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with their signature on that page.**

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PROJECT: I-5940

CONTRACT NO: C204337

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	I-5940	1	114
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
45883.1.1	STBGIM-0040(075)	P.E.	
45883.3.GVI	STBGIM-0040(075)	CONST.	



DUPLIN AND PENDER COUNTIES

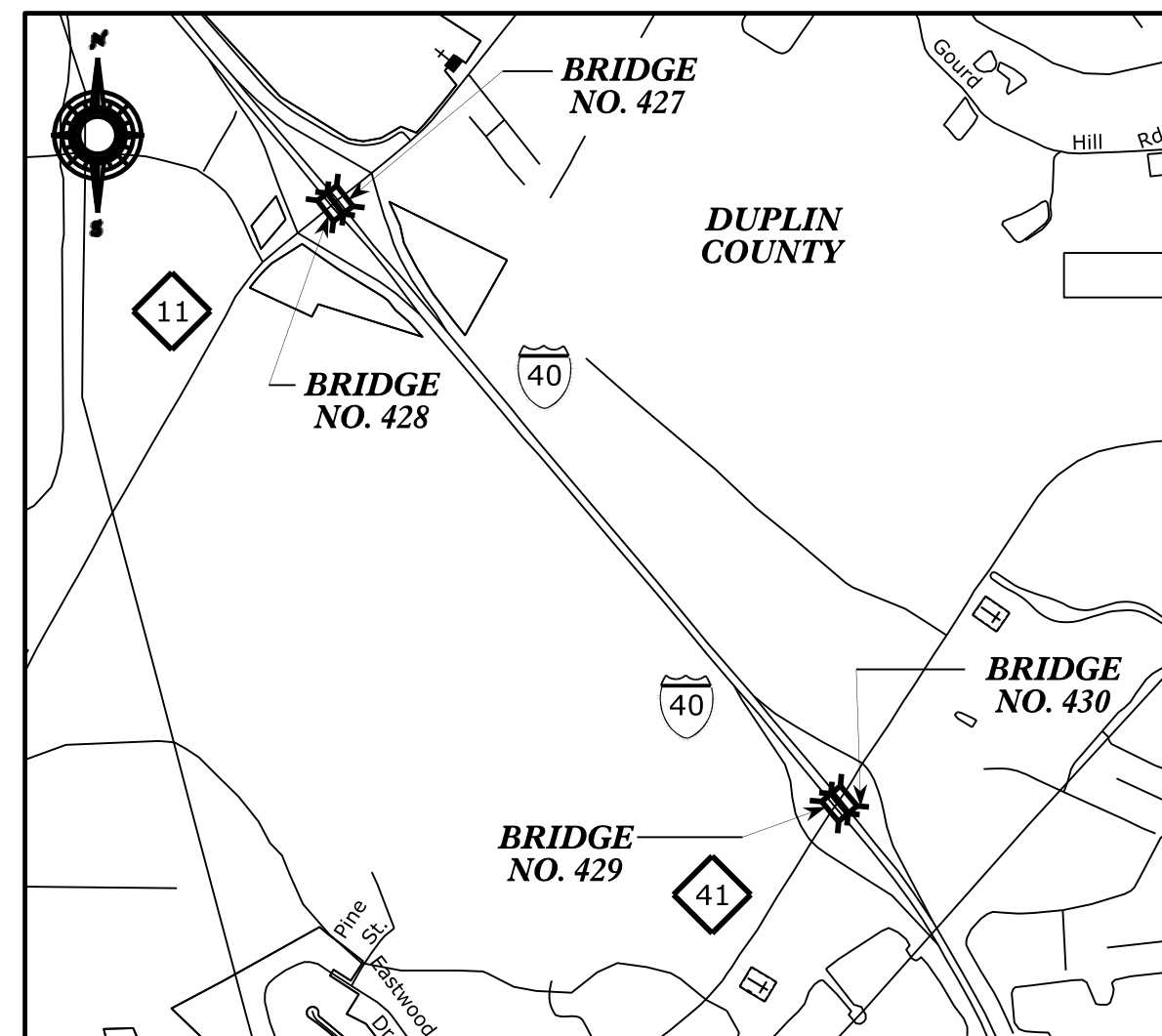
LOCATION: DUPLIN CO.

- BRIDGE #300427 ON I-40 WBL OVER NC 11.
- BRIDGE #300428 ON I-40 EBL OVER NC 11.
- BRIDGE #300429 ON I-40 EBL OVER NC 41.
- BRIDGE #300430 ON I-40 WBL OVER NC 41.
- BRIDGE #300435 ON I-40 WBL OVER SEABOARD COASTLINE RAILROAD.
- BRIDGE #300436 ON I-40 EBL OVER SEABOARD COASTLINE RAILROAD.
- BRIDGE #300437 ON I-40 WBL/NC 24 OVER SEABOARD COASTLINE RAILROAD AND US 117.
- BRIDGE #300438 ON I-40 EBL/NC 24 OVER SEABOARD COASTLINE RAILROAD AND US 117.
- BRIDGE #300449 ON I-40 WBL OVER NC 24.
- BRIDGE #300450 ON I-40 EBL OVER NC 24.

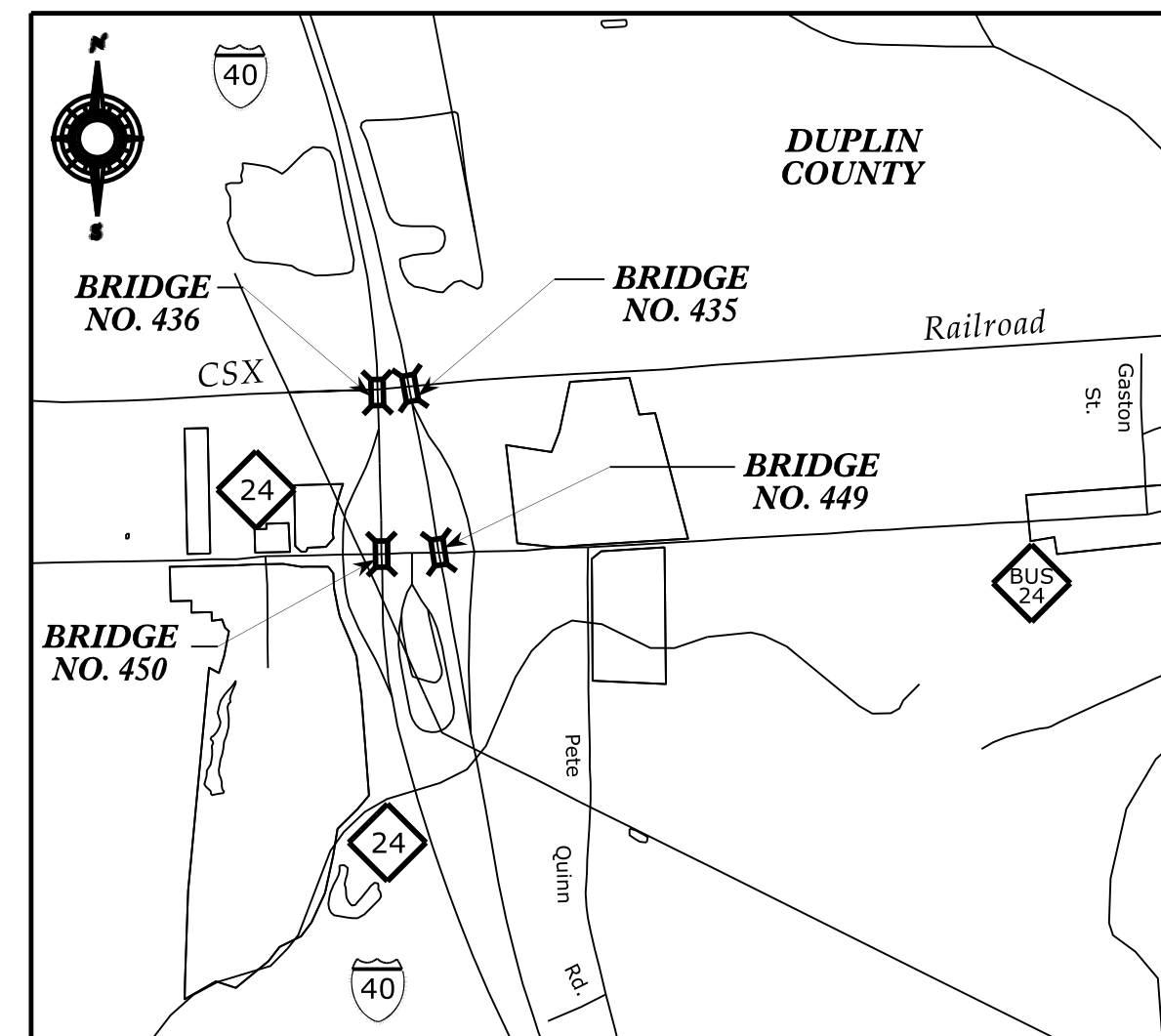
PENDER CO.

- BRIDGE #700234 ON I-40 WBL OVER ROCKFISH CREEK.
- BRIDGE #700235 ON I-40 EBL OVER ROCKFISH CREEK.

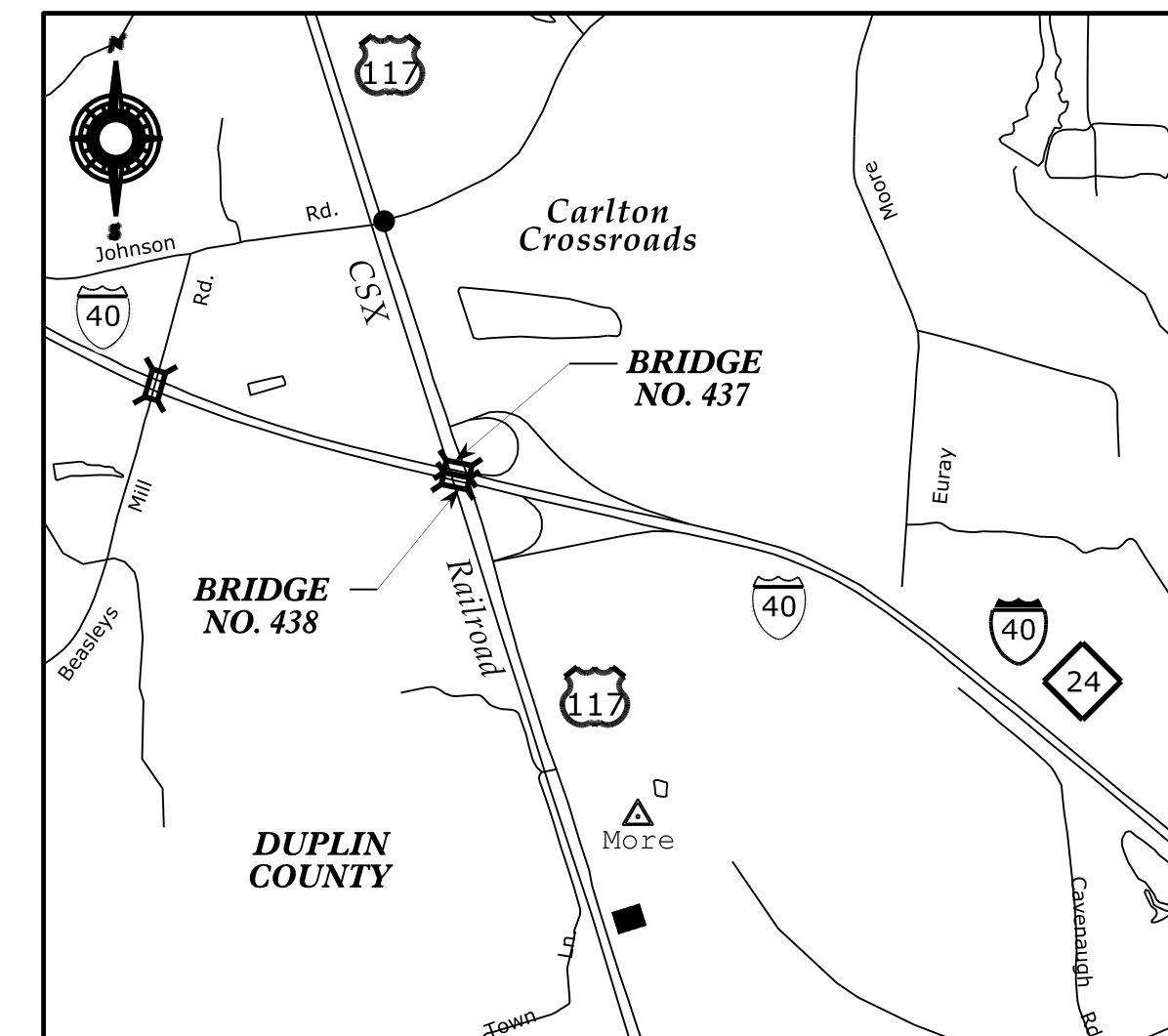
TYPE OF WORK: CONCRETE BRIDGE DECK REHABILITATION BY SCARIFICATION, SHOTBLASTING, AND PLACEMENT OF POLYESTER POLYMER CONCRETE; RECONSTRUCTION OF BRIDGE DECK JOINTS AND SEALS; SUBSTRUCTURE CONCRETE REPAIRS WITH SHOTCRETE, EPOXY RESIN INJECTION OF CAPS AND COLUMNS AND EPOXY COATING.



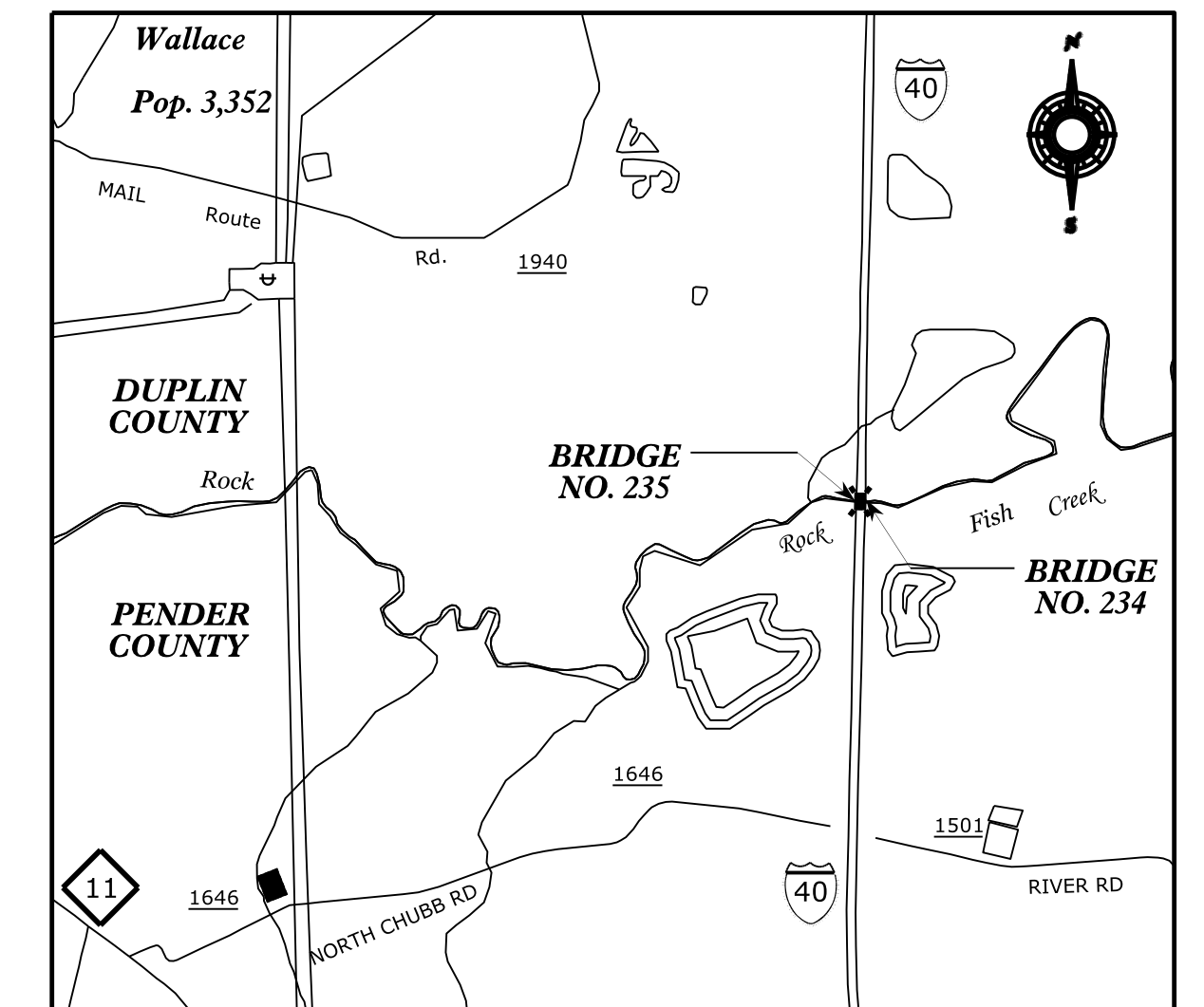
BRIDGES NO. 427, 428, 429 AND 430



BRIDGES NO. 435, 436, 449 AND 450

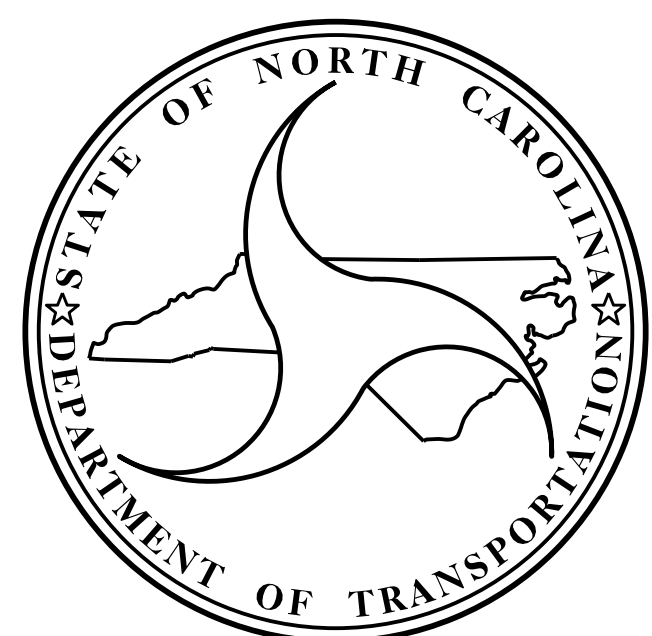


BRIDGES NO. 437 AND 438



BRIDGES NO. 234 AND 235

VICINITY MAP



DESIGN DATA

BRIDGE #427 ADT 2015 =	9,000
BRIDGE #428 ADT 2015 =	9,000
BRIDGE #429 ADT 2015 =	9,000
BRIDGE #430 ADT 2015 =	9,000
BRIDGE #435 ADT 2015 =	9,500
BRIDGE #436 ADT 2013 =	9,000
BRIDGE #437 ADT 2015 =	11,500
BRIDGE #438 ADT 2015 =	11,500
BRIDGE #449 ADT 2013 =	9,500
BRIDGE #450 ADT 2015 =	9,500
BRIDGE #234 ADT 2013 =	8,500
BRIDGE #235 ADT 2013 =	8,500

PROJECT LENGTH

BRIDGE #427 =	0.022 MILES
BRIDGE #428 =	0.022 MILES
BRIDGE #429 =	0.024 MILES
BRIDGE #430 =	0.024 MILES
BRIDGE #435 =	0.028 MILES
BRIDGE #436 =	0.027 MILES
BRIDGE #437 =	0.056 MILES
BRIDGE #438 =	0.056 MILES
BRIDGE #449 =	0.027 MILES
BRIDGE #450 =	0.027 MILES
BRIDGE #234 =	0.049 MILES
BRIDGE #235 =	0.049 MILES

Prepared in the Office of:
DIVISION OF HIGHWAYS
STRUCTURES MANAGEMENT UNIT
1000 BIRCH RIDGE DR.
RALEIGH, N.C. 27610

2018 STANDARD SPECIFICATIONS

LETTING DATE :
August 20, 2019

Kristy W. Alford, P.E.
PROJECT ENGINEER

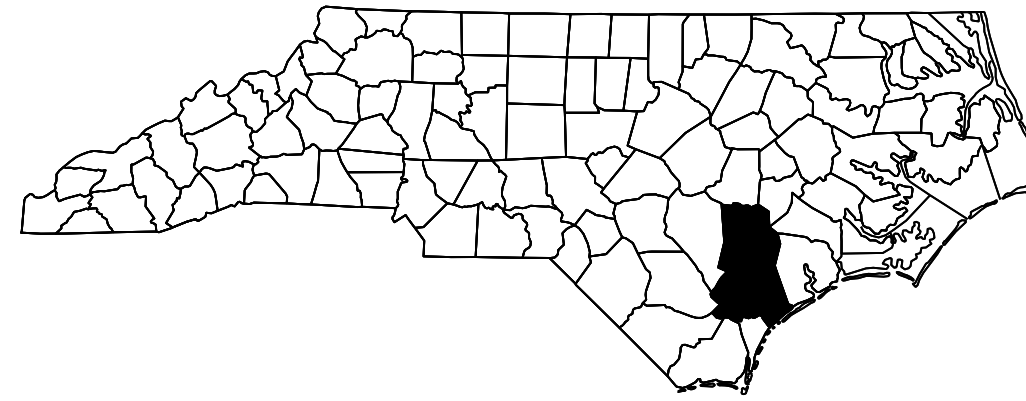
P. Korey Newton, P.E.
PROJECT DESIGN ENGINEER

PROJECT: I-5940

CONTRACT NO: ??

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

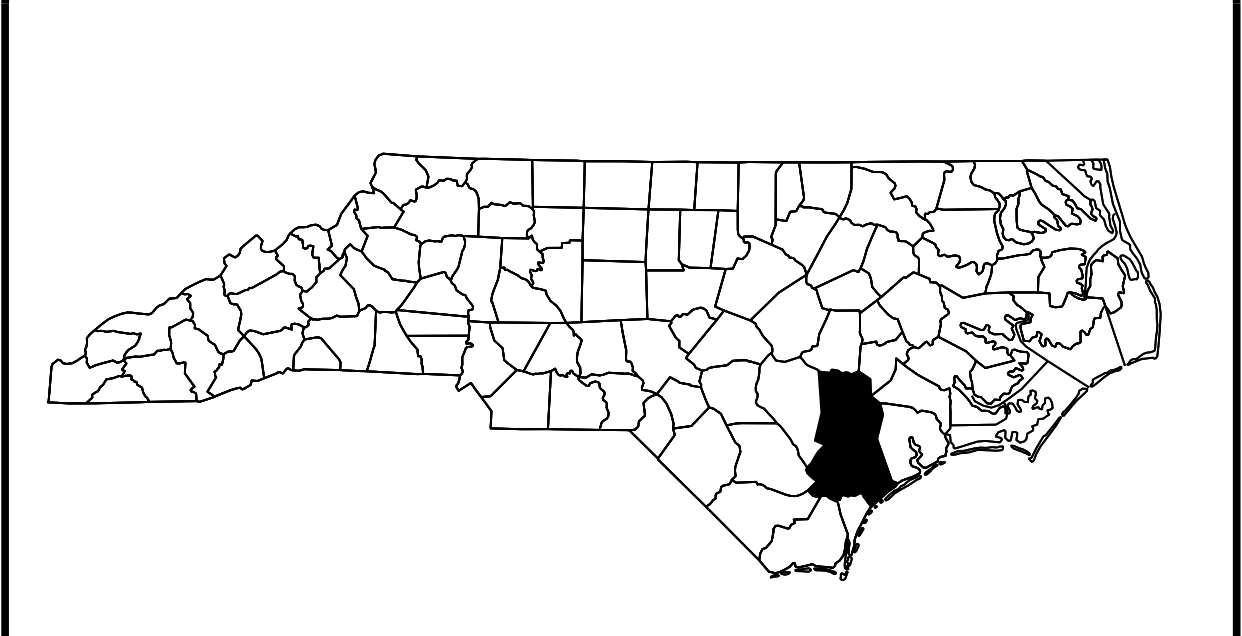
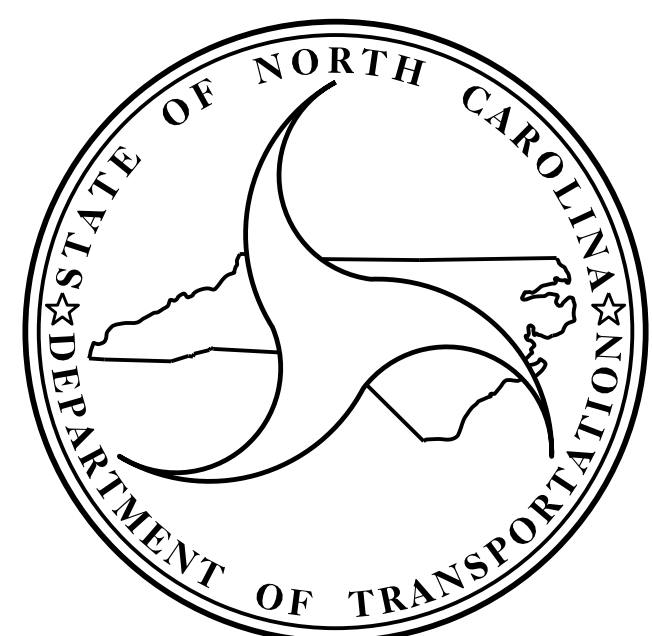
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	I-5940	1A	114
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
45883.1.1	STBGIM-0040(075)	P.E.	
45883.3.GVI	STBGIM-0040(075)	CONST.	



