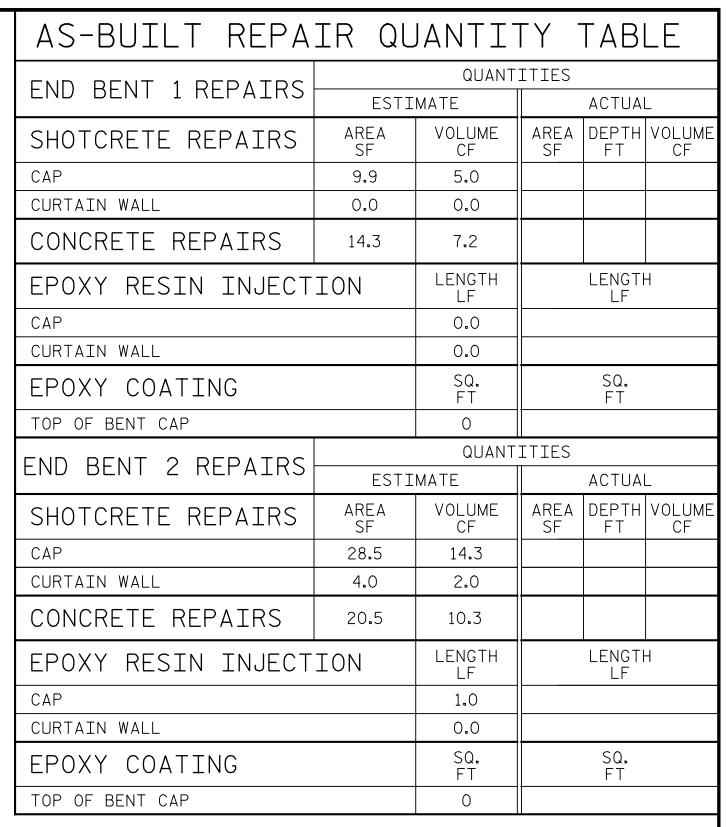
SHOTCRETE REPAIR



CONCRETE REPAIR (FORM & POUR)



ERI - EPOXY RESIN INJECTION



VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1"BEHIND REBAR AND MINIMUM OF 2" CLEARANCE TO SAWCUT. FOR REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

NOTES:

REPAIR LOCATIONS AND ESTIMATE 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 WILL NOTE ON THE DRAWINGS THE APPROXIMATE LOCATION AND DESCRIPTION OF THE REPAIRS AND ADJUST THE ACTUAL QUALITIES ENTERED INTO THE AS-BUILT REPAIR QUANTITY TABLE.

CONTRACTOR SHALL SAW CUT TO A MINIMUM DEPTH OF 1/2" BUT REINFORCING STEEL SHALL NOT BE DAMAGED

CONTRACTOR SHALL REMOVE SURFACE CONCRETE TO VERIFY THAT SAW CUT DEPTH WILL NOT DAMAGE EXISTING REINFORCING STEEL.

CONTRACTOR SHALL SAW CUT THE REPAIR AREAS SO THAT THE CORNERS ARE SQUARE AS INDICATED ON THE DETAILS.

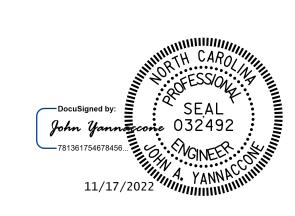
FOR CONCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

SHOTCRETE REPAIRS MAY BE REPLACED WITH CONCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.

PROJECT NO. I-5955 GUILFORD _ COUNTY 400329 BRIDGE NO. ____

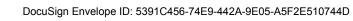


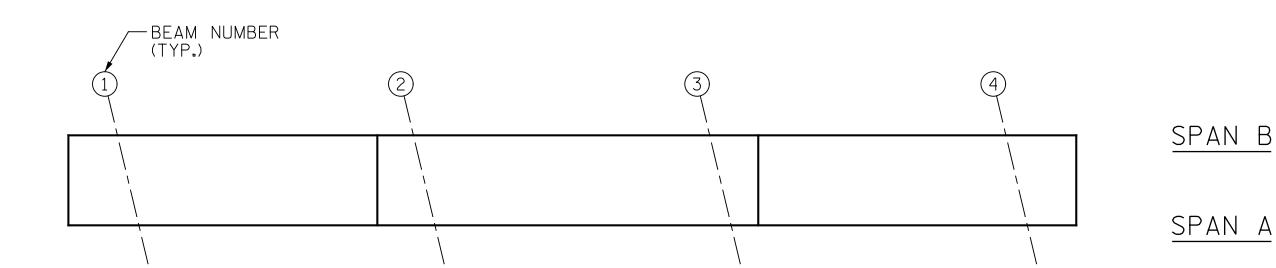
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END BENT 1 & 2

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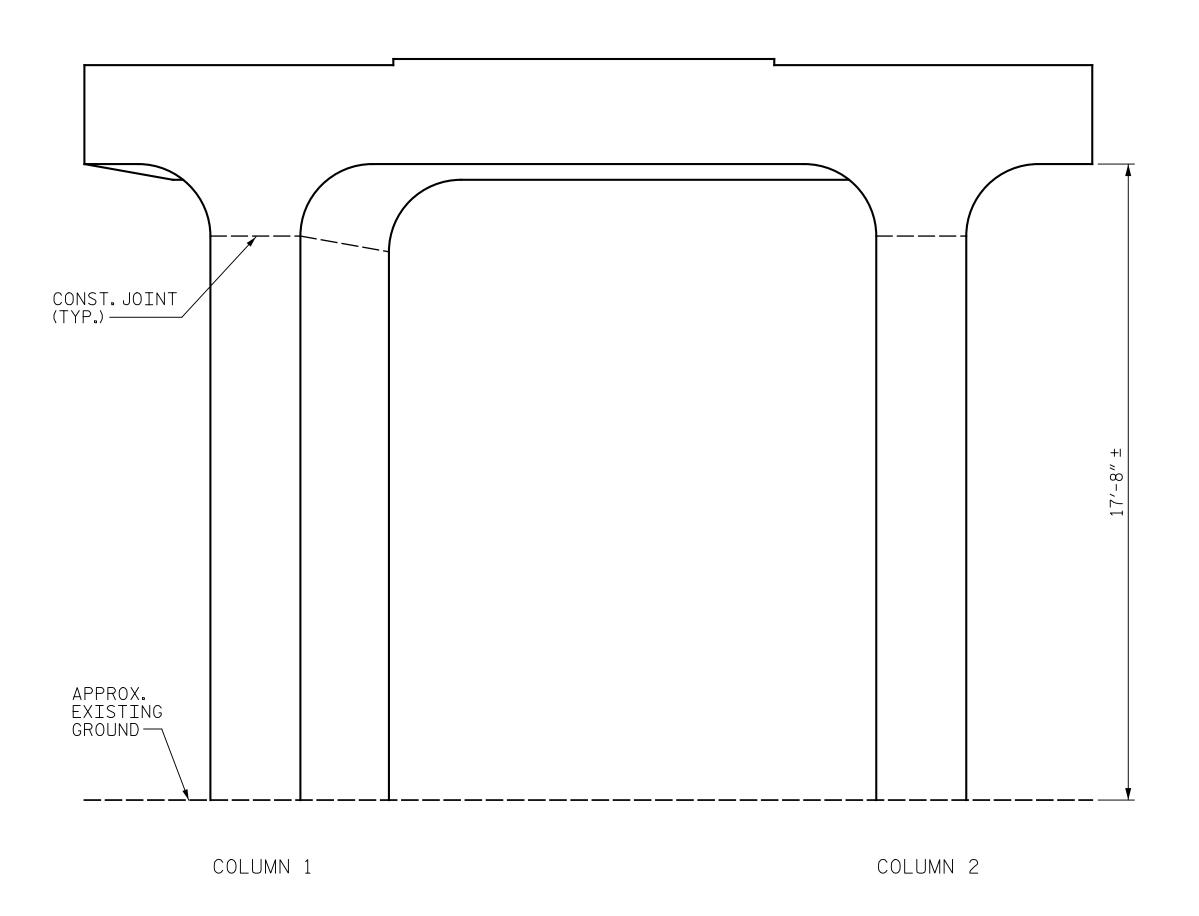
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TOP OF CAP

NO REPAIRS WERE NOTED FOR BENT 1 DURING FIELD SCOPING. THE CONTRACTOR AND ENGINEER SHALL INSPECT BENT 1 PRIOR TO BEGINNING WORK.



CONST. JOINT — APPROX. EXISTING GROUND

ELEVATION

END VIEW COLUMN 2

AS-BUILT REPAIR QUANTITY TABLE

//O DOTE! IVE!	/ \ _ \ \	X 🔾 / (V 1)	' ' '		_		
BENT 1 REPAIRS		QUANTITIES					
DENT THEFAINS	ESTI	MATE		ACTUAL			
SHOTCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	DEPTH FT	VOLUME CF		
CAP	0.0	0.0					
COLUMN	0.0	0.0					
CONCRETE REPAIRS	0.0	0.0					
EPOXY RESIN INJECT	ION	LENGTH LF		LENGTH LF			
CAP		0.0					
COLUMN		0.0					
EPOXY COATING	SQ. FT		SQ. FT				
TOP OF BENT CAP		64					

VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1"BEHIND REBAR AND MINIMUM OF 2" CLEARANCE TO SAWCUT. FOR REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

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CLEAN AND REMOVE DEBRIS FROM THE TOP OF THE CAP AND APPLY EPOXY PROTECTIVE COATING. EPOXY COATING SHALL BE APPLIED TO THE TOP SURFACE OF THE CAP. THE CONTRACTOR SHALL NOT COAT THE AREA OF THE CAP BENEATH THE MASONRY PLATES. FOR EPOXY COATING, SEE SPECIAL PROVISIONS.

FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.

WHEN COLUMN REPAIRS ARE INDICATED TO GROUND LINE, EXTEND REPAIR ONE (1) FOOT MIN. BELOW GROUND LINE.

SHOTCRETE REPAIR



CONCRETE REPAIR (FORM & POUR)

ERI - EPOXY RESIN INJECTION

PROJECT NO. I-5955 GUILFORD _ COUNTY BRIDGE NO. 400329

SHEET 1 OF 2

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

> BENT 1 SPAN A SIDE

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J. HARRIS DRAWN BY : J. YANNACCONE CHECKED BY : .

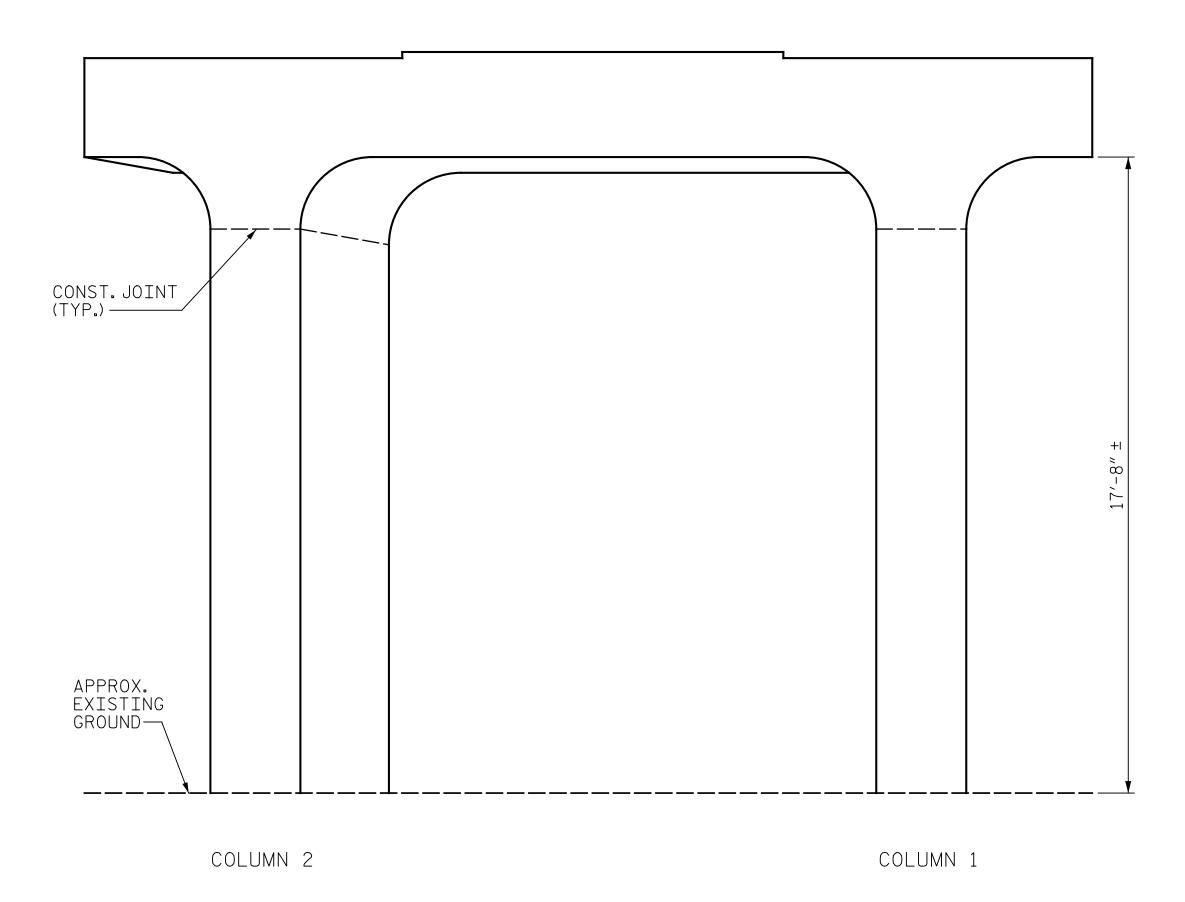
_ DATE : <u>10/2022</u> _ DATE : <u>10/2022</u>

SPAN A

SPAN B

BOTTOM OF CAP

NO REPAIRS WERE NOTED FOR BENT 1 DURING FIELD SCOPING. THE CONTRACTOR AND ENGINEER SHALL INSPECT BENT 1 PRIOR TO BEGINNING WORK.



CONST. JOINT

ELEVATION END VIEW COLUMN 1

J. HARRIS _ DATE : <u>10/2022</u> J. YANNACCONE _ DATE : <u>10/2022</u>

REVISIONS SHEET NO S5-13 DATE: DATE:

PROJECT NO. I-5955 GUILFORD _ COUNTY

400329 BRIDGE NO. ____

SHEET 2 OF 2

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

> BENT 1 SPAN B SIDE

One Glenwood Avenue Sulte 900 Raleigh,NC 27603 919-420-7660 NC Llc.No.F-0270 DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NOTES:

REPAIR LOCATIONS AND ESTIMATE OF QUANTITIES ARE BASED ON 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

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CORNERS ARE SQUARE AS INDICATED ON THE DETAILS.

FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.

CONCRETE REPAIR (FORM & POUR)

REPAIR ONE (1) FOOT MIN. BELOW GROUND LINE.

SHOTCRETE REPAIR

ERI - EPOXY RESIN INJECTION

REMOVE SURFACE CONCRETE TO VERIFY THAT SAW CUT DEPTH WILL NOT DAMAGE EXISTING REINFORCING STEEL.

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WHEN COLUMN REPAIRS ARE INDICATED TO GROUND LINE, EXTEND

INTO THE AS-BUILT REPAIR QUANTITY TABLE.

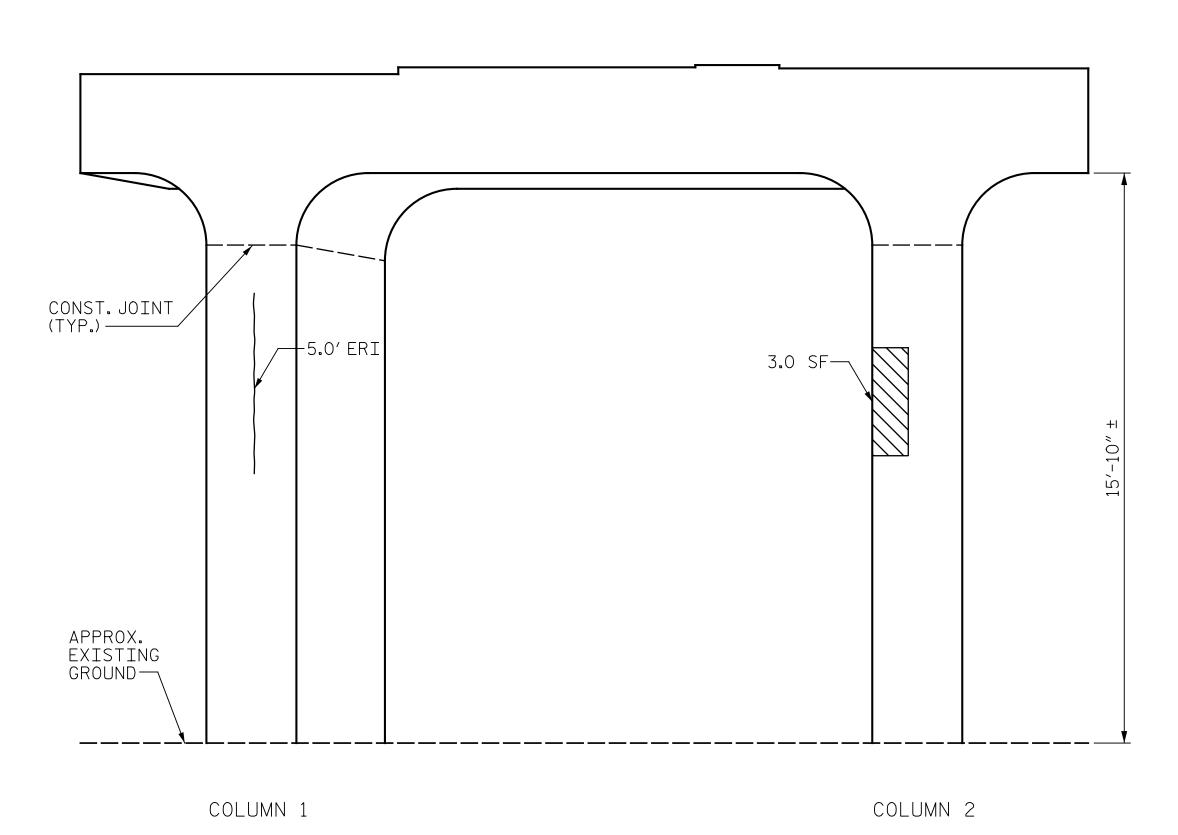
FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR CONCRETE REPAIRS, SEE SPECIAL PROVISIONS.

