

AS-BUILT REPAIR QUANTITY TABLE		
TOP OF DECK REPAIRS		
SPAN D		
	ESTIMATE	ACTUAL
SCARIFYING BRIDGE DECK	202.2 SY	
HYDRO-DEMOLITION OF BRIDGE DECK	202.2 SY	
CLASS II SURFACE PREPARATION	1.6 SY	
CLASS III SURFACE PREPARATION	0.0 SY	
LMC OVERLAY-VES	8.4 CY	
PLACING AND FINISHING LMC OVERLAY-VES	202.2 SY	
GROOVING BRIDGE FLOORS	1616.7 SF	
BRIDGE JOINT DEMOLITION	14.0 SF	

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 AND DESCRIPTION OF THE REPAIRS AND ENTER THE ACTUAL QUANTITIES INTO THE AS-BUILT REPAIR QUANTITY TABLE.

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR CONCRETE FOR DECK REPAIR, SEE SPECIAL PROVISIONS.

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

EXISTING JOINTS AND DECK DRAINS SHALL BE SEALED PRIOR TO BEGINNING SURFACE PREPARATION OF THE BRIDGE DECK.

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


PREVIOUSLY PLACED LMC OVERLAY AT STAGED EDGES SHALL BE DEMOLISHED BACK A MINIMUM OF 4 INCHES AND RECAST WITH LMC.

FOR LMC OVERLAY - VES SURFACE PREPARATION, SEE SPECIAL PROVISIONS.

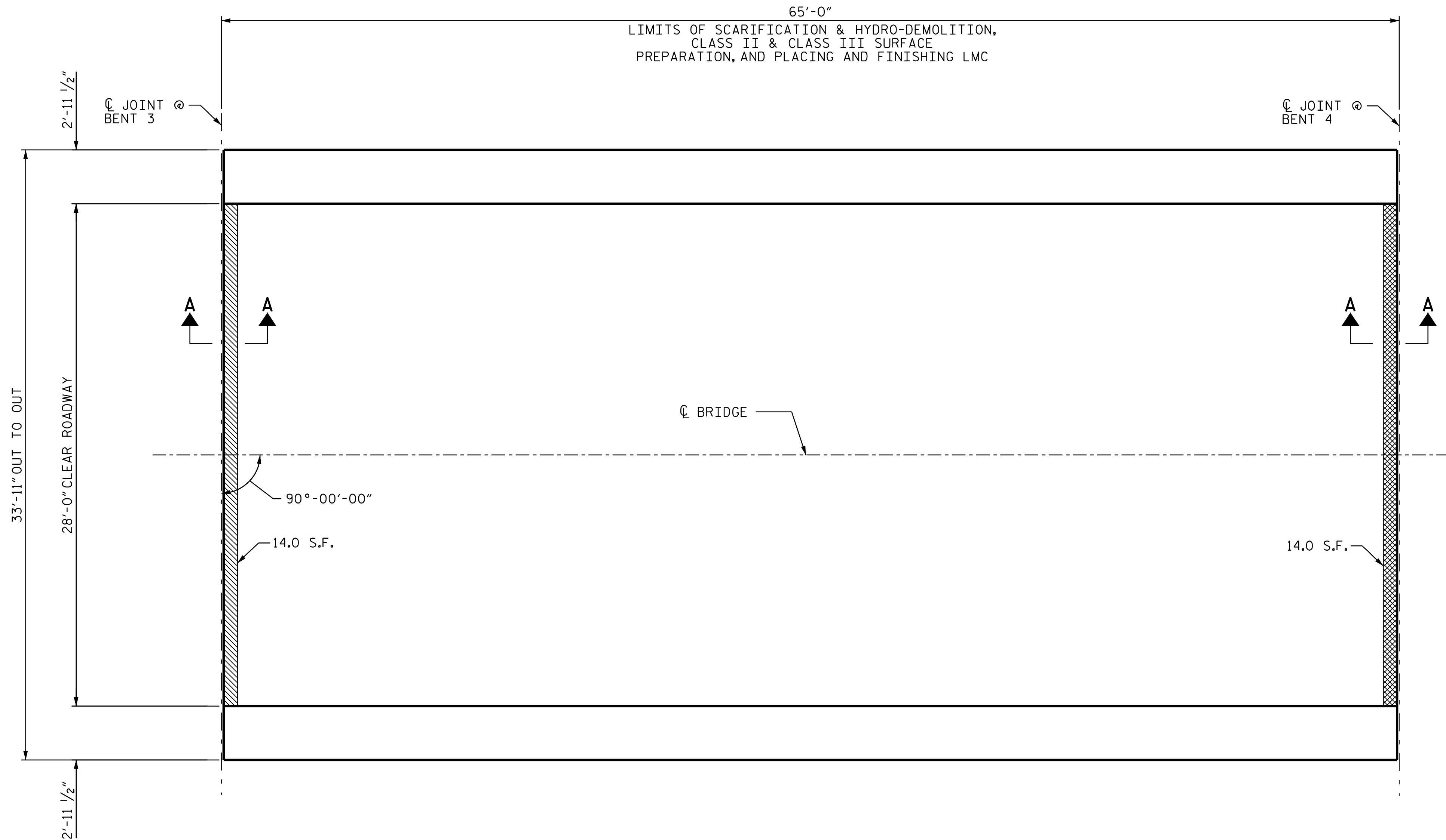
FINAL JOINT SEALS SHALL NOT BE INSTALLED UNTIL THE OVERLAY IS COMPLETE

FOR BRIDGE JOINT DEMOLITION, SEE SPECIAL PROVISIONS.

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

 BRIDGE JOINT DEMOLITION

 CLASS II SURFACE PREPARATION



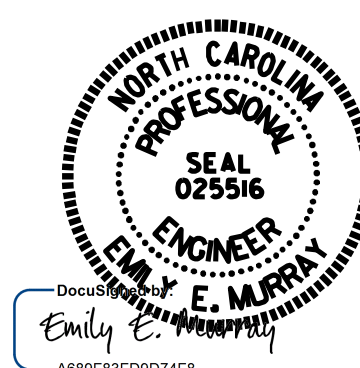
PLAN OF SPAN D

PROJECT NO. 15BPR.130
MOORE COUNTY
 BRIDGE NO. 620049

SHEET 7 OF 12

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

**SUPERSTRUCTURE
 PLAN OF SPAN D
 (SURFACE PREPARATION)**



Emily E. Murray
 4/24/2024

VOLKERT
 5430 Wade Park Blvd., Suite 410
 Raleigh, NC 27607
 Tel: 919-854-0344 Fax: 919-854-0355
 NC License No. F-07625

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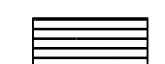
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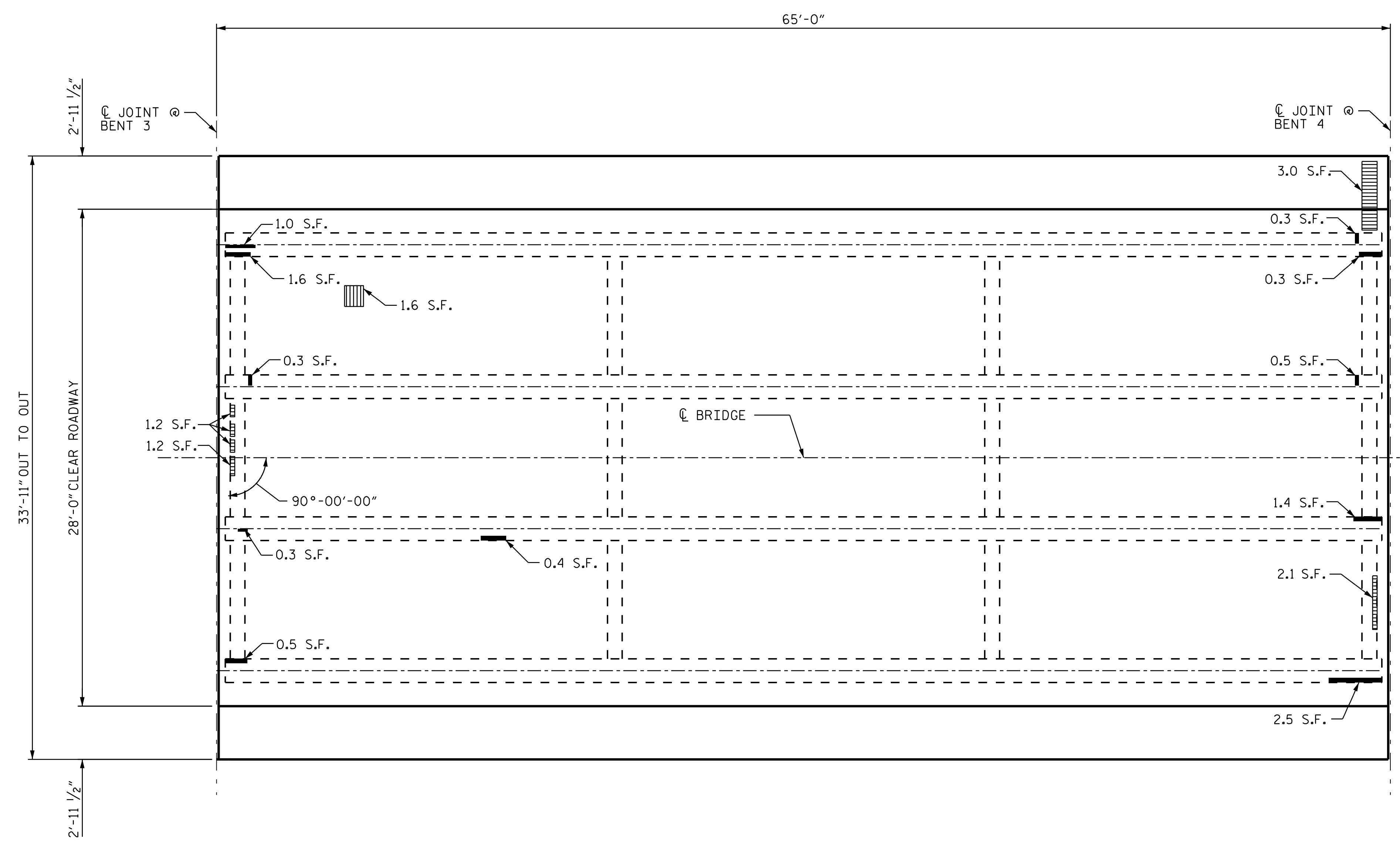
AS-BUILT REPAIR QUANTITY TABLE

UNDERSIDE OF DECK REPAIRS

SHOTCRETE REPAIRS	ESTIMATE		ACTUAL		
	AREA SF	VOLUME CF	AREA SF	VOLUME CF	
UNDERSIDE OF DECK	1.6	0.6			
OVERHANG DIAPHRAGMS	3.0	1.0			
UNDERSIDE OF OVERHANG	0.0	0.0			
INTERIOR DIAPHRAGMS	6.9	2.3			
		ESTIMATE		ACTUAL	
UNDERSIDE EPOXY RESIN INJECTION	0.0	LF			
PRESTRESSED GIRDER EPOXY RESIN INJECTION	0.0	LF			
REPAIRS FOR PRESTRESSED CONCRETE GIRDERS		ESTIMATE		ACTUAL	
AREA SF	VOLUME CF	AREA SF	VOLUME CF		
PRESTRESSED GIRDER	9.1	2.7			

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

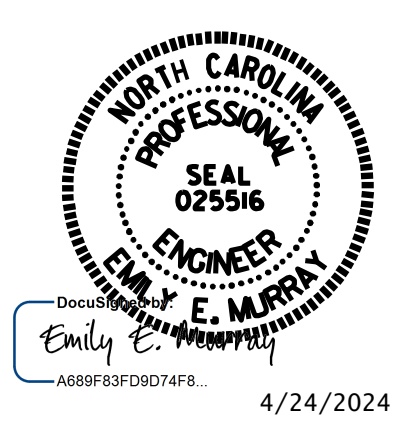
-  UNDERSIDE REPAIR
-  PRESTRESSED GIRDER REPAIR
-  EPOXY RESIN INJECTION (ERI)
-  DIAPHRAGM REPAIR



PLAN OF SPAN D

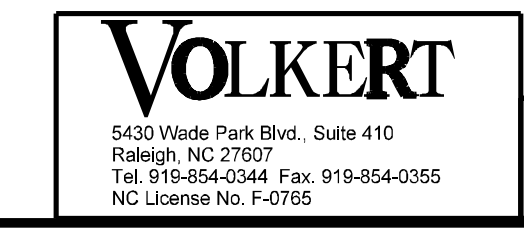
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MOORE COUNTY
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STATE OF NORTH CAROLINA
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**SUPERSTRUCTURE
 PLAN OF SPAN D
 (UNDERSIDE REPAIRS)**

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AS-BUILT REPAIR QUANTITY TABLE		
TOP OF DECK REPAIRS		
SPAN E		
	ESTIMATE	ACTUAL
SCARIFYING BRIDGE DECK	202.2 SY	
HYDRO-DEMOLITION OF BRIDGE DECK	202.2 SY	
CLASS II SURFACE PREPARATION	0.8 SY	
CLASS III SURFACE PREPARATION	0.0 SY	
LMC OVERLAY-VES	8.4 CY	
PLACING AND FINISHING LMC OVERLAY-VES	202.2 SY	
GROOVING BRIDGE FLOORS	1616.7 SF	
BRIDGE JOINT DEMOLITION	26.0 SF	

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 AND DESCRIPTION OF THE REPAIRS AND ENTER THE ACTUAL QUANTITIES INTO THE AS-BUILT REPAIR QUANTITY TABLE.

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR CONCRETE FOR DECK REPAIR, SEE SPECIAL PROVISIONS.

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

EXISTING JOINTS AND DECK DRAINS SHALL BE SEALED PRIOR TO BEGINNING SURFACE PREPARATION OF THE BRIDGE DECK.

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


PREVIOUSLY PLACED LMC OVERLAY AT STAGED EDGES SHALL BE DEMOLISHED BACK A MINIMUM OF 4 INCHES AND RECAST WITH LMC.

FOR LMC OVERLAY - VES SURFACE PREPARATION, SEE SPECIAL PROVISIONS.

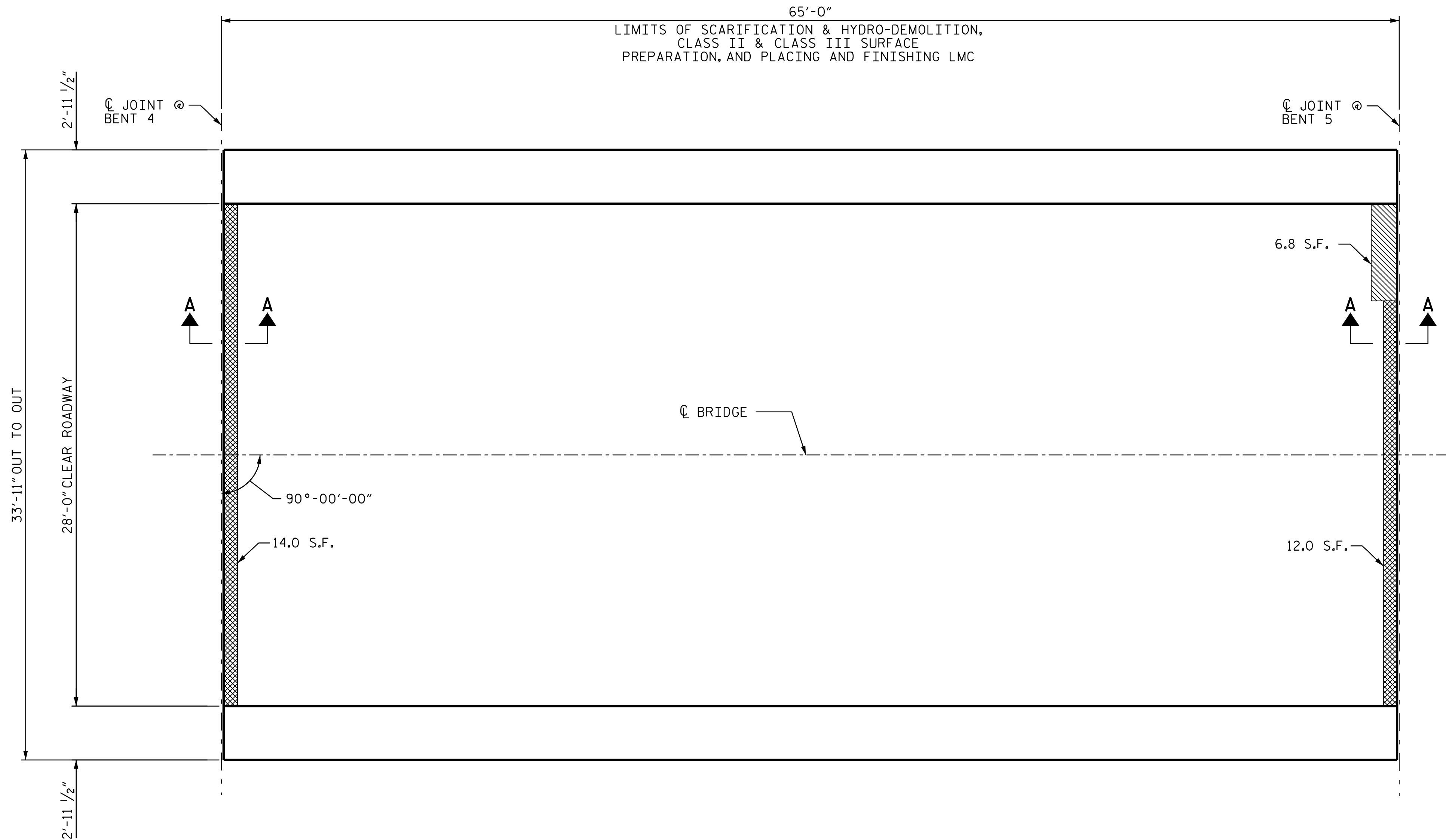
FINAL JOINT SEALS SHALL NOT BE INSTALLED UNTIL THE OVERLAY IS COMPLETE

FOR BRIDGE JOINT DEMOLITION, SEE SPECIAL PROVISIONS.

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

 BRIDGE JOINT DEMOLITION

 CLASS II SURFACE PREPARATION

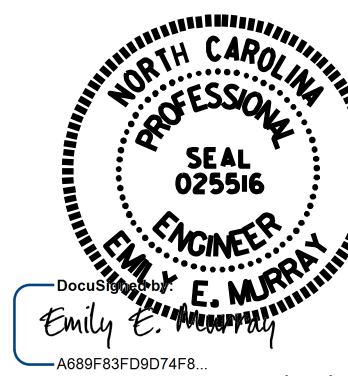


PLAN OF SPAN E

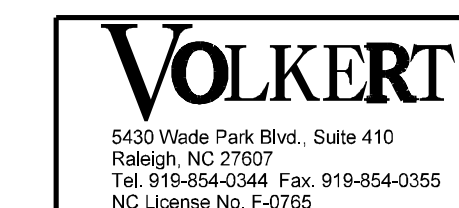
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MOORE COUNTY
 BRIDGE NO. 620049

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 DEPARTMENT OF TRANSPORTATION
 RALEIGH
**SUPERSTRUCTURE
 PLAN OF SPAN E
 (SURFACE PREPARATION)**



4/24/2024






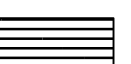
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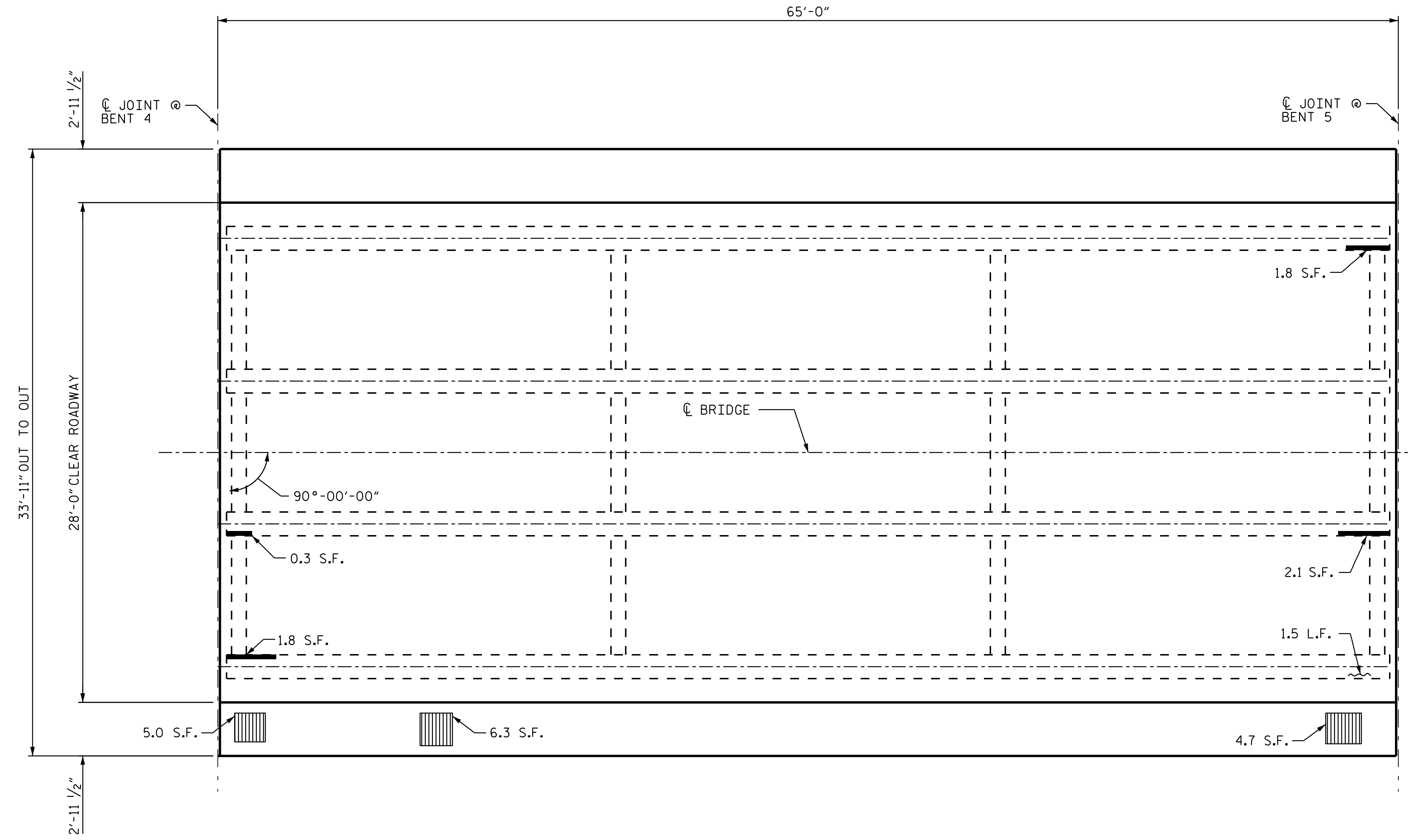
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AS-BUILT REPAIR QUANTITY TABLE				
UNDERSIDE OF DECK REPAIRS				
SHOTCRETE REPAIRS	ESTIMATE		ACTUAL	
	AREA SF	VOLUME CF	AREA SF	VOLUME CF
UNDERSIDE OF DECK	0.0	0.0		
OVERHANG DIAPHRAGMS	0.0	0.0		
UNDERSIDE OF OVERHANG	16.0	5.4		
INTERIOR DIAPHRAGMS	0.0	0.0		
UNDERSIDE EPOXY RESIN INJECTION				
UNDERSIDE EPOXY RESIN INJECTION	0.0	LF		
PRESTRESSED GIRDER EPOXY RESIN INJECTION	1.5	LF		
REPAIRS FOR PRESTRESSED CONCRETE GIRDERS				
PRESTRESSED GIRDER	ESTIMATE		ACTUAL	
	AREA SF	VOLUME CF	AREA SF	VOLUME CF
PRESTRESSED GIRDER	6.0	1.7		

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

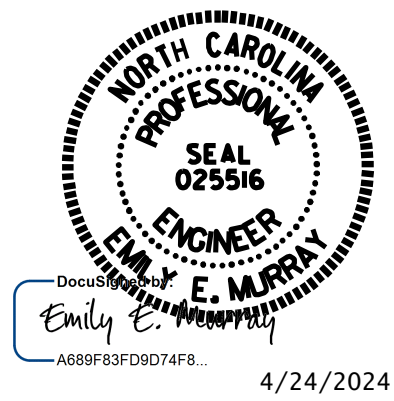
-  UNDERSIDE REPAIR
-  PRESTRESSED GIRDER REPAIR
-  EPOXY RESIN INJECTION (ERI)
-  DIAPHRAGM REPAIR



PLAN OF SPAN E

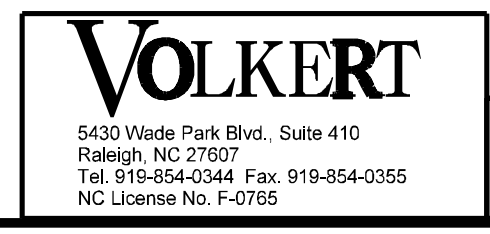
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 BRIDGE NO. 620049

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 SUPERSTRUCTURE
 PLAN OF SPAN E
 (UNDERSIDE REPAIRS)

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AS-BUILT REPAIR QUANTITY TABLE		
TOP OF DECK REPAIRS		
SPAN F		
	ESTIMATE	ACTUAL
SCARIFYING BRIDGE DECK	203.5 SY	
HYDRO-DEMOLITION OF BRIDGE DECK	203.5 SY	
CLASS II SURFACE PREPARATION	1.3 SY	
CLASS III SURFACE PREPARATION	0.0 SY	
LMC OVERLAY-VES	8.5 CY	
PLACING AND FINISHING LMC OVERLAY-VES	203.5 SY	
GROOVING BRIDGE FLOORS	1631.3 SF	
BRIDGE JOINT DEMOLITION	11.0 SF	

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 AND DESCRIPTION OF THE REPAIRS AND ENTER THE ACTUAL QUANTITIES INTO THE AS-BUILT REPAIR QUANTITY TABLE.

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR CONCRETE FOR DECK REPAIR, SEE SPECIAL PROVISIONS.

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


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FOR LMC OVERLAY - VES SURFACE PREPARATION, SEE SPECIAL PROVISIONS.

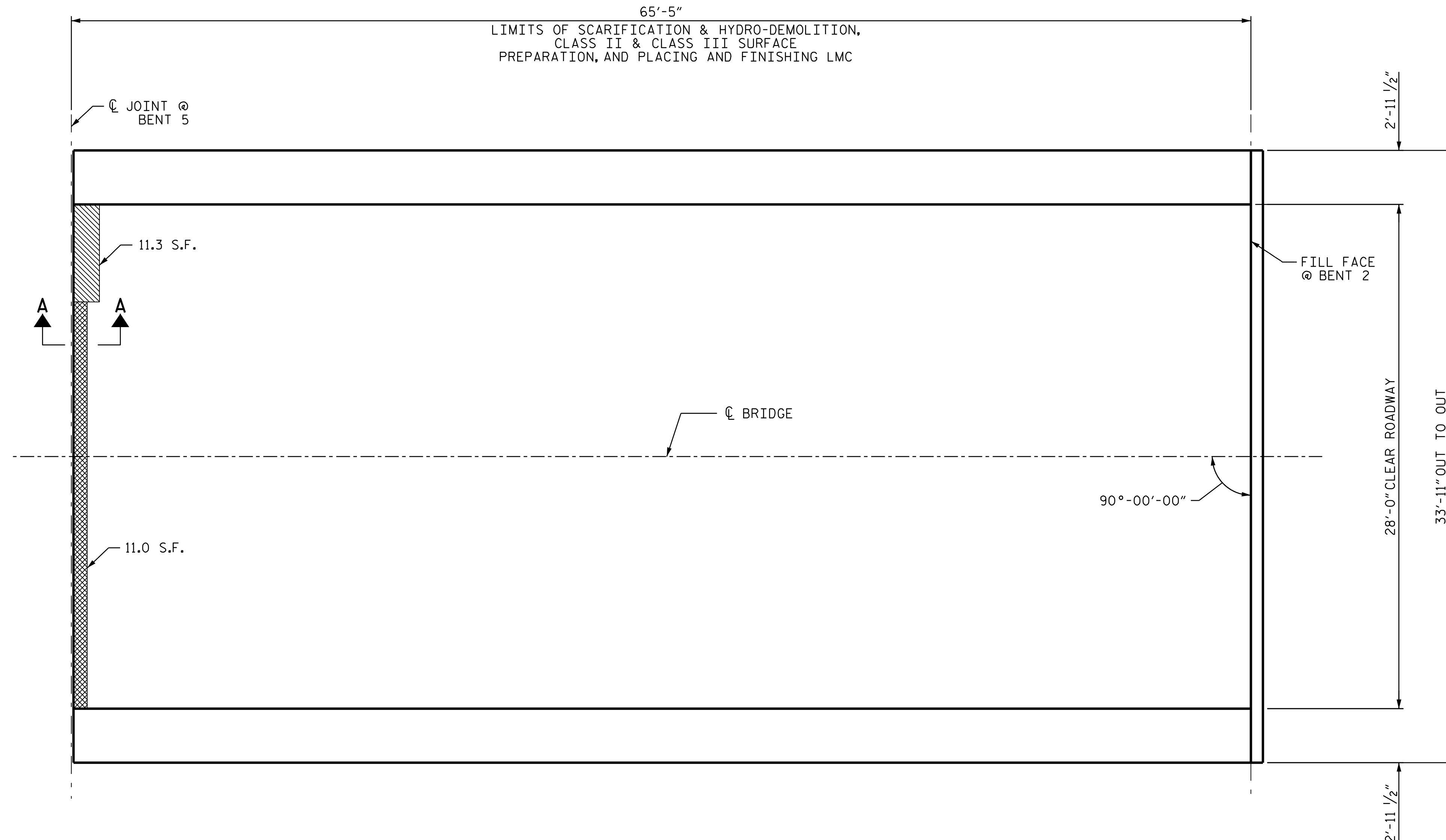
FINAL JOINT SEALS SHALL NOT BE INSTALLED UNTIL THE OVERLAY IS COMPLETE

FOR BRIDGE JOINT DEMOLITION, SEE SPECIAL PROVISIONS.

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

 BRIDGE JOINT DEMOLITION

 CLASS II SURFACE PREPARATION

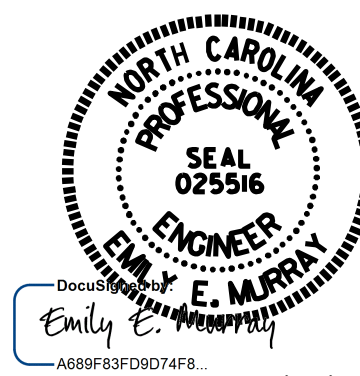


PLAN OF SPAN F

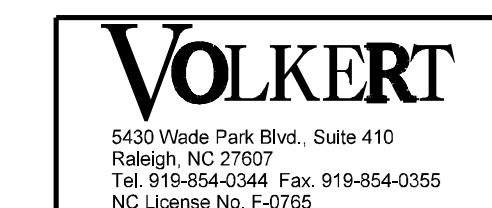
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MOORE COUNTY
 BRIDGE NO. 620049

SHEET 11 OF 12

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 DEPARTMENT OF TRANSPORTATION
 RALEIGH
**SUPERSTRUCTURE
 PLAN OF SPAN F
 (SURFACE PREPARATION)**



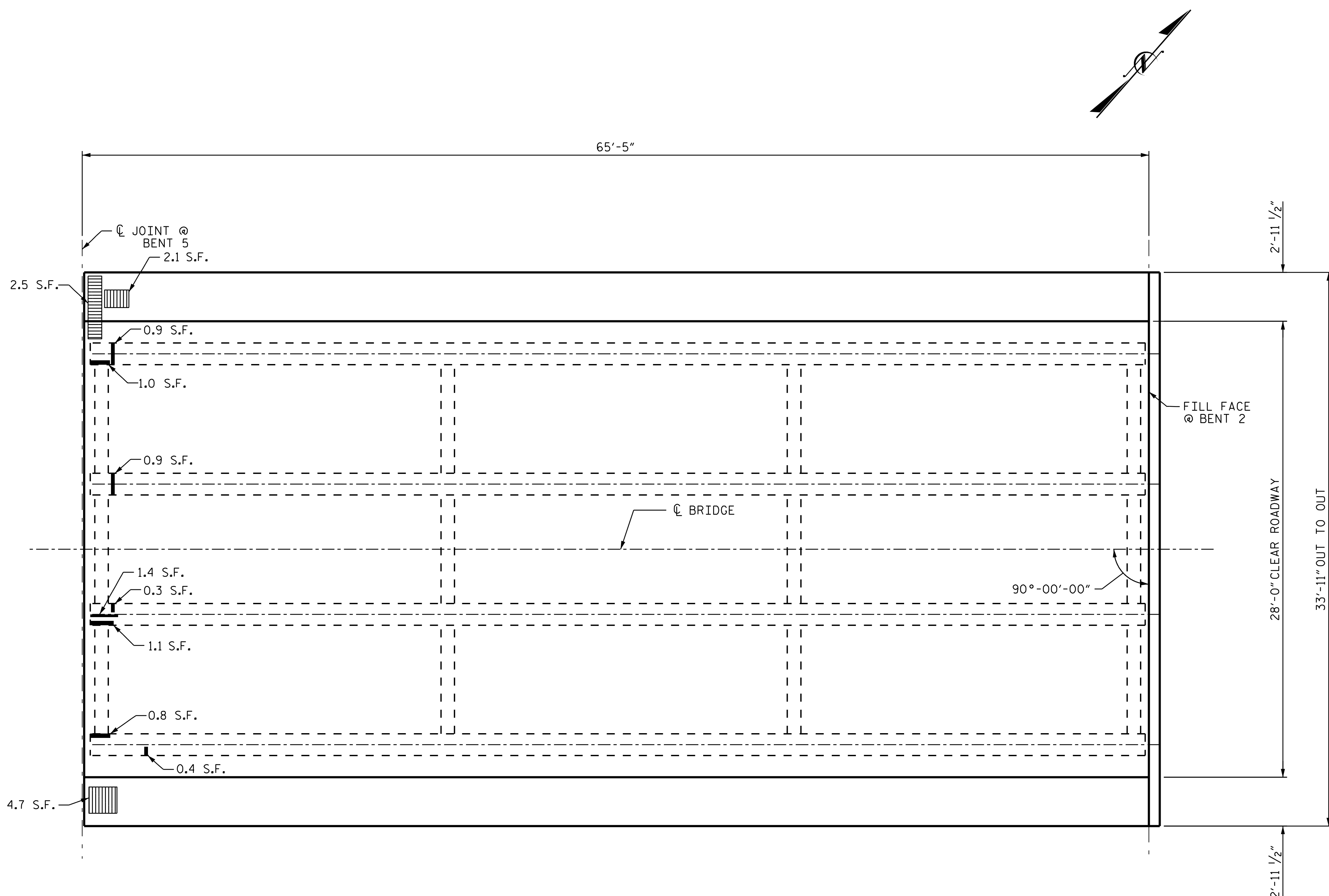
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 4/24/2024



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PLAN OF SPAN F

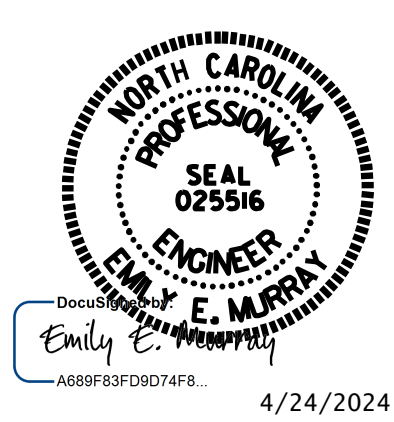
AS-BUILT REPAIR QUANTITY TABLE				
UNDERSIDE OF DECK REPAIRS				
SHOTCRETE REPAIRS	ESTIMATE		ACTUAL	
	AREA SF	VOLUME CF	AREA SF	VOLUME CF
UNDERSIDE OF DECK	0.0	0.0		
OVERHANG DIAPHRAGMS	2.5	0.9		
UNDERSIDE OF OVERHANG	6.8	2.3		
INTERIOR DIAPHRAGMS	0.0	0.0		
UNDERSIDE EPOXY RESIN INJECTION				
UNDERSIDE EPOXY RESIN INJECTION	0.0	LF		
PRESTRESSED GIRDER EPOXY RESIN INJECTION	0.0	LF		
REPAIRS FOR PRESTRESSED CONCRETE GIRDERS				
PRESTRESSED GIRDER	ESTIMATE		ACTUAL	
	AREA SF	VOLUME CF	AREA SF	VOLUME CF
PRESTRESSED GIRDER	6.8	2.0		

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

- UNDERSIDE REPAIR
- PRESTRESSED GIRDER REPAIR
- EPOXY RESIN INJECTION (ERI)
- DIAPHRAGM REPAIR

PROJECT NO. 15BPR.130
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 BRIDGE NO. 620049

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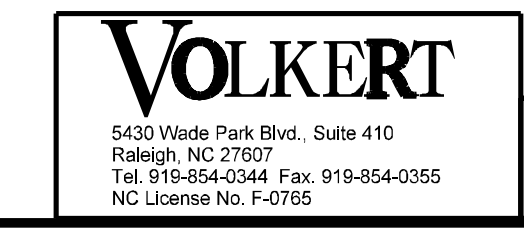


STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

**SUPERSTRUCTURE
 PLAN OF SPAN F
 (UNDERSIDE REPAIRS)**

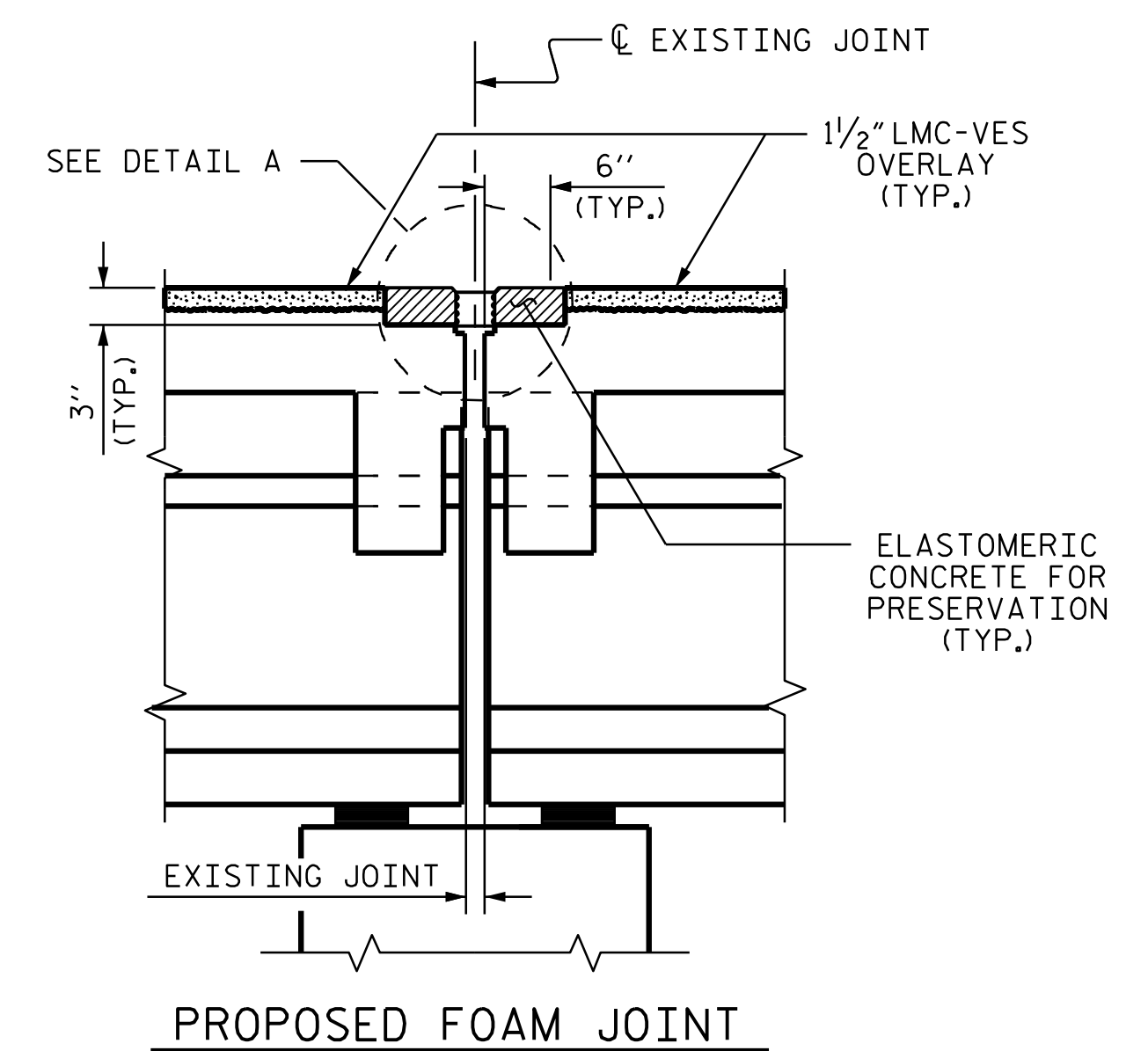
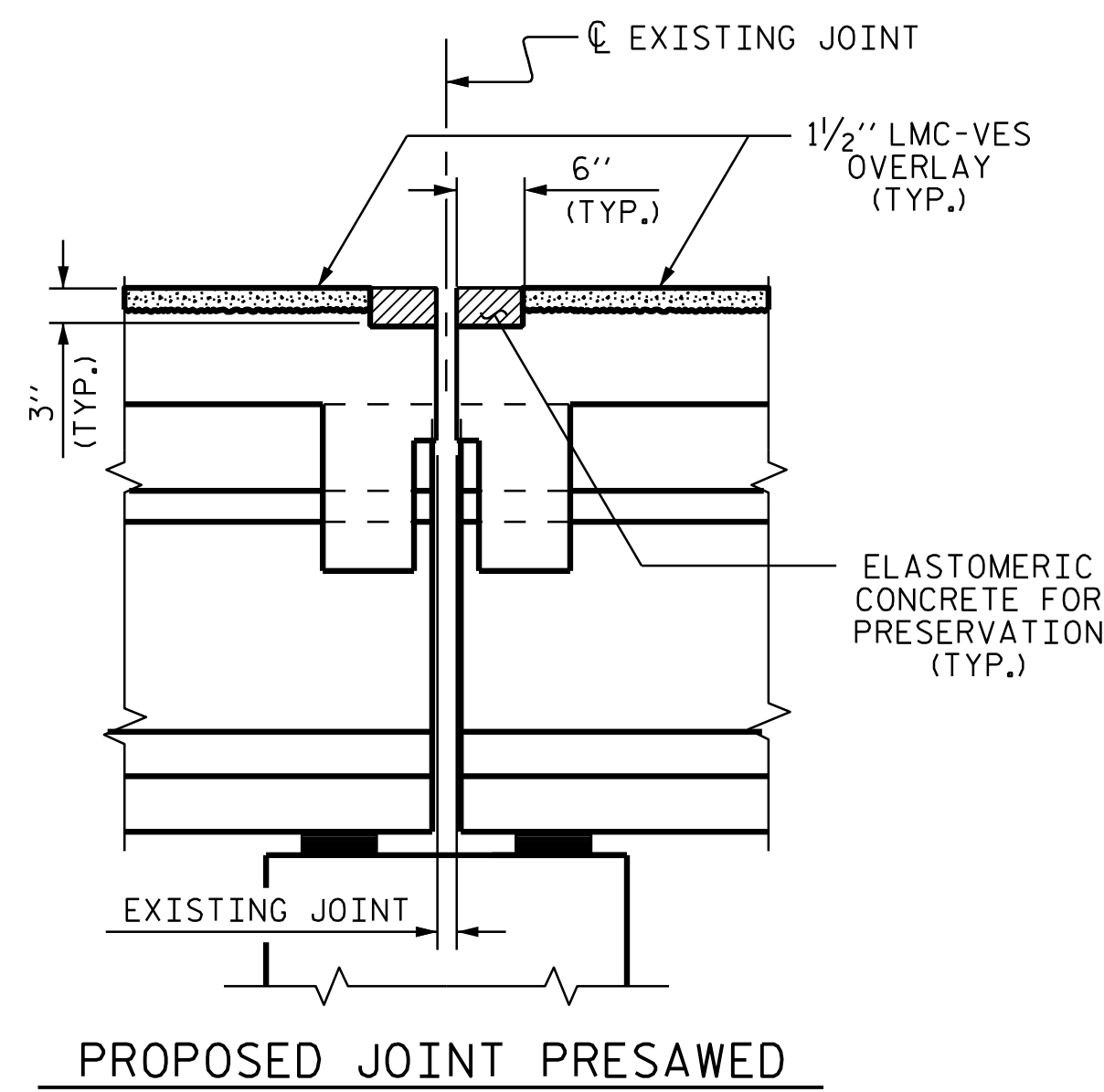
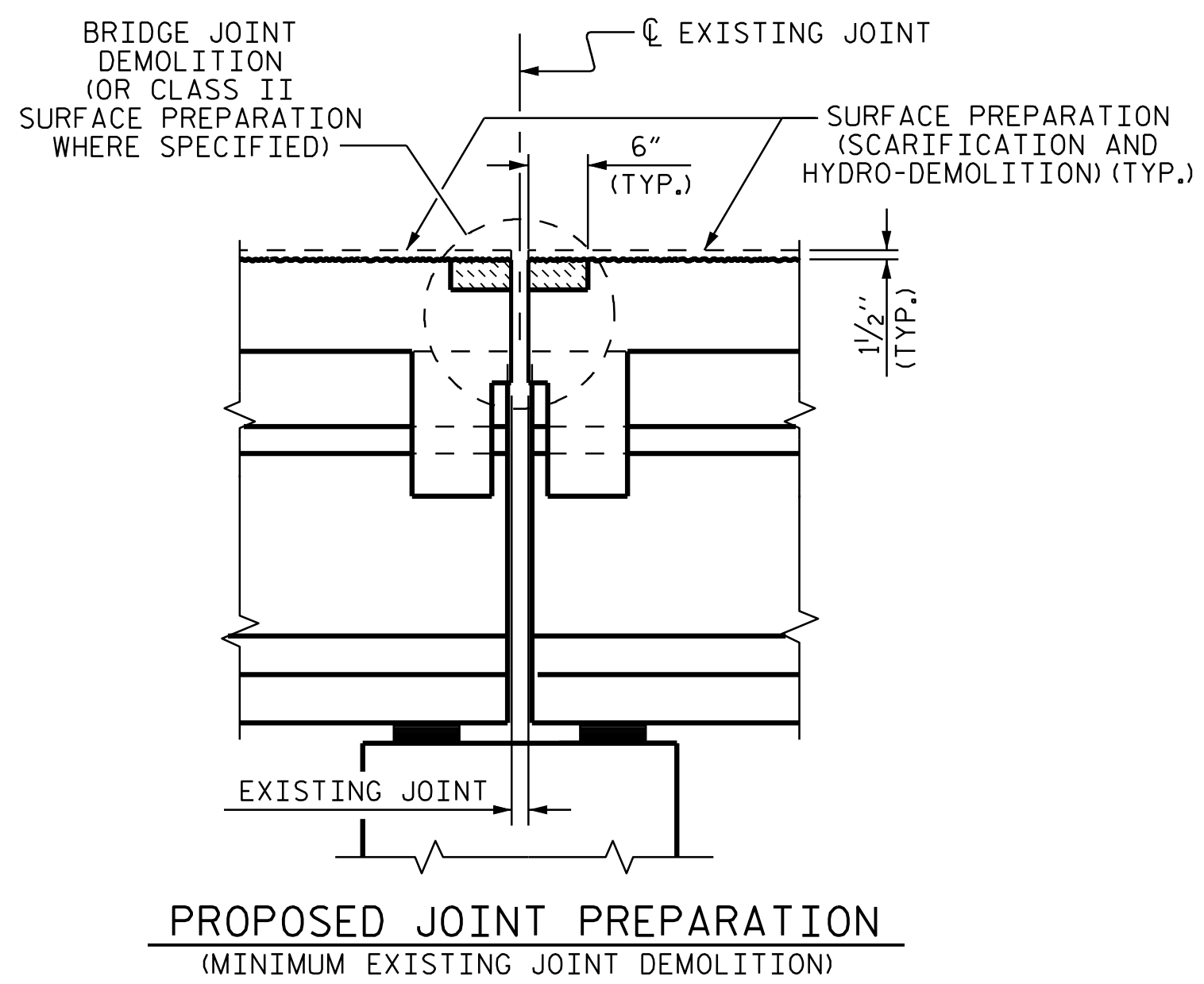
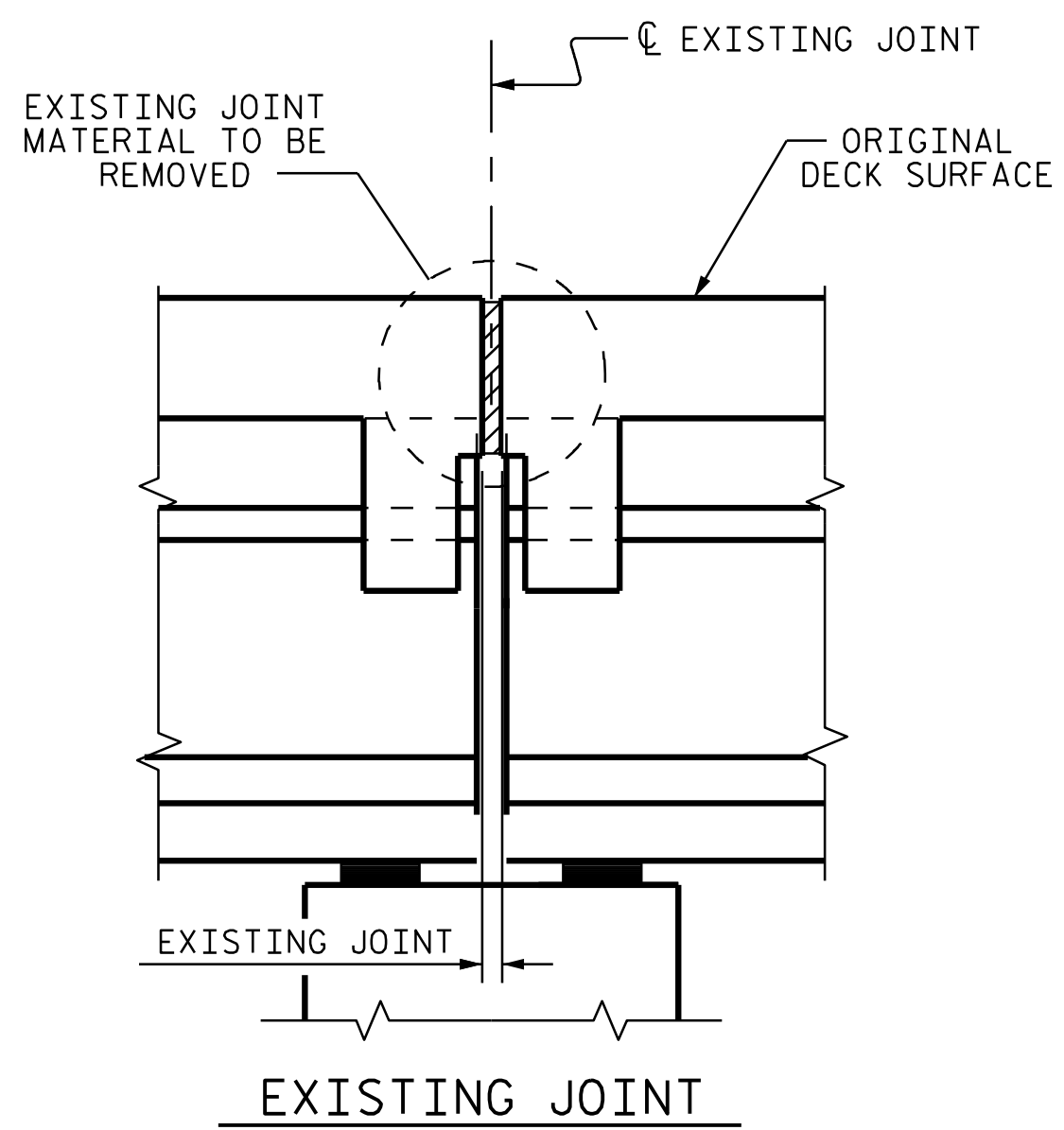
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 brent.barnhill AT C-1001568



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JOINT INSTALLATION SEQUENCE AT BENTS (SECTION A-A)

NOTES

THE CONTRACTOR SHALL FIELD VERIFY THE EXISTING JOINT OPENING PRIOR TO ORDER JOINT SEAL MATERIAL. IF THE ACTUAL JOINT OPENING VARIES FROM THE OPENING ALLOWED BY THE JOINT SEAL MATERIAL, NOTIFY THE ENGINEER. REVISION TO THE JOINT SEAL SIZE AND TYPE MIGHT BE NECESSARY.

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

THE MANUFACTURER IS TO PROVIDE THE NOMINAL UNCOMPRESSED SEAL WIDTH OF THE FOAM JOINT SEAL BASED ON JOINT OPENINGS.

FOR FOAM JOINT SEALS FOR PRESERVATION, SEE SPECIAL PROVISIONS.

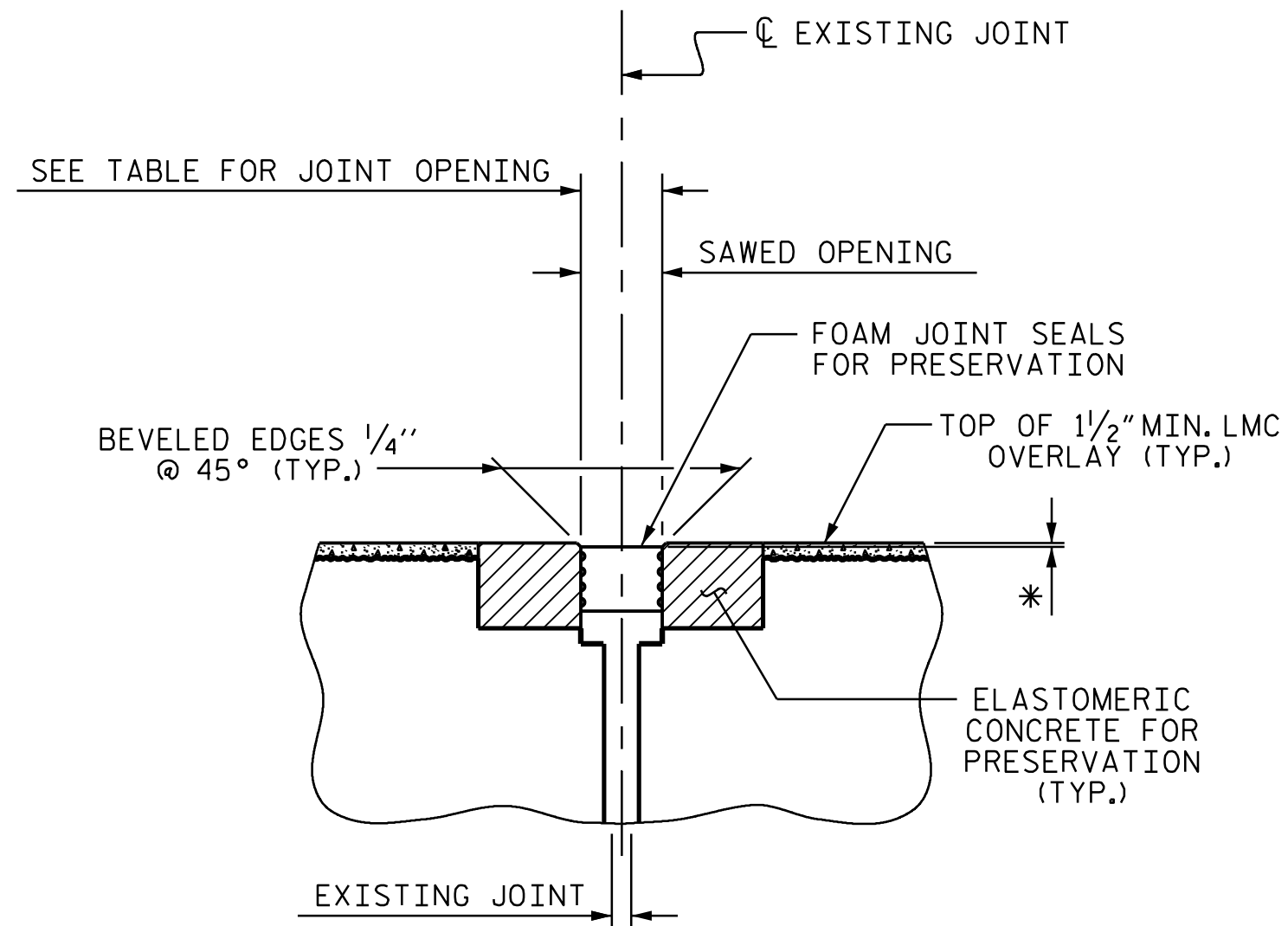
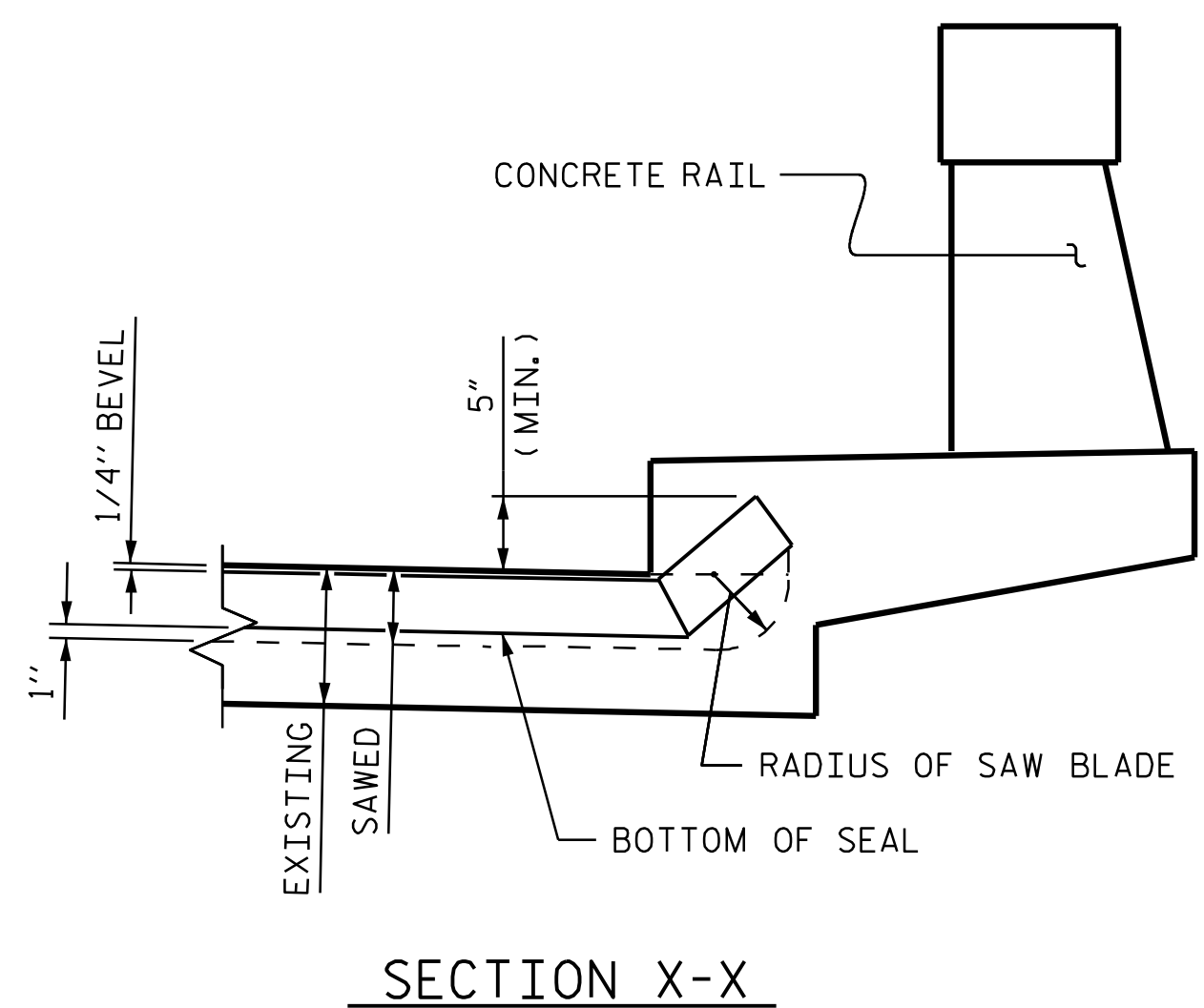
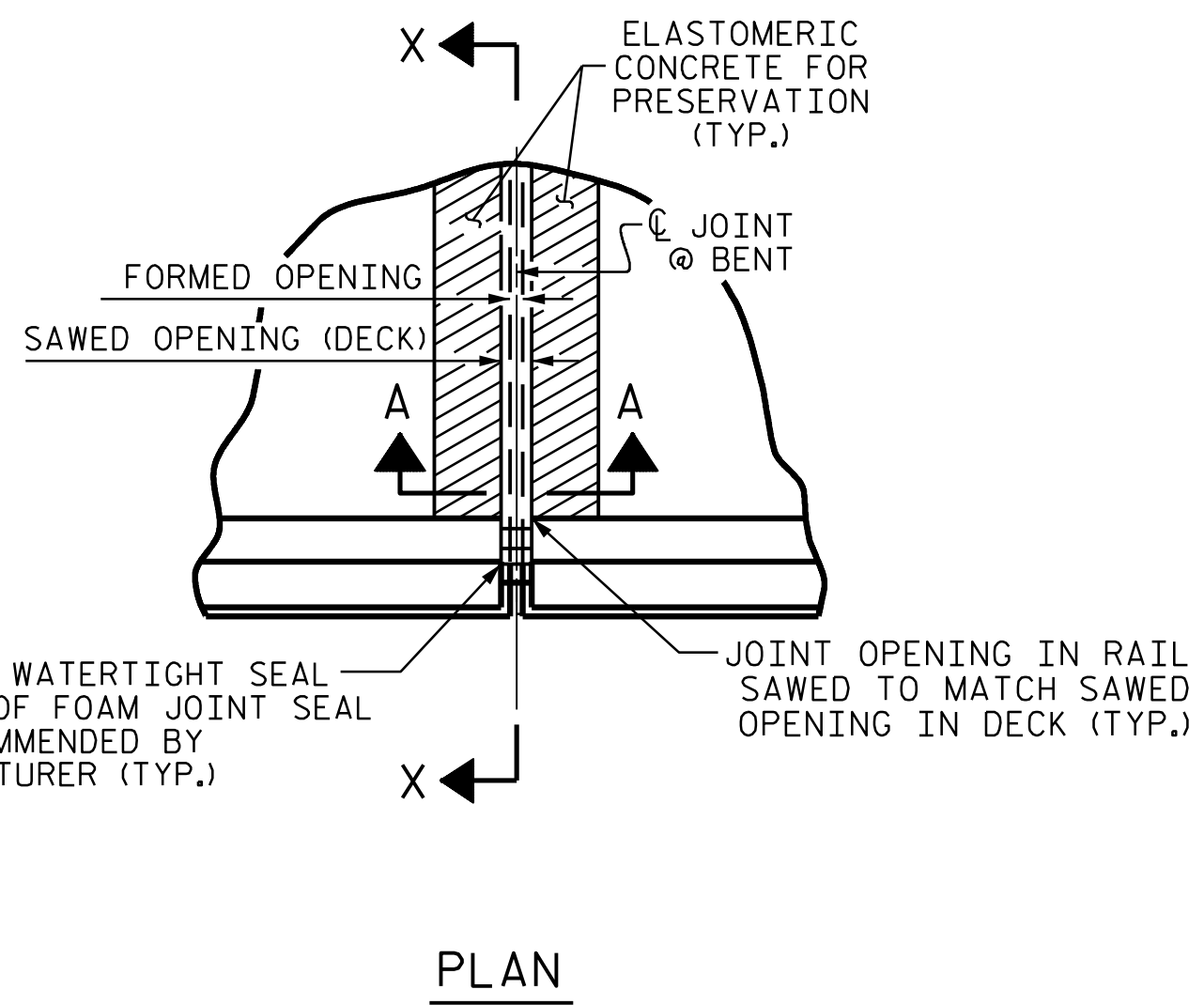
FOAM JOINT SEALS FOR PRESERVATION SHALL BE INSTALLED AS PER MANUFACTURER'S RECOMMENDATION.