DUPLIN AND PENDER COUNTIES

INDEX OF STRUCTURES SHEETS

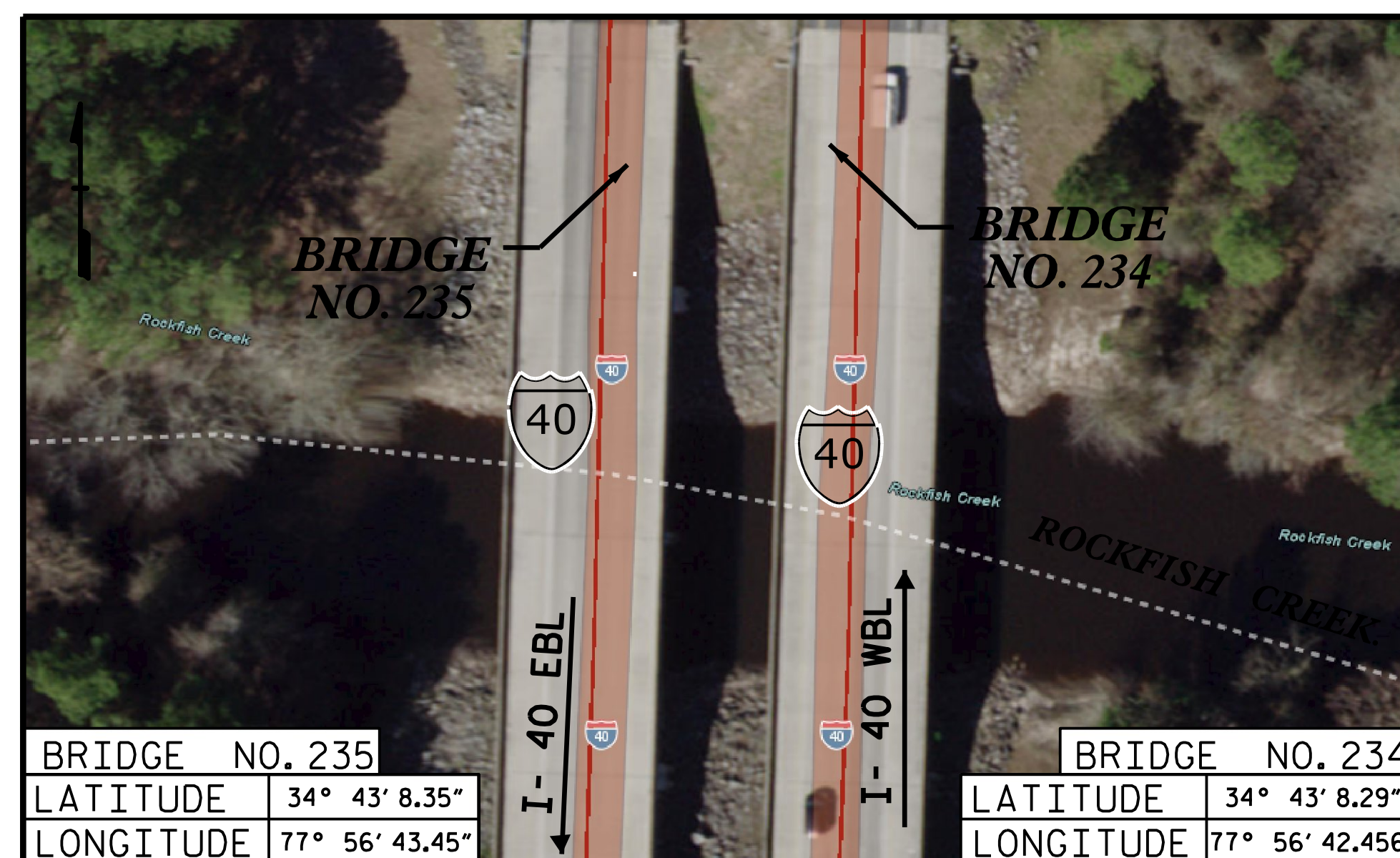
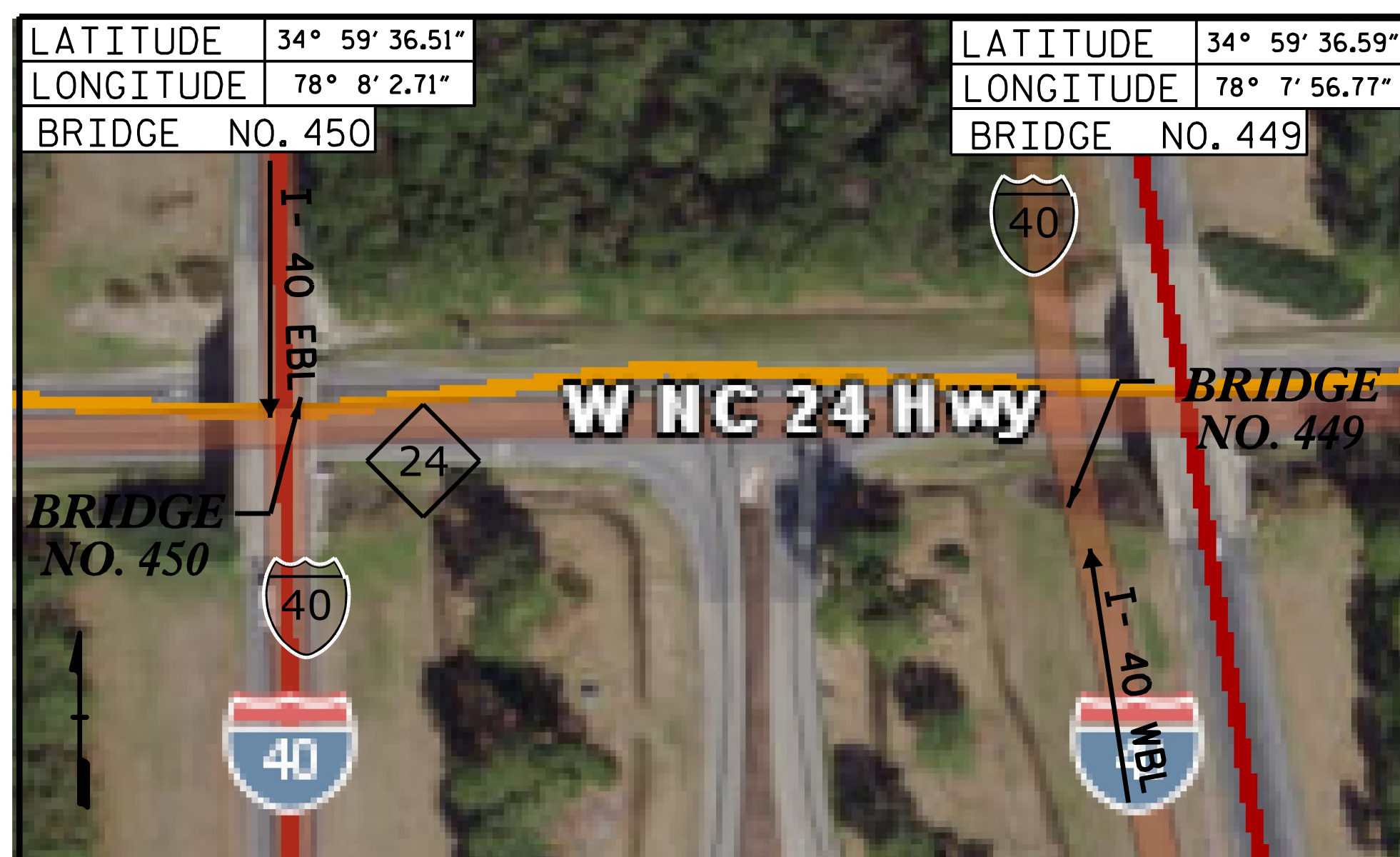
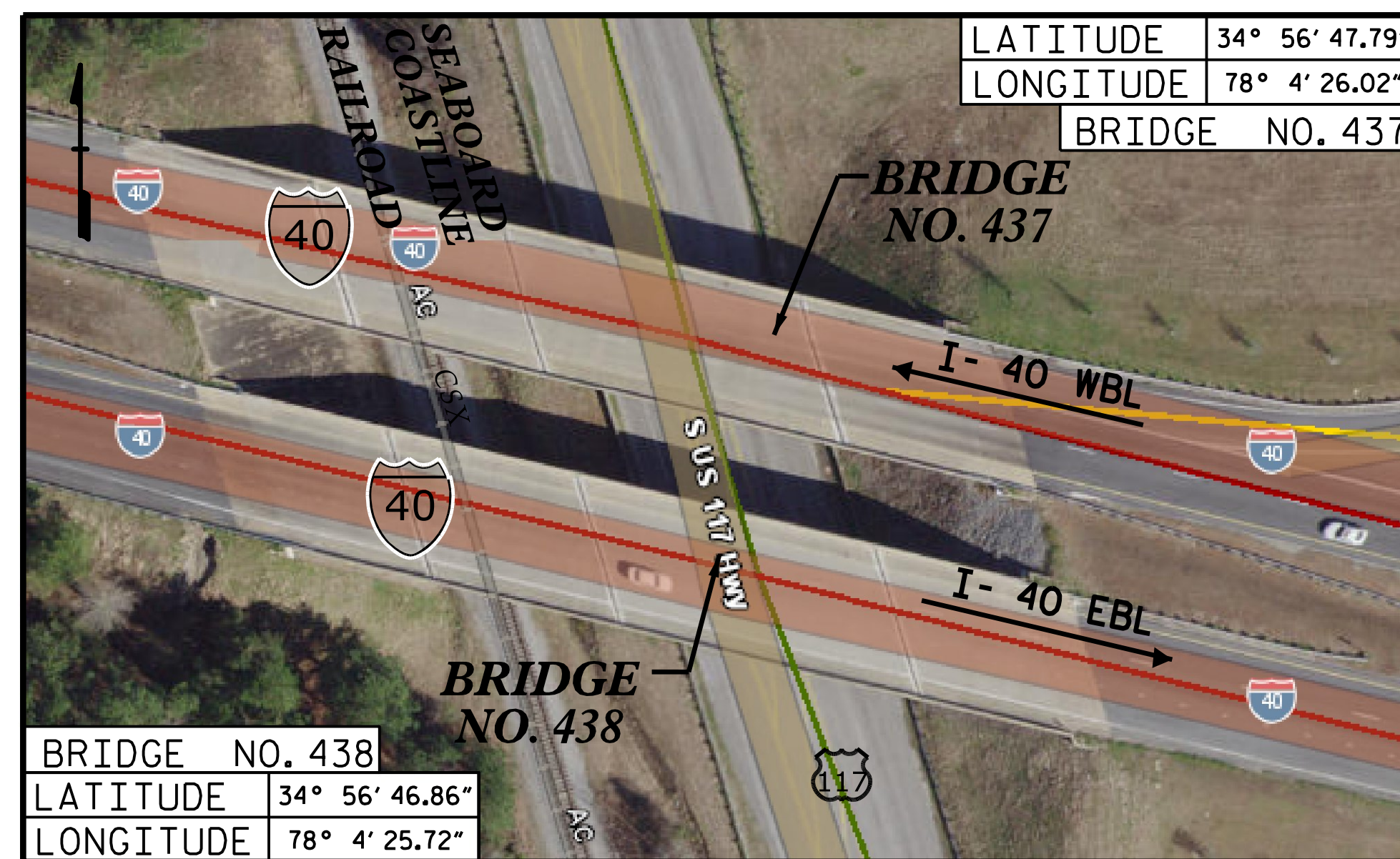
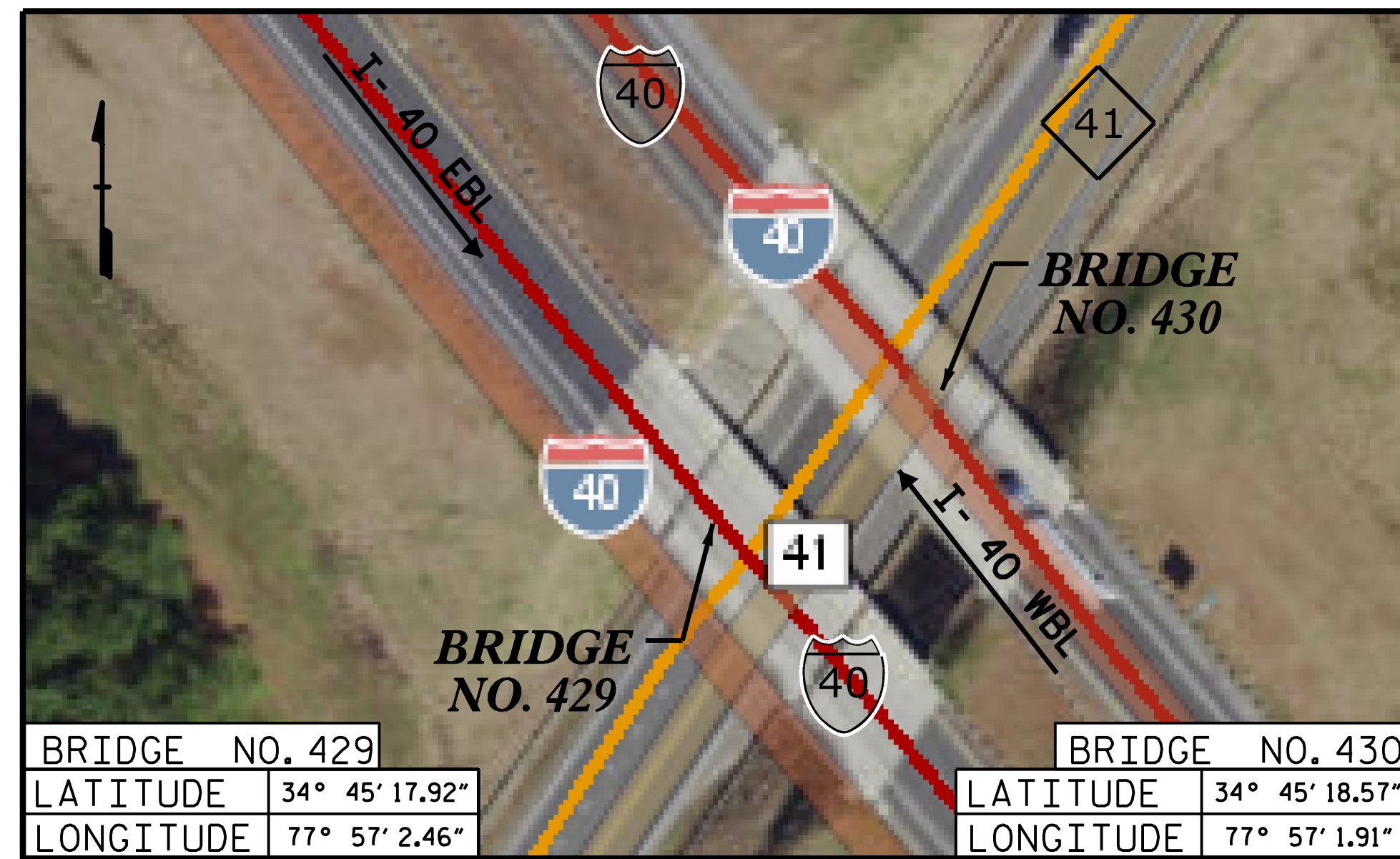
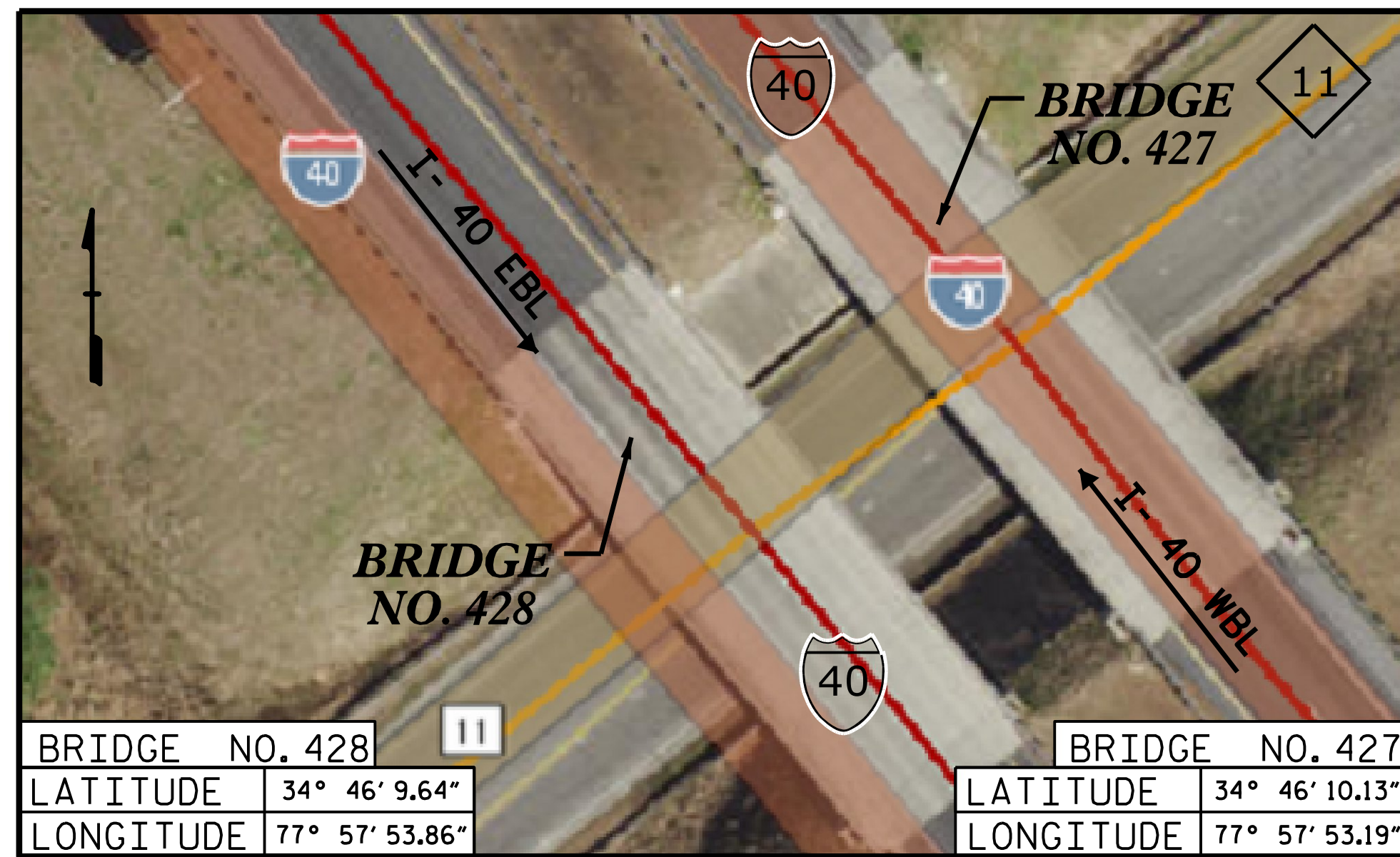
<u>SHEET No.</u>	<u>DESCRIPTION</u>	<u>SHEET No.</u>	<u>DESCRIPTION</u>	<u>SHEET No.</u>	<u>DESCRIPTION</u>
1	TITLE SHEET	STRUCTURE No. 435		STRUCTURE No. 450	
1A	INDEX OF SHEETS	S5-1	GENERAL DRAWING	S10-1	GENERAL DRAWING
S-1	LOCATION SKETCHES	S5-2	TYPICAL SECTION	S10-2	TYPICAL SECTION
S-2	TOTAL BILL OF MATERIALS	S5-3 THRU S5-5	SURFACE PREPARATION	S10-3 THRU S10-5	SURFACE PREPARATION
		S5-6	END BENTS	S10-6	JOINT REPAIR
		S5-7 THRU S5-8	BENTS	S10-7	END BENTS
				S10-8 THRU S10-9	BENTS
STRUCTURE No. 427		STRUCTURE No. 436		STRUCTURE No. 234	
S1-1	GENERAL DRAWING	S6-1	GENERAL DRAWING	S11-1	GENERAL DRAWING
S1-2	TYPICAL SECTION	S6-2	TYPICAL SECTION	S11-2	TYPICAL SECTION
S1-3 THRU S-5	SURFACE PREPARATION	S6-3 THRU S6-5	SURFACE PREPARATION	S11-3 THRU S11-6	SURFACE PREPARATION
S1-6	END BENTS	S6-6	JOINT REPAIR	S11-7	END BENTS
S1-7 THRU S1-8	BENTS	S6-7	END BENTS	S11-8 THRU S11-10	BENTS
		S6-8 THRU S6-9	BENTS		
STRUCTURE No. 428		STRUCTURE No. 437		STRUCTURE No. 235	
S2-1	GENERAL DRAWING	S7-1	GENERAL DRAWING	S12-1	GENERAL DRAWING
S2-2	TYPICAL SECTION	S7-2	TYPICAL SECTION	S12-2	TYPICAL SECTION
S2-3 THRU S2-5	SURFACE PREPARATION	S7-3 THRU S7-6	SURFACE PREPARATION	S12-3 THRU S12-6	SURFACE PREPARATION
S2-6	JOINT REPAIR	S7-7	END BENTS	S12-7	JOINT REPAIR
S2-7	END BENTS	S7-8 THRU S7-10	BENTS	S12-8	END BENTS
S2-8 THRU S2-9	BENTS			S12-9 THRU S12-11	BENTS
		STRUCTURE No. 438		STANDARD SHEETS	
STRUCTURE No. 429		S8-1	GENERAL DRAWING	SD-1	BENT REPAIR DETAILS
S3-1	GENERAL DRAWING	S8-2	TYPICAL SECTION	SN	STANDARD NOTES
S3-2	TYPICAL SECTION	S8-3 THRU S8-6	SURFACE PREPARATION		
S3-3 THRU S3-5	SURFACE PREPARATION	S8-7	JOINT REPAIR		
S3-6	END BENTS	S8-8	END BENTS		
S3-7 THRU S3-8	BENTS	S8-9 THRU S8-11	BENTS		
		STRUCTURE No. 449			
STRUCTURE No. 430		S9-1	GENERAL DRAWING		
S4-1	GENERAL DRAWING	S9-2	TYPICAL SECTION		
S4-2	TYPICAL SECTION	S9-3 THRU S9-5	SURFACE PREPARATION		
S4-3 THRU S4-5	SURFACE PREPARATION	S9-6	END BENTS		
S4-6	JOINT REPAIR	S9-7 THRU S9-8	BENTS		
S4-7	END BENTS				
S4-8 THRU S4-9	BENTS				
S4-10	SLOPE PROTECTION REPAIR				



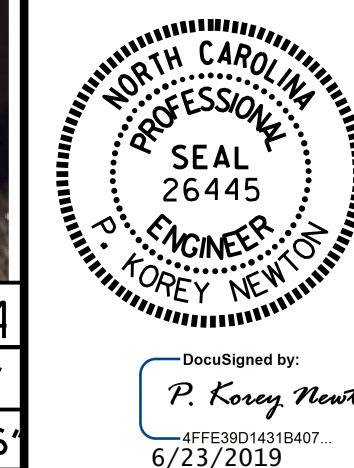
Prepared in the Office of:
DIVISION OF HIGHWAYS
STRUCTURES MANAGEMENT UNIT
1000 BIRCH RIDGE DR.
RALEIGH, N.C. 27610

LOCATION SKETCHES

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



PROJECT NO. I-5940
DUPLIN & PENDER COUNTY
 BRIDGE NO. 300427, 300428,
300429, 300430,
300435, 300436,
300437, 300448,
300449, 300450,
700234, 700235



STATE OF NORTH CAROLINA					
DEPARTMENT OF TRANSPORTATION					
RALEIGH					
LOCATION SKETCHES					
FOR BRIDGES ON I-40					
REVISIONS					
NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		
SHEET NO.					S-1
TOTAL SHEETS					113

DRAWN BY : S. T. SANDOR DATE : 1/2019
 CHECKED BY : W. C. SMITH DATE : 05/2019

DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
 SIGNATURES COMPLETED

TOTAL BILL OF MATERIAL												
BRIDGE NO.	GROOVING BRIDGE FLOORS	CLASS II SURFACE PREPARATION	CONCRETE REPAIRS	SHOTCRETE REPAIRS	EPOXY RESIN INJECTION	POURABLE SILICONE JOINT SEALANT	*57 STONE	POLYESTER POLYMER CONCRETE MATERIALS	CONCRETE DECK REPAIR FOR POLYESTER POLYMER CONCRETE OVERLAY	PLACING & FINISHING POLYESTER POLYMER CONCRETE OVERLAY	SCARIFYING BRIDGE DECK	SHOTBLASTING BRIDGE DECK
	SQ. FT.	SQ. YDS.	CU. FT.	CU. FT.	LN. FT.	LN. FT.	TON	CU. YDS.	SQ. YDS.	SQ. YDS.	SQ. YDS.	SQ. YDS.
300427	5,013.7	-	-	17.0	-	160.0	-	16.9	-	609.0	609.0	609.0
300428	5,013.7	-	-	20.5	12.0	160.0	-	16.9	-	609.0	609.0	609.0
300429	5,426.7	-	-	0.5	-	168.0	-	18.3	34.2	657.6	657.6	657.6
300430	5,426.7	-	-	3.5	-	168.0	-	18.3	34.2	657.6	657.6	657.6
300435	7,414.3	-	-	8.0	67.0	194.0	-	24.7	-	889.8	889.8	889.8
300436	7,383.3	-	-	-	-	192.0	-	24.5	-	881.7	881.7	881.7
300437	12,603.3	-	34.5	15.0	329.0	279.0	-	48.4	63.8	1,744.2	1,744.2	1,744.2
300438	12,603.3	-	-	-	344.0	279.0	-	48.4	63.8	1,744.2	1,744.2	1,744.2
300449	5,868.2	-	3.8	0.5	263.0	162.0	-	20.4	-	729.1	729.1	729.1
300450	5,802.5	-	-	18.0	69.0	161.0	-	20.0	-	721.0	721.0	721.0
700234	10,147.8	1.4	-	2.5	-	200.0	-	34.6	-	1,248.6	1,248.6	1,248.6
700235	10,147.8	-	-	3.0	-	200.0	4.0	34.6	-	1,248.6	1,248.6	1,248.6
TOTAL	92,851.3	1.4	38.3	88.5	1084.0	2,323.0	4.0	326.0	196.0	11,740.4	11,740.4	11,740.4

GENERAL NOTES:

EXISTING DIMENSIONS AND BRIDGE CONDITION ARE FROM 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.

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

THE CONTRACTOR SHALL PROVIDE A METHOD OF HANDLING UNEXPECTED BLOW THROUGH OF THE BRIDGE DECK.

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

EXISTING BRIDGE CONCRETE DECK SHALL BE REPAIRED PRIOR TO THE SURFACE PREPARATION AND APPLICATION OF THE PPC OVERLAY, AT LOCATIONS SHOWN IN THE PLANS OR AS DETERMINED BY THE ENGINEER, IF NECESSARY. SUCH LOCATIONS MAY BE REPAIRED WITH PPC.

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

AT THE TIME OF PREPARATION OF THESE PLANS, IT WAS NOT ANTICIPATED THAT EPOXY COATING WOULD BE REQUIRED. HOWEVER, IT MAY BE DETERMINED IN THE FIELD THAT EPOXY COATING, 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.

FOR #57 STONE, SEE SPECIAL PROVISIONS.

FOR POURABLE SILICONE JOINT SEALANT, 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 GROUT FOR STRUCTURES, SEE SPECIAL PROVISIONS.

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

FOR POLYESTER POLYMER CONCRETE BRIDGE DECK OVERLAY, SEE SPECIAL PROVISIONS.

FOR OVERLAY SURFACE PREPARATION FOR POLYESTER POLYMER CONCRETE, SEE SPECIAL PROVISIONS.

FOR CONCRETE DECK REPAIR FOR POLYESTER POLYMER CONCRETE OVERLAY, SEE SPECIAL PROVISIONS.

FOR CONCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.

PROJECT NO. I-5940
DUPLIN & PENDER COUNTY
 BRIDGE NO. 300427, 300428,
300429, 300430,
300435, 300436,
300437, 300448,
300449, 300450,
700234, 700235



DocuSigned by:
 P. Corey Newton
 REF:3834318407
 6/23/2019

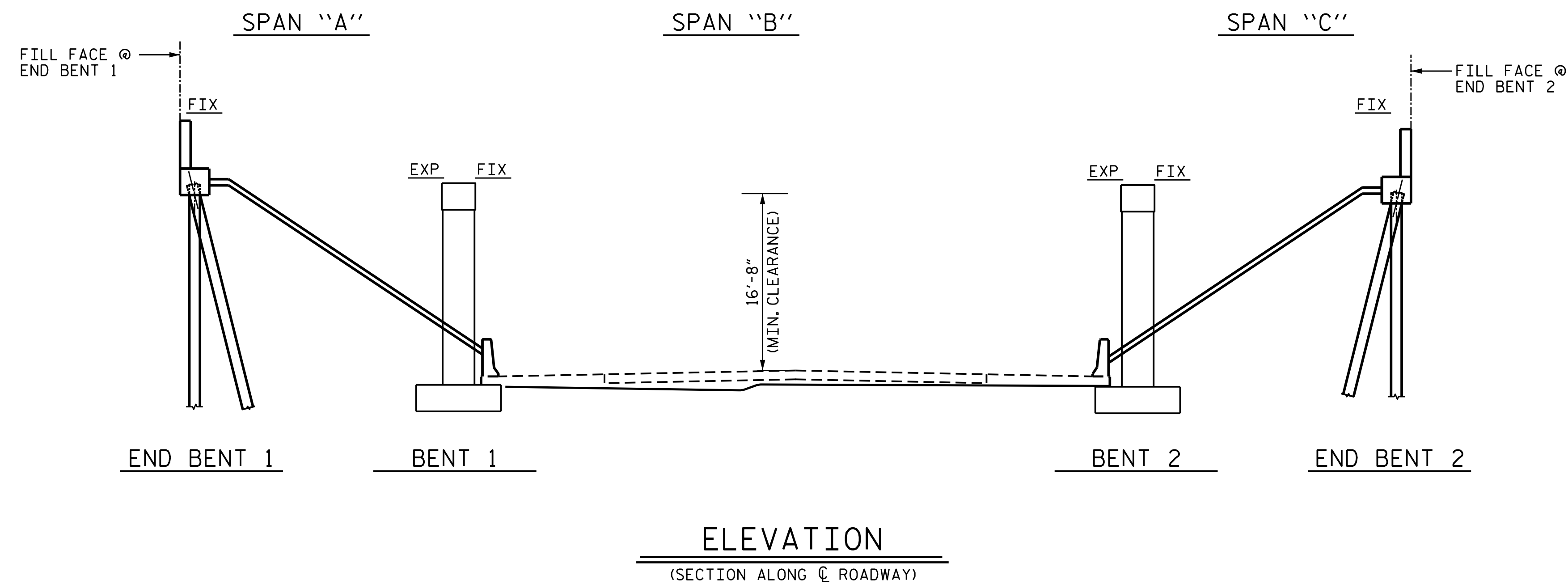
STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

GENERAL NOTES
 AND TOTAL
 BILL OF MATERIAL

DRAWN BY : S. T. SANDOR DATE : 02/2019
 CHECKED BY : W. C. SMITH DATE : 05/2019

DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
 SIGNATURES COMPLETED

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

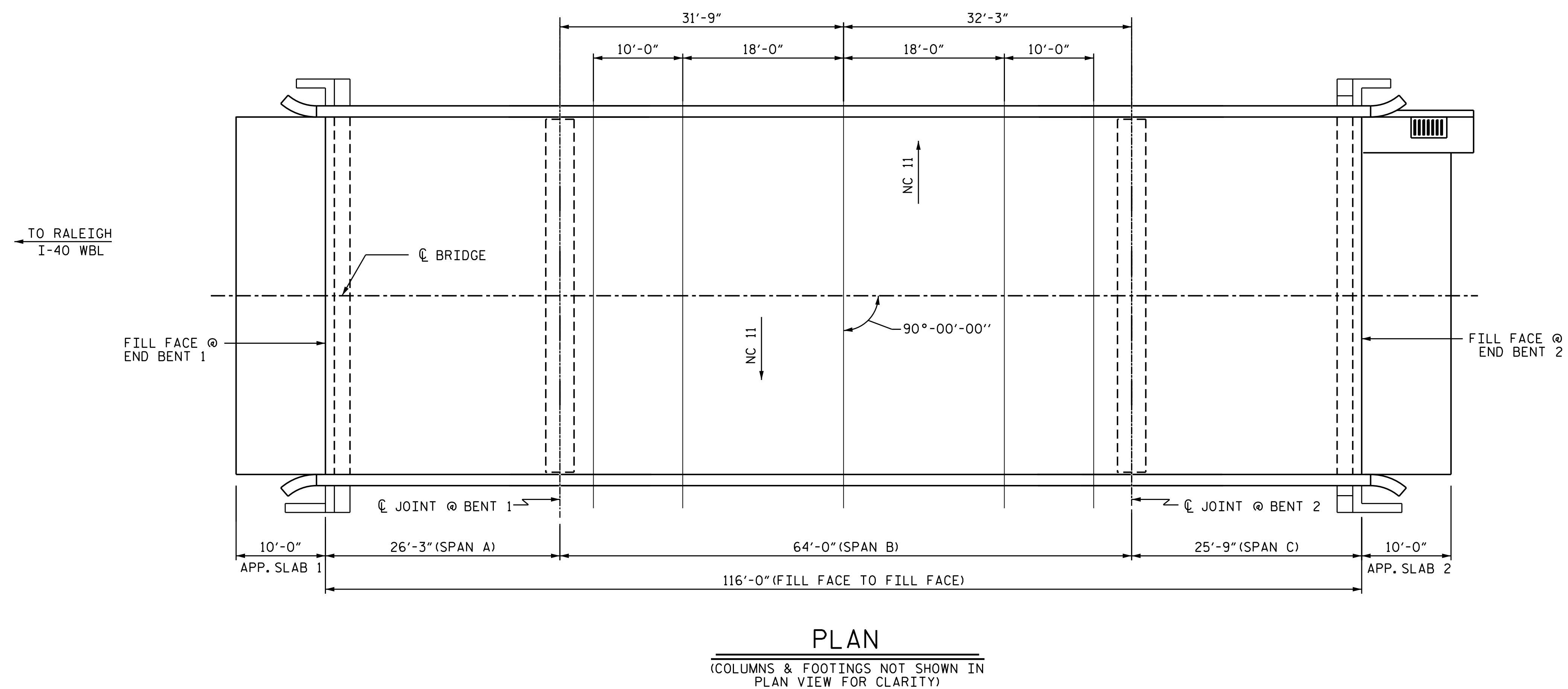
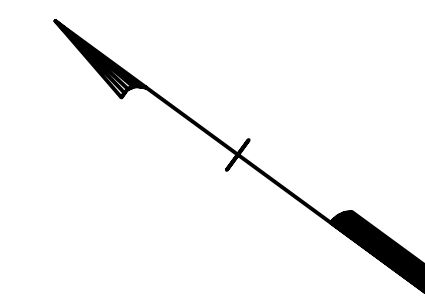


SCOPE OF WORK

- PARTIALLY REMOVE BRIDGE DECK CONCRETE BY SCARIFICATION AND SHOTBLASTING METHODS.
- PERFORM DECK REPAIRS IN PREPARED AREAS.
- OVERLAY PREPARED BRIDGE DECK WITH POLYESTER POLYMER CONCRETE.
- RECONSTRUCT BRIDGE JOINTS AND INSTALL BACKER ROD AND SILICONE JOINT SEALANT.
- GROOVE POLYESTER POLYMER CONCRETE DECK.
- REPAIR SUBSTRUCTURE USING EPOXY RESIN INJECTION AND SHOTCRETE.