THE APPROVAL OF THE ENGINEER.

COATING, SEE SPECIAL PROVISIONS.

TOP OF CAP



ELEVATION

J. HARRIS

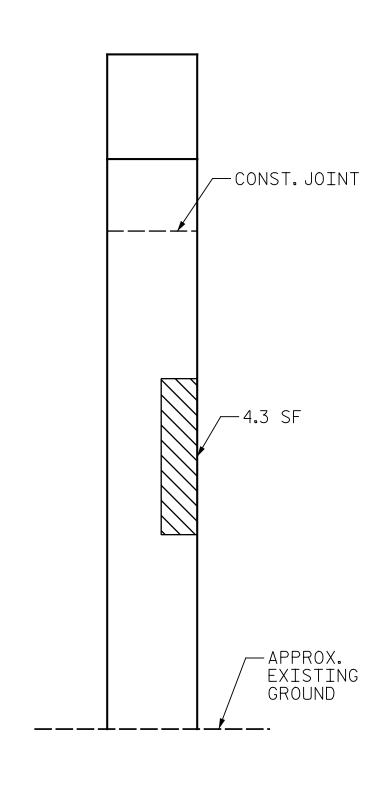
J. YANNACCONE

DRAWN BY :

CHECKED BY : .

_ DATE : <u>10/2022</u>

_ DATE : <u>10/2022</u>



END VIEW COLUMN 2

AS-BUILT REPAIR QUANTITY TABLE

AS BOTET NET	_					
BENT 2 REPAIRS		QUA	NTITIES			
DLNI Z NLI AINS	ESTI	MATE		ACTUAL	UAL	
SHOTCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	DEPTH FT	VOLUME CF	
CAP	13.8	6.9				
COLUMN	14.6	7.3				
CONCRETE REPAIRS	18.5	9.3				
EPOXY RESIN INJECT	LENGTH LF	LENGTH LF				
CAP		0.0				
COLUMN		5.0				
EPOXY COATING	SQ. FT	SQ. FT				
TOP OF BENT CAP		64				

VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1"BEHIND REBAR AND MINIMUM OF 2" CLEARANCE TO SAWCUT. FOR REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

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SHOTCRETE REPAIR



CONCRETE REPAIR (FORM & POUR)

ERI - EPOXY RESIN INJECTION

PROJECT NO. I-5955 GUILFORD _ COUNTY BRIDGE NO. ____400329

SHEET 1 OF 2

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

> BENT 2 SPAN B SIDE

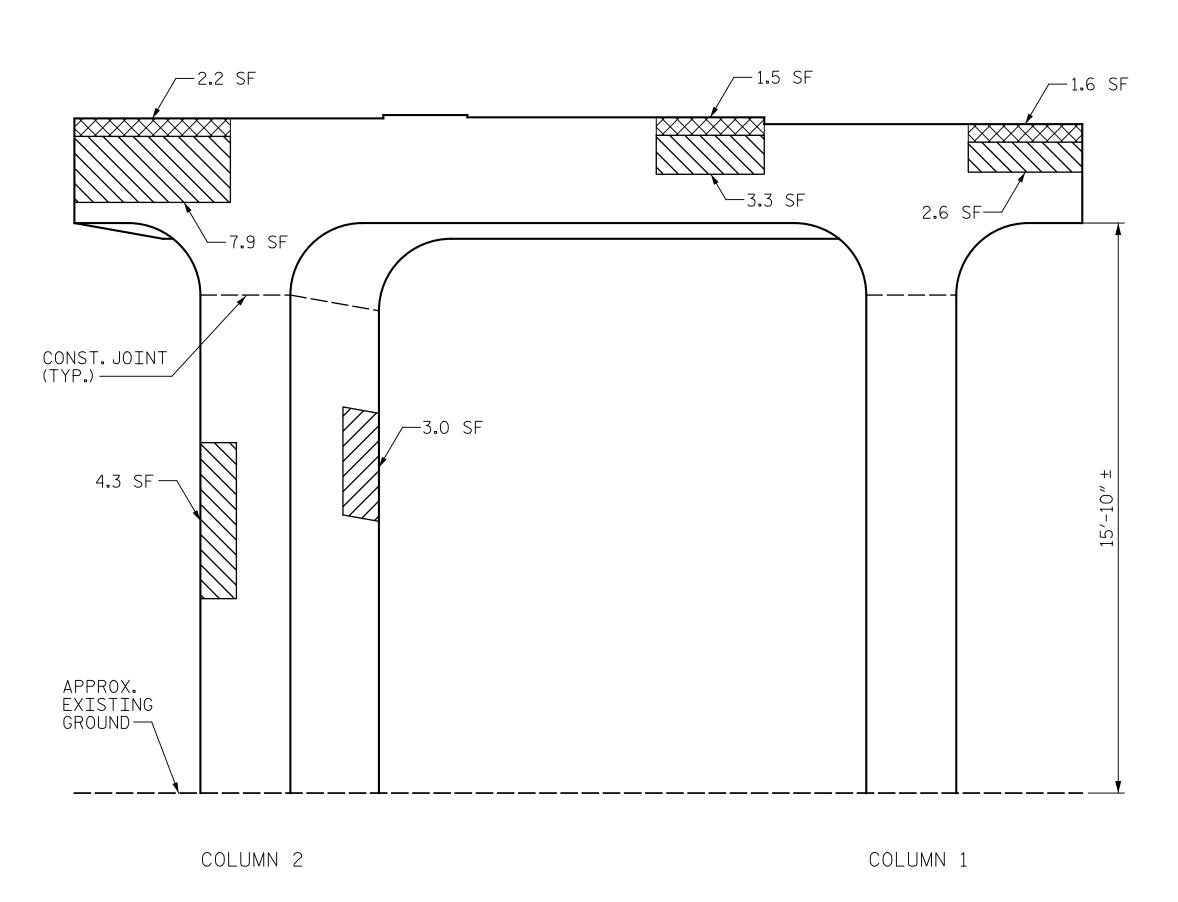


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SPAN B

SPAN C

BOTTOM OF CAP



CONST. JOINT — APPROX. EXISTING GROUND

ELEVATION

END VIEW

J. HARRIS _ DATE : <u>10/2022</u> J. YANNACCONE _ DATE : <u>10/2022</u>



One Glenwood Avenue Suite 900 Raleigh, NC 27603 919–420–7660 NC Lic. No. F–0270

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SHEET NO REVISIONS S5-15 DATE: DATE:

NOTES:

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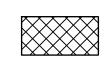
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WHEN COLUMN REPAIRS ARE INDICATED TO GROUND LINE, EXTEND REPAIR ONE (1) FOOT MIN. BELOW GROUND LINE.



SHOTCRETE REPAIR



CONCRETE REPAIR (FORM & POUR)

ERI - EPOXY RESIN INJECTION

PROJECT NO. I-5955

GUILFORD

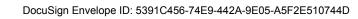
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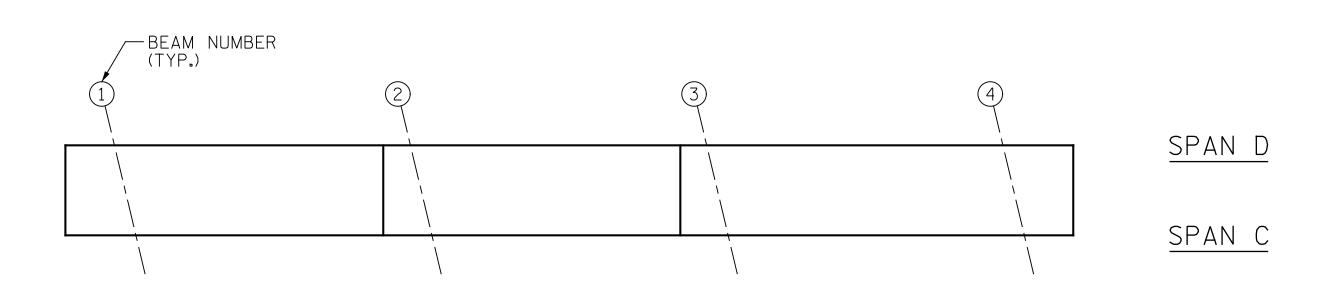
SHEET 2 OF 2

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

> BENT 2 SPAN C SIDE

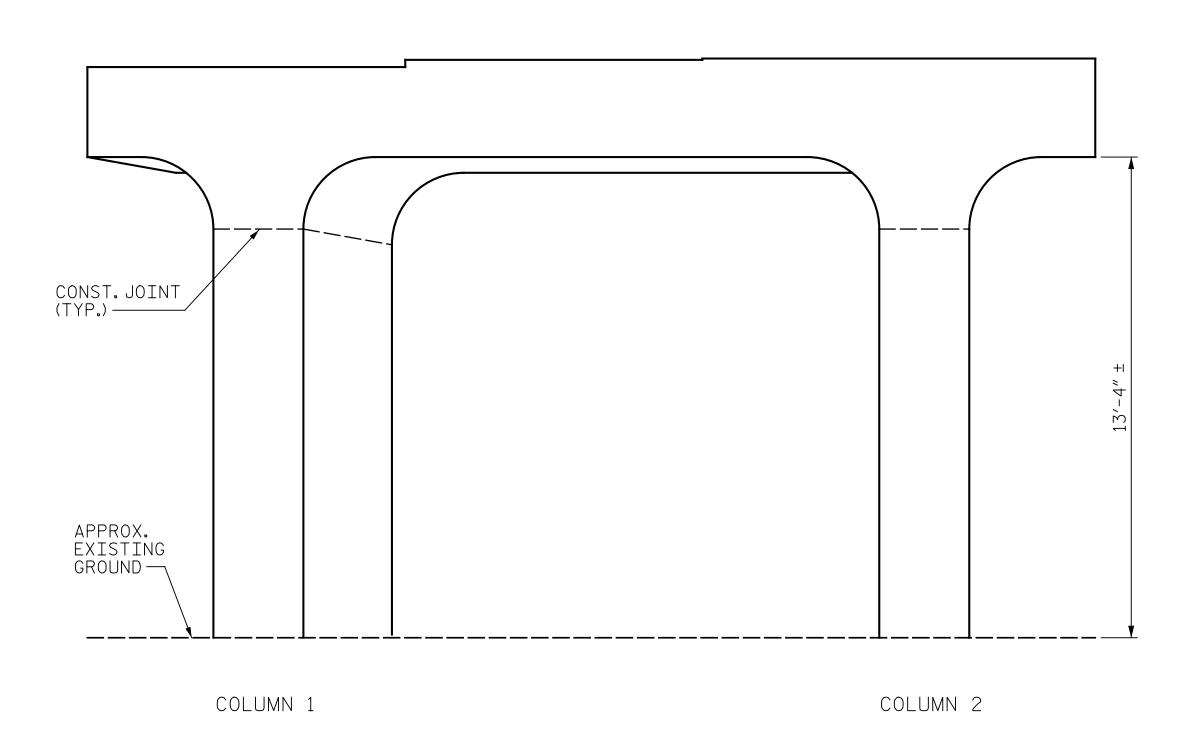
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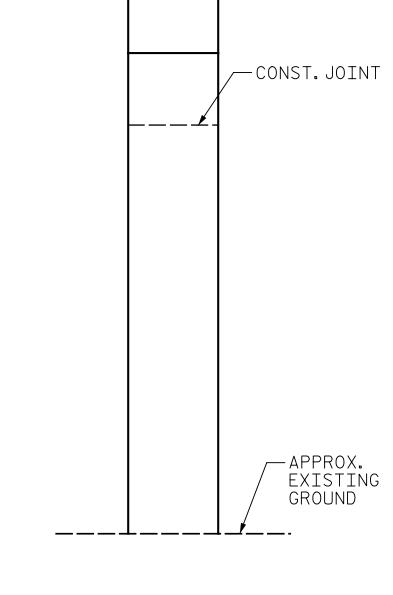




TOP OF CAP

NO REPAIRS WERE NOTED FOR BENT 3 DURING FIELD SCOPING. THE CONTRACTOR AND ENGINEER SHALL INSPECT BENT 3 PRIOR TO BEGINNING WORK.





ELEVATION

J. HARRIS

J. YANNACCONE

DRAWN BY :

CHECKED BY : .

_ DATE : <u>10/2022</u>

_ DATE : <u>10/2022</u>

END VIEW COLUMN 2

AS-BUILT REPAIR QUANTITY TABLE

BENT 3 REPAIRS	QUANTITIES							
DENT 3 NELATIVS	ESTI	MATE		ACTUAL				
SHOTCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	DEPTH FT	VOLUME CF			
CAP	0.0	0.0						
COLUMN	0.0	0.0						
CONCRETE REPAIRS	0.0	0.0						
EPOXY RESIN INJECT	ION	LENGTH LF		LENGTH LF				
CAP		0.0						
COLUMN		0.0						
EPOXY COATING		SQ. FT		SQ. FT				
TOP OF BENT CAP		64						

VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1"BEHIND REBAR AND MINIMUM OF 2" CLEARANCE TO SAWCUT. FOR REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

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SHOTCRETE REPAIR



CONCRETE REPAIR (FORM & POUR)

ERI - EPOXY RESIN INJECTION

PROJECT NO. I-5955 GUILFORD _ COUNTY BRIDGE NO. 400329

SHEET 1 OF 2

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

> BENT 3 SPAN C SIDE

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

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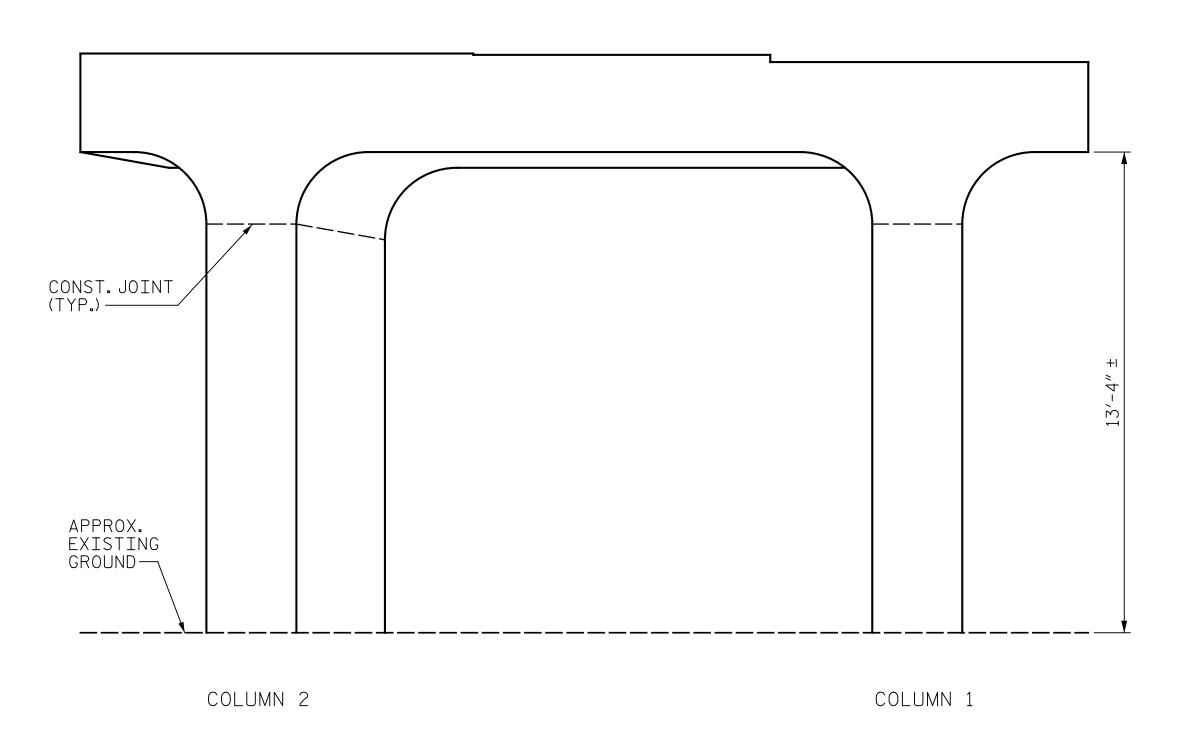
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BOTTOM OF CAP

NO REPAIRS WERE NOTED FOR BENT 3 DURING FIELD SCOPING. THE CONTRACTOR AND ENGINEER SHALL INSPECT BENT 3 PRIOR TO BEGINNING WORK.