THE INSTALLED FOAM JOINT SEALS FOR PRESERVATION SHALL BE WATER TIGHT.

FOR LOCATION OF SECTION A-A, SEE PLAN OF SPAN SHEETS.

FINAL SURFACE OF THE JOINT DEMOLITION AREA PRIOR TO PLACEMENT OF CONCRETE REPAIR MATERIAL SHOULD BE REASONABLY FLAT AND LEVEL. ENGINEER SHALL DETERMINE THE ACCEPTABILITY OF THE SURFACE PRIOR TO PLACEMENT OF REPAIR CONCRETE.

FOR ELASTOMERIC CONCRETE FOR PRESERVATION, SEE SPECIAL PROVISIONS.



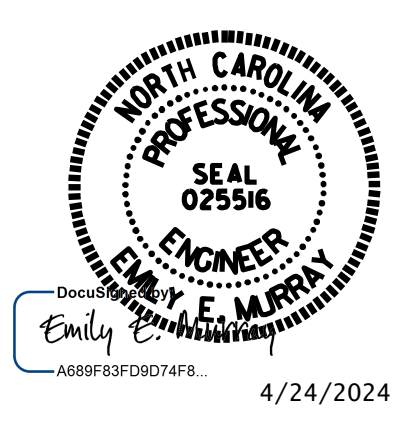
JOINT SEAL DETAILS @ BENT

* FOAM JOINT SEALS FOR PRESERVATION SHALL BE RECESSED AS PER MANUFACTURER'S RECOMMENDATIONS.

PROJECT NO. 15BPR.130
 MOORE COUNTY
 BRIDGE NO: 620049

JOINT REPAIR QUANTITY				
	FOAM JOINT SEALS FOR PRESERVATION		ELASTOMERIC CONCRETE FOR PRESERVATION	
	ESTIMATED (LIN. FT.)	ACTUAL (LIN. FT.)	ESTIMATED (CU. FT.)	ACTUAL (CU. FT.)
BENT 1	29.0		7.0	
BENT 2	29.0		7.0	
BENT 3	29.0		7.0	
BENT 4	29.0		7.0	
BENT 5	29.0		7.0	

SAWED JOINT OPENING TABLE				
LOCATION	SKIEW ANGLE	PERPENDICULAR JOINT OPENING AT 45°	PERPENDICULAR JOINT OPENING AT 60°	PERPENDICULAR JOINT OPENING AT 90°
BENT 1	90°00'00"	1 5/8"	1 1/6"	1 1/6"
BENT 2	90°00'00"	1 1/16"	1 1/6"	1 5/16"
BENT 3	90°00'00"	1 5/8"	1 1/6"	1 1/6"
BENT 4	90°00'00"	1 5/8"	1 1/6"	1 1/6"
BENT 5	90°00'00"	1 5/8"	1 1/6"	1 1/6"



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 RALEIGH

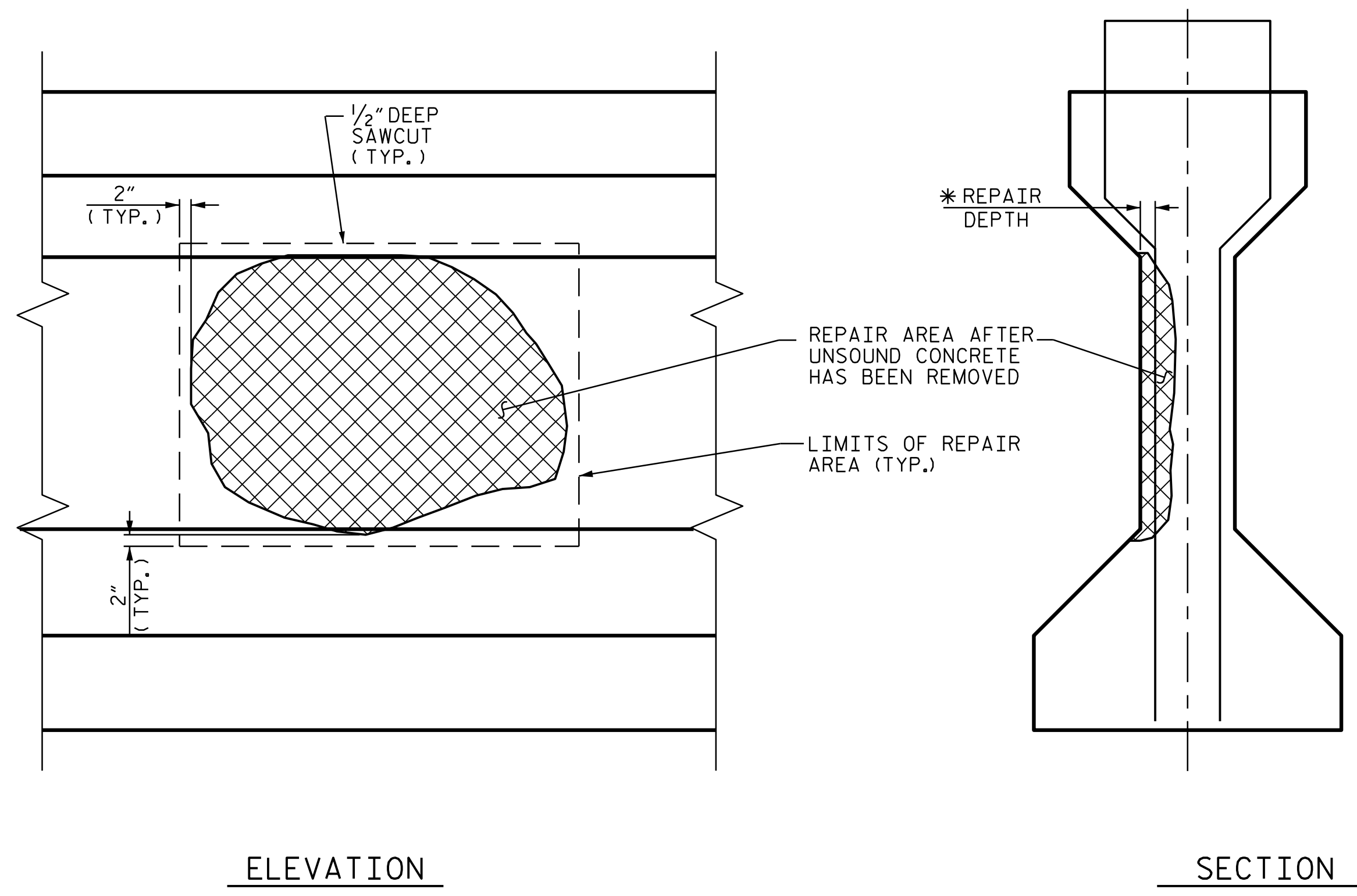
JOINT REPAIR DETAILS AT BENTS

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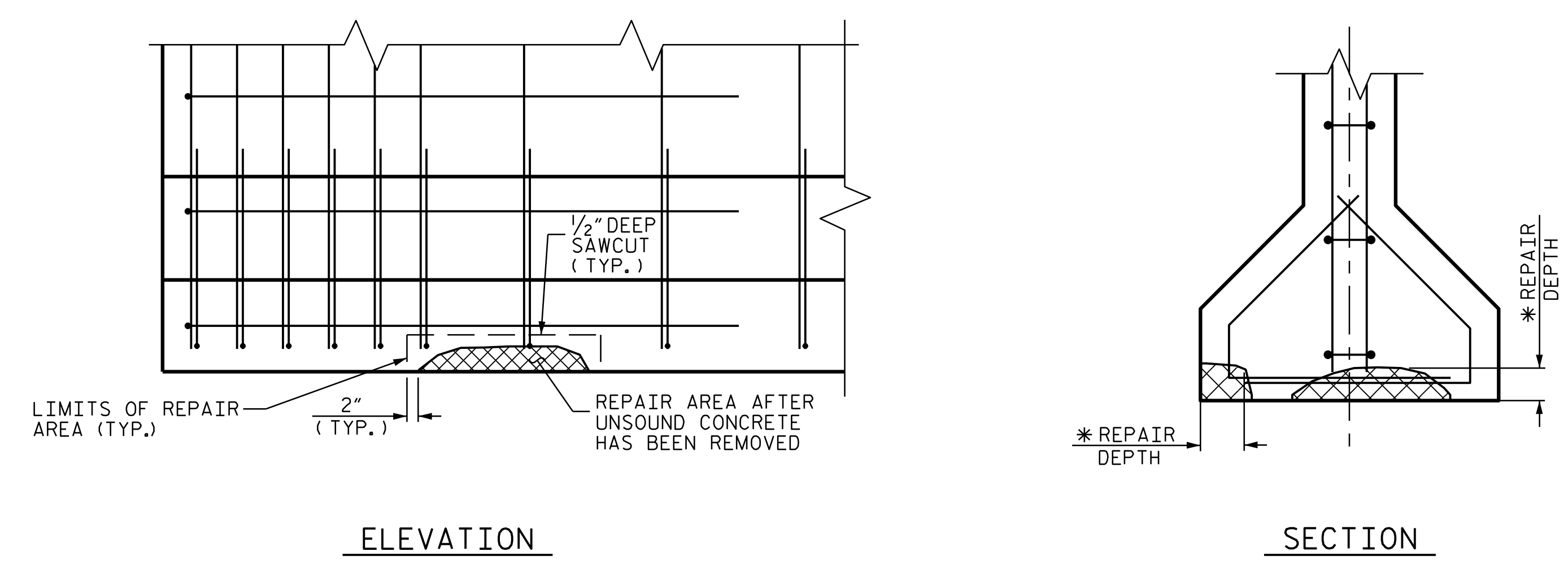
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 CHECKED BY : E. E. MURRAY DATE : 3/24

VOLKERT
 5430 Wade Park Blvd, Suite 410
 Raleigh, NC 27607
 Tel: 919-854-0344 Fax: 919-854-0355
 NC License No. F-0765

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GIRDER WEB REPAIR



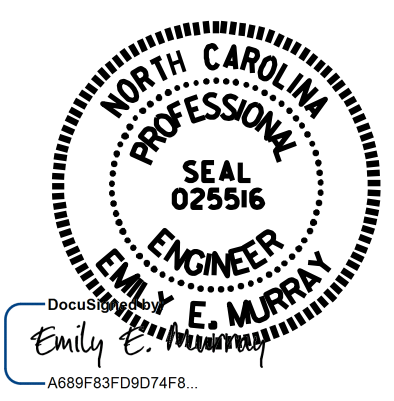
*** REPAIR DEPTH:**

IF REMOVAL OF UNSOUND CONCRETE RESULTS IN EXPOSING MORE THAN HALF THE DEPTH OF A REINFORCING BAR OR PRESTRESSING STRAND, REMOVE ADDITIONAL CONCRETE TO 1" BEHIND THE BAR OR STRAND WITHOUT DAMAGE TO REINFORCING BAR OR PRESTRESSING STRAND, ALTERNATIVELY, AS DIRECTED BY THE ENGINEER, INSTALL 1/4" DIAMETER X 3" LONG (MAX.) ADHESIVE ANCHORS OR STUDS IN REPAIR AREAS WITH MINIMUM DEPTH OF 1/2" WITHOUT DAMAGE TO REINFORCING BAR OR PRESTRESSING STRAND.

NOTES:

- EXISTING REINFORCING STEEL LOCATIONS ARE FROM BEST INFORMATION AVAILABLE.
- AROUND THE PERIMETER OF THE REPAIR AREA, AS INDICATED, THE CONTRACTOR SHALL SAW CUT TO A MINIMUM DEPTH OF 1/2" BUT REINFORCING STEEL AND/OR PRESTRESSING STRANDS SHALL NOT BE DAMAGED.
- THE CONTRACTOR SHALL REMOVE SURFACE CONCRETE TO VERIFY THAT SAW CUT DEPTH WILL NOT DAMAGE EXISTING REINFORCING STEEL AND PRESTRESSING STRANDS.
- AFTER REMOVAL OF SOUND AND UNSOUND CONCRETE WITHIN THE SAWCUT AREA, TO A MINIMUM DEPTH OF 1/2", CLEAN AND REMOVE RUST FROM ALL REINFORCING STEEL AND PRESTRESSING STRANDS.
- SHOTCRETE OR CONCRETE MAY BE USED FOR REPAIRS WITH THE APPROVAL OF THE ENGINEER.
- MAXIMUM AGGREGATE SIZE FOR REPAIR MATERIAL SHALL NOT EXCEED 2/3 THE MINIMUM REPAIR DEPTH.
- FOR CONCRETE REPAIRS, SEE SPECIAL PROVISIONS.
- FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

PROJECT NO. 15BPR.130
MOORE COUNTY
 STATION: 620049



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**PRESTRESSED GIRDER
 REPAIR DETAILS**

DRAWN BY : D. A. GLADDEN DATE : 3/21
 CHECKED BY : E. E. MURRAY DATE : 3/24
 DESIGN ENGINEER OF RECORD: _____ DATE : _____

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1			3			S-101
2			4			156

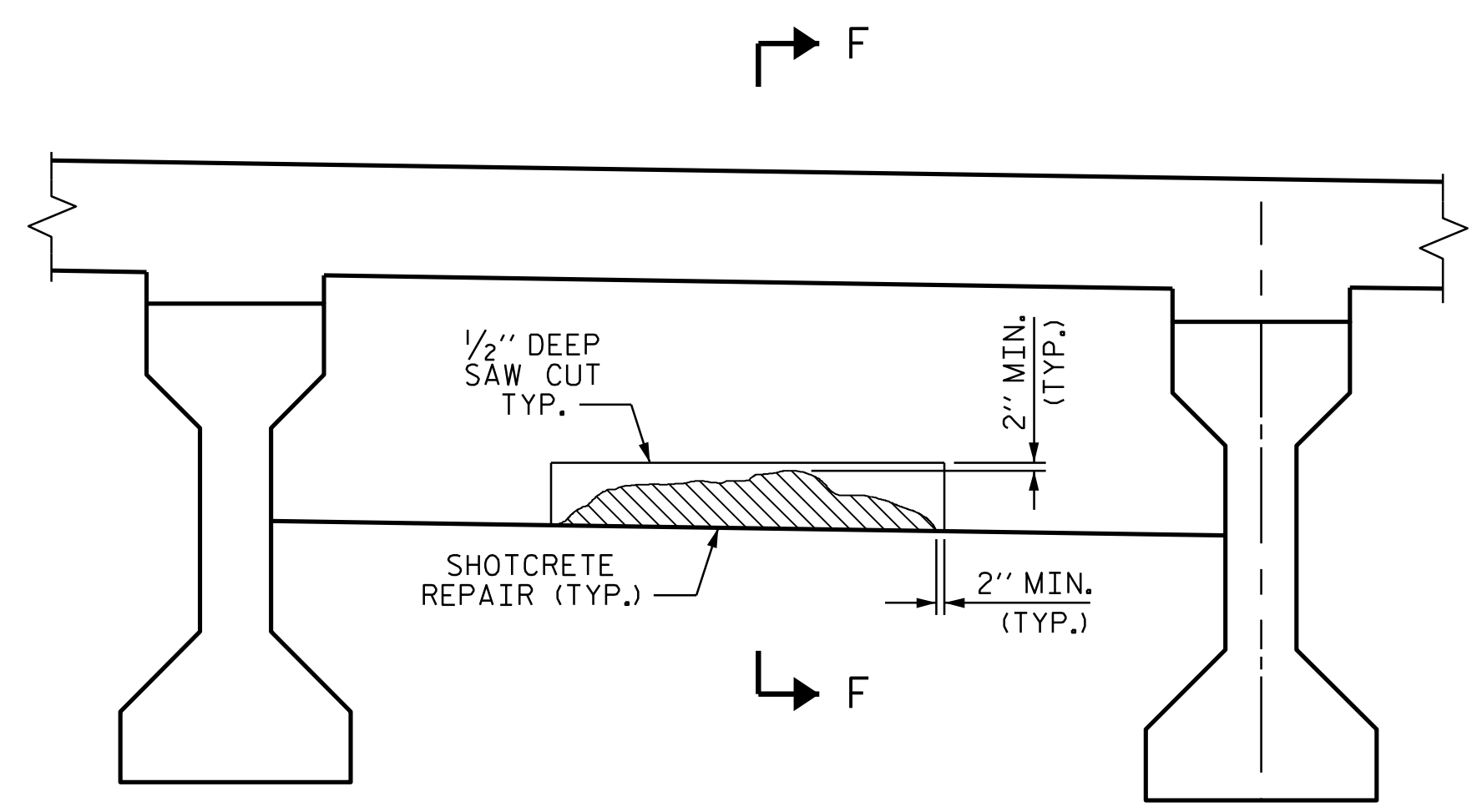
NOTES

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

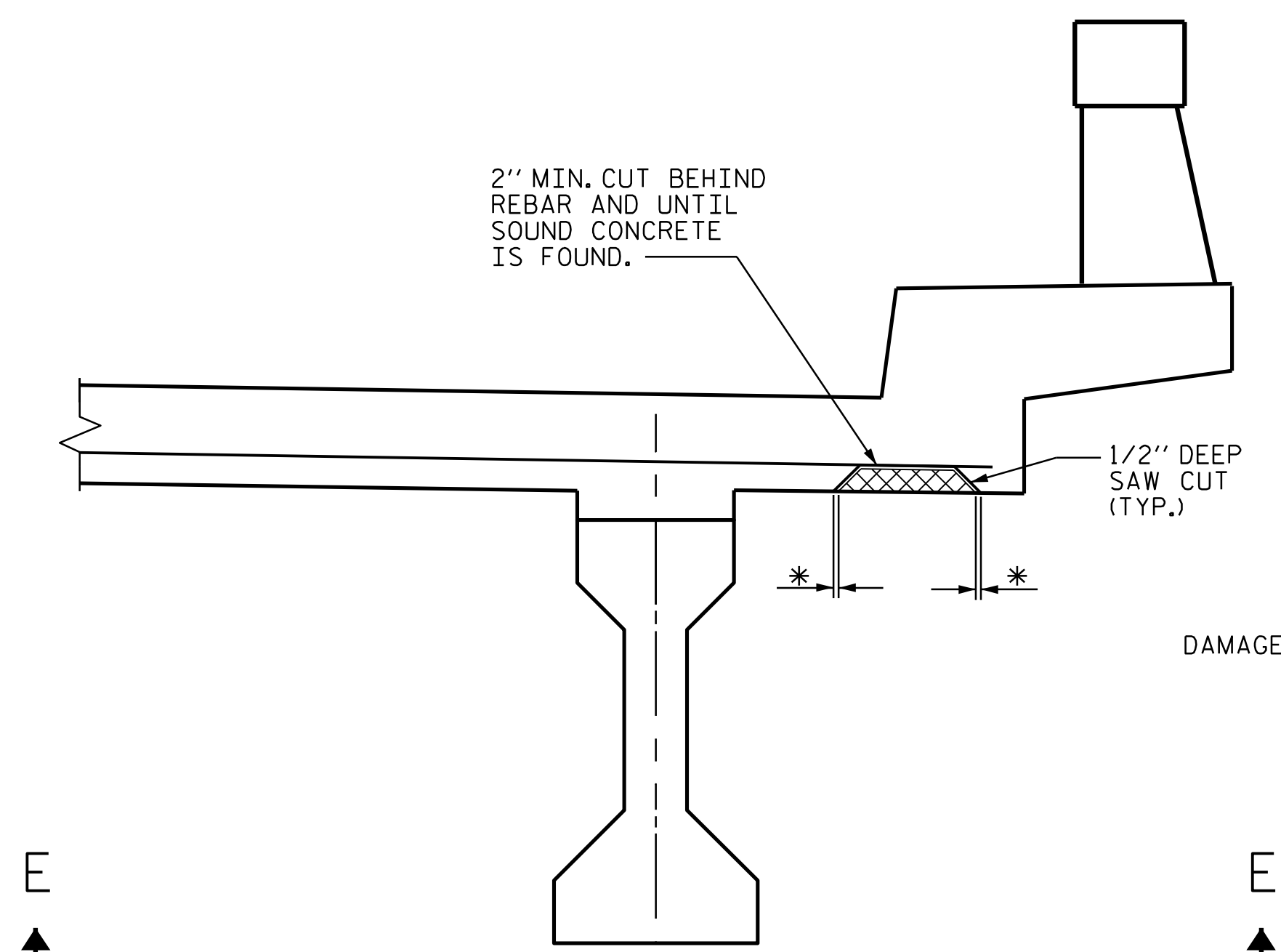
CONTRACTOR SHALL SAW CUT TO A NOMINAL DEPTH OF 1/2" BUT REINFORCING STEEL AND PRESTRESSED TENDONS SHALL NOT BE DAMAGED.

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

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.



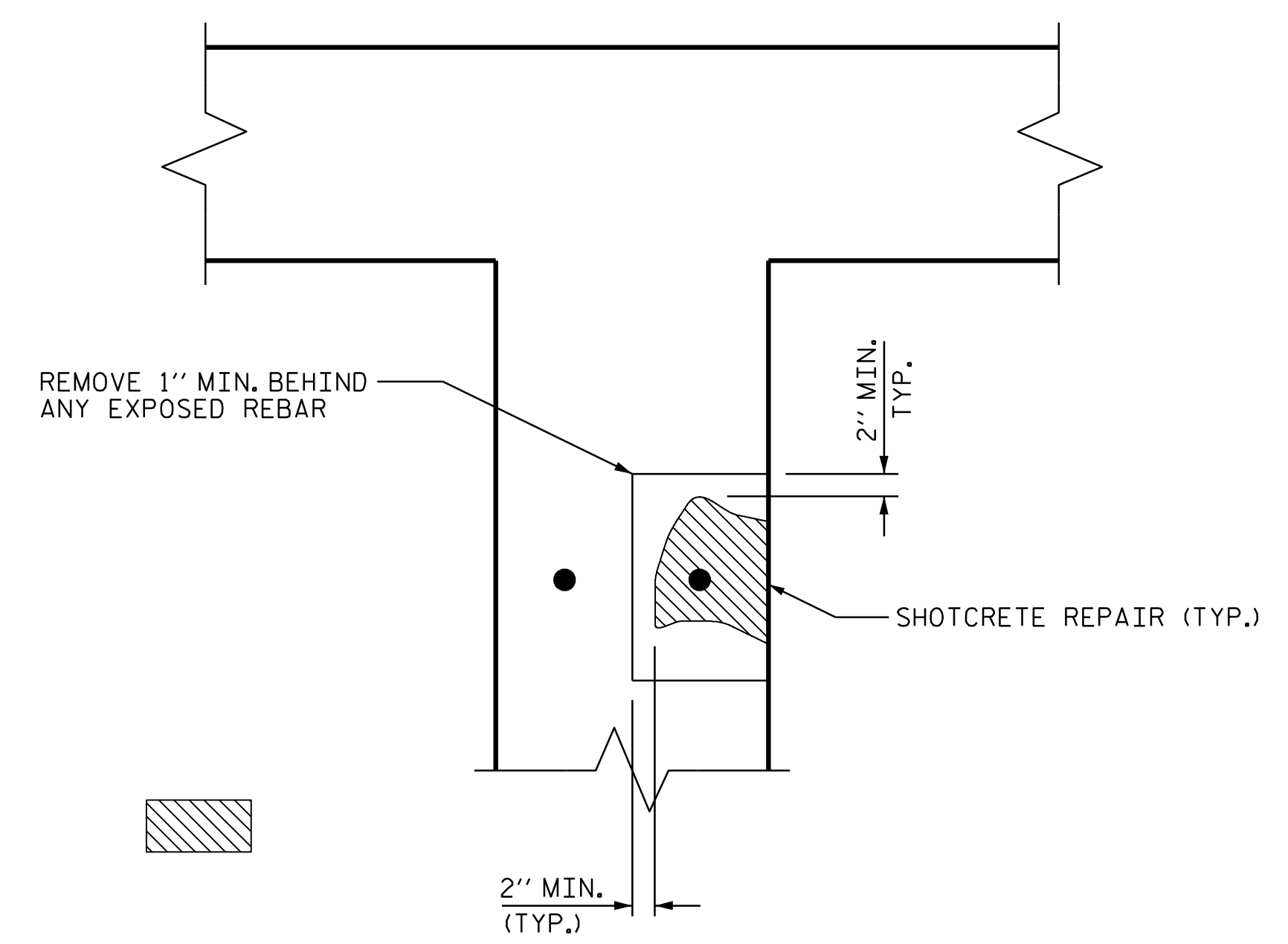
TYPICAL SECTION



TYPICAL SECTION

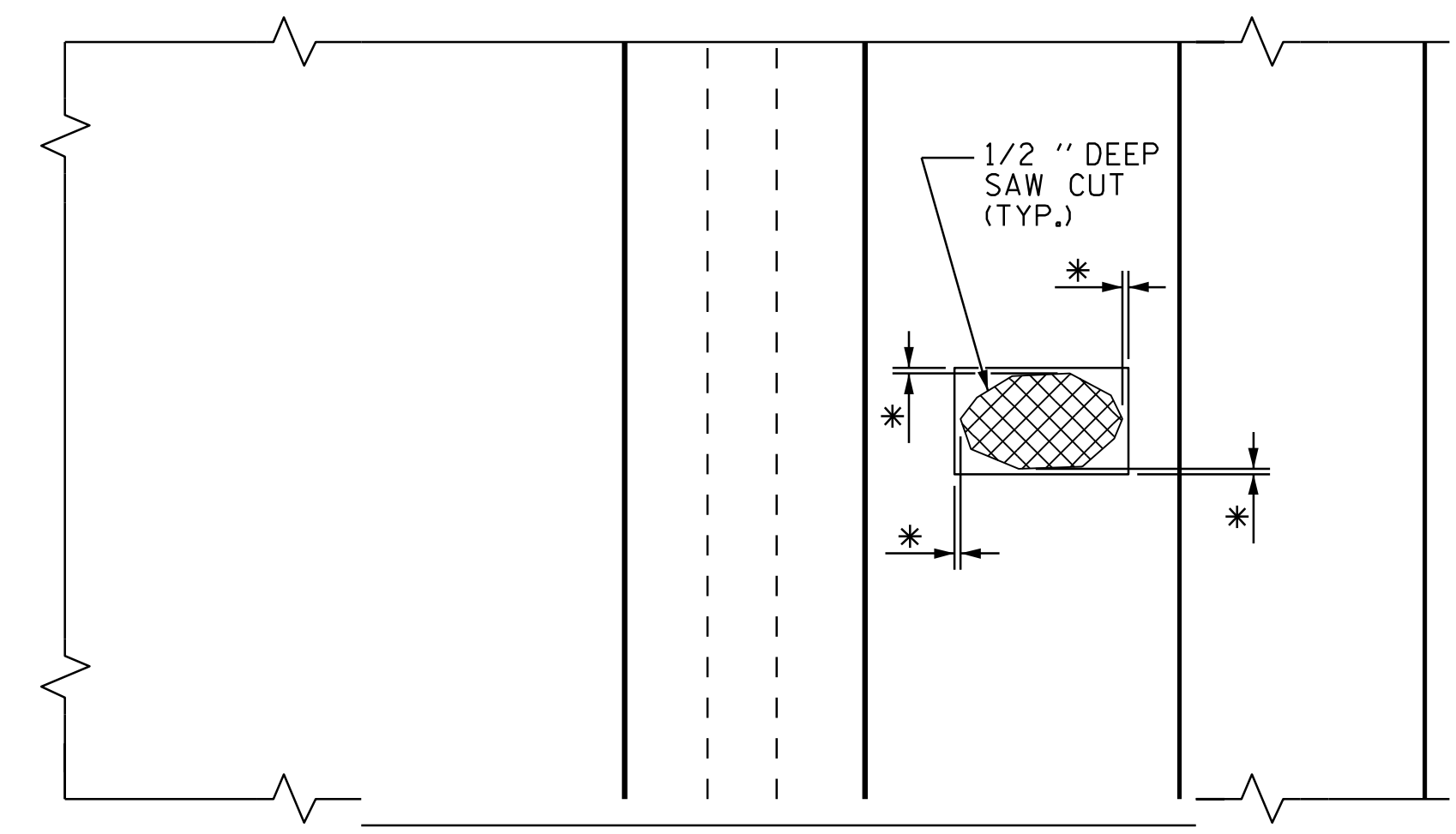
* REMOVE CONCRETE UNTIL SOUND CONCRETE IS FOUND (2" MIN. CL.)

DAMAGED AREA



SECTION F-F

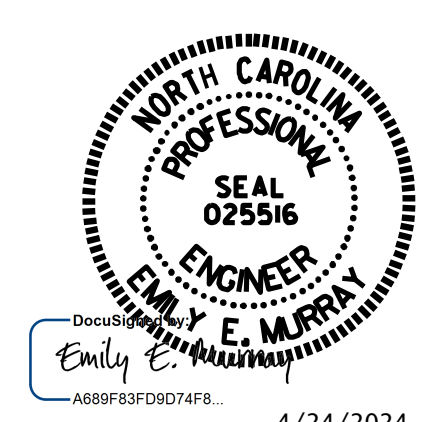
INTERIOR DIAPHRAGM REPAIR DETAILS



SECTION E-E

OVERHANG DETAILS

PROJECT NO. 15BPR.130
MOORE COUNTY
 STATION: 620049



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
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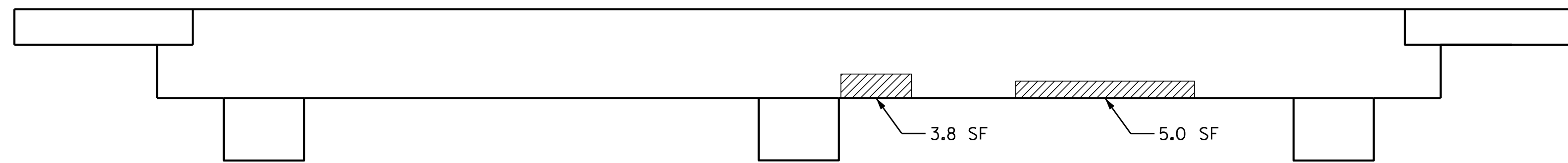
OVERHANG AND DIAPHRAGM REPAIR DETAILS

DRAWN BY : D. A. GLADDEN DATE : 04/2024
 CHECKED BY : E. E. MURRAY DATE : 04/2024
 DESIGN ENGINEER OF RECORD: _____ DATE : _____

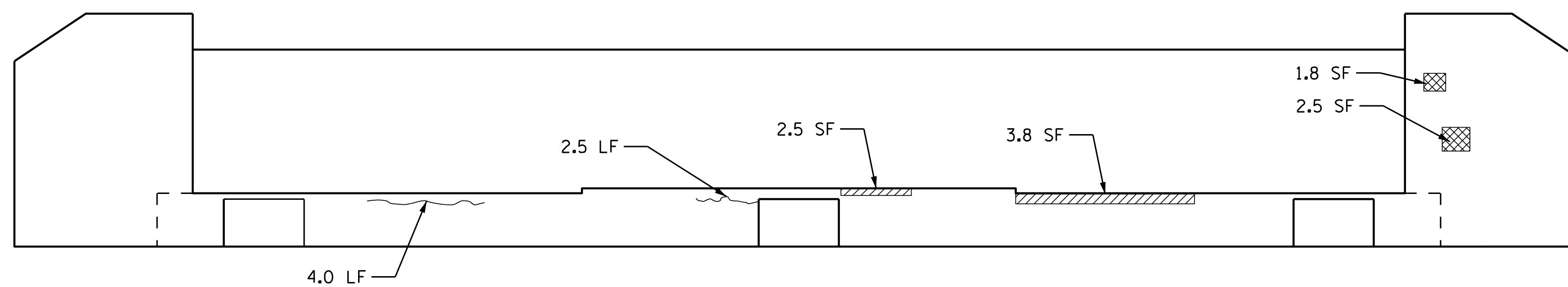
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1			3			TOTAL SHEETS
2			4			156



TOP OF CAP @ END BENT 1



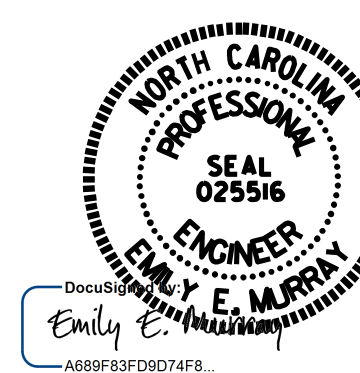
ELEVATION OF END BENT 1

AS-BUILT REPAIR QUANTITY TABLE				
REPAIRS	QUANTITIES			
	ESTIMATE		ACTUAL	
END BENT 1				
SHOTCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP	4.3	2.2		
CONCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP	15.1	7.6		
EPOXY RESIN INJECTION		LN. FT.		LN. FT.
CAP		6.5		
EPOXY COATING		SQ. FT.		SQ. FT.
TOP OF BENT CAP		90.0		

VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN. OF 1" BEHIND REBAR AND 2" MIN. CLEAR TO SAWCUT.

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- EPOXY RESIN INJECTION (ERI)

PROJECT NO. 15BPR.130
MOORE COUNTY
 BRIDGE NO. 620049



4/24/2024

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END BENT 1

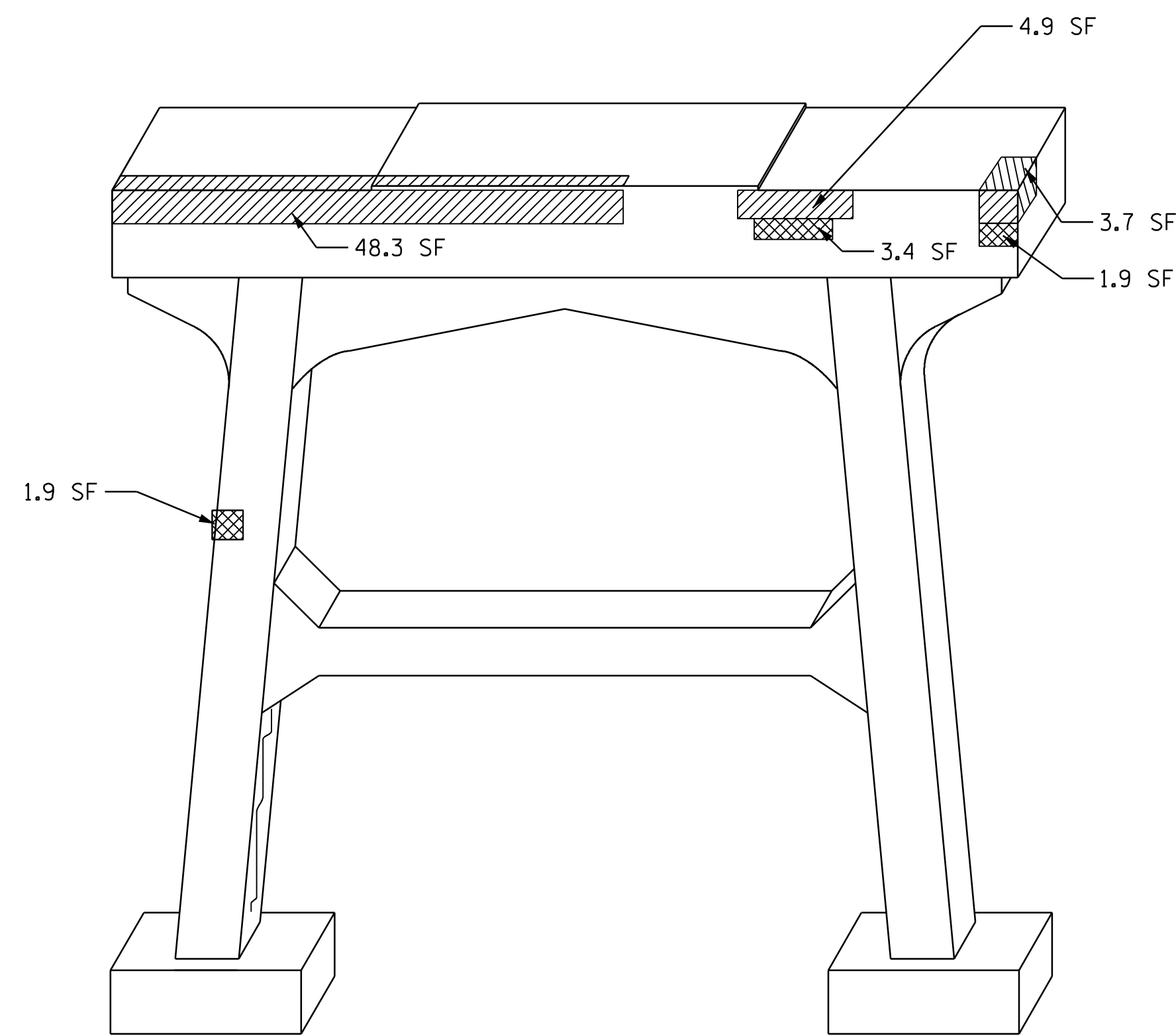
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2			4			TOTAL SHEETS: 156

DRAWN BY : C. NICHOLS DATE : 01/24
 CHECKED BY : P.N.HOLDER DATE : 03/24



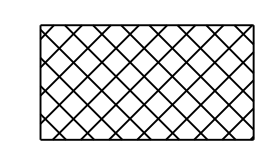
COLUMN 1 COLUMN 2

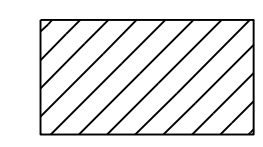
ELEVATION @ BENT 1 (SPAN A)


AS-BUILT REPAIR QUANTITY TABLE

REPAIRS BENT 1	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP	5.3	2.7		
COLUMN	12.3	6.2		
CONCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP	92.8	46.4		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LN. FT.		LN. FT.
CAP		0.0		
COLUMN		20.0		
EPOXY COATING		SQ. FT.		SQ. FT.
TOP OF BENT CAP		85.5		

VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN. OF 1" BEHIND REBAR AND 2" MIN. CLEAR TO SAWCUT.

 SHOTCRETE REPAIR

 CONCRETE REPAIR

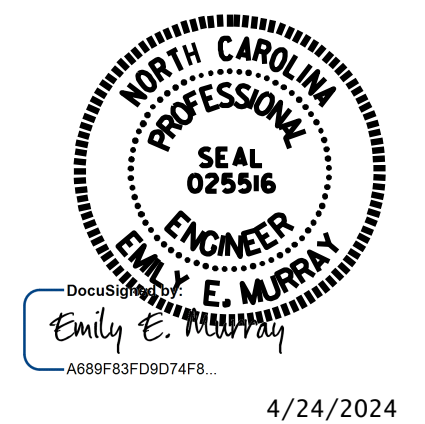
 EPOXY RESIN INJECTION (ERI)

PROJECT NO. 15BPR.130
MOORE COUNTY
 BRIDGE NO. 620049

SHEET 1 OF 2

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
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BENT 1

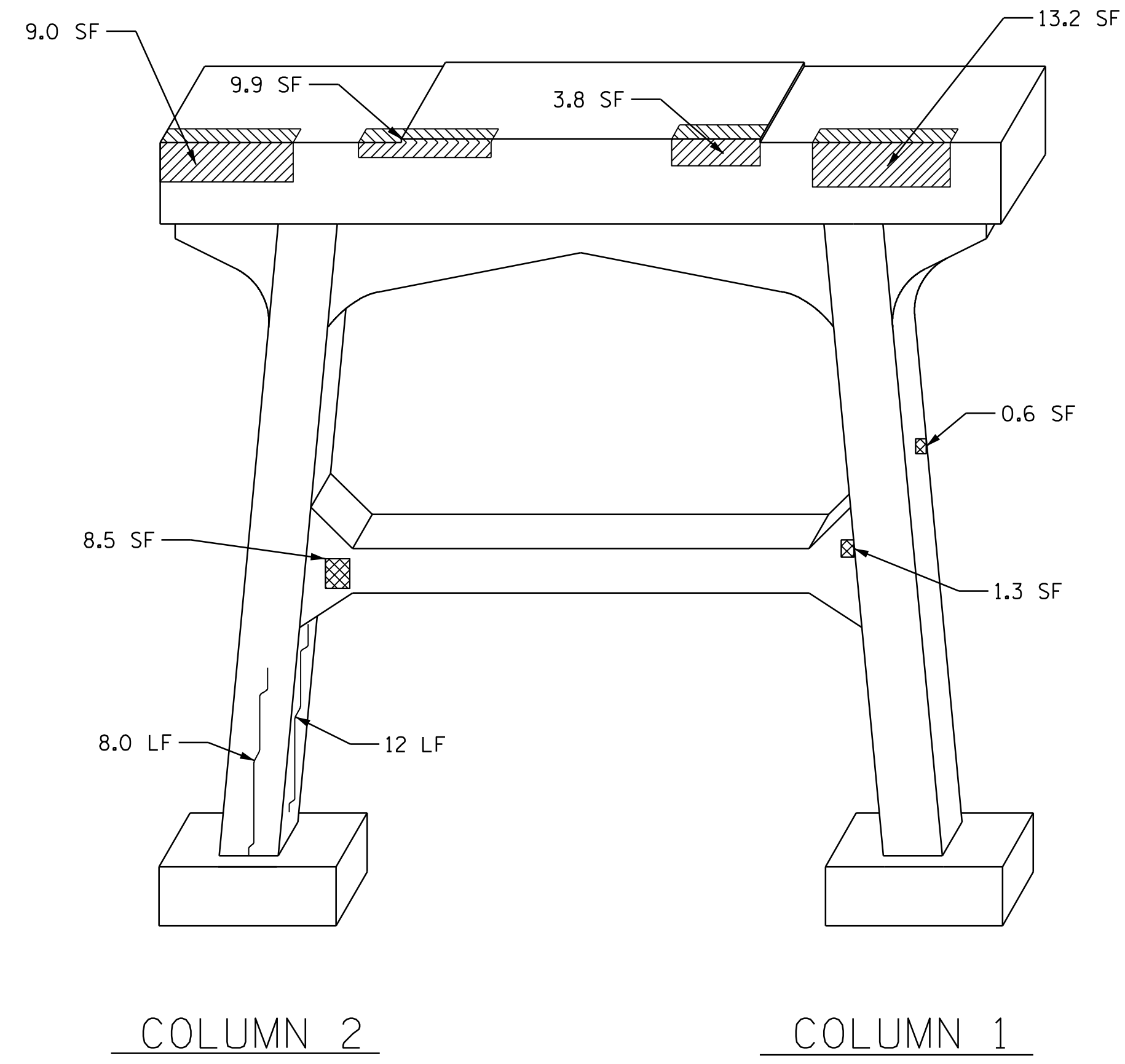


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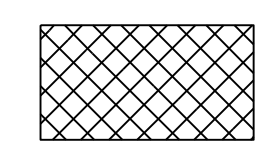
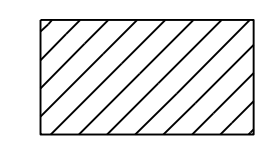

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ELEVATION @ BENT 1 (SPAN B)

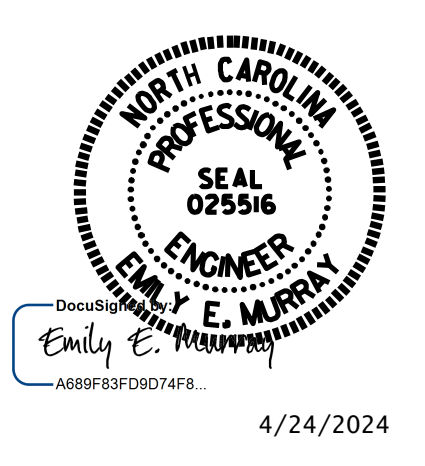
-  SHOTCRETE REPAIR
-  CONCRETE REPAIR
-  EPOXY RESIN INJECTION (ERI)

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 BRIDGE NO. 620049

SHEET 2 OF 2

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BENT 1



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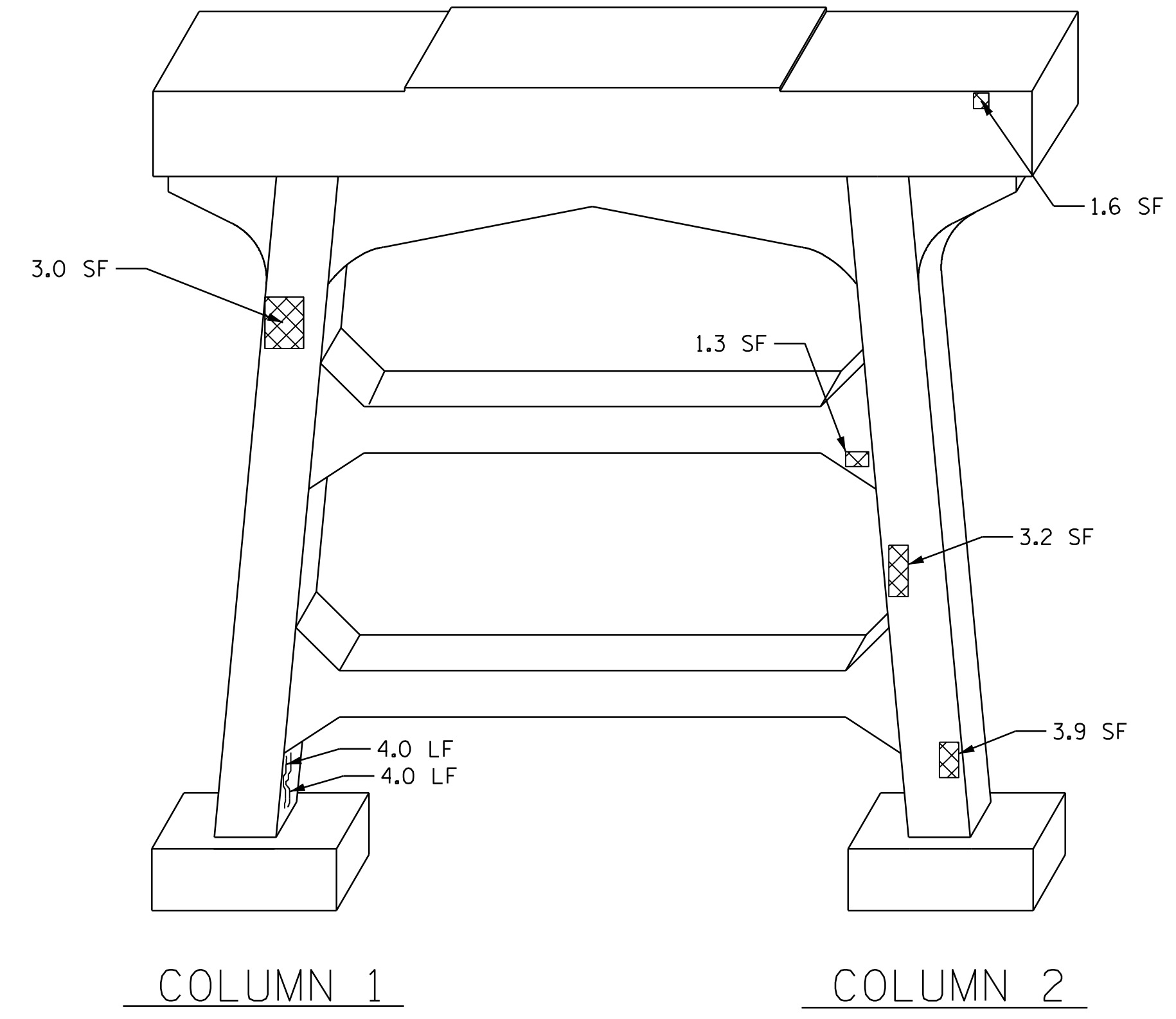
REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-105
1			3			TOTAL SHEETS
2			4			156

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 CHECKED BY : P.N.HOLDER DATE : 03/24

AS-BUILT REPAIR QUANTITY TABLE

REPAIRS BENT 2	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP	1.6	0.8		
COLUMN	19.6	9.8		
CONCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LN. FT.		LN. FT.
CAP		0.0		
COLUMN		33		
EPOXY COATING		SQ. FT.		SQ. FT.
TOP OF BENT CAP		85.5		

VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN. OF 1" BEHIND REBAR AND 2" MIN. CLEAR TO SAWCUT.



COLUMN 1 COLUMN 2
ELEVATION @ BENT 2 (SPAN B)

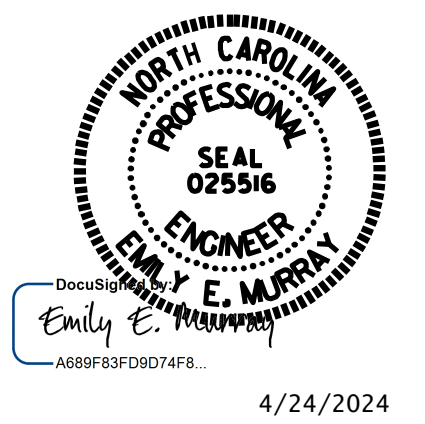
- SHOTCRETE REPAIR
- CONCRETE REPAIR
- EPOXY RESIN INJECTION (ERI)

PROJECT NO. 15BPR.130
MOORE COUNTY
 BRIDGE NO. 620049

SHEET 1 OF 2

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

BENT 2



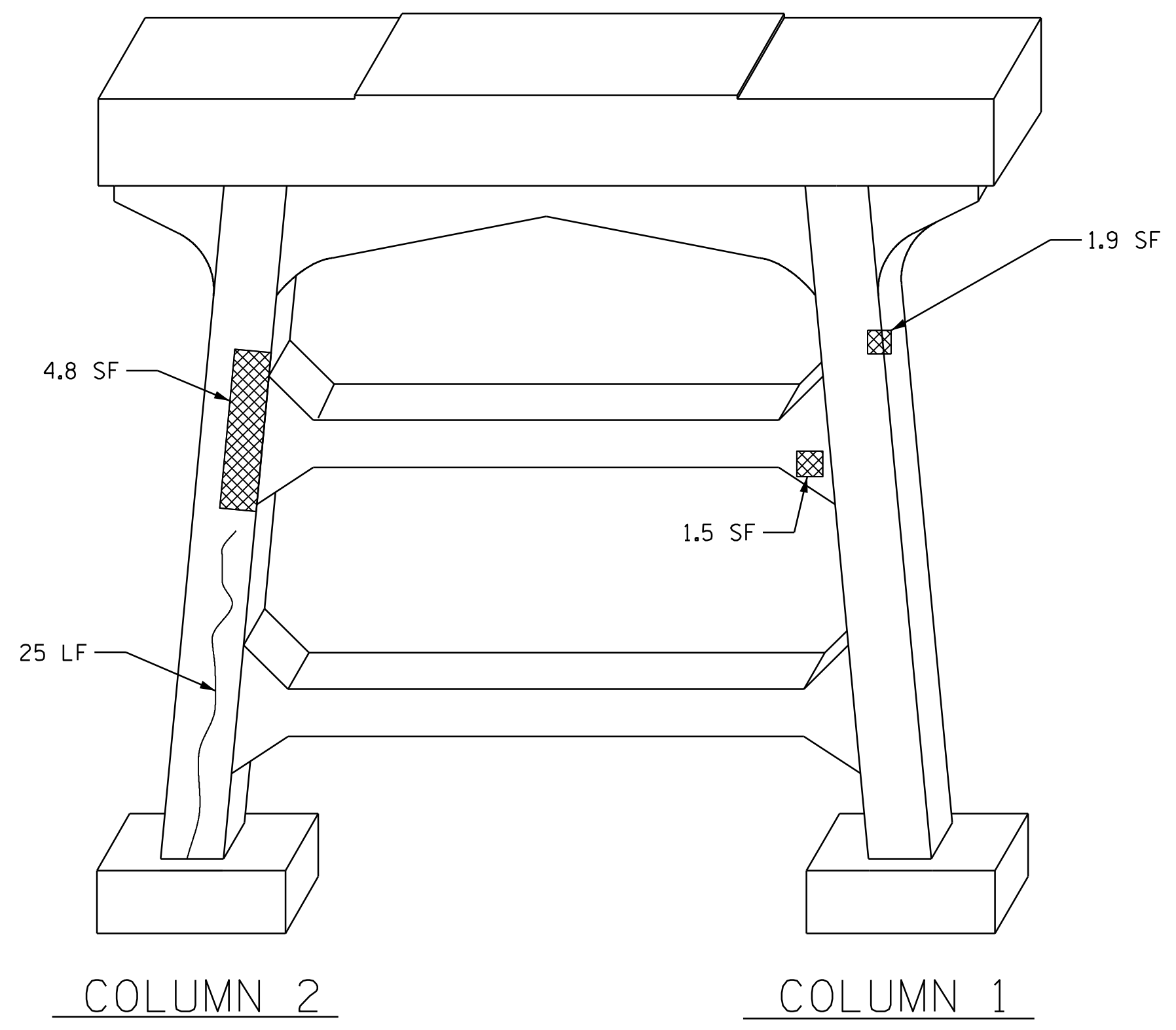
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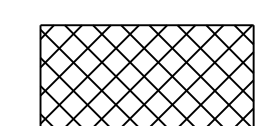
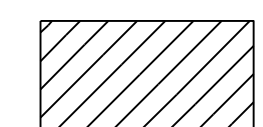
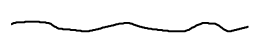
DRAWN BY : C. NICHOLS DATE : 01/24
 CHECKED BY : P.N.HOLDER DATE : 03/24

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2			4			

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ELEVATION @ BENT 2 (SPAN C)

-  SHOTCRETE REPAIR
-  CONCRETE REPAIR
-  EPOXY RESIN INJECTION (ERI)

PROJECT NO. 15BPR.130
MOORE COUNTY
 BRIDGE NO. 620049

SHEET 2 OF 2



STATE OF NORTH CAROLINA
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BENT 2

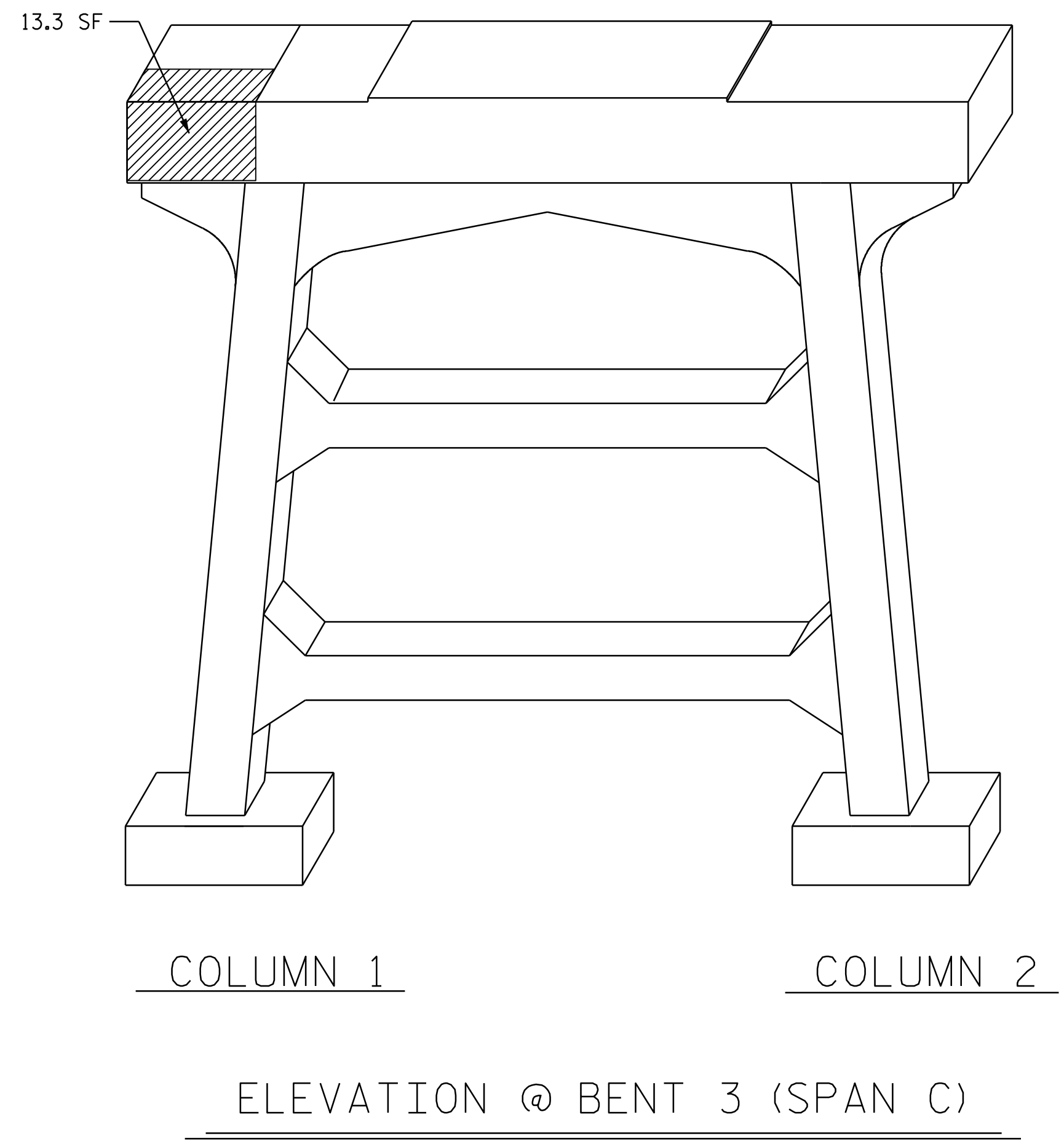
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1			3			TOTAL SHEETS 156
2			4			

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AS-BUILT REPAIR QUANTITY TABLE				
REPAIRS BENT 3	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP	4.3	2.2		
COLUMN	1.3	0.7		
CONCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP	13.3	6.7		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LN. FT.		LN. FT.
CAP		8		
COLUMN		0.0		
EPOXY COATING		SQ. FT.		SQ. FT.
TOP OF BENT CAP		85.5		

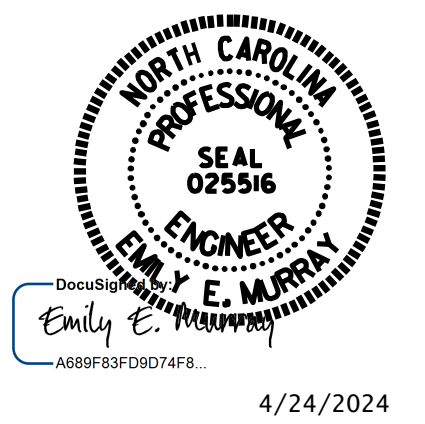
VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN. OF 1" BEHIND REBAR AND 2" MIN. CLEAR TO SAWCUT.