NOTES

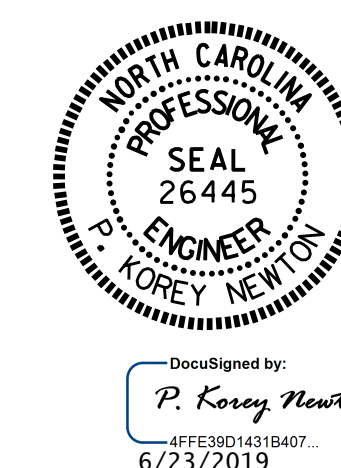
- PROFILE INFORMATION IS TAKEN FROM ORIGINAL PLANS AND THE ROUTINE INSPECTION, DATED 06/05/2017.
- BRIDGE ORIENTATION CONFORMS TO EXISTING BRIDGE PLANS.



I hereby certify that this structure was rehabilitated according to these plans or as noted therein.

Resident Engineer _____ Date _____

PROJECT NO. I-5940
DUPLIN COUNTY
 BRIDGE NO. 300427



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
GENERAL DRAWING
 FOR BRIDGE 427 ON
 I-40 WBL OVER
 NC 11

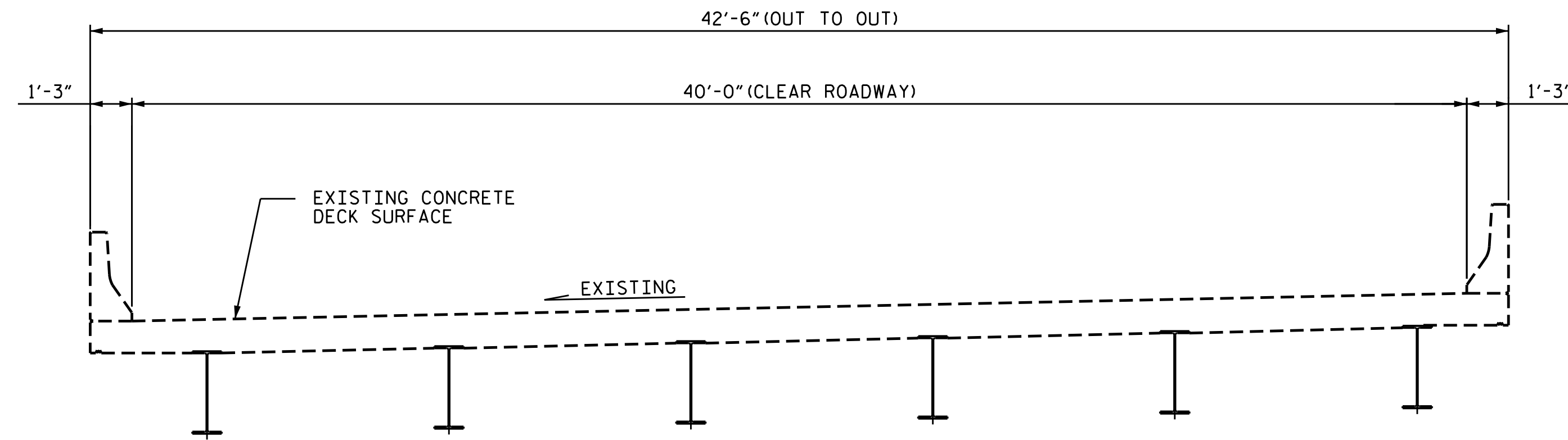
DRAWN BY : S. T. SANDOR DATE : 12/2018
 CHECKED BY : W. C. SMITH DATE : 05/2019

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

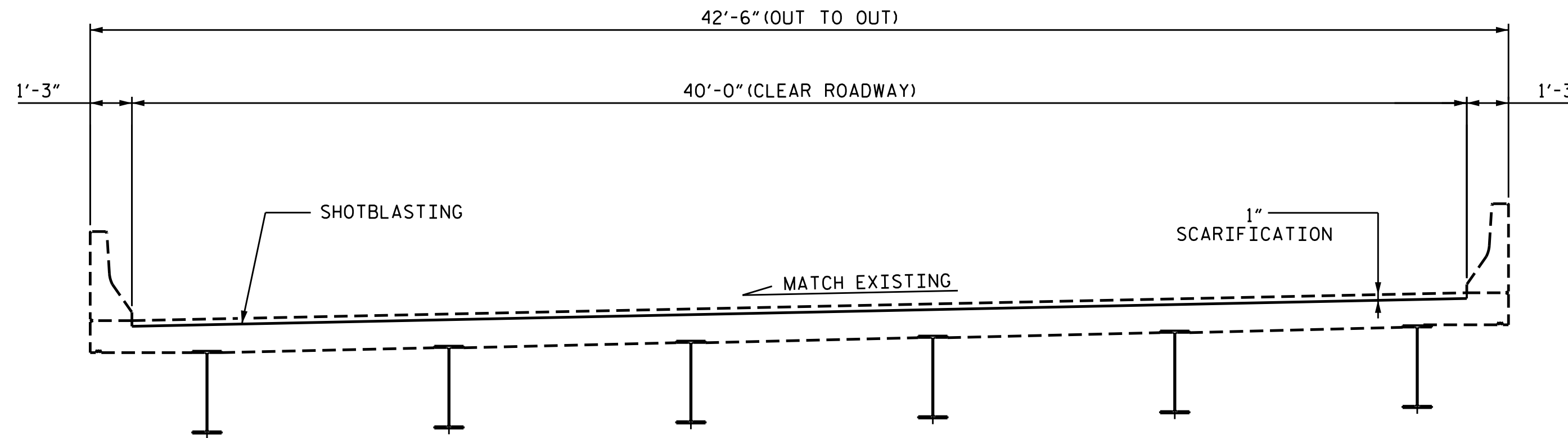
REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S1-1
1			3			TOTAL SHEETS
2			4			113

NOTES

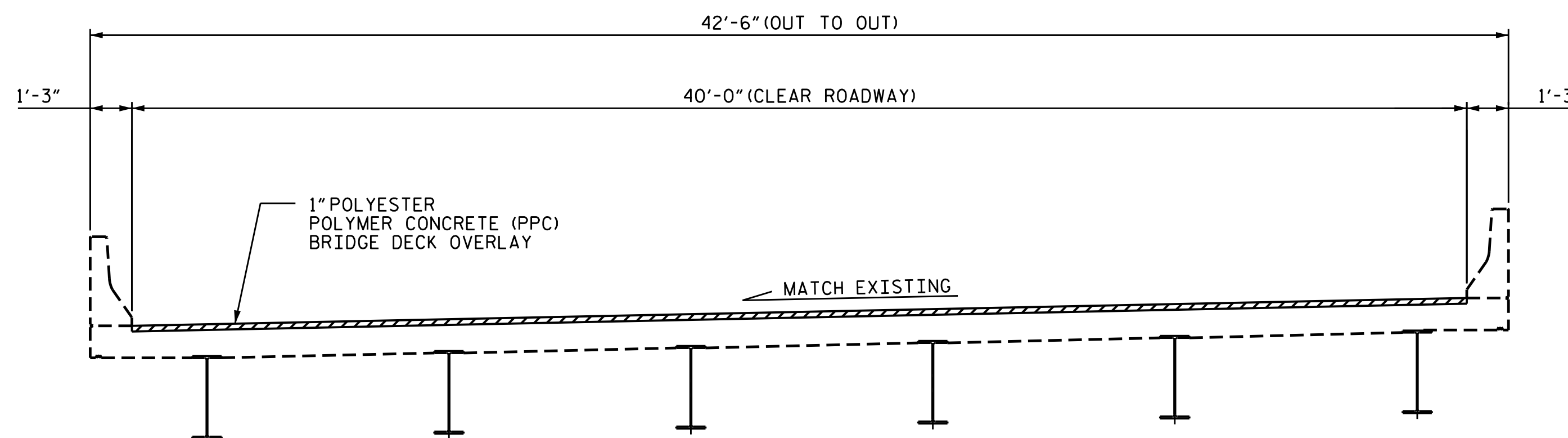
SEE TRANSPORTATION MANAGEMENT PLANS FOR LANE WIDTHS, SEQUENCING AND OTHER TRAFFIC CONTROL MEASURES FOR STAGING OF OVERLAY SURFACE PREPARATION AND POLYESTER POLYMER CONCRETE PLACEMENT.



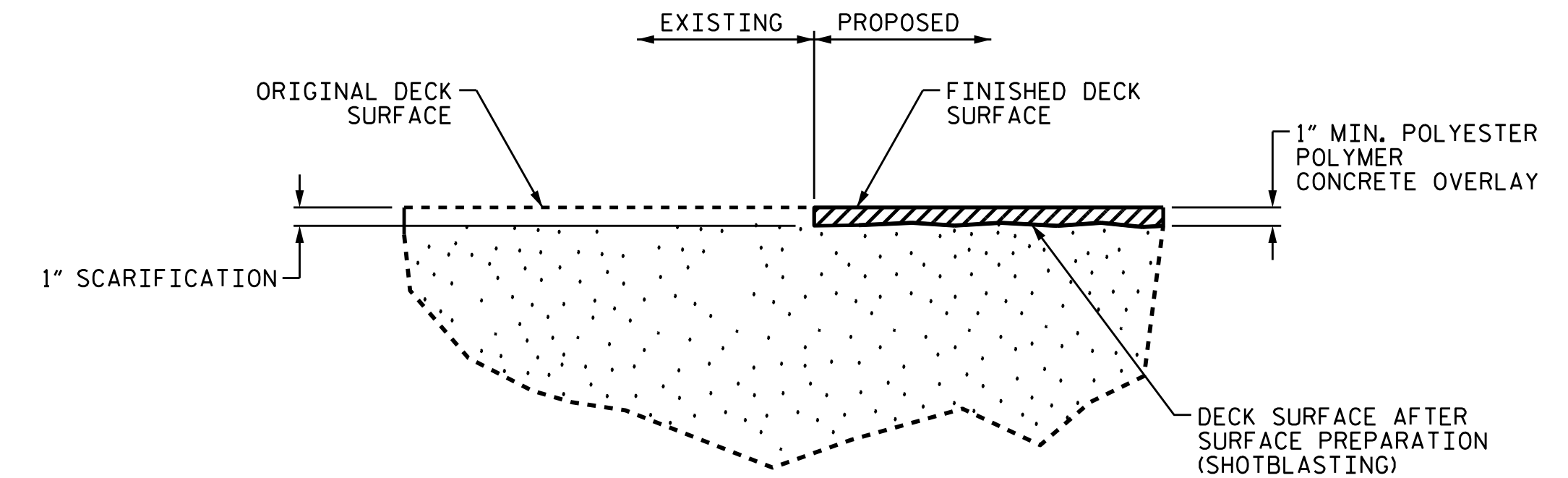
TYPICAL SECTION
(EXISTING)



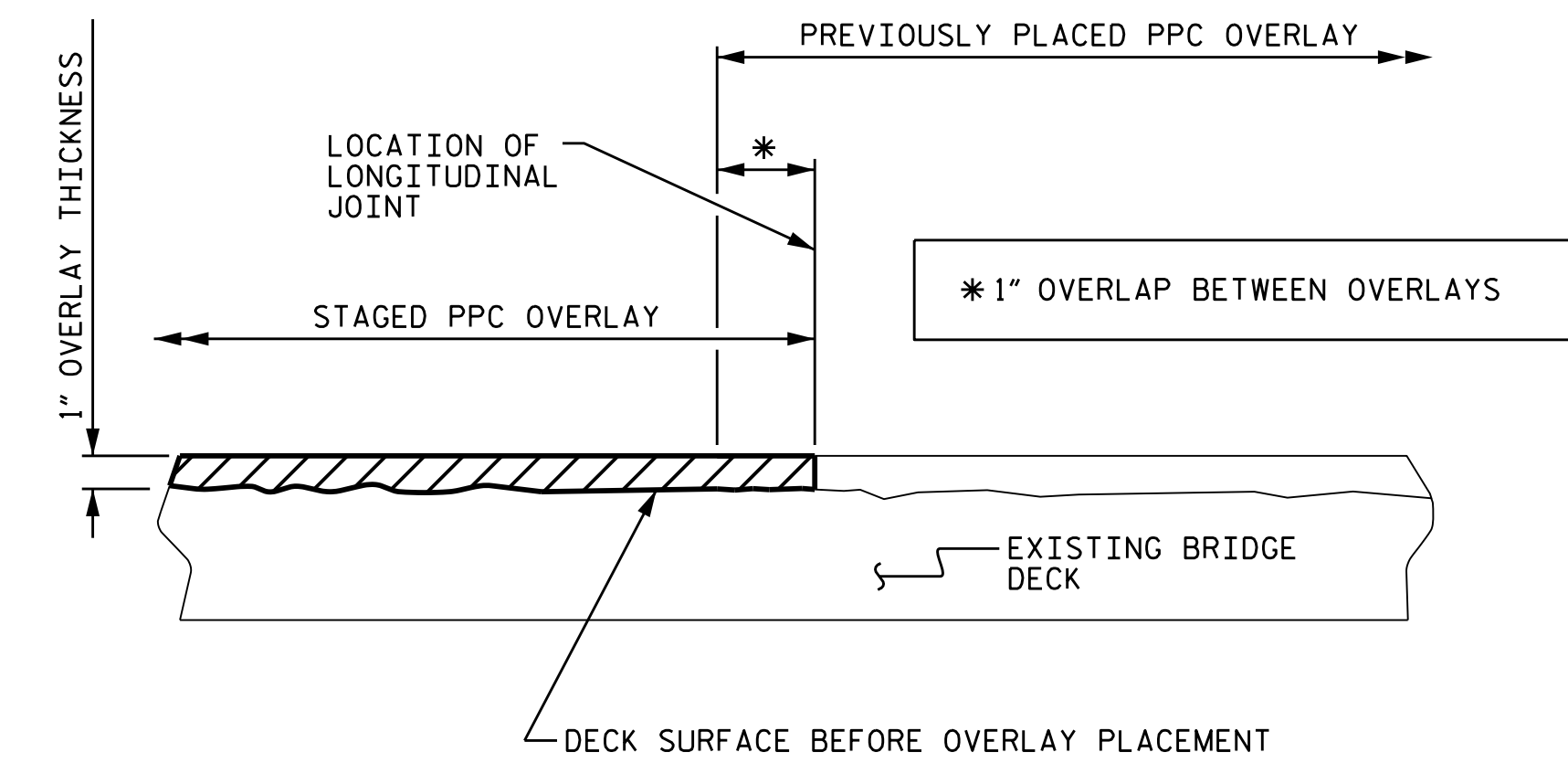
TYPICAL SECTION
(DECK PREPARATION)



TYPICAL SECTION
(PROPOSED)

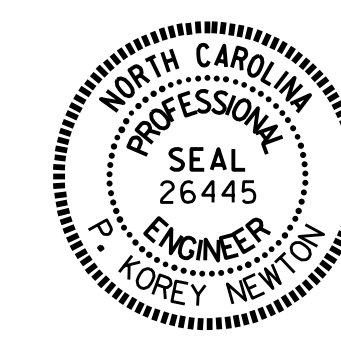


DETAIL FOR POLYESTER POLYMER CONCRETE OVERLAY



STAGED PPC OVERLAY JOINT
(AS NEEDED)

PROJECT NO. I-5940
DUPLIN COUNTY
 BRIDGE NO. 300427



DocuSigned by:
P. Corey Newton
 6/23/2019

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

TYPICAL SECTION AND SURFACE PREPARATION DETAILS

DRAWN BY : S. T. SANDOR DATE : 11/2018
 CHECKED BY : W. C. SMITH DATE : 01/2019

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

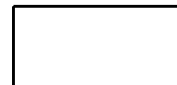

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	TOTAL SHEETS
1			3			S1-2
2			4			113

SUMMARY OF QUANTITIES FOR SPAN "A" AND APPROACH SLAB 1

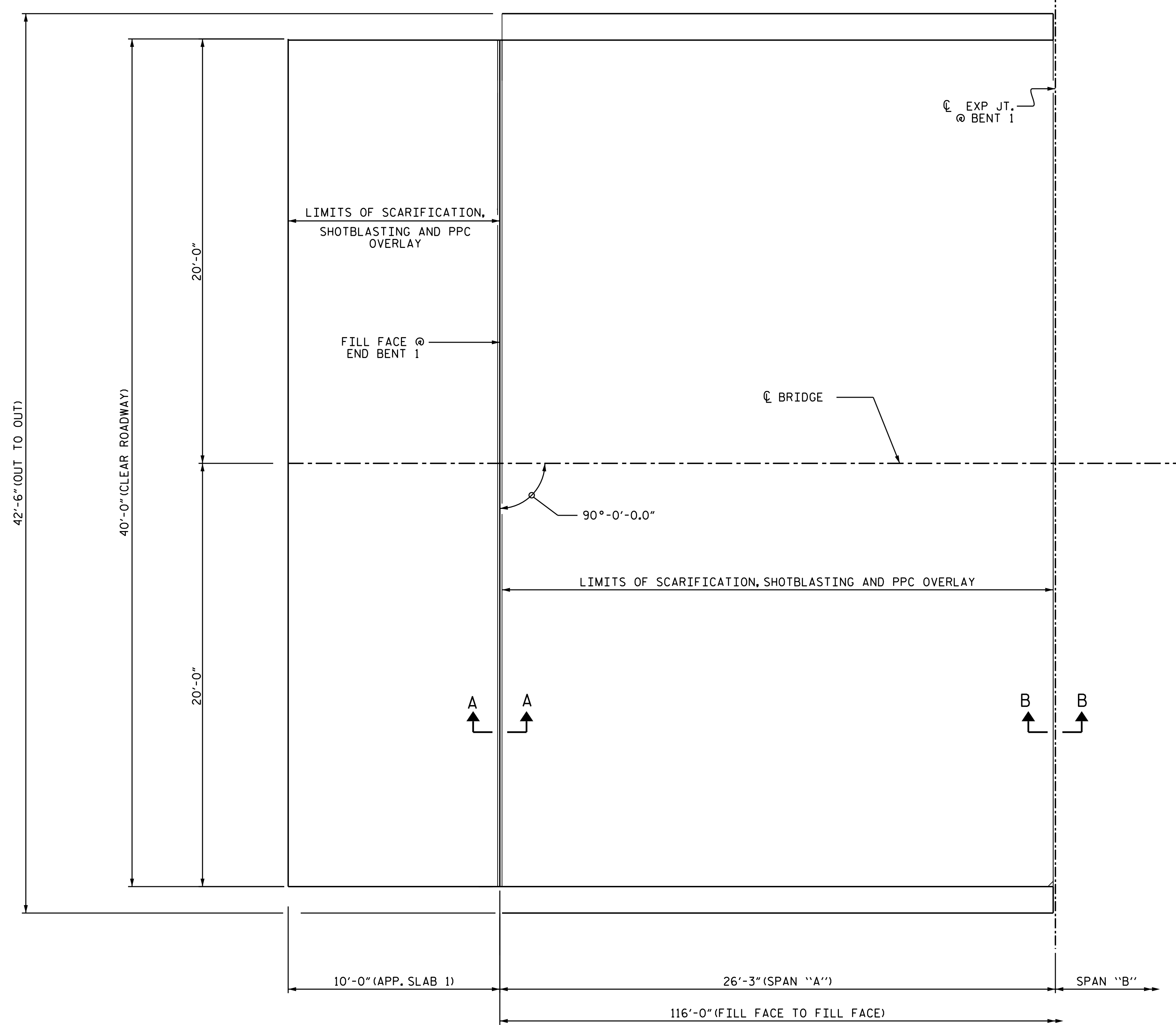
	ESTIMATE	ACTUAL
SCARIFYING BRIDGE DECK	161.2 SY	
POLYSTER POLYMER CONCRETE MATERIALS	4.5 CY	
SHOTBLASTING BRIDGE DECK	161.2 SY	
PLACING & FINISHING PPC OVERLAY	161.2 SY	
CLASS II SURFACE PREPARATION	0.0 SY	
GROOVING BRIDGE DECK	1,322.8 SF	

NOTES:

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

-  - SCARIFYING AND SHOTBLASTING OF BRIDGE DECK FOR PPC OVERLAY
-  - APPROX. AREA CLASS II SURFACE PREPARATION

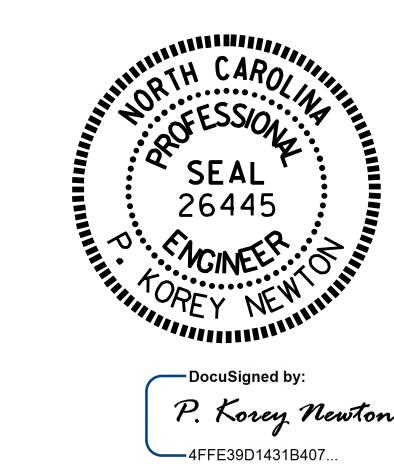
NO DEFICIENCIES NOTED DURING FIELD INSPECTION. THE CONTRACTOR AND ENGINEER SHALL INSPECT THE DECK SURFACE AFTER SCARIFICATION FOR POTENTIAL CLASS II REPAIRS.



PLAN OF SPAN "A" AND APPROACH SLAB 1

(SEE SHEET NO. S2-6 FOR SECTIONS A-A AND B-B)

PROJECT NO. I-5940
DUPLIN COUNTY
 BRIDGE NO. 300427



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

SURFACE PREPARATION
 SPAN "A" AND
 APPROACH SLAB 1

DRAWN BY : S. T. SANDOR DATE : 01/2019
 CHECKED BY : W. C. SMITH DATE : 05/2019

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED


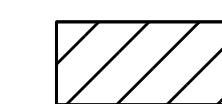
REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	TOTAL SHEETS
1			3			S1-3
2			4			113

SUMMARY OF QUANTITIES FOR SPAN "B"

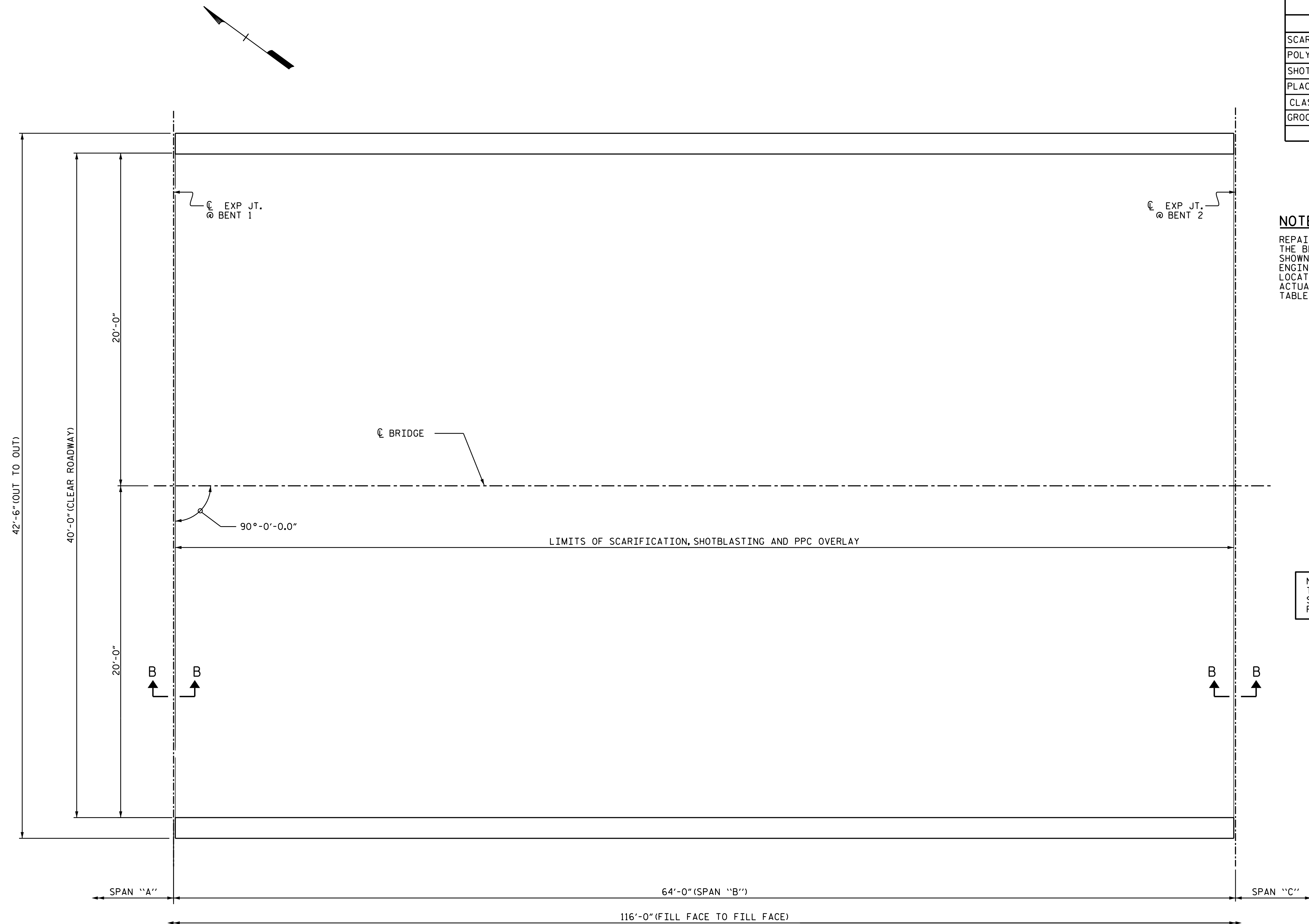
	ESTIMATE	ACTUAL
SCARIFYING BRIDGE DECK	284.4 SY	
POLYSTER POLYMER CONCRETE MATERIALS	7.9 CY	
SHOTBLASTING BRIDGE DECK	284.4 SY	
PLACING & FINISHING PPC OVERLAY	284.4 SY	
CLASS II SURFACE PREPARATION	0.0 SY	
GROOVING BRIDGE DECK	2,358.8 SF	

NOTES:

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

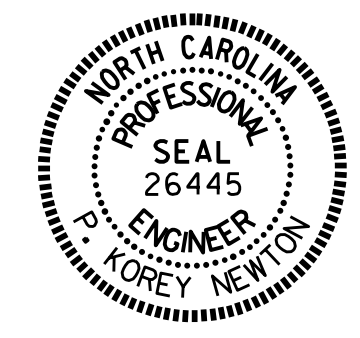
-  - SCARIFYING AND SHOTBLASTING OF BRIDGE DECK FOR PPC OVERLAY
-  - APPROX. AREA CLASS II SURFACE PREPARATION

NO DEFICIENCIES NOTED DURING FIELD INSPECTION. THE CONTRACTOR AND ENGINEER SHALL INSPECT THE DECK SURFACE AFTER SCARIFICATION FOR POTENTIAL CLASS II REPAIRS.