SPAN C

SPAN D



CONST. JOINT APPROX. EXISTING GROUND

ELEVATION

END VIEW

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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CONCRETE REPAIR (FORM & POUR)

REPAIR ONE (1) FOOT MIN. BELOW GROUND LINE.

SHOTCRETE REPAIR

ERI - EPOXY RESIN INJECTION

REMOVE SURFACE CONCRETE TO VERIFY THAT SAW CUT DEPTH WILL NOT DAMAGE EXISTING REINFORCING STEEL.

CLEAN AND REMOVE DEBRIS FROM THE TOP OF THE CAP AND APPLY EPOXY PROTECTIVE COATING. EPOXY COATING SHALL BE APPLIED TO

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FOR CONCRETE REPAIRS, SEE SPECIAL PROVISIONS.

THE APPROVAL OF THE ENGINEER.

COATING, SEE SPECIAL PROVISIONS.

SHEET NO REVISIONS S5-17 DATE: DATE:

PROJECT NO. I-5955 GUILFORD _ COUNTY

400329 BRIDGE NO. ____

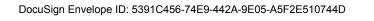
SHEET 2 OF 2

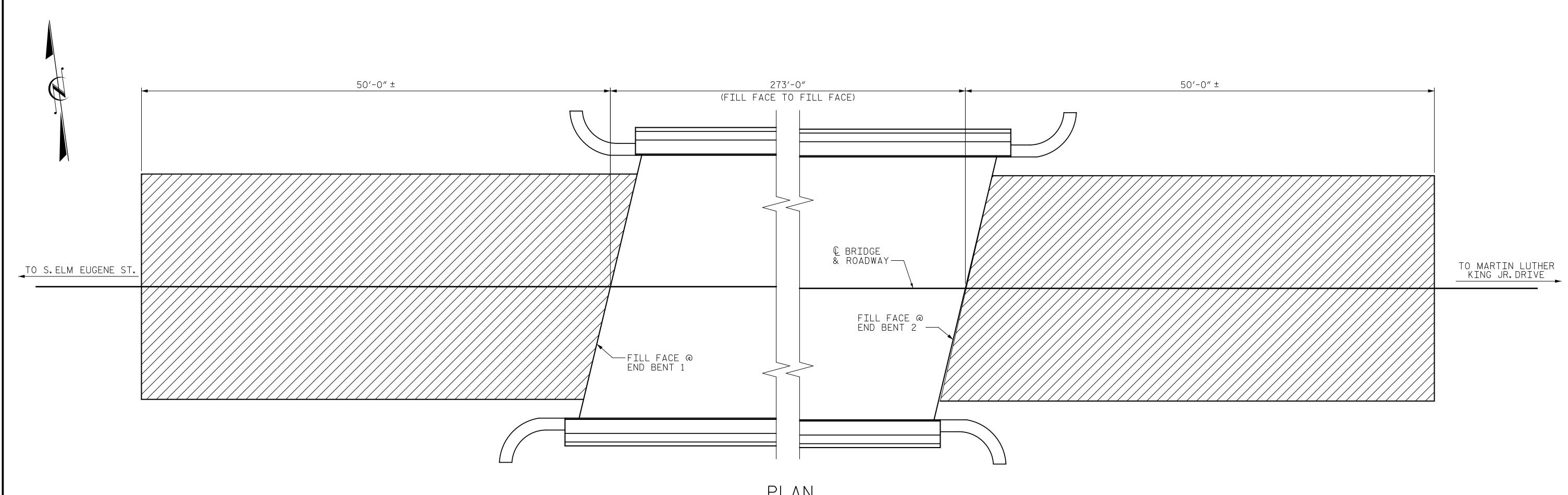
STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

> BENT 3 SPAN D SIDE

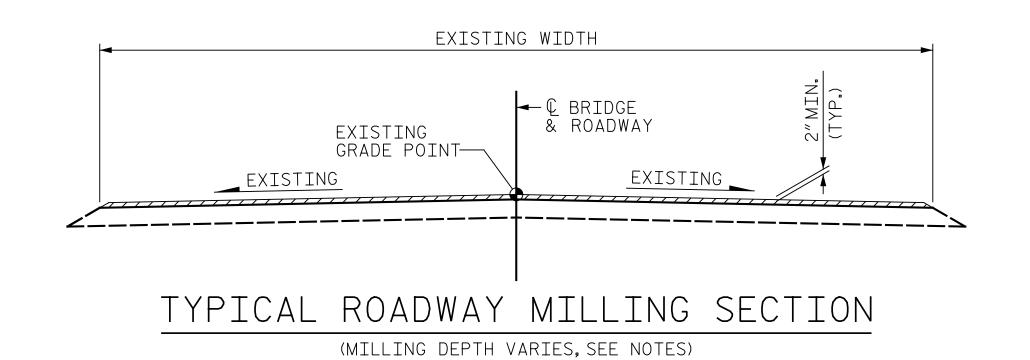
One Glenwood Avenue Suite 900 Raleigh, NC 27603 919–420–7660 NC Lic. No. F–0270 GANNETT FLEMING

J. HARRIS _ DATE : <u>10/2022</u> J. YANNACCONE _ DATE : <u>10/2022</u>









MATCH EXISTING WIDTH ← © BRIDGE & ROADWAY PROPOSED GRADE POINT—— MATCH EXISTING MATCH EXISTING

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 SHALL BE OF THICKNESS NECESSARY TO CREATE A SMOOTH TRANSITION BETWEEN THE ROADWAY AND THE BRIDGE DECK.

- INCIDENTAL MILLING

SUMMARY OF QL	JANTITIES	
DESCRIPTION	ESTIMATE	ACTUAL
INCIDENTAL MILLING	270 SY	
ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B	35 TONS	
ASPHALT BINDER FOR PLANT MIX	3 TONS	

PROJECT NO. I-5955 GUILFORD _ COUNTY 400329 BRIDGE NO. ___



STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH

APPROACH MILLING AND TYPICAL ROADWAY SECTIONS

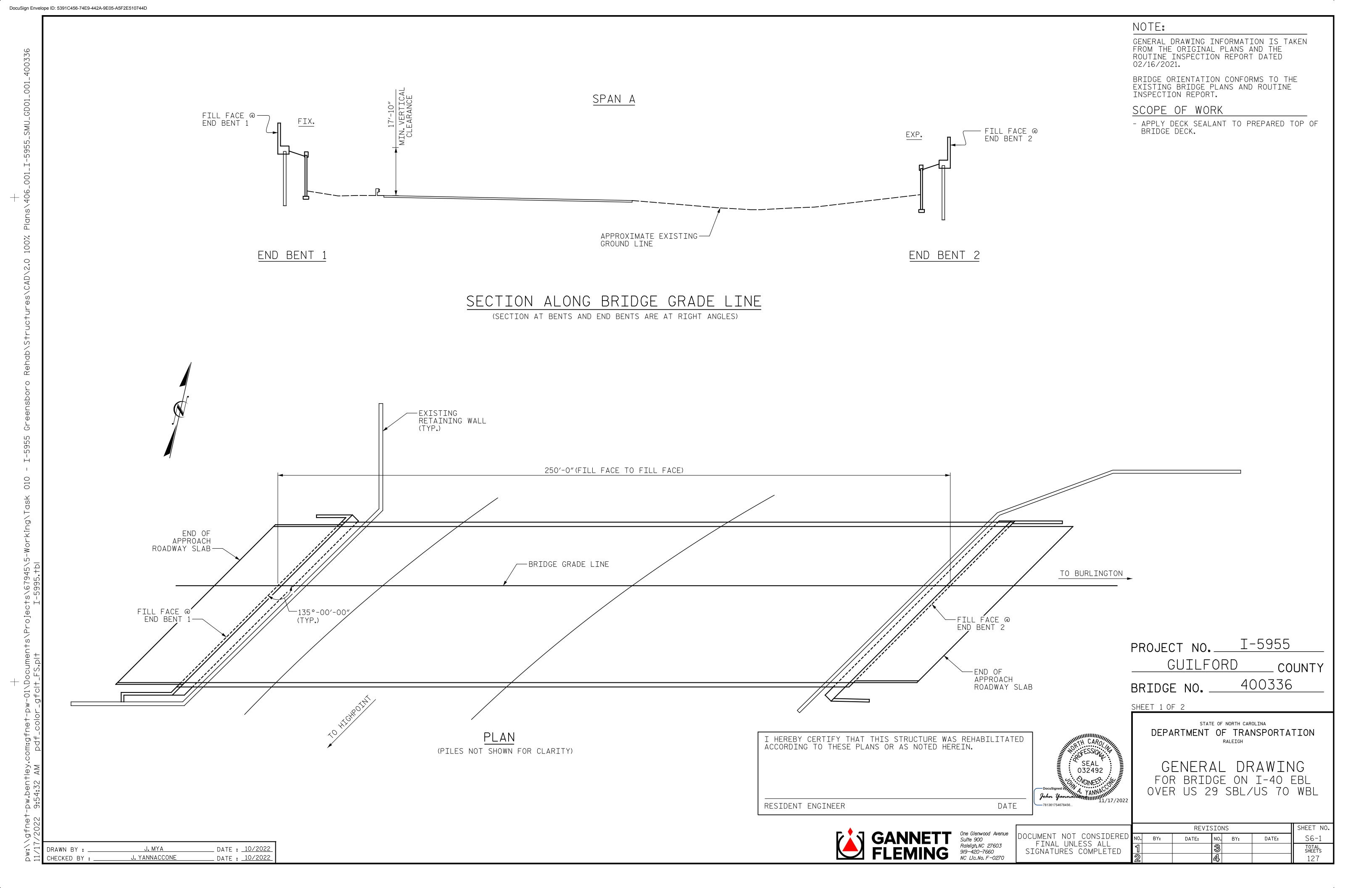
REVISIONS DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED S5-18 DATE: DATE:



GANNETT

One Glenwood Avenue
Suite 900
Raleigh, NC 27603
919-420-7660
NC Lic. No. F-0270

J. HARRIS _ DATE : <u>10/2022</u> DRAWN BY : J. YANNACCONE _ DATE : <u>10/2022</u> CHECKED BY : _





LOCATION SKETCH

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

BRIDGE CO	ORDINATES
LATITUDE	LONGITUDE
36°-01′-54.97′′	79°-48′-22 . 99′′

GENERAL NOTES

SEE TRANSPORTATION MANAGEMENT PLANS FOR LANE WIDTHS, SEQUENCING AND OTHER TRAFFIC CONTROL MEASURES FOR STAGING OF OVERLAY SURFACE PREPARATION AND SILANE DECK TREATMENT.

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 REPAIR.

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 USED PLATFORMS, NETS, SCREEN 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 OF PHASING OF CONSTRUCTION, SEE TRANSPORTATION MANAGEMENT

PRIOR TO BEGINNING WORK, THE CONTRACTOR SHALL SUBMIT FOR REVIEW AND APPROVAL A COMPLETE SEQUENCE OF TASKS FOR EACH OPERATION AFFECTING

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

FOR FALSEWORK AND FORMWORK, SEE SPECIAL PROVISIONS.

THE BRIDGE SURFACE AND/OR TRAFFIC.

FOR SUBMITTAL OF WORKING DRAWINGS, SEE SPECIAL PROVISIONS.

FOR CRANE SAFETY, SEE SPECIAL PROVISIONS.

FOR GROUT FOR STRUCTURES, SEE SPECIAL PROVISIONS.

FOR MAINTENANCE AND PROTECTION OF TRAFFIC BENEATH BRIDGES, SEE SPECIAL PROVISIONS.

ALL PAVEMENT MARKING WILL BE IN ACCORDANCE WITH THE TRANSPORTATION MANAGEMENT PLANS.

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.

FOR SHOTBLASTING BRIDGE DECK AND SILANE DECK TREATMENT, SEE SPECIAL PROVISIONS.

PROJECT NO. _____I-5955
____GUILFORD ____COUNTY
BRIDGE NO. ____400336

SHEET 2 OF 2

STATE OF NORTH CAROLINA

DEPARTMENT OF TRANSPORTATION

RALEIGH

GENERAL DRAWING FOR BRIDGE ON I-40 EBL OVER US 29 SBL/US 70 WBL



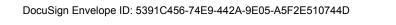
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919-420-7660
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One Glenwood Avenue
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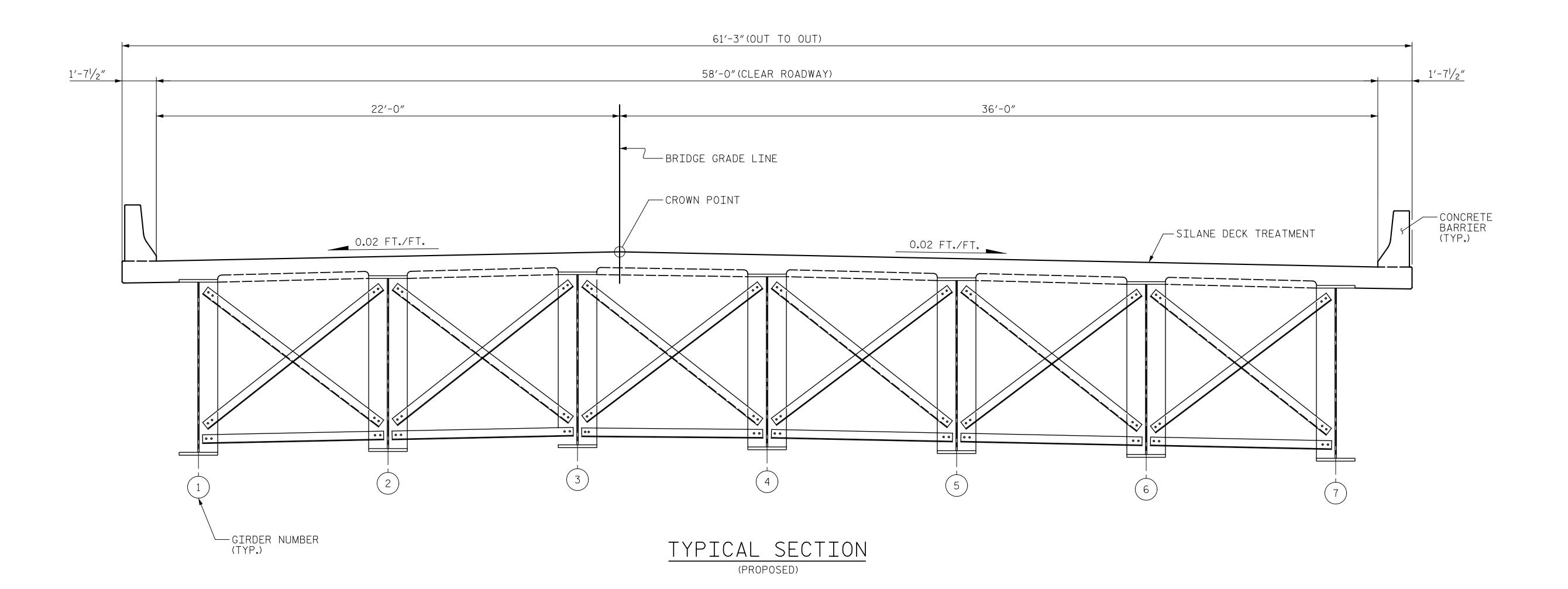
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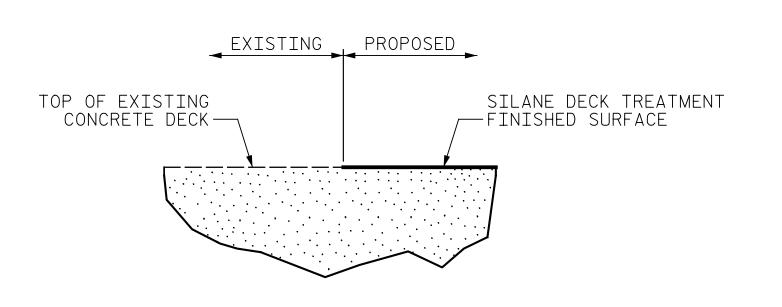
J. YANNACCONE



NOTES:

SEE TRAFFIC MANAGEMENT PLANS FOR LANE WIDTHS, SEQUENCING, AND OTHER TRAFFIC CONTROL MEASURES FOR STAGING OF OVERLAY SURFACE PREPARATION FOR SILANE DECK TREATMENT.