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- EPOXY RESIN INJECTION (ERI)

PROJECT NO. 15BPR.130
MOORE COUNTY
 BRIDGE NO. 620049

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BENT 3



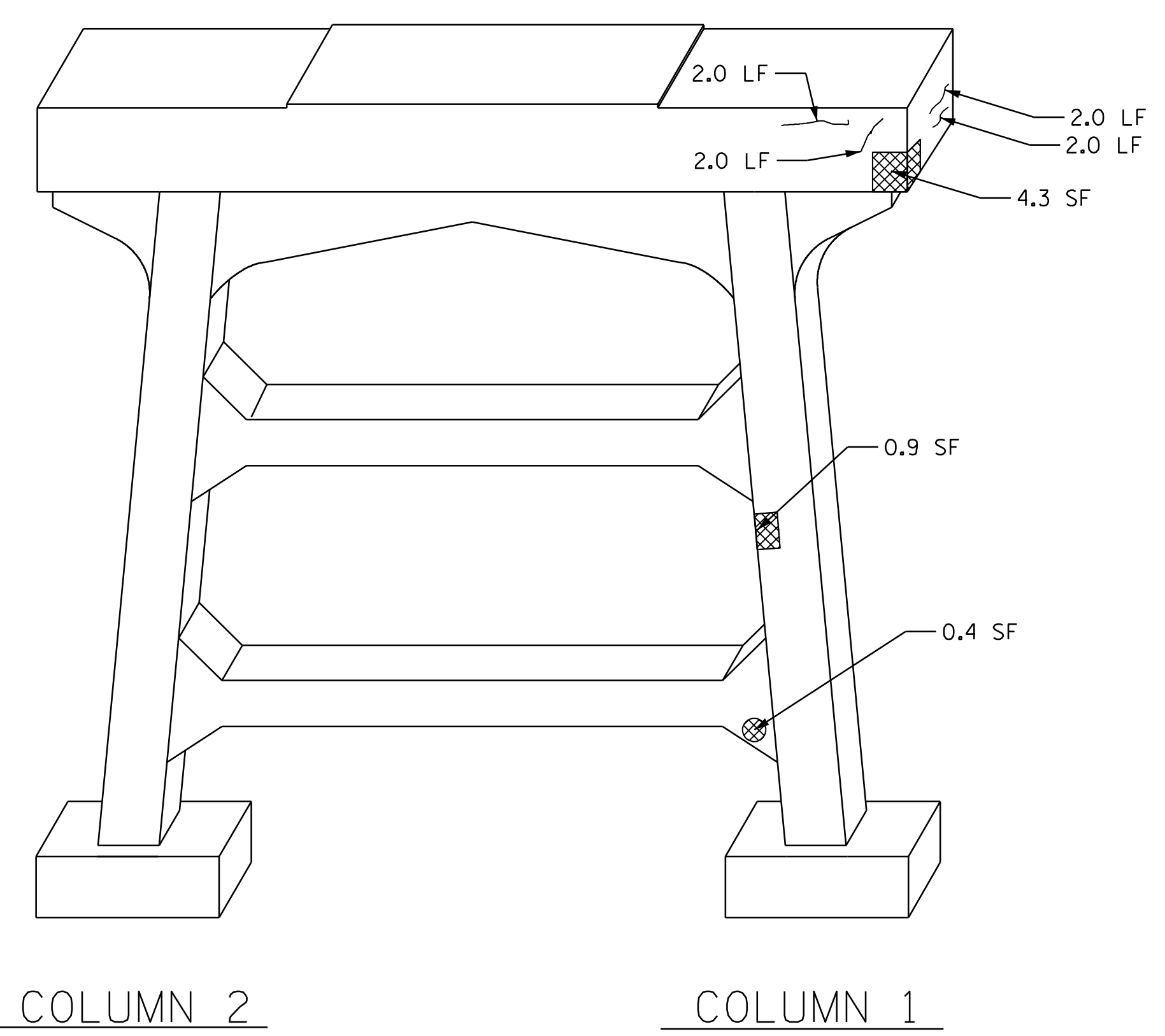
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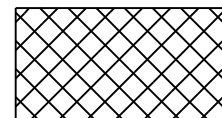
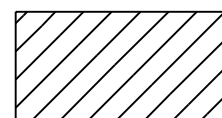

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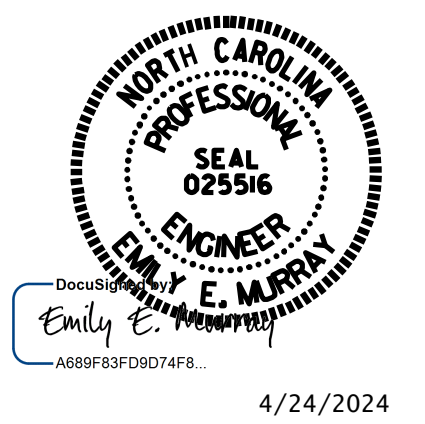


 SHOTCRETE REPAIR
 CONCRETE REPAIR
 EPOXY RESIN INJECTION (ERI)

COLUMN 2 COLUMN 1
ELEVATION @ BENT 3 (SPAN D)

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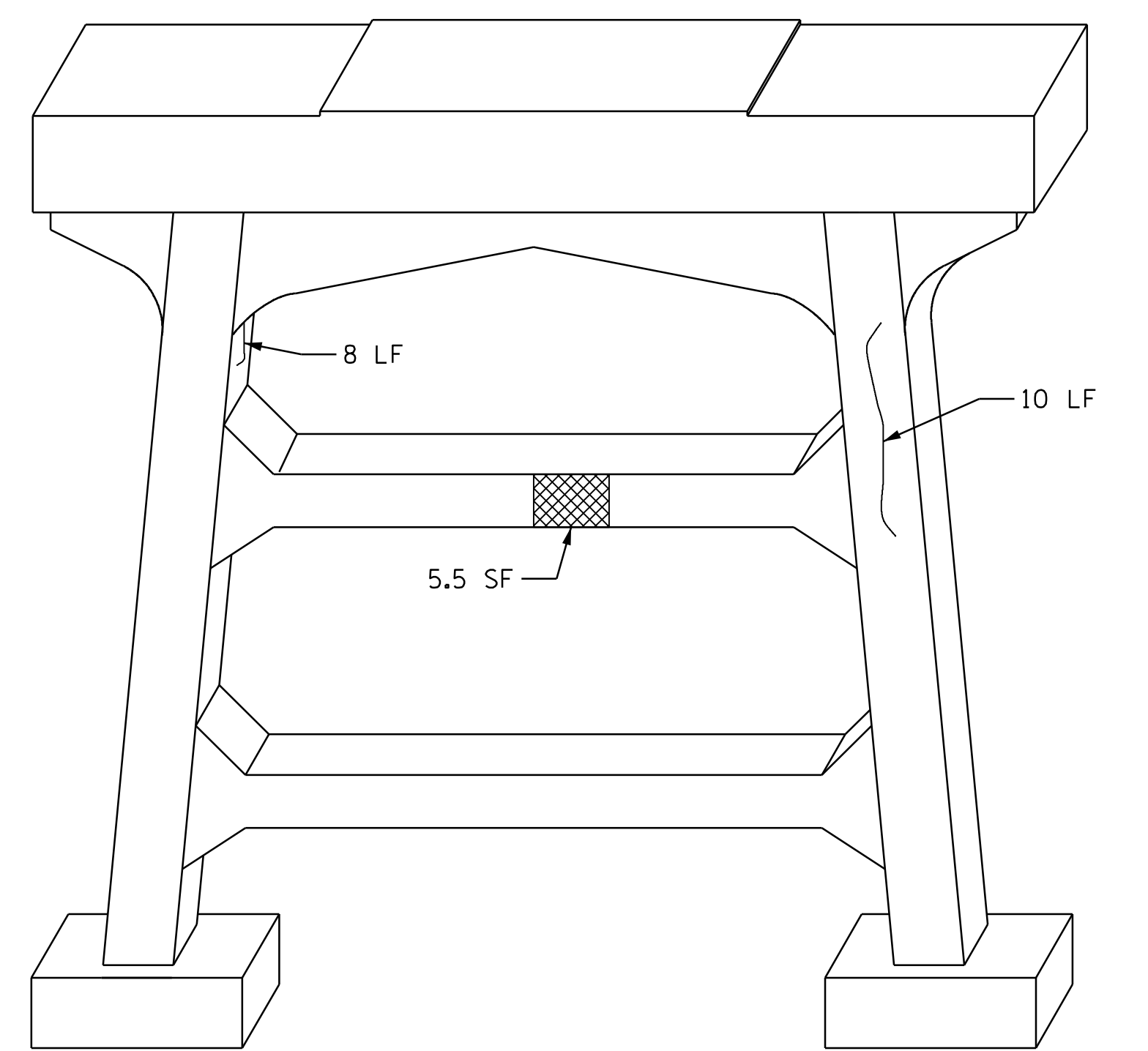
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1			3			TOTAL SHEETS
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AS-BUILT REPAIR QUANTITY TABLE

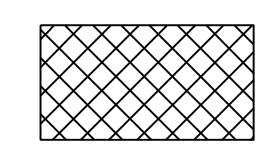
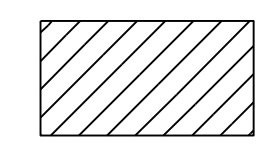

REPAIRS BENT 4	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP	0.0	0.0		
COLUMN	11.5	5.8		
CONCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LN. FT.		LN. FT.
CAP		0.0		
COLUMN		18.0		
EPOXY COATING		SQ. FT.		SQ. FT.
TOP OF BENT CAP		85.5		

VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN. OF 1" BEHIND REBAR AND 2" MIN. CLEAR TO SAWCUT.



COLUMN 1 COLUMN 2

ELEVATION @ BENT 4 (SPAN D)

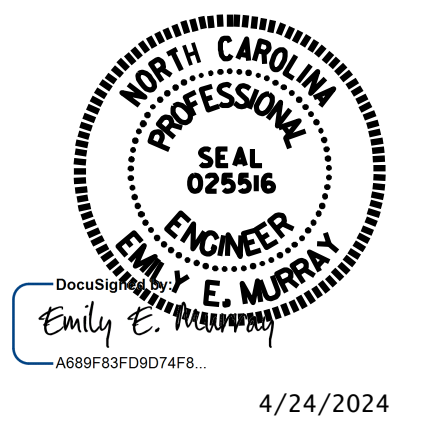
-  SHOTCRETE REPAIR
-  CONCRETE REPAIR
-  EPOXY RESIN INJECTION (ERI)

PROJECT NO. 15BPR.130
MOORE COUNTY
 BRIDGE NO. 620049

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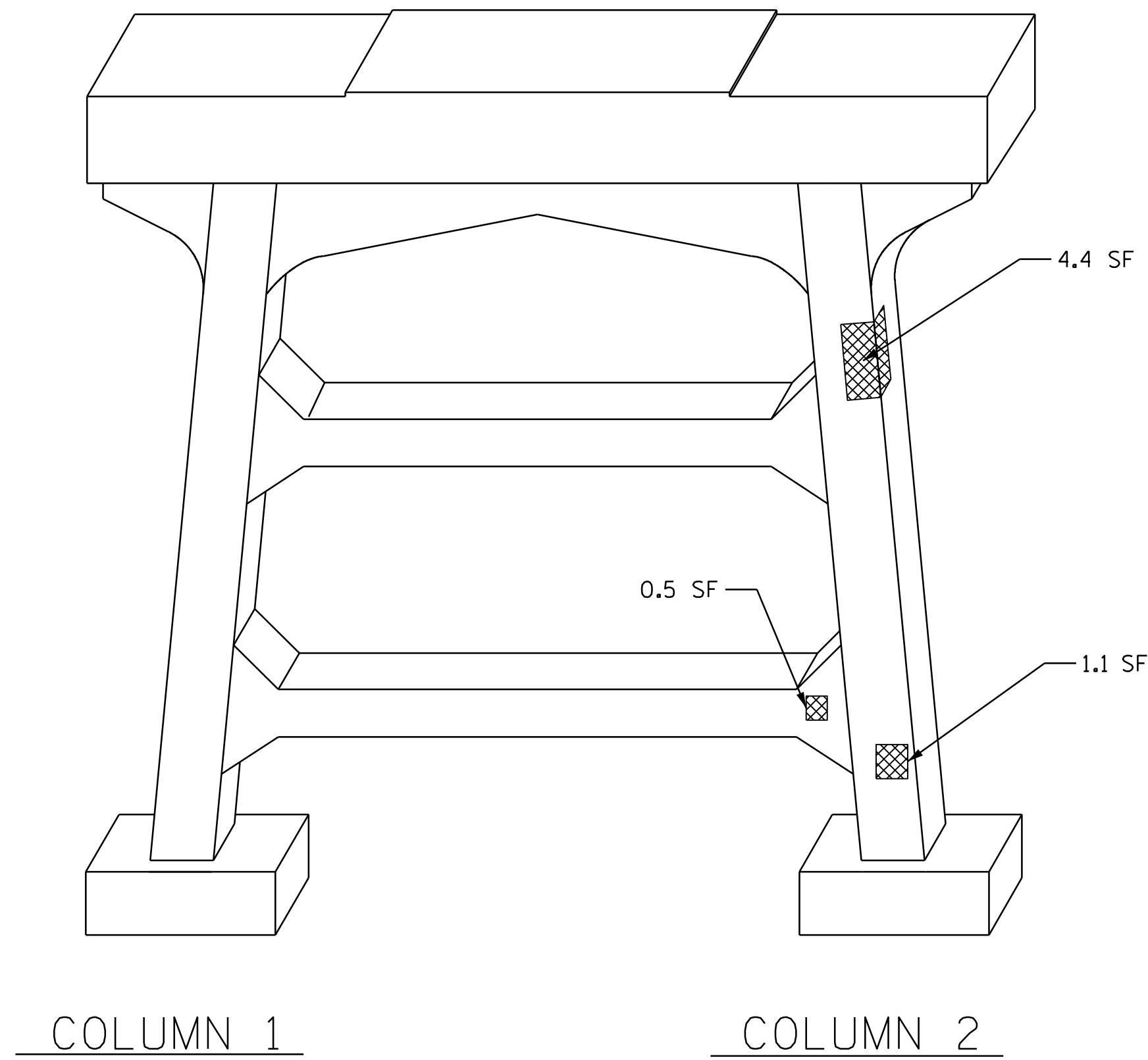


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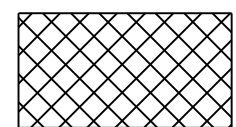
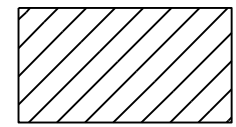

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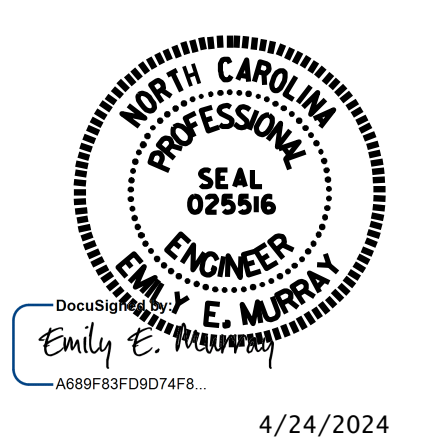
COLUMN 1 COLUMN 2

ELEVATION @ BENT 4 (SPAN E)

-  SHOTCRETE REPAIR
-  CONCRETE REPAIR
-  EPOXY RESIN INJECTION (ERI)

PROJECT NO. 15BPR.130
MOORE COUNTY
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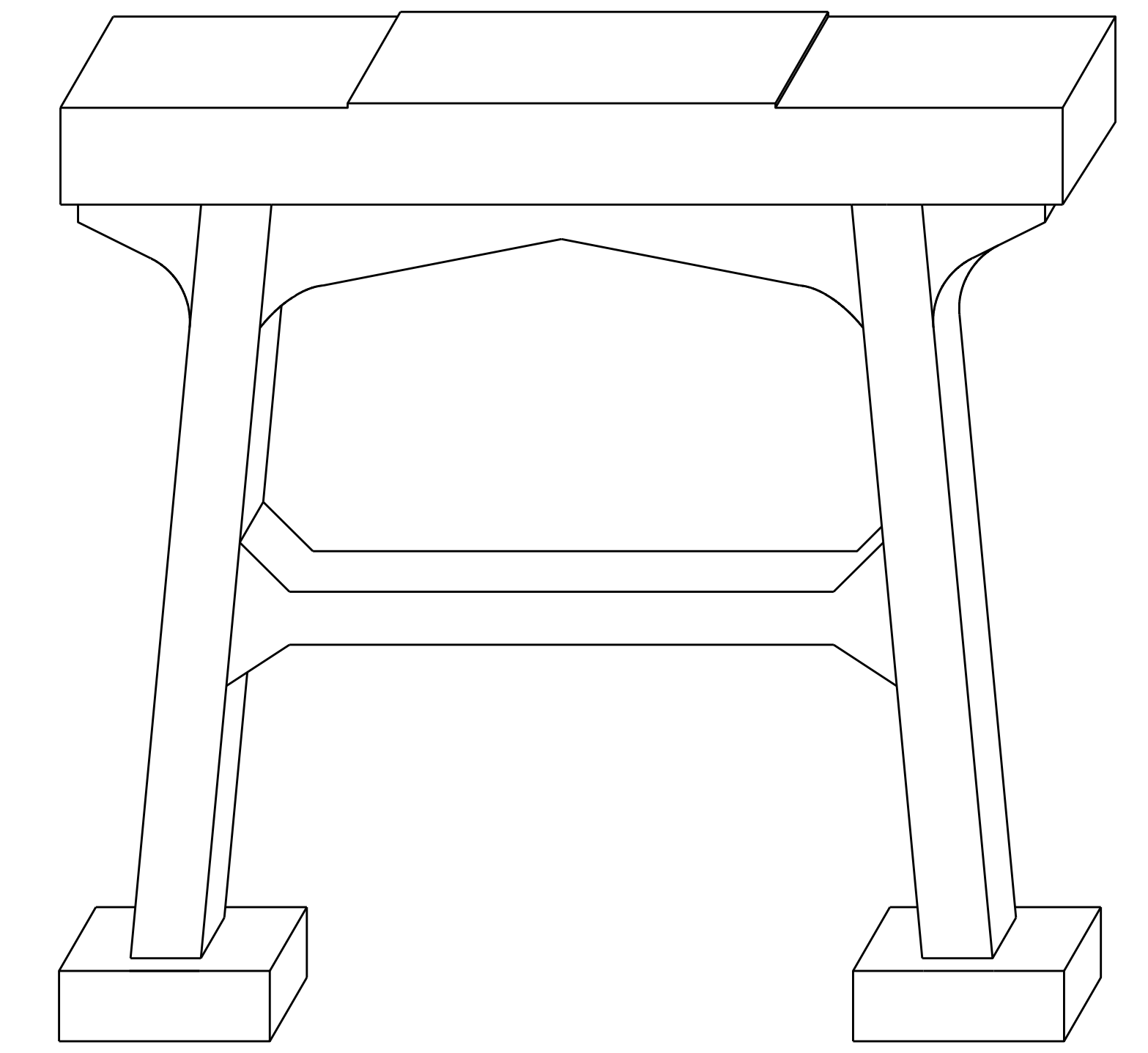
REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-111
1			3			TOTAL SHEETS
2			4			156

DRAWN BY : C. NICHOLS DATE : 01/24
 CHECKED BY : P.N.HOLDER DATE : 03/24

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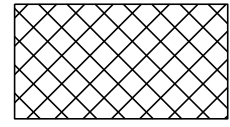
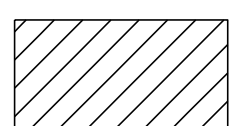

AS-BUILT REPAIR QUANTITY TABLE				
REPAIRS BENT 5	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP	0.0	0.0		
COLUMN	0.4	0.2		
CONCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP	4.5	2.3		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION	LN. FT.		LN. FT.	
CAP	0.0			
COLUMN	2.0			
EPOXY COATING	SQ. FT.		SQ. FT.	
TOP OF BENT CAP	85.5			

VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN. OF 1" BEHIND REBAR AND 2" MIN. CLEAR TO SAWCUT.



COLUMN 1 COLUMN 2

ELEVATION @ BENT 5 (SPAN E)

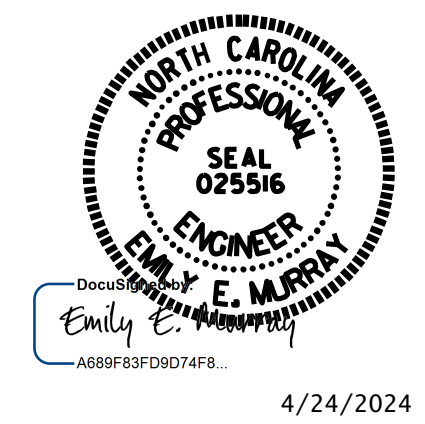
-  SHOTCRETE REPAIR
-  CONCRETE REPAIR
-  EPOXY RESIN INJECTION (ERI)

PROJECT NO. 15BPR.130
MOORE COUNTY
 BRIDGE NO. 620049

SHEET 1 OF 2

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

BENT 5

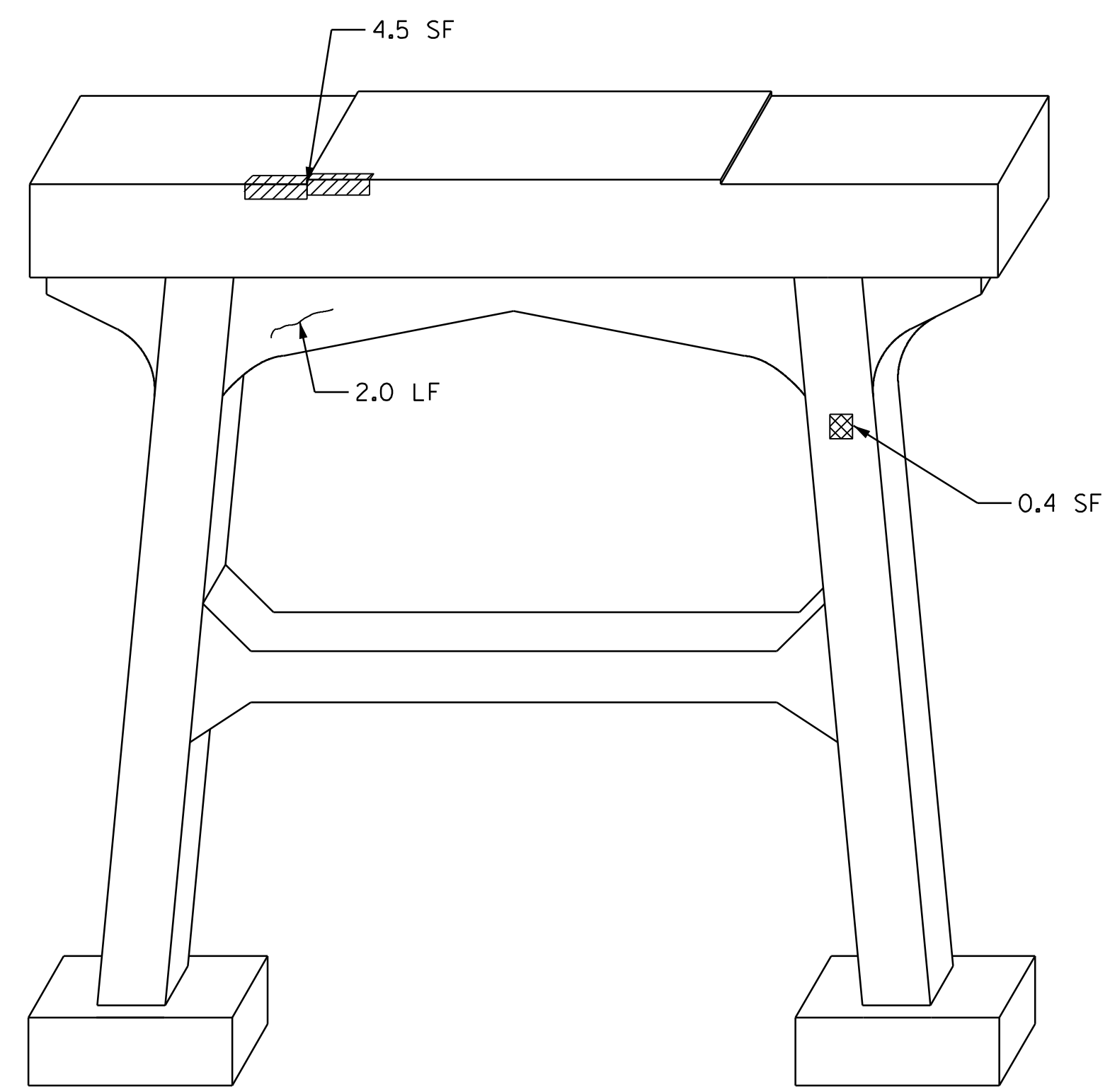


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 5540 Centerview Drive, Suite 305
 Raleigh, NC 27606
 Tel. 919-854-0344 Fax. 919-854-0355
 NC License No. F-0765

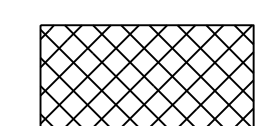
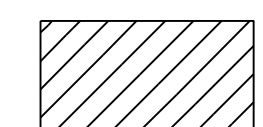
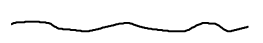
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REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			S-112
2			4			TOTAL SHEETS 156

DRAWN BY : C. NICHOLS DATE : 01/24
 CHECKED BY : P.N.HOLDER DATE : 03/24



COLUMN 2 COLUMN 1
ELEVATION @ BENT 5 (SPAN F)

-  SHOTCRETE REPAIR
-  CONCRETE REPAIR
-  EPOXY RESIN INJECTION (ERI)

PROJECT NO. 15BPR.130
MOORE COUNTY
BRIDGE NO. 620049

SHEET 2 OF 2



4/24/2024

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

BENT 5

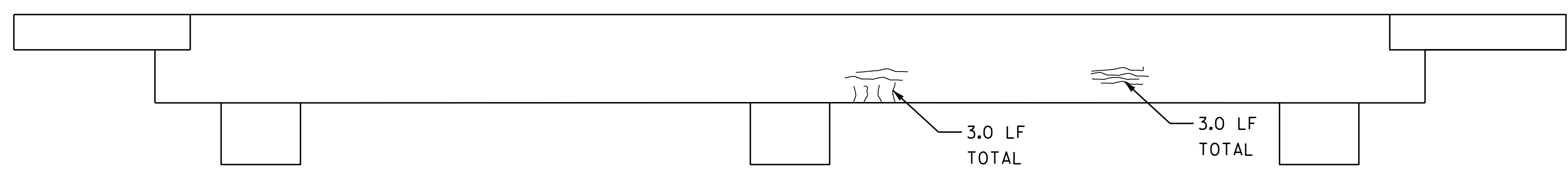
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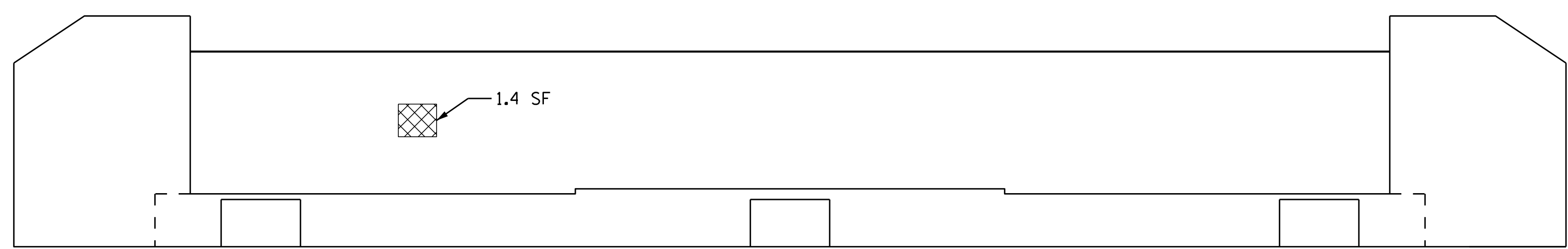
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REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-113
1			3			TOTAL SHEETS
2			4			156

DRAWN BY : C. NICHOLS DATE : 01/24
CHECKED BY : P.N.HOLDER DATE : 03/24



PLAN OF END BENT 2



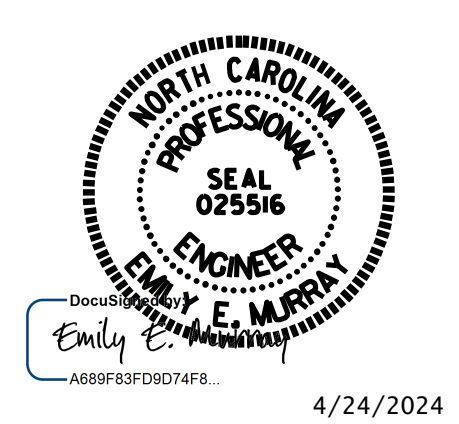
ELEVATION OF END BENT 2

AS-BUILT REPAIR QUANTITY TABLE				
REPAIRS	QUANTITIES			
	ESTIMATE		ACTUAL	
END BENT 2	AREA SF	VOLUME CF	AREA SF	VOLUME CF
SHOTCRETE REPAIRS				
CAP	1.4	0.7		
CONCRETE REPAIRS				
CAP	0.0	0.0		
EPOXY RESIN INJECTION		LN. FT.		LN. FT.
CAP		6.0		
EPOXY COATING		SQ. FT.		SQ. FT.
TOP OF BENT CAP		90.0		

VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN. OF 1" BEHIND REBAR AND 2" MIN. CLEAR TO SAWCUT.

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- EPOXY RESIN INJECTION (ERI)

PROJECT NO. 15BPR.130
MOORE COUNTY
 BRIDGE NO. 620049



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

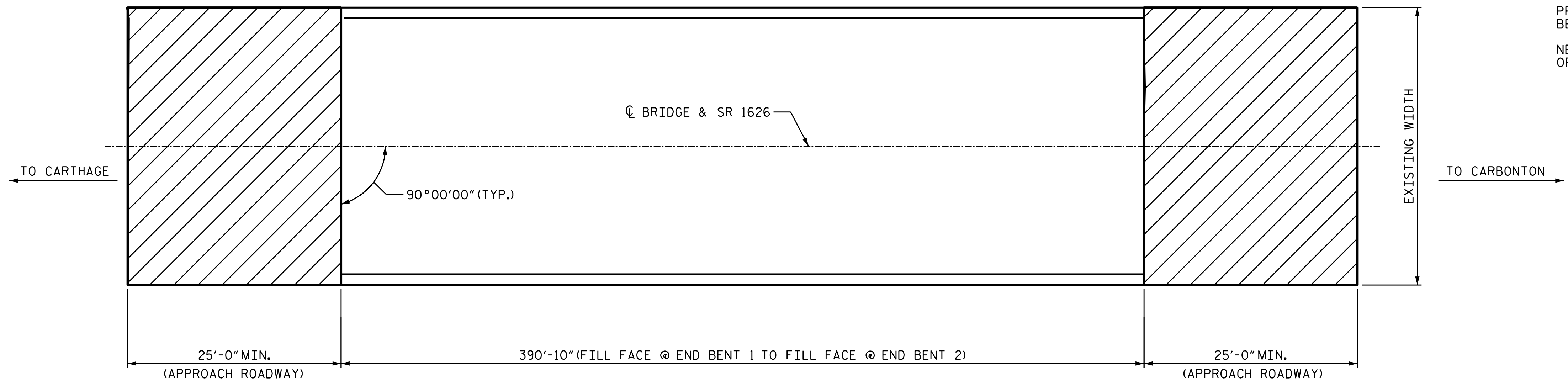
END BENT 2

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REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			S-114
2			4			TOTAL SHEETS: 156

DRAWN BY : C. NICHOLS DATE : 01/24
 CHECKED BY : P.N.HOLDER DATE : 03/24

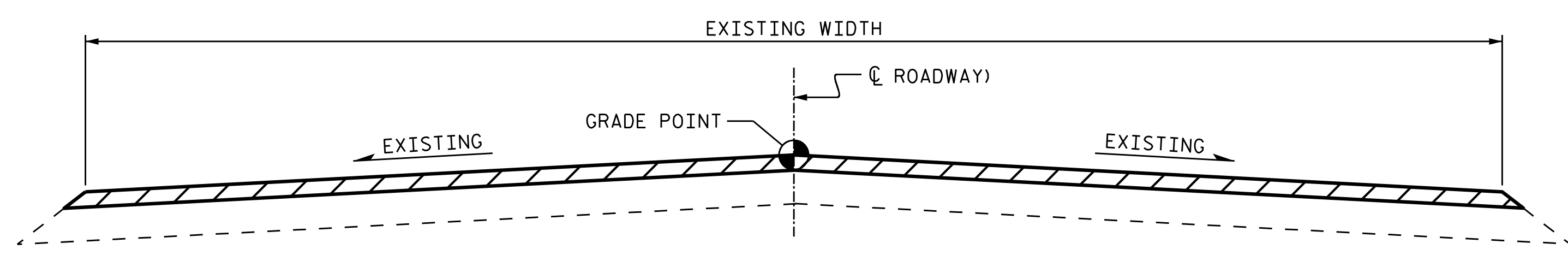


PLAN

NOTES

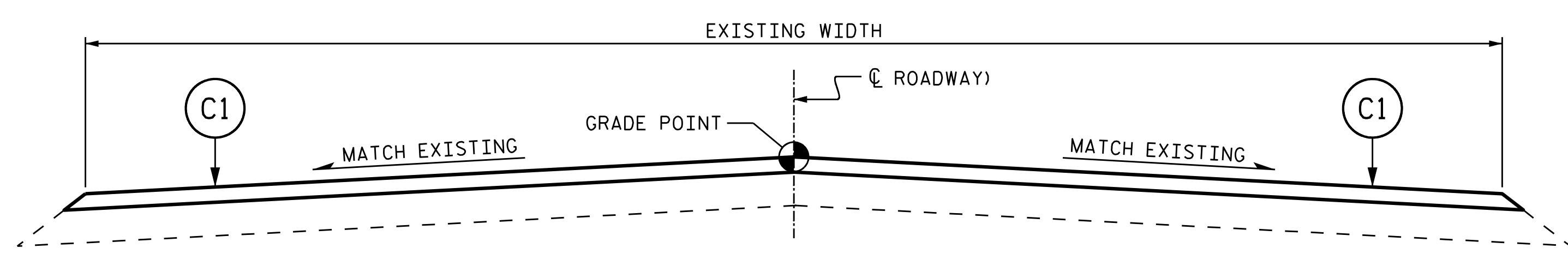
INCIDENTAL MILLING - EXISTING APPROACH ASPHALT PAVING TO BE MILLED AS NECESSARY TO ATTAIN MINIMUM 1/2" DEPTH OF NEW ASPHALT PAVING.
 PROVIDE NEW ASPHALT PAVING THICKNESS TO CREATE A SMOOTH TRANSITION BETWEEN THE ROADWAY AND THE BRIDGE DECK.
 NEW ASPHALT PAVING THICKNESS MAY EXCEED 1/2" DUE TO SETTLEMENT OF THE EXISTING APPROACH ASPHALT PAVING.

SUMMARY OF QUANTITIES		
MOORE 49		
	ESTIMATE	ACTUAL
INCIDENTAL MILLING	156 SQ. YD.	
ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C	13.2 TONS	
ASPHALT BINDER FOR PLANT MIX	0.8 TONS	



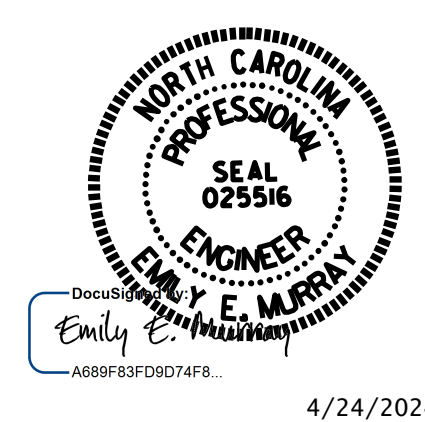
TYPICAL ROADWAY MILLING SECTION

C1	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 1/2" IN DEPTH OR GREATER THAN 2" IN DEPTH.
----	---



TYPICAL PROPOSED ROADWAY SECTION

PROJECT NO. 15BPR.130
MOORE COUNTY
 BRIDGE NO. 620049



4/24/2024

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

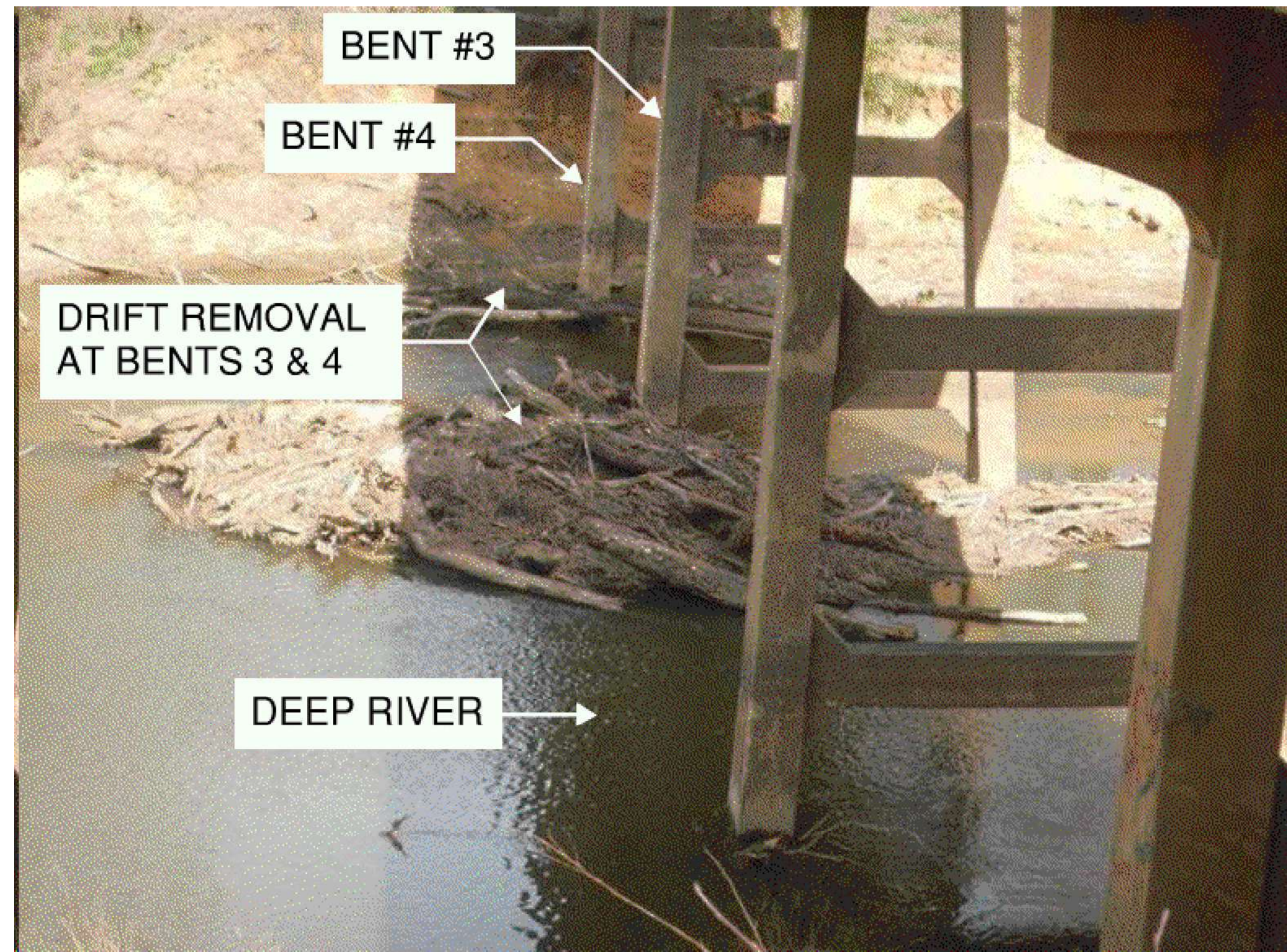
APPROACH MILLING AND TYPICAL ROADWAY SECTIONS

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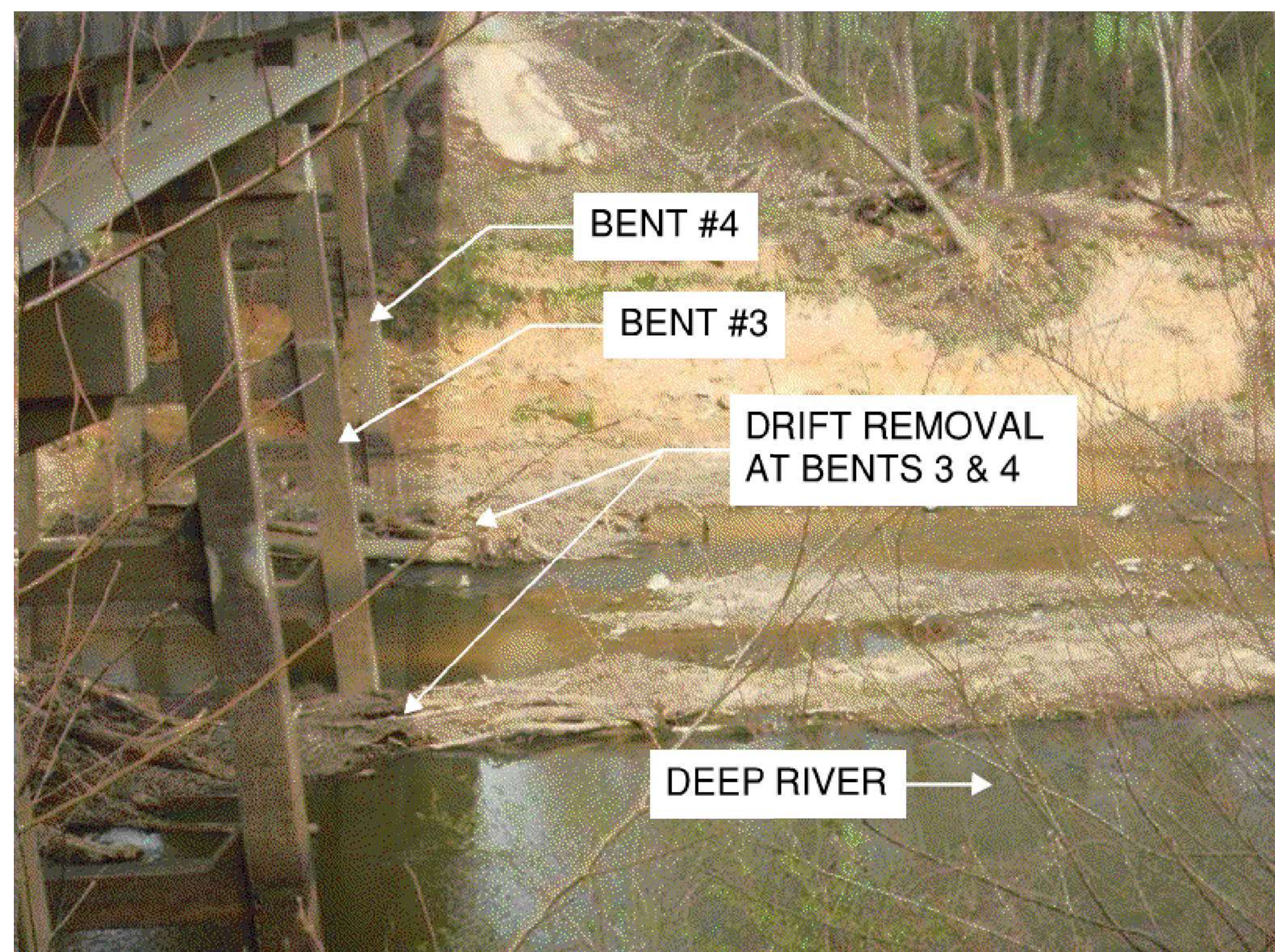
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REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	
1			3			S-115
2			4			TOTAL SHEETS 156

DRAWN BY : D. A. GLADDEN DATE : 03/2024
 CHECKED BY : P. H. HOLDER DATE : 03/2024



WEST PROFILE, LOOKING NORTH



EAST PROFILE, LOOKING NORTH

DRIFT REMOVAL LOCATIONS

DRIFT REMOVAL

THE INFORMATION PROVIDED IS BASED ON DRIFT ACCUMULATION AS OF 3/8/2022. THE EXACT AMOUNT OF DRIFT VARIES DAILY.

REMOVAL OF DRIFT SHALL BE ACCESSED FROM THE TOP OF THE BRIDGE DECK. ASSISTANCE FROM BOATS IN THE RIVER MAYBE ALLOWED, BUT NO ACCESS TO THE DRIFT SHALL BE ALLOWED FROM THE RIVER BANK.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL OF ALL DRIFT MATERIALS PRIOR TO THE PROJECT'S END.

THE CONTRACTOR SHALL NOT ALLOW, AT ANY TIME, THE DRIFT MATERIALS TO FLOW DOWNSTREAM OF THE PROJECT SITE.

THE CONTRACTOR SHALL CONTAIN AND DISPOSE OF COLLECTED DRIFT MATERIALS OFF SITE.

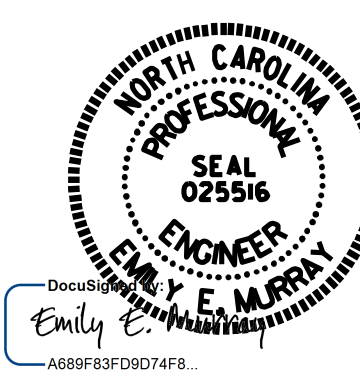
FOR DRIFT REMOVAL, SEE SPECIAL PROVISIONS.

FOR SECURING OF VESSELS, SEE SPECIAL PROVISIONS.

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

RESIDENT ENGINEER _____ DATE _____

PROJECT NO. 15BPR.130
MOORE COUNTY
 BRIDGE NO. 620049



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

DRIFT REMOVAL

DRAWN BY : B. H. BARNHILL DATE : 04/2024
 CHECKED BY : E. E. MURRAY DATE : 04/2024

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 5430 Wade Park Blvd, Suite 410
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NO.	BY:	DATE:	NO.	BY:	DATE:	SHEET NO.
1			3			S-116
2			4			TOTAL SHEETS 156



BRIDGE 620072 - LATITUDE: 35°28'41.54"; LONGITUDE: 79°31'11.52"

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, THE SURROUNDING AREA, AND ANY OTHER ASPECTS THAT MAY BE NECESSARY TO PERFORM AND COMPLETE THE PROJECT.

GENERAL NOTES

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.

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

FOR CONTROL OF TRAFFIC AND LIMITS ON PHASING OF CONSTRUCTION, SEE TRANSPORTATION MANAGEMENT PLANS.

DURING CONSTRUCTION, BERMS OR APPROPRIATE MEASURES SHALL BE USED TO ENSURE HYDRO-DEMOLITION WATER DOES NOT MIGRATE INTO ACTIVE TRAVEL LANES.

WORK ON THE BRIDGE(S) SHALL BE PERFORMED SO AS NOT TO ALLOW DEBRIS TO FALL BELOW, EXCEPT WHERE THE CONTRACTOR'S PLAN USE PLATFORM 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.

EXISTING JOINTS AND DECK DRAINS SHALL BE SEALED PRIOR TO BEGINNING SURFACE PREPARATION OF THE BRIDGE DECK.

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

FOR SCARIFYING BRIDGE DECK, HYDRO-DEMOLITION OF BRIDGE DECK, AND CLASS II AND III SURFACE PREPARATION, SEE LMC OVERLAY SURFACE PREPARATION SPECIAL PROVISION.

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

THE LMC CONTRACTOR SHALL PROVIDE A METHOD OF HANDLING UNEXPECTED BLOW THROUGH OF THE DECK DURING HYDRO-DEMOLITION.

FOR BRIDGE JOINT DEMOLITION, SEE SPECIAL PROVISIONS.

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

FOR ELASTOMERIC CONCRETE FOR PRESERVATION, SEE SPECIAL PROVISIONS.

FOR FOAM JOINT SEALS FOR PRESERVATION, SEE SPECIAL PROVISIONS.

FOR CONCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR SHOTCRETE REPAIR, SEE SPECIAL PROVISIONS.

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

FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.

FOR EPOXY COATING, SEE EPOXY COATING AND DEBRIS REMOVAL SPECIAL PROVISION.

FOR GROUT FOR STRUCTURES, SEE SPECIAL PROVISIONS.

FOR DRIFT REMOVAL, SEE SPECIAL PROVISIONS.

FOR SUBMITTAL OF WORKING DRAWINGS, SEE SPECIAL PROVISIONS.

FOR FALSEWORK AND FORMWORK, SEE SPECIAL PROVISIONS.

FOR CRANE SAFETY, SEE SPECIAL PROVISIONS.

FOR BRIDGE JACKING, SEE 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.

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.

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.

AT THE TIME OF PREPARATION OF THESE PLANS, IT WAS NOT ANTICIPATED THAT ITEMS SHOWN BELOW WOULD BE REQUIRED. HOWEVER, IT MAY BE DETERMINED IN THE FIELD THAT THESE ITEMS, 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 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:

ITEM NO.	DESCRIPTION	UNIT
1	CLASS III SURFACE PREPARATION	SQ. YDS.
2	VOLUMETRIC MIXER	LUMP SUM
3	TYPE II BRIDGE JACKING BRIDGE NO.: 620072	EACH

PROJECT NO. 15BPR.130
MOORE COUNTY
 BRIDGE NO. 620072



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

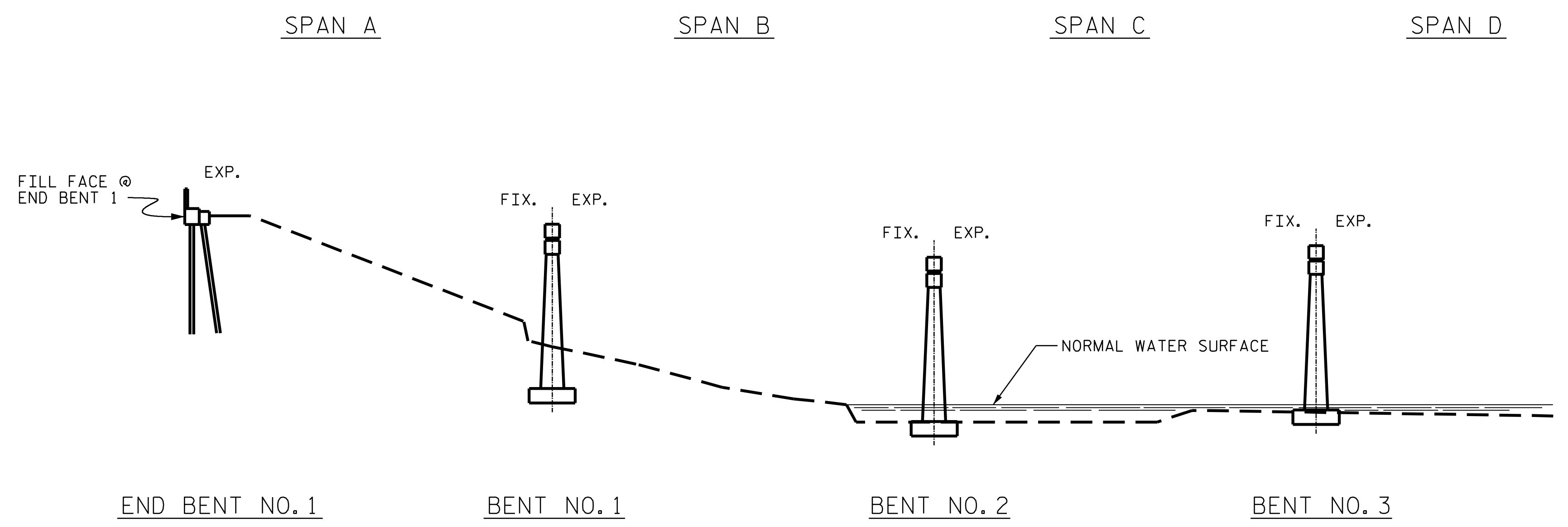
GENERAL DRAWING
 FOR BRIDGE OVER DEEP RIVER BETWEEN SR 1470 AND SR 1606 ON NC 22

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 5430 Wade Park Blvd, Suite 410
 Raleigh, NC 27607
 Tel. 919-854-0344 Fax. 919-854-0355
 NC License No. F-0765

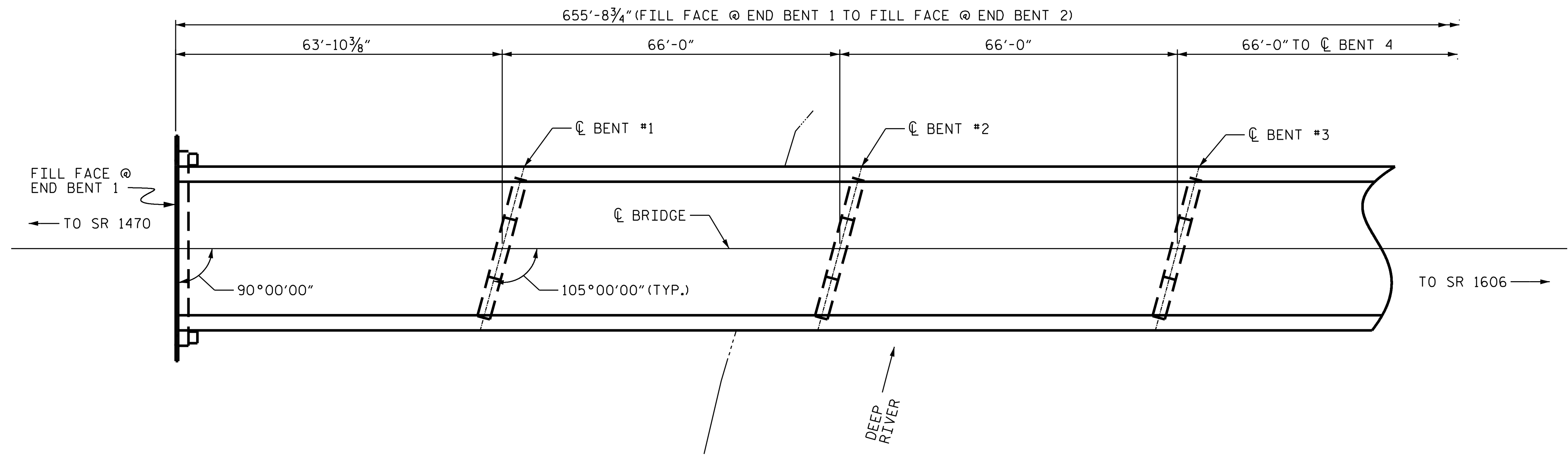
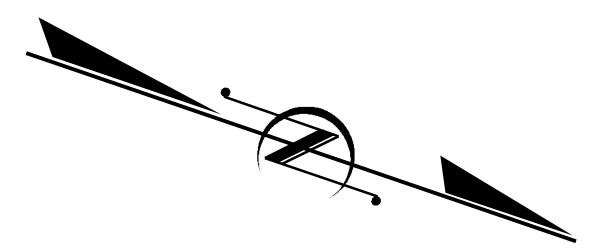
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S-117
1			3			TOTAL SHEETS
2			4			156

DRAWN BY : J. BRYANT DATE : 7/21/22
 CHECKED BY : E. MURRAY DATE : 3/1/24



SECTION ALONG C BRIDGE



PLAN

NOTES:

GENERAL DRAWING INFORMATION IS TAKEN FROM THE ORIGINAL PLANS AND THE ROUTINE INSPECTION REPORT DATED 4/14/2022.
 BRIDGE ORIENTATION CONFORMS TO THE ORIGINAL BRIDGE PLANS/ROUTINE INSPECTION

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

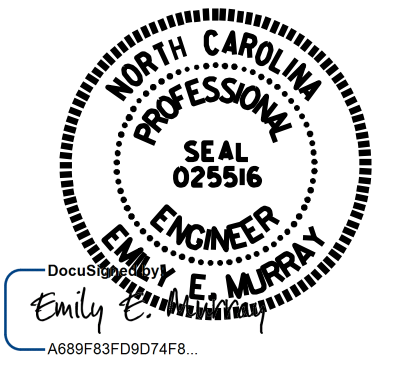
RESIDENT ENGINEER _____ DATE _____

SCOPE OF WORK:

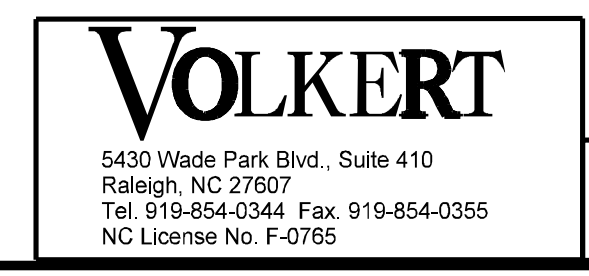
- REMOVE DRIFT ACCUMULATION.
- REPAIR SUBSTRUCTURE USING EPOXY RESIN INJECTION, SHOTCRETE, AND CONCRETE.
- PARTIALLY REMOVE BRIDGE DECK CONCRETE BY SCARIFICATION AND HYDRO-DEMOLITION METHODS.
- PERFORM DECK REPAIRS IN PREPARED AREAS.
- OVERLAY PREPARED BRIDGE DECK WITH LATEX MODIFIED CONCRETE-VERY EARLY STRENGTH.
- RECONSTRUCT BRIDGE JOINTS AND INSTALL JOINT SEALS.
- GROOVE LATEX MODIFIED CONCRETE-VERY EARLY STRENGTH.