PLAN OF SPAN "B"
(SEE SHEET NO. S2-6 FOR SECTION B-B)

PROJECT NO. I-5940
DUPLIN COUNTY
 BRIDGE NO. 300427



DocuSigned by:
P. Corey Newton
 6/23/2019

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

**SURFACE PREPARATION
 SPAN "B"**

DRAWN BY : S. T. SANDOR DATE : 01/2019
 CHECKED BY : W. C. SMITH DATE : 05/2019

DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
 SIGNATURES COMPLETED

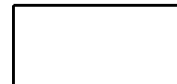

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S1-4
1			3			TOTAL SHEETS
2			4			113

SUMMARY OF QUANTITIES FOR SPAN "C" AND APPROACH SLAB 2

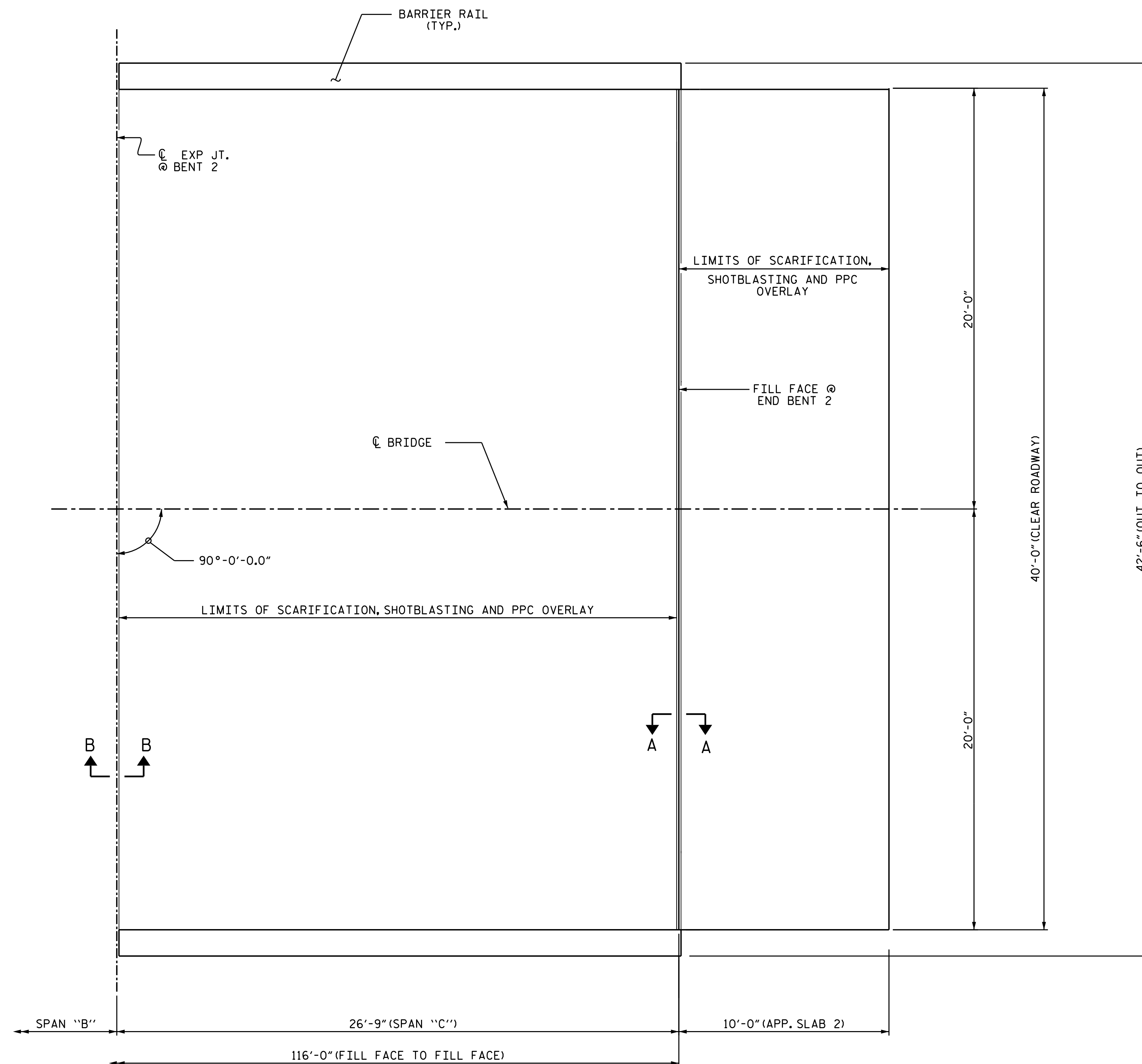
	ESTIMATE	ACTUAL
SCARIFYING BRIDGE DECK	163.4 SY	
POLYMER POLYMER CONCRETE MATERIALS	4.5 CY	
SHOTBLASTING BRIDGE DECK	163.4 SY	
PLACING & FINISHING PPC OVERLAY	163.4 SY	
CLASS II SURFACE PREPARATION	0.0 SY	
GROOVING BRIDGE DECK	1,332.1 SF	

NOTES:

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

-  - SCARIFYING AND SHOTBLASTING OF BRIDGE DECK FOR PPC OVERLAY
-  - APPROX. AREA CLASS II SURFACE PREPARATION

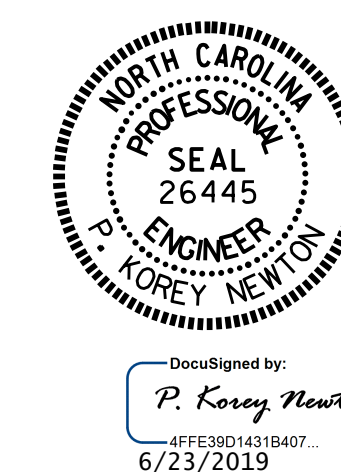
NO DEFICIENCIES NOTED DURING FIELD INSPECTION. THE CONTRACTOR AND ENGINEER SHALL INSPECT THE DECK SURFACE AFTER SCARIFICATION FOR POTENTIAL CLASS II REPAIRS.



PLAN OF SPAN "C" AND APPROACH SLAB 2

(SEE SHEET NO. S2-6 FOR SECTIONS A-A AND B-B)

PROJECT NO. I-5940
DUPLIN COUNTY
 BRIDGE NO. 300427

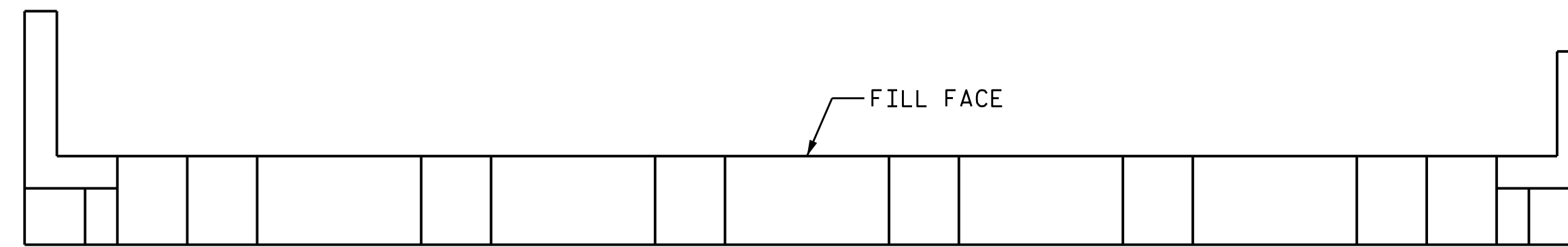


STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 SURFACE PREPARATION
 SPAN "C" AND
 APPROACH SLAB 2

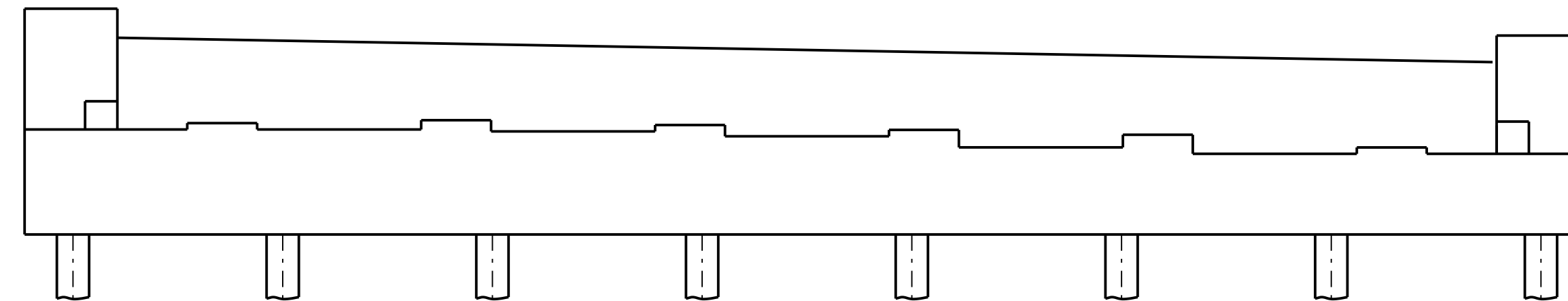
DRAWN BY : S. T. SANDOR DATE : 01/2019
 CHECKED BY : W. C. SMITH DATE : 05/2019

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

REVISIONS						SHEET NO.	
NO.	BY:	DATE:	NO.	BY:	DATE:	TOTAL SHEETS	
1			3			S1-5	
2			4			113	

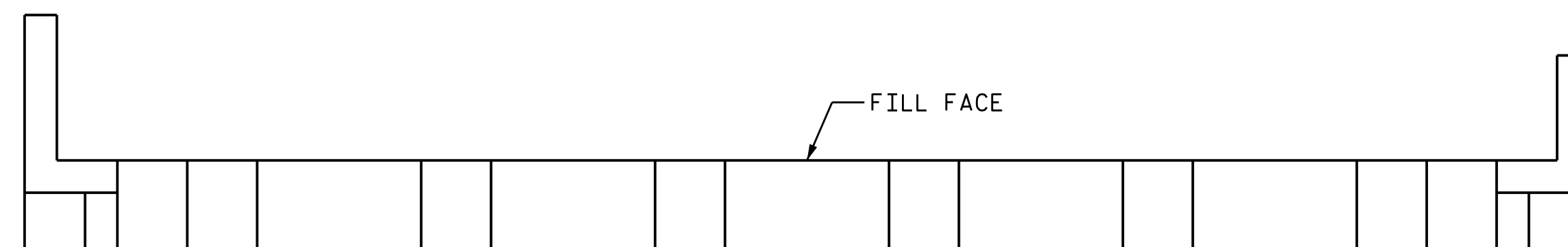


PLAN
(TOP OF CAP)

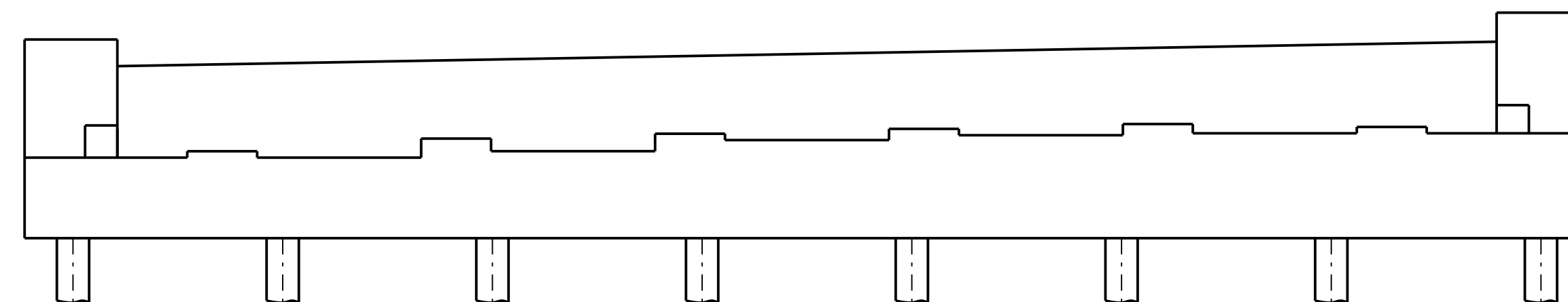


ELEVATION

END BENT 1



PLAN
(TOP OF CAP)



ELEVATION

END BENT 2

REPAIR QUANTITY TABLE

REPAIRS END BENT 1 & 2	QUANTITIES			
	ESTIMATE		ACTUAL	
CONCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL, CORNER)	0.0	0.0		
COLUMN	0.0	0.0		
SHOTCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL, CORNER)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LN. FT		LN. FT
CAP		0.0		
COLUMN		0.0		

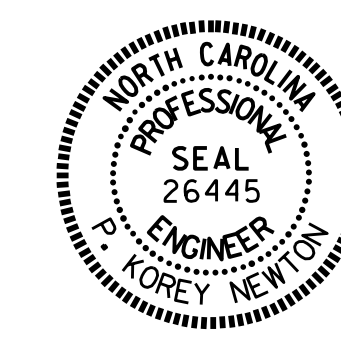
VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN. OF 1" BEHIND REBAR AND MIN. 1" CL TO SAWCUT. SEE REPAIR DETAILS.

ERI - EPOXY RESIN INJECTION

▨ - SHOTCRETE REPAIRS

▣ - CONCRETE REPAIRS

PROJECT NO. I-5940
DUPLIN COUNTY
 BRIDGE NO. 300427



DocuSigned by:
P. Corey Newton
6/23/2019

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

SUBSTRUCTURE
 REPAIR
 END BENT 1 &
 END BENT 2

DRAWN BY : P. D. BRYANT / S. T. SANDOR DATE : 01/2019
 CHECKED BY : W. C. SMITH DATE : 05/2019

DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
 SIGNATURES COMPLETED

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

NOTES:

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

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

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR CONCRETE REPAIRS, SEE SPECIAL PROVISIONS.

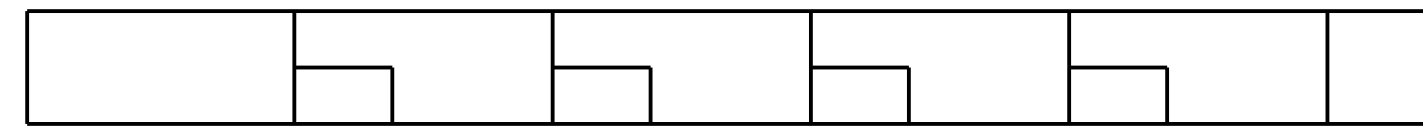
FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.

CONCRETE REPAIRS MAY BE SUBSTITUTED IN LIEU OF SHOTCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

REPAIR QUANTITY TABLE

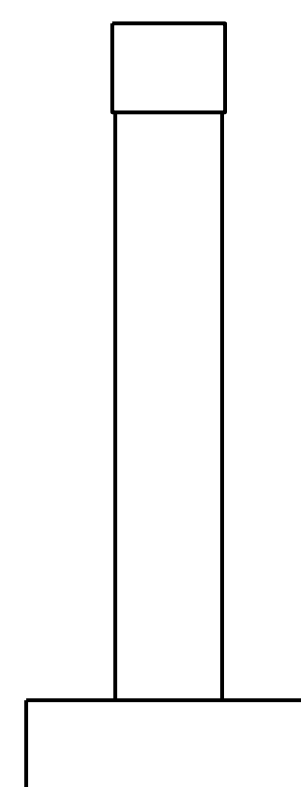
BENT 1	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	8.0	4.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		

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

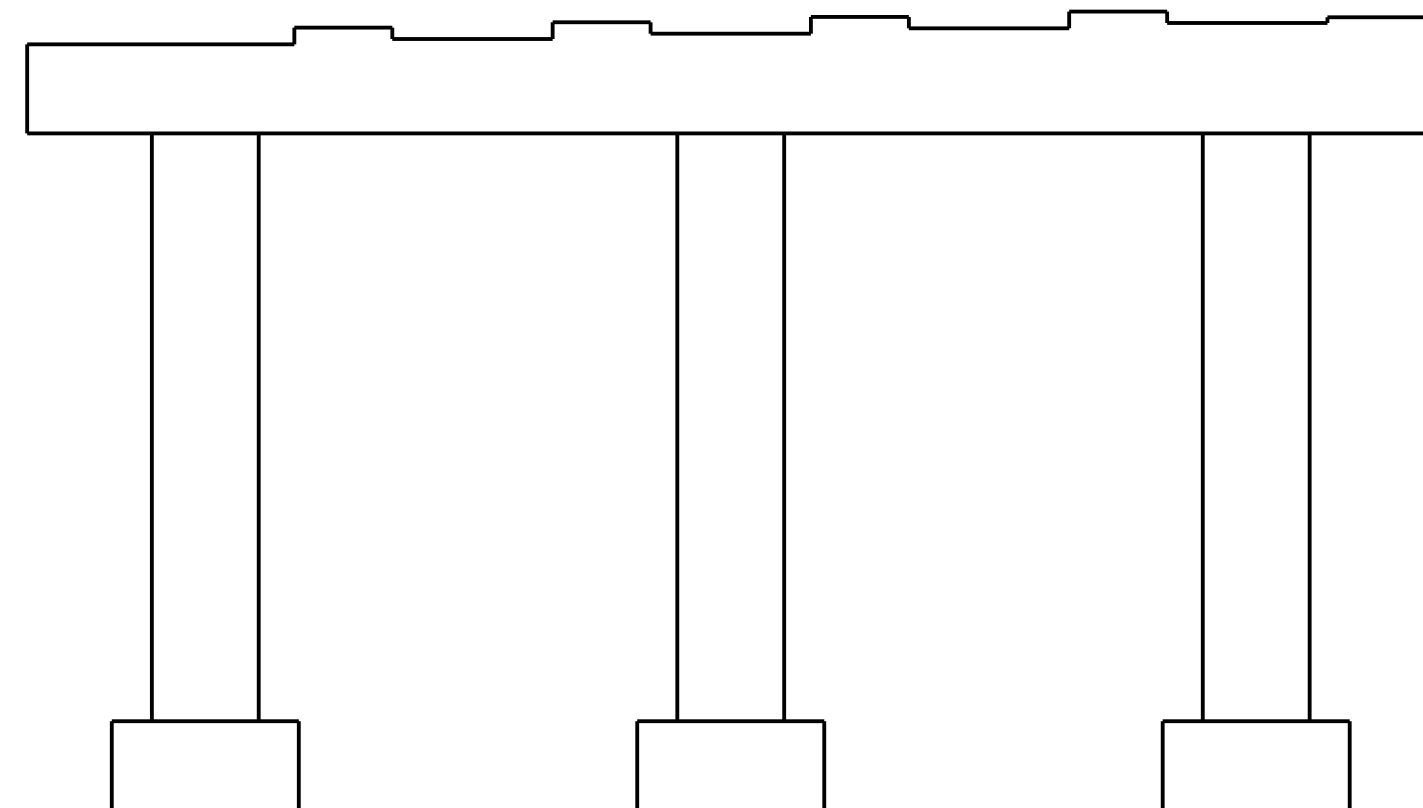


SPAN "A"
SPAN "B"

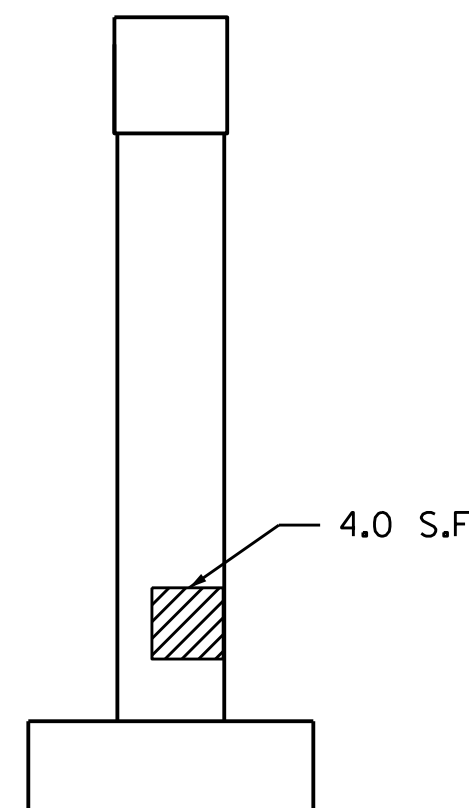
PLAN
TOP OF CAP



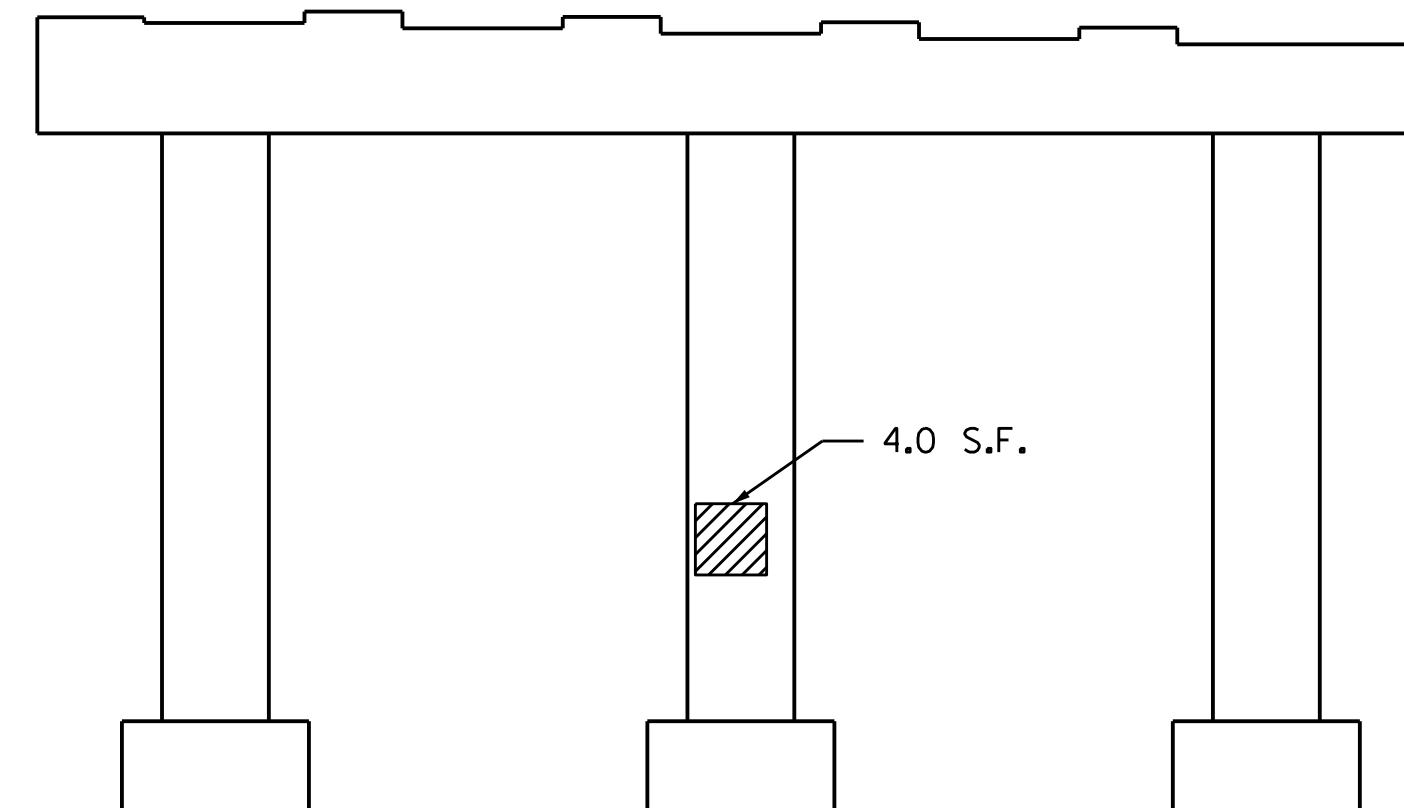
END VIEW
NORTH END



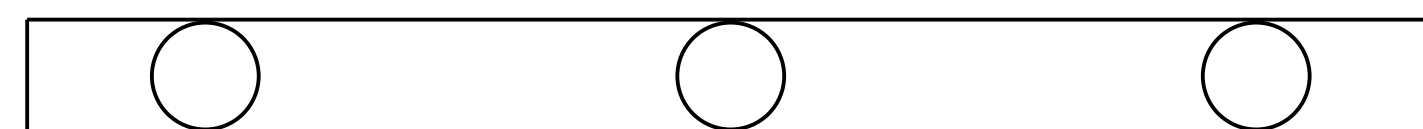
ELEVATION
WEST SIDE



END VIEW
SOUTH SIDE



ELEVATION
EAST SIDE

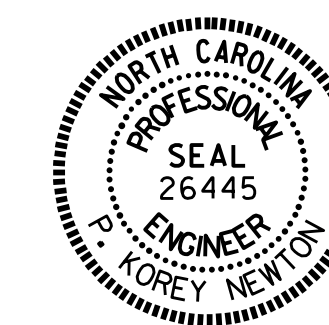


SPAN "B"
SPAN "A"

PLAN
BOTTOM OF CAP

- CONCRETE REPAIR
- SHOTCRETE REPAIR
- ERI EPOXY RESIN INJECTION

PROJECT NO. I-5940
DUPLIN COUNTY
BRIDGE NO. 300427



DocuSigned by:
P. Corey Newton
6/23/2019

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
SUBSTRUCTURE
BENT 1

DRAWN BY : P. D. BRYANT / S. T. SANDOR DATE : 01/2019
CHECKED BY : W. C. SMITH DATE : 05/2019

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	TOTAL SHEETS
1			3			S1-7
2			4			113

NOTES:

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

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

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR CONCRETE REPAIRS, SEE SPECIAL PROVISIONS.

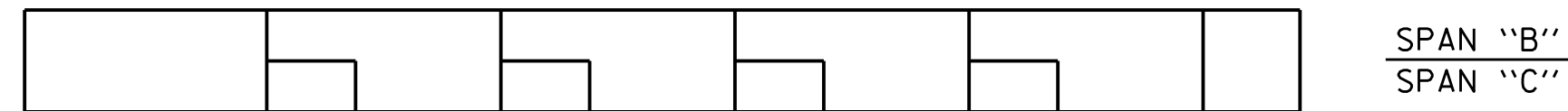
FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.