DETAIL OF SILANE DECK TREATMENT

PROJECT NO. I-5955

GUILFORD COUNTY

BRIDGE NO. ____400336



STATE OF NORTH CAROLINA

DEPARTMENT OF TRANSPORTATION

RALEIGH

TYPICAL SECTION AND SURFACE PREPARATION DETAILS

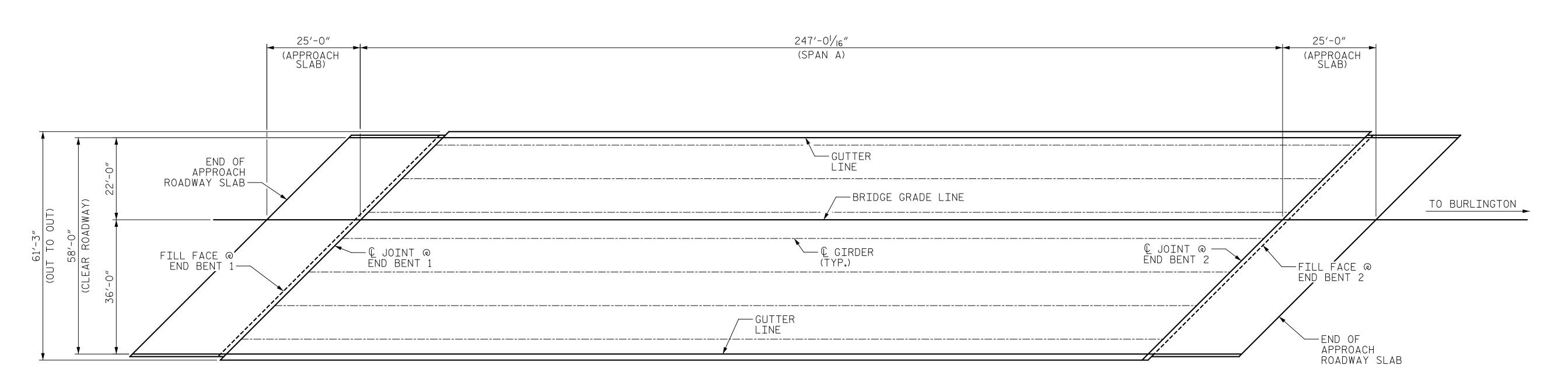
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DRAWN BY: J. HARRIS DATE: 10/2022
CHECKED BY: J. YANNACCONE DATE: 10/2022

SUMMARY OF QUANTITIES ESTIMATE SHOTBLASTING BRIDGE DECK 1915 SQ. YDS. 1915 SQ. YDS. SILANE DECK TREATMENT SHOTBLAST BRIDGE DECK & SILANE DECK TREATMENT



APPROACH SLAB @ END BENT 1

SPAN A

PLAN

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.

PROJECT NO. I-5955 GUILFORD _ COUNTY

ACTUAL

400336 BRIDGE NO. ____



STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH

PLAN OF SPANS

_ DATE : <u>10/2022</u> J. MYA _ DATE : <u>10/2022</u> J. YANNACCONE

DRAWN BY :

CHECKED BY : _____

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

APPROACH SLAB @ END BENT 2

DOCUMENT NOT CONSIDERED
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SIGNATURES COMPLETED

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SPAN A SPAN C SPAN B FILL FACE @ — END BENT 2 FIX. EXP. FIX. ——15′-5″ MIN. VERTICAL CLEARANCE APPROXIMATE EXISTING — GROUND LINE END BENT 1 BENT 1 BENT 2 END BENT 2

SECTION ALONG & BRIDGE (SECTION AT BENTS AND END BENTS ARE AT RIGHT ANGLES)

 $143'-1\frac{1}{4}$ " (FILL FACE TO FILL FACE) 69'-95/8"(SPAN B) 36'-95/8"(SPAN C) 36'-6"(SPAN A) — € BENT 1 ______ € BENT 2 | | | | | BRIDGE GRADE LINE — TO BURLINGTON ∕— 98°-09′-00″ (TYP.) FILL FACE @ END BENT 1— -FILL FACE @ END BENT 2 PLAN

(PILES NOT SHOWN FOR CLARITY)

NOTE:

GENERAL DRAWING INFORMATION IS TAKEN FROM THE ORIGINAL PLANS AND THE ROUTINE INSPECTION REPORT DATED 12/09/2020.

BRIDGE ORIENTATION CONFORMS TO THE EXISTING BRIDGE PLANS AND ROUTINE INSPECTION REPORT.

SCOPE OF WORK

- REMOVE EXISTING JOINT AND INSTALL PLUG JOINTS.
- REMOVE DEBRIS FROM TOP OF EXISTING END BENT CAPS AND APPLY EPOXY COATING.
- EPOXY RESIN INJECTION OF CONCRETE CRACKS
- REMOVE UNSOUND CONCRETE AND PROPERLY PREPARE EXISTING END BENT AND BENT AREAS FOR SHOTCRETE AND CONCRETE REPAIRS.
- REMOVE AND REPLACE DAMAGED PORTIONS OF TUBULAR STEEL BEAM BRIDGE RAIL.

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

RESIDENT ENGINEER

PROJECT NO. I-5955 GUILFORD

_ COUNTY

DATE

BRIDGE NO. ____400339

SHEET 1 OF 2

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

GENERAL DRAWING FOR BRIDGE ON I-40 EBL OVER SR 3762 (MARTIN LUTHER KING JR. DRIVE)

One Glenwood Avenue Suite 900 Raleigh, NC 27603 919–420–7660 NC Lic. No. F–0270 DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

GANNETT FLEMING

REVISIONS DATE: DATE:

_ DATE : <u>10/2022</u> J. MYA DRAWN BY : J. YANNACCONE _ DATE : <u>10/2022</u> CHECKED BY : ____



LOCATION SKETCH

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

BRIDGE CO	ORDINATES	
LATITUDE	LONGITUDE	
36°-02′-39 . 85′′	79°-46′-26.70′′	

GENERAL NOTES

PROVISIONS.

SEE TRANSPORTATION MANAGEMENT PLANS FOR LANE WIDTHS, SEQUENCING AND OTHER TRAFFIC CONTROL MEASURES FOR STAGING OF ASPHALT WEARING SURFACE (AWS).

SEE ROADWAY PLANS FOR MILLING AND OVERLAY OF THE BRIDGE DECK.

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.

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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.

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THE CONTRACTOR SHALL PERFORM ALL WORK WITH CARE SO THAT THE EXISTING STRUCTURE WHICH IS TO REMAIN IN PLACE WILL NOT BE DAMAGED. IF THE CONTRACTOR DAMAGES ANY PART OF THE EXISTING STRUCTURE WHICH IS TO REMAIN IN PLACE, THE DAMAGED AREA SHALL BE REPAIRED OR REPLACED IN A MANNER SATISFACTORY TO THE ENGINEER AT NO ADDITIONAL COST TO THE DEPARTMENT.

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 TRANSPORTATION MANAGEMENT PLANS.

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

FOR CRANE SAFETY, SEE SPECIAL PROVISIONS.

FOR GROUT FOR STRUCTURES, SEE SPECIAL PROVISIONS.

FOR MAINTENANCE AND PROTECTION OF TRAFFIC BENEATH EXISTING STRUCTURE, SEE SPECIAL PROVISIONS.

ALL PAVEMENT MARKING WILL BE IN ACCORDANCE WITH THE TRANSPORTATION MANAGEMENT PLANS.

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 LANE(S) SHALL BE KEPT FREE AND CLEAR OF DEBRIS.

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

THE CONTRACTOR SHALL TAKE CARE DURING JOINT REHAB OPERATIONS NOT TO DROP ANY MATERIAL BELOW THE BRIDGE WITHOUT PROTECTIVE DEVICES BELOW TO CATCH THE MATERIAL. ANY MATERIAL THAT FALLS BELOW THE BRIDGE SHALL BE CONTAINED, REMOVED AND DISPOSED OF BY THE CONTRACTOR AT NO EXTRA COST TO THE DEPARTMENT. IF THE ENGINEER DETERMINES THAT PROTECTIVE DEVICES ARE NOT ADEQUATE OR NOT BEING EMPLOYED, THE WORK SHALL BE SUSPENDED UNTIL ADEQUATE PROTECTION IS PROVIDED.

FOR ASPHALT PLUG JOINTS FOR PRESERVATION, SEE SPECIAL PROVISIONS.

FOR CONCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.

FOR EPOXY COATING AND DEBRIS REMOVAL, SEE SPECIAL PROVISIONS.

FOR REMOVAL AND REPLACEMENT OF TUBULAR STEEL BEAM GUARDRAIL, SEE SPECIAL PROVISIONS.

FOR CONCRETE DIAPHRAGM REPAIR, SEE SPECIAL

PROVISIONS.

FOR CONCRETE DECK REPAIR FOR ASPHALT OVERLAY. SEE SPECIAL PROVISIONS.

AFTER MILLING THE ASPHALT WEARING SURFACE OF THE BRIDGE DECK, THE ENGINEER WILL LOCATE AND MARK DECK REPAIR AREAS. AREAS MARKED FOR DECK REPAIR SHALL BE PREPARED AND REPAIRED IN ACCORDANCE WITH THE CONCRETE DECK REPAIR FOR ASPHALT OVERLAY SPECIAL PROVISION.

THE ASPHALT PLUG JOINTS FOR PRESERVATION SHALL BE INSTALLED AFTER PLACEMENT OF THE PROPOSED ASPHALT WEARING SURFACE.

> PROJECT NO. I-5955 GUILFORD COUNTY 400339 BRIDGE NO.

SHEET 2 OF 2

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH

GENERAL DRAWING FOR BRIDGE ON I-40 EBL OVER SR 3762 (MARTIN LUTHER KING JR. DRIVE)



FLEMING 919-420-7660

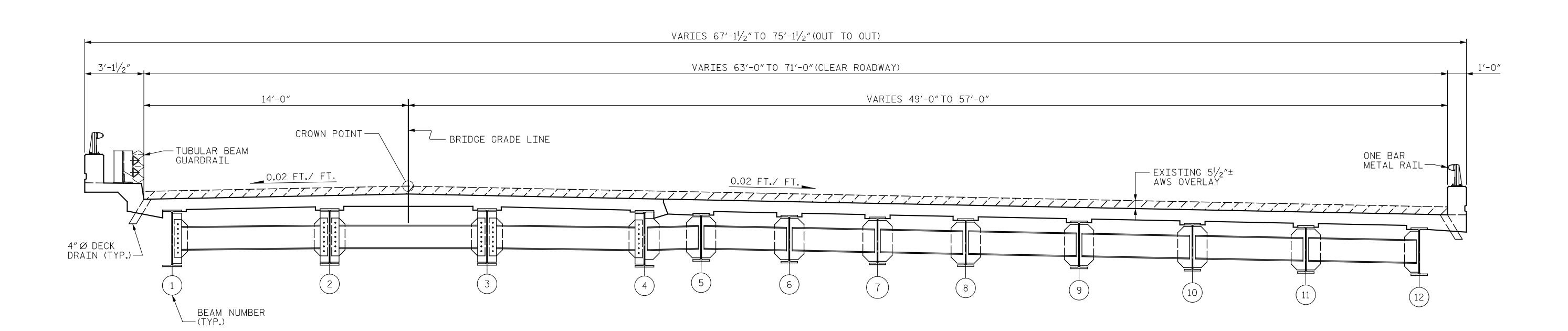
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NOTES:

SEE TRAFFIC MANAGEMENT PLANS FOR LANE WIDTHS, SEQUENCING, AND OTHER TRAFFIC CONTROL MEASURES FOR STAGING OF OVERLAY SURFACE PREPARATION AND ASPHALT WEARING SURFACE (AWS) PLACEMENT.

SEE ROADWAY PLANS FOR MILLING AND OVERLAY OF THE BRIDGE DECK.

THE CONTRACTOR SHALL ENSURE THAT THE EXISTING DECK DRAINS ARE OPEN AND FULLY FUNCTIONAL AFTER PLACEMENT OF THE ASPHALT WEARING SURFACE.



TYPICAL SECTION (EXISTING)

> PROJECT NO. I-5955 GUILFORD ___ COUNTY BRIDGE NO. ____400339



STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
RALEIGH

TYPICAL SECTION AND SURFACE PREPARATION DETAILS

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DATE : 10/2022 DATE : 10/2022 J. YANNACCONE

DocuSign Envelope ID: 5391C456-74E9-442A-9E05-A5F2E510744D 69′-9⁵/₈″ 36′-9⁵/₈″ 36′-6″ (SPAN A) (SPAN B) (SPAN C) 50'-0" ± REMOVE AND REPLACE 20"TUBULAR STEEL BEAM GUARDRAIL & OFFSET TUBES - C BENT 2 — € BENT @ END BENT 1 -© JOINT @ END BENT 2 —22**.**5 SF 21.5 SF — 2.2 SF — ____4.0 SF 2.0 SF — — GUTTER ·20"TUBULAR STEEL ℚ BEAM LINE BEAM GUARDRAIL BRIDGE GRADE LINE — TO BURLINGTON 63'-3" ±
(CLEAR ROADWAY) FILL FACE @ END BENT 1 @ END BENT 2 ─ 4″Ø DECK DRAIN (TYP.) — GUTTER LINE SPAN A SPAN B SPAN C PLAN NOTES: THE BOUNDARIES OF AREAS IDENTIFIED FOR CLASS II REPAIR LOCATIONS AND ESTIMATED QUANTITIES ARE GIVEN WITH THE BEST SURFACE PREPARATION ARE APPROXIMATE AND MAY NOT INFORMATION AVAILABLE. IF ADDITIONAL REPAIRS NOT SHOWN ON THE DRAWINGS REFLECT ACTUAL CONDITIONS THAT WILL BE ENCOUNTERED

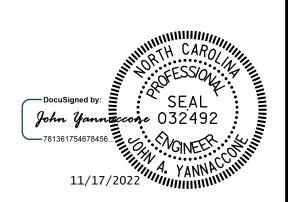
REPAIR QUANTITY TABLE TOP OF DECK REPAIR ESTIMATE ACTUAL CONCRETE DECK REPAIR 0.0 SY FOR ASPHALT OVERLAY UNDERSIDE OF DECK REPAIR ESTIMATE ACTUAL SHOTCRETE REPAIRS AREA VOLUME AREA VOLUME SF CF UNDERSIDE OF DECK 0.0 0.0 OVERHANG DIAPHRAGMS 0.0 0.0 UNDERSIDE OF OVERHANG 59.6 29.8 INTERIOR DIAPHRAGMS 0.0 0.0 ESTIMATE ACTUAL UNDERSIDE EPOXY RESIN 0.0 LF INJECTION

CONCRETE DECK REPAIR FOR ASPHALT OVERLAY

UNDERSIDE OF DECK REPAIR

BRIDGE RAIL QUANTITIES REMOVE 20"TUBULAR STEEL BEAM GUARDRAIL 50.0 LF 20"TUBULAR STEEL BEAM GUARDRAIL 50.0 LF

> GUILFORD 400339 BRIDGE NO. _



PROJECT NO. I-5955 COUNTY

> STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

> > RALEIGH

PLAN OF SPANS

GANNETT One Glenwood Avenue Suite 900 Suite 900 Raleigh,NC 27603 919-420-7660 NC L1c.No. F-0270

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SHEET NO. REVISIONS S7-4 DATE: BY: DATE: TOTAL SHEETS

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 $1\frac{7}{8}$ PER THE EXISTING BRIDGE PLANS.

FOR SECTION F-F, SEE "ASPHALT PLUG JOINT DETAILS" SHEET.

CONTRACTOR SHALL SAWCUT TO A NOMINAL DEPTH OF $\frac{1}{2}$ " BUT REINFORCING STEEL SHALL NOT BE DAMAGED. CONTRACTOR SHALL REMOVE SURFACE CONCRETE TO VERIFY THAT SAWCUT DEPTH WILL NOT DAMAGE EXISTING REINFORCING STEEL.

FOR CONCRETE DIAPHRAGM REPAIR, SEE SPECIAL PROVISIONS.

FOR CONCRETE DECK REPAIR FOR ASPHALT OVERLAY SEE SPECIAL PROVISIONS.

THE CONTRACTOR SHALL ENSURE THAT THE EXISTING DECK DRAINS ARE OPEN AND FULLY FUNCTIONAL AFTER PLACEMENT OF THE ASPHALT WEARING SURFACE. AT THE PROJECT SITE.