PROJECT NO. 15BPR.130
MOORE COUNTY
 BRIDGE NO. 620072

SHEET 1 OF 2



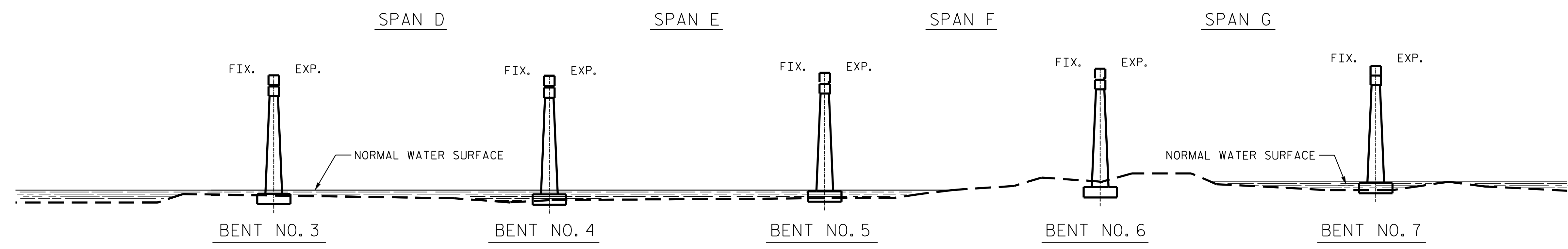
STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 GENERAL DRAWING
 FOR BRIDGE OVER DEEP
 RIVER BETWEEN SR1470 AND
 SR1606 ON NC 22



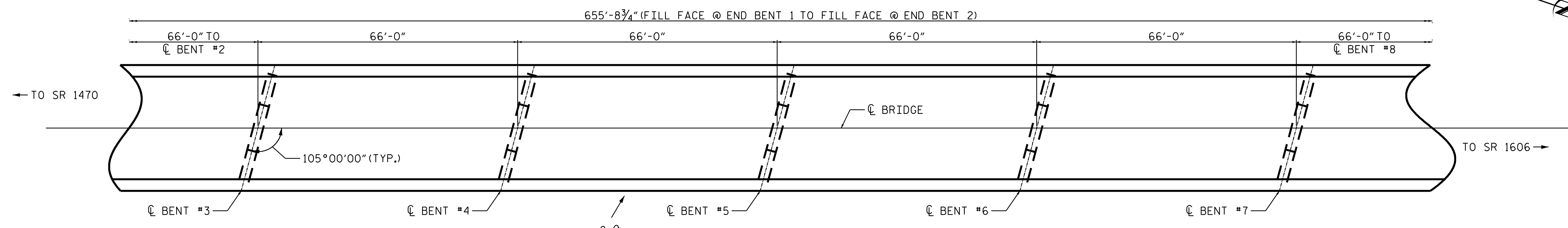
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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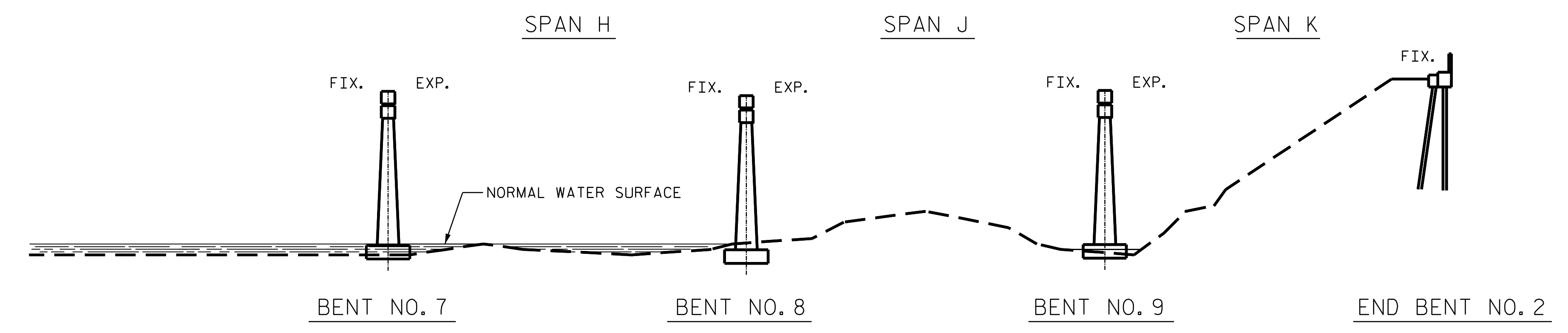
DRAWN BY : J. BRYANT DATE : 07/2022
 CHECKED BY : E. E. MURRAY DATE : 03/2024



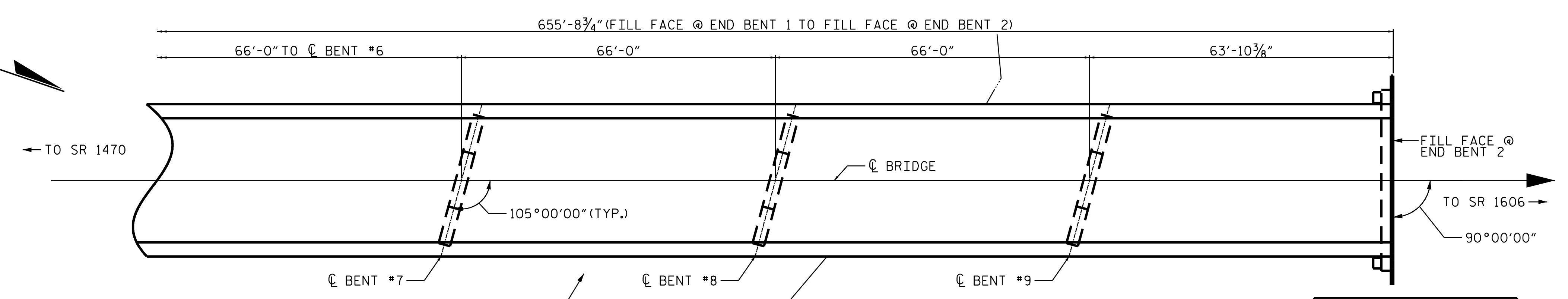
SECTION ALONG C BRIDGE



PLAN



SECTION ALONG C BRIDGE

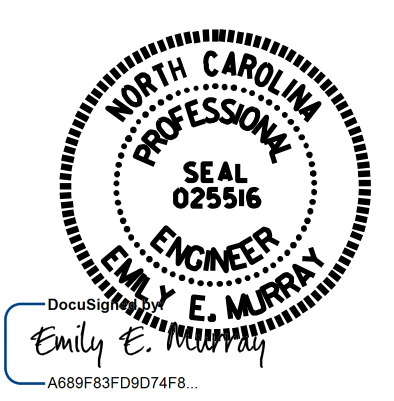


PLAN

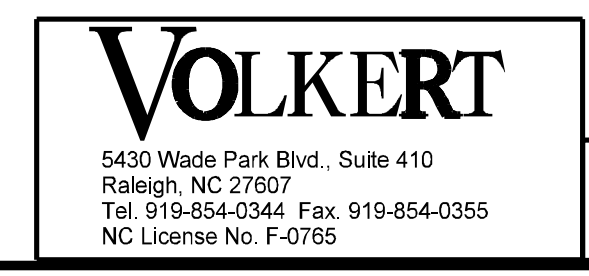
PROJECT NO. 15BPR.130
MOORE COUNTY
 BRIDGE NO. 620072

SHEET 2 OF 2

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
GENERAL DRAWING
 FOR BRIDGE OVER DEEP
 RIVER BETWEEN SR1470 AND
 SR1606 ON NC 22



4/24/2024

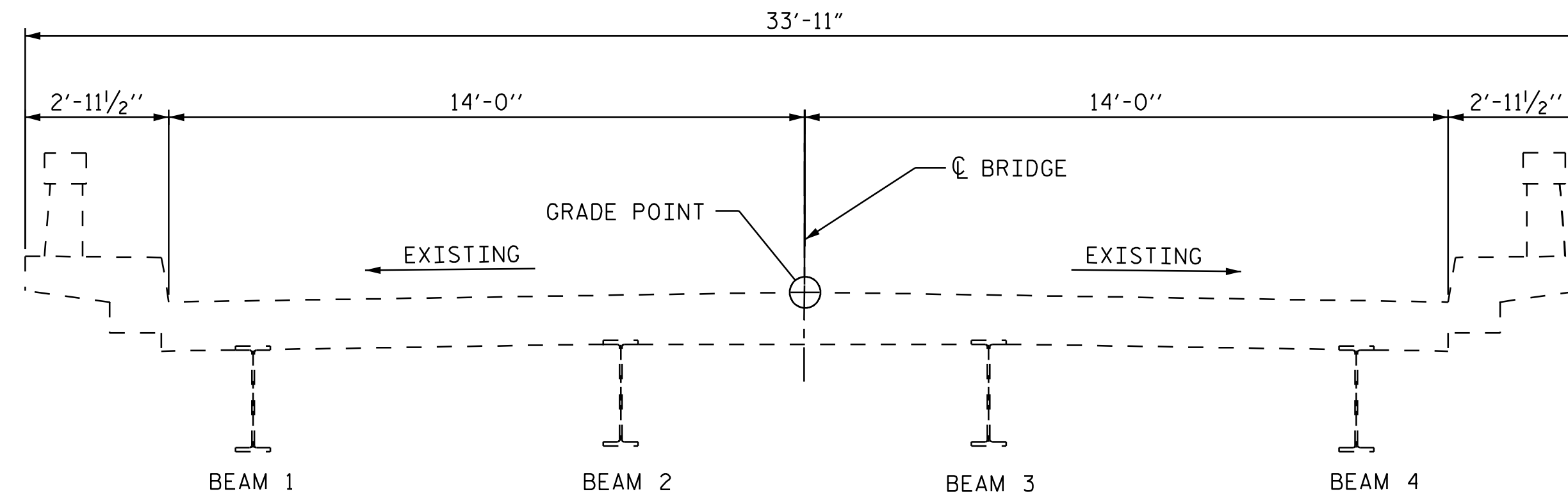


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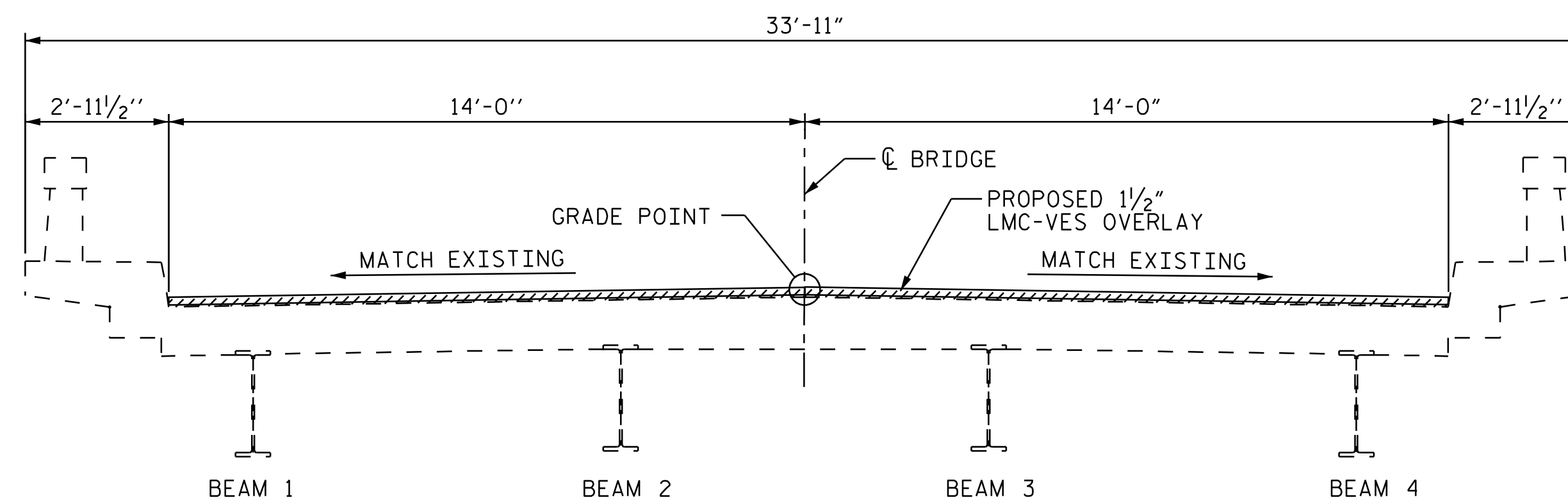
DRAWN BY : J. BRYANT DATE : 07/2022
 CHECKED BY : E. E. MURRAY DATE : 03/2024

15-APR-2024 16:37
 *****DCN*****
 brent.barnhill AT C-1001568

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	TOTAL SHEETS
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2			4			156



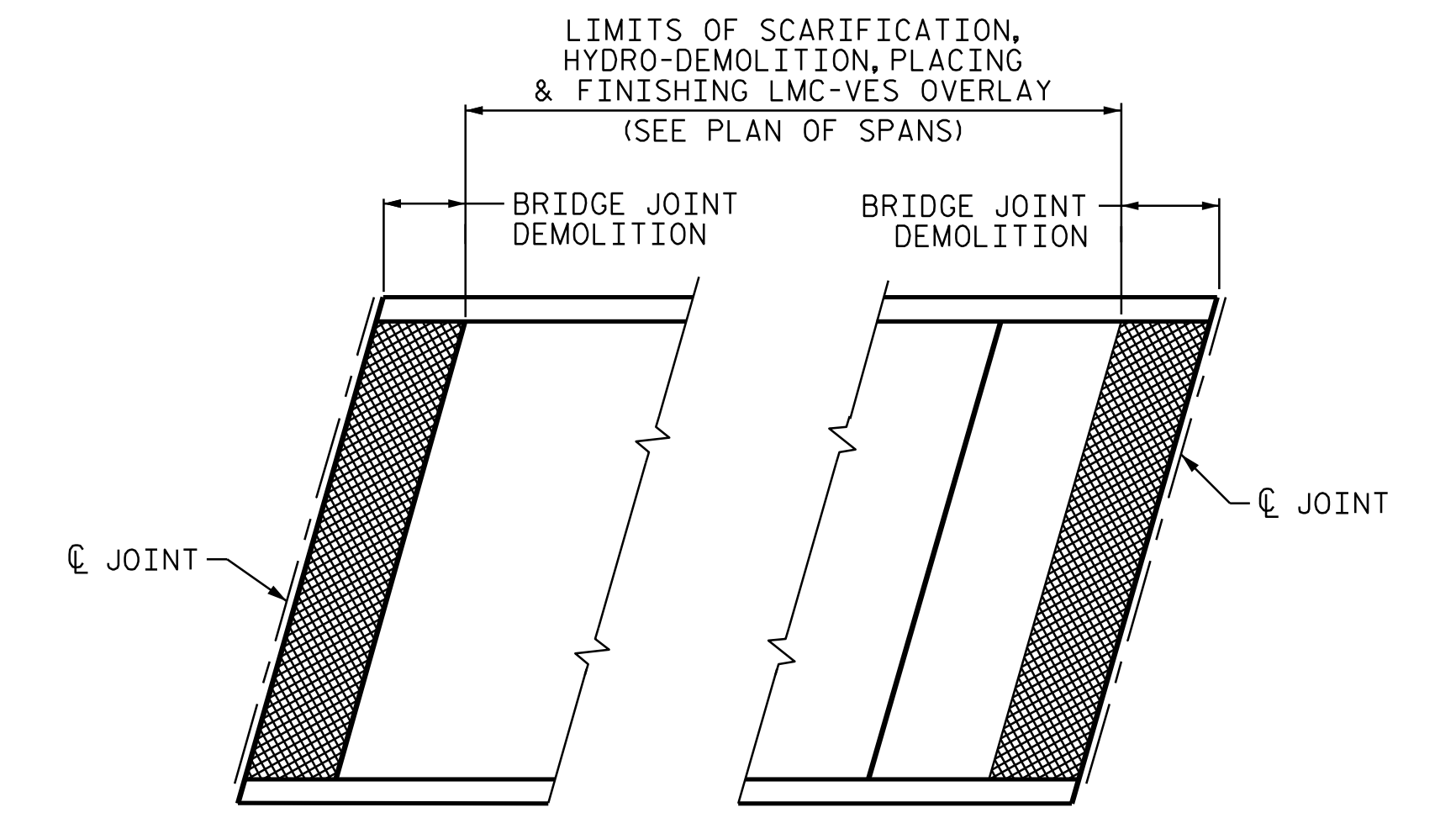
EXISTING TYPICAL SECTION



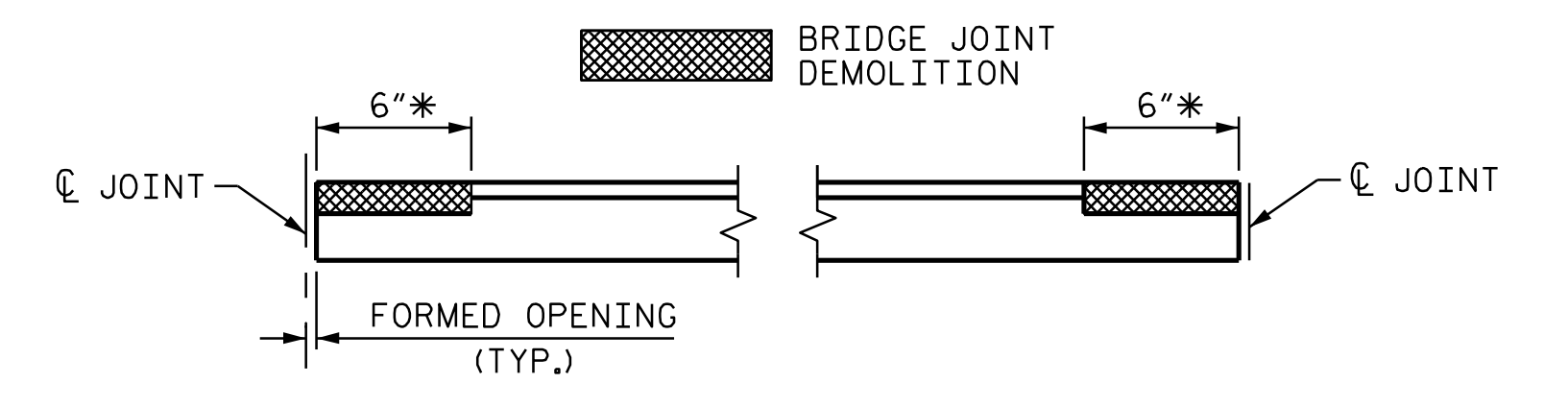
PROPOSED TYPICAL SECTION

NOTES

SEE TRANSPORTATION MANAGEMENT PLANS FOR LANE WIDTHS, SEQUENCING, AND OTHER TRAFFIC CONTROL MEASURES FOR STAGING OF OVERLAY SURFACE PREPARATION AND LATEX MODIFIED CONCRETE (LMC) BRIDGE DECK OVERLAY.



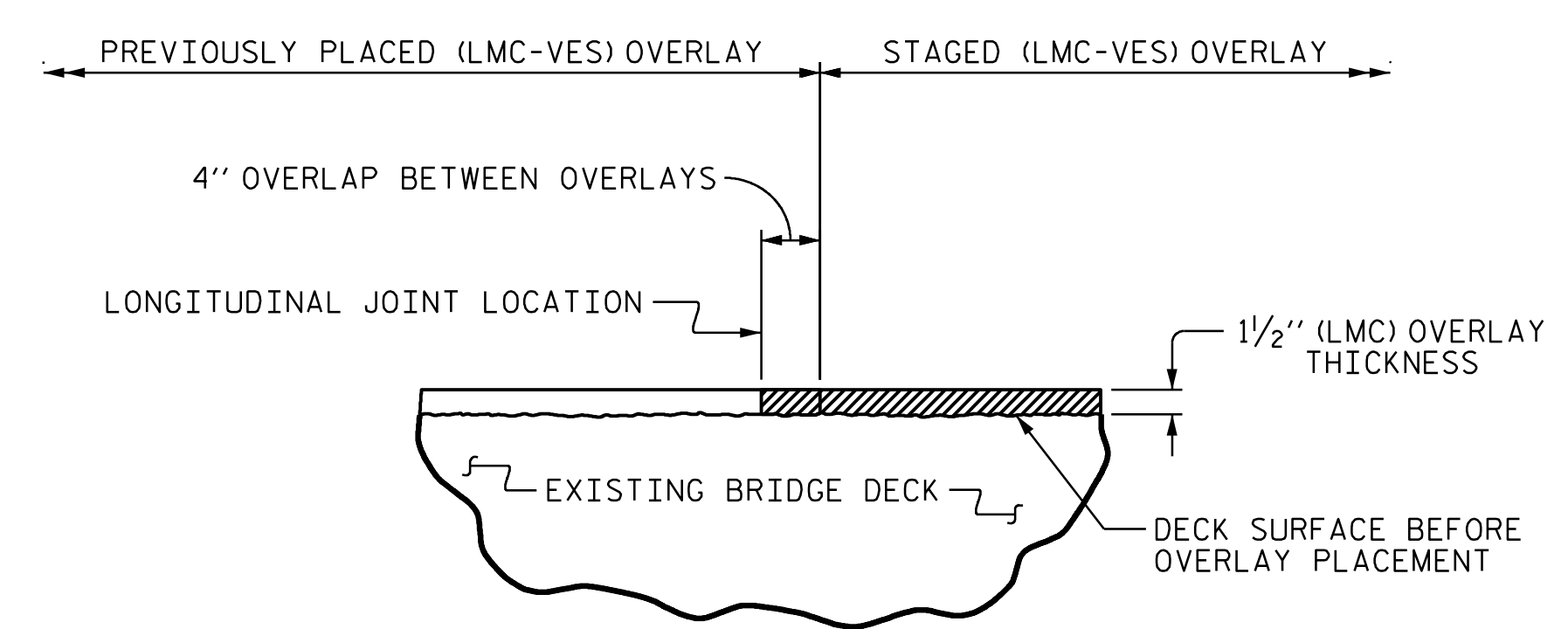
PLAN



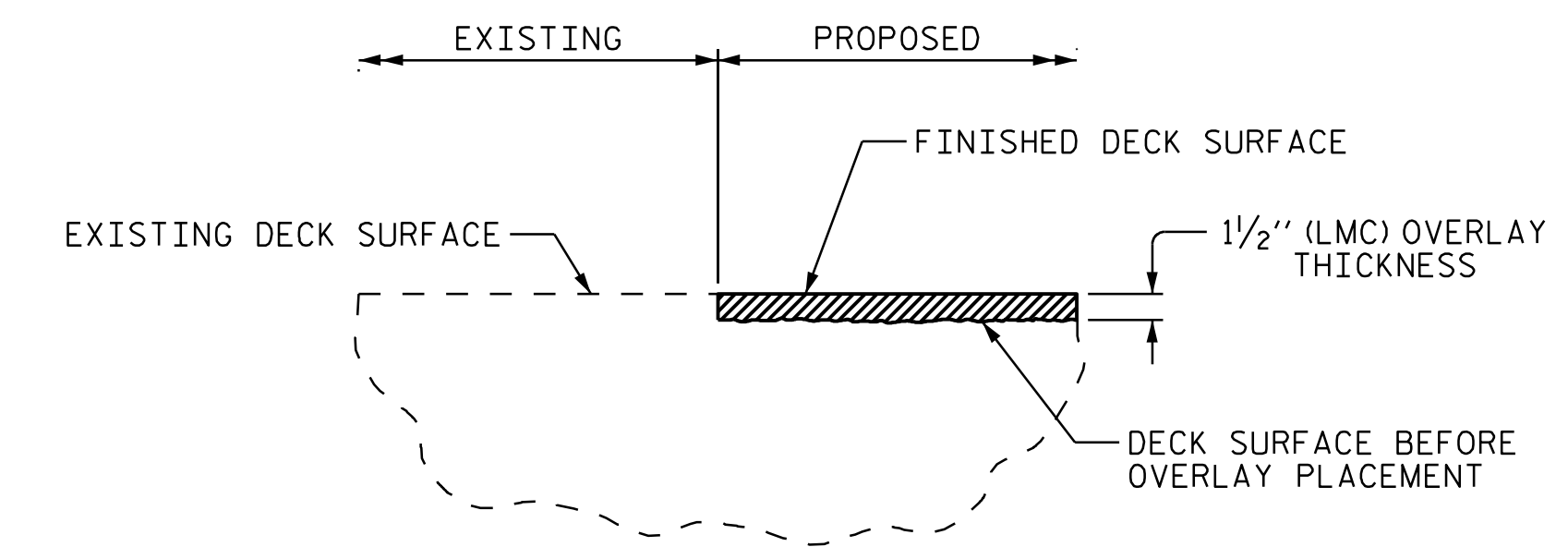
* DIMENSION MEASURED PERPENDICULAR TO JOINT

ELEVATION

PAY LIMITS FOR OVERLAY BID ITEMS



STAGED LATEX MODIFIED CONCRETE OVERLAY JOINT
(AS NEEDED)



DETAIL OF LATEX MODIFIED CONCRETE OVERLAY

PROJECT NO. 15BPR.130
MOORE COUNTY
 BRIDGE NO. 620072



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

TYPICAL SECTION

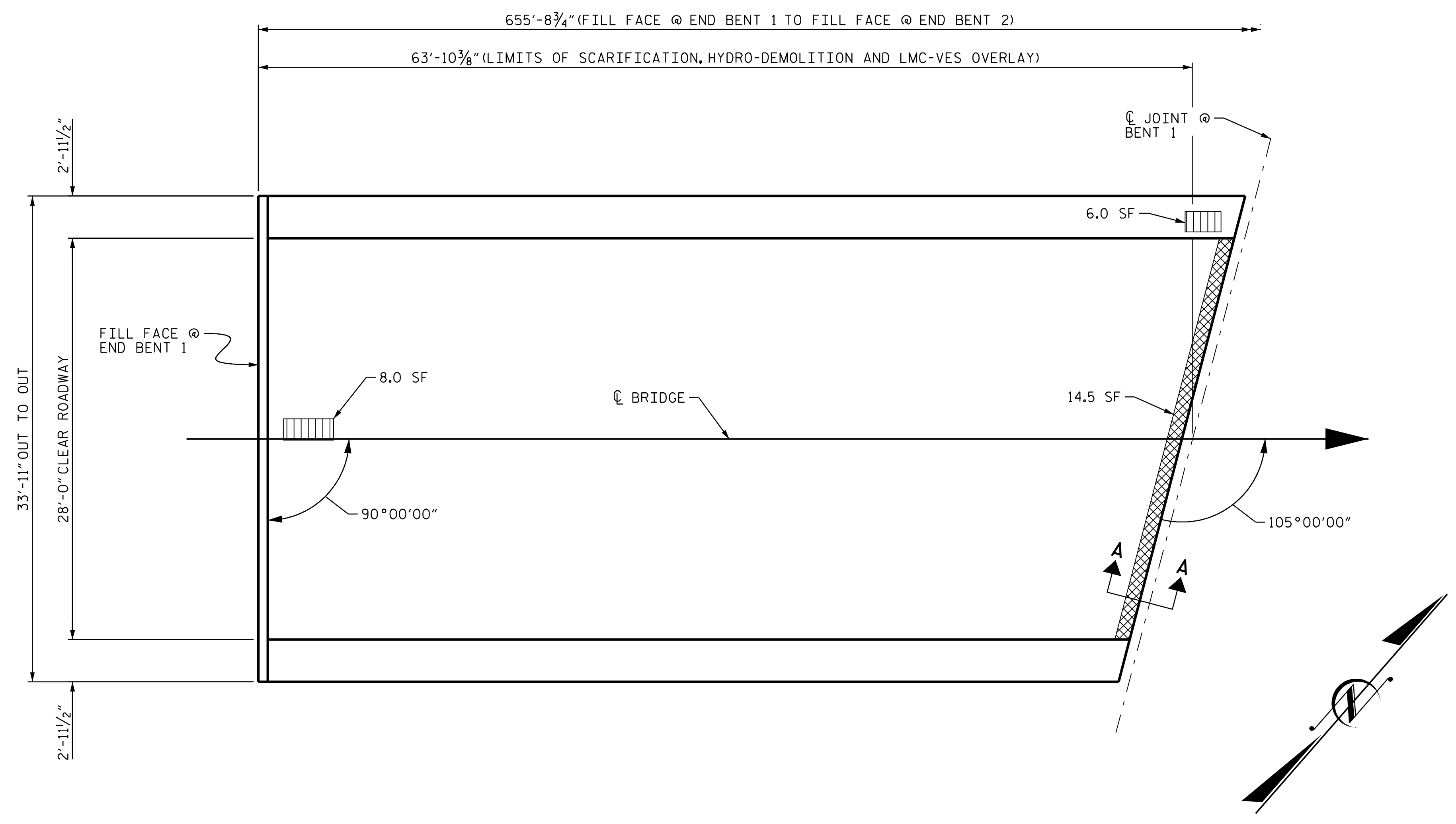
DRAWN BY : T. MAZARURA DATE : 8/22
 CHECKED BY : D. A. GLADDEN DATE : 4/24

23-APR-2024 20:23
 *****DCN*****
 brent.barnhill AT C-1001568

VOLKERT
 5430 Wade Park Blvd., Suite 410
 Raleigh, NC 27607
 Tel. 919-854-0344 Fax 919-854-0355
 NC License No. F-0765

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NO.	BY:	DATE:	NO.	BY:	DATE:	TOTAL SHEETS
1			3			5-120
2			4			156



PLAN OF SPAN A

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 AND DESCRIPTION OF THE REPAIRS AND ENTER THE ACTUAL QUANTITIES INTO THE AS-BUILT REPAIR QUANTITY TABLE.

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR CONCRETE FOR DECK REPAIR, SEE SPECIAL PROVISIONS.

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

EXISTING JOINTS AND DECK DRAINS SHALL BE SEALED PRIOR TO BEGINNING SURFACE PREPARATION OF THE BRIDGE DECK.

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

PREVIOUSLY PLACED LMC OVERLAY AT STAGED EDGES SHALL BE DEMOLISHED BACK A MINIMUM OF 4 INCHES AND RECAST WITH LMC.

FOR LMC OVERLAY - VES SURFACE PREPARATION, SEE SPECIAL PROVISIONS.

FINAL JOINT SEALS SHALL NOT BE INSTALLED UNTIL THE OVERLAY IS COMPLETE

FOR BRIDGE JOINT DEMOLITION, SEE SPECIAL PROVISIONS.

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

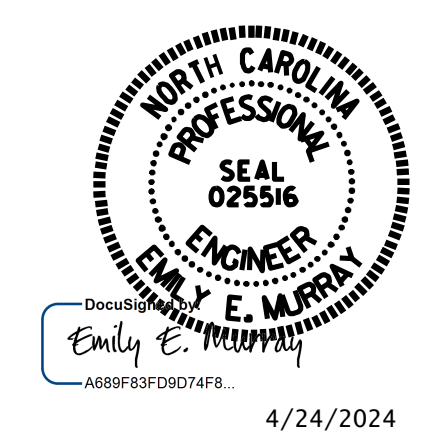
AS-BUILT REPAIR QUANTITY TABLE			
TOP OF DECK REPAIRS			
SPAN A			
	ESTIMATE	ACTUAL	
SCARIFYING BRIDGE DECK	198.7 SY		
HYDRO-DEMOLITION OF BRIDGE DECK	198.7 SY		
CLASS II SURFACE PREPARATION	0.0 SY		
CLASS III SURFACE PREPARATION	0.0 SY		
LMC OVERLAY-VES	8.3 CY		
PLACING AND FINISHING LMC OVERLAY-VES	198.7 SY		
GROOVING BRIDGE FLOORS	1592.4 SF		
BRIDGE JOINT DEMOLITION	14.5 SF		
UNDERSIDE OF DECK REPAIRS			
SHOTCRETE REPAIRS	ESTIMATE		ACTUAL
	AREA SF	VOLUME CF	AREA SF
UNDERSIDE OF DECK	8.0	2.8	
OVERHANG DIAPHRAGMS	0.0	0.0	
UNDERSIDE OF OVERHANG	6.0	2.0	
INTERIOR DIAPHRAGMS	0.0	0.0	
	ESTIMATE		ACTUAL
UNDERSIDE EPOXY RESIN INJECTION	0.0	LF	

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

- CLASS II SURFACE PREPARATION
- BRIDGE JOINT DEMOLITION
- UNDERSIDE REPAIR
- TEST LOCATION

PROJECT NO. 15BPR.130
 MOORE COUNTY
 STATION: 620072

SHEET 1 OF 10



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

PLAN OF SPAN A

DRAWN BY : B. H. BARNHILL DATE : 03/2024
 CHECKED BY : E. E. MURRAY DATE : 03/2024
 DESIGN ENGINEER OF RECORD: E. E. MURRAY DATE : 03/2024

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1			3			TOTAL SHEETS
2			4			156

AS-BUILT REPAIR QUANTITY TABLE

TOP OF DECK REPAIRS





SPAN B

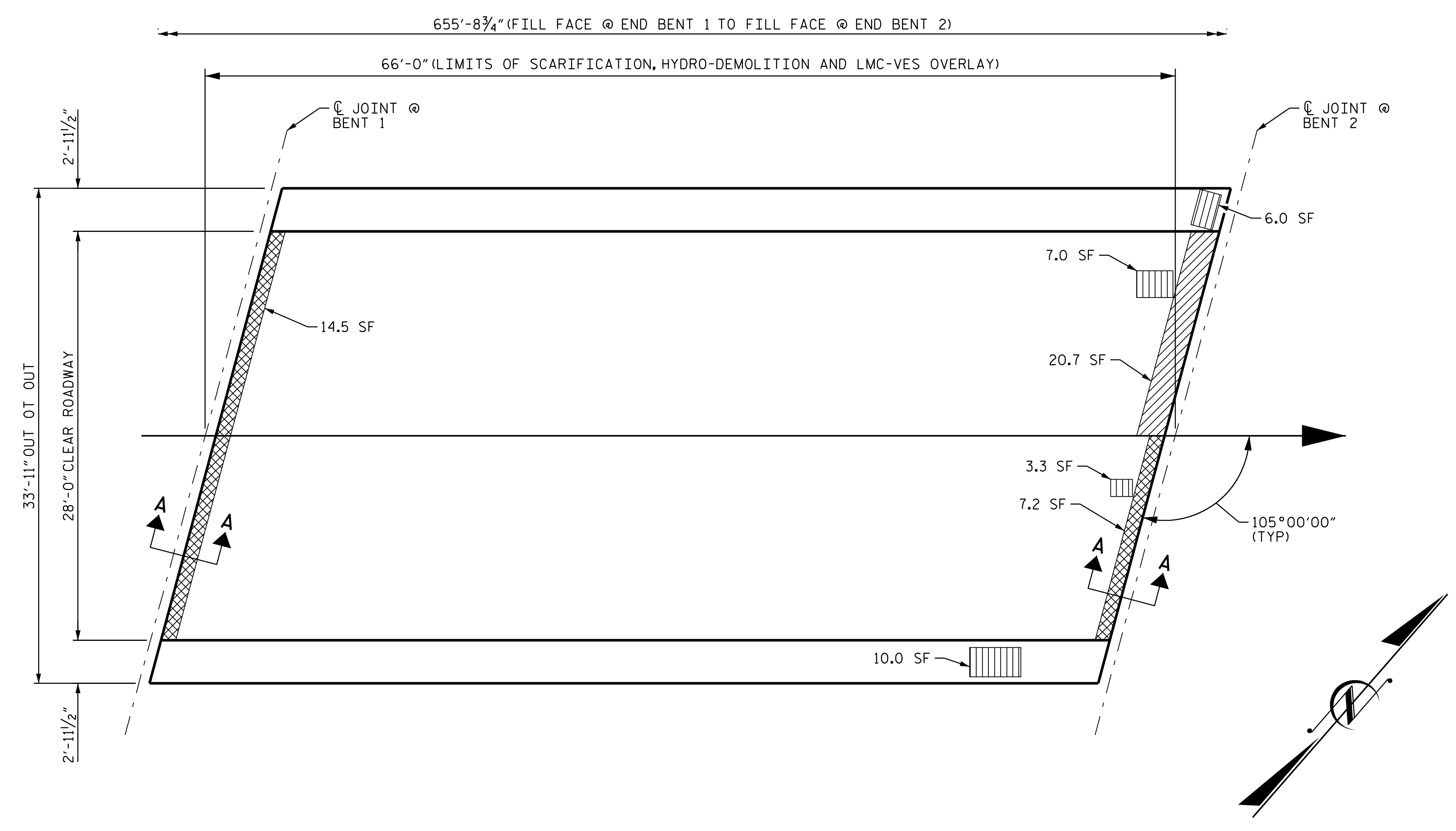
	ESTIMATE	ACTUAL
SCARIFYING BRIDGE DECK	205.3 SY	
HYDRO-DEMOLITION OF BRIDGE DECK	205.3 SY	
CLASS II SURFACE PREPARATION	2.3 SY	
CLASS III SURFACE PREPARATION	0.0 SY	
LMC OVERLAY-VES	8.6 CY	
PLACING AND FINISHING LMC OVERLAY-VES	205.3 SY	
GROOVING BRIDGE FLOORS	1641.7 SF	
BRIDGE JOINT DEMOLITION	21.7 SF	

UNDERSIDE OF DECK REPAIRS

SHOTCRETE REPAIRS	ESTIMATE		ACTUAL
	AREA SF	VOLUME CF	AREA SF
UNDERSIDE OF DECK	0.0	0.0	
OVERHANG DIAPHRAGMS	0.0	0.0	
UNDERSIDE OF OVERHANG	16.0	3.4	
INTERIOR DIAPHRAGMS	10.3	3.7	
	ESTIMATE	ACTUAL	
UNDERSIDE EPOXY RESIN INJECTION	0.0	LF	

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

-  CLASS II SURFACE PREPARATION
-  BRIDGE JOINT DEMOLITION
-  UNDERSIDE REPAIR
-  TEST LOCATION



PLAN OF SPAN B

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 AND DESCRIPTION OF THE REPAIRS AND ENTER THE ACTUAL QUANTITIES INTO THE AS-BUILT REPAIR QUANTITY TABLE.

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR CONCRETE FOR DECK REPAIR, SEE SPECIAL PROVISIONS.

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

EXISTING JOINTS AND DECK DRAINS SHALL BE SEALED PRIOR TO BEGINNING SURFACE PREPARATION OF THE BRIDGE DECK.

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

PREVIOUSLY PLACED LMC OVERLAY AT STAGED EDGES SHALL BE DEMOLISHED BACK A MINIMUM OF 4 INCHES AND RECAST WITH LMC.

FOR LMC OVERLAY - VES SURFACE PREPARATION, SEE SPECIAL PROVISIONS.

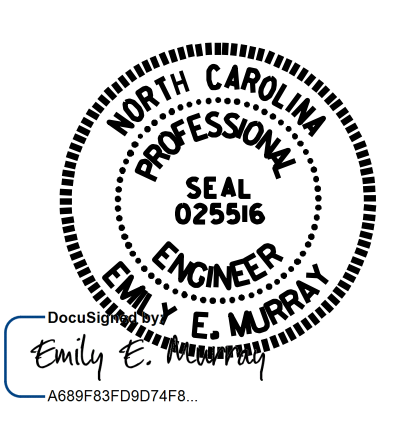
FINAL JOINT SEALS SHALL NOT BE INSTALLED UNTIL THE OVERLAY IS COMPLETE

FOR BRIDGE JOINT DEMOLITION, SEE SPECIAL PROVISIONS.

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

PROJECT NO. 15BPR.130
MOORE COUNTY
 STATION: 620072

SHEET 2 OF 10



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

PLAN OF SPAN B

DRAWN BY :	B. H. BARNHILL	DATE :	03/2024
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DESIGN ENGINEER OF RECORD:	E. E. MURRAY	DATE :	03/2024

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1				3			S-122	
2				4			TOTAL SHEETS 156	

AS-BUILT REPAIR QUANTITY TABLE

TOP OF DECK REPAIRS

SPAN C

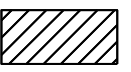



	ESTIMATE	ACTUAL
SCARIFYING BRIDGE DECK	205.3 SY	
HYDRO-DEMOLITION OF BRIDGE DECK	205.3 SY	
CLASS II SURFACE PREPARATION	4.9 SY	
CLASS III SURFACE PREPARATION	0.0 SY	
LMC OVERLAY-VES	8.6 CY	
PLACING AND FINISHING LMC OVERLAY-VES	205.3 SY	
GROOVING BRIDGE FLOORS	1641.7 SF	
BRIDGE JOINT DEMOLITION	14.5 SF	

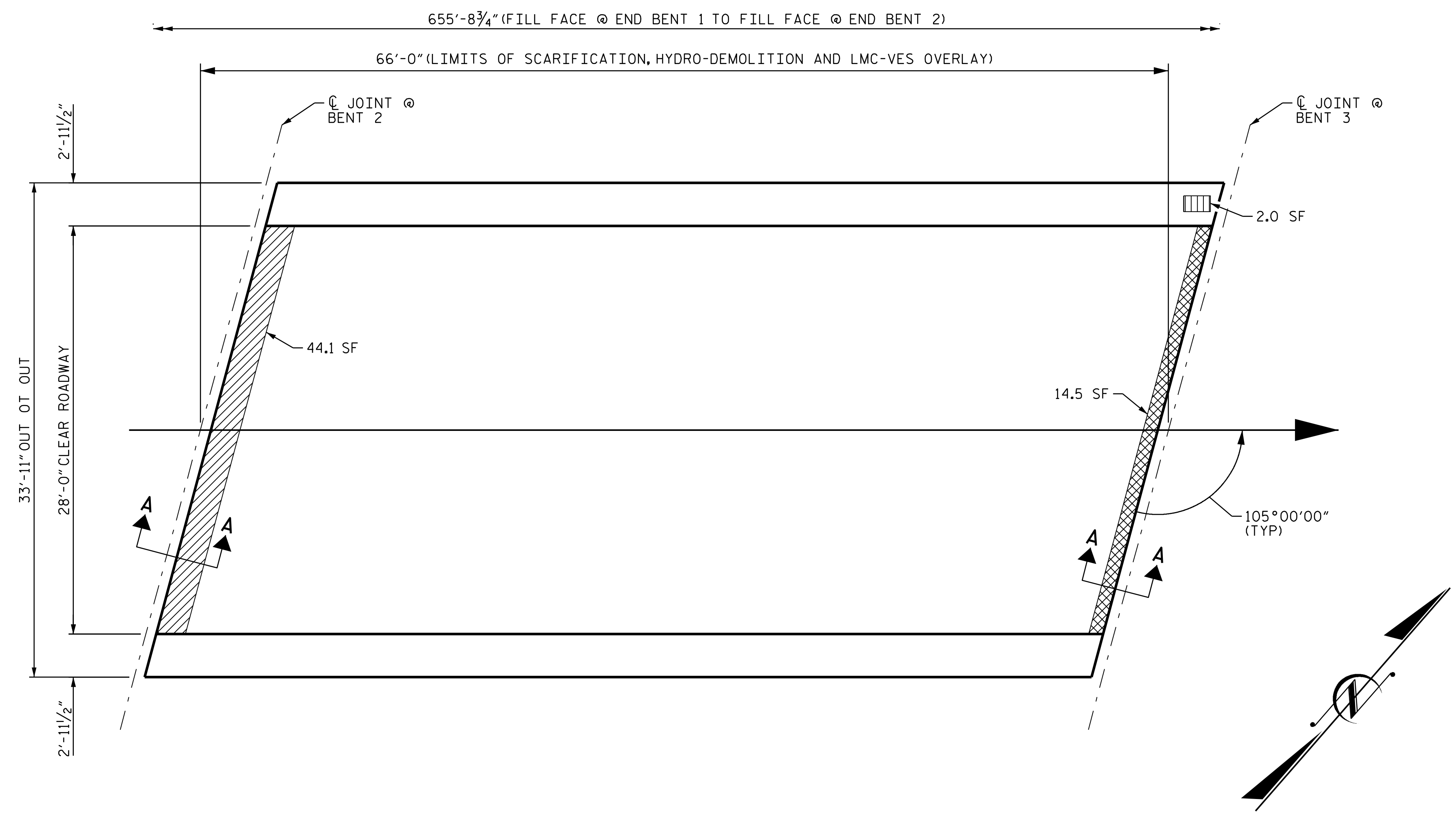
UNDERSIDE OF DECK REPAIRS

SHOTCRETE REPAIRS	ESTIMATE		ACTUAL
	AREA SF	VOLUME CF	AREA SF
UNDERSIDE OF DECK	0.0	0.0	
OVERHANG DIAPHRAGMS	0.0	0.0	
UNDERSIDE OF OVERHANG	2.0	0.7	
INTERIOR DIAPHRAGMS	0.0	0.0	

	ESTIMATE	ACTUAL
UNDERSIDE EPOXY RESIN INJECTION	0.0 LF	

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

-  CLASS II SURFACE PREPARATION
-  BRIDGE JOINT DEMOLITION
-  UNDERSIDE REPAIR
-  TEST LOCATION



PLAN OF SPAN C

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 AND DESCRIPTION OF THE REPAIRS AND ENTER THE ACTUAL QUANTITIES INTO THE AS-BUILT REPAIR QUANTITY TABLE.

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR CONCRETE FOR DECK REPAIR, SEE SPECIAL PROVISIONS.

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

EXISTING JOINTS AND DECK DRAINS SHALL BE SEALED PRIOR TO BEGINNING SURFACE PREPARATION OF THE BRIDGE DECK.

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

PREVIOUSLY PLACED LMC OVERLAY AT STAGED EDGES SHALL BE DEMOLISHED BACK A MINIMUM OF 4 INCHES AND RECAST WITH LMC.

FOR LMC OVERLAY - VES SURFACE PREPARATION, SEE SPECIAL PROVISIONS.

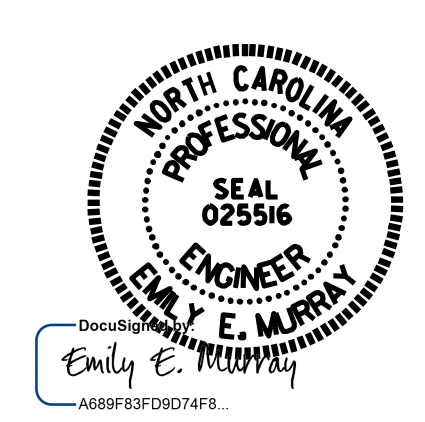
FINAL JOINT SEALS SHALL NOT BE INSTALLED UNTIL THE OVERLAY IS COMPLETE

FOR BRIDGE JOINT DEMOLITION, SEE SPECIAL PROVISIONS.

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

PROJECT NO. 15BPR.130
MOORE COUNTY
 STATION: 620072

SHEET 3 OF 10



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

PLAN OF SPAN C

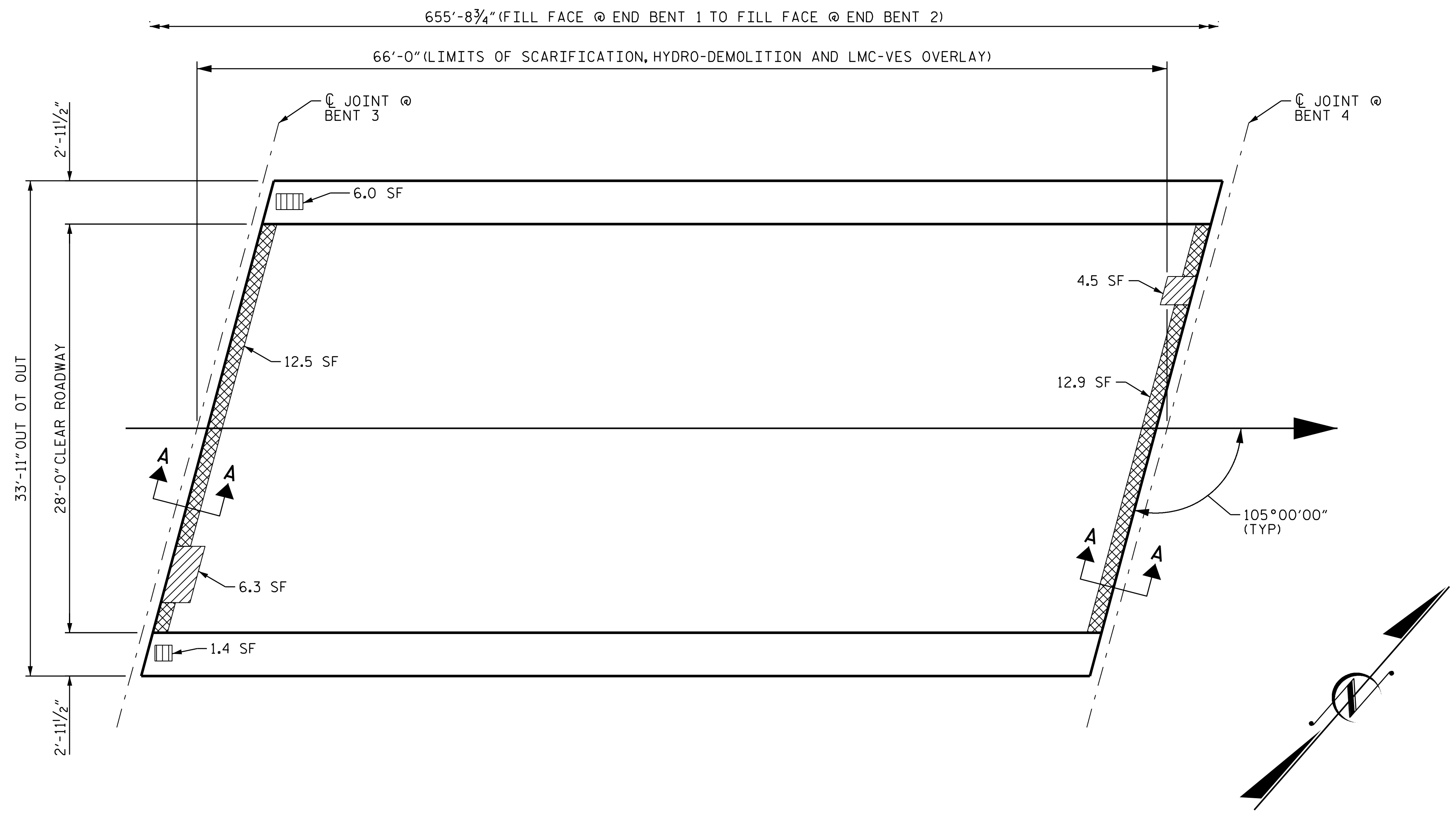
DRAWN BY : B. H. BARNHILL DATE : 03/2024
 CHECKED BY : E. E. MURRAY DATE : 03/2024
 DESIGN ENGINEER OF RECORD: E. E. MURRAY DATE : 03/2024

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1			3			TOTAL SHEETS
2			4			156

AS-BUILT REPAIR QUANTITY TABLE

TOP OF DECK REPAIRS			
SPAN D			
	ESTIMATE		ACTUAL
SCARIFYING BRIDGE DECK	205.3	SY	
HYDRO-DEMOLITION OF BRIDGE DECK	205.3	SY	
CLASS II SURFACE PREPARATION	1.2	SY	
CLASS III SURFACE PREPARATION	0.0	SY	
LMC OVERLAY-VES	8.6	CY	
PLACING AND FINISHING LMC OVERLAY-VES	205.3	SY	
GROOVING BRIDGE FLOORS	1641.7	SF	
BRIDGE JOINT DEMOLITION	25.4	SF	
UNDERSIDE OF DECK REPAIRS			
SHOTCRETE REPAIRS	ESTIMATE		ACTUAL
	AREA SF	VOLUME CF	AREA SF
UNDERSIDE OF DECK	0.0	0.0	
OVERHANG DIAPHRAGMS	0.0	0.0	
UNDERSIDE OF OVERHANG	7.4	2.5	
INTERIOR DIAPHRAGMS	0.0	0.0	
	ESTIMATE		ACTUAL
UNDERSIDE EPOXY RESIN INJECTION	0.0	LF	



PLAN OF SPAN D

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

- CLASS II SURFACE PREPARATION
- BRIDGE JOINT DEMOLITION
- UNDERSIDE REPAIR
- TEST LOCATION

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 AND DESCRIPTION OF THE REPAIRS AND ENTER THE ACTUAL QUANTITIES INTO THE AS-BUILT REPAIR QUANTITY TABLE.

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR CONCRETE FOR DECK REPAIR, SEE SPECIAL PROVISIONS.

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

EXISTING JOINTS AND DECK DRAINS SHALL BE SEALED PRIOR TO BEGINNING SURFACE PREPARATION OF THE BRIDGE DECK.

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

PREVIOUSLY PLACED LMC OVERLAY AT STAGED EDGES SHALL BE DEMOLISHED BACK A MINIMUM OF 4 INCHES AND RECAST WITH LMC.

FOR LMC OVERLAY - VES SURFACE PREPARATION, SEE SPECIAL PROVISIONS.

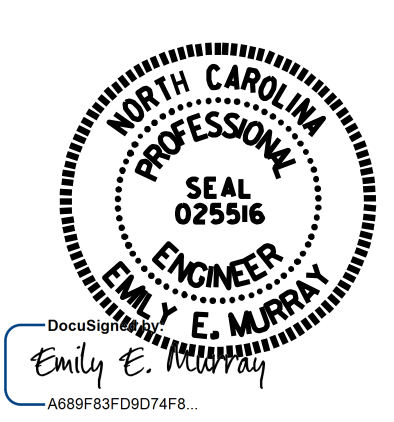
FINAL JOINT SEALS SHALL NOT BE INSTALLED UNTIL THE OVERLAY IS COMPLETE

FOR BRIDGE JOINT DEMOLITION, SEE SPECIAL PROVISIONS.

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

PROJECT NO. 15BPR.130
MOORE COUNTY
 STATION: 620072

SHEET 4 OF 10



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

PLAN OF SPAN D

DRAWN BY :	B. H. BARNHILL	DATE :	03/2024
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DESIGN ENGINEER OF RECORD:	E. E. MURRAY	DATE :	03/2024

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1				3				S-124
2				4				TOTAL SHEETS 156

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AS-BUILT REPAIR QUANTITY TABLE

TOP OF DECK REPAIRS





SPAN E

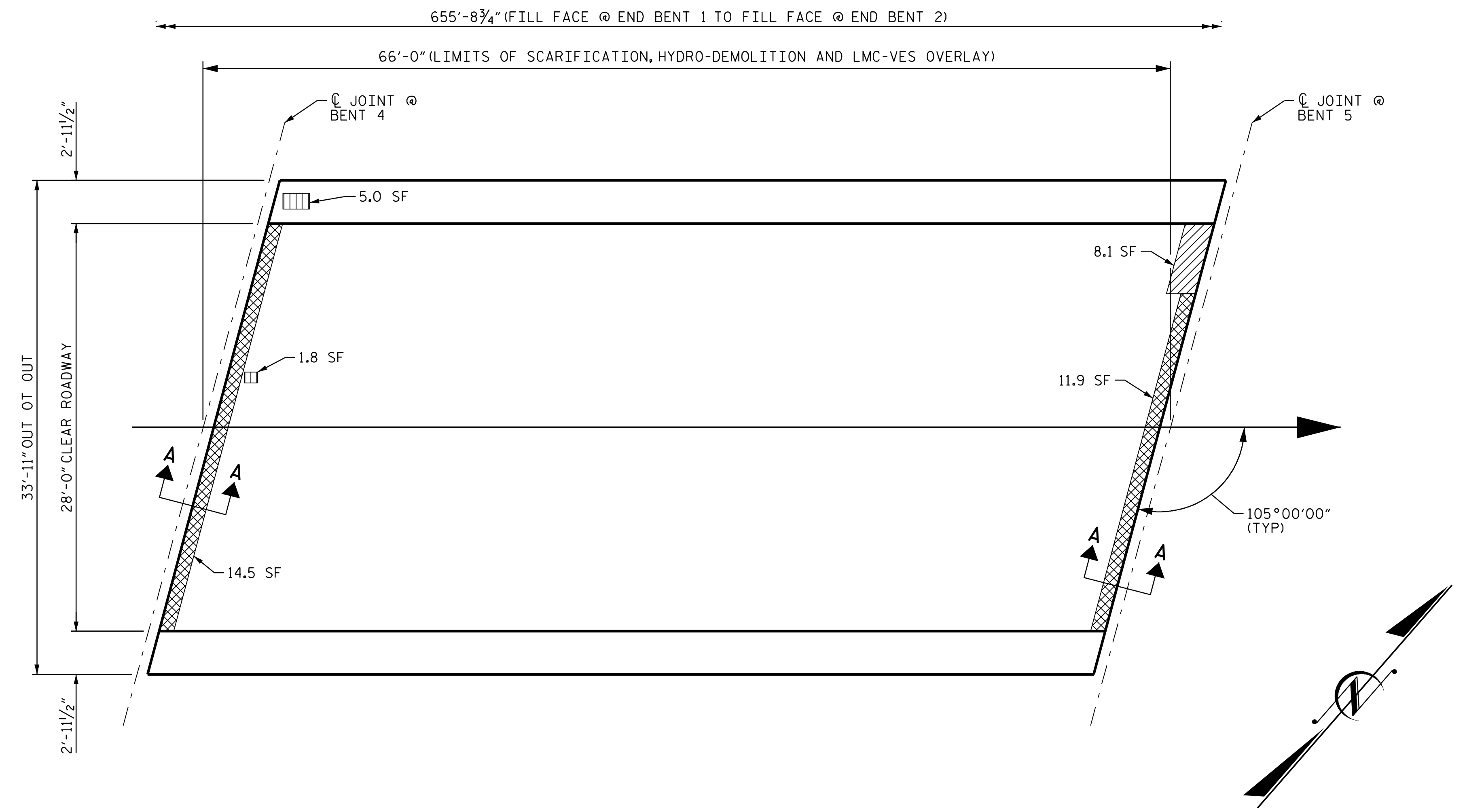
	ESTIMATE	ACTUAL
SCARIFYING BRIDGE DECK	205.3 SY	
HYDRO-DEMOLITION OF BRIDGE DECK	205.3 SY	
CLASS II SURFACE PREPARATION	0.9 SY	
CLASS III SURFACE PREPARATION	0.0 SY	
LMC OVERLAY-VES	8.6 CY	
PLACING AND FINISHING LMC OVERLAY-VES	205.3 SY	
GROOVING BRIDGE FLOORS	1641.7 SF	
BRIDGE JOINT DEMOLITION	26.4 SF	

UNDERSIDE OF DECK REPAIRS

SHOTCRETE REPAIRS	ESTIMATE		ACTUAL
	AREA SF	VOLUME CF	AREA SF
UNDERSIDE OF DECK	0.0	0.0	
OVERHANG DIAPHRAGMS	1.8	0.6	
UNDERSIDE OF OVERHANG	5.0	1.7	
INTERIOR DIAPHRAGMS	0.0	0.0	
	ESTIMATE	ACTUAL	
UNDERSIDE EPOXY RESIN INJECTION	0.0	LF	

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

-  CLASS II SURFACE PREPARATION
-  BRIDGE JOINT DEMOLITION
-  UNDERSIDE REPAIR
-  TEST LOCATION



PLAN OF SPAN E

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 AND DESCRIPTION OF THE REPAIRS AND ENTER THE ACTUAL QUANTITIES INTO THE AS-BUILT REPAIR QUANTITY TABLE.