CONCRETE REPAIRS MAY BE SUBSTITUTED IN LIEU OF SHOTCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

REPAIR QUANTITY TABLE

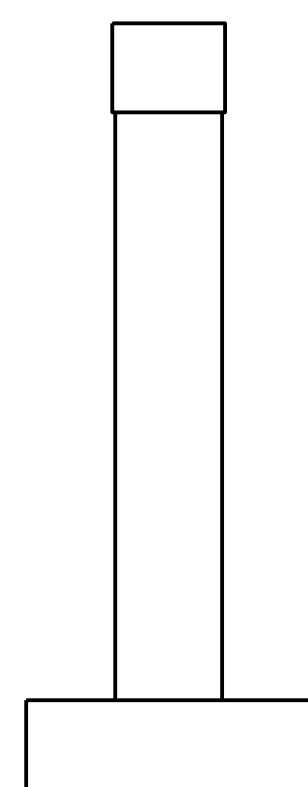
BENT 2	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	26.0	13.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		

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

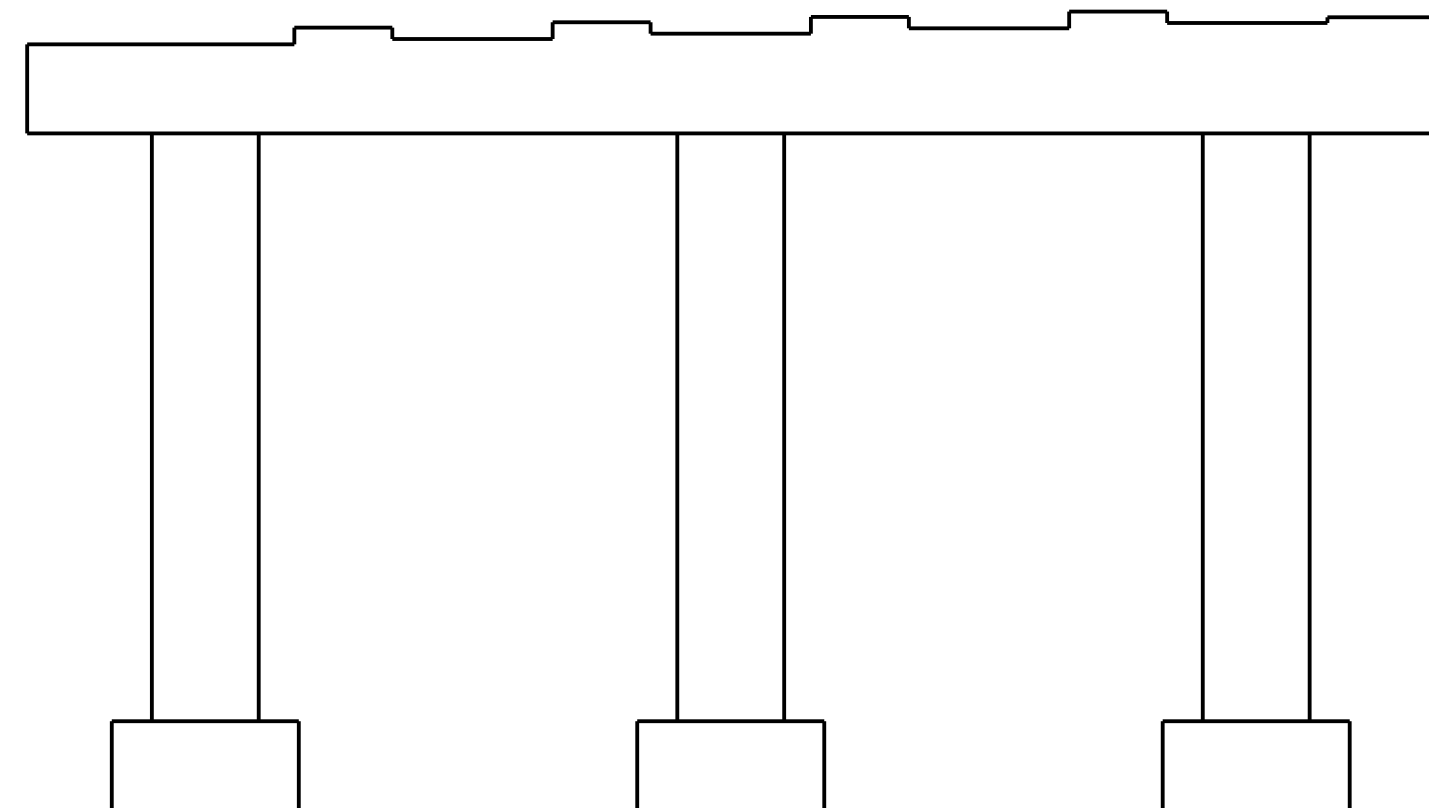


SPAN "B"
SPAN "C"

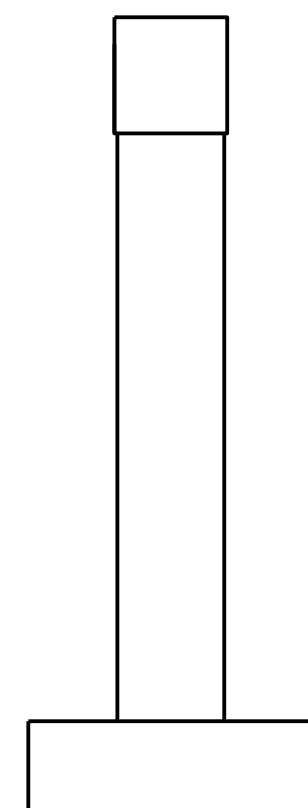
PLAN
TOP OF CAP



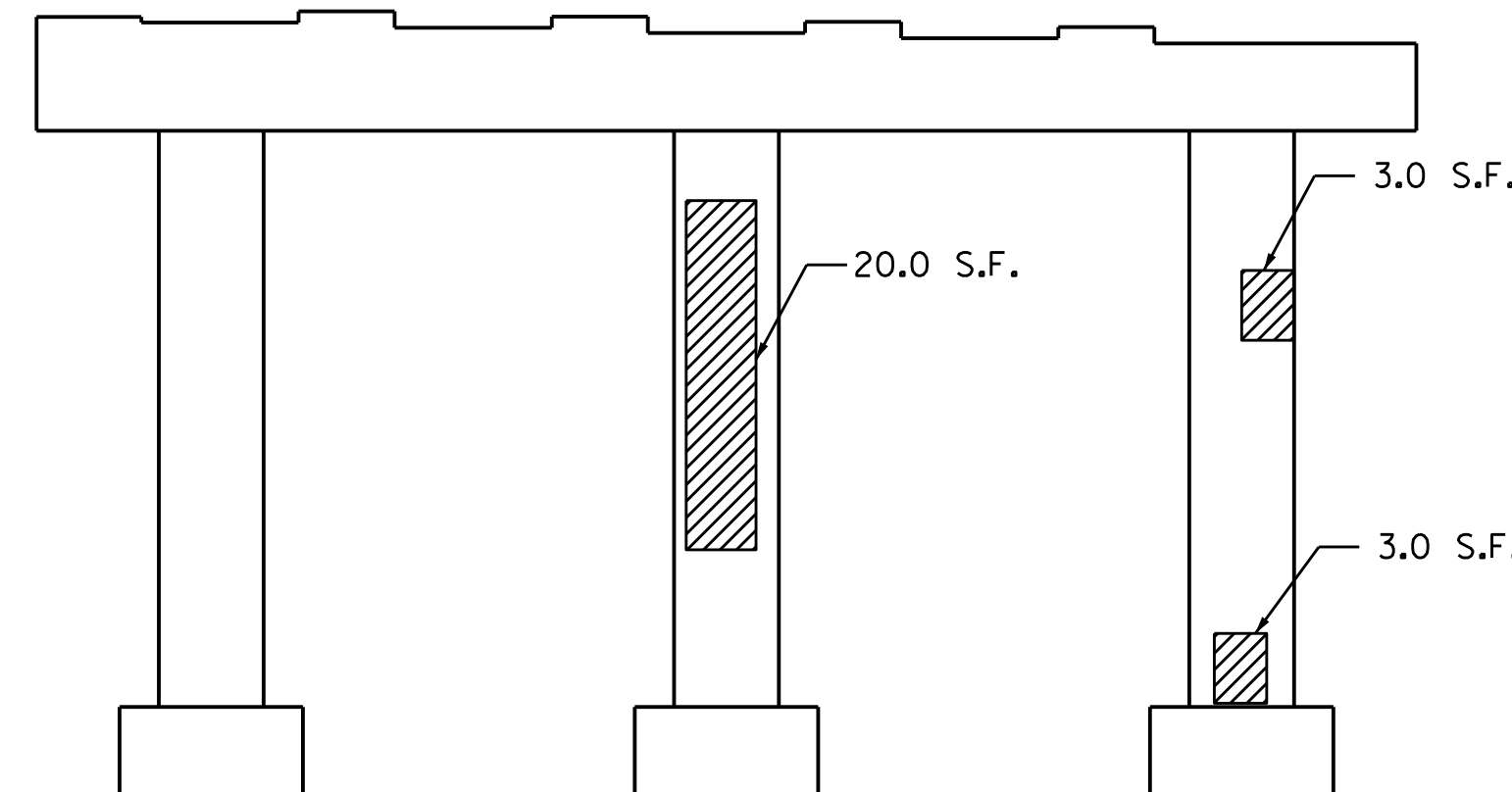
END VIEW
SOUTH END



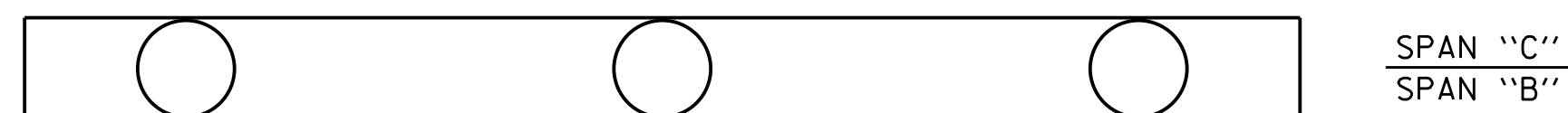
ELEVATION
WEST SIDE



END VIEW
NORTH SIDE



ELEVATION
EAST SIDE



SPAN "C"
SPAN "B"

PLAN
BOTTOM OF CAP

- CONCRETE REPAIR
- SHOTCRETE REPAIR
- ERI EPOXY RESIN INJECTION

PROJECT NO. I-5940
DUPLIN COUNTY
BRIDGE NO. 300427



DocuSigned by:
P. Corey Newton
6/23/2019

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
SUBSTRUCTURE
BENT 2

DRAWN BY : P. D. BRYANT / S. T. SANDOR DATE : 01/2019
CHECKED BY : W. C. SMITH DATE : 05/2019

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

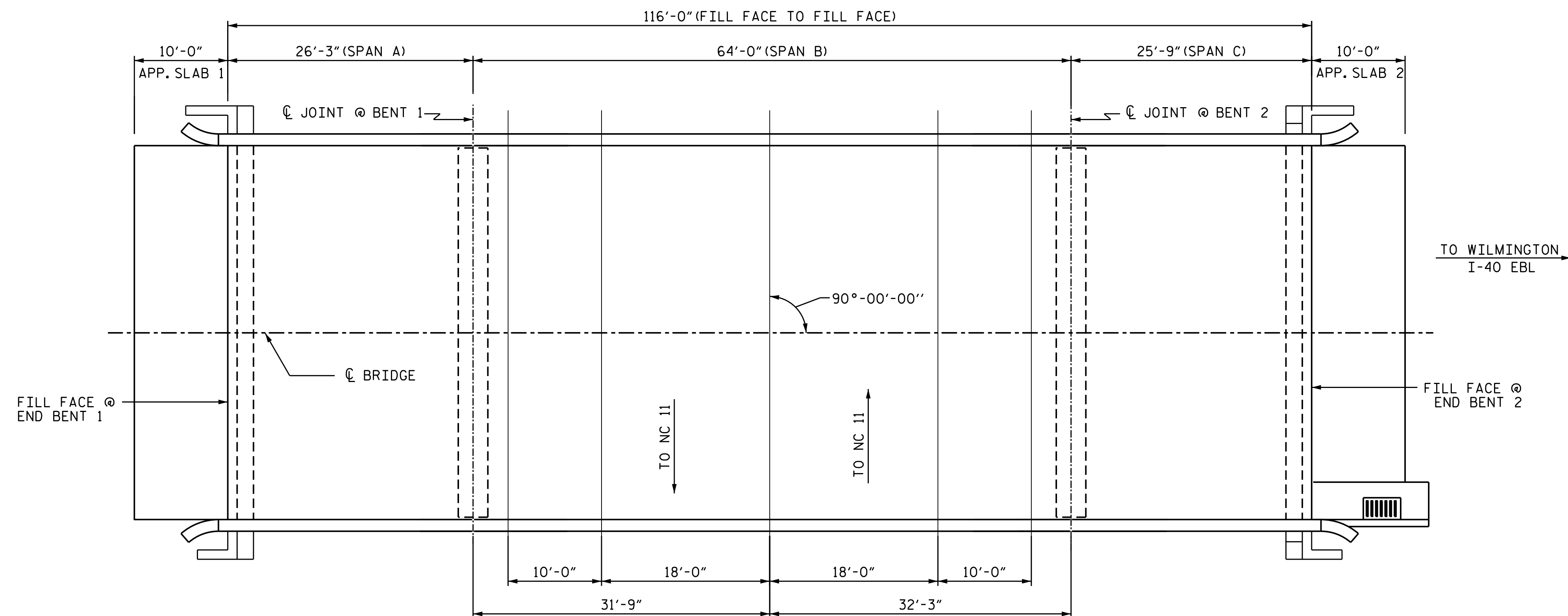
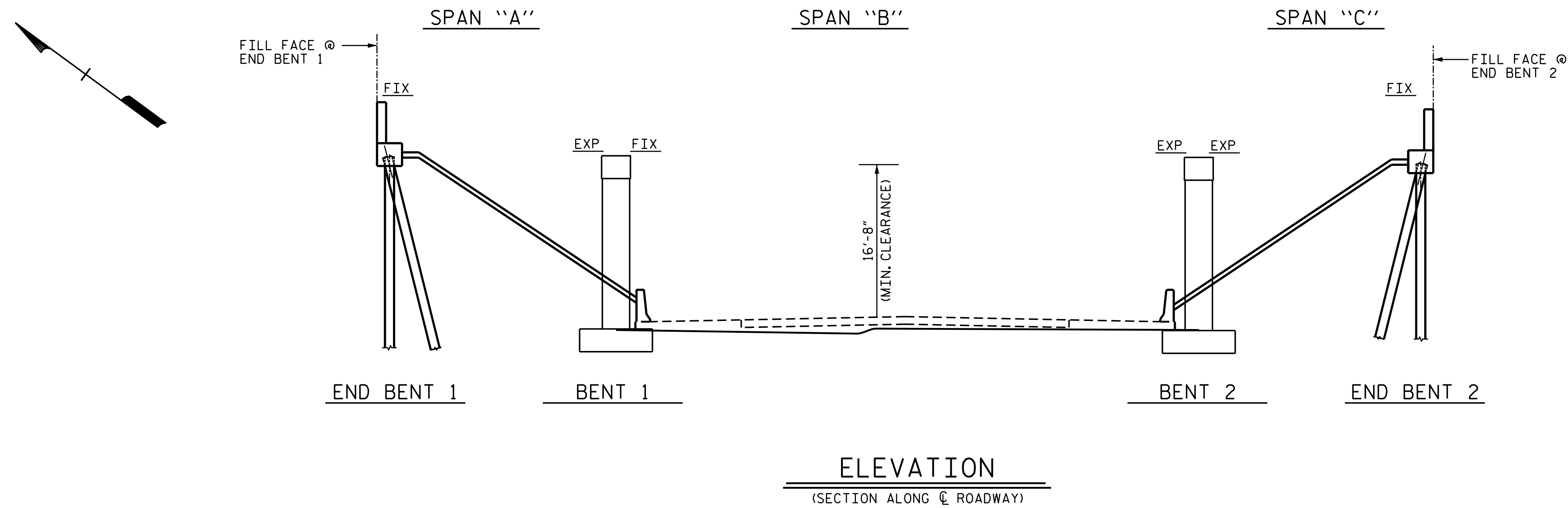
REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	TOTAL SHEETS
1			3			S1-8
2			4			113

SCOPE OF WORK

- PARTIALLY REMOVE BRIDGE DECK CONCRETE BY SCARIFICATION AND SHOTBLASTING METHODS.
- PERFORM DECK REPAIRS IN PREPARED AREAS.
- OVERLAY PREPARED BRIDGE DECK WITH POLYESTER POLYMER CONCRETE.
- RECONSTRUCT BRIDGE JOINTS AND INSTALL BACKER ROD AND SILICONE JOINT SEALANT.
- GROOVE POLYESTER POLYMER CONCRETE DECK.
- REPAIR SUBSTRUCTURE USING EPOXY RESIN INJECTION AND SHOTCRETE.

NOTES

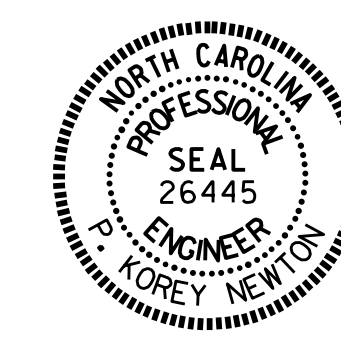
- PROFILE INFORMATION IS TAKEN FROM ORIGINAL PLANS AND THE ROUTINE INSPECTION, DATED 06/05/2017.
- BRIDGE ORIENTATION CONFORMS TO EXISTING BRIDGE PLANS.



I hereby certify that this structure was rehabilitated according to these plans or as noted therein.

Resident Engineer _____ Date _____

PROJECT NO. I-5940
DUPLIN COUNTY
 BRIDGE NO. 300428



DocuSigned by:
P. Corey Newton
 6/23/2019

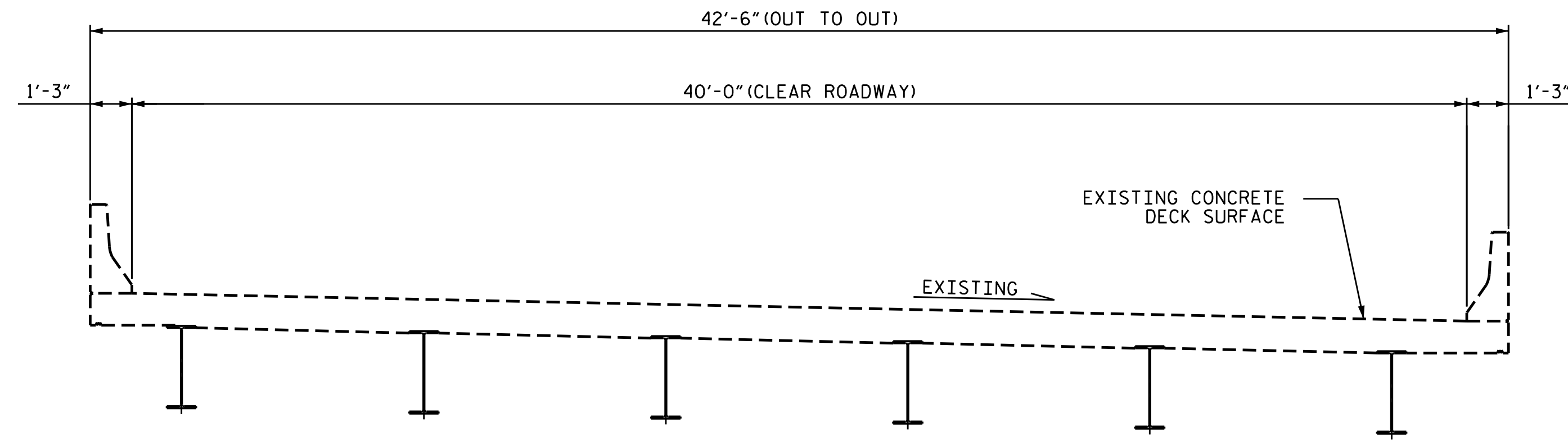
STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH						SHEET NO. S2-1	
GENERAL DRAWING						TOTAL SHEETS 113	
FOR BRIDGE 428 ON I-40 EBL OVER NC 11							
REVISIONS							
NO.	BY:	DATE:	NO.	BY:	DATE:		
1			3				
2			4				

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

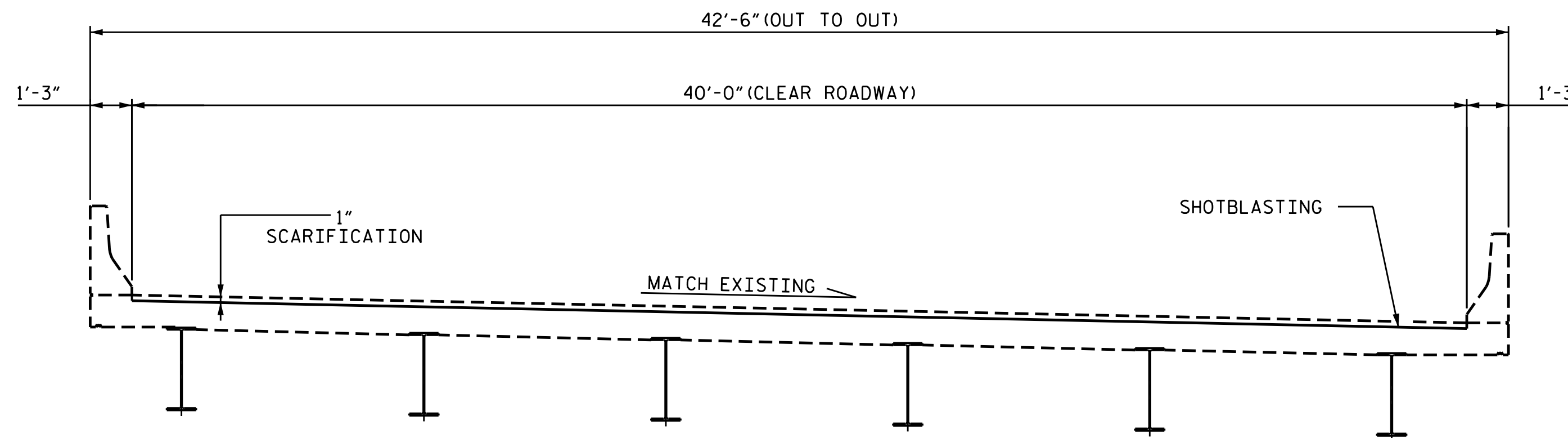
DRAWN BY : S. T. SANDOR DATE : 12/2018
 CHECKED BY : W. C. SMITH DATE : 05/2019

NOTES

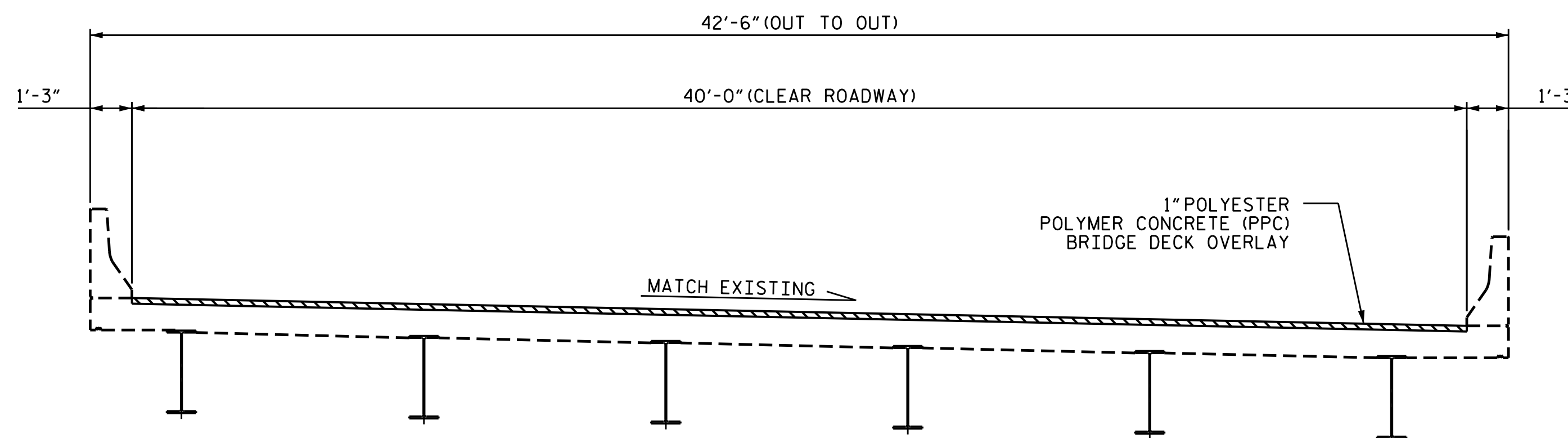
SEE TRANSPORTATION MANAGEMENT PLANS FOR LANE WIDTHS, SEQUENCING AND OTHER TRAFFIC CONTROL MEASURES FOR STAGING OF OVERLAY SURFACE PREPARATION AND POLYESTER POLYMER CONCRETE PLACEMENT.



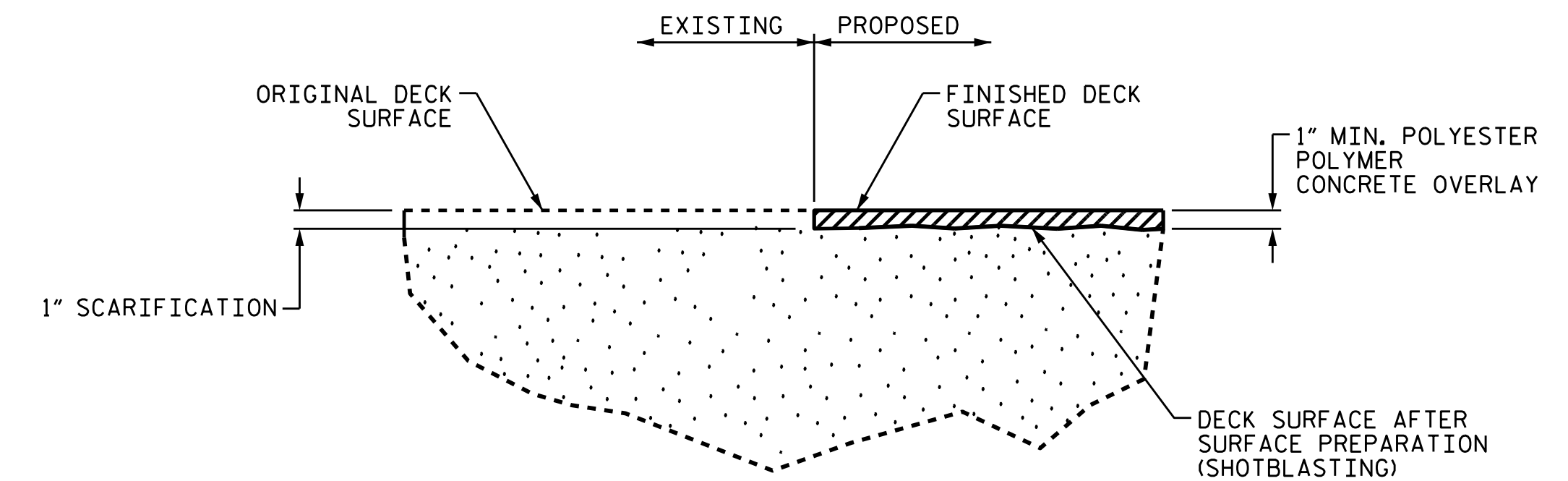
TYPICAL SECTION
(EXISTING)



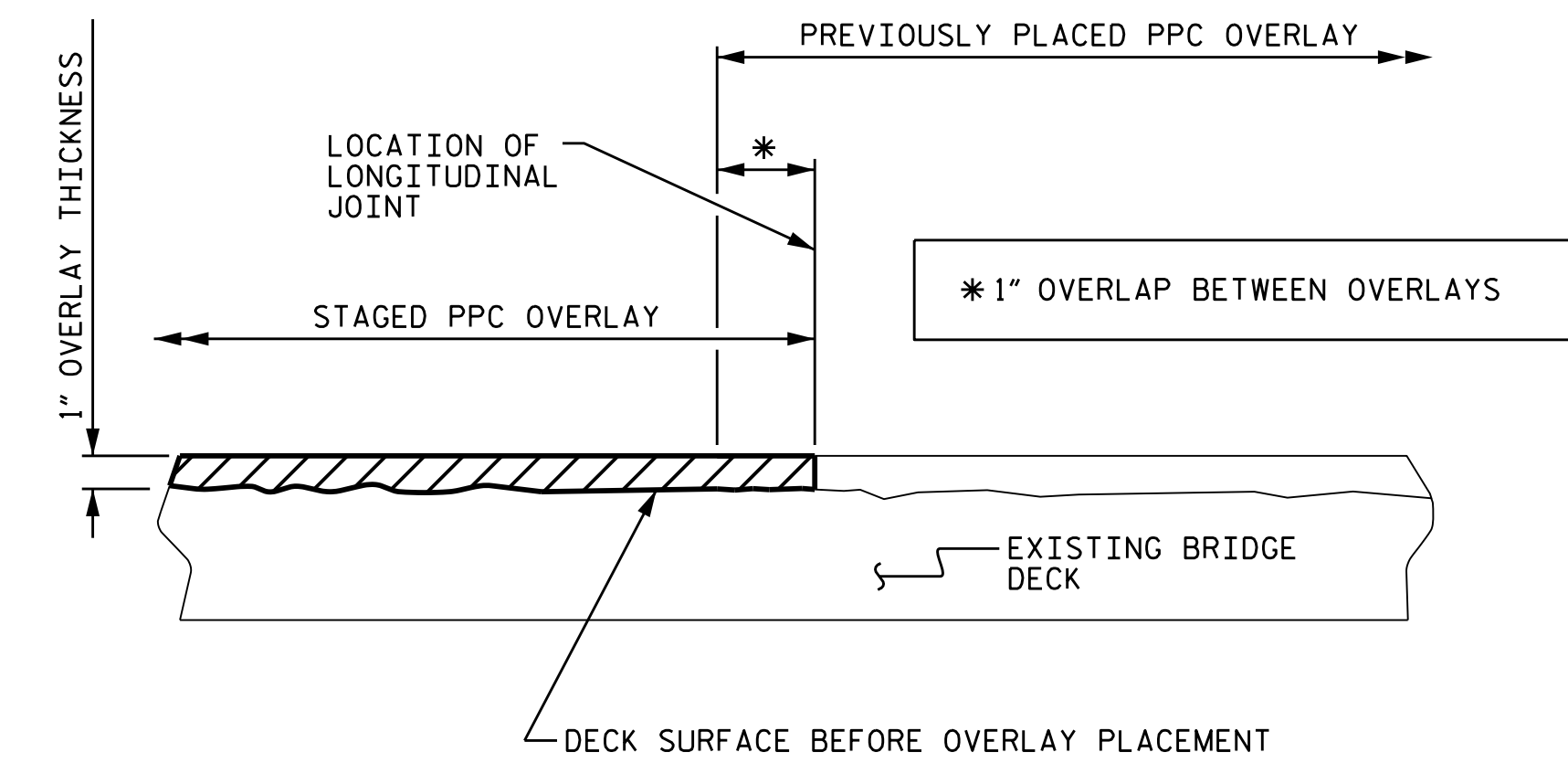
TYPICAL SECTION
(DECK PREPARATION)



TYPICAL SECTION
(PROPOSED)



DETAIL FOR POLYESTER POLYMER CONCRETE OVERLAY



STAGED PPC OVERLAY JOINT
(AS NEEDED)

PROJECT NO. I-5940
DUPLIN COUNTY
 BRIDGE NO. 300428



DocuSigned by:
P. Corey Newton
 6/23/2019

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH						SHEET NO. S2-2	
TYPICAL SECTION AND SURFACE PREPARATION DETAILS						TOTAL SHEETS 113	
						REVISIONS	
NO.	BY:	DATE:	NO.	BY:	DATE:		
1			3				
2			4				

DRAWN BY : S. T. SANDOR DATE : 11/2018
 CHECKED BY : W. C. SMITH DATE : 05/2019

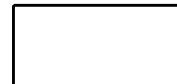

DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
 SIGNATURES COMPLETED

SUMMARY OF QUANTITIES FOR SPAN "A" AND APPROACH SLAB 1

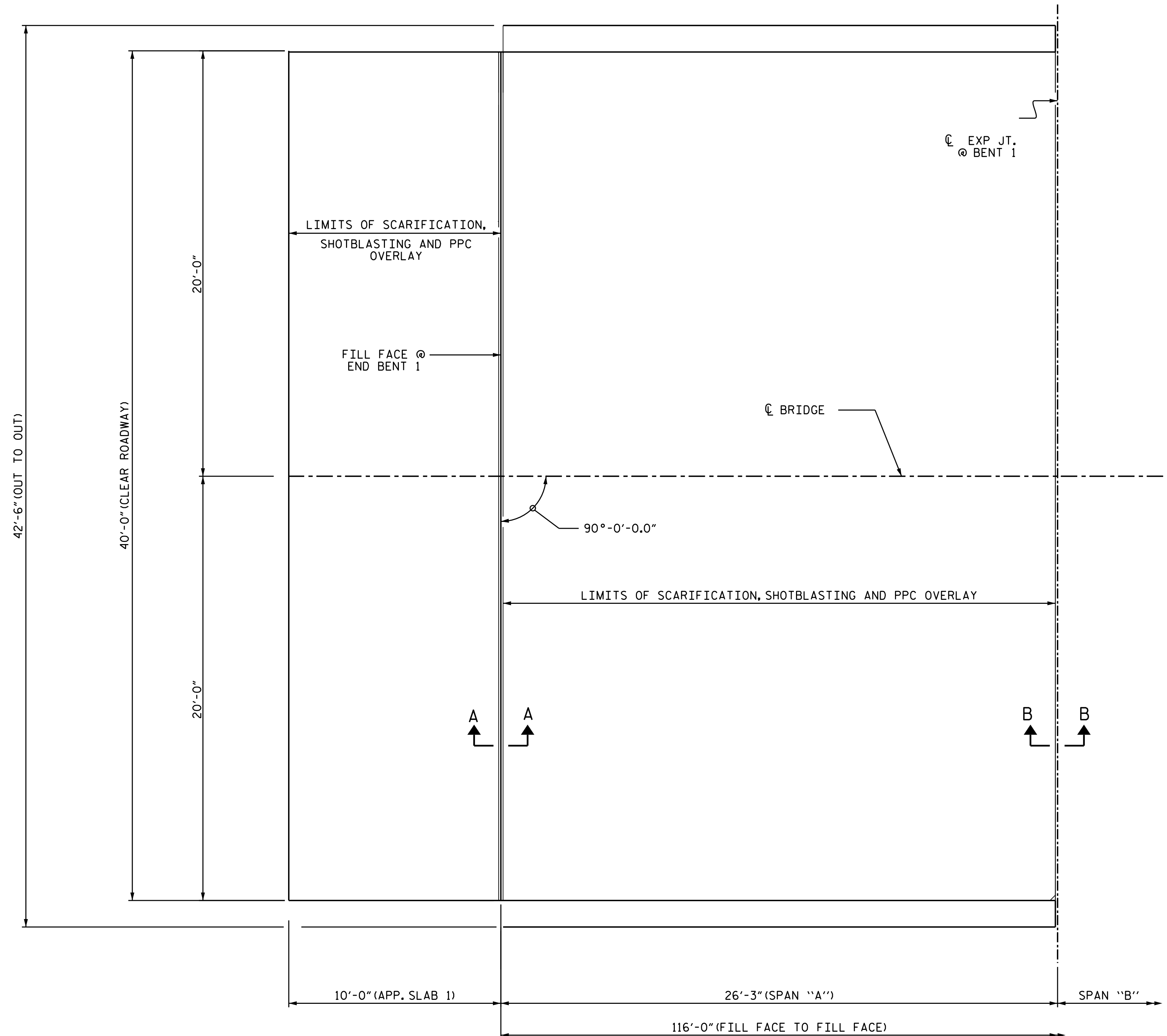
	ESTIMATE	ACTUAL
SCARIFYING BRIDGE DECK	161.2 SY	
POLYSTER POLYMER CONCRETE MATERIALS	4.5 CY	
SHOTBLASTING BRIDGE DECK	161.2 SY	
PLACING & FINISHING PPC OVERLAY	161.2 SY	
CLASS II SURFACE PREPARATION	0.0 SY	
GROOVING BRIDGE DECK	1,322.8 SF	

NOTES:

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

-  - SCARIFYING AND SHOTBLASTING OF BRIDGE DECK FOR PPC OVERLAY
-  - APPROX. AREA CLASS II SURFACE PREPARATION

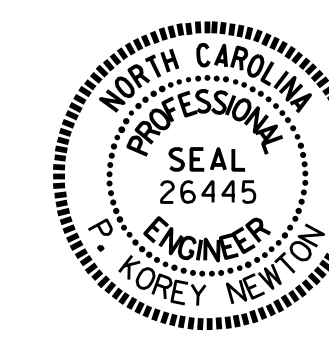
NO DEFICIENCIES NOTED DURING FIELD INSPECTION. THE CONTRACTOR AND ENGINEER SHALL INSPECT THE DECK SURFACE AFTER SCARIFICATION FOR POTENTIAL CLASS II REPAIRS.