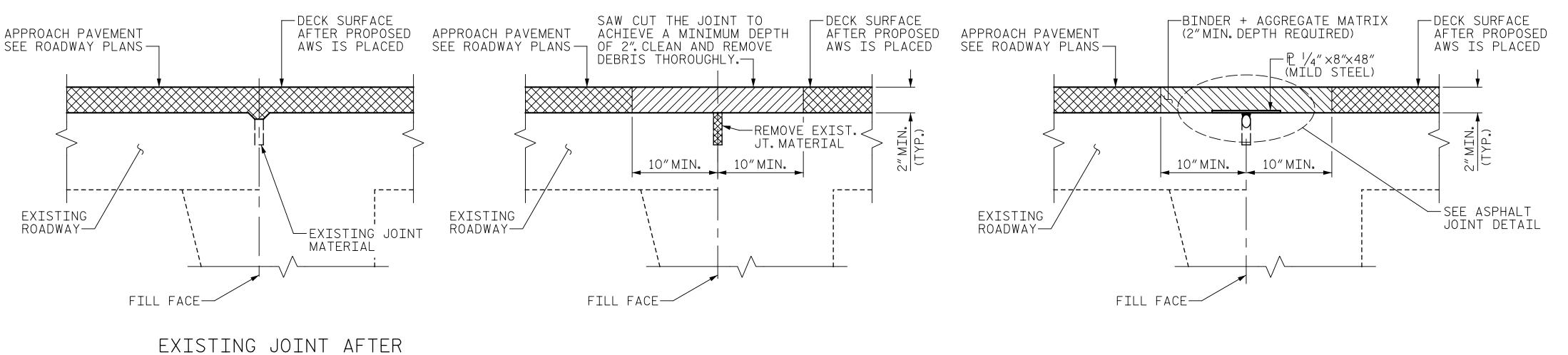
FOR OVERHANG AND UNDERSIDE OF DECK REPAIRS, SEE "OVERHANG AND UNDERSIDE REPAIR DETAILS" SHEET.

THE CONTRACTOR SHALL REMOVE AND REPLACE THE 20"TUBULAR STEEL BEAM GUARDRAIL AS NOTED ON THE PLANS AND AS DIRECTED BY THE ENGINEER. THE SECTIONS OF GUARDRAIL WHICH ARE REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE PROJECT.

FOR DIMENSIONS OF TUBULAR BEAM GUARDRAIL AND OFFSET TUBES, SEE "TUBULAR BEAM GUARDRAIL DETAILS" SHEET.

FOR REMOVAL AND REPLACEMENT OF TUBULAR STEEL BEAM GUARDRAIL, SEE SPECIAL PROVISIONS.

J. MYA DATE : 10/2022 DRAWN BY : J. YANNACCONE DATE : 10/2022 CHECKED BY : ___



SECTION F-F (TYP.AT END BENTS)

DEMOLITION PREPARATION

NOTES:

THE CONTRACTOR SHALL FIELD VERIFY THE EXISTING JOINT OPENING PRIOR TO ORDERING JOINT SEAL MATERIAL. IF THE ACTUAL OPENING VARIES FROM TO OPENING INDICATED IN THE DETAIL BY MORE THAN $\frac{1}{4}$, NOTIFY THE ENGINEER. REVISION OF THE JOINT SEAL SIZE MIGHT BE NECESSARY.

THE CONTRACTOR SHALL TAKE CARE DURING JOINT REPAIR OPERATIONS NOT TO DROP ANY MATERIAL THAT FALLS BELOW THE BRIDGE WITHOUT PROTECTIVE DEVICES BELOW TO CATCH THE MATERIAL, ANY MATERIAL THAT FALLS BELOW THE BRIDGE SHALL BE CONTAINED, REMOVED AND DISPOSED OF BY THE CONTRACTOR AT NO EXTRA COST TO THE DEPARTMENT. IF THE ENGINEER DETERMINES THAT THE PROTECTIVE DEVICES ARE NOT ADEQUATE OR NOT BEING EMPLOYED, THE WORK SHALL BE SUSPENDED UNTIL ADEQUATE PROTECTION IS PROVIDED.

THE CONTRACTOR WILL NOT BE PERMITTED TO FORM THE JOINTS IN LIEU OF SAWING THE JOINT.

THE INSTALLED BACKER ROD AND SILICONE SEALANT SHALL BE WATER TIGHT.

FOR EXCAVATION BELOW THE BOTTOM OF THE PLANNED JOINT DECK DEMOLITION, CONCRETE FOR DECK REPAIRS SHALL BE PLACED IN THE EXCAVATED AREA TO THE ELEVATION AT BOTTOM OF THE PROPOSED ASPHALT JOINT DETAIL SHOWN.

DEMOLISH BRIDGE JOINT AREA SUCH THAT THE BOTTOM OF THE EXCAVATION SHALL BE REASONABLY FLAT AND LEVEL AND TO THE NECESSARY DEPTH. SUCH THAT ASPHALT JOINT SHALL BE FOUNDED ON CONCRETE OR REPAIR CONCRETE SUBSTRATE.

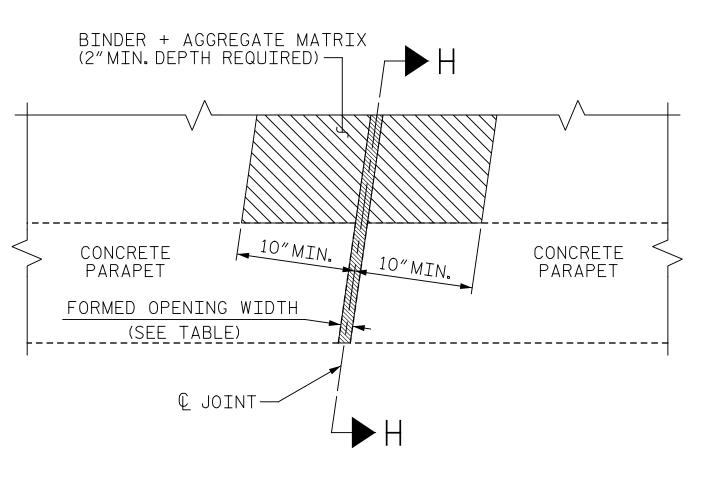
PRIOR TO ASPHALT JOINT REPAIR/REPLACEMENT, PERFORM DECK SURFACE REPAIR IN ACCORDANCE WITH "PLAN OF SPAN" SHEETS.

BACKER ROD SHALL BE INSTALLED AS PER MANUFACTURER'S RECOMMENDATIONS.

FOR ASPHALT PLUG JOINTS FOR PRESERVATION. SEE SPECIAL PROVISIONS.

FOR CONCRETE DECK REPAIR FOR ASPHALT OVERLAY, SEE SPECIAL PROVISIONS.

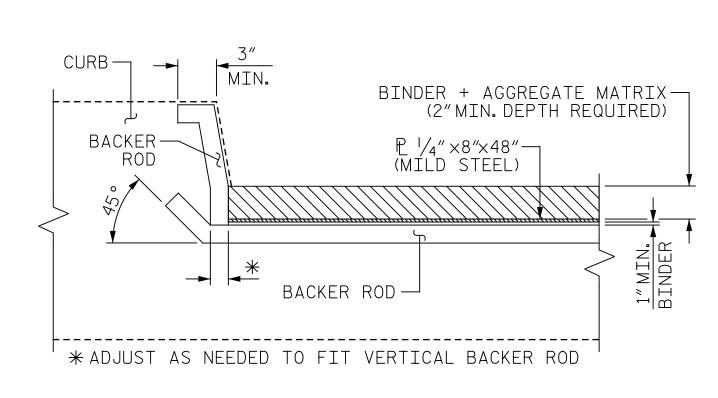
SEE ROADWAY PLANS FOR MILLING AND OVERLAY OF THE BRIDGE DECK.



AWS PLACEMENT

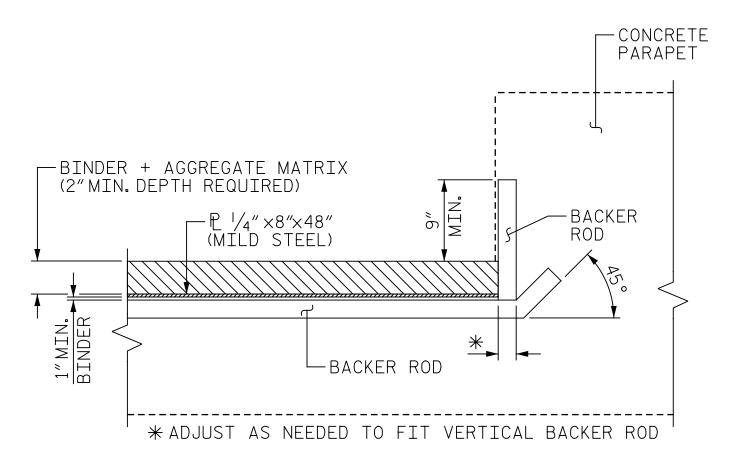
PLAN AT BARRIER

(PROPOSED JOINT SEAL, STEEL ₽ NOT SHOWN FOR CLARITY) (RIGHT EDGE OF DECK SHOWN. LEFT EDGE OF DECK SIMILAR.)



SECTION H-H

(PROPOSED JOINT SEAL) (PROPOSED JOINT SEAL ALONG LEFT EDGE OF DECK)



PROPOSED JOINT

SECTION H-H

(PROPOSED JOINT SEAL) (PROPOSED JOINT SEAL ALONG RIGHT EDGE OF DECK)

P //4" ×8"×48" (MILD STEEL) 10" MIN. 10" MIN.
1"BINDER (MIN.) BACKER ROD
ASPHALT JOINT DETAIL

LOCATION	ASPHALT PLUG JOINT FOR PRESERVATION (LIN. FT.)	FORMED OPENING WIDTH PER EXISTING BRIDGE PLANS	TOTAL THEORETICAL MOVEMENT PERPENDICULAR TO THE JOINT
END BENT 1	66.0	1"	9/16″
END BENT 2	73.0	1"	9/16 <i>"</i>

PROJECT NO. I-5955 GUILFORD _ COUNTY 400339 BRIDGE NO. ___

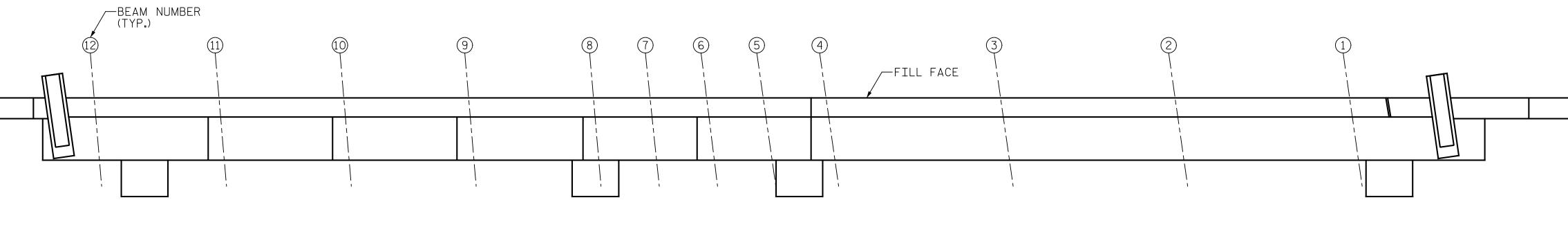
STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

> ASPHALT PLUG JOINT DETAILS

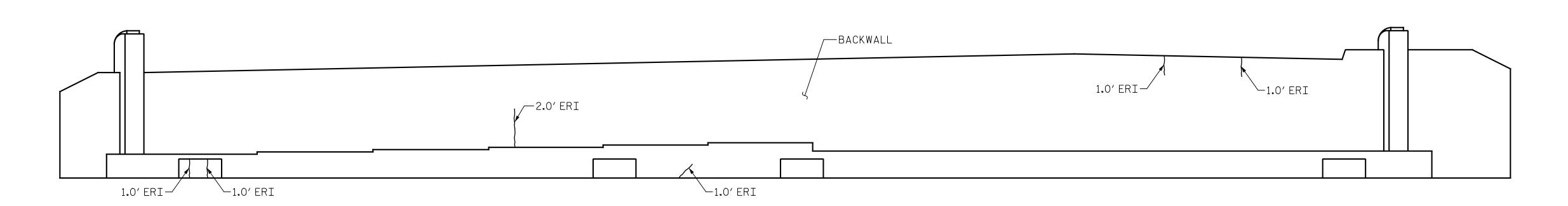
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J. HARRIS DATE : 10/2022 DRAWN BY J. YANNACCONE DATE : 10/2022 CHECKED BY : .



PLAN



ELEVATION

END BENT 1

AS-BUILT REPAIR QUANTITY TABLE						
END BENT 1 REPAIRS		QUANT	ITIES			
END DENI I KELATKO	ESTI	MATE		ACTUAI	_	
SHOTCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	DEPTH FT	VOLUME CF	
CAP	0.0	0.0				
BACKWALL	0.0	0.0				
CONCRETE REPAIRS	0.0	0.0				
EPOXY RESIN INJECT	LENGTH LF		LENGTI LF	4		
CAP		3.0				
BACKWALL		4.0				
EPOXY COATING	SQ. FT		SQ. FT			
TOP OF BENT CAP		150				

VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1"BEHIND REBAR AND MINIMUM OF 2" CLEARANCE TO SAWCUT. FOR REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

NOTES:

REPAIR LOCATIONS AND ESTIMATE 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 WILL NOTE ON THE DRAWINGS THE APPROXIMATE LOCATION AND DESCRIPTION OF THE REPAIRS AND ADJUST THE ACTUAL QUALITIES ENTERED INTO THE AS-BUILT REPAIR QUANTITY TABLE.

CONTRACTOR SHALL SAW CUT TO A MINIMUM DEPTH OF $\frac{1}{2}$ " BUT REINFORCING STEEL SHALL NOT BE DAMAGED

CONTRACTOR SHALL REMOVE SURFACE CONCRETE TO VERIFY THAT SAW CUT DEPTH WILL NOT DAMAGE EXISTING REINFORCING STEEL.

CONTRACTOR SHALL SAW CUT THE REPAIR AREAS SO THAT THE CORNERS ARE SQUARE AS INDICATED ON THE DETAILS.

FOR CONCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

SHOTCRETE REPAIRS MAY BE REPLACED WITH CONCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.

CLEAN AND REMOVE DEBRIS FROM THE TOP OF THE CAP AND APPLY EPOXY PROTECTIVE COATING. EPOXY COATING SHALL BE APPLIED TO THE TOP SURFACE OF THE CAP. THE CONTRACTOR SHALL NOT COAT THE AREA OF THE CAPS BENEATH THE MASONRY PLATES. FOR EPOXY COATING, SEE SPECIAL PROVISIONS.



SHOTCRETE REPAIR



CONCRETE REPAIR (FORM & POUR)



ERI - EPOXY RESIN INJECTION



PROJECT NO. I-5955 GUILFORD COUNTY BRIDGE NO. ____400339

> STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH

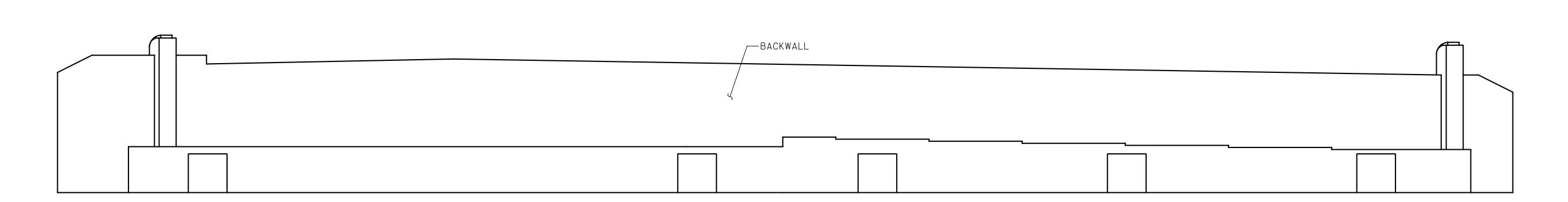
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J. HARRIS _ DATE : <u>10/2022</u> DRAWN BY : _ _ DATE : <u>10/2022</u> J. YANNACCONE CHECKED BY : ___



ELEVATION

END BENT 2

AS-BUILT REPAIR QUANTITY TABLE						
END BENT 2 REPAIRS		QUANT	ITIES			
END DENI Z REPAIRS	ESTI	МАТЕ		ACTUA	L	
SHOTCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	DEPTH FT	VOLUME CF	
CAP	0.0	0.0				
BACKWALL	0.0	0.0				
CONCRETE REPAIRS	11.1	5.6				
EPOXY RESIN INJECT	LENGTH LF		LENGTI LF	+		
CAP		0.0				
BACKWALL		0.0				
EPOXY COATING	SQ. FT		SQ. FT			
TOP OF BENT CAP		150				

VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1"BEHIND REBAR AND MINIMUM OF 2" CLEARANCE TO SAWCUT. FOR REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

J. HARRIS _ DATE : <u>10/2022</u> DRAWN BY : . _ DATE : <u>10/2022</u> J. YANNACCONE CHECKED BY : __

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REPAIR LOCATIONS AND ESTIMATE 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 WILL NOTE ON THE DRAWINGS THE APPROXIMATE LOCATION AND DESCRIPTION OF THE REPAIRS AND ADJUST THE ACTUAL QUALITIES ENTERED INTO THE AS-BUILT REPAIR QUANTITY TABLE.

CONTRACTOR SHALL SAW CUT TO A MINIMUM DEPTH OF $\frac{1}{2}$ " BUT REINFORCING STEEL SHALL NOT BE DAMAGED

CONTRACTOR SHALL REMOVE SURFACE CONCRETE TO VERIFY THAT SAW CUT DEPTH WILL NOT DAMAGE EXISTING REINFORCING STEEL.