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR CONCRETE FOR DECK REPAIR, SEE SPECIAL PROVISIONS.

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

EXISTING JOINTS AND DECK DRAINS SHALL BE SEALED PRIOR TO BEGINNING SURFACE PREPARATION OF THE BRIDGE DECK.

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

PREVIOUSLY PLACED LMC OVERLAY AT STAGED EDGES SHALL BE DEMOLISHED BACK A MINIMUM OF 4 INCHES AND RECAST WITH LMC.

FOR LMC OVERLAY - VES SURFACE PREPARATION, SEE SPECIAL PROVISIONS.

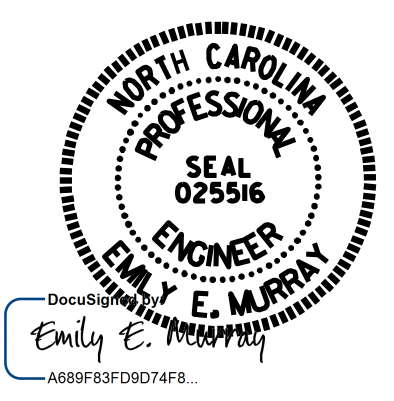
FINAL JOINT SEALS SHALL NOT BE INSTALLED UNTIL THE OVERLAY IS COMPLETE

FOR BRIDGE JOINT DEMOLITION, SEE SPECIAL PROVISIONS.

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

PROJECT NO. 15BPR.130
MOORE COUNTY
 STATION: 620072

SHEET 5 OF 10



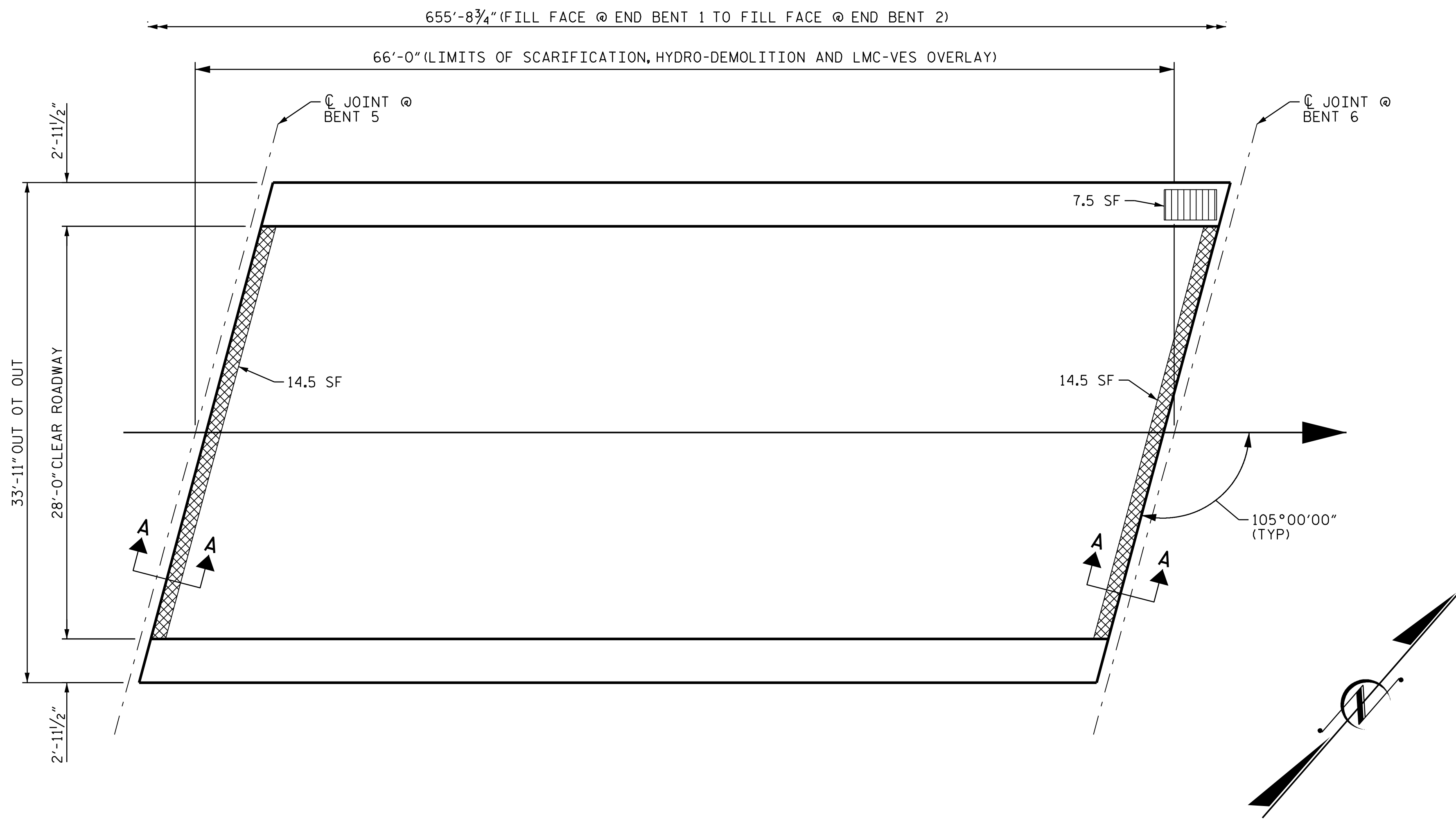
STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

PLAN OF SPAN E

DRAWN BY : B. H. BARNHILL DATE : 03/2024
 CHECKED BY : E. E. MURRAY DATE : 03/2024
 DESIGN ENGINEER OF RECORD: E. E. MURRAY DATE : 03/2024

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1			3			TOTAL SHEETS
2			4			156



PLAN OF SPAN F

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 AND DESCRIPTION OF THE REPAIRS AND ENTER THE ACTUAL QUANTITIES INTO THE AS-BUILT REPAIR QUANTITY TABLE.

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR CONCRETE FOR DECK REPAIR, SEE SPECIAL PROVISIONS.

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

EXISTING JOINTS AND DECK DRAINS SHALL BE SEALED PRIOR TO BEGINNING SURFACE PREPARATION OF THE BRIDGE DECK.

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

PREVIOUSLY PLACED LMC OVERLAY AT STAGED EDGES SHALL BE DEMOLISHED BACK A MINIMUM OF 4 INCHES AND RECAST WITH LMC.

FOR LMC OVERLAY - VES SURFACE PREPARATION, SEE SPECIAL PROVISIONS.

FINAL JOINT SEALS SHALL NOT BE INSTALLED UNTIL THE OVERLAY IS COMPLETE

FOR BRIDGE JOINT DEMOLITION, SEE SPECIAL PROVISIONS.

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

AS-BUILT REPAIR QUANTITY TABLE

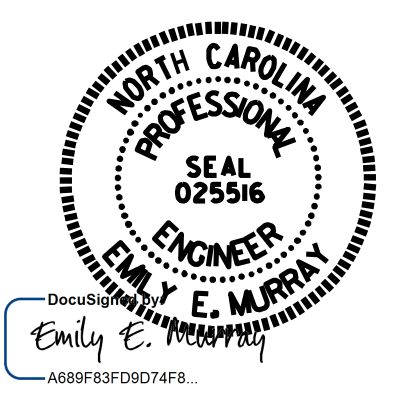
TOP OF DECK REPAIRS			
SPAN F			
	ESTIMATE	ACTUAL	
SCARIFYING BRIDGE DECK	205.3 SY		
HYDRO-DEMOLITION OF BRIDGE DECK	205.3 SY		
CLASS II SURFACE PREPARATION	0.0 SY		
CLASS III SURFACE PREPARATION	0.0 SY		
LMC OVERLAY-VES	8.6 CY		
PLACING AND FINISHING LMC OVERLAY-VES	205.3 SY		
GROOVING BRIDGE FLOORS	1641.7 SF		
BRIDGE JOINT DEMOLITION	29.0 SF		
UNDERSIDE OF DECK REPAIRS			
SHOTCRETE REPAIRS	ESTIMATE		ACTUAL
	AREA SF	VOLUME CF	AREA SF
UNDERSIDE OF DECK	0.0	0.0	
OVERHANG DIAPHRAGMS	0.0	0.0	
UNDERSIDE OF OVERHANG	7.5	2.5	
INTERIOR DIAPHRAGMS	0.0	0.0	
		ESTIMATE	ACTUAL
UNDERSIDE EPOXY RESIN INJECTION		0.0 LF	

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

- CLASS II SURFACE PREPARATION
- BRIDGE JOINT DEMOLITION
- UNDERSIDE REPAIR
- TEST LOCATION

PROJECT NO. 15BPR.130
 MOORE COUNTY
 STATION: 620072

SHEET 6 OF 10



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

PLAN OF SPAN F

DRAWN BY : B. H. BARNHILL DATE : 03/2024
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1				3			S-126	
2				4			TOTAL SHEETS 156	

AS-BUILT REPAIR QUANTITY TABLE

TOP OF DECK REPAIRS





SPAN G

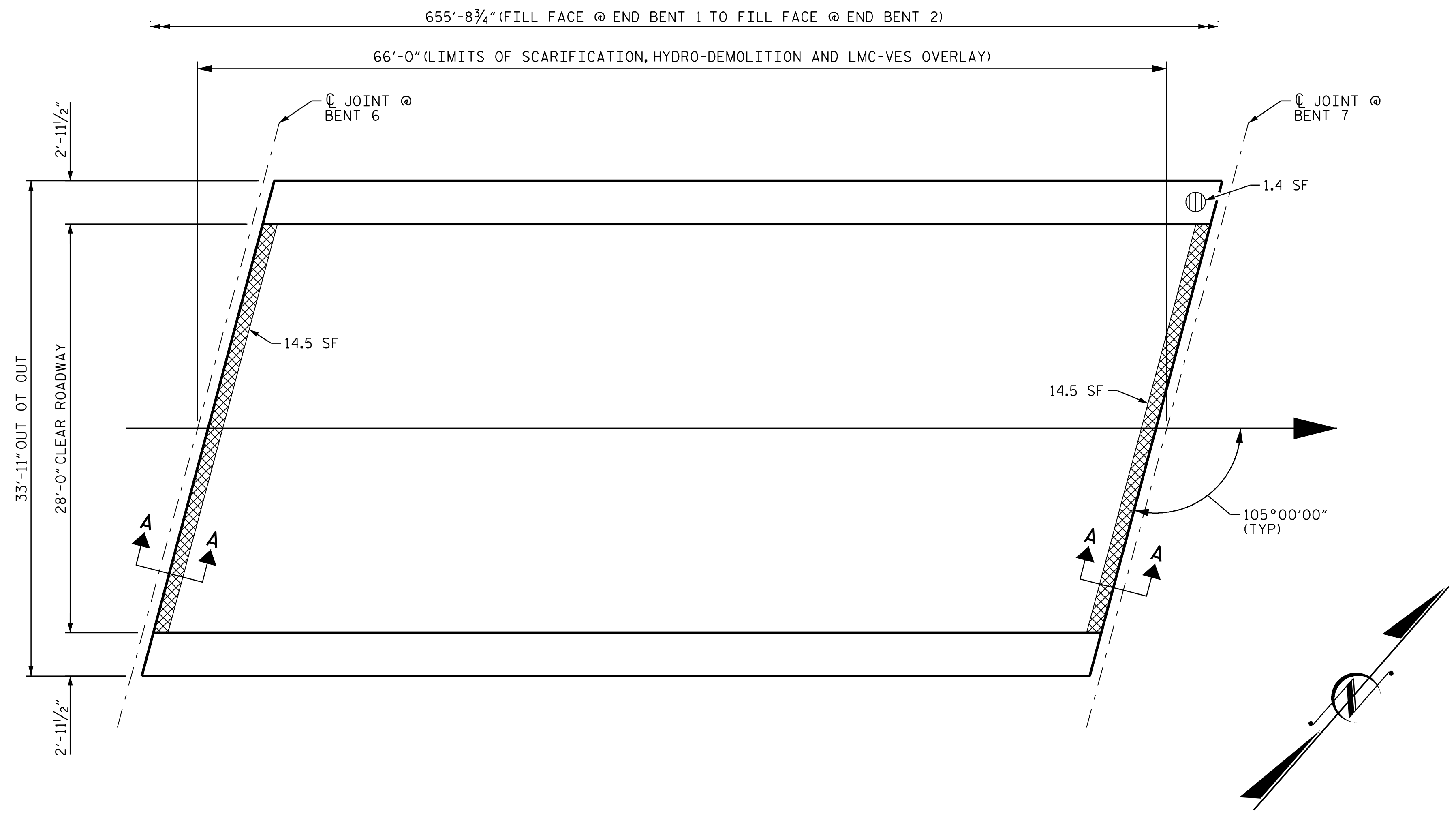
	ESTIMATE	ACTUAL
SCARIFYING BRIDGE DECK	205.3 SY	
HYDRO-DEMOLITION OF BRIDGE DECK	205.3 SY	
CLASS II SURFACE PREPARATION	0.0 SY	
CLASS III SURFACE PREPARATION	0.0 SY	
LMC OVERLAY-VES	8.6 CY	
PLACING AND FINISHING LMC OVERLAY-VES	205.3 SY	
GROOVING BRIDGE FLOORS	1641.7 SF	
BRIDGE JOINT DEMOLITION	29.0 SF	

UNDERSIDE OF DECK REPAIRS

SHOTCRETE REPAIRS	ESTIMATE		ACTUAL
	AREA SF	VOLUME CF	AREA SF
UNDERSIDE OF DECK	0.0	0.0	
OVERHANG DIAPHRAGMS	0.0	0.0	
UNDERSIDE OF OVERHANG	1.4	0.5	
INTERIOR DIAPHRAGMS	0.0	0.0	
	ESTIMATE	ACTUAL	
UNDERSIDE EPOXY RESIN INJECTION	0.0	LF	

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

-  CLASS II SURFACE PREPARATION
-  BRIDGE JOINT DEMOLITION
-  UNDERSIDE REPAIR
-  TEST LOCATION



PLAN OF SPAN G

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 AND DESCRIPTION OF THE REPAIRS AND ENTER THE ACTUAL QUANTITIES INTO THE AS-BUILT REPAIR QUANTITY TABLE.

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR CONCRETE FOR DECK REPAIR, SEE SPECIAL PROVISIONS.

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

EXISTING JOINTS AND DECK DRAINS SHALL BE SEALED PRIOR TO BEGINNING SURFACE PREPARATION OF THE BRIDGE DECK.

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

PREVIOUSLY PLACED LMC OVERLAY AT STAGED EDGES SHALL BE DEMOLISHED BACK A MINIMUM OF 4 INCHES AND RECAST WITH LMC.

FOR LMC OVERLAY - VES SURFACE PREPARATION, SEE SPECIAL PROVISIONS.

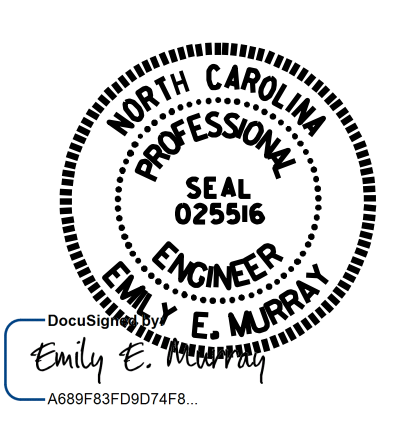
FINAL JOINT SEALS SHALL NOT BE INSTALLED UNTIL THE OVERLAY IS COMPLETE

FOR BRIDGE JOINT DEMOLITION, SEE SPECIAL PROVISIONS.

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

PROJECT NO. 15BPR.130
MOORE COUNTY
 STATION: 620072

SHEET 7 OF 10



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

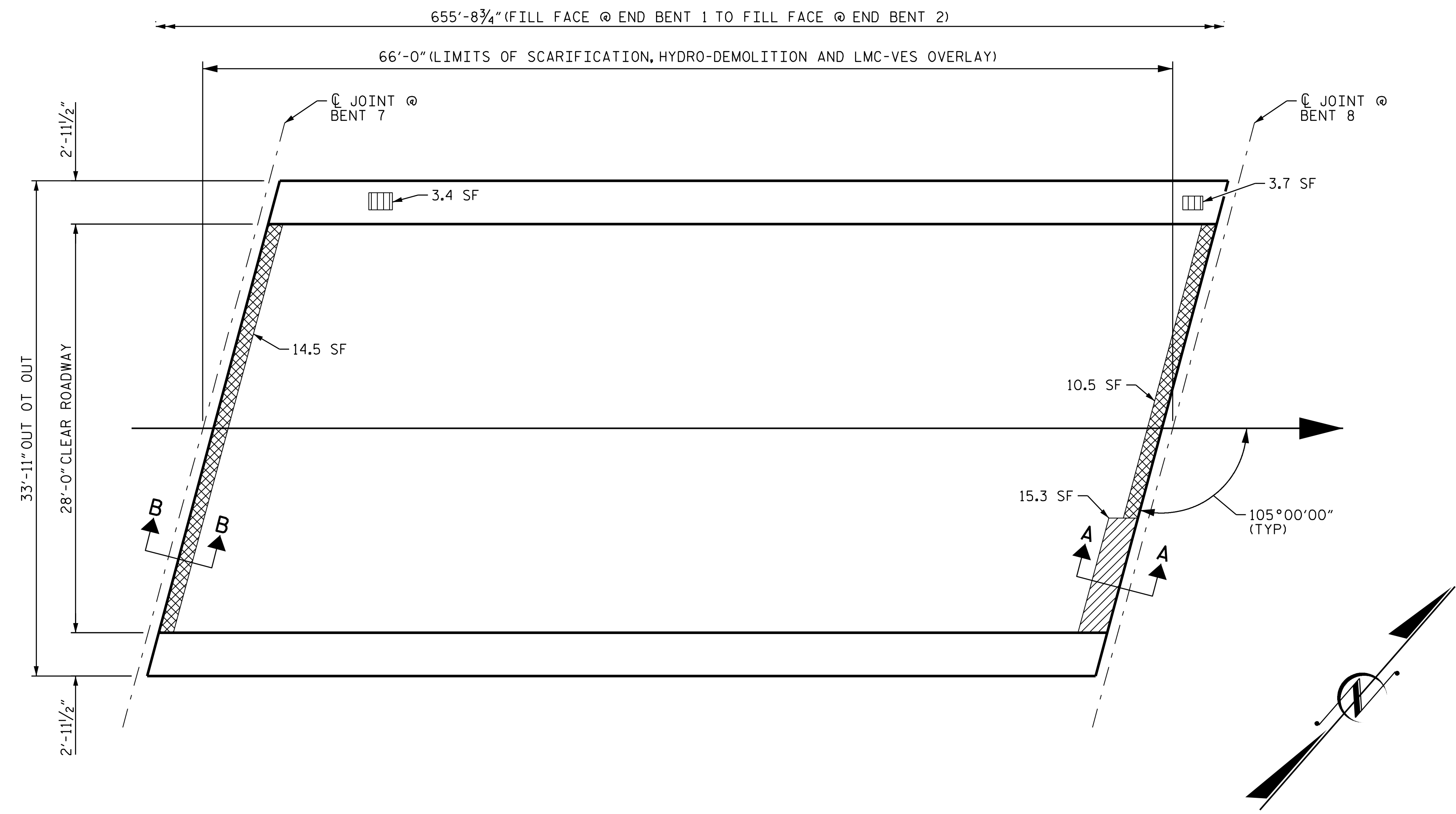
PLAN OF SPAN G

DRAWN BY : B. H. BARNHILL DATE : 03/2024
 CHECKED BY : E. E. MURRAY DATE : 03/2024
 DESIGN ENGINEER OF RECORD: E. E. MURRAY DATE : 03/2024

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2			4			156

AS-BUILT REPAIR QUANTITY TABLE			
TOP OF DECK REPAIRS			
SPAN H			
	ESTIMATE	ACTUAL	
SCARIFYING BRIDGE DECK	205.3 SY		
HYDRO-DEMOLITION OF BRIDGE DECK	205.3 SY		
CLASS II SURFACE PREPARATION	1.7 SY		
CLASS III SURFACE PREPARATION	0.0 SY		
LMC OVERLAY-VES	8.6 CY		
PLACING AND FINISHING LMC OVERLAY-VES	205.3 SY		
GROOVING BRIDGE FLOORS	1641.7 SF		
BRIDGE JOINT DEMOLITION	25.0 SF		
UNDERSIDE OF DECK REPAIRS			
SHOTCRETE REPAIRS	ESTIMATE		ACTUAL
	AREA SF	VOLUME CF	AREA SF
UNDERSIDE OF DECK	0.0	0.0	
OVERHANG DIAPHRAGMS	0.0	0.0	
UNDERSIDE OF OVERHANG	7.1	2.4	
INTERIOR DIAPHRAGMS	0.0	0.0	
		ESTIMATE	ACTUAL
UNDERSIDE EPOXY RESIN INJECTION		0.0	LF



PLAN OF SPAN H

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

- CLASS II SURFACE PREPARATION
- BRIDGE JOINT DEMOLITION
- UNDERSIDE REPAIR
- TEST LOCATION

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 AND DESCRIPTION OF THE REPAIRS AND ENTER THE ACTUAL QUANTITIES INTO THE AS-BUILT REPAIR QUANTITY TABLE.

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR CONCRETE FOR DECK REPAIR, SEE SPECIAL PROVISIONS.

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

EXISTING JOINTS AND DECK DRAINS SHALL BE SEALED PRIOR TO BEGINNING SURFACE PREPARATION OF THE BRIDGE DECK.

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

PREVIOUSLY PLACED LMC OVERLAY AT STAGED EDGES SHALL BE DEMOLISHED BACK A MINIMUM OF 4 INCHES AND RECAST WITH LMC.

FOR LMC OVERLAY - VES SURFACE PREPARATION, SEE SPECIAL PROVISIONS.

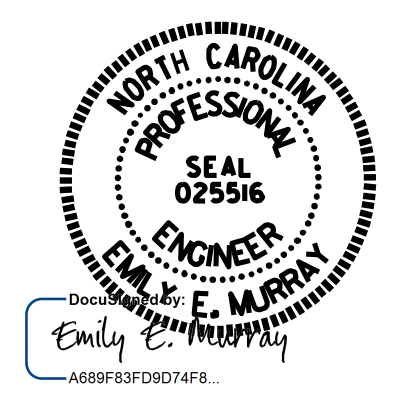
FINAL JOINT SEALS SHALL NOT BE INSTALLED UNTIL THE OVERLAY IS COMPLETE

FOR BRIDGE JOINT DEMOLITION, SEE SPECIAL PROVISIONS.

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

PROJECT NO. 15BPR.130
 MOORE COUNTY
 STATION: 620072

SHEET 8 OF 10



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

PLAN OF SPAN H

DRAWN BY : B. H. BARNHILL DATE : 03/2024
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 DESIGN ENGINEER OF RECORD: E. E. MURRAY DATE : 03/2024

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1			3			TOTAL SHEETS
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AS-BUILT REPAIR QUANTITY TABLE

TOP OF DECK REPAIRS





SPAN J

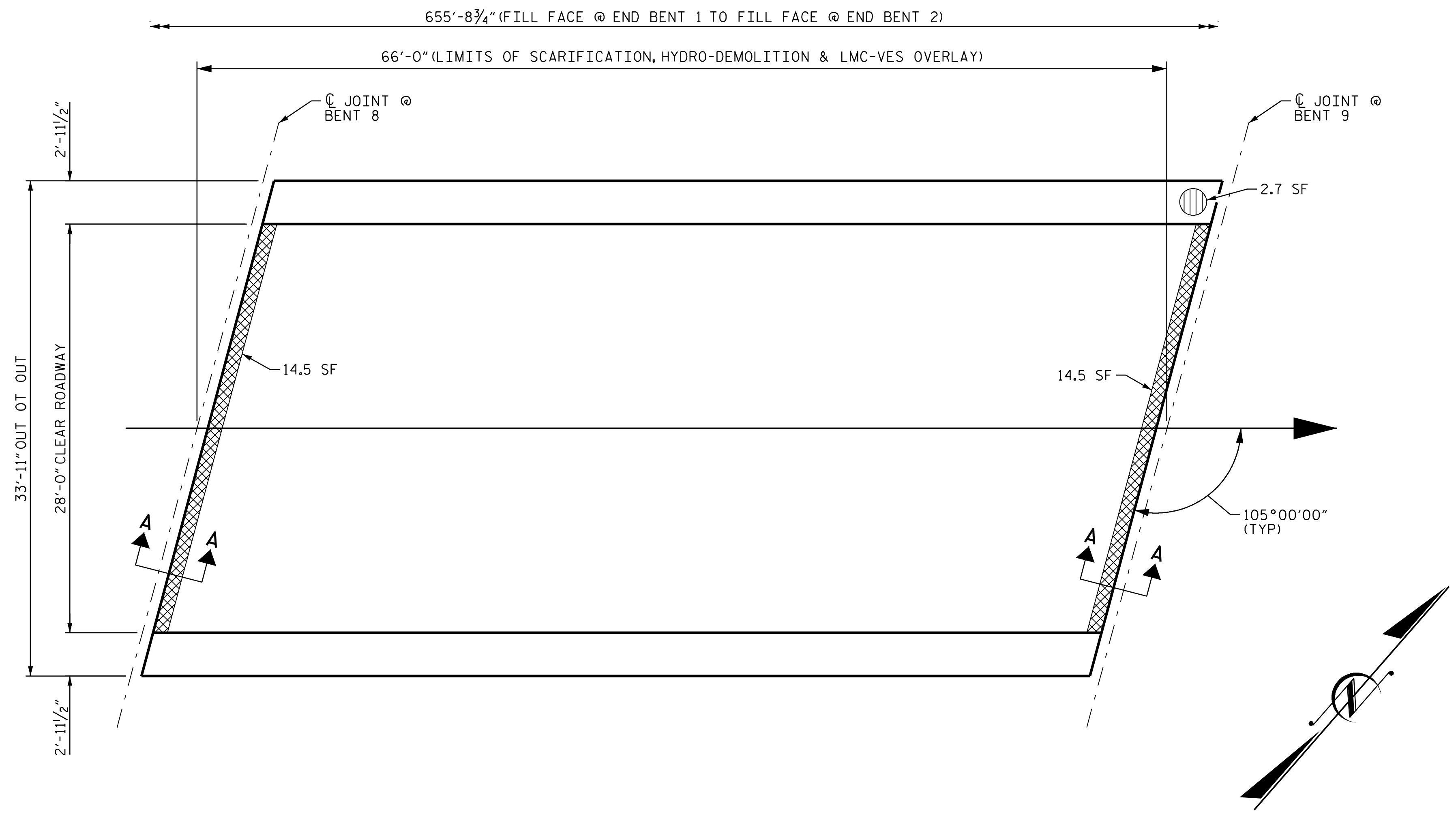
	ESTIMATE	ACTUAL
SCARIFYING BRIDGE DECK	205.3 SY	
HYDRO-DEMOLITION OF BRIDGE DECK	205.3 SY	
CLASS II SURFACE PREPARATION	0.0 SY	
CLASS III SURFACE PREPARATION	0.0 SY	
LMC OVERLAY-VES	8.6 CY	
PLACING AND FINISHING LMC OVERLAY-VES	205.3 SY	
GROOVING BRIDGE FLOORS	1641.7 SF	
BRIDGE JOINT DEMOLITION	29.0 SF	

UNDERSIDE OF DECK REPAIRS

SHOTCRETE REPAIRS	ESTIMATE		ACTUAL
	AREA SF	VOLUME CF	AREA SF
UNDERSIDE OF DECK	0.0	0.0	
OVERHANG DIAPHRAGMS	0.0	0.0	
UNDERSIDE OF OVERHANG	2.7	0.9	
INTERIOR DIAPHRAGMS	0.0	0.0	
	ESTIMATE	ACTUAL	
UNDERSIDE EPOXY RESIN INJECTION	0.0	LF	

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

-  CLASS II SURFACE PREPARATION
-  BRIDGE JOINT DEMOLITION
-  UNDERSIDE REPAIR
-  TEST LOCATION



PLAN OF SPAN J

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 AND DESCRIPTION OF THE REPAIRS AND ENTER THE ACTUAL QUANTITIES INTO THE AS-BUILT REPAIR QUANTITY TABLE.

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR CONCRETE FOR DECK REPAIR, SEE SPECIAL PROVISIONS.

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

EXISTING JOINTS AND DECK DRAINS SHALL BE SEALED PRIOR TO BEGINNING SURFACE PREPARATION OF THE BRIDGE DECK.

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

PREVIOUSLY PLACED LMC OVERLAY AT STAGED EDGES SHALL BE DEMOLISHED BACK A MINIMUM OF 4 INCHES AND RECAST WITH LMC.

FOR LMC OVERLAY - VES SURFACE PREPARATION, SEE SPECIAL PROVISIONS.

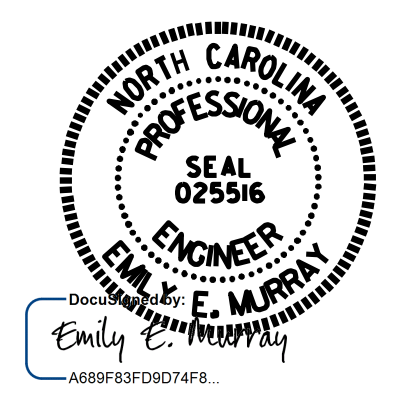
FINAL JOINT SEALS SHALL NOT BE INSTALLED UNTIL THE OVERLAY IS COMPLETE

FOR BRIDGE JOINT DEMOLITION, SEE SPECIAL PROVISIONS.

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

PROJECT NO. 15BPR.130
MOORE COUNTY
 STATION: 620072

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STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
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PLAN OF SPAN J

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AS-BUILT REPAIR QUANTITY TABLE

TOP OF DECK REPAIRS





SPAN K

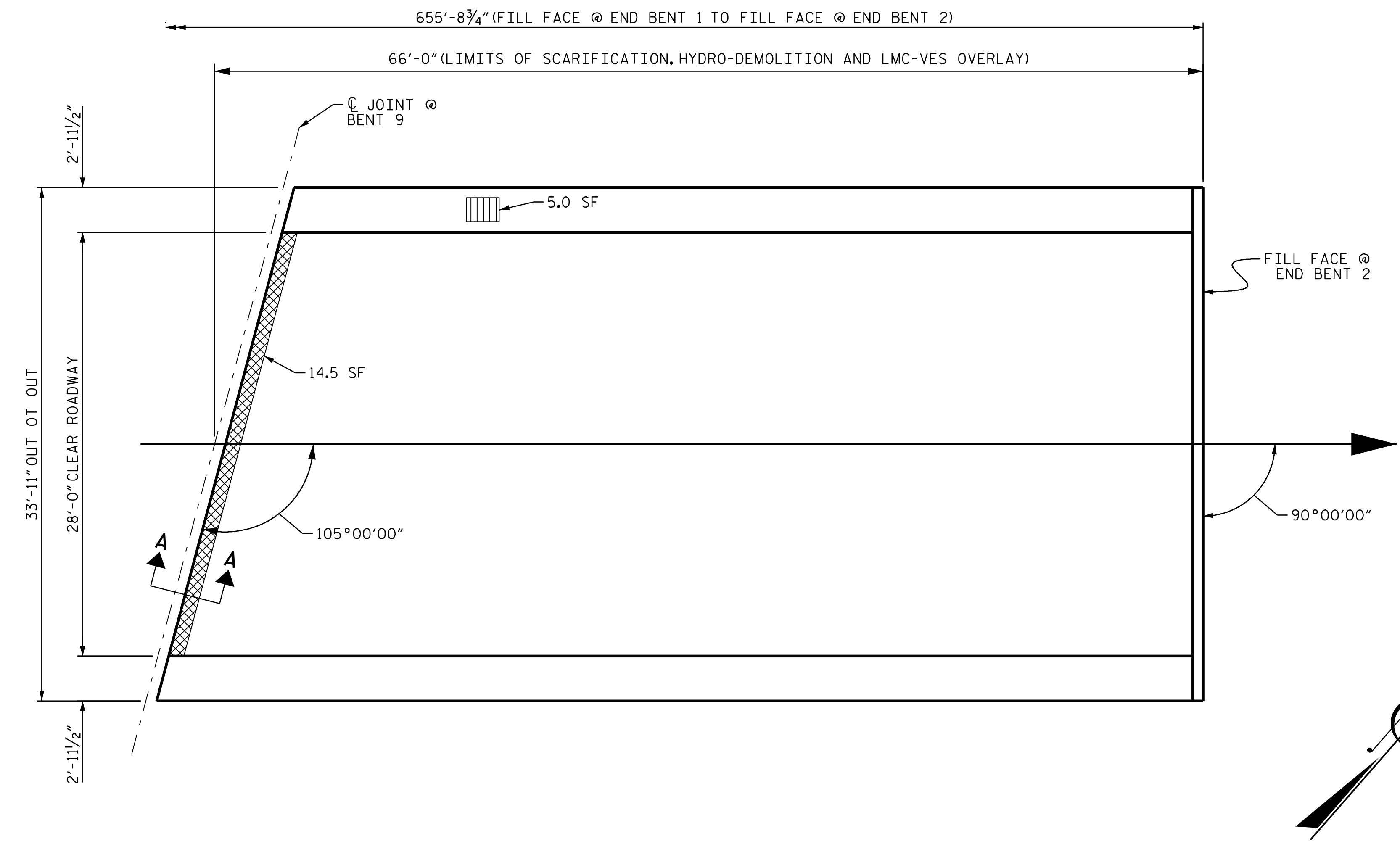
	ESTIMATE	ACTUAL
SCARIFYING BRIDGE DECK	198.7 SY	
HYDRO-DEMOLITION OF BRIDGE DECK	198.7 SY	
CLASS II SURFACE PREPARATION	0.0 SY	
CLASS III SURFACE PREPARATION	0.0 SY	
LMC OVERLAY-VES	8.3 CY	
PLACING AND FINISHING LMC OVERLAY-VES	198.7 SY	
GROOVING BRIDGE FLOORS	1592.4 SF	
BRIDGE JOINT DEMOLITION	14.5 SF	

UNDERSIDE OF DECK REPAIRS

SHOTCRETE REPAIRS	ESTIMATE		ACTUAL
	AREA SF	VOLUME CF	AREA SF
UNDERSIDE OF DECK	0.0	0.0	
OVERHANG DIAPHRAGMS	0.0	0.0	
UNDERSIDE OF OVERHANG	5.0	0.3	
INTERIOR DIAPHRAGMS	0.0	0.0	
	ESTIMATE	ACTUAL	
UNDERSIDE EPOXY RESIN INJECTION	0.0 LF		

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

-  CLASS II SURFACE PREPARATION
-  BRIDGE JOINT DEMOLITION
-  UNDERSIDE REPAIR
-  TEST LOCATION



PLAN OF SPAN K

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 AND DESCRIPTION OF THE REPAIRS AND ENTER THE ACTUAL QUANTITIES INTO THE AS-BUILT REPAIR QUANTITY TABLE.

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR CONCRETE FOR DECK REPAIR, SEE SPECIAL PROVISIONS.

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

EXISTING JOINTS AND DECK DRAINS SHALL BE SEALED PRIOR TO BEGINNING SURFACE PREPARATION OF THE BRIDGE DECK.

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

PREVIOUSLY PLACED LMC OVERLAY AT STAGED EDGES SHALL BE DEMOLISHED BACK A MINIMUM OF 4 INCHES AND RECAST WITH LMC.

FOR LMC OVERLAY - VES SURFACE PREPARATION, SEE SPECIAL PROVISIONS.

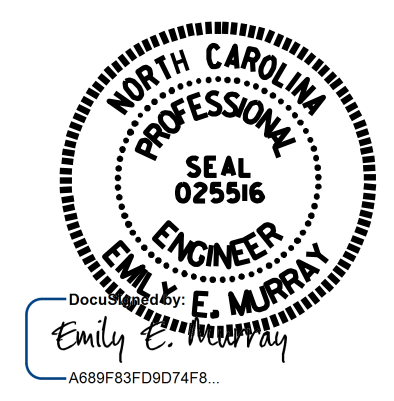
FINAL JOINT SEALS SHALL NOT BE INSTALLED UNTIL THE OVERLAY IS COMPLETE

FOR BRIDGE JOINT DEMOLITION, SEE SPECIAL PROVISIONS.

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

PROJECT NO. 15BPR.130
MOORE COUNTY
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SHEET 10 OF 10



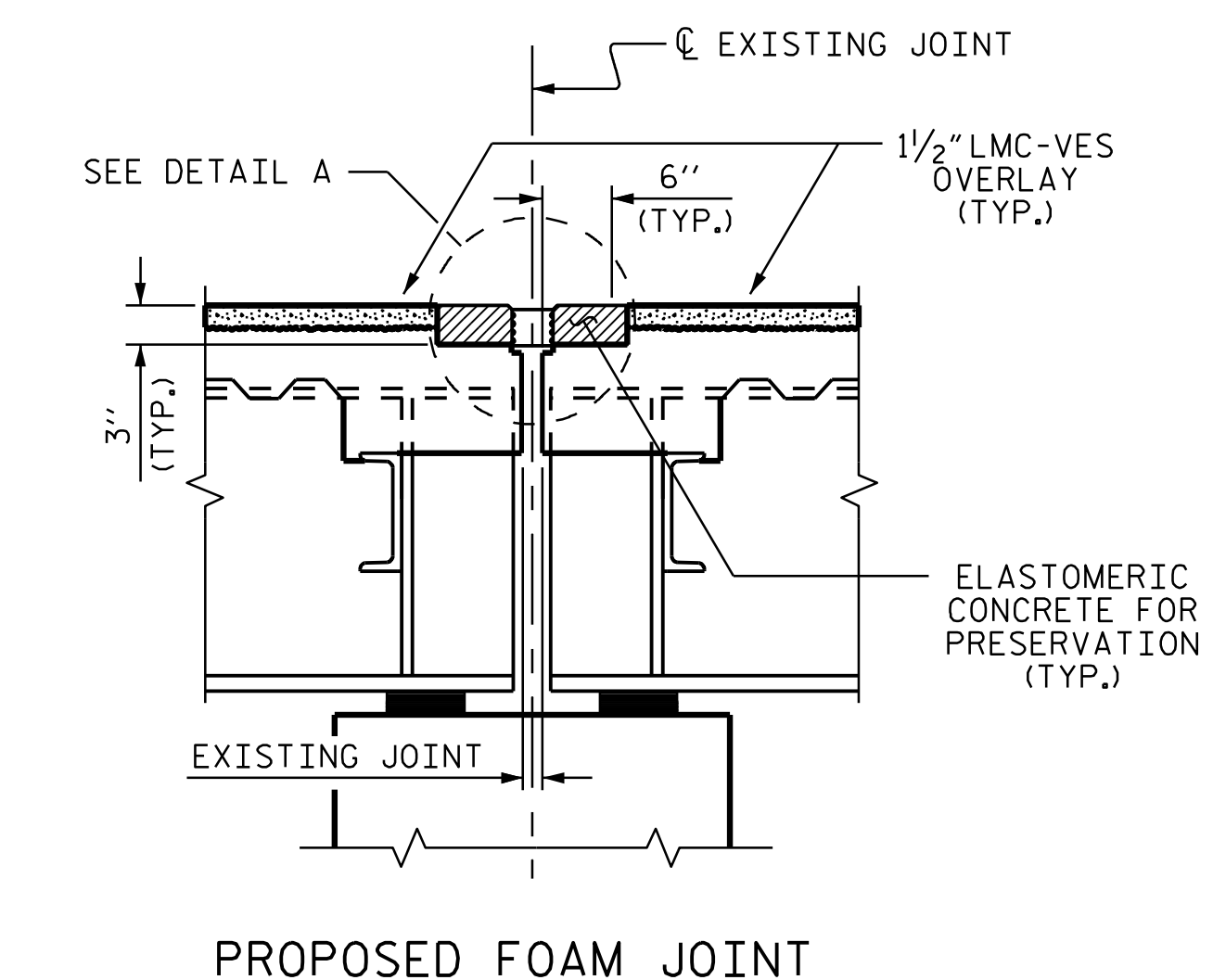
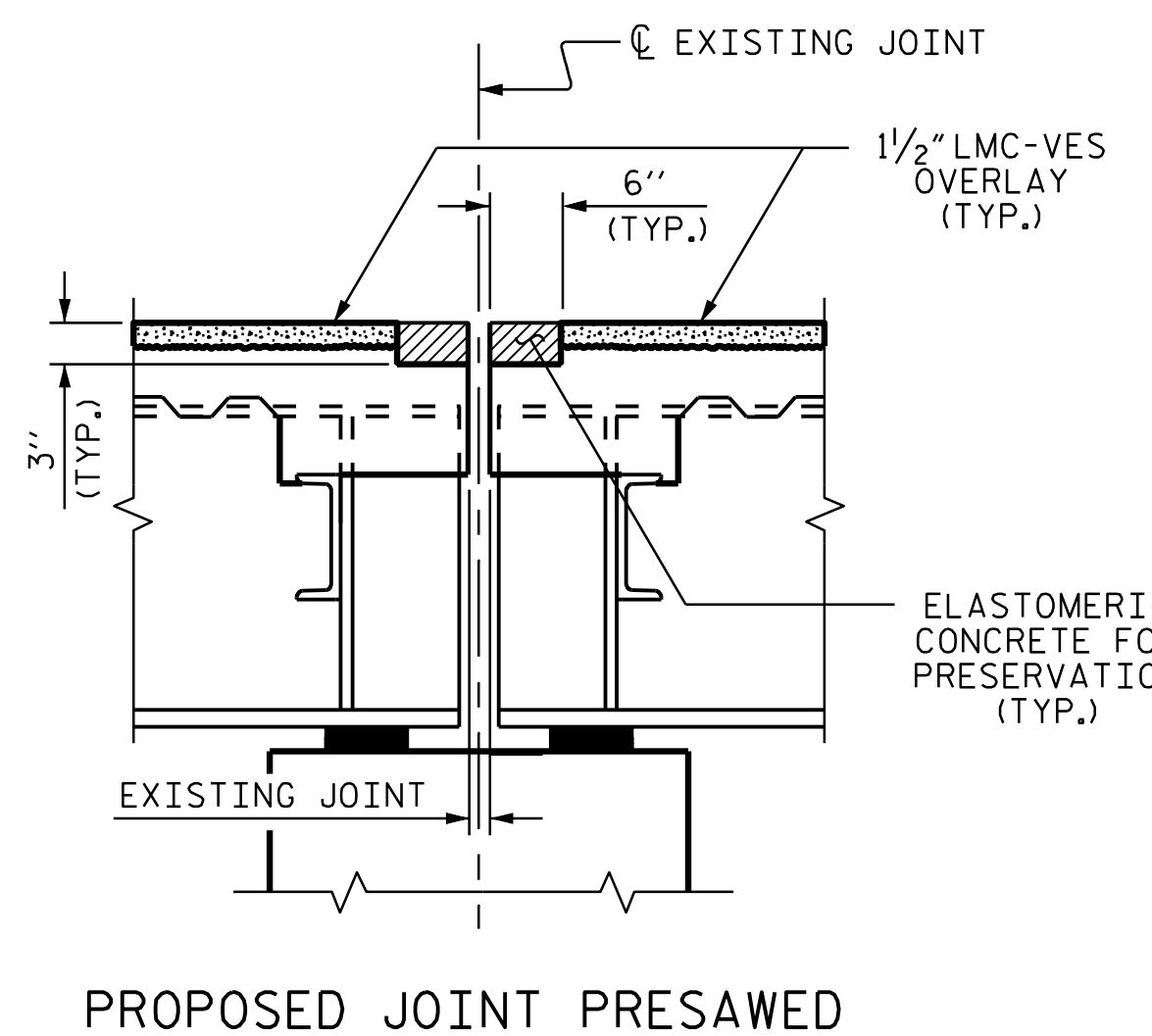
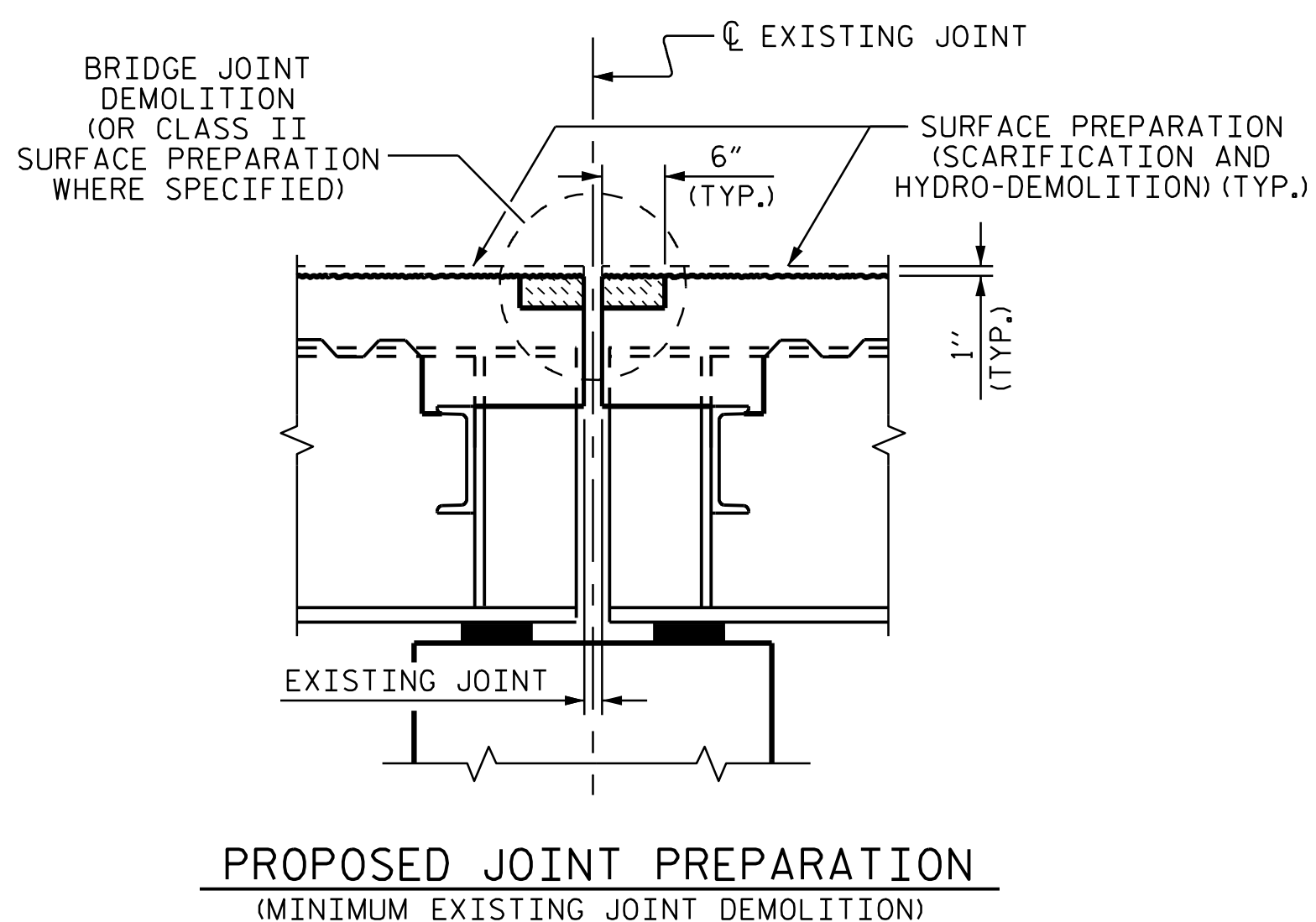
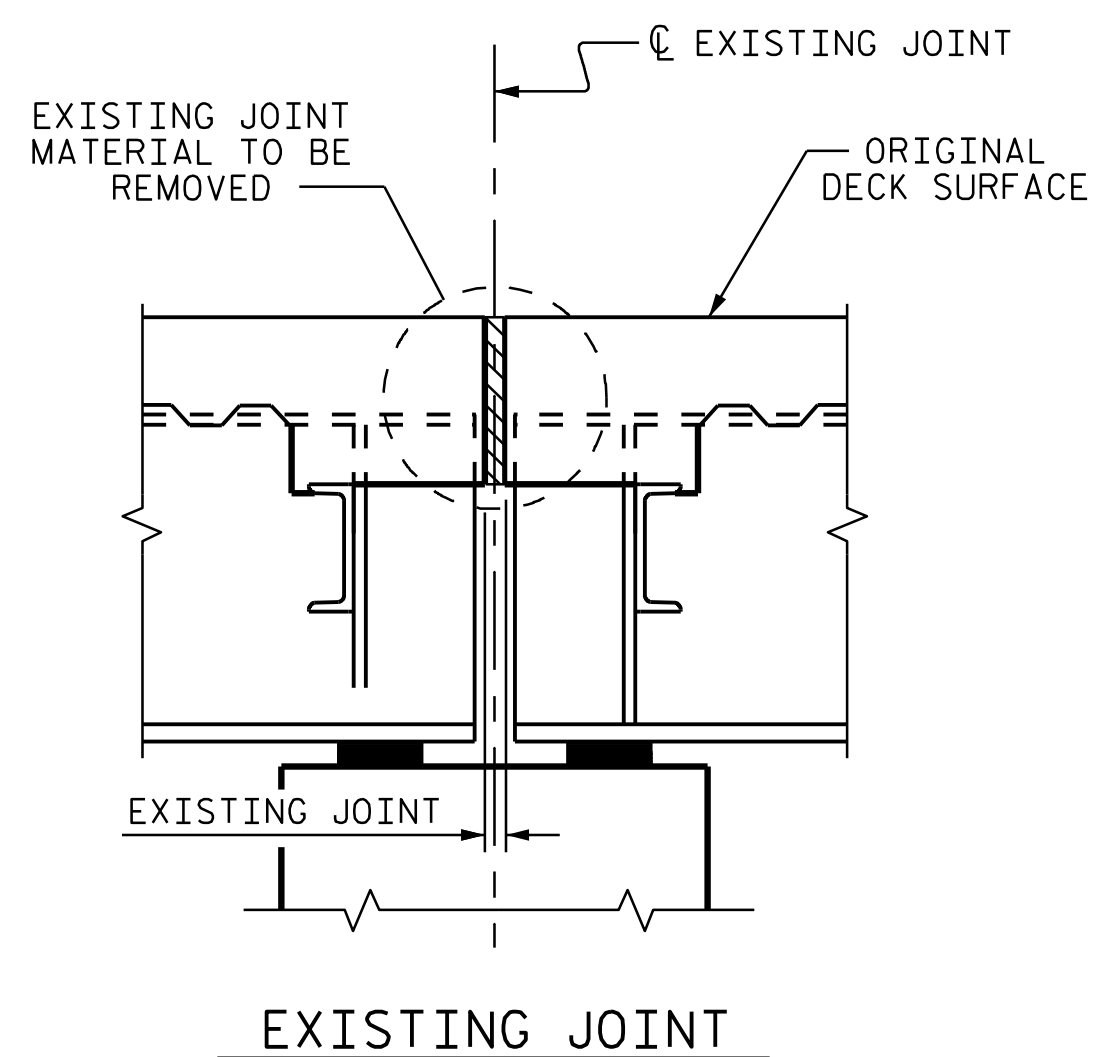
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 DEPARTMENT OF TRANSPORTATION
 RALEIGH

PLAN OF SPAN K

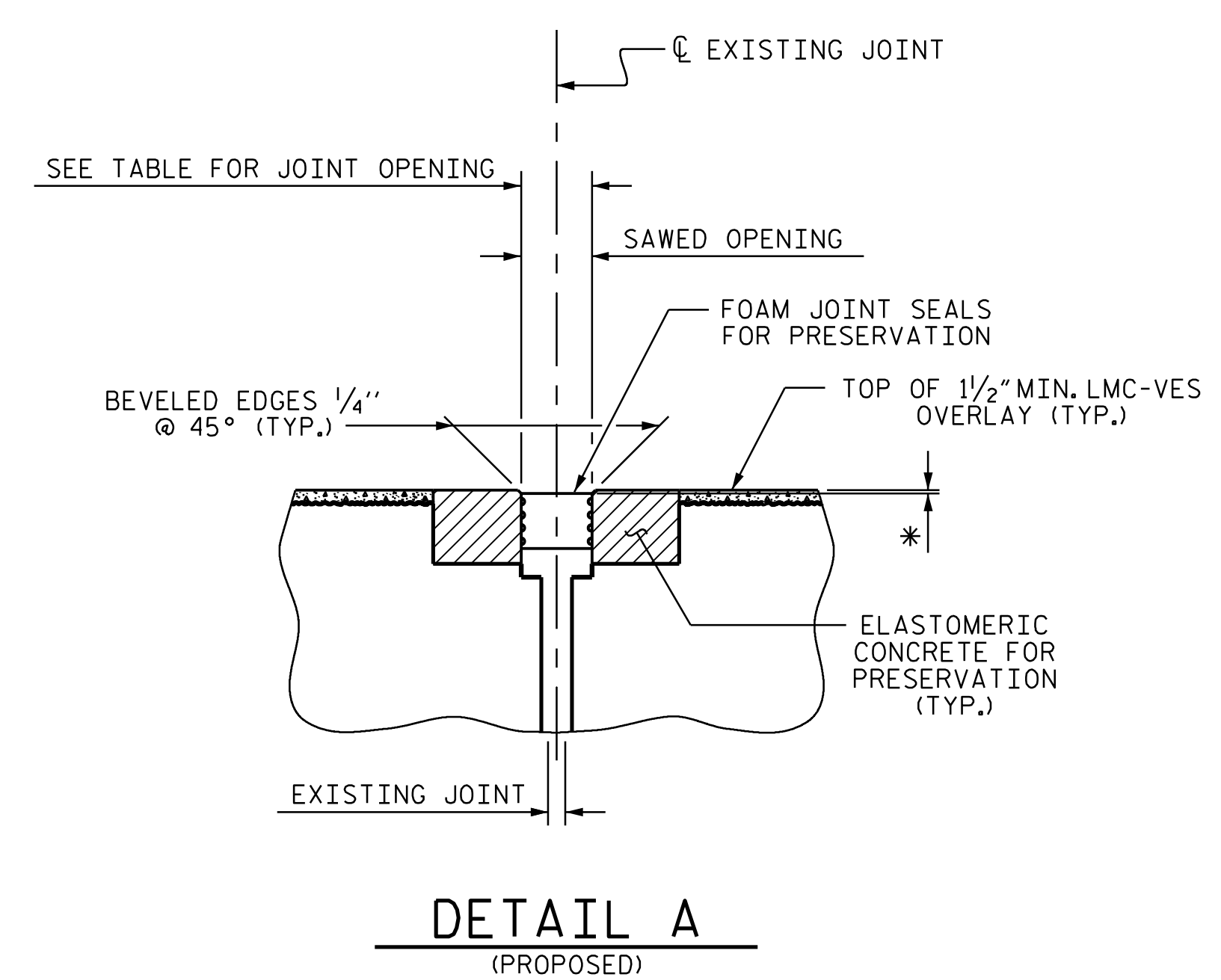
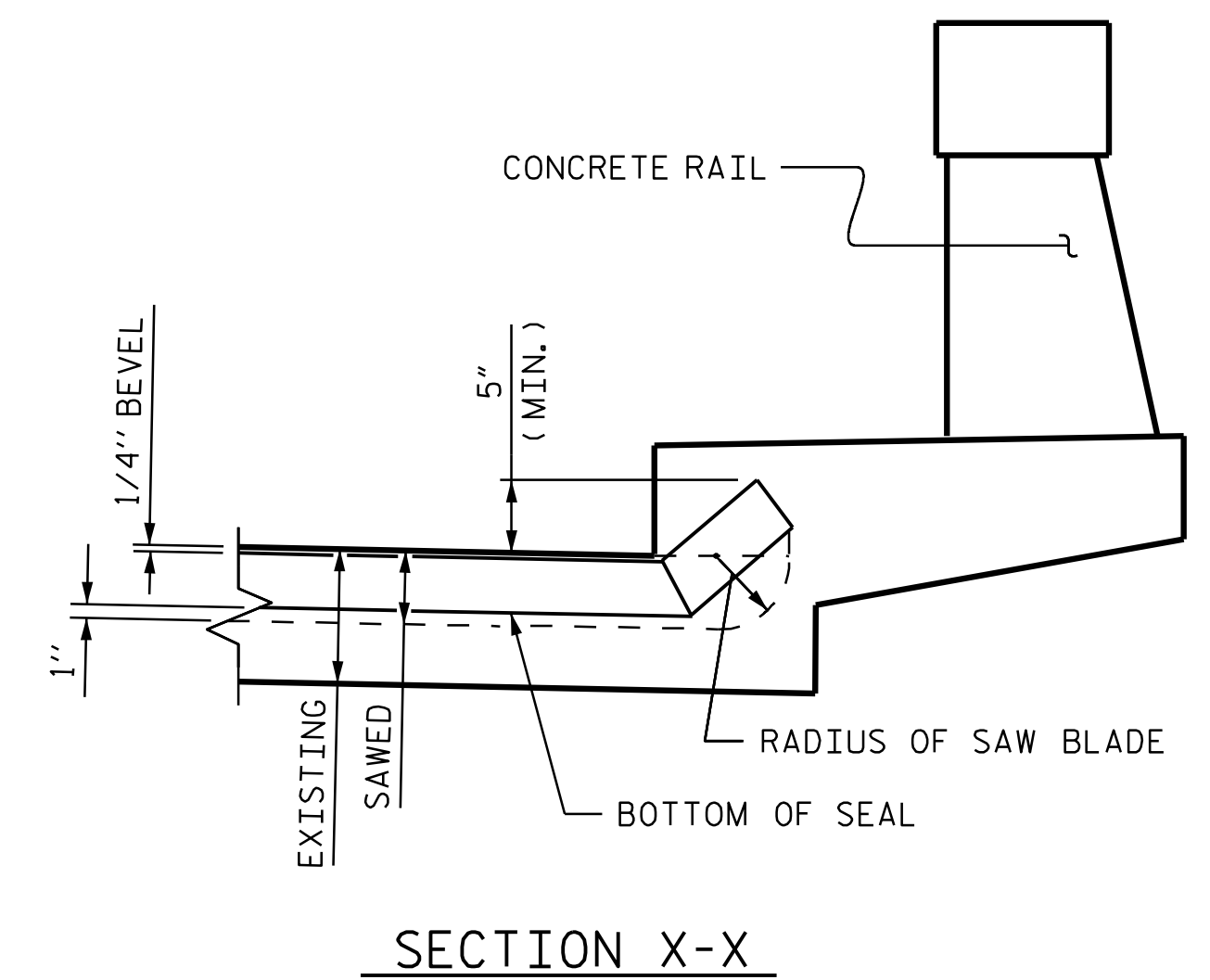
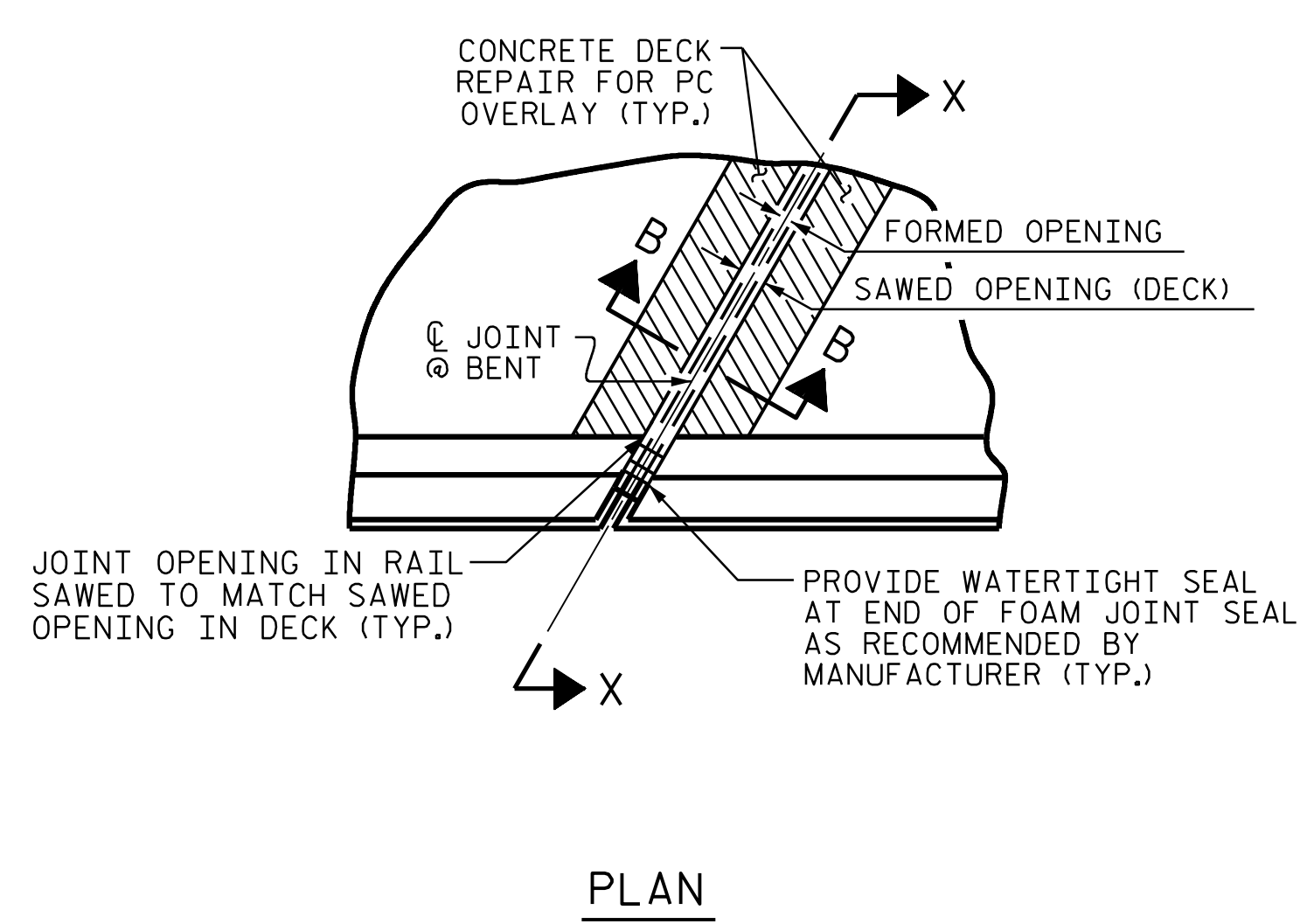
DRAWN BY : B. H. BARNHILL DATE : 03/2024
 CHECKED BY : E. E. MURRAY DATE : 03/2024
 DESIGN ENGINEER OF RECORD: E. E. MURRAY DATE : 03/2024

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JOINT INSTALLATION SEQUENCE AT BENTS (SECTION A-A)



NOTES

- THE CONTRACTOR SHALL FIELD VERIFY THE EXISTING JOINT OPENING PRIOR TO ORDER JOINT SEAL MATERIAL. IF THE ACTUAL JOINT OPENING VARIES FROM THE OPENING ALLOWED BY THE JOINT SEAL MATERIAL, NOTIFY THE ENGINEER. REVISION TO THE JOINT SEAL SIZE AND TYPE MIGHT BE NECESSARY.
- THE CONTRACTOR WILL NOT BE PERMITTED TO FORM THE JOINTS FOR THE JOINT SEALS IN LIEU OF SAWING THE JOINT.
- THE MANUFACTURER IS TO PROVIDE THE NOMINAL UNCOMPRESSED SEAL WIDTH OF THE FOAM JOINT SEAL BASED ON JOINT OPENINGS.
- FOR FOAM JOINT SEALS FOR PRESERVATION, SEE SPECIAL PROVISIONS.
- FOAM JOINT SEALS FOR PRESERVATION SHALL BE INSTALLED AS PER MANUFACTURER'S RECOMMENDATION.
- THE INSTALLED FOAM JOINT SEALS FOR PRESERVATION SHALL BE WATER TIGHT.
- FOR LOCATION OF SECTION A-A, SEE PLAN OF SPAN SHEETS.
- FINAL SURFACE OF THE JOINT DEMOLITION AREA PRIOR TO PLACEMENT OF CONCRETE REPAIR MATERIAL SHOULD BE REASONABLY FLAT AND LEVEL. ENGINEER SHALL DETERMINE THE ACCEPTABILITY OF THE SURFACE PRIOR TO PLACEMENT OF REPAIR CONCRETE.
- FOR ELASTOMERIC CONCRETE FOR PRESERVATION, SEE SPECIAL PROVISIONS.