PLAN OF SPAN "A" AND APPROACH SLAB 1

(SEE SHEET NO. S2-6 FOR SECTIONS A-A AND B-B)

PROJECT NO. I-5940
DUPLIN COUNTY
 BRIDGE NO. 300428



DocuSigned by:
 P. Corey Newton
 6/23/2019

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

SURFACE PREPARATION
 SPAN "A" AND
 APPROACH SLAB 1

DRAWN BY : S. T. SANDOR DATE : 01/2019
 CHECKED BY : W. C. SMITH DATE : 05/2019

DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
 SIGNATURES COMPLETED


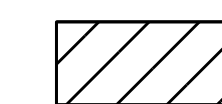
REVISIONS						SHEET NO.	
NO.	BY:	DATE:	NO.	BY:	DATE:	S2-3	
1			3			TOTAL SHEETS	113
2			4				

SUMMARY OF QUANTITIES FOR SPAN "B"

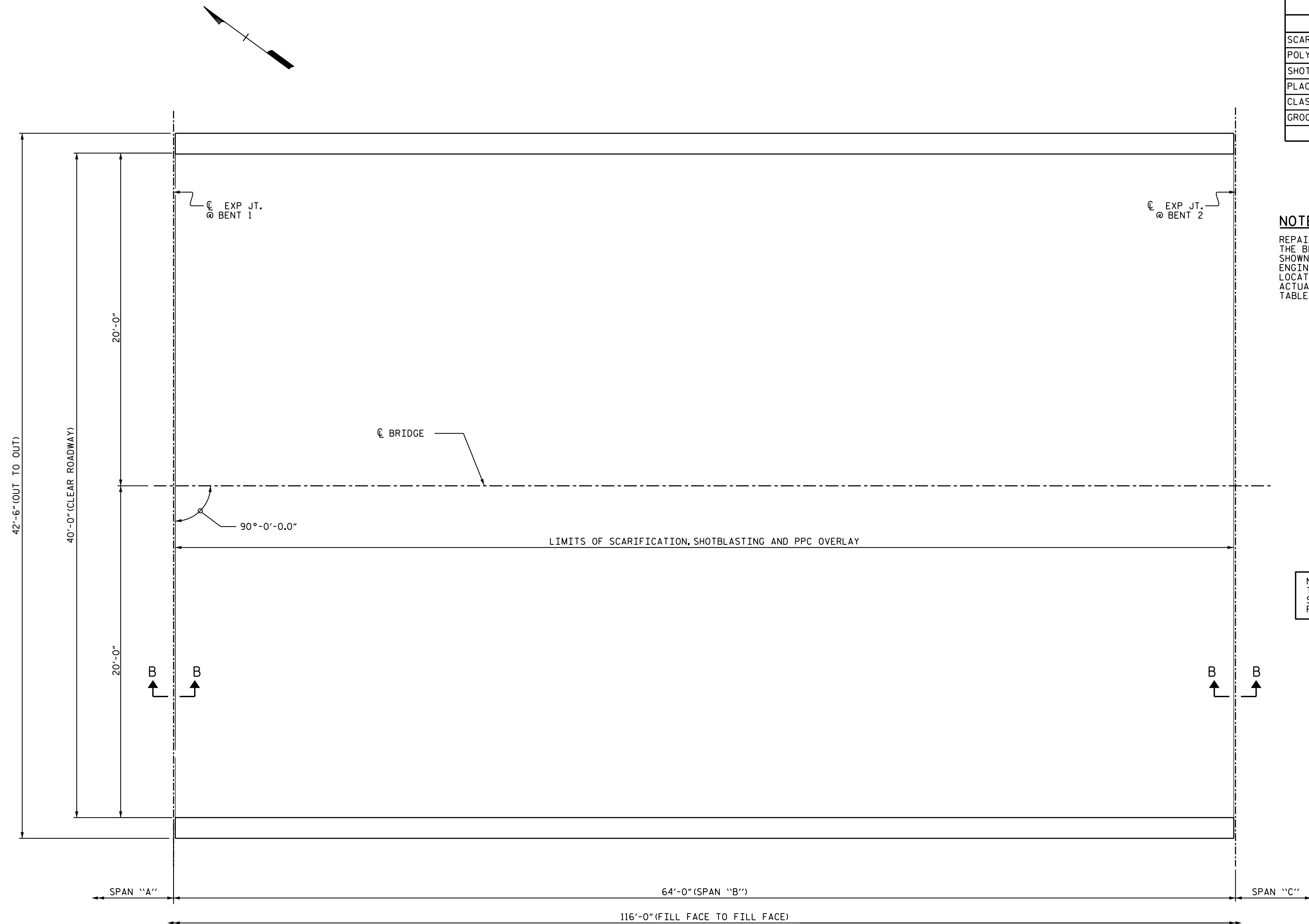
	ESTIMATE	ACTUAL
SCARIFYING BRIDGE DECK	284.4 SY	
POLYSTER POLYMER CONCRETE MATERIALS	7.9 CY	
SHOTBLASTING BRIDGE DECK	284.4 SY	
PLACING & FINISHING PPC OVERLAY	284.4 SY	
CLASS II SURFACE PREPARATION	0.0 SY	
GROOVING BRIDGE DECK	2,358.8 SF	

NOTES:

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

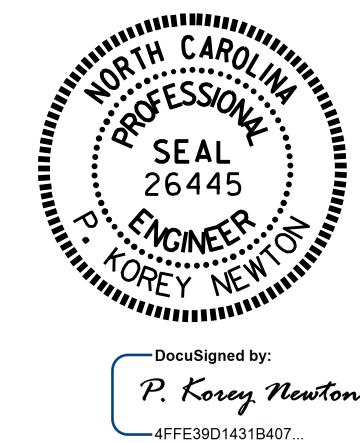
-  - SCARIFYING AND SHOTBLASTING OF BRIDGE DECK FOR PPC OVERLAY
-  - APPROX. AREA CLASS II SURFACE PREPARATION

NO DEFICIENCIES NOTED DURING FIELD INSPECTION. THE CONTRACTOR AND ENGINEER SHALL INSPECT THE DECK SURFACE AFTER SCARIFICATION FOR POTENTIAL CLASS II REPAIRS.



PLAN OF SPAN "B"
(SEE SHEET NO. S2-6 FOR SECTION B-B)

PROJECT NO. I-5940
DUPLIN COUNTY
 BRIDGE NO. 300428



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

**SURFACE PREPARATION
 SPAN "B"**

DRAWN BY : S. I. SANDOR DATE : 01/2019
 CHECKED BY : W. C. SMITH DATE : 05/2019

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

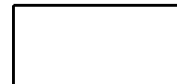

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	TOTAL SHEETS
1			3			S2-4
2			4			113

SUMMARY OF QUANTITIES FOR SPAN "C" AND APPROACH SLAB 2

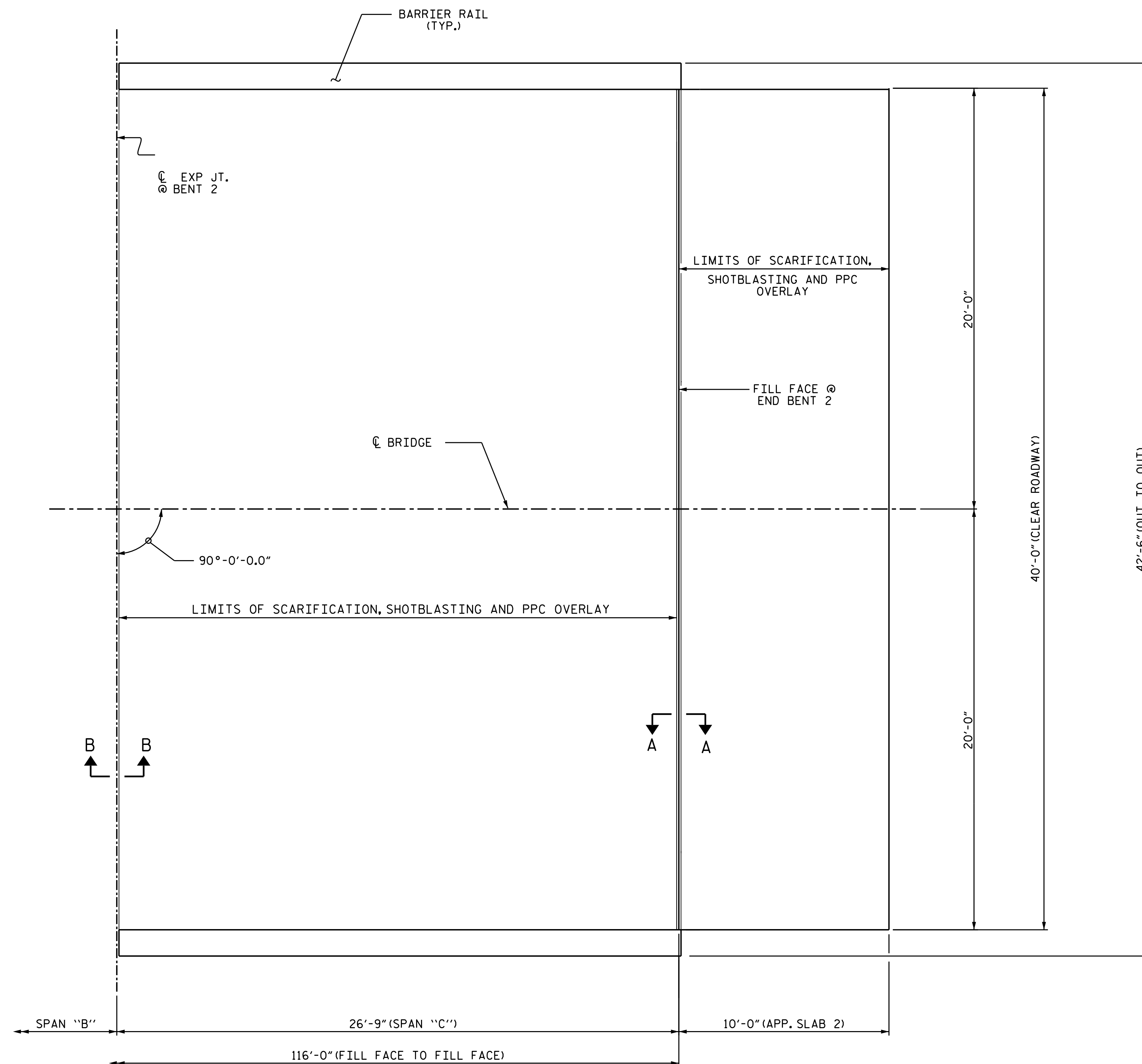
	ESTIMATE	ACTUAL
SCARIFYING BRIDGE DECK	163.4 SY	
POLYMER POLYMER CONCRETE MATERIALS	4.5 CY	
SHOTBLASTING BRIDGE DECK	163.4 SY	
PLACING & FINISHING PPC OVERLAY	163.4 SY	
CLASS II SURFACE PREPARATION	0.0 SY	
GROOVING BRIDGE DECK	1,332.1 SF	

NOTES:

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

-  - SCARIFYING AND SHOTBLASTING OF BRIDGE DECK FOR PPC OVERLAY
-  - APPROX. AREA CLASS II SURFACE PREPARATION

NO DEFICIENCIES NOTED DURING FIELD INSPECTION. THE CONTRACTOR AND ENGINEER SHALL INSPECT THE DECK SURFACE AFTER SCARIFICATION FOR POTENTIAL CLASS II REPAIRS.



PLAN OF SPAN "C" AND APPROACH SLAB 2

(SEE SHEET NO. S2-6 FOR SECTIONS A-A AND B-B)

PROJECT NO. I-5940
DUPLIN COUNTY
 BRIDGE NO. 300428



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 SURFACE PREPARATION
 SPAN "C" AND
 APPROACH SLAB 2

DRAWN BY : S. T. SANDOR DATE : 01/2019
 CHECKED BY : W. C. SMITH DATE : 05/2019

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REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	TOTAL SHEETS
1			3			S2-5
2			4			113

NOTES

CONTRACTOR SHALL NOTE THE EXISTING JOINT OPENINGS PRIOR OVERLAYING THE PPC. THE FINAL JOINT OPENINGS SHALL BE SAW TO MATCH THE EXISTING OPENINGS.

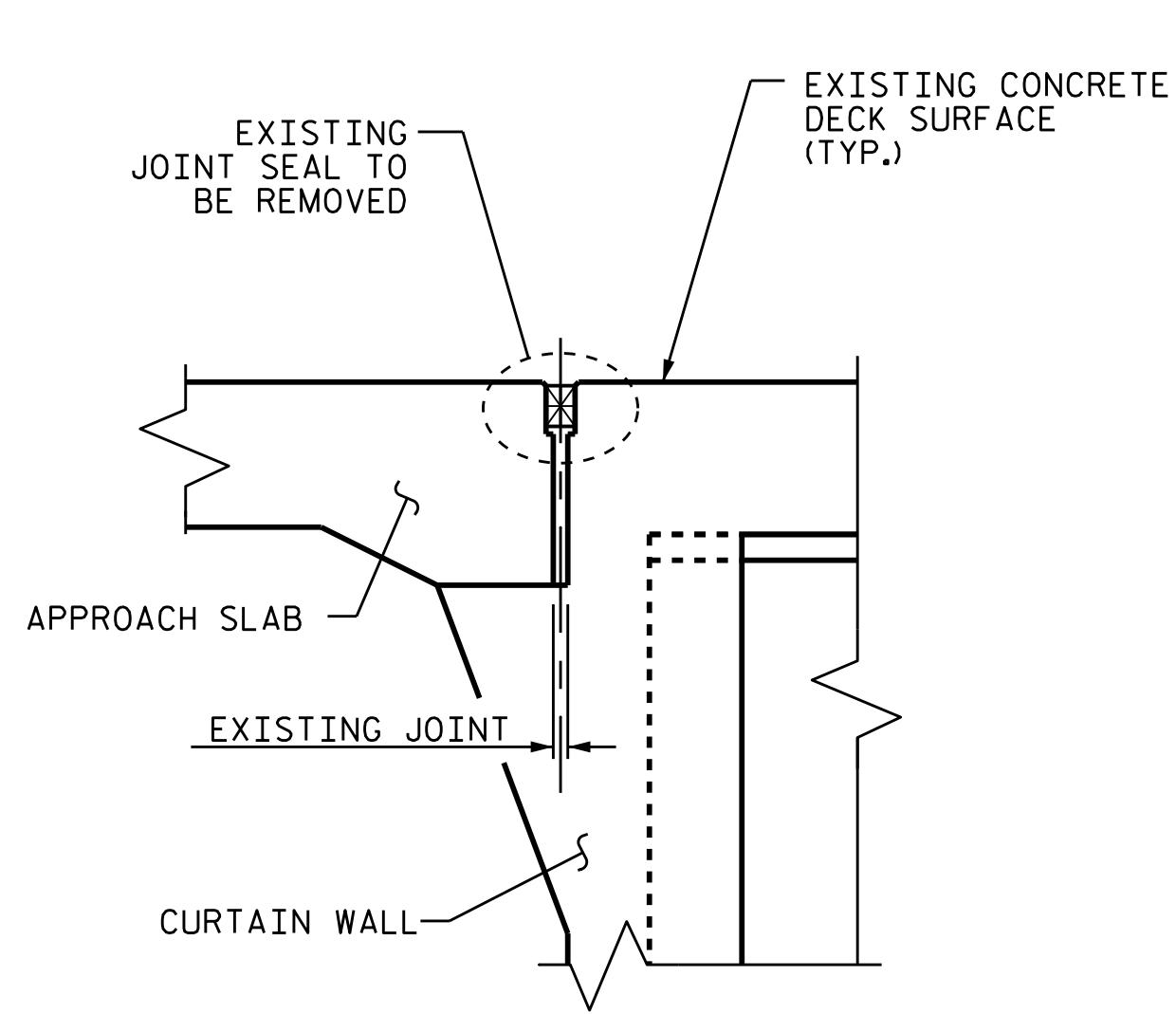
UNLESS NOTED OTHERWISE RETAIN ALL EXISTING REINFORCING STEEL. CLEAN AND REPAIR AS NEEDED.

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

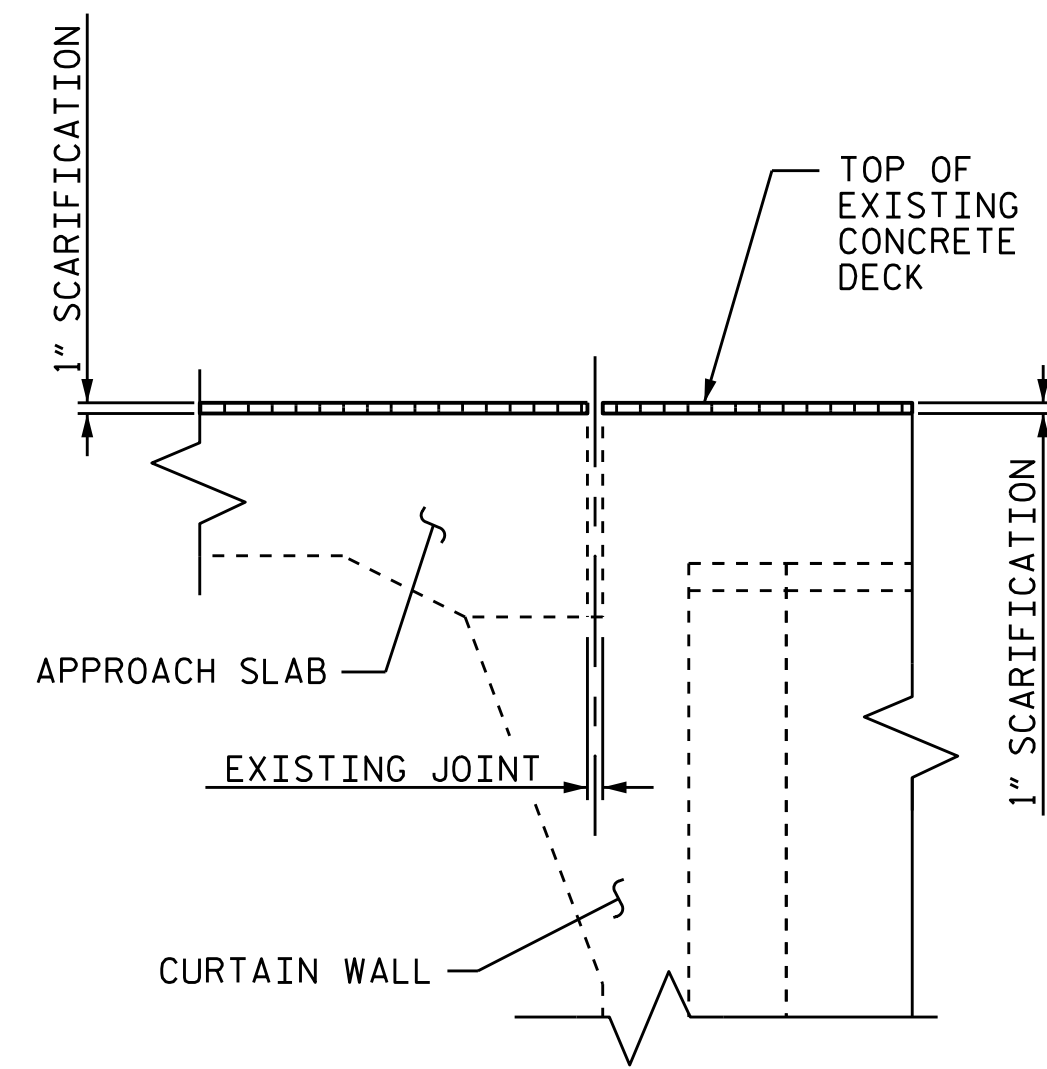
SILICONE JOINT SEALANT AND BACKER ROD SHALL BE INSTALLED AS PER MANUFACTURER'S RECOMANDATION.

THE INSTALLED SILICONE JOINT SEALANT SHALL BE WATERTIGHT.

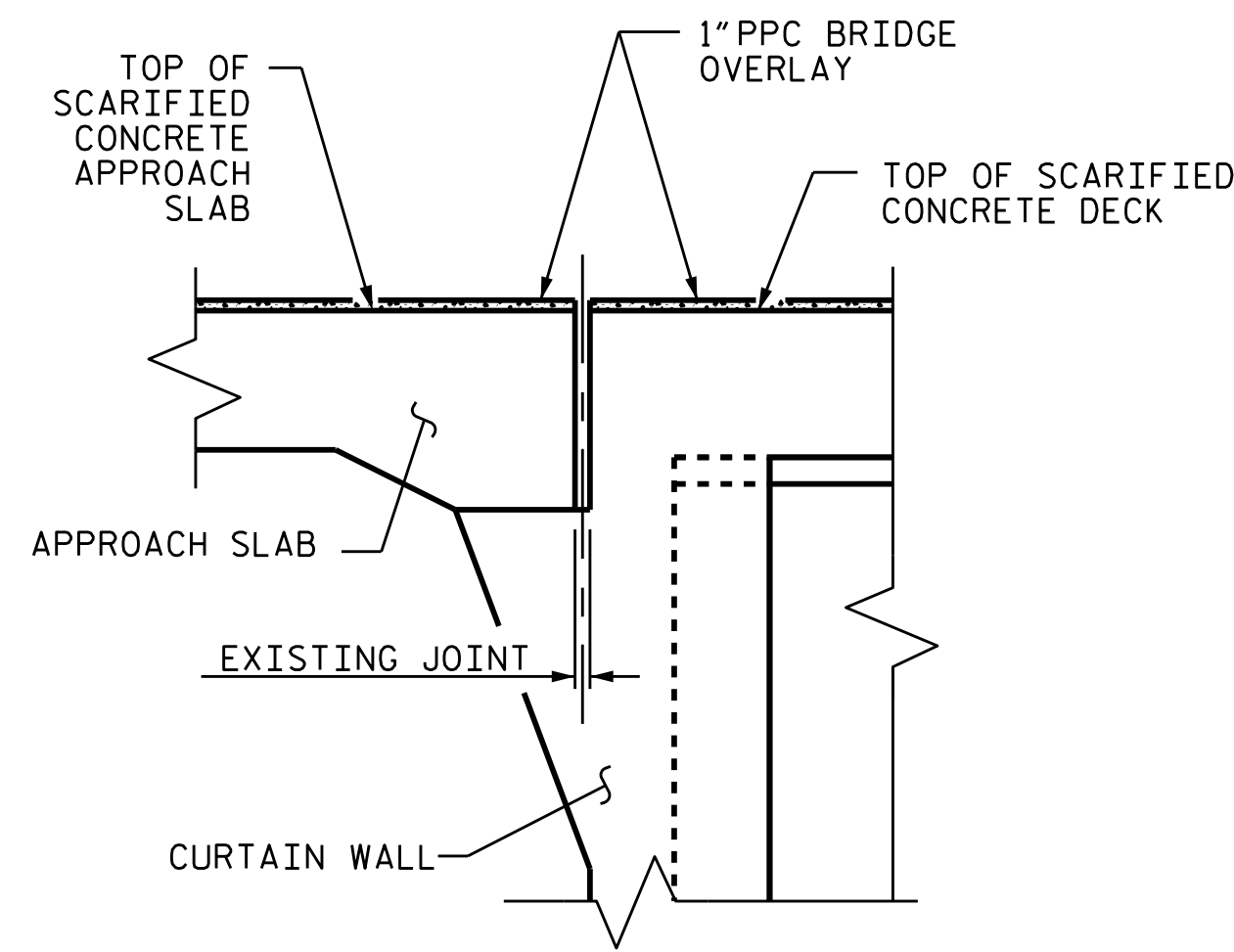
FOR POURABLE SILICONE JOINT SEALANT, SEE SPECIAL PROVISIONS.