CONTRACTOR SHALL SAW CUT THE REPAIR AREAS SO THAT THE CORNERS ARE SQUARE AS INDICATED ON THE DETAILS.

FOR CONCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

SHOTCRETE REPAIRS MAY BE REPLACED WITH CONCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.

CLEAN AND REMOVE DEBRIS FROM THE TOP OF THE CAP AND APPLY EPOXY PROTECTIVE COATING. EPOXY COATING SHALL BE APPLIED TO THE TOP SURFACE OF THE CAP. THE CONTRACTOR SHALL NOT COAT THE AREA OF THE CAPS BENEATH THE MASONRY PLATES. FOR EPOXY COATING, SEE SPECIAL PROVISIONS.



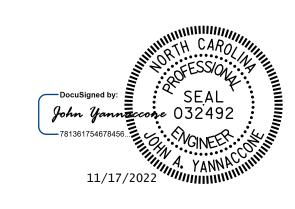
SHOTCRETE REPAIR



CONCRETE REPAIR (FORM & POUR)



ERI - EPOXY RESIN INJECTION



PROJECT NO. I-5955 GUILFORD COUNTY

400339 BRIDGE NO. ____

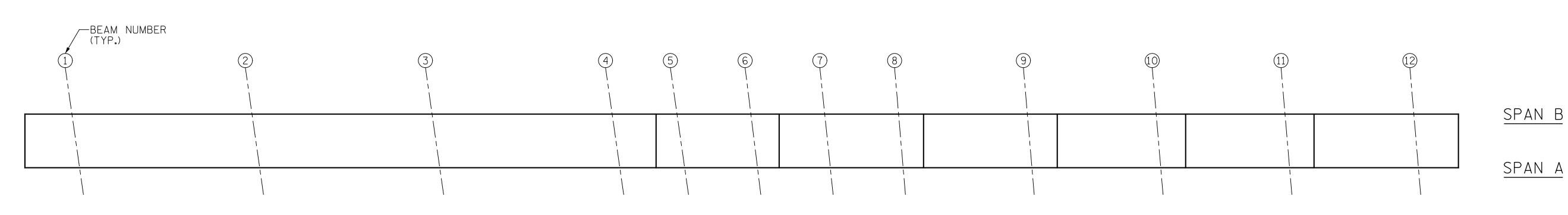
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> > END BENT 2

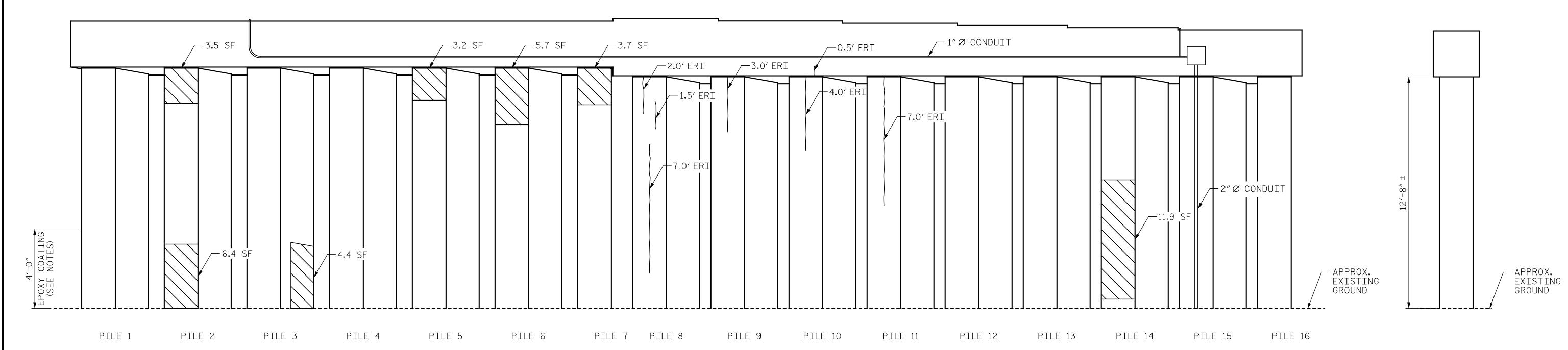
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TOP OF CAP



ELEVATION

AS-BUILT REPAIR QUANTITY TABLE QUANTITIES BENT 1 REPAIRS ESTIMATE ACTUAL AREA | DEPTH | VOLUME AREA VOLUME SHOTCRETE REPAIRS FΤ CF CAP 0.0 0.0 COLUMN 77.2 38.6 CONCRETE REPAIRS 0.0 0.0 LENGTH LENGTH EPOXY RESIN INJECTION LF CAP 0.0 27.5 COLUMN SQ. SQ. EPOXY COATING

FΤ

470

FΤ

VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1"BEHIND REBAR AND MINIMUM OF 2" CLEARANCE TO SAWCUT. FOR REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

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- FOR REPAIRS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.
- FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.
- FOR CONCRETE REPAIRS, SEE SPECIAL PROVISIONS.
- SHOTCRETE REPAIRS MAY BE REPLACED WITH CONCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.
- CONTRACTOR SHALL SAW CUT TO A MINIMUM DEPTH OF $1/2^{\prime\prime}$ BUT REINFORCING STEEL SHALL NOT BE DAMAGED. CONTRACTOR SHALL REMOVE SURFACE CONCRETE TO VERIFY THAT SAW CUT DEPTH WILL NOT DAMAGE EXISTING REINFORCING STEEL.
- CONTRACTOR SHALL SAW CUT THE REPAIR AREAS SO THAT THE CORNERS ARE SQUARE AS INDICATED ON THE DETAILS.
- APPLY EPOXY PROTECTIVE COATING TO ALL SIDES OF THE CONCRETE PILES.EPOXY COATING SHALL BE APPLIED 4 FEET UP THE PILES FROM THE GROUND LINE.FOR EPOXY COATING, SEE SPECIAL PROVISIONS.
- FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.

WHEN COLUMN REPAIRS ARE INDICATED TO GROUND LINE, EXTEND REPAIR ONE (1) FOOT MIN. BELOW GROUND LINE.



SHOTCRETE REPAIR



CONCRETE REPAIR (FORM & POUR)



ERI - EPOXY RESIN INJECTION

I-5955 PROJECT NO. ___ GUILFORD COUNTY 400339 BRIDGE NO. _

SHEET 1 OF 2

PILE 16



STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH

> BENT 1 SPAN A SIDE

J. HARRIS DATE : 10/2022 DRAWN BY : _ J. YANNACCONE _ DATE : <u>10/2022</u> CHECKED BY : ____

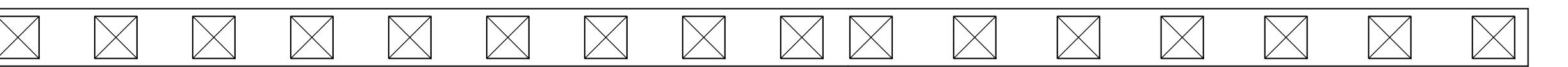
CONCRETE PILES

GAI	NNETT	One Glenwood Ave Suite 900 Raleigh, NC 2760
	MING	919-420-7660 NC Lic.No. F-02

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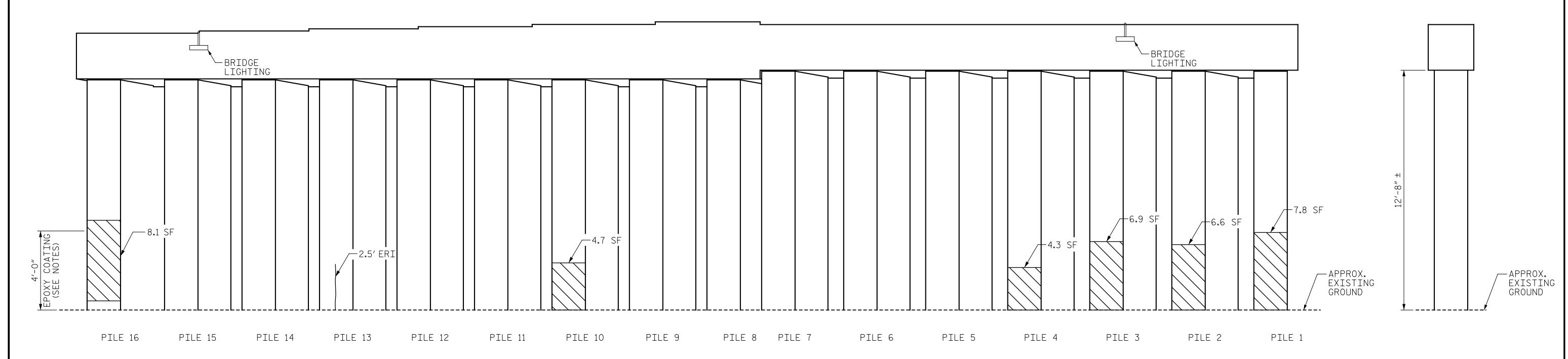
J. HARRIS _ DATE : <u>10/2022</u> DRAWN BY : _ _ DATE : <u>10/2022</u> J. YANNACCONE CHECKED BY : ____



SPAN A

SPAN B

BOTTOM OF CAP



ELEVATION

REPAIR LOCATIONS AND ESTIMATE OF QUANTITIES ARE BASED ON 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 ENTER THE ACTUAL QUANTITIES INTO THE AS-BUILT REPAIR QUANTITY TABLE.

FOR REPAIRS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR CONCRETE REPAIRS, SEE SPECIAL PROVISIONS.

SHOTCRETE REPAIRS MAY BE REPLACED WITH CONCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

CONTRACTOR SHALL SAW CUT TO A MINIMUM DEPTH OF $\frac{1}{2}$ "but reinforcing steel shall not be damaged. Contractor shall remove surface concrete to verify that saw cut depth will not DAMAGE EXISTING REINFORCING STEEL.

CONTRACTOR SHALL SAW CUT THE REPAIR AREAS SO THAT THE CORNERS ARE SQUARE AS INDICATED ON THE DETAILS.

APPLY EPOXY PROTECTIVE COATING TO ALL SIDES OF THE CONCRETE PILES, EPOXY COATING SHALL BE APPLIED 4 FEET UP THE PILES FROM THE GROUND LINE. FOR EPOXY COATING, SEE SPECIAL PROVISIONS.

FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.

WHEN COLUMN REPAIRS ARE INDICATED TO GROUND LINE, EXTEND REPAIR ONE (1) FOOT MIN. BELOW GROUND LINE.

PROJECT NO. I-5955 GUILFORD COUNTY 400339

PILE 1

BRIDGE NO. ___

SHEET 2 OF 2

2 NGINEER

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH

> BENT 1 SPAN B SIDE

> > S7-9

TOTAL SHEETS



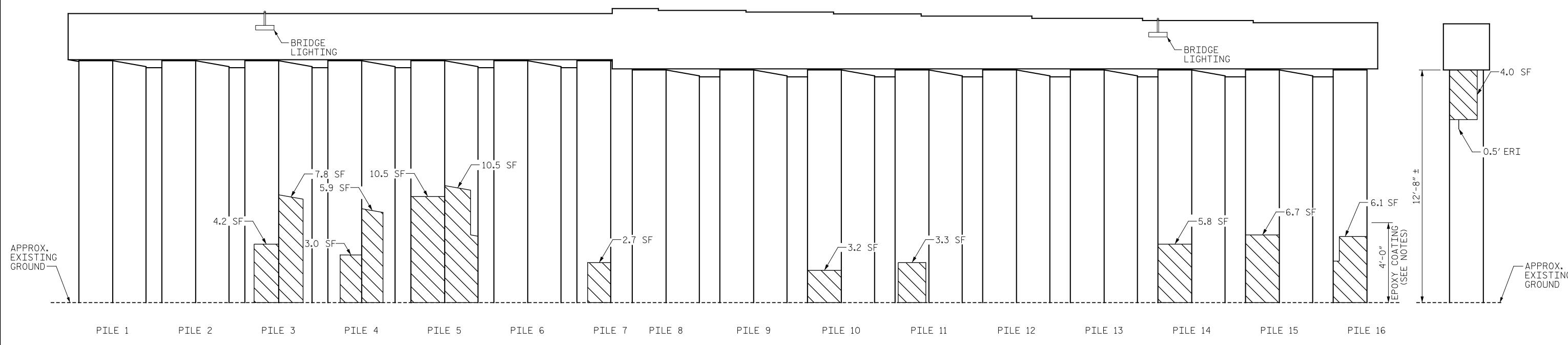
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TOP OF CAP



ELEVATION

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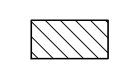
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FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.

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SHOTCRETE REPAIR



CONCRETE REPAIR (FORM & POUR)



ERI - EPOXY RESIN INJECTION



PROJECT NO. I-5955 GUILFORD COUNTY

END VIEW

PILE 16

400339 BRIDGE NO. __

SHEET 1 OF 2

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH

> BENT 2 SPAN B SIDE



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BENT 2 REPAIRS

COLUMN

CAP

COLUMN

SHOTCRETE REPAIRS

CONCRETE REPAIRS

EPOXY COATING

COLUMN REPAIR DETAILS" SHEET.

CONCRETE PILES

EPOXY RESIN INJECTION

AS-BUILT REPAIR QUANTITY TABLE

AREA

0.0

125.8

0.0

VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL

OF UNSOUND CONCRETE, MINIMUM OF 1"BEHIND REBAR AND MINIMUM OF 2" CLEARANCE TO SAWCUT. FOR REPAIR DETAILS, SEE "TYPICAL CAP AND

ESTIMATE

VOLUME

CF

0.0

62.9

0.0

LENGTH

LF

0.0

0.5

SQ.

FΤ

470

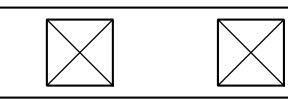
QUANTITIES

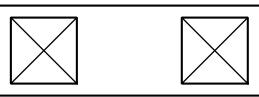
ACTUAL AREA | DEPTH | VOLUME

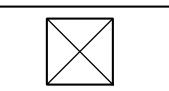
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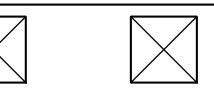
LENGTH

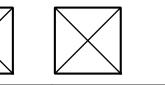
SQ. FT

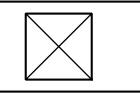


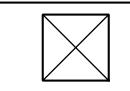


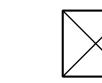


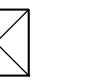


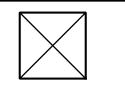




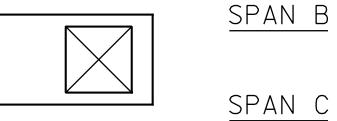




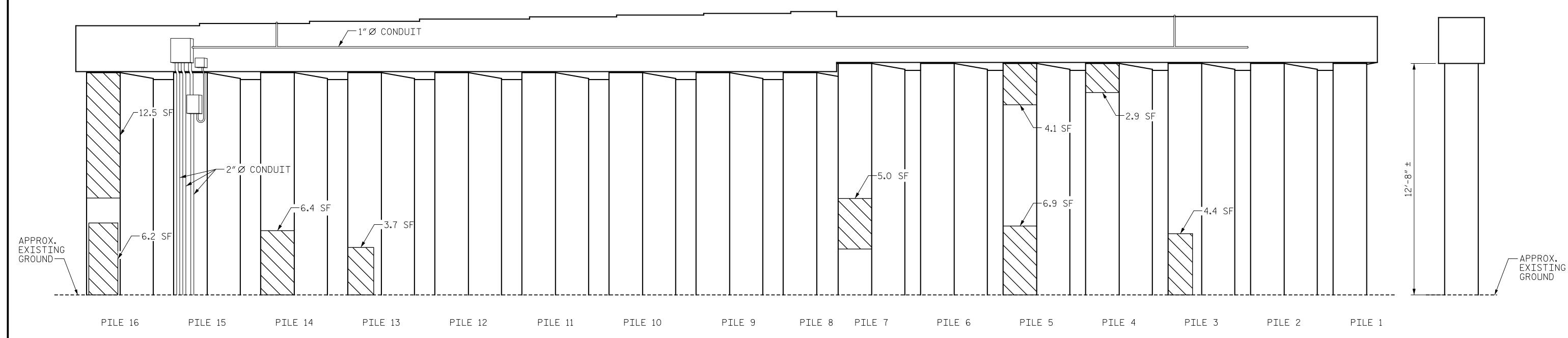








BOTTOM OF CAP



PILE 1

ELEVATION

NOTES:

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FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.

WHEN COLUMN REPAIRS ARE INDICATED TO GROUND LINE, EXTEND REPAIR ONE (1) FOOT MIN. BELOW GROUND LINE.