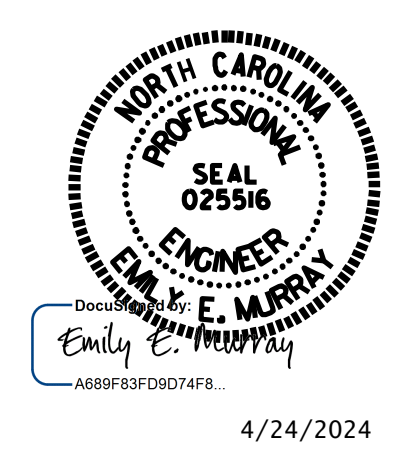
* FOAM JOINT SEALS FOR PRESERVATION SHALL BE RECESSED AS PER MANUFACTURER'S RECOMMENDATIONS.

JOINT SEAL DETAILS @ BENT

JOINT REPAIR QUANTITY				
	FOAM JOINT SEALS FOR PRESERVATION		ELASTOMERIC CONCRETE FOR PRESERVATION	
	ESTIMATED (LIN. FT.)	ACTUAL (LIN. FT.)	ESTIMATED (CU. FT.)	ACTUAL (CU. FT.)
BENT 1	30.0		7.3	
BENT 2	30.0		7.3	
BENT 3	30.0		7.3	
BENT 4	30.0		7.3	
BENT 5	30.0		7.3	
BENT 6	30.0		7.3	
BENT 7	30.0		7.3	
BENT 8	30.0		7.3	
BENT 9	30.0		7.3	

SAWED JOINT OPENING TABLE				
LOCATION	SKEW ANGLE	PERPENDICULAR JOINT OPENING AT 45°	PERPENDICULAR JOINT OPENING AT 60°	PERPENDICULAR JOINT OPENING AT 90°
BENT 1	105°00'00"	1 5/16"	1 1/8"	1 1/16"
BENT 2	105°00'00"	1 7/16"	1 1/8"	1 5/8"
BENT 3	105°00'00"	1 7/16"	1 1/8"	1 5/8"
BENT 4	105°00'00"	1 7/16"	1 1/8"	1 5/8"
BENT 5	105°00'00"	1 7/16"	1 1/8"	1 5/8"
BENT 6	105°00'00"	1 7/16"	1 1/8"	1 5/8"
BENT 7	105°00'00"	1 7/16"	1 1/8"	1 5/8"
BENT 8	105°00'00"	1 7/16"	1 1/8"	1 5/8"
BENT 9	105°00'00"	1 7/16"	1 1/8"	1 5/8"

PROJECT NO. 15BPR.130
MOORE COUNTY
 BRIDGE NO: 620072



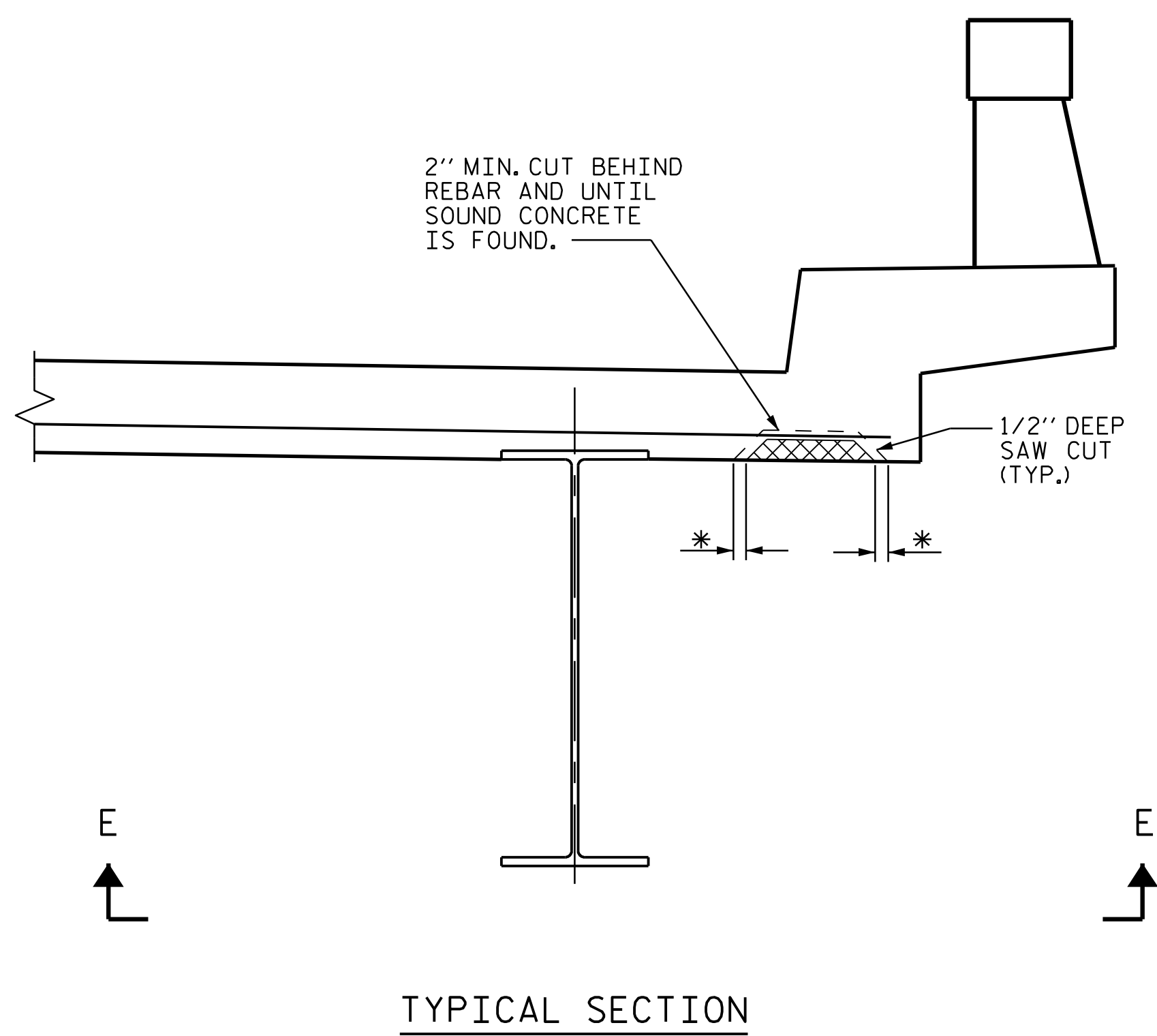
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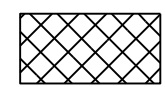
JOINT REPAIR DETAILS AT BENTS

DRAWN BY : D. A. GLADDEN DATE : 5/23
 CHECKED BY : B. H. BARNHILL DATE : 3/24

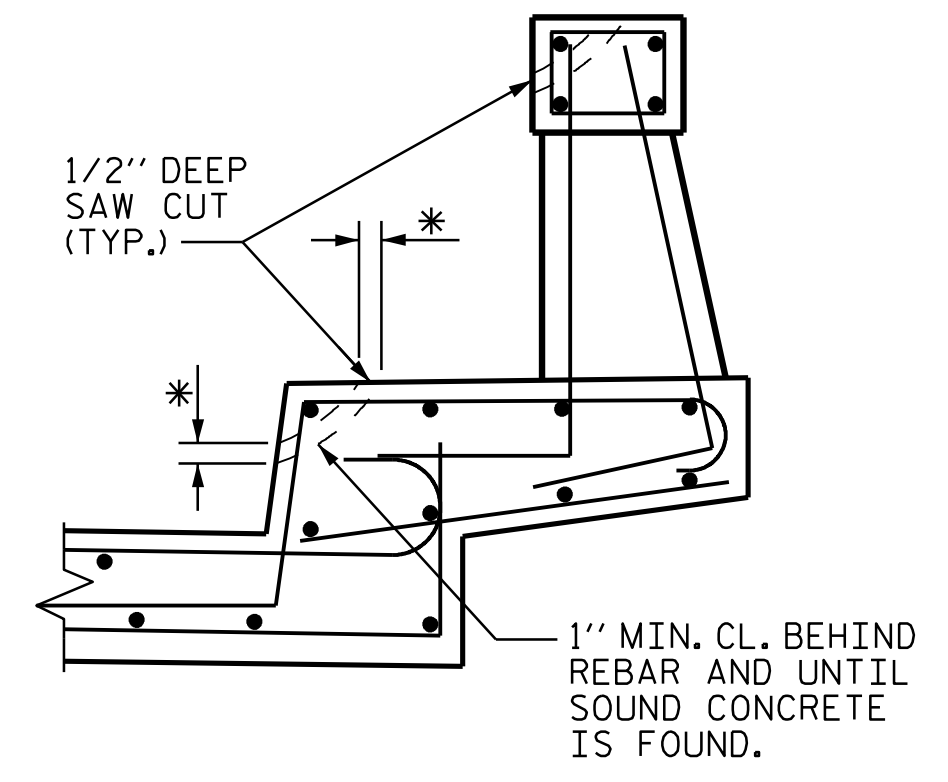
VOLKERT
 5430 Wade Park Blvd, Suite 410
 Raleigh, NC 27607
 Tel. 919-854-0344 Fax. 919-854-0355
 NC License No. F-0765

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2			4			

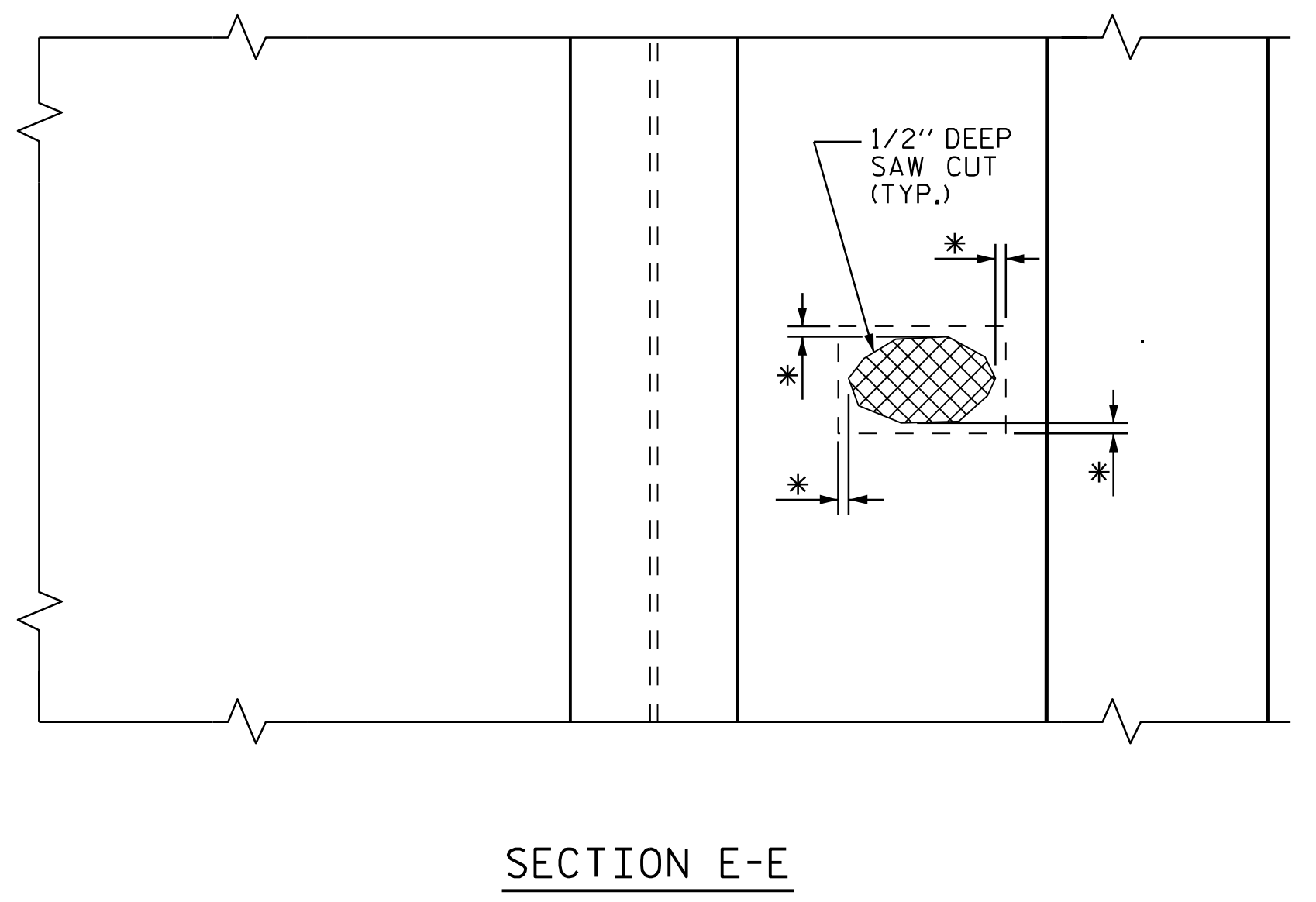


DAMAGED AREA 

* REMOVE CONCRETE UNTIL SOUND CONCRETE IS FOUND (2" MIN. CL.)



BRIDGE RAIL AND CURB REPAIR DETAILS

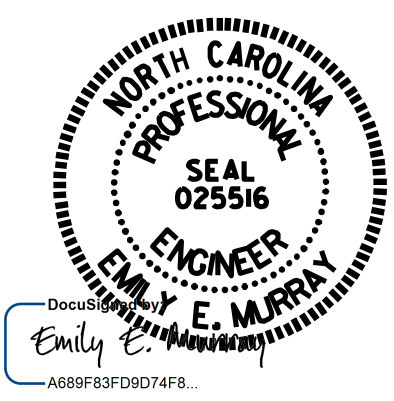


OVERHANG DETAILS

NOTES

- CONTRACTOR SHALL REMOVE SURFACE CONCRETE TO VERIFY THAT SAW CUT DEPTH WILL NOT DAMAGE EXISTING REINFORCING STEEL.
- CONTRACTOR SHALL SAW CUT TO A NOMINAL DEPTH OF 1/2" BUT REINFORCING STEEL SHALL NOT BE DAMAGED.
- CONTRACTOR SHALL SAW CUT THE REPAIR AREA SO THAT THE CORNERS ARE SQUARE AS INDICATED ON THE DETAILS.
- FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

PROJECT NO. 15BPR.130
MOORE COUNTY
 STATION: 620072



STATE OF NORTH CAROLINA
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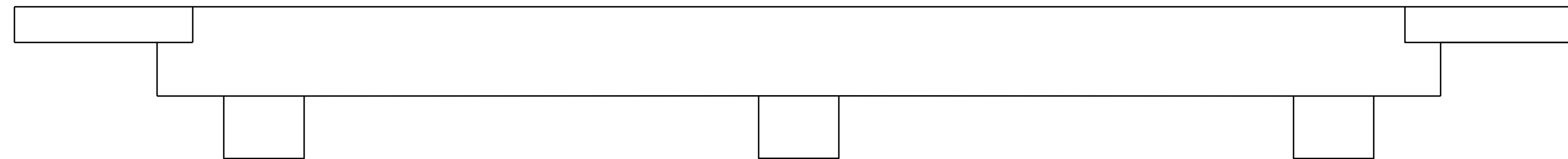
**OVERHANG
 REPAIR DETAILS**

DRAWN BY : D. A. GLADDEN DATE : 04/2024
 CHECKED BY : E. E. MURRAY DATE : 04/2024
 DESIGN ENGINEER OF RECORD: _____ DATE : _____

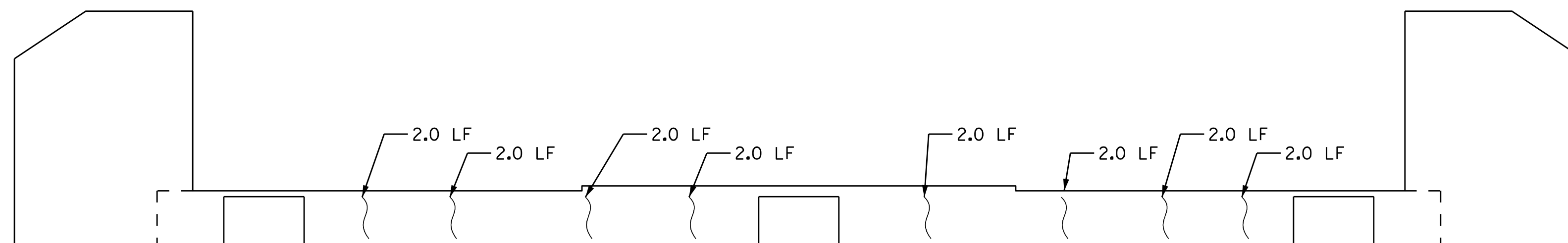
VOLKERT
 5430 Wade Park Blvd., Suite 410
 Raleigh, NC 27607
 Tel. 919-854-0344 Fax. 919-854-0355
 NC License No. F-0765

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PLAN OF END BENT 1



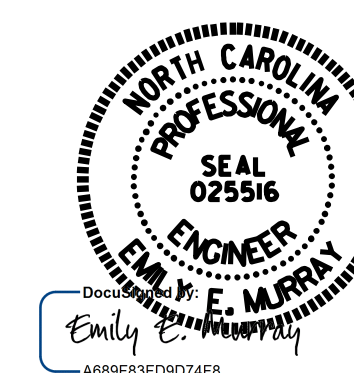
ELEVATION OF END BENT 1

AS-BUILT REPAIR QUANTITY TABLE				
REPAIRS	QUANTITIES			
	ESTIMATE		ACTUAL	
END BENT 1	AREA SF	VOLUME CF	AREA SF	VOLUME CF
SHOTCRETE REPAIRS				
CAP	0.0	0.0		
CONCRETE REPAIRS				
CAP	0.0	0.0		
EPOXY RESIN INJECTION		LN. FT.		LN. FT.
CAP		16.0		
EPOXY COATING		SQ. FT.		SQ. FT.
TOP OF BENT CAP		132.5		

VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN. OF 1" BEHIND REBAR AND 2" MIN. CLEAR TO SAWCUT.

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- EPOXY RESIN INJECTION (ERI)

PROJECT NO. 15BPR.130
MOORE COUNTY
 BRIDGE NO. 620072



4/24/2024

STATE OF NORTH CAROLINA
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END BENT 1

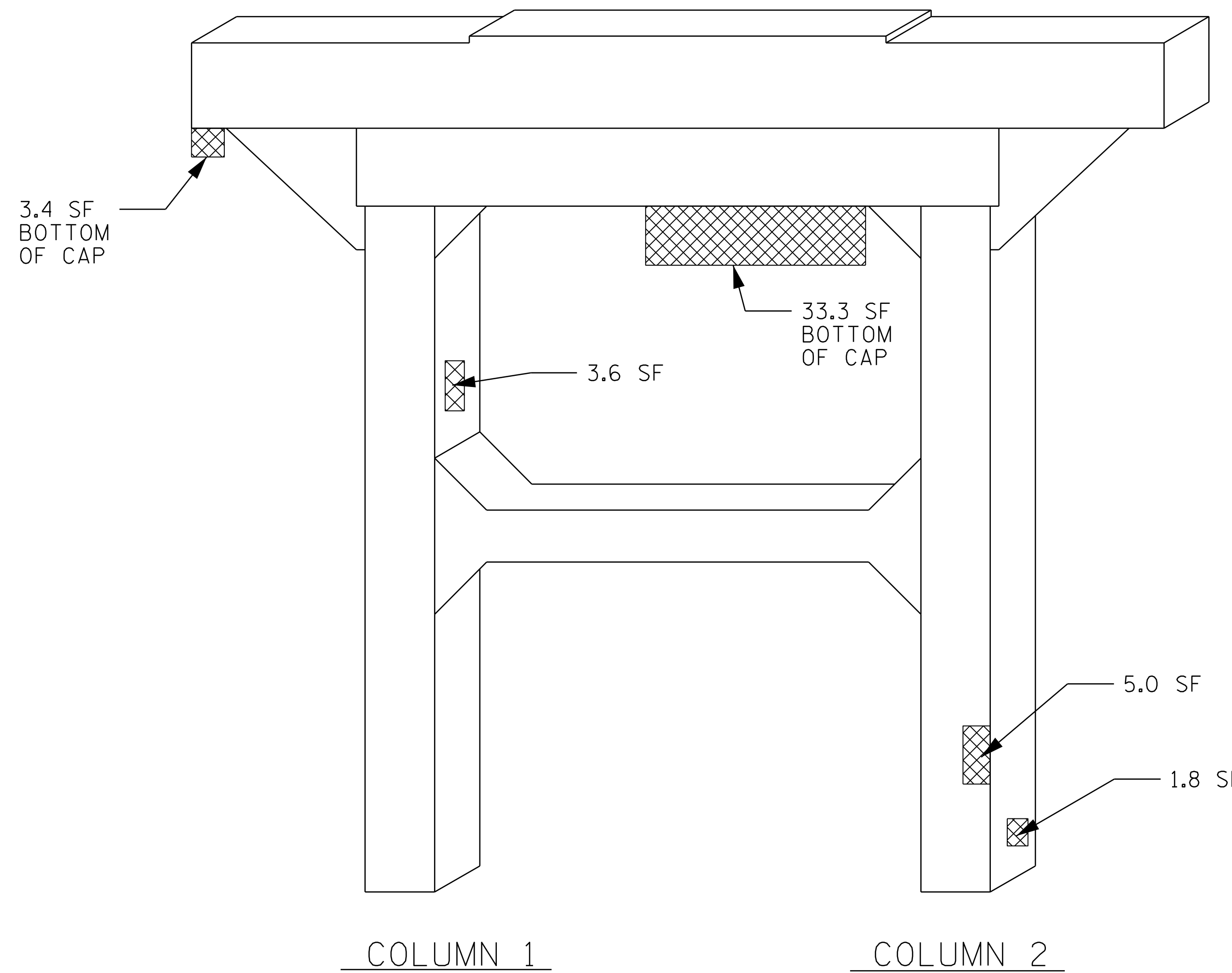
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1			3			S-133
2			4			TOTAL SHEETS: 156

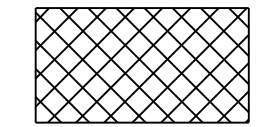
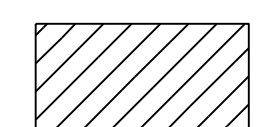
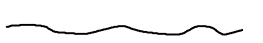
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ELEVATION @ BENT 1 (SPAN A)

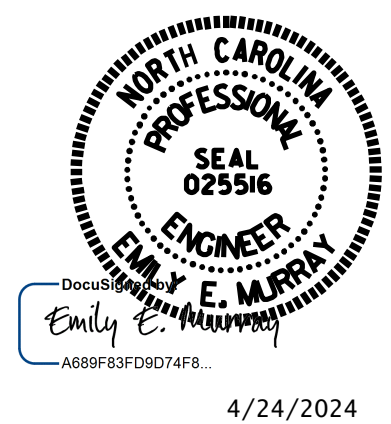
AS-BUILT REPAIR QUANTITY TABLE				
REPAIRS BENT 1	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP	40.1	20.1		
COLUMN	27.7	13.9		
CONCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION	LN. FT.	LN. FT.	LN. FT.	LN. FT.
CAP	0.0			
COLUMN	0.0			
EPOXY COATING	SO. FT.	SO. FT.	SO. FT.	SO. FT.
TOP OF BENT CAP	70.0			

VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN. OF 1" BEHIND REBAR AND 2" MIN. CLEAR TO SAWCUT.

 SHOTCRETE REPAIR
 CONCRETE REPAIR
 EPOXY RESIN INJECTION (ERI)

PROJECT NO. 15BPR.130
MOORE COUNTY
 BRIDGE NO. 620072

SHEET 1 OF 2



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
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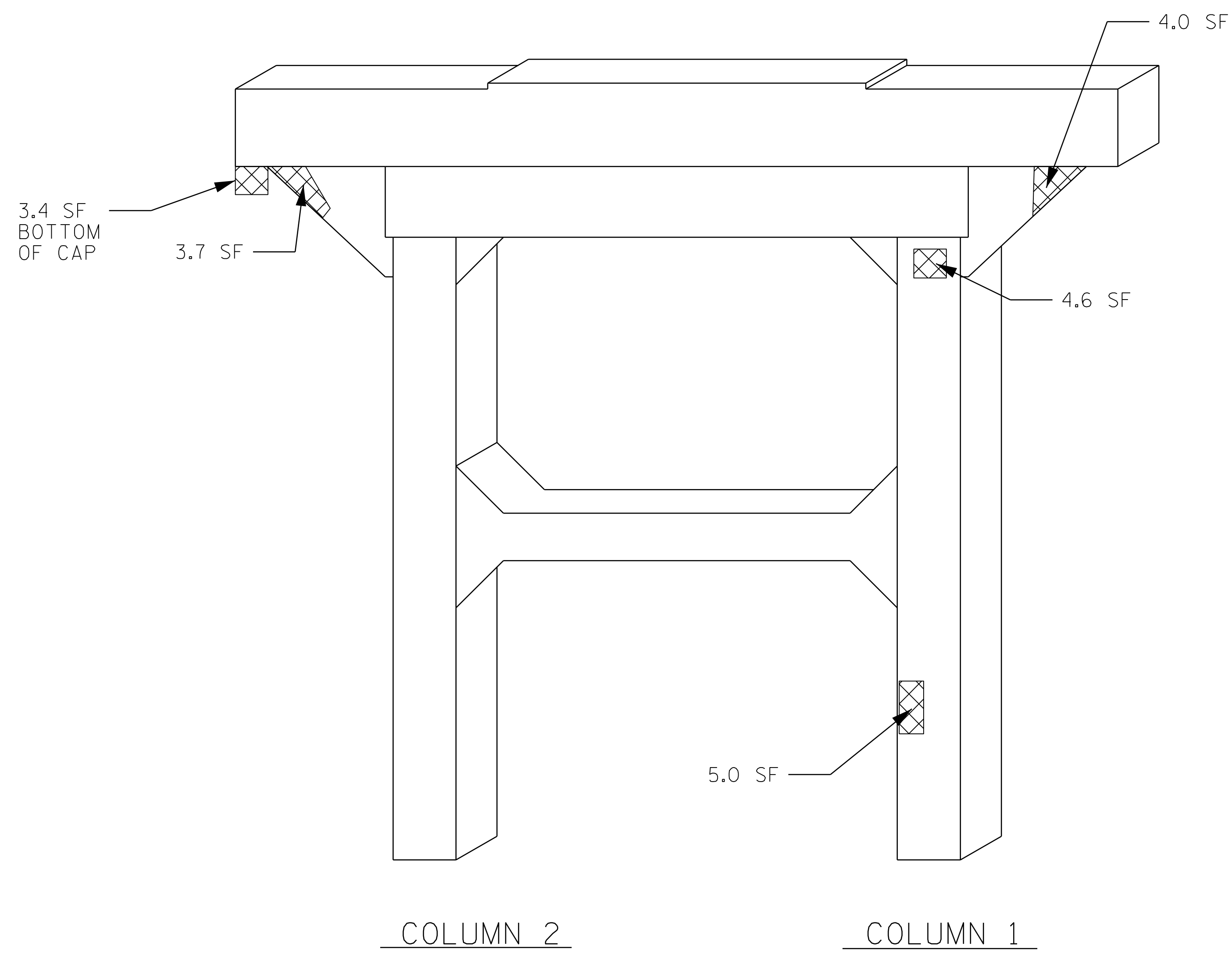
BENT 1

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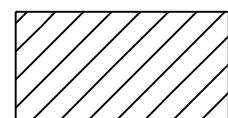
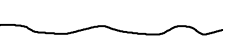
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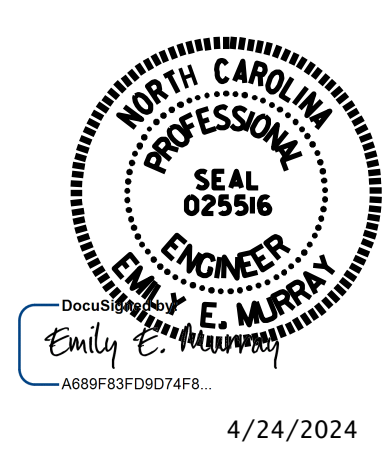
COLUMN 2 COLUMN 1

ELEVATION @ BENT 1 (SPAN B)

 SHOTCRETE REPAIR
 CONCRETE REPAIR
 EPOXY RESIN INJECTION (ERI)

PROJECT NO. 15BPR.130
MOORE COUNTY
 BRIDGE NO. 620072

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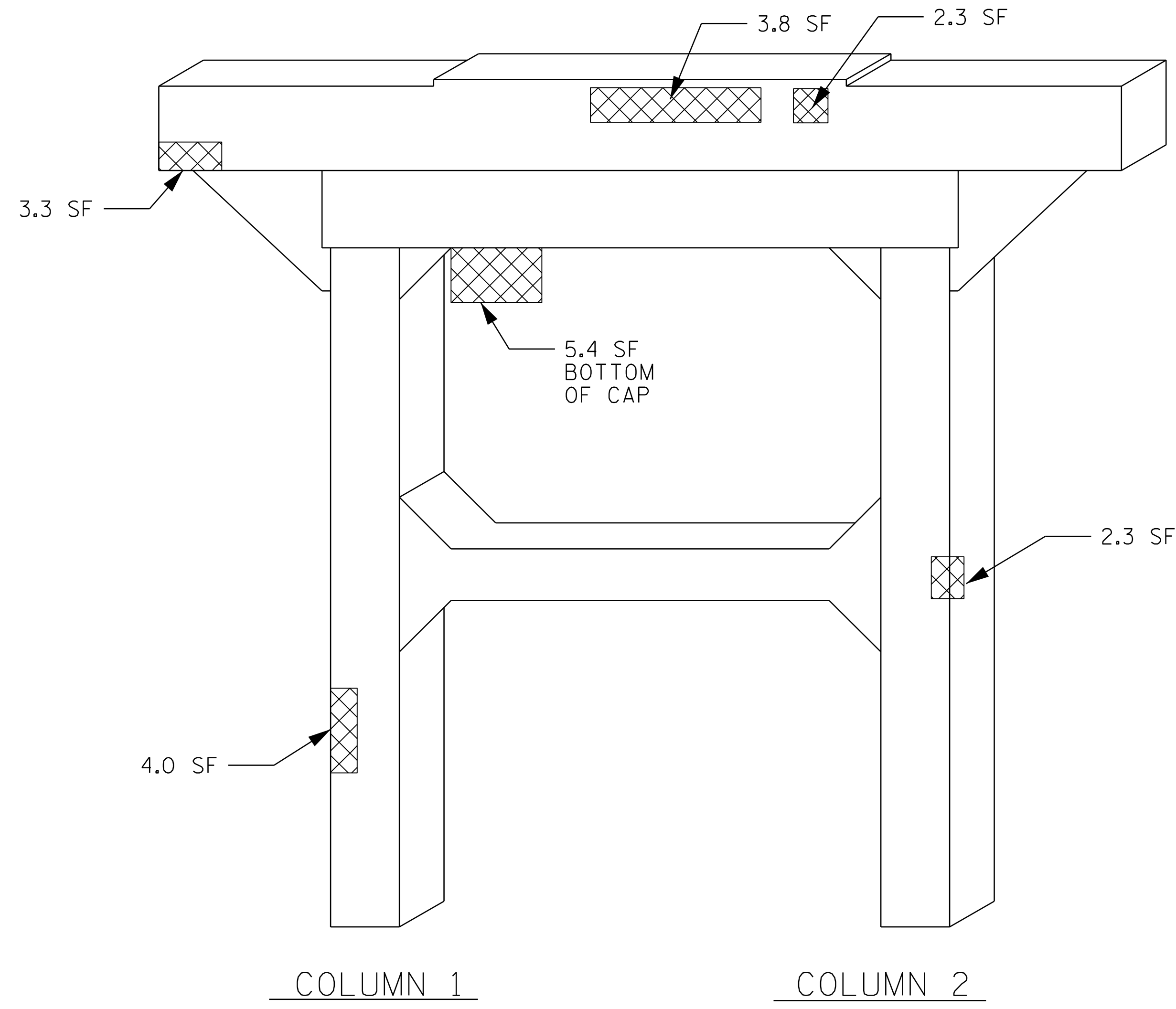
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2			4			156



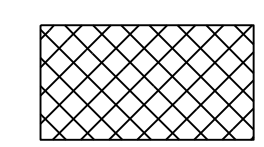
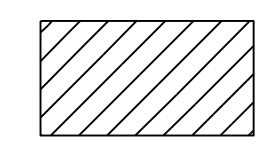

COLUMN 1 COLUMN 2

ELEVATION @ BENT 2 (SPAN B)

AS-BUILT REPAIR QUANTITY TABLE

REPAIRS BENT 2	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP	20.5	10.3		
COLUMN	11.6	5.8		
CONCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LN. FT.		LN. FT.
CAP		6.0		
COLUMN		3.0		
EPOXY COATING		SQ. FT.		SQ. FT.
TOP OF BENT CAP		70		

VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN. OF 1" BEHIND REBAR AND 2" MIN. CLEAR TO SAWCUT.

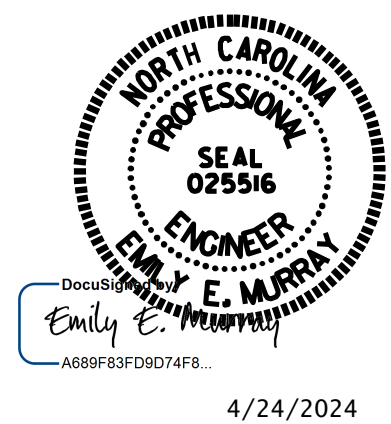
 SHOTCRETE REPAIR
 CONCRETE REPAIR
 EPOXY RESIN INJECTION (ERI)

PROJECT NO. 15BPR.130
MOORE COUNTY
 BRIDGE NO. 620072

SHEET 1 OF 2

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
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BENT 2

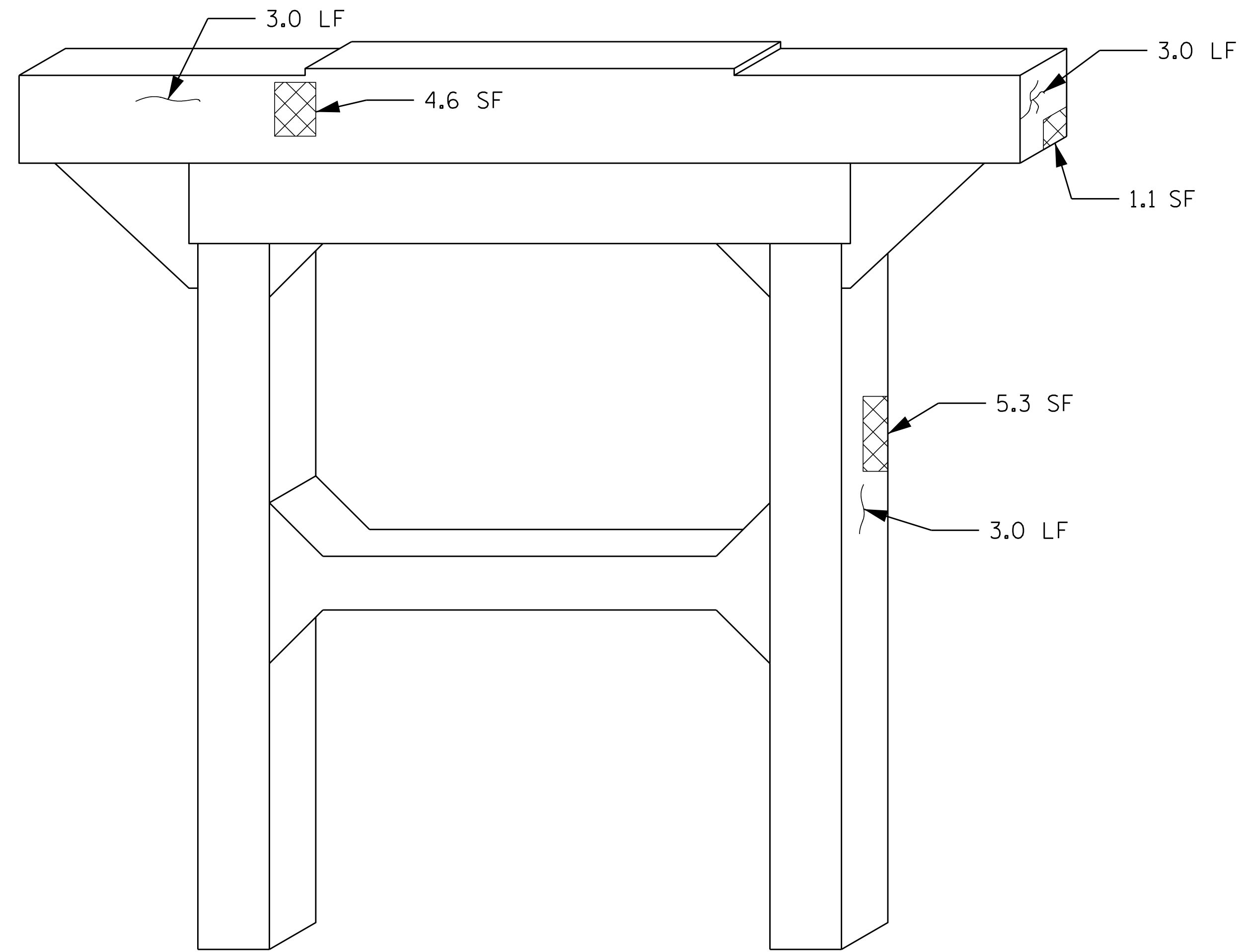


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2			4			156

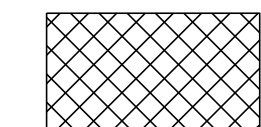
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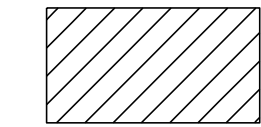
COLUMN 2

COLUMN 1

ELEVATION @ BENT 2 (SPAN C)