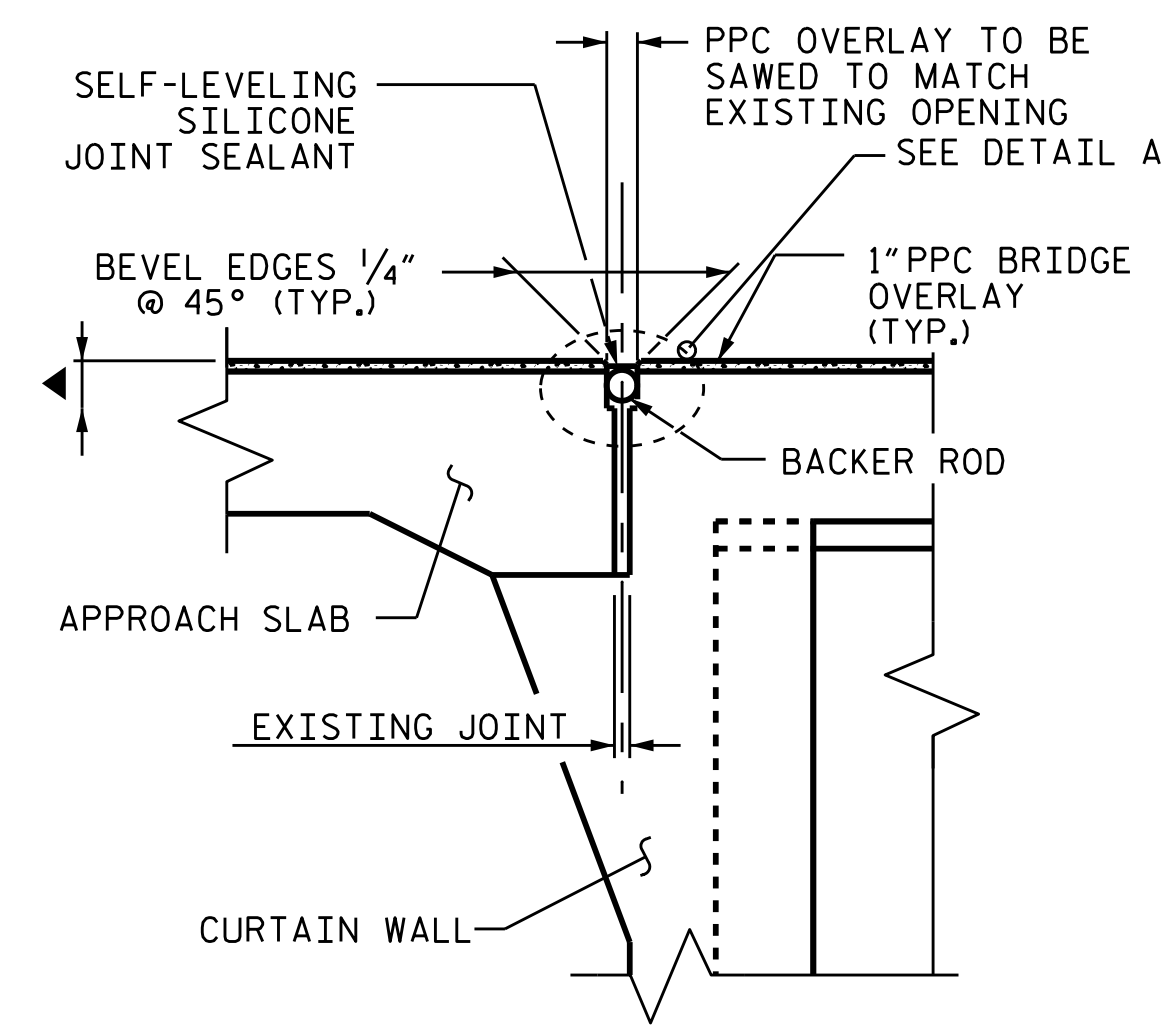
EXISTING JOINT



MINIMUM EXISTING JOINT REMOVAL & SCARIFICATION



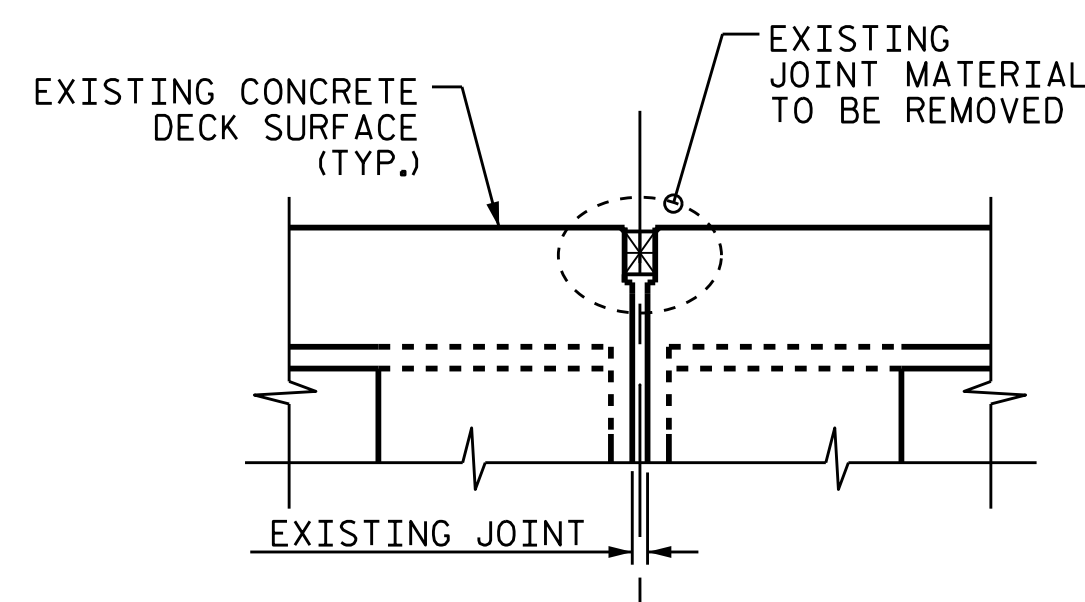
PROPOSED JOINT PRE-SAWED & PPC OVERLAY



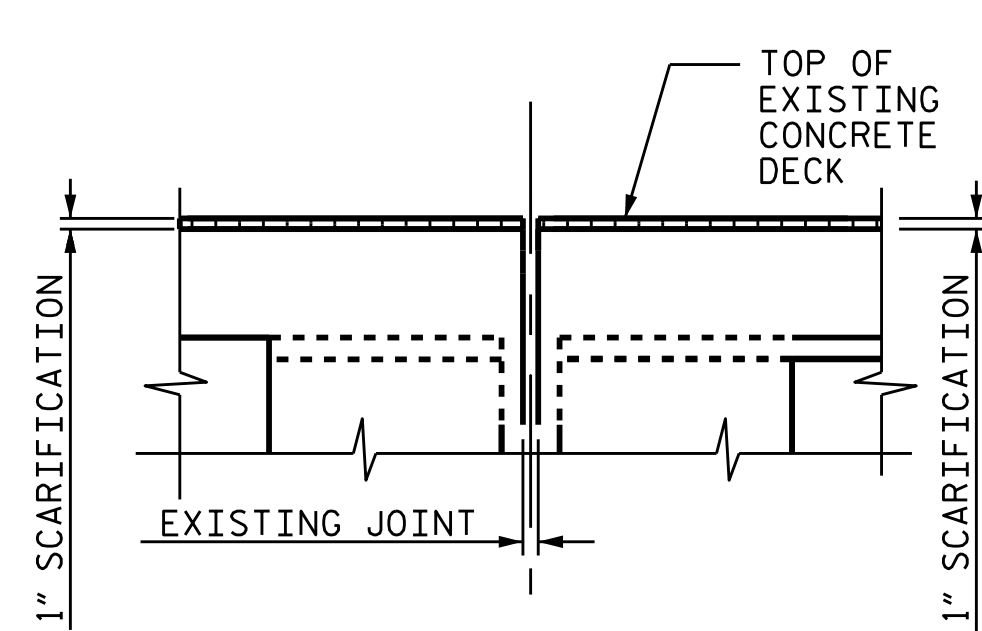
PROPOSED JOINT WITH SAWED DIMENSIONS

JOINT INSTALLATION SEQUENCE AT END BENTS

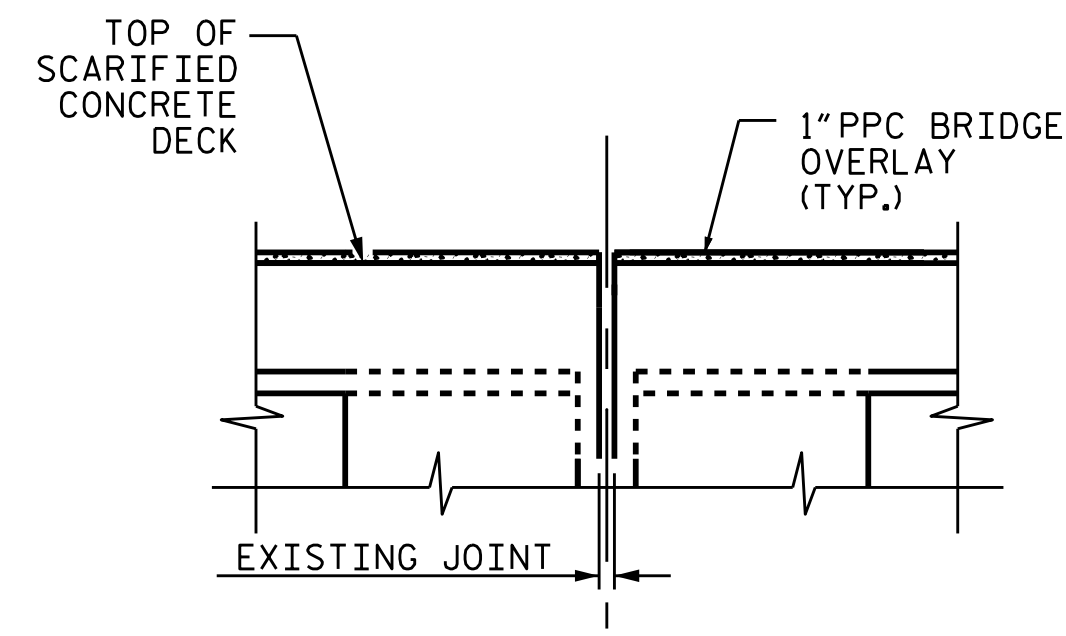
SECTION A-A



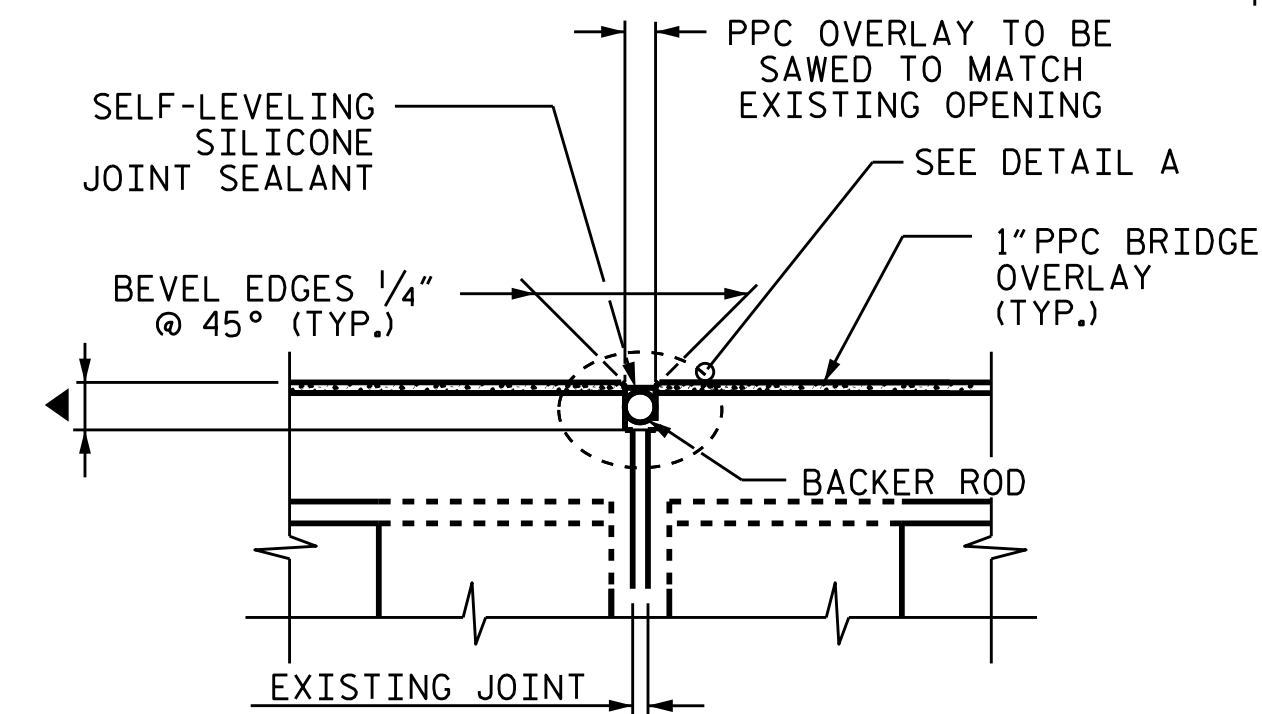
EXISTING JOINT



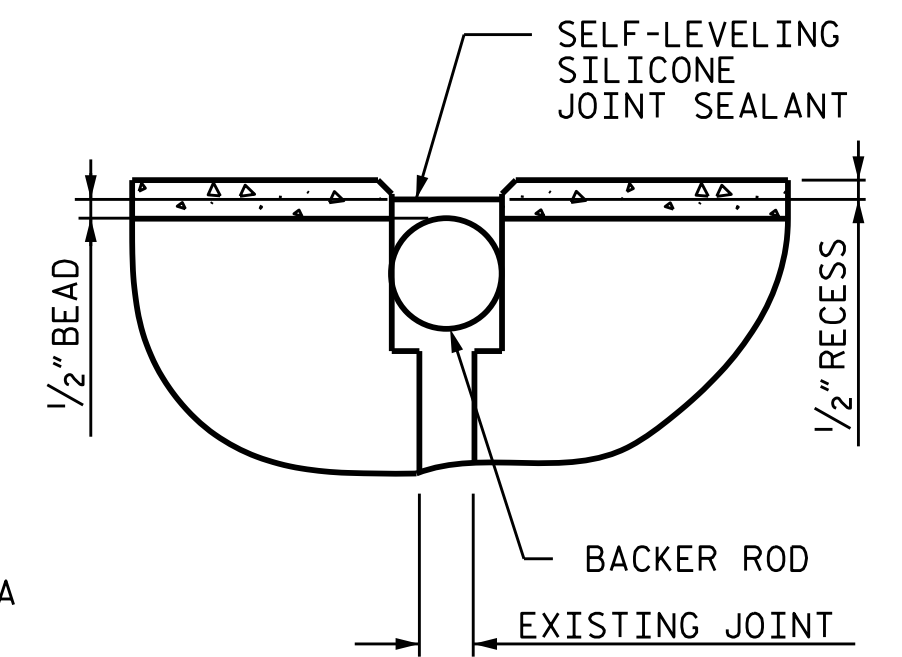
MINIMUM EXISTING JOINT REMOVAL & SCARIFICATION



PROPOSED JOINT PRE-SAWED & PPC OVERLAY



PROPOSED JOINT WITH SAWED DIMENSIONS

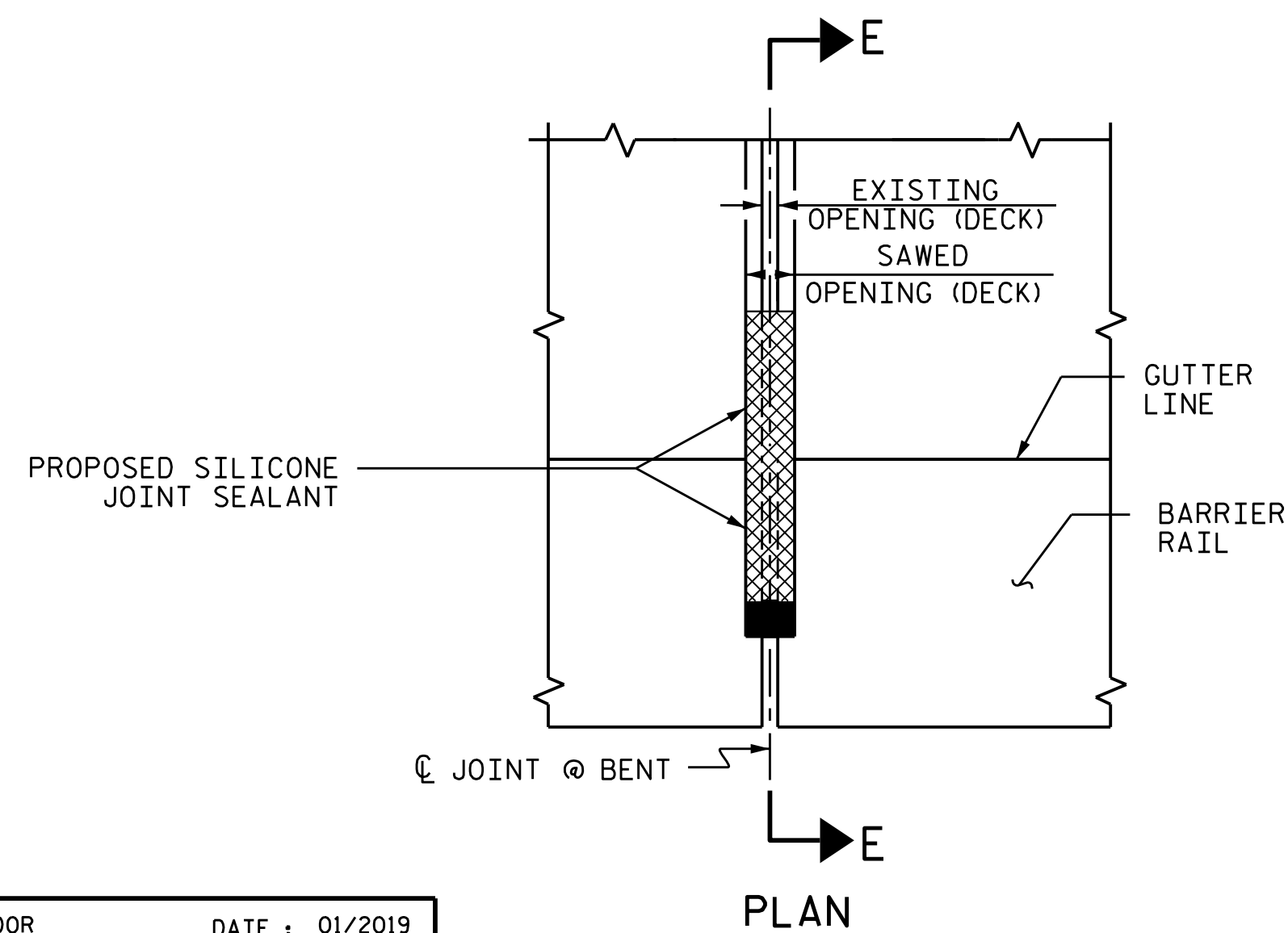


DETAIL A

▲ SAW CUT SHALL BE 3/4" BELOW THE BOTTOM OF THE JOINT SEAL. SEE MANUFACTURER RECOMMENDATIONS

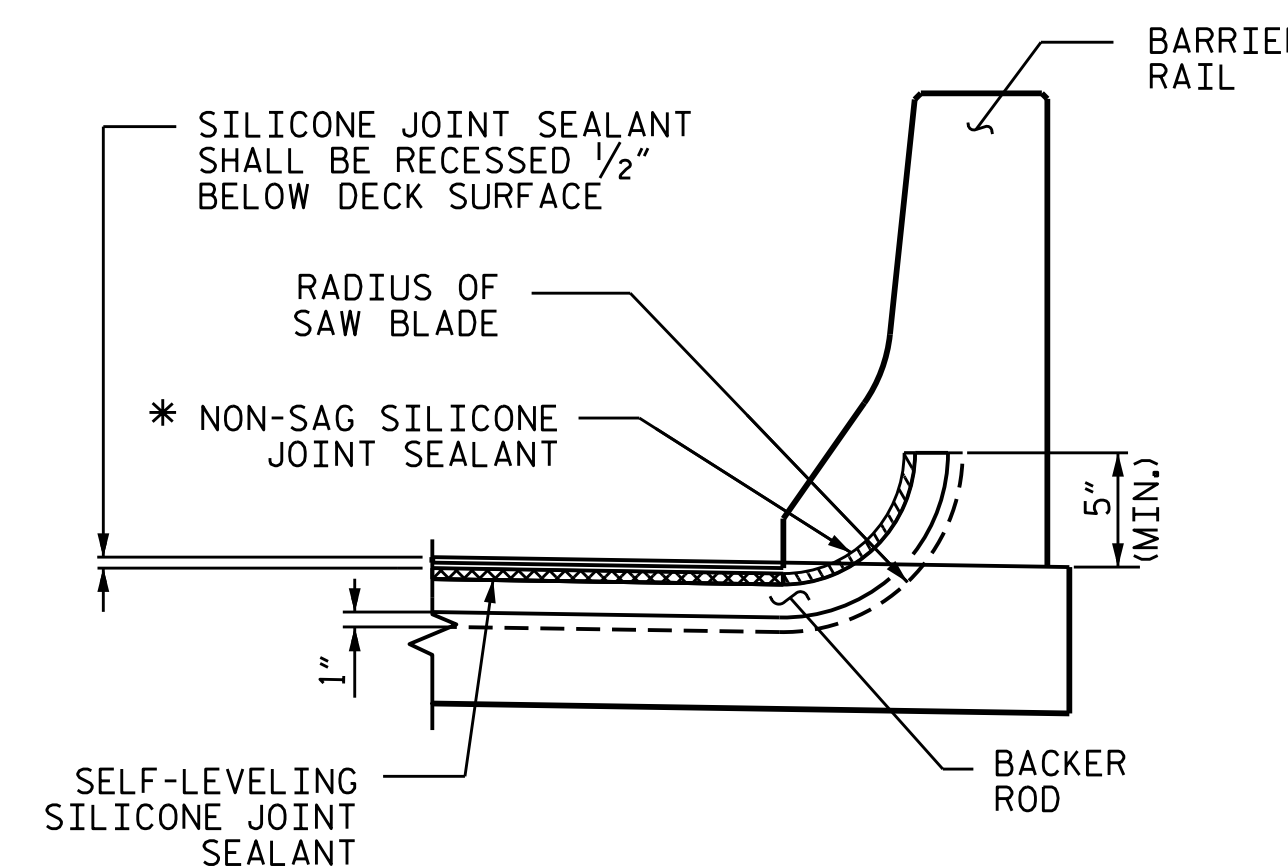
JOINT INSTALLATION SEQUENCE AT BENTS

SECTION B-B



PLAN

* NON-SAG SILICONE JOINT SEALANT TO BE PLACED AND ALLOWED TO SET, PRIOR TO PLACEMENT OF SELF-LEVELING SILICONE JOINT SEALANT.



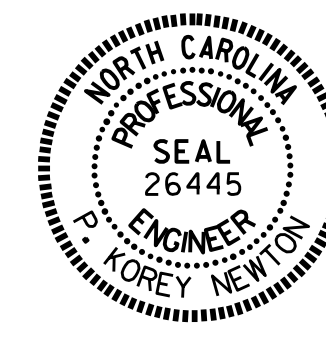
SECTION E-E

JOINT DETAIL AT BARRIER RAIL

PROJECT NO. I-5940
 DUPLIN COUNTY
 BRIDGE NO. 300427 & 300428

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

JOINT REPAIR DETAILS

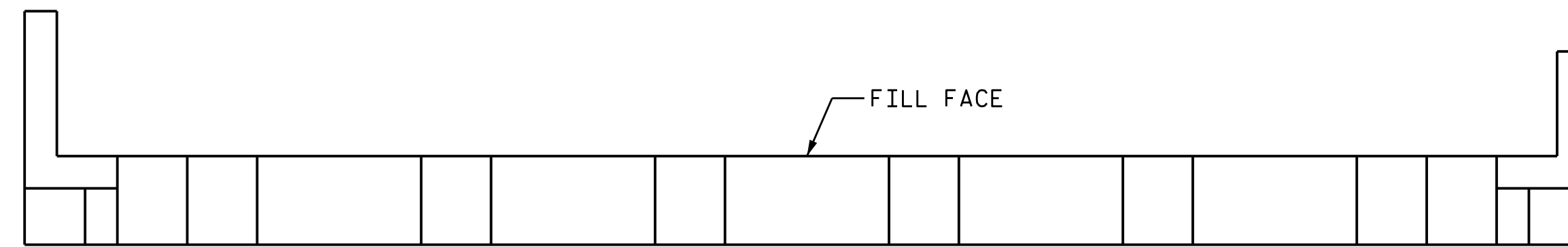


DocuSigned by:
 P. Corey Newton
 6/23/2019

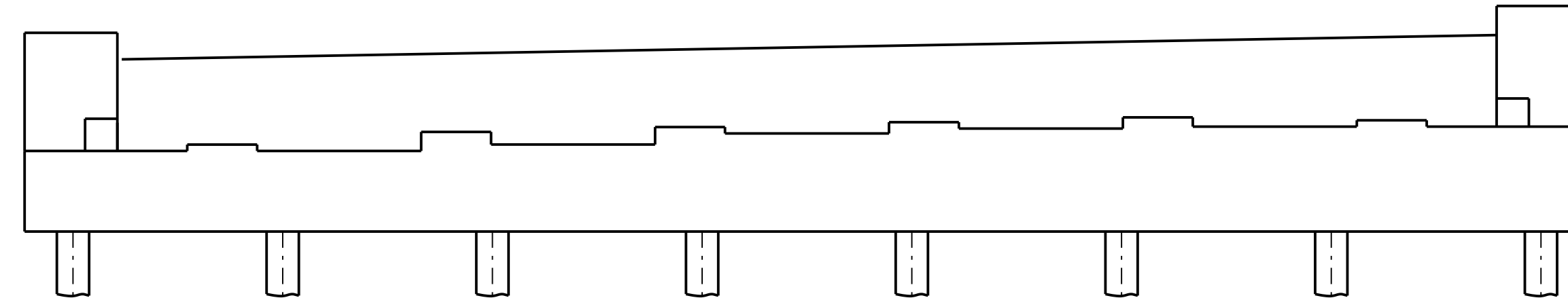
DRAWN BY : S. T. SANDOR DATE : 01/2019
 CHECKED BY : W. C. SMITH DATE : 05/2019

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1			3			S2-6
2			4			113

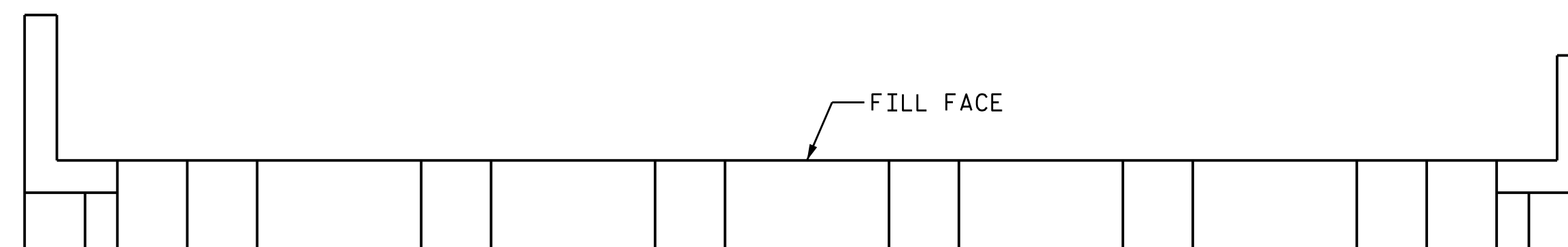


PLAN
(TOP OF CAP)

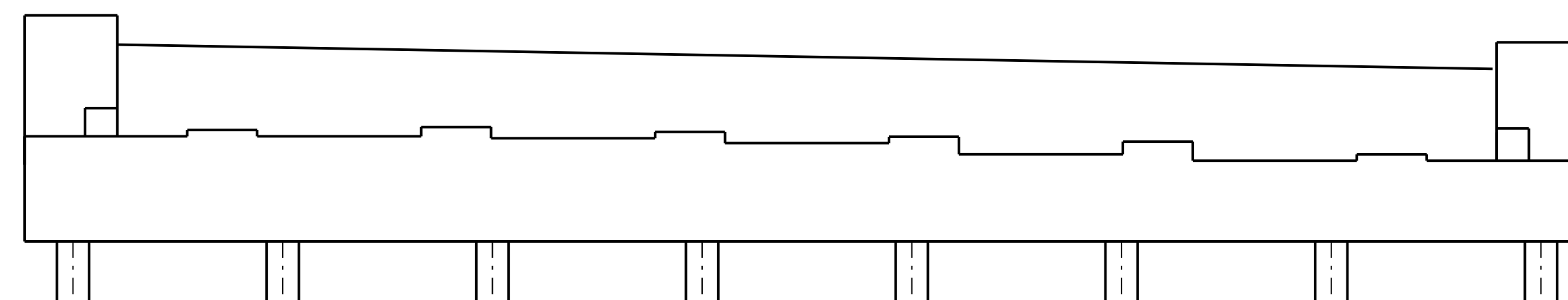


ELEVATION

END BENT 1



PLAN
(TOP OF CAP)



ELEVATION

END BENT 2

REPAIR QUANTITY TABLE

REPAIRS END BENT 1 & 2	QUANTITIES			
	ESTIMATE		ACTUAL	
CONCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL, CORNER)	0.0	0.0		
COLUMN	0.0	0.0		
SHOTCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL, CORNER)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LN. FT		LN. FT
CAP		0.0		
COLUMN		0.0		

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

ERI - EPOXY RESIN INJECTION

▨ - SHOTCRETE REPAIRS

▩ - CONCRETE REPAIRS

PROJECT NO. I-5940
DUPLIN COUNTY
 BRIDGE NO. 300428



DocuSigned by:
P. Corey Newton
6/23/2019

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

SUBSTRUCTURE
 REPAIR
 END BENT 1 &
 END BENT 2

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	TOTAL SHEETS
1			3			S2-7
2			4			113

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DRAWN BY : P.D. BRYANT / S.T. SANDOR DATE : 01/2019
 CHECKED BY : W.C. SMITH DATE : 05/2019

NOTES:

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

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

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR CONCRETE REPAIRS, SEE SPECIAL PROVISIONS.

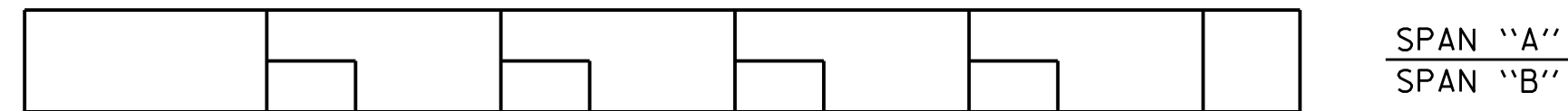
FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.