SHOTCRETE REPAIR



CONCRETE REPAIR (FORM & POUR)

ERI - EPOXY RESIN INJECTION

PROJECT NO. I-5955 GUILFORD COUNTY

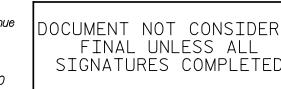
400339 BRIDGE NO. ____

SHEET 2 OF 2

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH

> BENT 2 SPAN C SIDE





11/17/2022

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_ DATE : <u>10/2022</u> J. HARRIS DRAWN BY : . _ DATE : <u>10/2022</u> J. YANNACCONE CHECKED BY : __

NOTE: GENERAL DRAWING INFORMATION IS TAKEN FROM THE ORIGINAL PLANS AND THE ROUTINE INSPECTION REPORT DATED 12/09/2020. BRIDGE ORIENTATION CONFORMS TO THE EXISTING BRIDGE PLANS AND ROUTINE INSPECTION REPORT. SPAN A SPAN B SPAN C SCOPE OF WORK - REMOVE EXISTING JOINT AND INSTALL PLUG FIX. FIX. FILL FACE @ — END BENT 1 - FILL FACE @ END BENT 2 - REMOVE DEBRIS FROM TOP OF EXISTING END BENT CAPS AND APPLY EPOXY COATING. - EPOXY RESIN INJECTION OF CONCRETE CRACKS. - REMOVE UNSOUND CONCRETE AND PROPERLY PREPARE EXISTING END BENT AND BENT AREAS FOR SHOTCRETE AND CONCRETE REPAIRS. - REMOVE AND REPLACE DAMAGED PORTIONS OF TUBULAR STEEL BEAM BRIDGE RAIL. END BENT : BENT 2 END BENT 2 BENT 1 SECTION ALONG & BRIDGE (SECTION AT BENTS AND END BENTS ARE AT RIGHT ANGLES) TO EAST FLORIDA - & BENT 2 © BENT 1--FILL FACE @ END BENT 2 /— € BRIDGE TO WINSTON-SALEM `—98°-09′-00″ (TYP.) PROJECT NO. I-5955 GUILFORD ___ COUNTY BRIDGE NO. ____400340 36'-75/₁₆"(SPAN A) 70'-0"(SPAN B) 36'-75/₁₆"(SPAN C) 143'-25/8"(FILL FACE TO FILL FACE) SHEET 1 OF 2 PLAN STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION (PILES NOT SHOWN FOR CLARITY) I HEREBY CERTIFY THAT THIS STRUCTURE WAS REHABILITATED ACCORDING TO THESE PLANS OR AS NOTED HEREIN. GENERAL DRAWING FOR BRIDGE ON I-40 WBL OVER SR 3762 (MARTIN LUTHER KING JR. DRIVE) RESIDENT ENGINEER DATE **—** 781361754678456... REVISIONS One Glenwood Avenue Suite 900 Raleigh,NC 27603 919–420–7660 NC Lic.No.F–0270 GANNETT FLEMING DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED S8-1 BY: DATE: DATE: _ DATE : <u>10/2022</u> J. YANNACCONE _ DATE : <u>10/2022</u> CHECKED BY : _____

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LOCATION SKETCH

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

BRIDGE CO	ORDINATES
LATITUDE	LONGITUDE
36°-02′-40.49′′	79°-46′-26 . 96′

GENERAL NOTES

PROVISIONS.

PROVISIONS.

SEE TRANSPORTATION MANAGEMENT PLANS FOR LANE WIDTHS, SEQUENCING AND OTHER TRAFFIC CONTROL MEASURES FOR STAGING OF ASPHALT WEARING SURFACE (AWS).

SEE ROADWAY PLANS FOR MILLING AND OVERLAY OF THE BRIDGE DECK.

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.

THE CONTRACTOR SHALL PERFORM ALL WORK WITH CARE SO THAT THE EXISTING STRUCTURE WHICH IS TO REMAIN IN PLACE WILL NOT BE DAMAGED. IF THE CONTRACTOR DAMAGES ANY PART OF THE EXISTING STRUCTURE WHICH IS TO REMAIN IN PLACE, THE DAMAGED AREA SHALL BE REPAIRED OR REPLACED IN A MANNER SATISFACTORY TO THE ENGINEER AT NO ADDITIONAL COST TO THE DEPARTMENT.

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 TRANSPORTATION MANAGEMENT PLANS.

PRIOR TO BEGINNING WORK, THE CONTRACTOR SHALL SUBMIT FOR REVIEW AND APPROVAL A COMPLETE SEQUENCE OF TASKS FOR EACH OPERATION AFFECTING PROVISION. 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 CRANE SAFETY, SEE SPECIAL PROVISIONS.

FOR FALSEWORK AND FORMWORK, SEE SPECIAL

FOR GROUT FOR STRUCTURES, SEE SPECIAL

FOR MAINTENANCE AND PROTECTION OF TRAFFIC BENEATH EXISTING STRUCTURE, SEE SPECIAL PROVISIONS.

ALL PAVEMENT MARKING WILL BE IN ACCORDANCE WITH THE TRANSPORTATION MANAGEMENT PLANS.

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 LANE(S) SHALL BE KEPT FREE AND CLEAR OF DEBRIS.

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

THE CONTRACTOR SHALL TAKE CARE DURING JOINT REHAB OPERATIONS NOT TO DROP ANY MATERIAL BELOW THE BRIDGE WITHOUT PROTECTIVE DEVICES BELOW TO CATCH THE MATERIAL, ANY MATERIAL THAT FALLS BELOW THE BRIDGE SHALL BE CONTAINED, REMOVED AND DISPOSED OF BY THE CONTRACTOR AT NO EXTRA COST TO THE DEPARTMENT. IF THE ENGINEER DETERMINES THAT PROTECTIVE DEVICES ARE NOT ADEQUATE OR NOT BEING EMPLOYED, THE WORK SHALL BE SUSPENDED UNTIL ADEQUATE PROTECTION IS PROVIDED.

FOR ASPHALT PLUG JOINTS FOR PRESERVATION, SEE SPECIAL PROVISIONS.

FOR CONCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.

FOR EPOXY COATING AND DEBRIS REMOVAL, SEE SPECIAL PROVISIONS.

FOR REMOVAL AND REPLACEMENT OF TUBULAR STEEL BEAM GUARDRAIL, SEE SPECIAL PROVISIONS.

FOR CONCRETE DIAPHRAGM REPAIR. SEE SPECIAL PROVISIONS.

SPECIAL PROVISIONS.

FOR CONCRETE DECK REPAIR FOR ASPHALT OVERLAY, SEE

AFTER MILLING THE ASPHALT WEARING SURFACE OF THE BRIDGE DECK, THE ENGINEER WILL LOCATE AND MARK DECK REPAIR AREAS AREAS MARKED FOR DECK REPAIR SHALL BE PREPARED AND REPAIRED IN ACCORDANCE WITH THE CONCRETE DECK REPAIR FOR ASPHALT OVERLAY SPECIAL

THE ASPHALT PLUG JOINTS FOR PRESERVATION SHALL BE INSTALLED AFTER PLACEMENT OF THE PROPOSED ASPHALT WEARING SURFACE.

> PROJECT NO. I-5955 GUILFORD COUNTY 400340 BRIDGE NO.

SHEET 2 OF 2

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH

GENERAL DRAWING FOR BRIDGE ON I-40 WBL OVER SR 3762 (MARTIN LUTHER KING JR. DRIVE)



FLEMING 919-420-7660

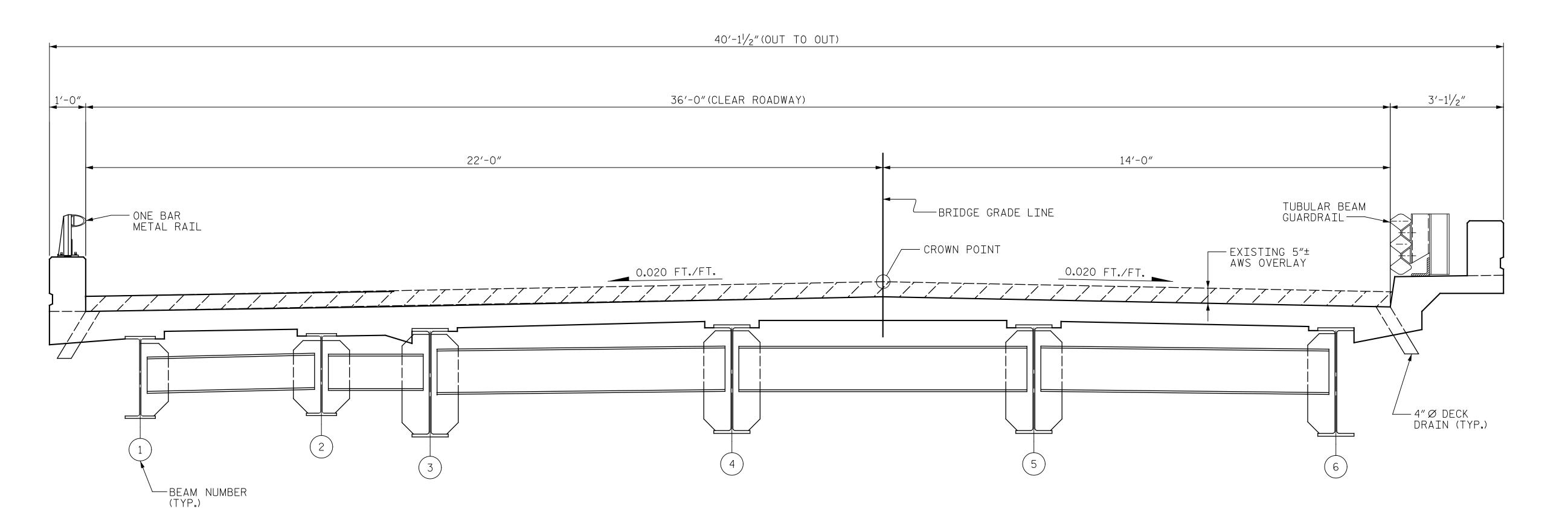
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NOTES:

SEE TRAFFIC MANAGEMENT PLANS FOR LANE WIDTHS, SEQUENCING, AND OTHER TRAFFIC CONTROL MEASURES FOR STAGING OF OVERLAY SURFACE PREPARATION AND ASPHALT WEARING SURFACE (AWS) PLACEMENT.

SEE ROADWAY PLANS FOR MILLING AND OVERLAY OF THE BRIDGE DECK.

THE CONTRACTOR SHALL ENSURE THAT THE EXISTING DECK DRAINS ARE OPEN AND FULLY FUNCTIONAL AFTER PLACEMENT OF THE ASPHALT WEARING SURFACE.



TYPICAL SECTION (EXISTING)

> PROJECT NO. I-5955 GUILFORD ___ COUNTY BRIDGE NO. ____400340



STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
RALEIGH

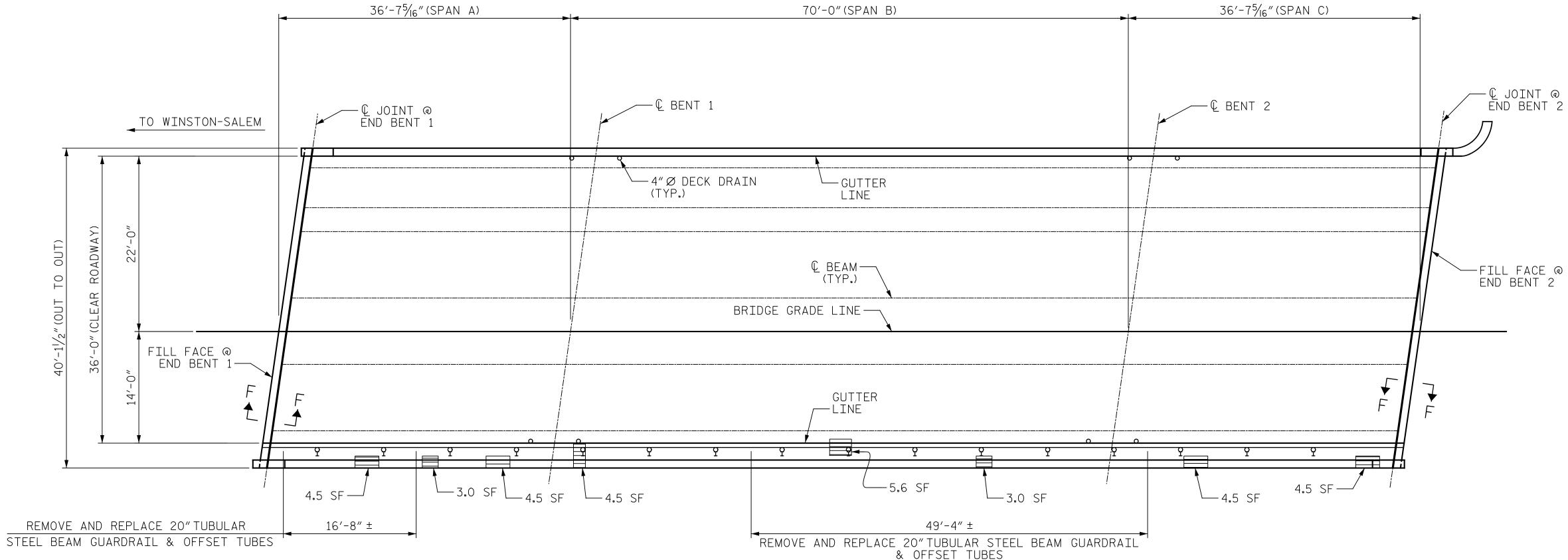
TYPICAL SECTION AND SURFACE PREPARATION DETAILS

GANNETT One GIA Sulte S
Raleigh
FLEMING 919-42
NC Lid

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J. HARRIS DATE : 10/2022
DATE : 10/2022 J. YANNACCONE CHECKED BY : ___



SPAN B

PLAN

REPAIR QUANTITY TABLE TOP OF DECK REPAIR ESTIMATE ACTUAL CONCRETE DECK REPAIR 0.0 SY FOR ASPHALT OVERLAY UNDERSIDE OF DECK REPAIR ESTIMATE ACTUAL AREA VOLUME AREA VOLUME SF CF SF CF SHOTCRETE REPAIRS UNDERSIDE OF DECK 0.0 0.0 OVERHANG DIAPHRAGMS 0.0 0.0 UNDERSIDE OF OVERHANG 31.1 15.6 INTERIOR DIAPHRAGMS 0.0 0.0 ESTIMATE ACTUAL UNDERSIDE EPOXY RESIN 0.0 LF INJECTION

CONCRETE DECK REPAIR FOR ASPHALT OVERLAY

UNDERSIDE OF DECK REPAIR

BRIDGE RAIL QUANTITIES

REMOVE 20"TUBULAR STEEL 66.0 LF
20"TUBULAR STEEL BEAM GUARDRAIL 66.0 LF

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.

SPAN A

CONCRETE COVER FOR TOP BARS IN THE DECK SLAB IS $1\% {\rm M}^{\prime\prime}$ PER THE EXISTING BRIDGE PLANS.

FOR SECTION F-F, SEE "ASPHALT PLUG JOINT DETAILS" SHEET.

CONTRACTOR SHALL SAWCUT TO A NOMINAL DEPTH OF $\frac{1}{2}$ " BUT REINFORCING STEEL SHALL NOT BE DAMAGED, CONTRACTOR SHALL REMOVE SURFACE CONCRETE TO VERIFY THAT SAWCUT DEPTH WILL NOT DAMAGE EXISTING REINFORCING STEEL.

FOR CONCRETE DIAPHRAGM REPAIR, SEE SPECIAL PROVISIONS.

FOR CONCRETE DECK REPAIR FOR ASPHALT OVERLAY SEE SPECIAL PROVISIONS.

THE CONTRACTOR SHALL ENSURE THAT THE EXISTING DECK DRAINS ARE OPEN AND FULLY FUNCTIONAL AFTER PLACEMENT OF THE ASPHALT WEARING SURFACE.

THE BOUNDARIES OF AREAS IDENTIFIED FOR CLASS II SURFACE PREPARATION ARE APPROXIMATE AND MAY NOT REFLECT ACTUAL CONDITIONS THAT WILL BE ENCOUNTERED AT THE PROJECT SITE.

FOR OVERHANG AND UNDERSIDE OF DECK REPAIRS, SEE "OVERHANG AND UNDERSIDE REPAIR DETAILS" SHEET.

THE CONTRACTOR SHALL REMOVE AND REPLACE THE 20"TUBULAR STEEL BEAM GUARDRAIL AS NOTED ON THE PLANS AND AS DIRECTED BY THE ENGINEER. THE SECTIONS OF GUARDRAIL WHICH ARE REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE PROJECT.

FOR DIMENSIONS OF TUBULAR BEAM GUARDRAIL AND OFFSET TUBES, SEE "TUBULAR BEAM GUARDRAIL DETAILS" SHEET.

FOR REMOVAL AND REPLACEMENT OF TUBULAR STEEL BEAM GUARDRAIL, SEE SPECIAL PROVISIONS.