SHOTCRETE REPAIR

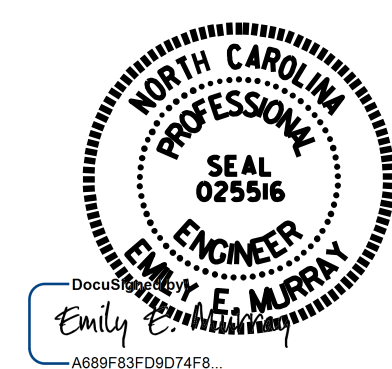


CONCRETE REPAIR

~~~~~ EPOXY RESIN INJECTION (ERI)

PROJECT NO. 15BPR.130  
MOORE COUNTY  
BRIDGE NO. 620072

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4/24/2024

STATE OF NORTH CAROLINA  
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RALEIGH

**BENT 2**

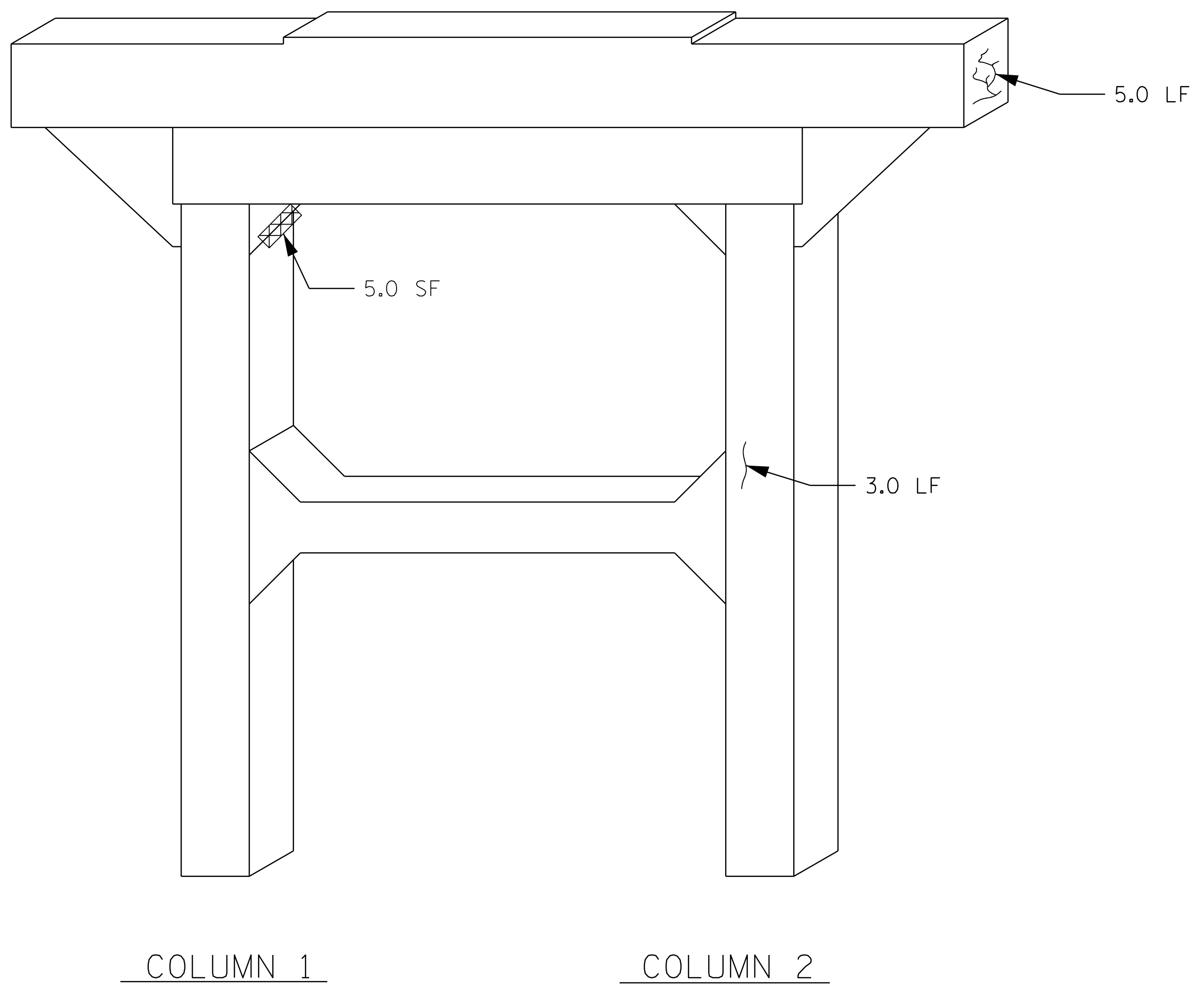
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| NO.       | BY: | DATE: | NO. | BY: | DATE: | S-137        |
| 1         |     |       | 3   |     |       | TOTAL SHEETS |
| 2         |     |       | 4   |     |       | 156          |

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ELEVATION @ BENT 3 (SPAN C)

**AS-BUILT REPAIR QUANTITY TABLE**

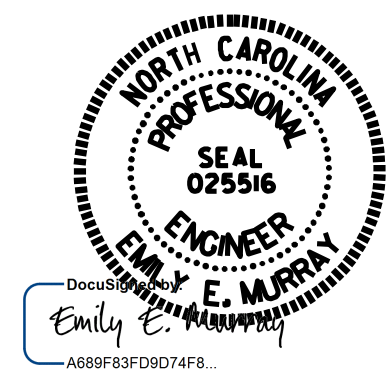
| REPAIRS<br>BENT 3            | QUANTITIES |           |         |           |
|------------------------------|------------|-----------|---------|-----------|
|                              | ESTIMATE   |           | ACTUAL  |           |
| <b>SHOTCRETE REPAIRS</b>     | AREA SF    | VOLUME CF | AREA SF | VOLUME CF |
| CAP                          | 10.6       | 5.3       |         |           |
| COLUMN                       | 13.1       | 6.6       |         |           |
| <b>CONCRETE REPAIRS</b>      | AREA SF    | VOLUME CF | AREA SF | VOLUME CF |
| CAP                          | 0.0        | 0.0       |         |           |
| COLUMN                       | 0.0        | 0.0       |         |           |
| <b>EPOXY RESIN INJECTION</b> |            | LN. FT.   |         | LN. FT.   |
| CAP                          |            | 8.0       |         |           |
| COLUMN                       |            | 3.0       |         |           |
| <b>EPOXY COATING</b>         |            | SQ. FT.   |         | SQ. FT.   |
| TOP OF BENT CAP              |            | 70.0      |         |           |

VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN. OF 1" BEHIND REBAR AND 2" MIN. CLEAR TO SAWCUT.

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- EPOXY RESIN INJECTION (ERI)

PROJECT NO. 15BPR.130  
MOORE COUNTY  
 BRIDGE NO. 620072

SHEET 1 OF 2



STATE OF NORTH CAROLINA  
 DEPARTMENT OF TRANSPORTATION  
 RALEIGH

**BENT 3**

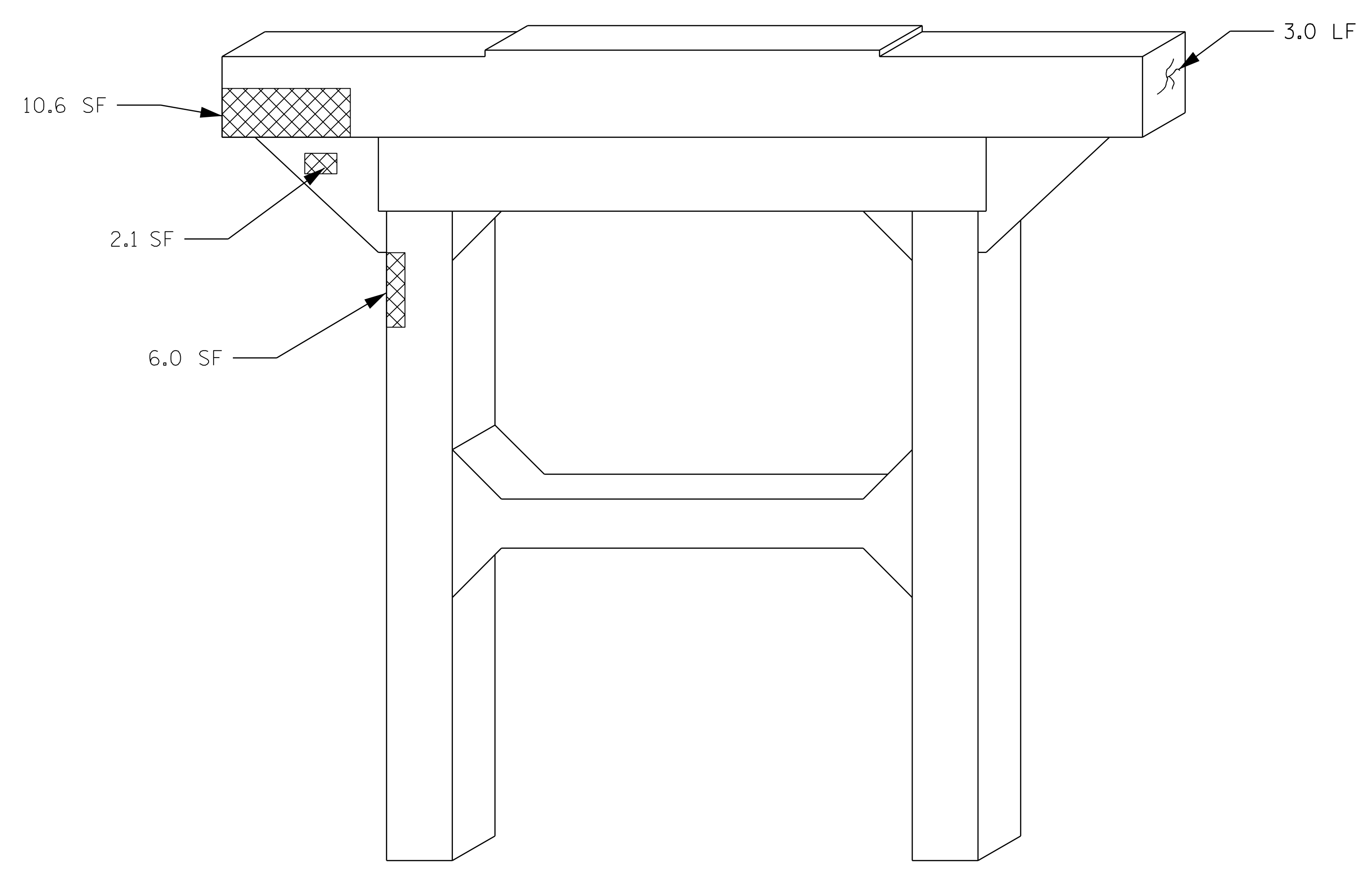
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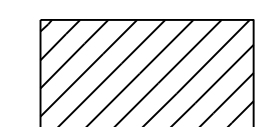
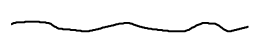
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| 2         |     |       | 4   |     |       | 156          |

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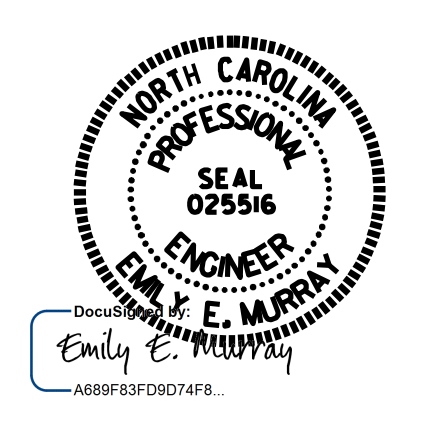
 SHOTCRETE REPAIR  
 CONCRETE REPAIR  
 EPOXY RESIN INJECTION (ERI)

COLUMN 2                      COLUMN 1

ELEVATION @ BENT 3 (SPAN D)

PROJECT NO. 15BPR.130  
MOORE COUNTY  
 BRIDGE NO. 620072

SHEET 2 OF 2



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STATE OF NORTH CAROLINA  
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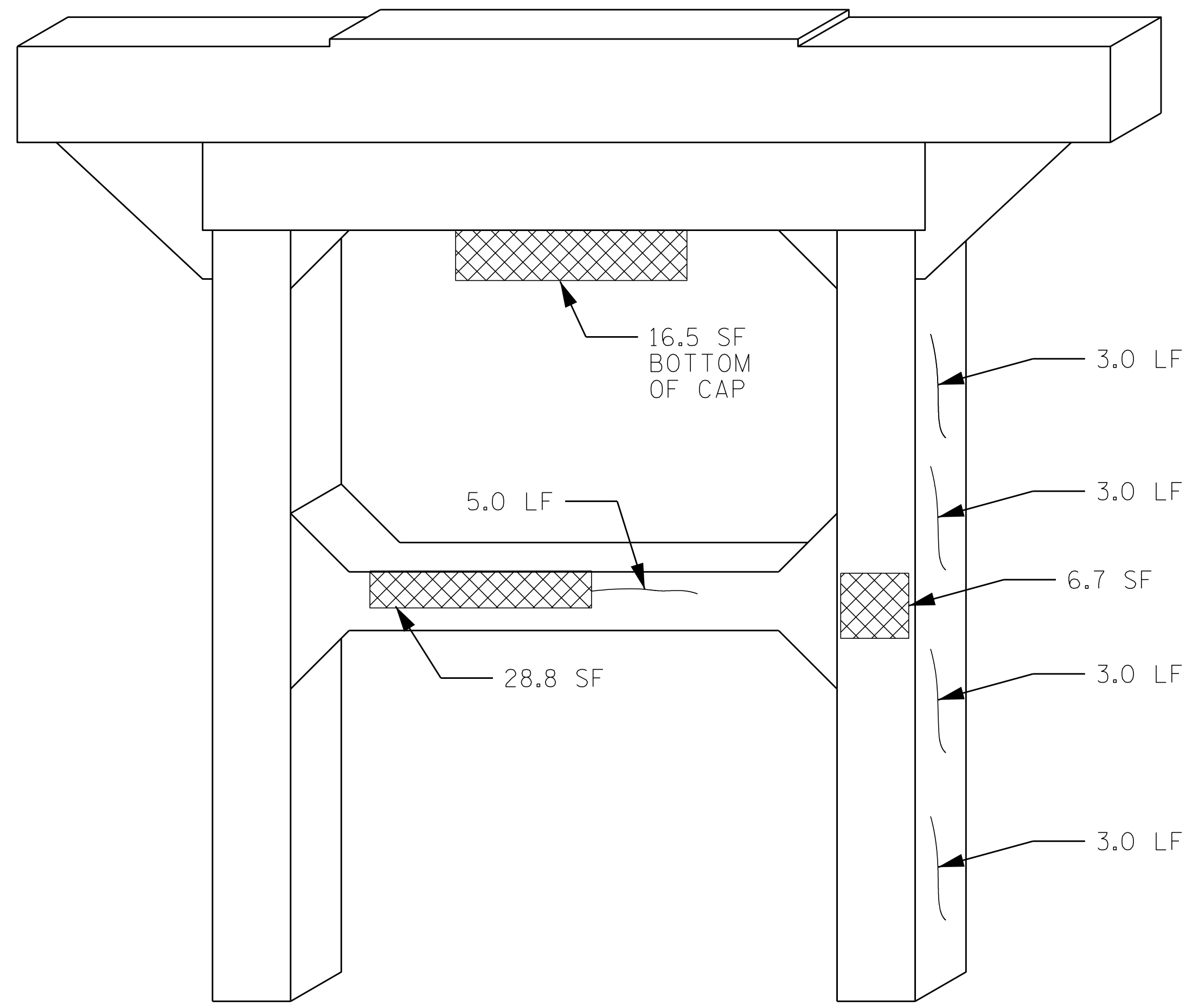
**BENT 3**

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| 2         |     |       | 4   |     |       | 156          |



COLUMN 1                      COLUMN 2

ELEVATION @ BENT 4 (SPAN D)

**AS-BUILT REPAIR QUANTITY TABLE**

| REPAIRS<br>BENT 4     | QUANTITIES |           |         |           |
|-----------------------|------------|-----------|---------|-----------|
|                       | ESTIMATE   |           | ACTUAL  |           |
| SHOTCRETE REPAIRS     | AREA SF    | VOLUME CF | AREA SF | VOLUME CF |
| CAP                   | 18.9       | 9.5       |         |           |
| COLUMN                | 75.9       | 38.0      |         |           |
|                       |            |           |         |           |
| CONCRETE REPAIRS      | AREA SF    | VOLUME CF | AREA SF | VOLUME CF |
| CAP                   | 0.0        | 0.0       |         |           |
| COLUMN                | 0.0        | 0.0       |         |           |
|                       |            |           |         |           |
| EPOXY RESIN INJECTION |            | LN. FT.   |         | LN. FT.   |
| CAP                   |            | 4.0       |         |           |
| COLUMN                |            | 63.0      |         |           |
|                       |            |           |         |           |
| EPOXY COATING         |            | SQ. FT.   |         | SQ. FT.   |
| TOP OF BENT CAP       |            | 70.0      |         |           |

VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN. OF 1" BEHIND REBAR AND 2" MIN. CLEAR TO SAWCUT.

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- EPOXY RESIN INJECTION (ERI)

PROJECT NO. 15BPR.130  
MOORE COUNTY  
 BRIDGE NO. 620072

SHEET 1 OF 2

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 DEPARTMENT OF TRANSPORTATION  
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BENT 4



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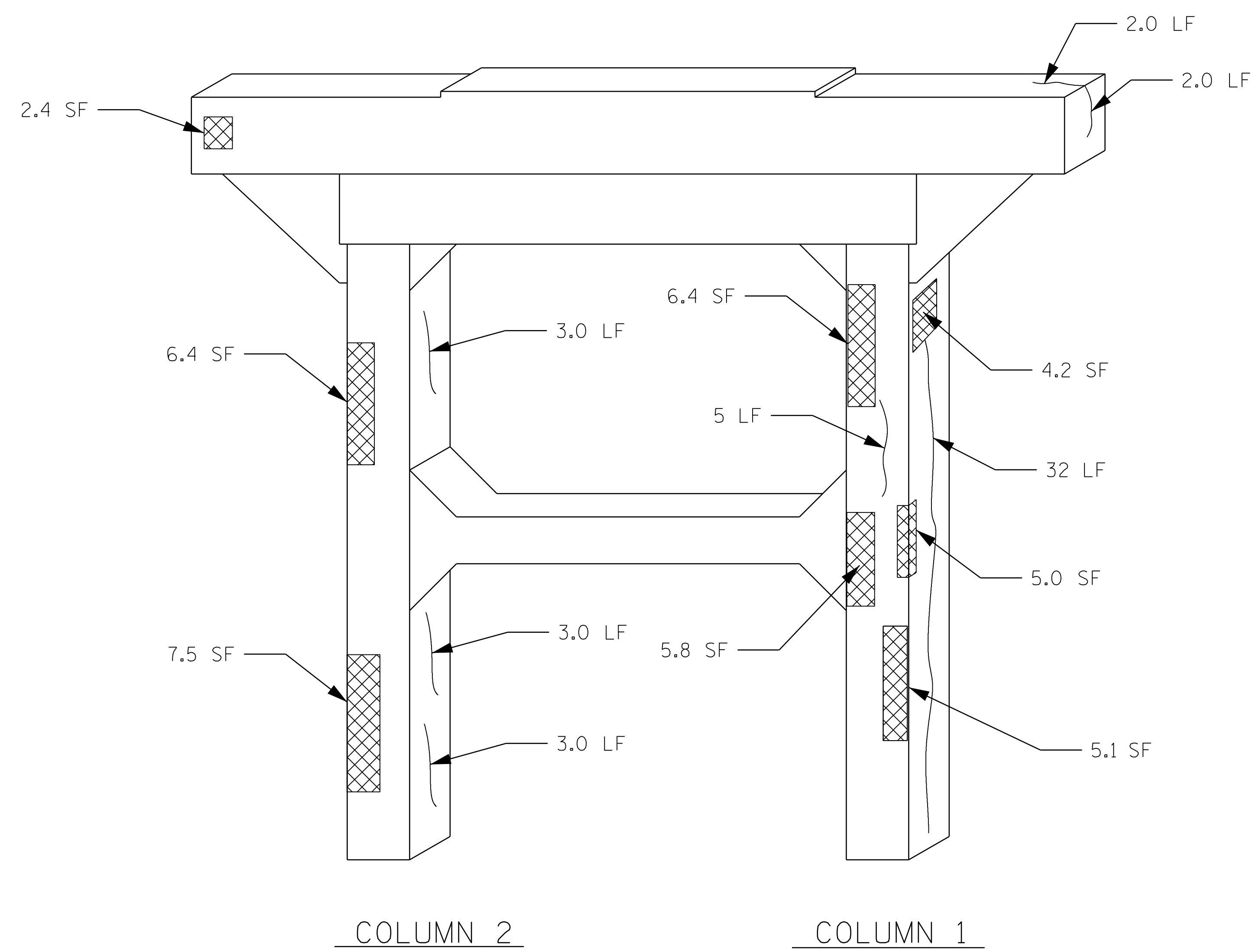
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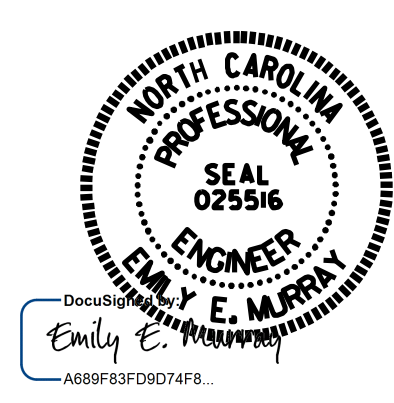




COLUMN 2                      COLUMN 1  
ELEVATION @ BENT 4 (SPAN E)

PROJECT NO. 15BPR.130  
MOORE COUNTY  
 BRIDGE NO. 620072

SHEET 2 OF 2



4/24/2024

STATE OF NORTH CAROLINA  
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 RALEIGH

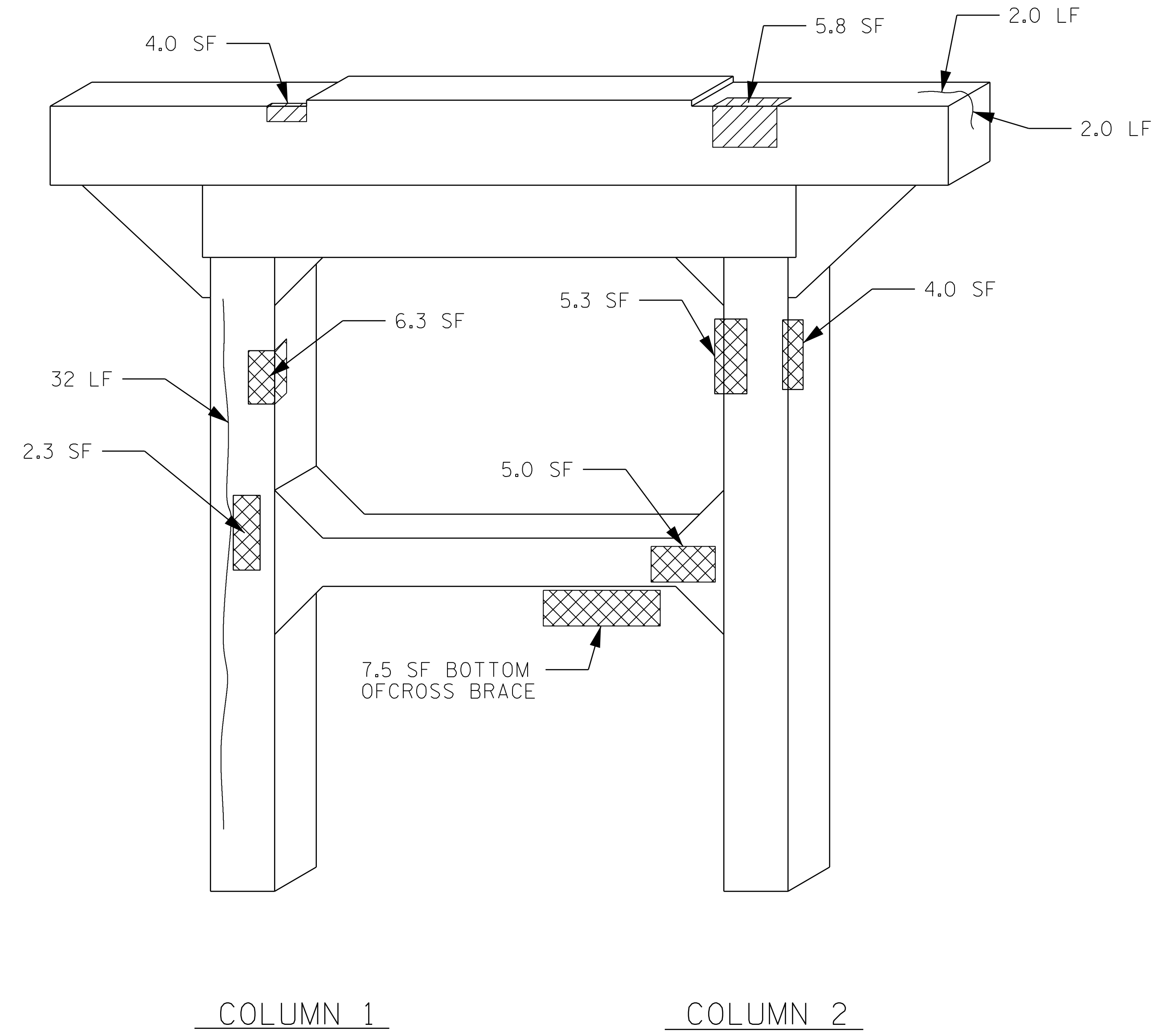
**BENT 4**

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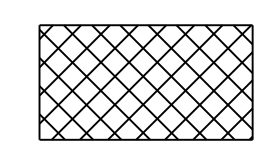
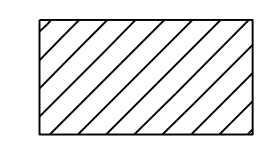

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COLUMN 1                      COLUMN 2  
 ELEVATION @ BENT 5 (SPAN E)

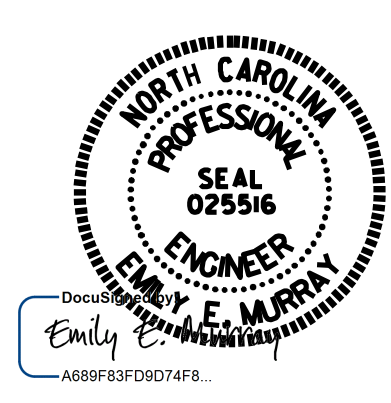
| AS-BUILT REPAIR QUANTITY TABLE |            |           |         |           |
|--------------------------------|------------|-----------|---------|-----------|
| REPAIRS BENT 5                 | QUANTITIES |           |         |           |
|                                | ESTIMATE   |           | ACTUAL  |           |
| SHOTCRETE REPAIRS              | AREA SF    | VOLUME CF | AREA SF | VOLUME CF |
| CAP                            | 0.0        | 0.0       |         |           |
| COLUMN                         | 37.4       | 18.7      |         |           |
| CONCRETE REPAIRS               | AREA SF    | VOLUME CF | AREA SF | VOLUME CF |
| CAP                            | 9.8        | 4.9       |         |           |
| COLUMN                         | 0.0        | 0.0       |         |           |
| EPOXY RESIN INJECTION          |            | LN. FT.   | LN. FT. |           |
| CAP                            |            | 4.0       |         |           |
| COLUMN                         |            | 32.0      |         |           |
| EPOXY COATING                  |            | SQ. FT.   | SQ. FT. |           |
| TOP OF BENT CAP                |            | 70.0      |         |           |

VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN. OF 1" BEHIND REBAR AND 2" MIN. CLEAR TO SAWCUT.

 SHOTCRETE REPAIR  
 CONCRETE REPAIR  
 EPOXY RESIN INJECTION (ERI)

PROJECT NO. 15BPR.130  
MOORE COUNTY  
 BRIDGE NO. 620072

SHEET 1 OF 2



STATE OF NORTH CAROLINA  
 DEPARTMENT OF TRANSPORTATION  
 RALEIGH

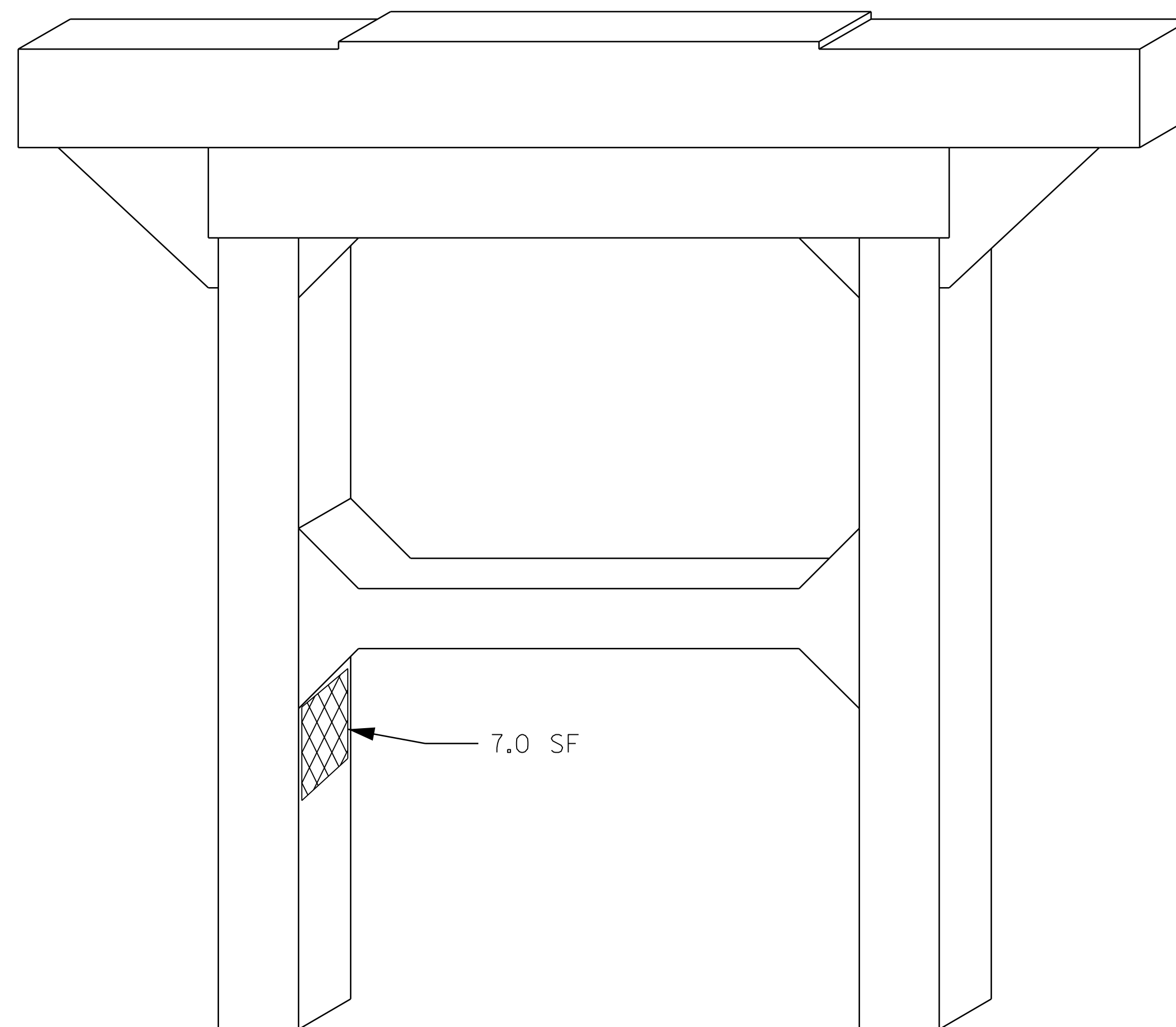
**BENT 5**

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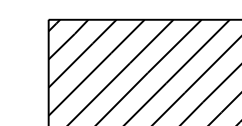
COLUMN 2

COLUMN 1

ELEVATION @ BENT 5 (SPAN F)



SHOTCRETE REPAIR



CONCRETE REPAIR



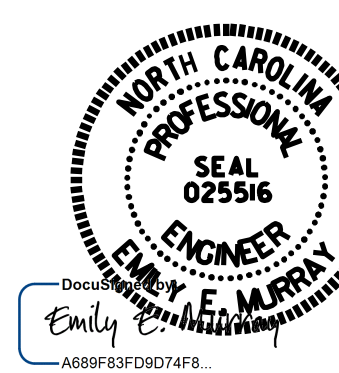
EPOXY RESIN INJECTION (ERI)

PROJECT NO. 15BPR.130  
MOORE COUNTY  
BRIDGE NO. 620072

SHEET 2 OF 2

STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
RALEIGH

BENT 5



4/24/2024

# VOLKERT

5540 Centerview Drive, Suite 305  
Raleigh, NC 27606  
Tel. 919-854-0344 Fax. 919-854-0355  
NC License No. F-0765

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REVISIONS

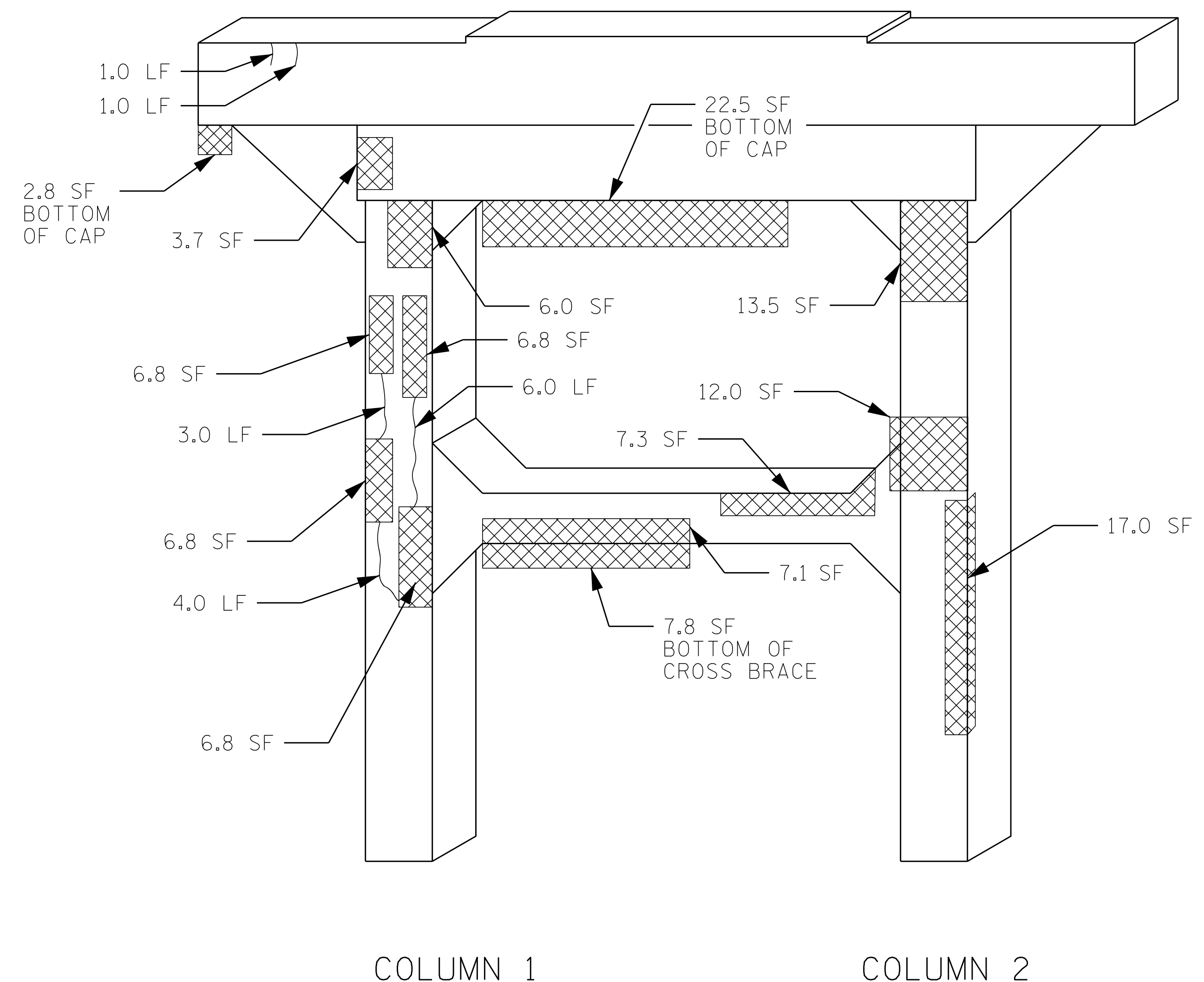
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| 1   |     |       | 3   |     |       |
| 2   |     |       | 4   |     |       |

SHEET NO.

|              |
|--------------|
| S-143        |
| TOTAL SHEETS |
| 156          |

DRAWN BY : C.NICHOLS DATE : 01/24  
CHECKED BY : P.N.HOLDER DATE : 03/24





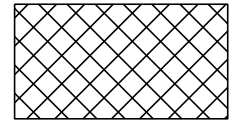
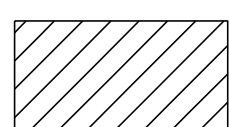

COLUMN 1                      COLUMN 2

ELEVATION @ BENT 6 (SPAN F)

**AS-BUILT REPAIR QUANTITY TABLE**

| REPAIRS<br>BENT 6     | QUANTITIES |           |         |           |
|-----------------------|------------|-----------|---------|-----------|
|                       | ESTIMATE   |           | ACTUAL  |           |
| SHOTCRETE REPAIRS     | AREA SF    | VOLUME CF | AREA SF | VOLUME CF |
| CAP                   | 29.0       | 14.5      |         |           |
| COLUMN                | 120.2      | 60.1      |         |           |
|                       |            |           |         |           |
| CONCRETE REPAIRS      | AREA SF    | VOLUME CF | AREA SF | VOLUME CF |
| CAP                   | 0.0        | 0.0       |         |           |
| COLUMN                | 0.0        | 0.0       |         |           |
|                       |            |           |         |           |
| EPOXY RESIN INJECTION | LN. FT.    |           | LN. FT. |           |
| CAP                   | 2.0        |           |         |           |
| COLUMN                | 16.0       |           |         |           |
|                       |            |           |         |           |
| EPOXY COATING         | SQ. FT.    |           | SQ. FT. |           |
| TOP OF BENT CAP       | 70.0       |           |         |           |

VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN. OF 1" BEHIND REBAR AND 2" MIN. CLEAR TO SAWCUT.

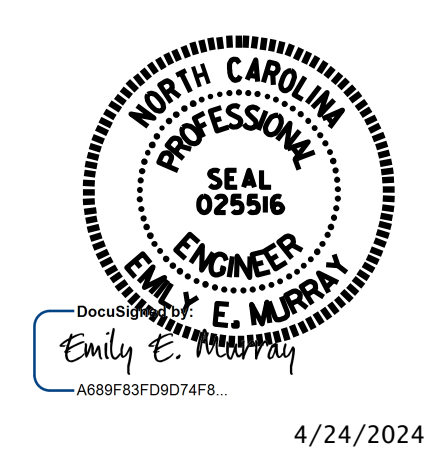
 SHOTCRETE REPAIR  
 CONCRETE REPAIR  
 EPOXY RESIN INJECTION (ERI)

PROJECT NO. 15BPR.130  
MOORE COUNTY  
 BRIDGE NO. 620072

SHEET 1 OF 2

STATE OF NORTH CAROLINA  
 DEPARTMENT OF TRANSPORTATION  
 RALEIGH

**BENT 6**

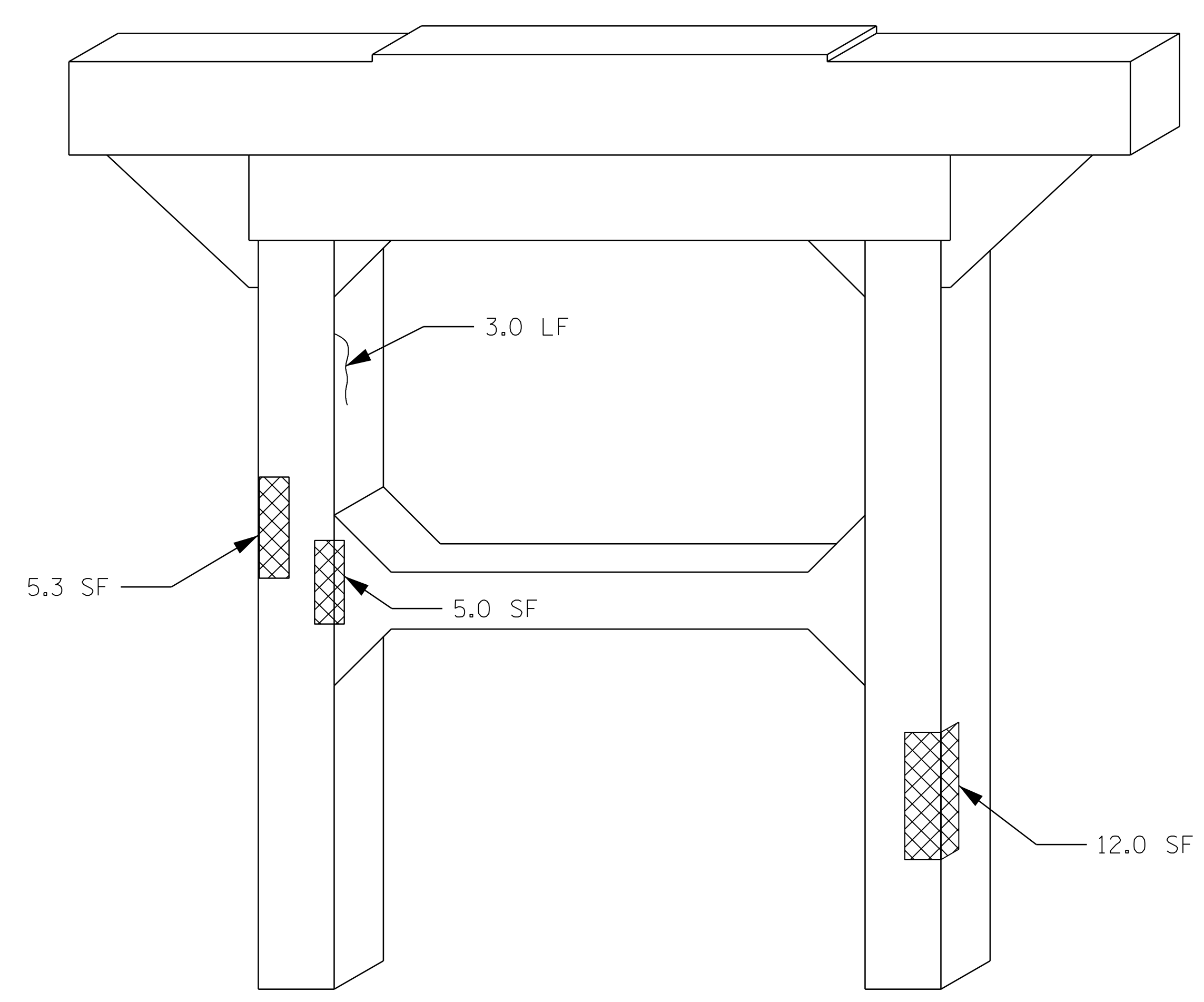


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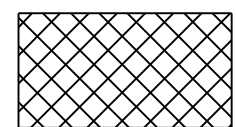
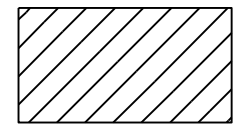

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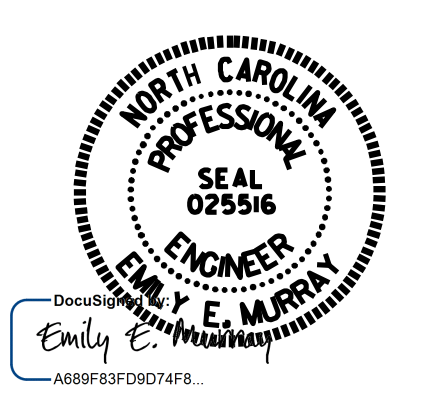
COLUMN 2                      COLUMN 1

ELEVATION @ BENT 6 (SPAN G)

-  SHOTCRETE REPAIR
-  CONCRETE REPAIR
-  EPOXY RESIN INJECTION (ERI)

PROJECT NO. 15BPR.130  
MOORE COUNTY  
 BRIDGE NO. 620072

SHEET 2 OF 2



4/24/2024

STATE OF NORTH CAROLINA  
 DEPARTMENT OF TRANSPORTATION  
 RALEIGH

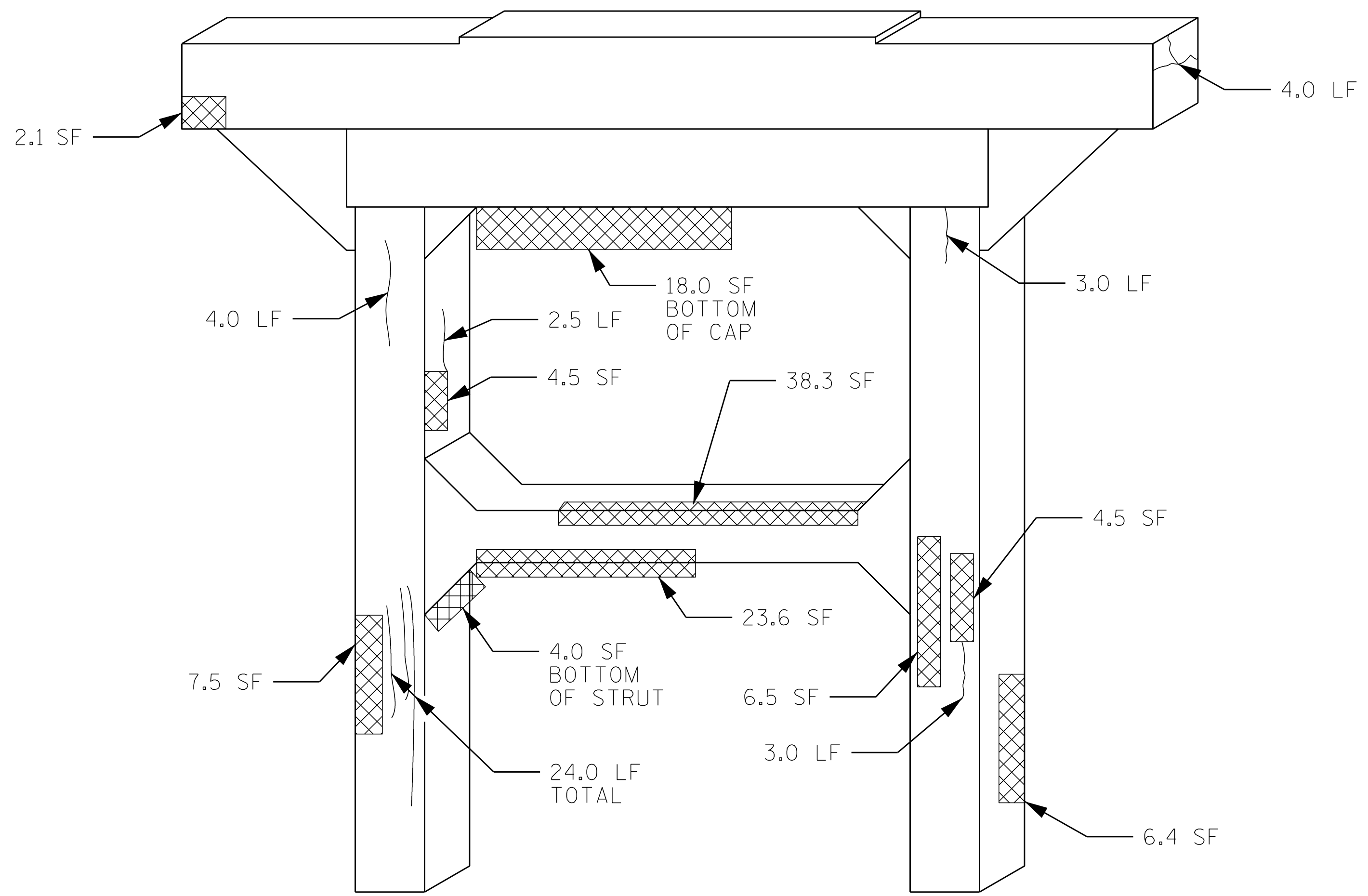
**BENT 6**

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|-----------|-----|-------|-----|-----|-------|--------------|
| NO.       | BY: | DATE: | NO. | BY: | DATE: | S-145        |
| 1         |     |       | 3   |     |       | TOTAL SHEETS |
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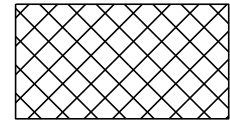
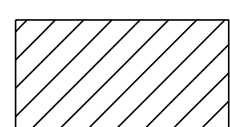



COLUMN 1                      COLUMN 2

ELEVATION @ BENT 7 (SPAN G)

| AS-BUILT REPAIR QUANTITY TABLE |            |           |         |           |
|--------------------------------|------------|-----------|---------|-----------|
| REPAIRS BENT 7                 | QUANTITIES |           |         |           |
|                                | ESTIMATE   |           | ACTUAL  |           |
| SHOTCRETE REPAIRS              | AREA SF    | VOLUME CF | AREA SF | VOLUME CF |
| CAP                            | 20.1       | 10.1      |         |           |
| COLUMN                         | 136.0      | 68.0      |         |           |
|                                |            |           |         |           |
| CONCRETE REPAIRS               | AREA SF    | VOLUME CF | AREA SF | VOLUME CF |
| CAP                            | 0.0        | 0.0       |         |           |
| COLUMN                         | 0.0        | 0.0       |         |           |
|                                |            |           |         |           |
| EPOXY RESIN INJECTION          |            | LN. FT.   |         | LN. FT.   |
| CAP                            |            | 14.0      |         |           |
| COLUMN                         |            | 42.5      |         |           |
|                                |            |           |         |           |
| EPOXY COATING                  |            | SQ. FT.   |         | SQ. FT.   |
| TOP OF BENT CAP                |            | 70.0      |         |           |

VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN. OF 1" BEHIND REBAR AND 2" MIN. CLEAR TO SAWCUT.

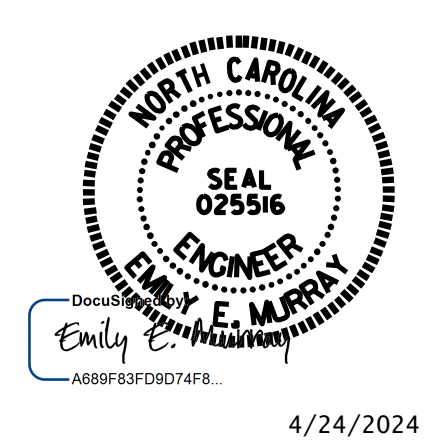
 SHOTCRETE REPAIR  
 CONCRETE REPAIR  
 EPOXY RESIN INJECTION (ERI)

PROJECT NO. 15BPR.130  
MOORE COUNTY  
 BRIDGE NO. 620072

SHEET 1 OF 2

STATE OF NORTH CAROLINA  
 DEPARTMENT OF TRANSPORTATION  
 RALEIGH

**BENT 7**



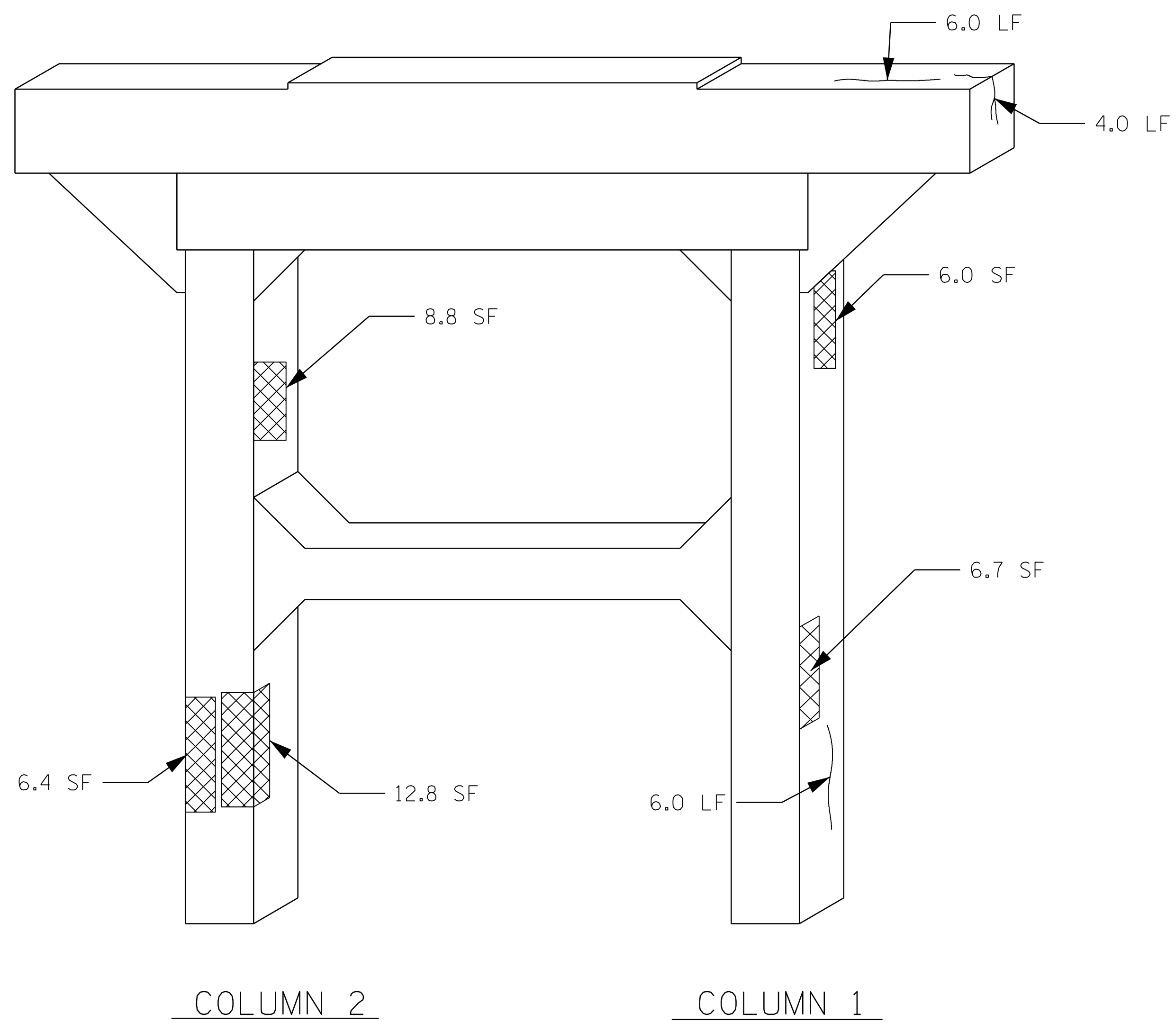
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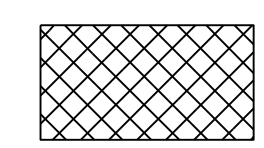
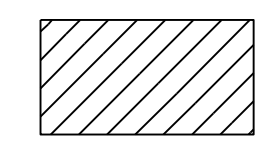

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|-----------|-----|-------|-----|-----|-------|-------------------|
| NO.       | BY: | DATE: | NO. | BY: | DATE: |                   |
| 1         |     |       | 3   |     |       | S-146             |
| 2         |     |       | 4   |     |       | TOTAL SHEETS: 156 |

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 SHOTCRETE REPAIR  
 CONCRETE REPAIR  
 EPOXY RESIN INJECTION (ERI)

COLUMN 2                      COLUMN 1  
ELEVATION @ BENT 7 (SPAN H)

PROJECT NO. 15BPR.130  
MOORE COUNTY  
 BRIDGE NO. 620072

SHEET 2 OF 2



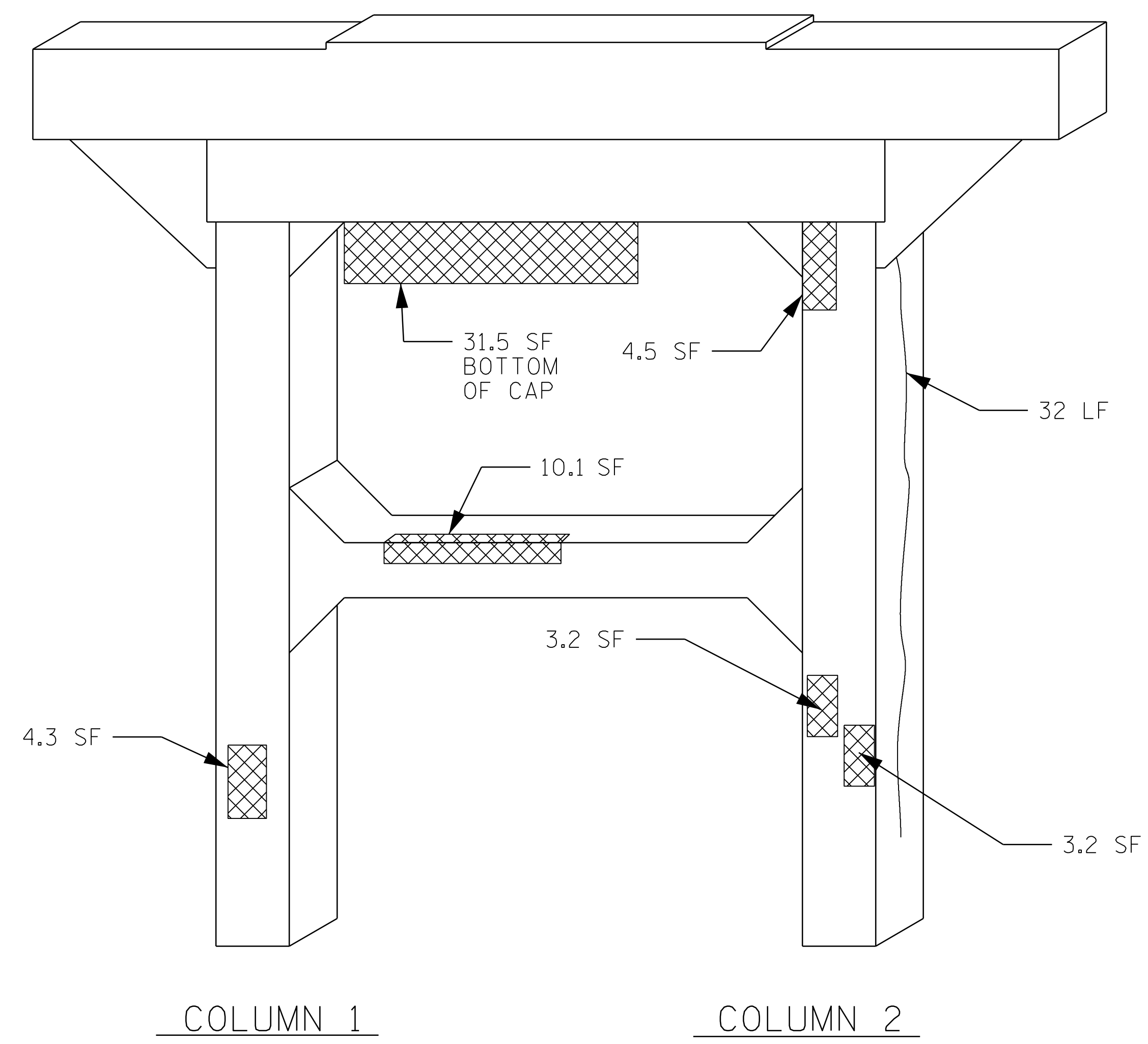
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 RALEIGH  
  
 BENT 7

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| REVISIONS |     |       |     |     |       | SHEET NO.    |
|-----------|-----|-------|-----|-----|-------|--------------|
| NO.       | BY: | DATE: | NO. | BY: | DATE: | S-147        |
| 1         |     |       | 3   |     |       | TOTAL SHEETS |
| 2         |     |       | 4   |     |       | 156          |

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 CHECKED BY : P.N.HOLDER    DATE : 03/24



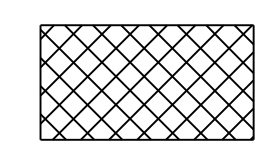
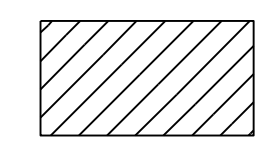

COLUMN 1                      COLUMN 2

ELEVATION @ BENT 8 (SPAN H)

### AS-BUILT REPAIR QUANTITY TABLE

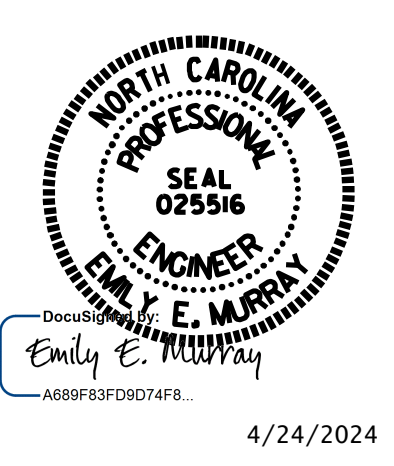
| REPAIRS BENT 8        | QUANTITIES |           |         |           |
|-----------------------|------------|-----------|---------|-----------|
|                       | ESTIMATE   |           | ACTUAL  |           |
| SHOTCRETE REPAIRS     | AREA SF    | VOLUME CF | AREA SF | VOLUME CF |
| CAP                   | 31.5       | 15.8      |         |           |
| COLUMN                | 33.3       | 16.7      |         |           |
| CONCRETE REPAIRS      | AREA SF    | VOLUME CF | AREA SF | VOLUME CF |
| CAP                   | 0.0        | 0.0       |         |           |
| COLUMN                | 0.0        | 0.0       |         |           |
| EPOXY RESIN INJECTION |            | LN. FT.   |         | LN. FT.   |
| CAP                   |            | 0.0       |         |           |
| COLUMN                |            | 32.0      |         |           |
| EPOXY COATING         |            | SQ. FT.   |         | SQ. FT.   |
| TOP OF BENT CAP       |            | 70.0      |         |           |

VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN. OF 1" BEHIND REBAR AND 2" MIN. CLEAR TO SAWCUT.

 SHOTCRETE REPAIR  
 CONCRETE REPAIR  
 EPOXY RESIN INJECTION (ERI)

PROJECT NO. 15BPR.130  
MOORE COUNTY  
 BRIDGE NO. 620072

SHEET 1 OF 2



STATE OF NORTH CAROLINA  
 DEPARTMENT OF TRANSPORTATION  
 RALEIGH

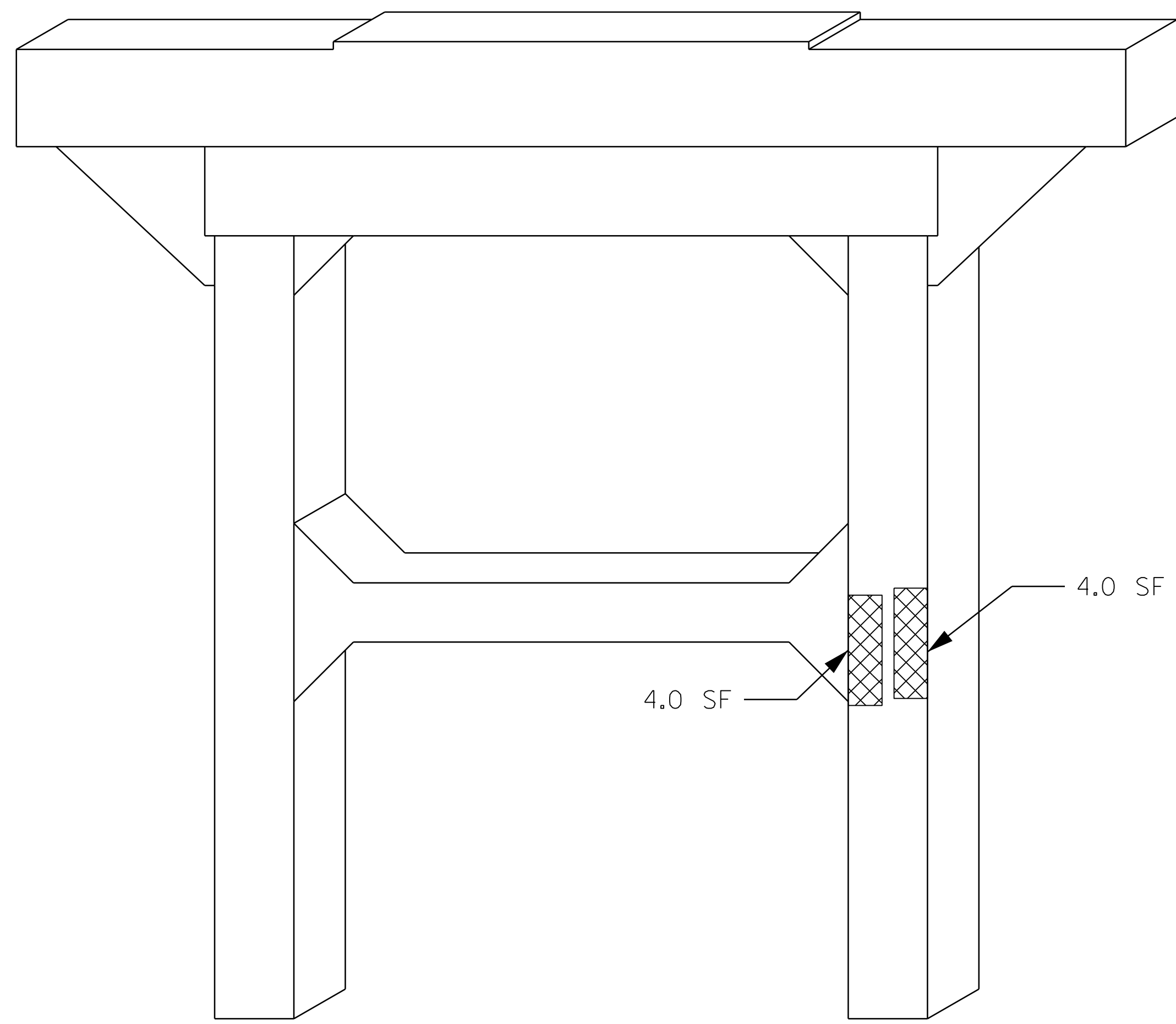
## BENT 8

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| NO.       | BY: | DATE: | NO. | BY: | DATE: | S-148        |
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| 2         |     |       | 4   |     |       | 156          |

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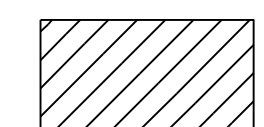

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COLUMN 2

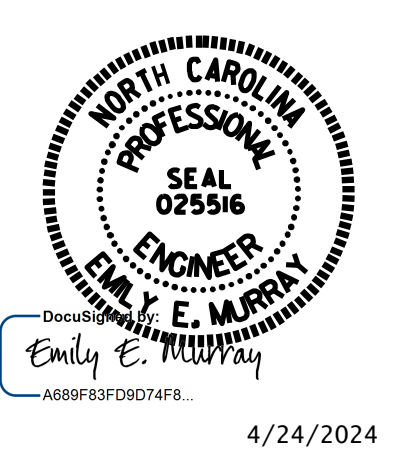
COLUMN 1

ELEVATION @ BENT 8 (SPAN J)

-  SHOTCRETE REPAIR
-  CONCRETE REPAIR
-  EPOXY RESIN INJECTION (ERI)

PROJECT NO. 15BPR.130  
MOORE COUNTY  
 BRIDGE NO. 620072

SHEET 2 OF 2



STATE OF NORTH CAROLINA  
 DEPARTMENT OF TRANSPORTATION  
 RALEIGH

**BENT 8**

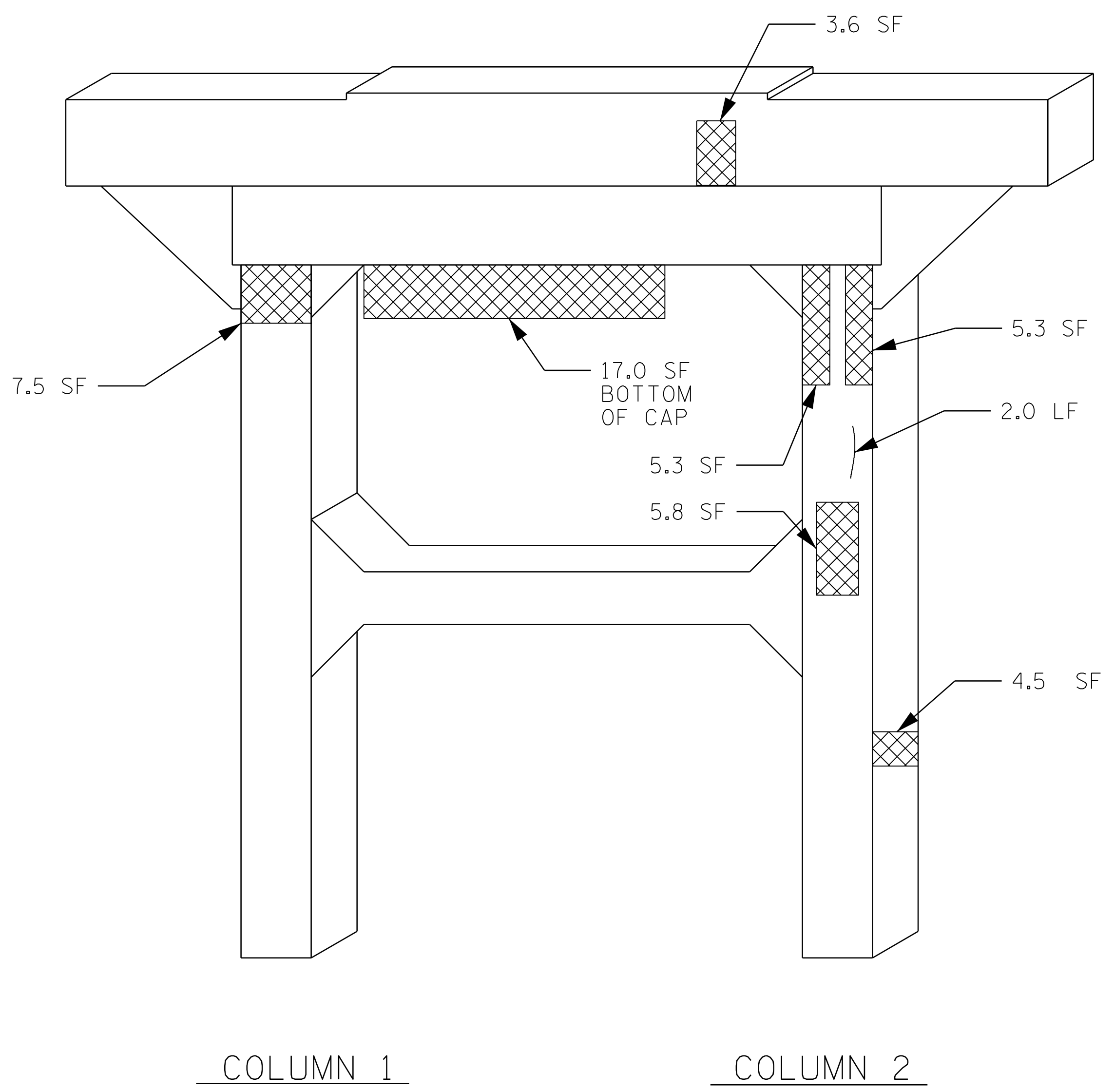
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| NO.       | BY: | DATE: | NO. | BY: | DATE: | S-149        |
| 1         |     |       | 3   |     |       | TOTAL SHEETS |
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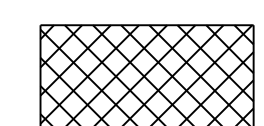
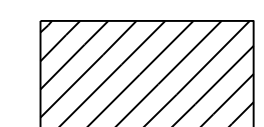



COLUMN 1                      COLUMN 2  
ELEVATION @ BENT 9 (SPAN J)

**AS-BUILT REPAIR QUANTITY TABLE**

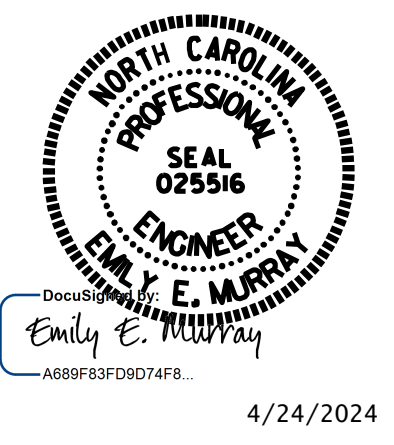
| REPAIRS BENT 9               | QUANTITIES |           |         |           |
|------------------------------|------------|-----------|---------|-----------|
|                              | ESTIMATE   |           | ACTUAL  |           |
| <b>SHOTCRETE REPAIRS</b>     | AREA SF    | VOLUME CF | AREA SF | VOLUME CF |
| CAP                          | 25.4       | 12.7      |         |           |
| COLUMN                       | 38.2       | 19.1      |         |           |
| <b>CONCRETE REPAIRS</b>      | AREA SF    | VOLUME CF | AREA SF | VOLUME CF |
| CAP                          | 0.0        | 0.0       |         |           |
| COLUMN                       | 0.0        | 0.0       |         |           |
| <b>EPOXY RESIN INJECTION</b> |            | LN. FT.   |         | LN. FT.   |
| CAP                          |            | 0.0       |         |           |
| COLUMN                       |            | 2.0       |         |           |
| <b>EPOXY COATING</b>         |            | SQ. FT.   |         | SQ. FT.   |
| TOP OF BENT CAP              |            | 70.0      |         |           |

VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN. OF 1" BEHIND REBAR AND 2" MIN. CLEAR TO SAWCUT.

 SHOTCRETE REPAIR  
 CONCRETE REPAIR  
 EPOXY RESIN INJECTION (ERI)

PROJECT NO. 15BPR.130  
MOORE COUNTY  
 BRIDGE NO. 620072

SHEET 1 OF 2



STATE OF NORTH CAROLINA  
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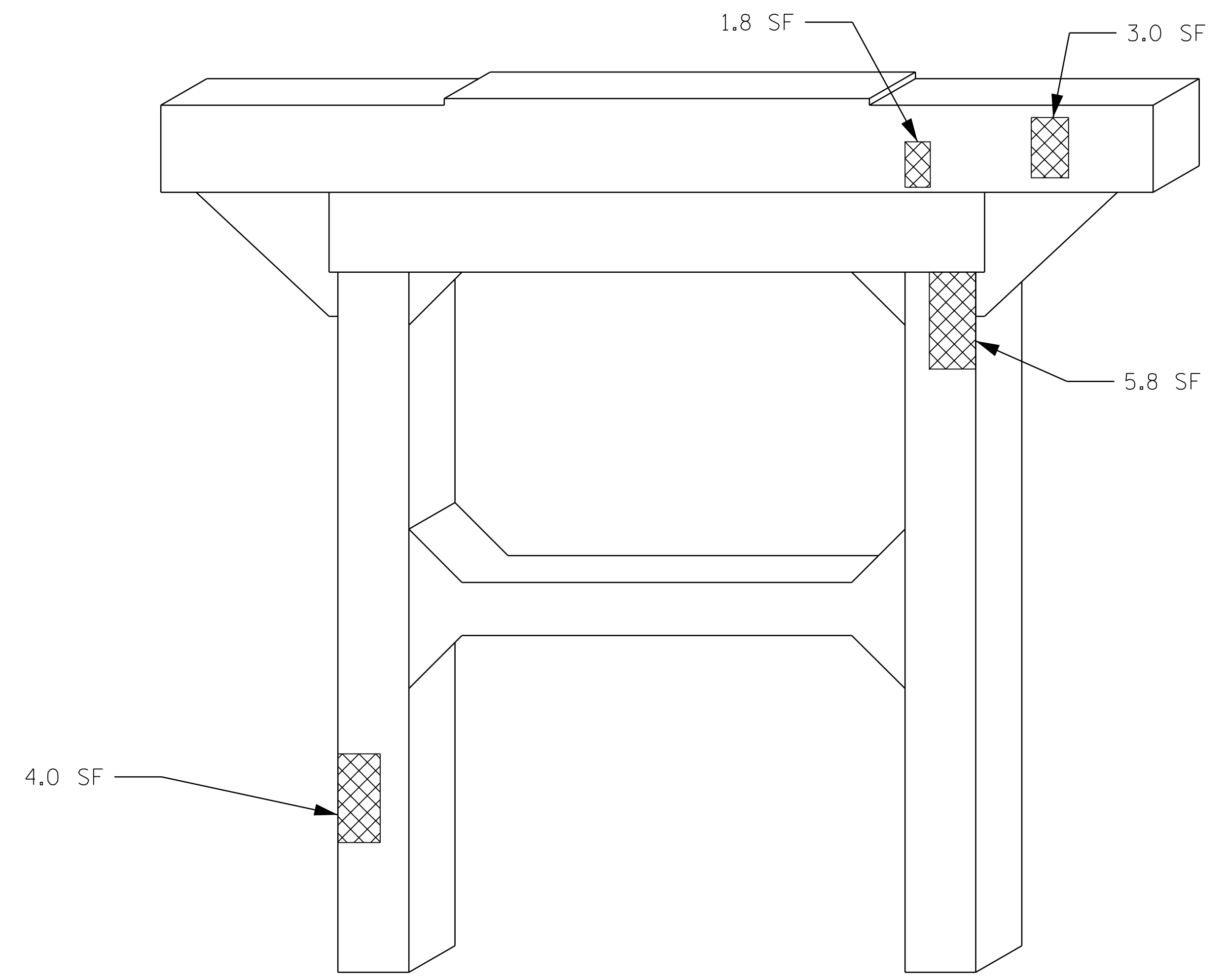
**BENT 9**

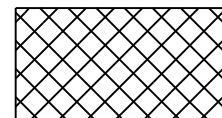
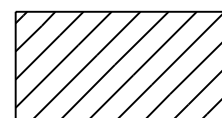

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| NO.       | BY: | DATE: | NO. | BY: | DATE: | TOTAL SHEETS |
| 1         |     |       | 3   |     |       | S-150        |
| 2         |     |       | 4   |     |       | 156          |

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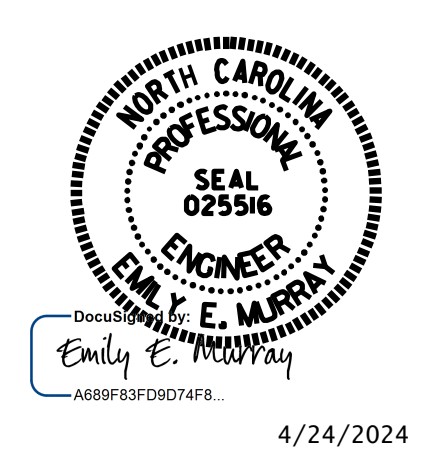


-  SHOTCRETE REPAIR
-  CONCRETE REPAIR
-  EPOXY RESIN INJECTION (ERI)

COLUMN 2                      COLUMN 1  
ELEVATION @ BENT 9 (SPAN K)

PROJECT NO. 15BPR.130  
MOORE COUNTY  
 BRIDGE NO. 620072

SHEET 2 OF 2



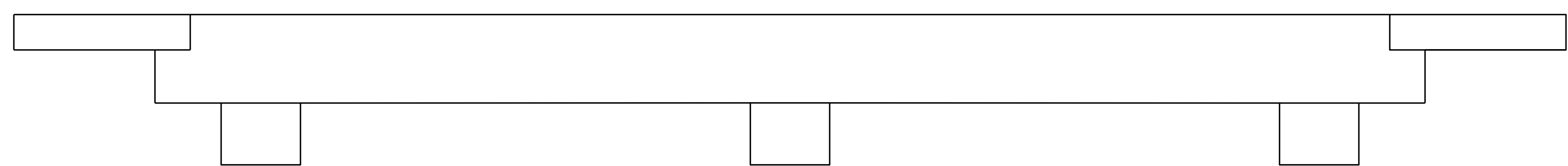
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 RALEIGH  
  
**BENT 9**

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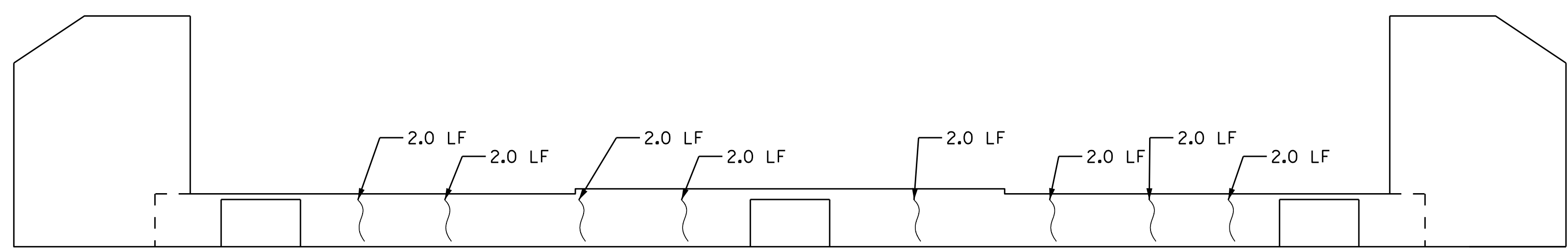
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| REVISIONS |     |       |     |     |       | SHEET NO.           |
|-----------|-----|-------|-----|-----|-------|---------------------|
| NO.       | BY: | DATE: | NO. | BY: | DATE: | S-151               |
| 1         |     |       | 3   |     |       | TOTAL SHEETS<br>156 |
| 2         |     |       | 4   |     |       |                     |



PLAN OF END BENT 2



ELEVATION OF END BENT 2

| AS-BUILT REPAIR QUANTITY TABLE |            |           |         |           |
|--------------------------------|------------|-----------|---------|-----------|
| REPAIRS                        | QUANTITIES |           |         |           |
|                                | ESTIMATE   |           | ACTUAL  |           |
| END BENT 2                     | AREA SF    | VOLUME CF | AREA SF | VOLUME CF |
| SHOTCRETE REPAIRS              |            |           |         |           |
| CAP                            | 0.0        | 0.0       |         |           |
| CONCRETE REPAIRS               |            |           |         |           |
| CAP                            | 0.0        | 0.0       |         |           |
| EPOXY RESIN INJECTION          |            | LN. FT.   |         | LN. FT.   |
| CAP                            |            | 16.0      |         |           |
| EPOXY COATING                  |            | SQ. FT.   |         | SQ. FT.   |
| TOP OF BENT CAP                |            | 132.5     |         |           |

VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN. OF 1" BEHIND REBAR AND 2" MIN. CLEAR TO SAWCUT.

- SHOTCRETE REPAIR
- CONCRETE REPAIR
- EPOXY RESIN INJECTION (ERI)

PROJECT NO. 15BPR.130  
MOORE COUNTY  
 BRIDGE NO. 620072



STATE OF NORTH CAROLINA  
 DEPARTMENT OF TRANSPORTATION  
 RALEIGH

END BENT 2

VOLKERT

5540 Centerview Drive, Suite 305  
 Raleigh, NC 27606  
 Tel. 919-854-0344 Fax. 919-854-0355  
 NC License No. F-0765

DOCUMENT NOT CONSIDERED  
 FINAL UNLESS ALL  
 SIGNATURES COMPLETED

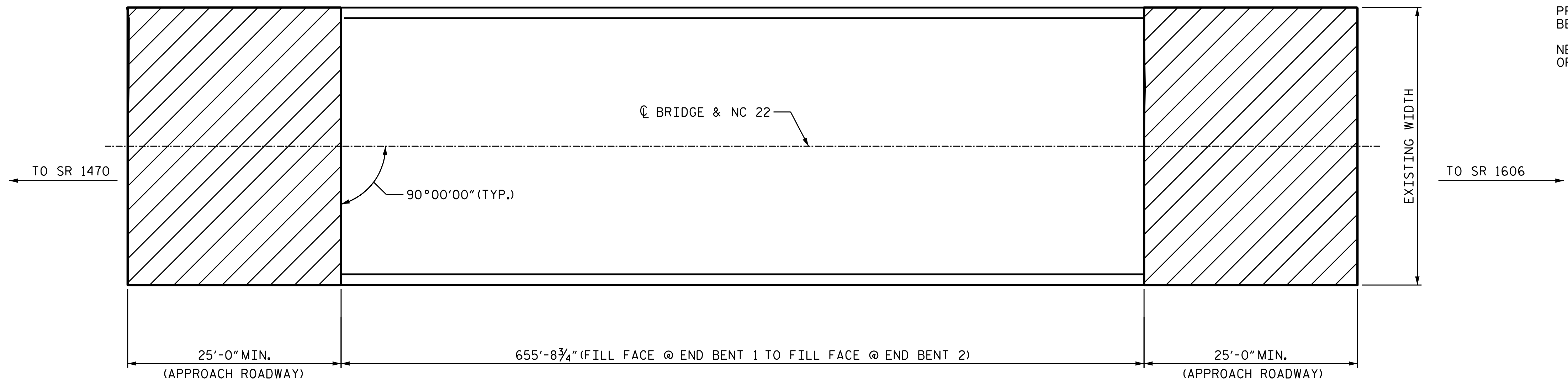
| REVISIONS |     |       |     |     |       | SHEET NO.         |
|-----------|-----|-------|-----|-----|-------|-------------------|
| NO.       | BY: | DATE: | NO. | BY: | DATE: |                   |
| 1         |     |       | 3   |     |       | S-152             |
| 2         |     |       | 4   |     |       | TOTAL SHEETS: 156 |

DRAWN BY : C.NICHOLS DATE : 01/24  
 CHECKED BY : P.N.HOLDER DATE : 03/24



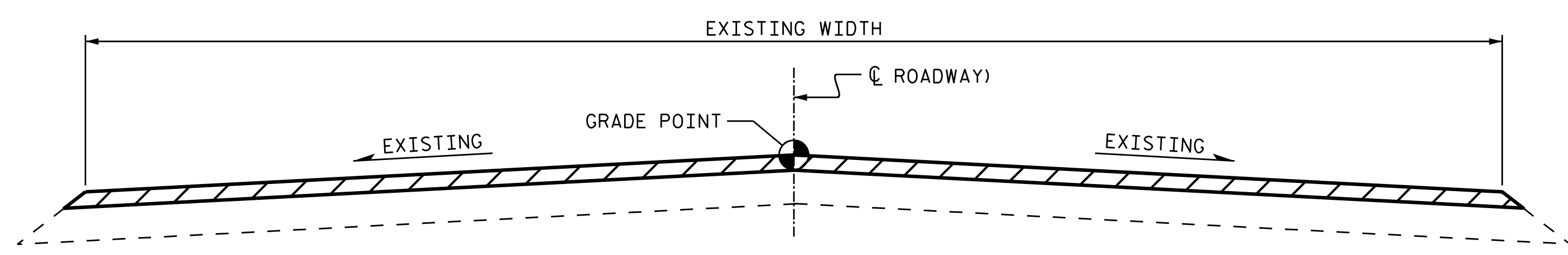
**NOTES**

INCIDENTAL MILLING - EXISTING APPROACH ASPHALT PAVING TO BE MILLED AS NECESSARY TO ATTAIN MINIMUM 1/2" DEPTH OF NEW ASPHALT PAVING.  
 PROVIDE NEW ASPHALT PAVING THICKNESS TO CREATE A SMOOTH TRANSITION BETWEEN THE ROADWAY AND THE BRIDGE DECK.  
 NEW ASPHALT PAVING THICKNESS MAY EXCEED 1/2" DUE TO SETTLEMENT OF THE EXISTING APPROACH ASPHALT PAVING.



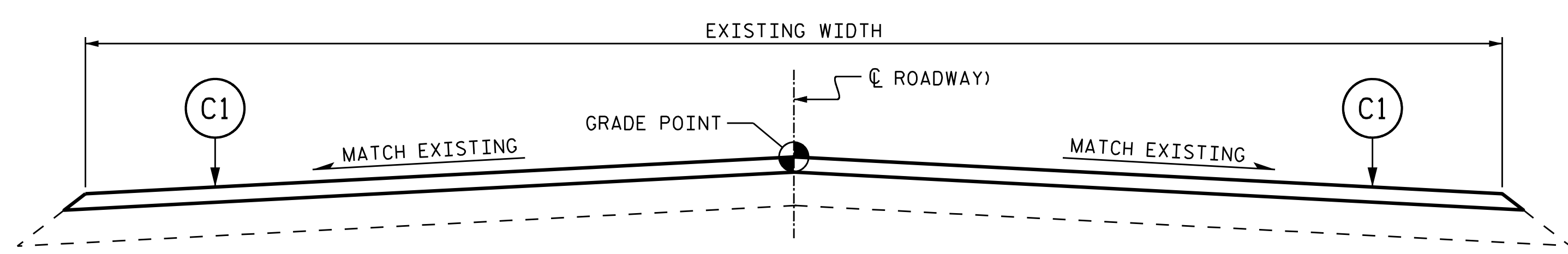
**PLAN**

| SUMMARY OF QUANTITIES                       |             |        |
|---------------------------------------------|-------------|--------|
| MOORE 72                                    |             |        |
|                                             | ESTIMATE    | ACTUAL |
| INCIDENTAL MILLING                          | 156 SQ. YD. |        |
| ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C | 13.2 TONS   |        |
| ASPHALT BINDER FOR PLANT MIX                | 0.8 TONS    |        |



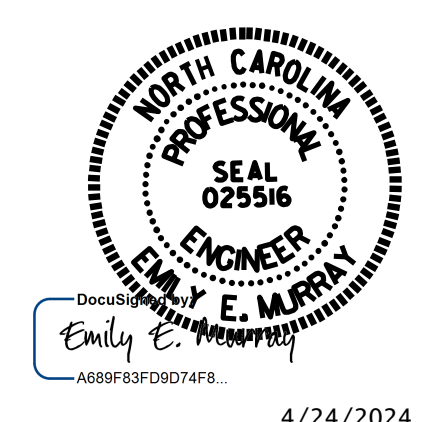
**TYPICAL ROADWAY MILLING SECTION**

**C1** 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 1/2" IN DEPTH OR GREATER THAN 2" IN DEPTH.



**TYPICAL PROPOSED ROADWAY SECTION**

PROJECT NO. 15BPR.130  
MOORE COUNTY  
 BRIDGE NO. 620072



4/24/2024

STATE OF NORTH CAROLINA  
 DEPARTMENT OF TRANSPORTATION  
 RALEIGH

**APPROACH MILLING AND TYPICAL ROADWAY SECTIONS**

DRAWN BY : D. A. GLADDEN DATE : 03/2024  
 CHECKED BY : E. E. MURRAY DATE : 03/2024

**VOLKERT**  
 5540 Centerview Drive, Suite 305  
 Raleigh, NC 27606  
 Tel. 919-854-0344 Fax. 919-854-0355  
 NC License No. F-0765

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| REVISIONS |     |       |     |     |       | SHEET NO.        |
|-----------|-----|-------|-----|-----|-------|------------------|
| NO.       | BY: | DATE: | NO. | BY: | DATE: |                  |
| 1         |     |       | 3   |     |       | S-153            |
| 2         |     |       | 4   |     |       | TOTAL SHEETS 156 |





BENT 4 LOOKING SOUTH

DRIFT REMOVAL LOCATIONS

DRIFT REMOVAL

THE INFORMATION PROVIDED IS BASED ON DRIFT ACCUMULATION AS OF 3/8/2022. THE EXACT AMOUNT OF DRIFT VARIES DAILY.

REMOVAL OF DRIFT SHALL BE ACCESSED FROM THE TOP OF THE BRIDGE DECK. ASSISTANCE FROM BOATS IN THE RIVER MAYBE ALLOWED, BUT NO ACCESS TO THE DRIFT SHALL BE ALLOWED FROM THE RIVER BANK.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL OF ALL DRIFT MATERIALS PRIOR TO THE PROJECT'S END.

THE CONTRACTOR SHALL NOT ALLOW, AT ANY TIME, THE DRIFT MATERIALS TO FLOW DOWNSTREAM OF THE PROJECT SITE.

THE CONTRACTOR SHALL CONTAIN AND DISPOSE OF COLLECTED DRIFT MATERIALS OFF SITE.

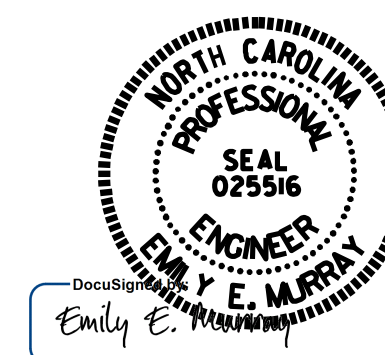
FOR DRIFT REMOVAL, SEE SPECIAL PROVISIONS.

FOR SECURING OF VESSELS, SEE SPECIAL PROVISIONS.

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

RESIDENT ENGINEER \_\_\_\_\_ DATE \_\_\_\_\_

PROJECT NO. 15BPR.130  
MOORE COUNTY  
 BRIDGE NO. 620072



STATE OF NORTH CAROLINA  
 DEPARTMENT OF TRANSPORTATION  
 RALEIGH

**DRIFT REMOVAL**

**VOLKERT**  
 5430 Wade Park Blvd, Suite 410  
 Raleigh, NC 27607  
 Tel. 919-854-0344 Fax: 919-854-0355  
 NC License No. F-0765

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| REVISIONS |     |       |     |     |       | SHEET NO.    |
|-----------|-----|-------|-----|-----|-------|--------------|
| NO.       | BY: | DATE: | NO. | BY: | DATE: | TOTAL SHEETS |
| 1         |     |       | 3   |     |       | 154          |
| 2         |     |       | 4   |     |       | 156          |

DRAWN BY : B. H. BARNHILL DATE : 04/2024  
 CHECKED BY : E. E. MURRAY DATE : 04/2024



**NOTES**

TYPICAL BENT CAP REPAIRS ARE SHOWN. REPAIR DETAILS SIMILAR FOR END BENT CAPS AND STRUTS.

THE METHOD USED TO DELINEATE THE AREAS OF UNSOUND CONCRETE TO BE REPAIRED SHALL NOT PERMANENTLY MARK THE CONCRETE, LEAVE ANY RESIDUE AFTER REMOVAL OR REQUIRE HARSH CHEMICALS TO REMOVE.

THE CONTRACTOR SHALL REMOVE THE DETERIORATED CONCRETE IN ACCORDANCE WITH THE GUIDELINES SET IN THESE NOTES, IN THE SPECIAL PROVISIONS AND THE STANDARD SPECIFICATIONS.

REMOVE UNSOUND CONCRETE TO THE EXTENT NECESSARY, MINIMUM OF 1" BEHIND REBAR AND MINIMUM OF 2" CLEARANCE TO SAWCUT.

NO MORE THAN ONE-THIRD OF THE CAP OR COLUMN CROSS SECTIONAL AREA SHALL BE REMOVED AT ONE TIME. SHOULD IT BECOME NECESSARY TO REMOVE MORE THAN 30% OF A CAP OR COLUMN CROSS SECTIONAL AREA, NOTIFY THE ENGINEER PRIOR TO PROCEEDING.

SIMULTANEOUS REMOVAL OF UNSOUND CONCRETE MAY BE PERMITTED ON MORE THAN ONE FACE OF A CAP AND/OR COLUMN, IF THE AREAS OF REMOVAL ARE NOT ADJACENT TO OR DIRECTLY OPPOSITE ONE ANOTHER. IF REMOVAL EXTENDS MORE THAN 1 1/2" BEHIND THE MAIN REINFORCING BARS, NOTIFY THE ENGINEER PRIOR TO PROCEEDING.

REINFORCING STEEL WHICH IS DETERMINED BY THE ENGINEER TO BE REPLACED, SHALL BE REMOVED TO A POINT WHERE IT IS SOUND. THE PATCH SHALL EXTEND A SUFFICIENT DISTANCE BEYOND THIS POINT TO DEVELOP A SPLICE LENGTH SPECIFIED IN THE TABLE ON THIS SHEET.

THE #4 "U" DOWELS ARE REQUIRED ONLY AROUND THE ANCHOR BOLTS. THE EXISTING REINFORCING STEEL IN THE PEDESTAL WALL SHALL BE CLEANED, STRAIGHTENED AND REMAIN IN PLACE.

FOR ADHESIVELY ANCHORED ANCHOR BOLTS OR DOWELS, SEE STANDARD SPECIFICATIONS.

COAT ALL REPAIR SURFACE AREAS ON THE TOP OF CAPS, INCLUDING CHAMFERS, WITH EPOXY COATING, OVERLAPPING THE REPAIR AREA BY A MINIMUM OF 3" ON ALL POSSIBLE SIDES.

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

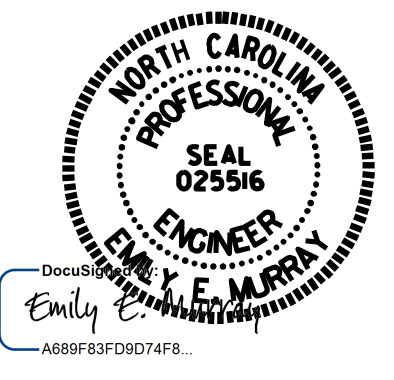
FOR CONCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR EPOXY COATING, SEE SPECIAL PROVISIONS.

FOR EPOXY RESIN INJECTION (ERI), SEE SPECIAL PROVISIONS.

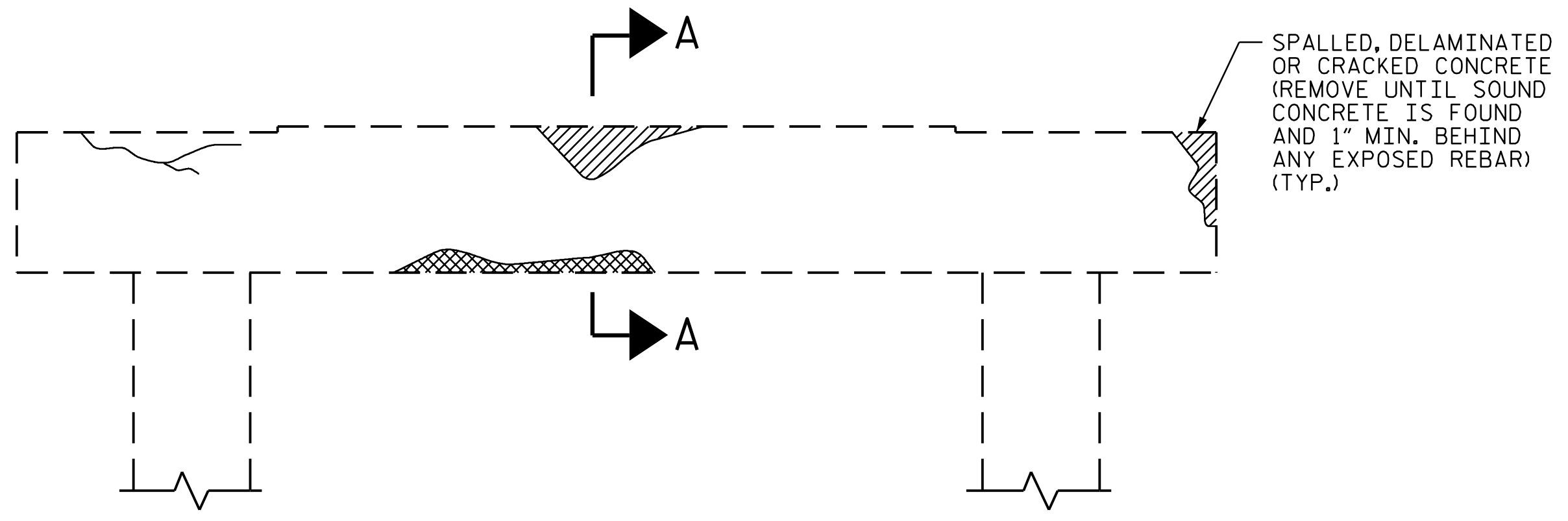
PROJ. NO. 15BPR.130  
 CHATHAM, MOORE COUNTY  
 BRIDGE NO. 180007, 180477,  
620049, 620072

STATE OF NORTH CAROLINA  
 DEPARTMENT OF TRANSPORTATION  
 RALEIGH  
 STANDARD  
 TYPICAL CAP  
 AND COLUMN  
 REPAIR DETAILS

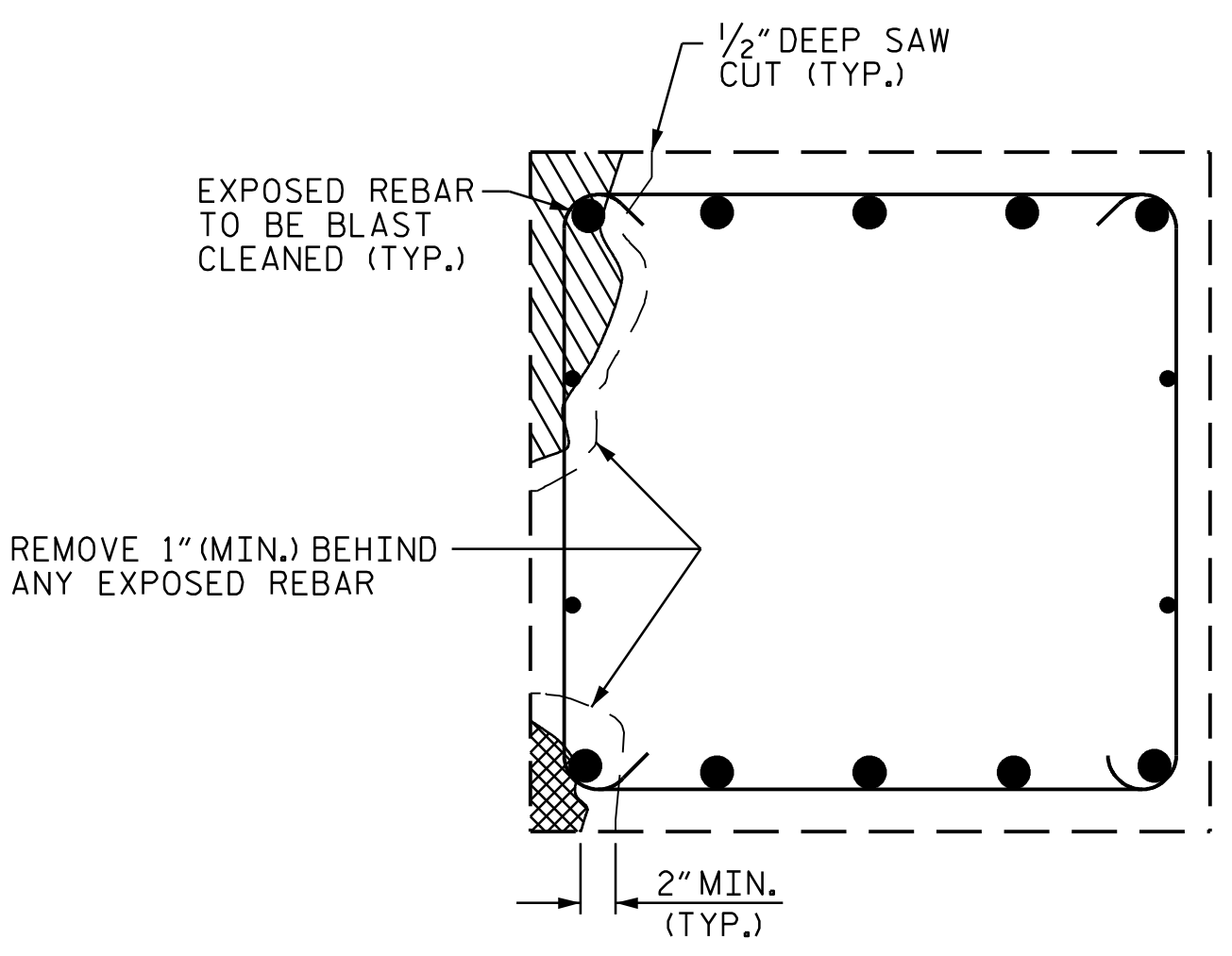


4/24/2024

| REVISIONS |     |       |     |     |       | SHEET NO.    |
|-----------|-----|-------|-----|-----|-------|--------------|
| NO.       | BY: | DATE: | NO. | BY: | DATE: | S-155        |
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| 2         |     |       | 4   |     |       | 156          |

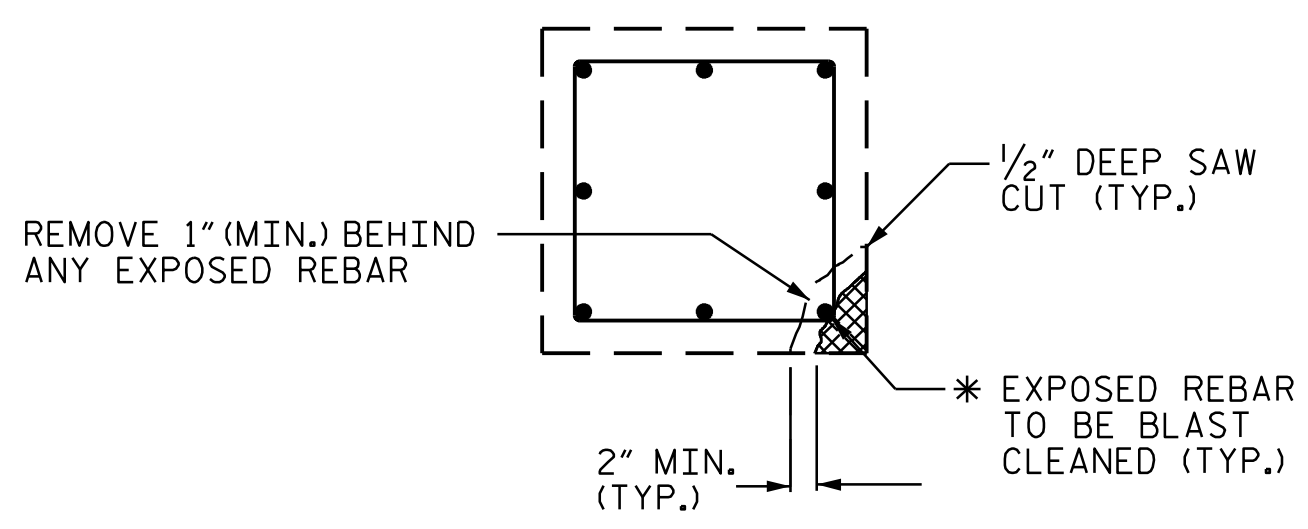


**BENT CAP REPAIRS**



**SECTION A-A**

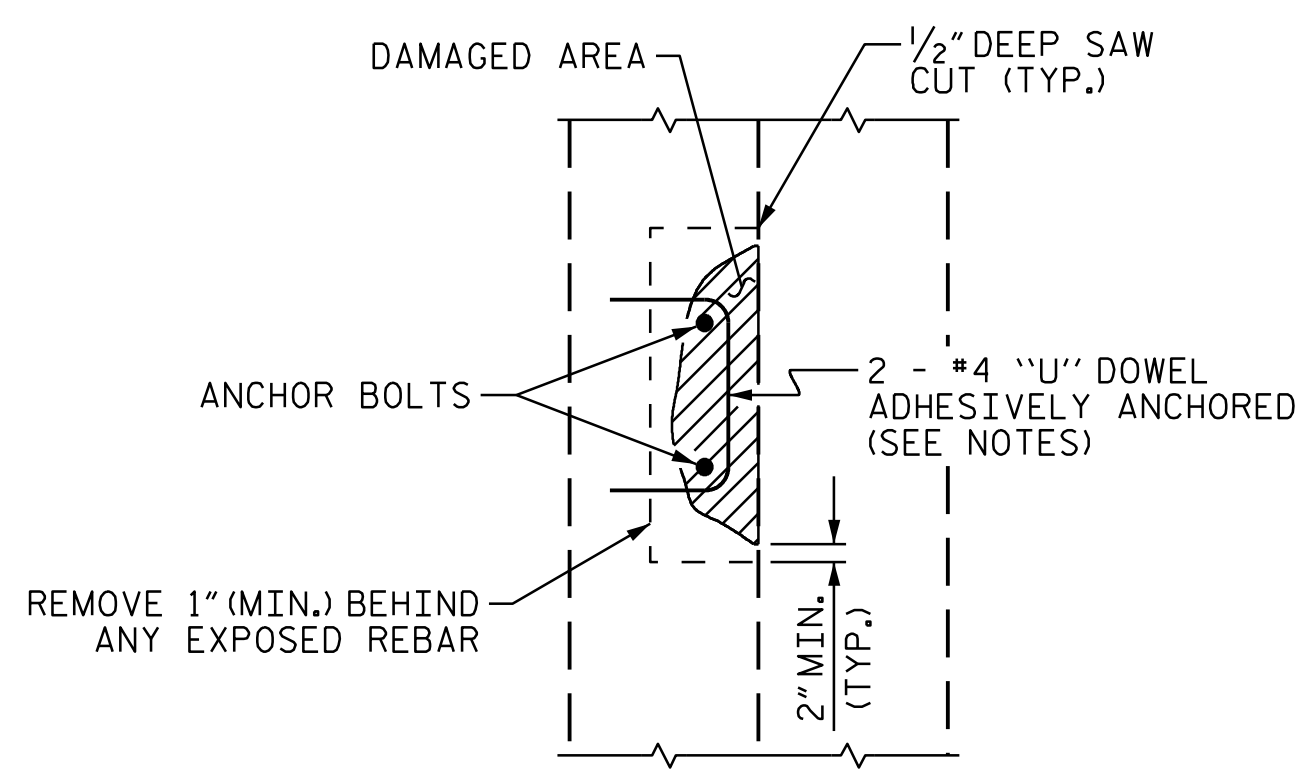
**CAP REPAIR**



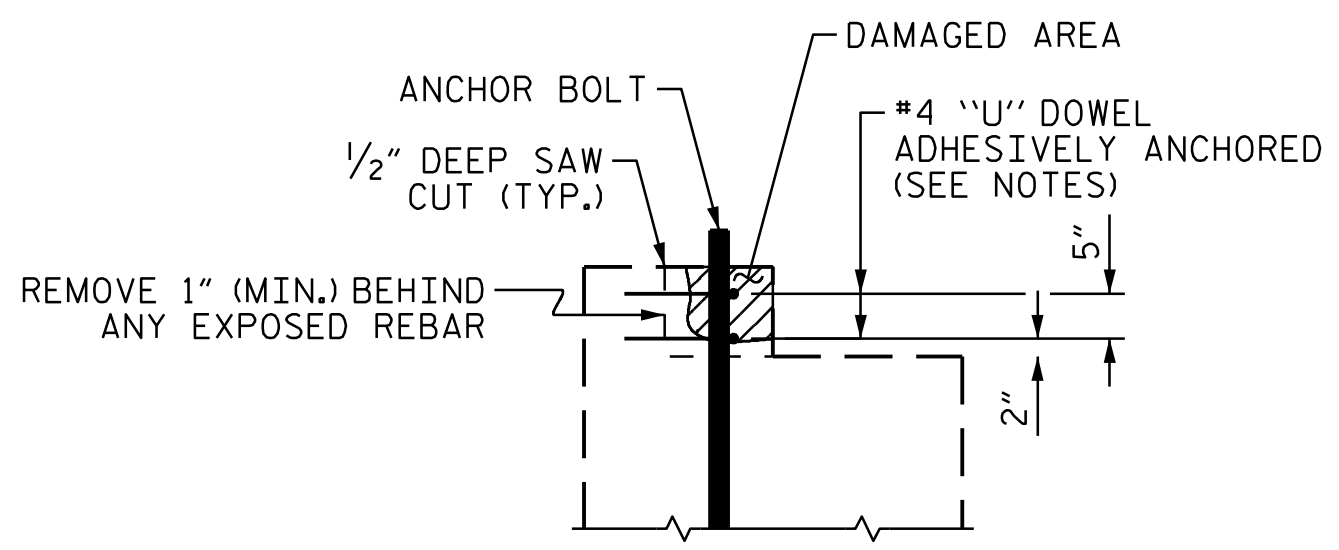
**PLAN OF COLUMN**

**REPAIR KEY**

|  |                                      |
|--|--------------------------------------|
|  | CONCRETE REPAIR AREA (FORM AND POUR) |
|  | SHOTCRETE REPAIR AREA                |
|  | EPOXY RESIN INJECTION (ERI)          |

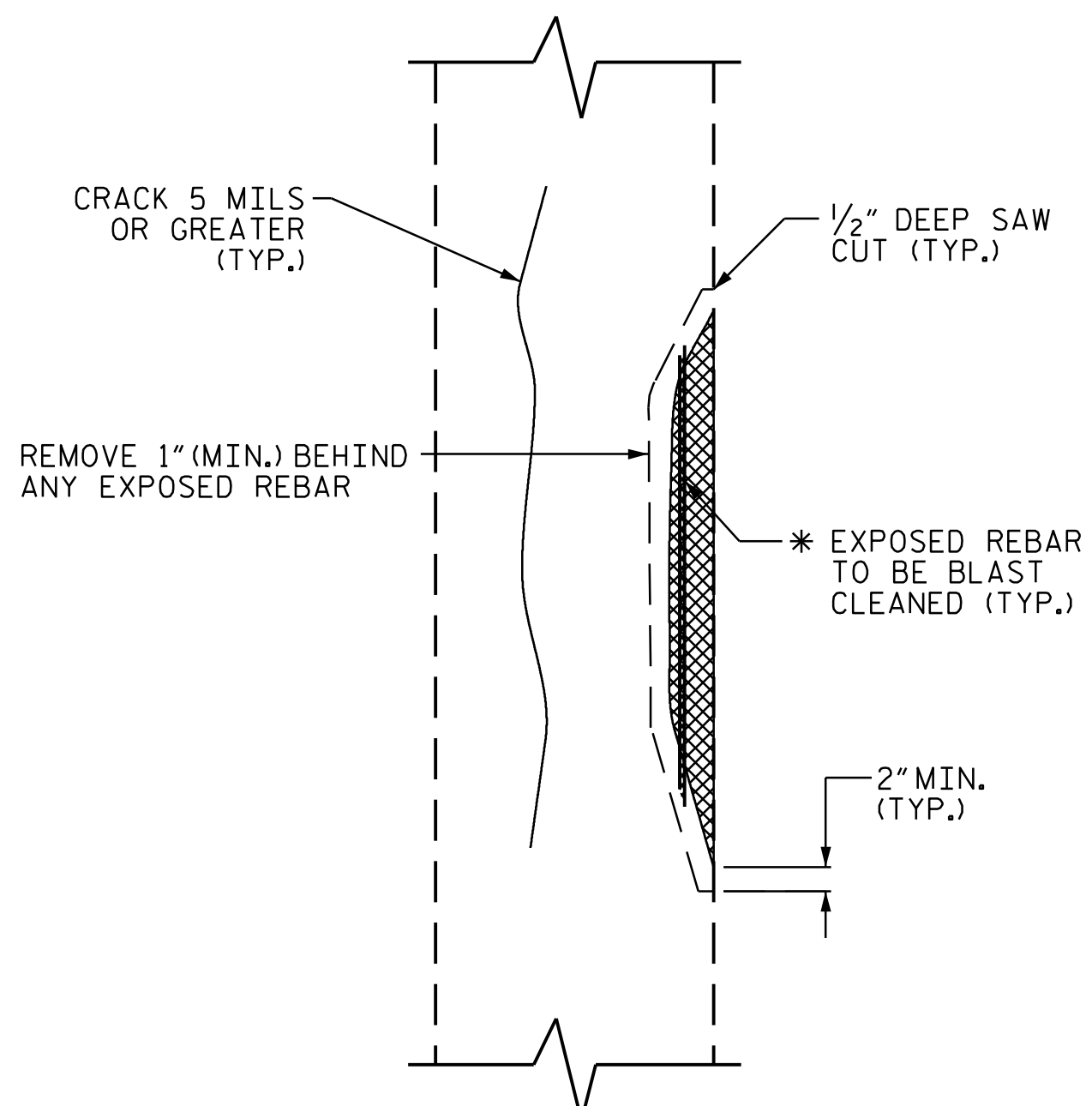


**PLAN**



**ELEVATION**

**PEDESTAL WALL REPAIR**



**ELEVATION OF COLUMN**

**COLUMN REPAIR**

**SPLICE LENGTH TABLE**

| BAR SIZE | MIN. SPLICE LENGTH |
|----------|--------------------|
| #4       | 2'-4"              |
| #5       | 2'-9"              |
| #6       | 4'-0"              |
| #7       | 5'-3"              |
| #8       | 6'-9"              |
| #9       | 8'-6"              |
| #10      | 10'-11"            |
| #11      | 13'-4"             |

\* REPAIR LENGTH SHALL NOT EXCEED 10 FEET.

ASSEMBLED BY : D. A. GLADDEN DATE : 04/2024  
 CHECKED BY : E. E. MURRAY DATE : 04/2024  
 DRAWN BY : NAP 8/18  
 CHECKED BY :

**VOLKERT**  
 5430 Wade Park Blvd, Suite 410  
 Raleigh, NC 27607  
 Tel: 919-854-0344 Fax: 919-854-0355  
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### BRIDGE JACKING NOTES:

THIS DETAIL IS A GENERIC EXAMPLE OF A JACKING SCHEME AND DOES NOT NECESSARILY REPRESENT SPECIFIC CONDITIONS AT A PARTICULAR BRIDGE. ACTUAL BRIDGE GEOMETRIES, DIMENSIONS, AND CONDITIONS MAY DIFFER FROM THIS DETAIL. PRIOR TO BEGINNING WORK, THE CONTRACTOR SHALL INVESTIGATE THE BRIDGES ON THE PROJECT AND DEVELOP A JACKING PLAN TO BE SUBMITTED FOR REVIEW AND APPROVAL. SEE BRIDGE JACKING SPECIAL PROVISION.

PRIOR TO BRIDGE JACKING OPERATIONS, THE ENGINEER AND CONTRACTOR SHALL INSPECT THE STRUCTURE FOR ANY NOTABLE DEFECTS TO THE PRIMARY AND SECONDARY STRUCTURAL MEMBERS. ALL NOTABLE DEFECTS SHALL BE DOCUMENTED AND REPORTED TO THE AREA BRIDGE MAINTENANCE ENGINEER PRIOR TO COMMENCEMENT OF ANY BRIDGE JACKING. THE CONTRACTOR SHALL PROVIDE SAFE AND SUFFICIENT ACCESS TO ALL STRUCTURAL MEMBERS FOR THE ENGINEER TO ESTABLISH PROPER DOCUMENTATION.

PRIOR TO JACKING, THE CONTRACTOR SHALL ENSURE THERE ARE NO OBSTACLES PREVENTING THE BEAM FROM BEING LIFTED.

THE BEAM SHALL BE LIFTED ENOUGH THAT THE BEAM CLEARS THE BEARINGS AND ALL LOAD IS SUPPORTED BY THE JACKS. AFTER JACKING IS COMPLETE, THE CONTRACTOR SHALL PROVIDE FOR A METHOD TO REMOVE THE JACKS AND SUPPORT THE BEAM FOR DEAD AND LIVE LOAD DURING THE REPAIR OPERATIONS. IF THE JACKS REMAIN IN PLACE DURING THE ENTIRE JACKING AND REPAIR OPERATION, THEY SHALL HAVE MECHANICAL LOCK OFF CAPABILITIES.

IF, DURING THE JACKING PROCESS, OR WHILE THE BEAM IS BEING SUPPORTED, THE BEAM SHIFTS FROM ITS ORIGINAL POSITION, ALL WORK SHALL CEASE AND THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY.

BEARINGS ADJACENT TO THE BEAM BEING JACKED MAY BE LOOSENED TO DECREASE THE RESISTANCE OF THE DECK SLAB DURING JACKING. ALL BEARINGS LOOSENED SHALL BE TIGHTENED BACK AFTER REPAIR OPERATIONS ARE COMPLETED AND THE JACKS AND BLOCKING HAVE BEEN REMOVED.

THE MAXIMUM DIFFERENTIAL BETWEEN ADJACENT BEAMS THAT ARE BEING JACKED IS  $\frac{1}{8}$ ".

LOADS PROVIDED IN THE "BRIDGE JACKING TABLE" ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY. THE CONTRACTOR'S ENGINEER SHALL DETERMINE THE EXPECTED LOADS TO BE LIFTED DURING THE BRIDGE JACKING OPERATIONS.

THE CONTRACTOR SHALL SUBMIT WORKING DRAWINGS AND CALCULATIONS OF THE JACKING PROCEDURE(S) SEALED BY A PROFESSIONAL ENGINEER IN THE STATE OF NORTH CAROLINA TO THE ENGINEER FOR APPROVAL PRIOR TO BRIDGE JACKING OPERATIONS.

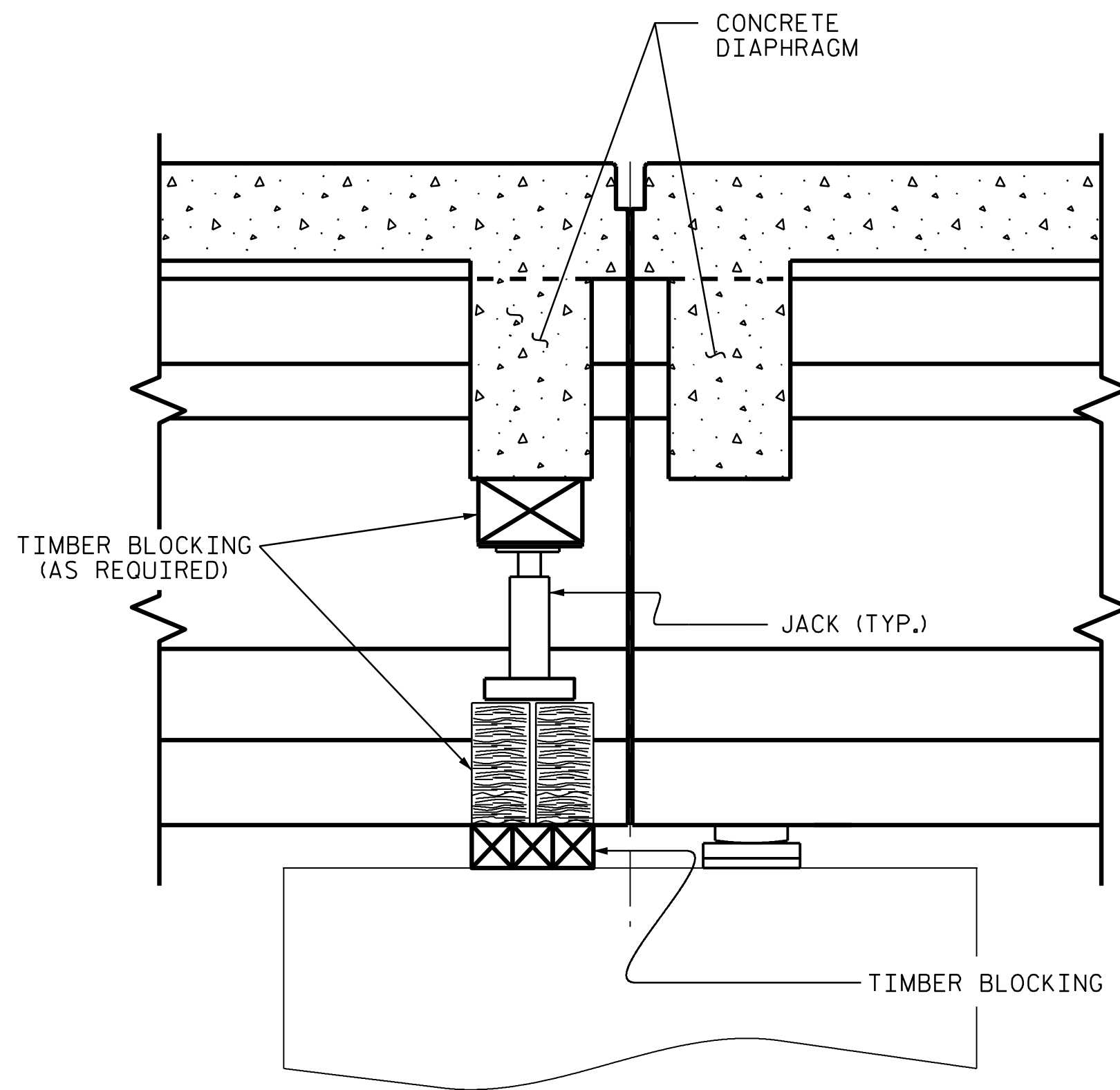
FOR TYPE I OR TYPE II BRIDGE JACKING, SEE SPECIAL PROVISIONS.

FOR WORKING DRAWING SUBMITTALS, SEE SPECIAL PROVISIONS.

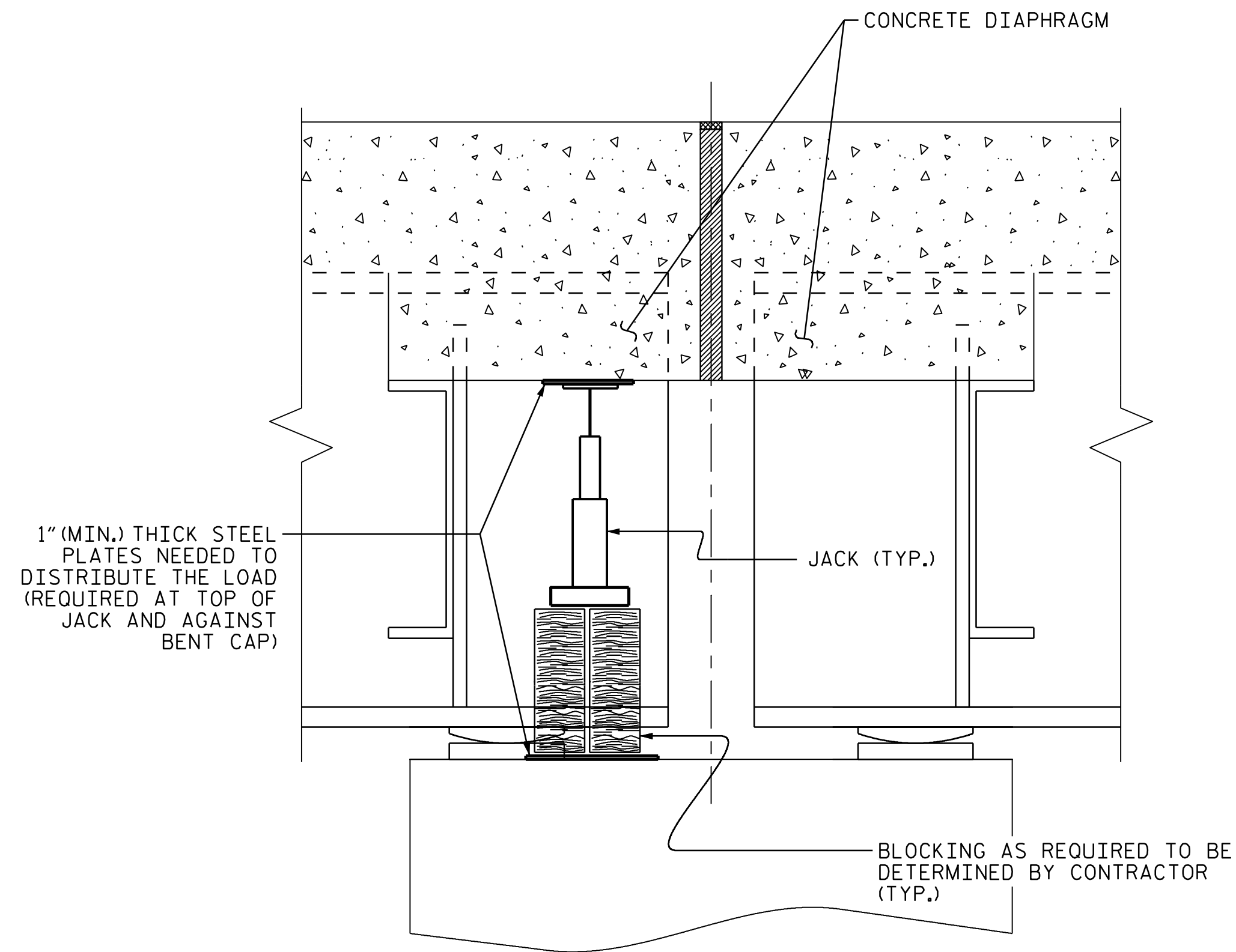
ANY STEEL THAT HAS BEEN WELDED TO THE EXISTING STRUCTURE SHALL REMAIN IN PLACE.

TYPE II BRIDGE JACKING SHALL BE DONE WITH A HYDRUALIC JACKING SYSTEM THAT LIFTS EACH BEAM ALONG ENTIRE SPAN END WITH EQUAL FORCE AND AT AN EQUAL RATE.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING ANY DAMAGE CAUSED TO THE EXISTING STRUCTURE BY BRIDGE JACKING OPERATIONS AT NO ADDITIONAL COST TO THE DEPARTMENT.



**SECTION THRU DIAPHRAGM**  
(BRIDGE #620049)

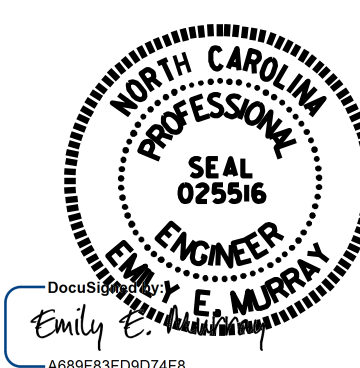


**SECTION THRU DIAPHRAGM**  
(BRIDGE #620072)

| BRIDGE #620049 JACKING TABLE |      |         |                     |                          |
|------------------------------|------|---------|---------------------|--------------------------|
| LOCATION                     | SPAN | BEAM(S) | BRIDGE JACKING TYPE | DEAD LOAD (DC+DW) (KIPS) |
| BENT 1                       | A    | 1       | TYPE I              | 59.0                     |
| BENT 1                       | A    | 2       | TYPE I              | 49.3                     |
| BENT 1                       | B    | 1       | TYPE I              | 58.6                     |
| BENT 1                       | B    | 2       | TYPE I              | 49.0                     |
| BENT 1                       | B    | 3       | TYPE I              | 49.0                     |
| BENT 1                       | B    | 4       | TYPE I              | 58.6                     |

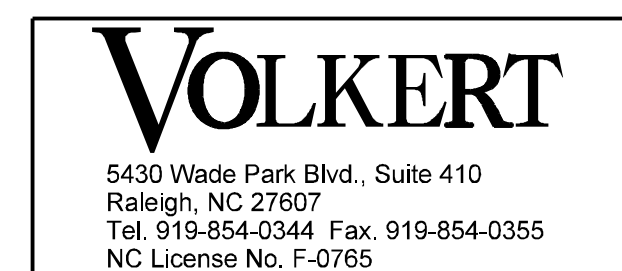
| BRIDGE #620072 JACKING TABLE |      |         |                     |                          |
|------------------------------|------|---------|---------------------|--------------------------|
| LOCATION                     | SPAN | BEAM(S) | BRIDGE JACKING TYPE | DEAD LOAD (DC+DW) (KIPS) |
| BENT 5                       | E    | 4       | TYPE I              | 43.9                     |

PROJ. NO. 15BPR.130  
MOORE COUNTY  
 BRIDGE NO. 620049, 620072



4/24/2024

ASSEMBLED BY : B. N. BARNHILL DATE : 4/24  
 CHECKED BY : P. N. HOLDER DATE : 4/24  
 DRAWN BY : NAP 08/18  
 CHECKED BY :



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| STATE OF NORTH CAROLINA<br>DEPARTMENT OF TRANSPORTATION<br>RALEIGH |     |       |     |     |       |
|--------------------------------------------------------------------|-----|-------|-----|-----|-------|
| STANDARD                                                           |     |       |     |     |       |
| BRIDGE JACKING DETAILS                                             |     |       |     |     |       |
| REVISIONS                                                          |     |       |     |     |       |
| NO.                                                                | BY: | DATE: | NO. | BY: | DATE: |
| 1                                                                  |     |       | 3   |     |       |
| 2                                                                  |     |       | 4   |     |       |

|              |       |
|--------------|-------|
| SHEET NO.    | S-156 |
| TOTAL SHEETS | 156   |