PROJECT NO. _____I-5955

_____GUILFORD _____COUNTY
BRIDGE NO. ____400340



DEPARTMENT OF TRANSPORTATION
RALEIGH

PLAN OF SPANS

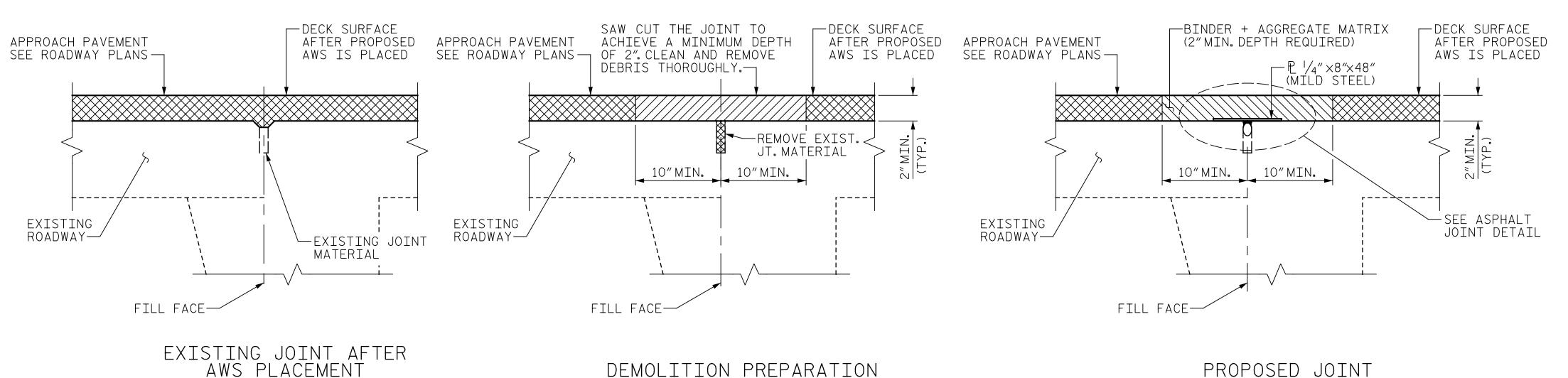
GANNETT
Suite 900
Raleigh, NC 27603
919-420-7660
NC Lic. No. F-0270

SPAN C

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CHECKED BY: J. YANNACCONE DATE: 10/2022



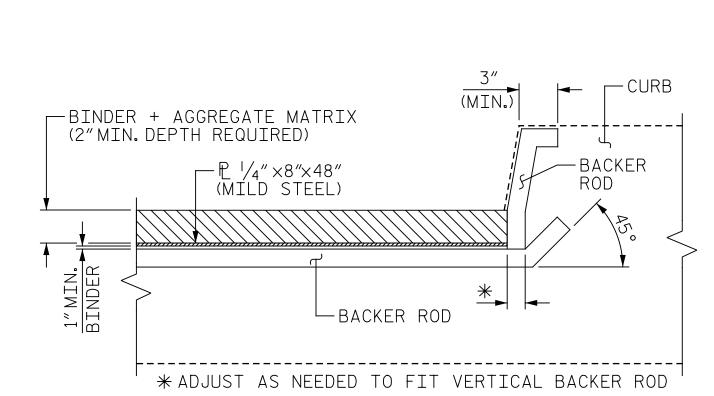
SECTION F-F (TYP.AT END BENTS)

DEMOLITION PREPARATION

— CONCRETE PARAPET BINDER + AGGREGATE MATRIX — (2"MIN. DEPTH REQUIRED) BACKER $P \frac{1}{4} \times 8 \times 48 = -$ (MÍLD STEEL) BACKER ROD — -----* ADJUST AS NEEDED TO FIT VERTICAL BACKER ROD

SECTION H-H

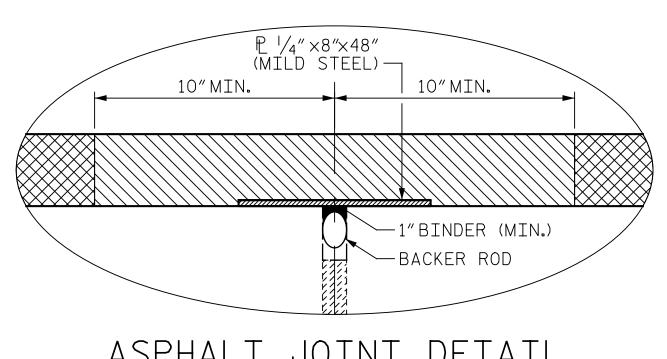
(PROPOSED JOINT SEAL) (PROPOSED JOINT SEAL ALONG LEFT EDGE OF DECK)



PROPOSED JOINT

SECTION H-H

(PROPOSED JOINT SEAL) (PROPOSED JOINT SEAL ALONG RIGHT EDGE OF DECK)



LOCATION	ASPHALT PLUG JOINT FOR PRESERVATION (LIN.FT.)	FORMED OPENING WIDTH PER EXISTING BRIDGE PLANS	TOTAL THEORETICAL MOVEMENT PERPENDICULAR TO THE JOINT
END BENT 1	38.5	1"	9/16″
END BENT 2	38.5	1"	9/16″

PROJECT NO. I-5955 GUILFORD _ COUNTY 400340 BRIDGE NO. __

STATE OF NORTH CAROLINA

DEPARTMENT OF TRANSPORTATION

ASPHALT PLUG JOINT DETAILS

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11/17/2022

NOTES:

PROTECTION IS PROVIDED.

SAWING THE JOINT.

JOINT DETAIL SHOWN.

SUBSTRATE.

THE CONTRACTOR SHALL FIELD VERIFY THE EXISTING JOINT OPENING PRIOR TO ORDERING JOINT SEAL MATERIAL. IF THE ACTUAL OPENING VARIES FROM

THE CONTRACTOR SHALL TAKE CARE DURING JOINT REPAIR OPERATIONS NOT

PROTECTIVE DEVICES BELOW TO CATCH THE MATERIAL, ANY MATERIAL THAT

FALLS BELOW THE BRIDGE SHALL BE CONTAINED, REMOVED AND DISPOSED OF BY THE CONTRACTOR AT NO EXTRA COST TO THE DEPARTMENT. IF THE

NOT BEING EMPLOYED, THE WORK SHALL BE SUSPENDED UNTIL ADEQUATE

FOR EXCAVATION BELOW THE BOTTOM OF THE PLANNED JOINT DECK DEMOLITION, CONCRETE FOR DECK REPAIRS SHALL BE PLACED IN THE

ENGINEER DETERMINES THAT THE PROTECTIVE DEVICES ARE NOT ADEQUATE OR

THE CONTRACTOR WILL NOT BE PERMITTED TO FORM THE JOINTS IN LIEU OF

THE INSTALLED BACKER ROD AND SILICONE SEALANT SHALL BE WATER TIGHT.

EXCAVATED AREA TO THE ELEVATION AT BOTTOM OF THE PROPOSED ASPHALT

DEMOLISH BRIDGE JOINT AREA SUCH THAT THE BOTTOM OF THE EXCAVATION SHALL BE REASONABLY FLAT AND LEVEL AND TO THE NECESSARY DEPTH. SUCH

THAT ASPHALT JOINT SHALL BE FOUNDED ON CONCRETE OR REPAIR CONCRETE

BACKER ROD SHALL BE INSTALLED AS PER MANUFACTURER'S RECOMMENDATIONS.

FOR CONCRETE DECK REPAIR FOR ASPHALT OVERLAY, SEE SPECIAL PROVISIONS.

PRIOR TO ASPHALT JOINT REPAIR/REPLACEMENT, PERFORM DECK SURFACE

FOR ASPHALT PLUG JOINTS FOR PRESERVATION, SEE SPECIAL PROVISIONS.

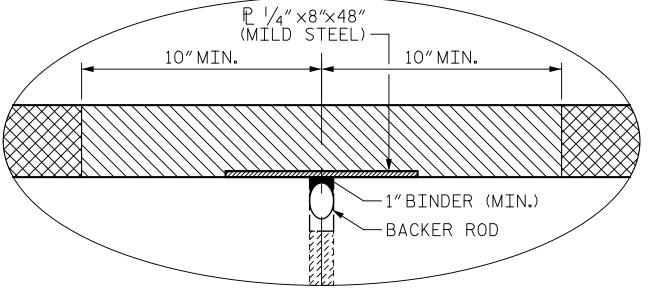
SEE ROADWAY PLANS FOR MILLING AND OVERLAY OF THE BRIDGE DECK.

REPAIR IN ACCORDANCE WITH "PLAN OF SPAN" SHEETS.

TO OPENING INDICATED IN THE DETAIL BY MORE THAN $\frac{1}{4}$, NOTIFY THE ENGINEER, REVISION OF THE JOINT SEAL SIZE MIGHT BE NECESSARY,

TO DROP ANY MATERIAL THAT FALLS BELOW THE BRIDGE WITHOUT

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ASPHALT JOINT DETAIL

_ DATE : <u>10/2022</u> J. HARRIS DRAWN BY _ DATE : <u>10/2022</u> J. YANNACCONE CHECKED BY : .

BINDER + AGGREGATE MATRIX (2"MIN. DEPTH REQUIRED) —

CONCRETE

CURB

FORMED OPENING WIDTH

€ JOINT

10"MIN.

(SEE TABLE)

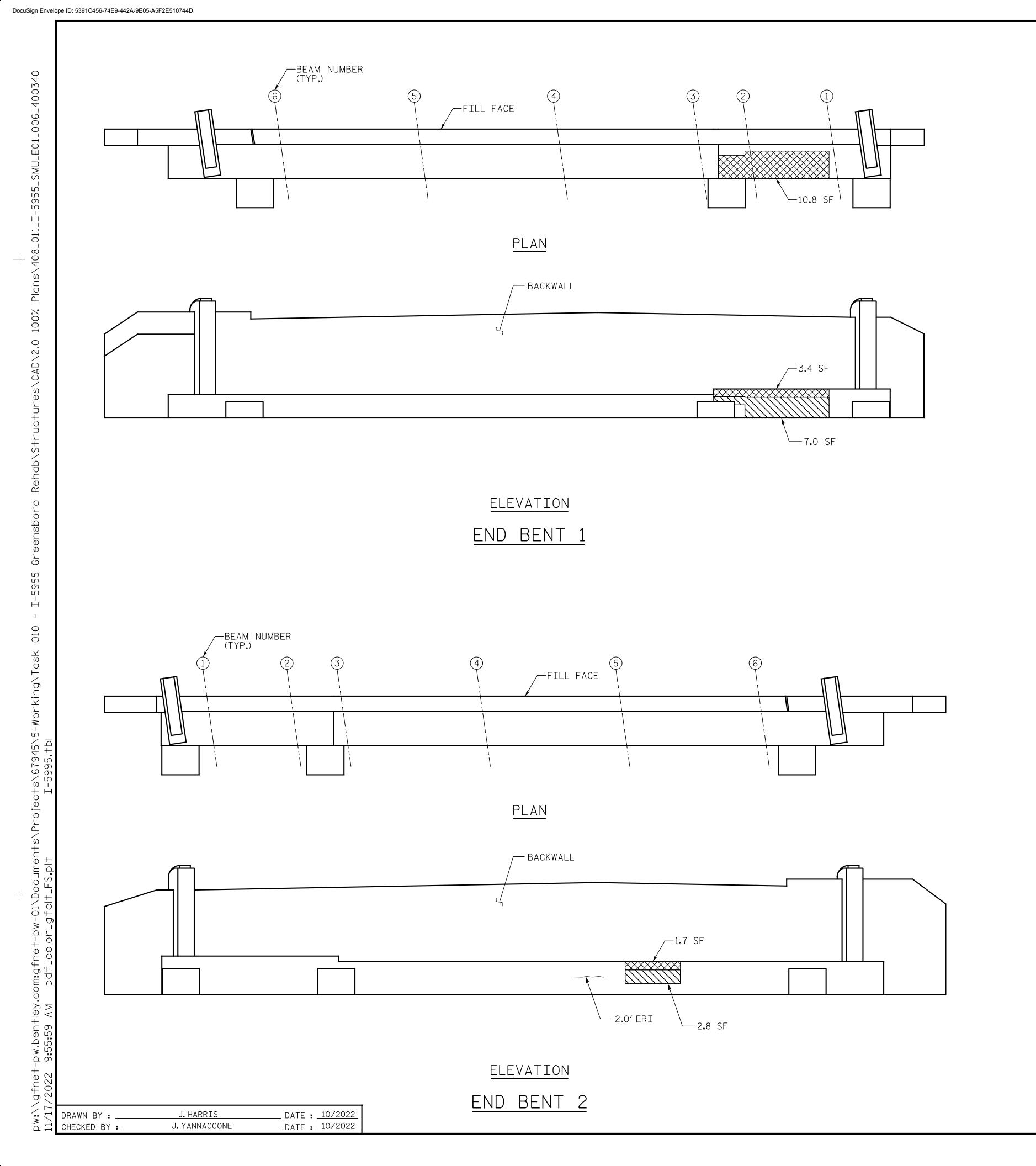
PLAN AT BARRIER

(PROPOSED JOINT SEAL, STEEL ₱ NOT SHOWN FOR CLARITY)
(RIGHT EDGE OF DECK SHOWN. LEFT EDGE OF DECK SIMILAR.)

_ 10"MIN.

CONCRETE

CURB





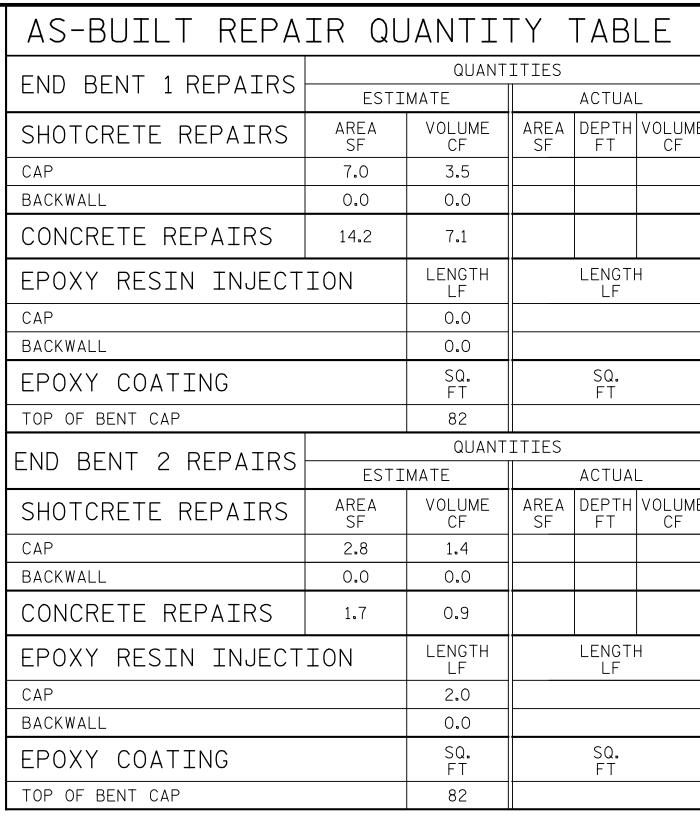
SHOTCRETE REPAIR



CONCRETE REPAIR (FORM & POUR)



ERI - EPOXY RESIN INJECTION



VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MINIMUM OF 1"BEHIND REBAR AND MINIMUM OF 2" CLEARANCE TO SAWCUT. FOR REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

NOTES:

REPAIR LOCATIONS AND ESTIMATE 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 WILL NOTE ON THE DRAWINGS THE APPROXIMATE LOCATION AND DESCRIPTION OF THE REPAIRS AND ADJUST THE ACTUAL QUALITIES ENTERED INTO THE AS-BUILT REPAIR QUANTITY TABLE.

CONTRACTOR SHALL SAW CUT TO A MINIMUM DEPTH OF $\frac{1}{2}$ " BUT REINFORCING STEEL SHALL NOT BE DAMAGED

CONTRACTOR SHALL REMOVE SURFACE CONCRETE TO VERIFY THAT SAW CUT DEPTH WILL NOT DAMAGE EXISTING REINFORCING STEEL.

CONTRACTOR SHALL SAW CUT THE REPAIR AREAS SO THAT THE CORNERS ARE SQUARE AS INDICATED ON THE DETAILS.

FOR CONCRETE REPAIRS, SEE SPECIAL PROVISIONS.

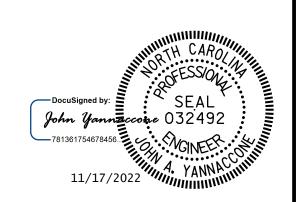
FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

SHOTCRETE REPAIRS MAY BE REPLACED WITH CONCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.

CLEAN AND REMOVE DEBRIS FROM THE TOP OF THE CAPS, AND AROUND THE END DIAPHRAGMS, BEARINGS AND BEAMS. APPLY EPOXY PROTECTIVE COATING TO THE TOP SURFACE OF THE CAPS. THE CONTRACTOR SHALL NOT COAT THE AREA OF THE CAPS BENEATH THE MASONRY PLATES. FOR EPOXY COATING, SEE SPECIAL PROVISIONS.

PROJECT NO. I-5955 GUILFORD _ COUNTY 400340 BRIDGE NO. ___



STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH

END BENT 1 & 2

GANNETT One Glenwood Avenue Suite 900
Raleigh, NC 27603
9/9-420-7660
NC Lic. No. F-0270

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