CONCRETE REPAIRS MAY BE SUBSTITUTED IN LIEU OF SHOTCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

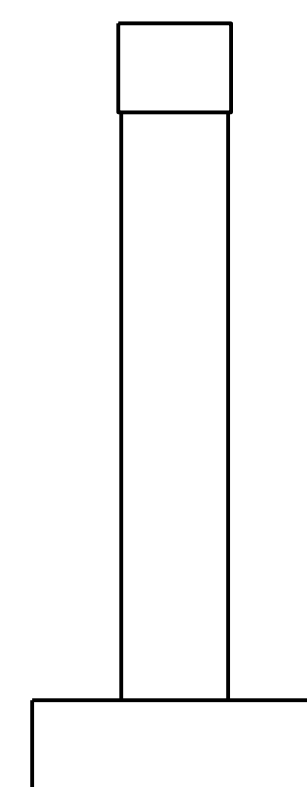
REPAIR QUANTITY TABLE

BENT 1	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	1.0	0.5		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		

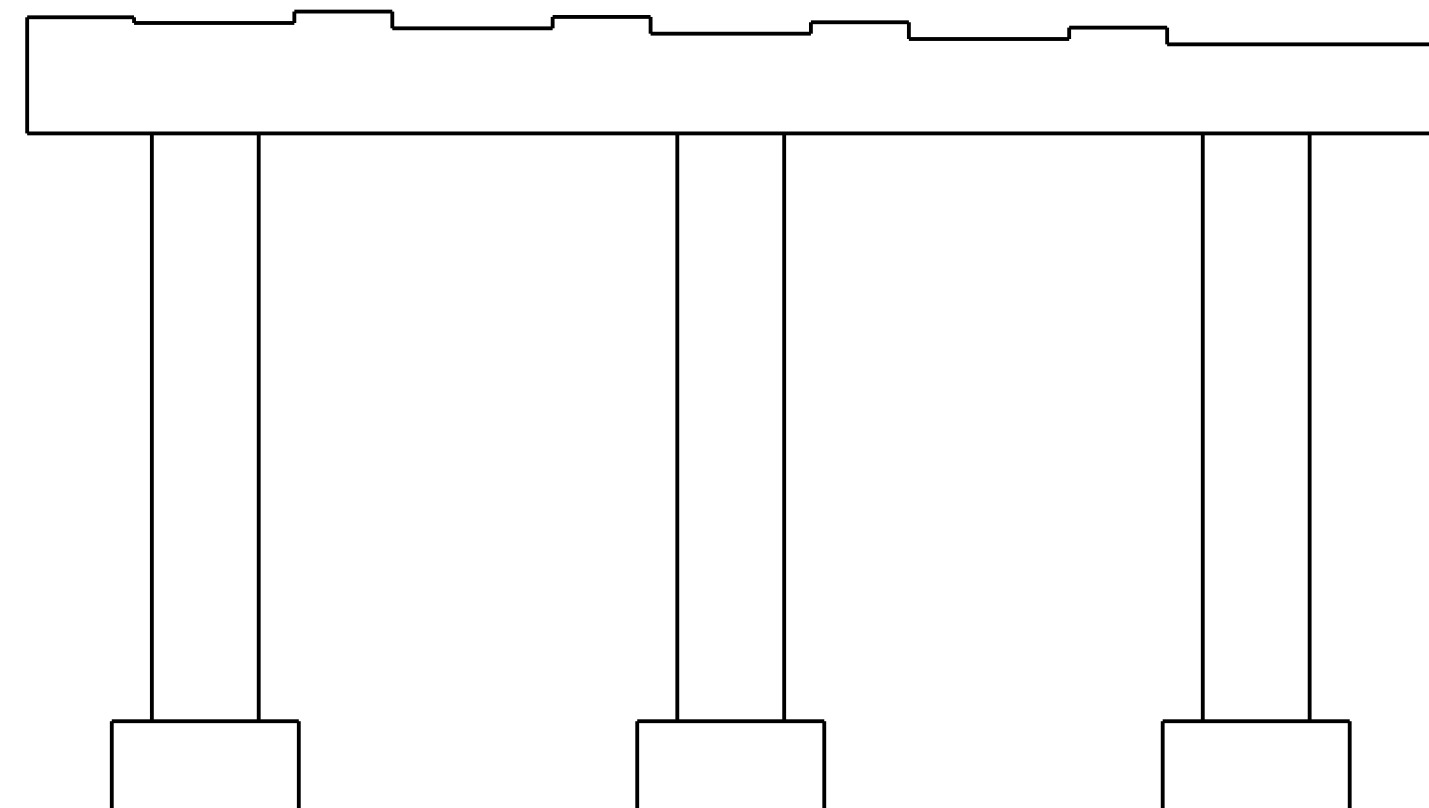
VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN. OF 1" BEHIND REBAR AND MIN. 1" CL TO SAWCUT. SEE REPAIR DETAILS.



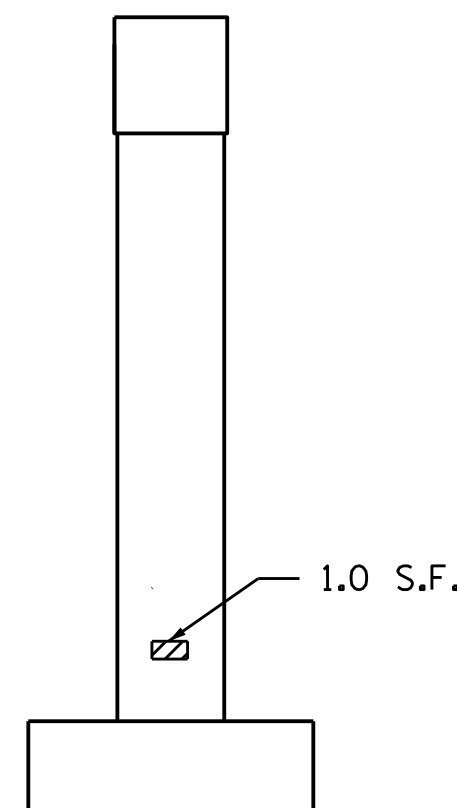
PLAN
TOP OF CAP



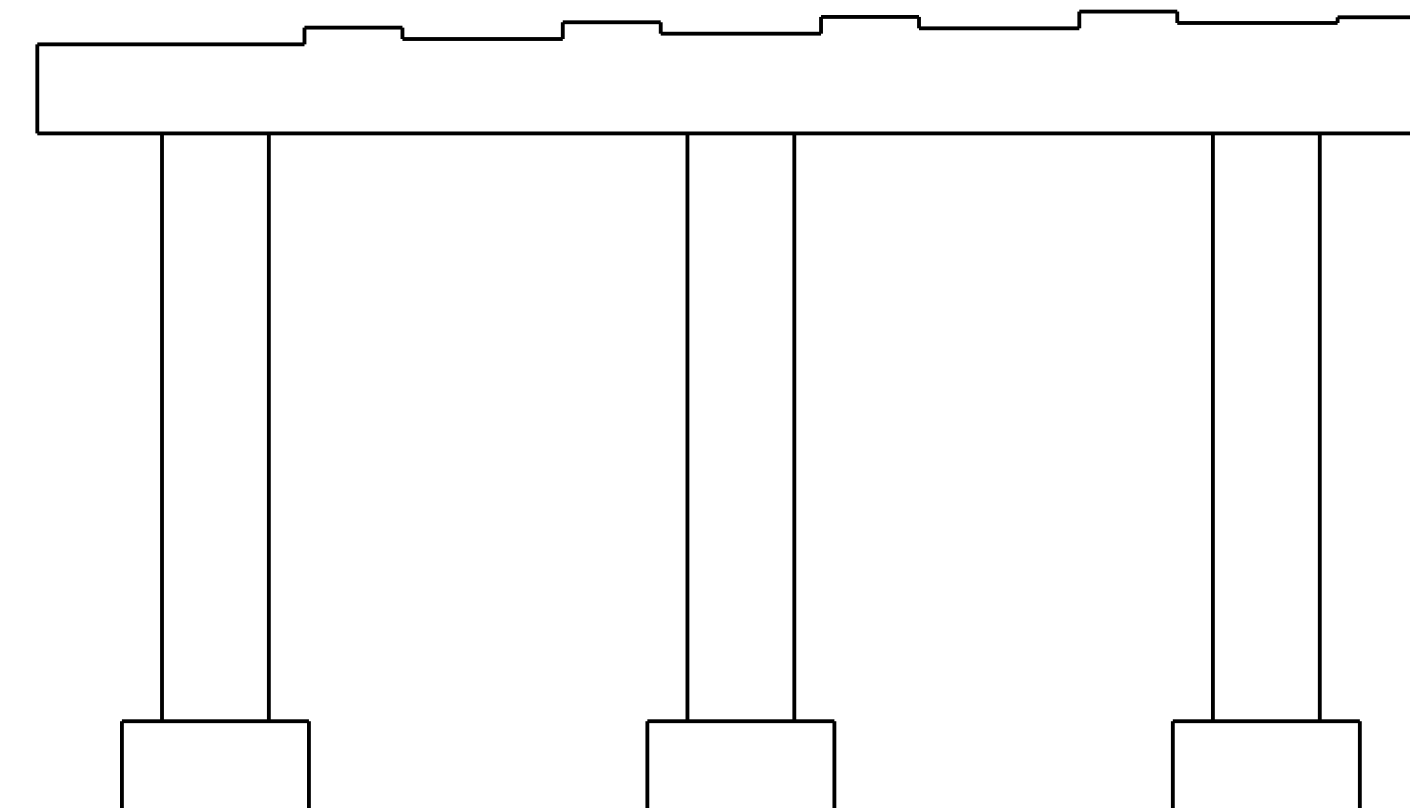
END VIEW
NORTH END



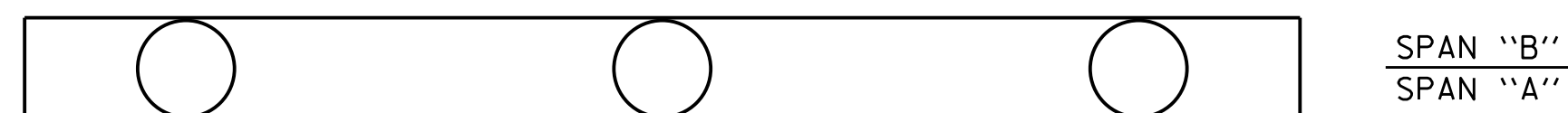
ELEVATION
WEST SIDE



END VIEW
SOUTH SIDE



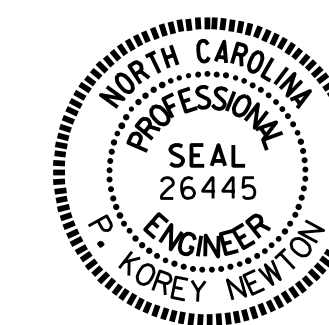
ELEVATION
EAST SIDE



PLAN
BOTTOM OF CAP

- CONCRETE REPAIR
- SHOTCRETE REPAIR
- ERI EPOXY RESIN INJECTION

PROJECT NO. I-5940
DUPLIN COUNTY
 BRIDGE NO. 300428



DocuSigned by:
P. Corey Newton
49FE39D14518A07...
 6/23/2019

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
SUBSTRUCTURE
BENT 1

DRAWN BY : P. D. BRYANT / S. T. SANDOR DATE : 01/2019
 CHECKED BY : W. C. SMITH DATE : 05/2019

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 SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	TOTAL SHEETS
1			3			S2-8
2			4			113

NOTES:

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

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

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR CONCRETE REPAIRS, SEE SPECIAL PROVISIONS.

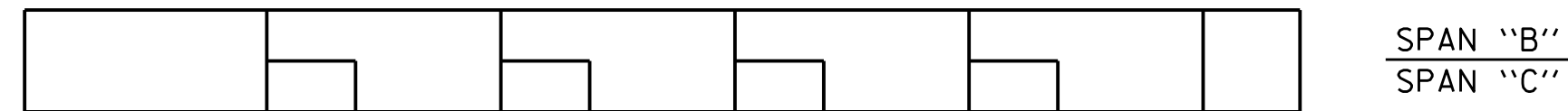
FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.

CONCRETE REPAIRS MAY BE SUBSTITUTED IN LIEU OF SHOTCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

REPAIR QUANTITY TABLE

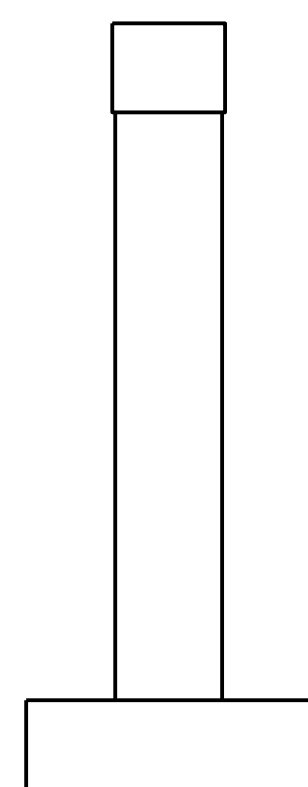
BENT 2	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	40.0	20.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		12.0		
COLUMN		0.0		

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

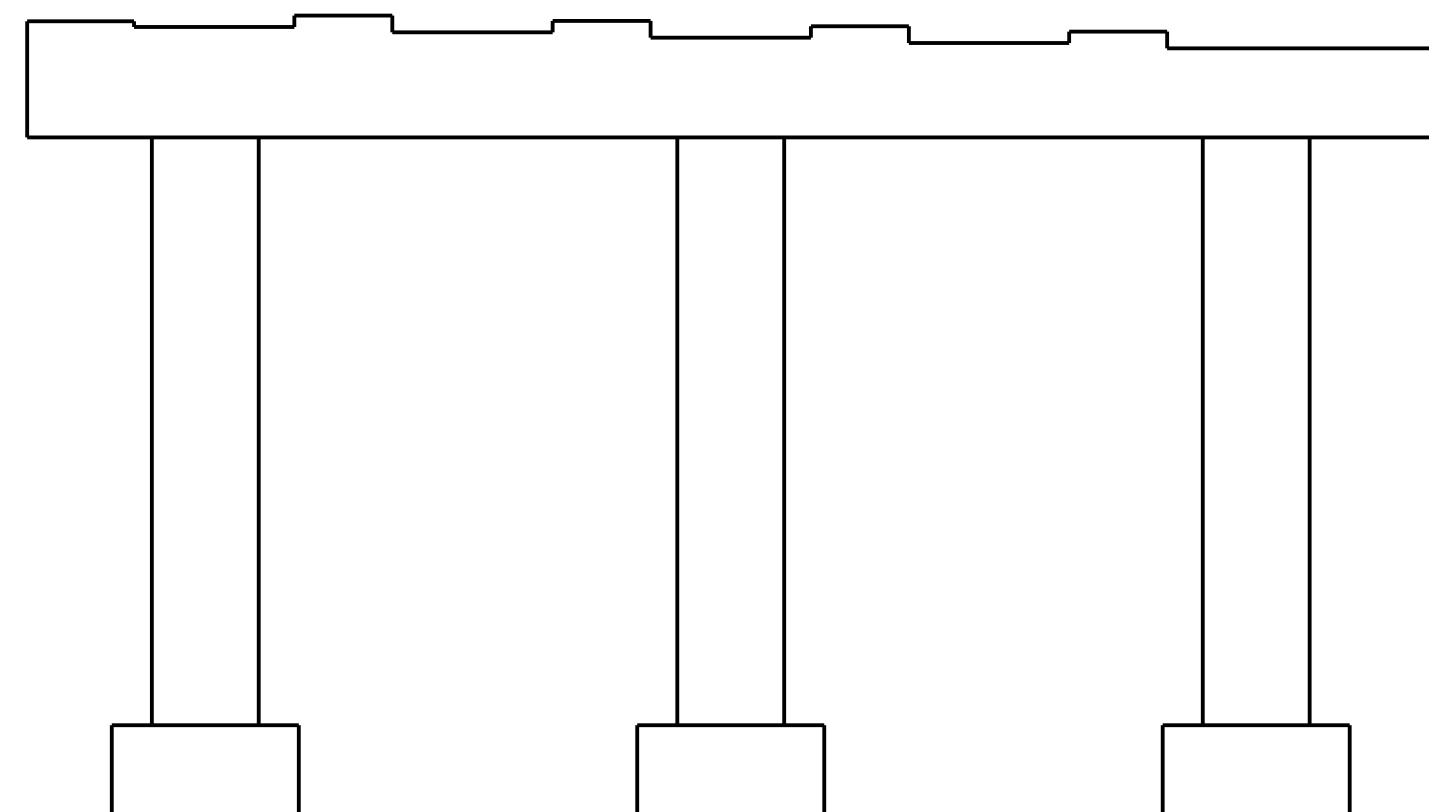


SPAN "B"
SPAN "C"

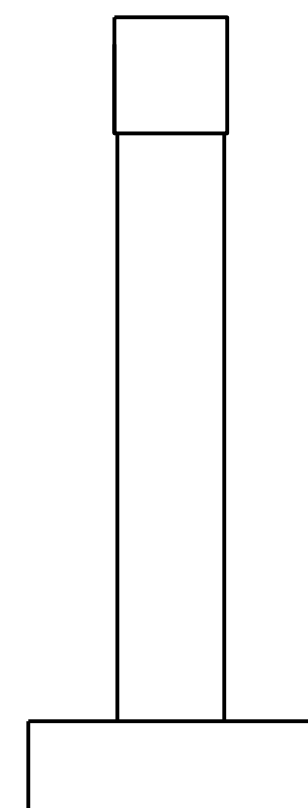
PLAN
TOP OF CAP



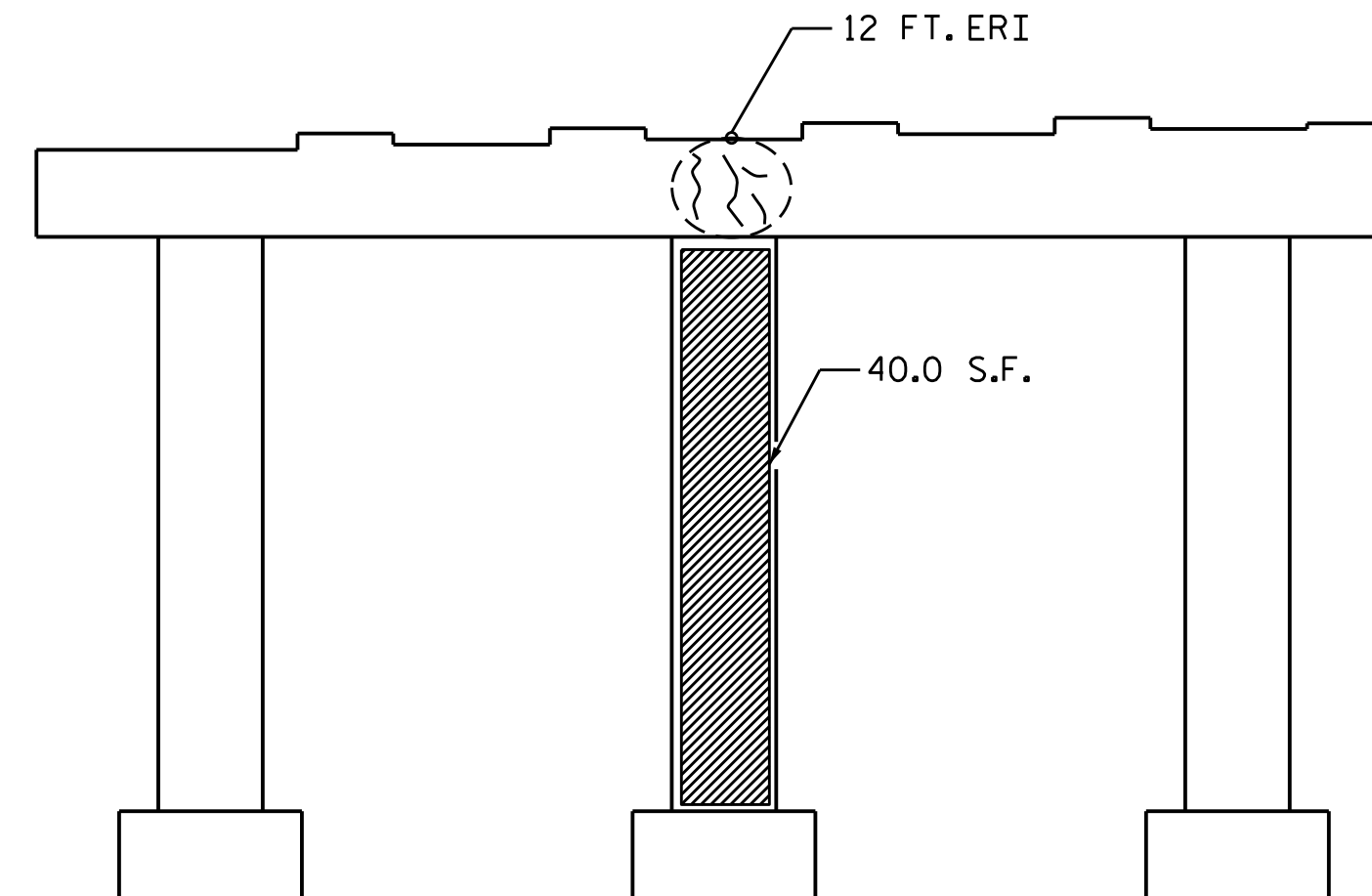
END VIEW
NORTH END



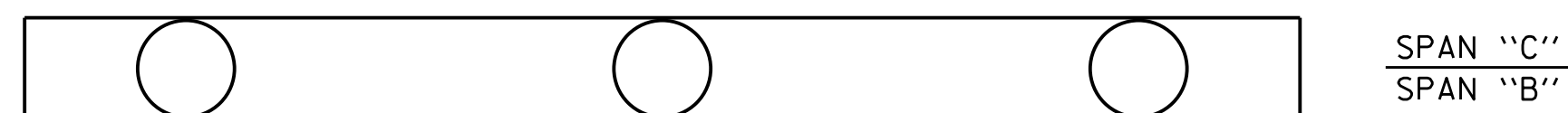
ELEVATION
WEST SIDE



END VIEW
SOUTH SIDE



ELEVATION
EAST SIDE



SPAN "C"
SPAN "B"

PLAN
BOTTOM OF CAP

- CONCRETE REPAIR
- SHOTCRETE REPAIR
- ERI EPOXY RESIN INJECTION

PROJECT NO. I-5940
DUPLIN COUNTY
BRIDGE NO. 300428



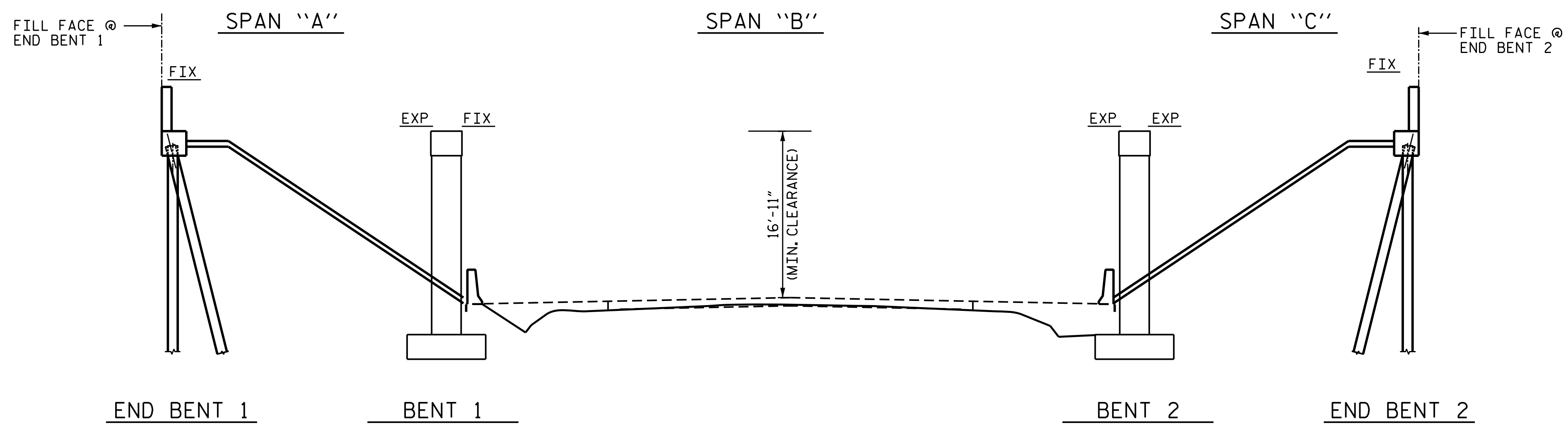
DocuSigned by:
P. Corey Newton
6/23/2019

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
SUBSTRUCTURE
BENT 2

DRAWN BY : P. D. BRYANT / S. T. SANDOR DATE : 01/2019
CHECKED BY : W. C. SMITH DATE : 05/2019

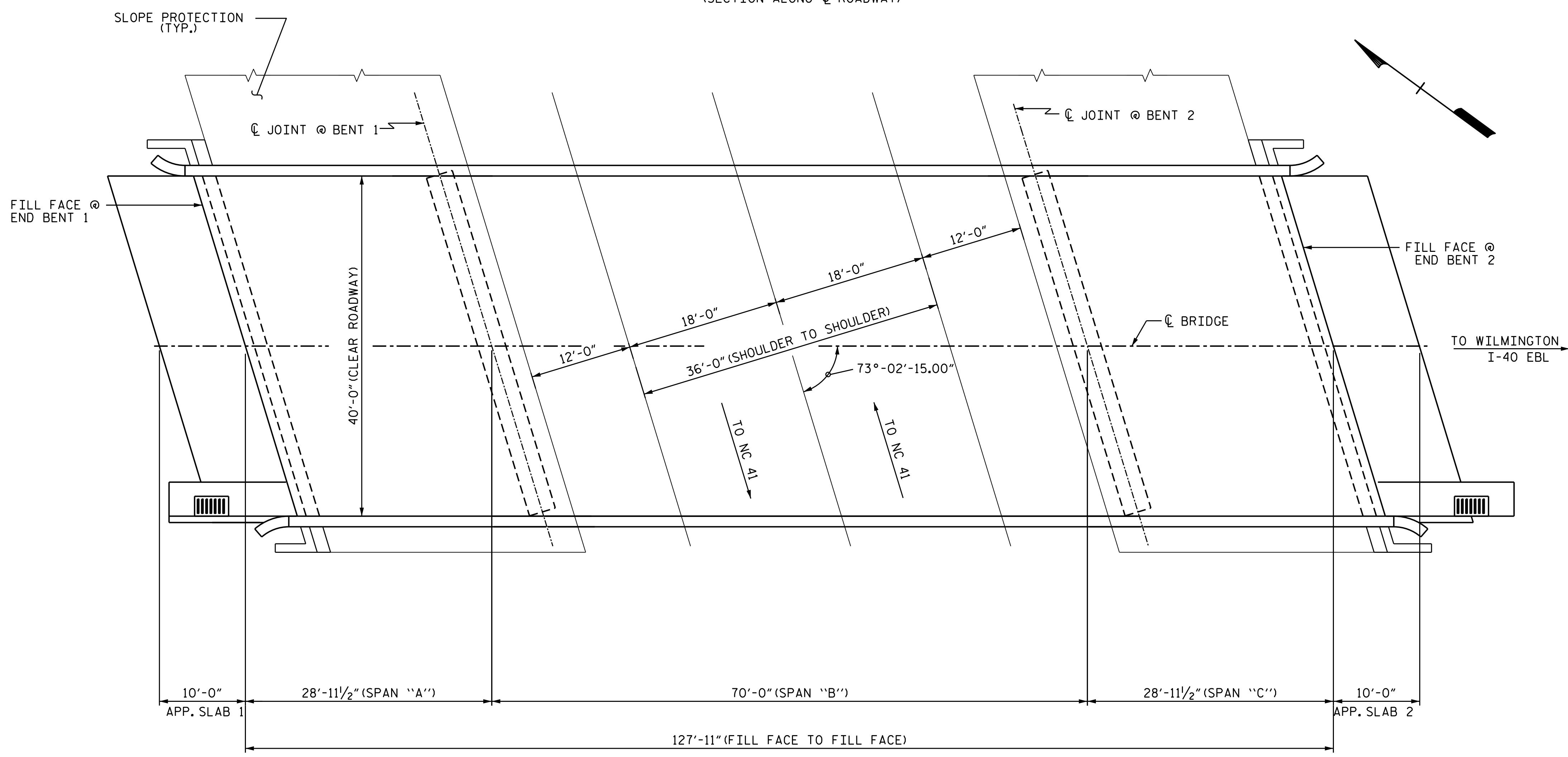
DOCUMENT NOT CONSIDERED
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SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	TOTAL SHEETS
1			3			S2-9
2			4			113



ELEVATION

(SECTION ALONG CL ROADWAY)



PLAN

(COLUMNS & FOOTINGS NOT SHOWN IN PLAN VIEW FOR CLARITY)

SCOPE OF WORK

- PARTIALLY REMOVE BRIDGE DECK CONCRETE BY SCARIFICATION AND SHOTBLASTING METHODS.
- PERFORM JOINTS AND DECK REPAIRS IN PREPARED AREAS.
- OVERLAY PREPARED BRIDGE DECK WITH POLYESTER POLYMER CONCRETE.
- RECONSTRUCT BRIDGE JOINTS AND INSTALL BACKER ROD AND SILICONE JOINT SEALANT.
- GROOVE POLYESTER POLYMER CONCRETE DECK.
- REPAIR SUBSTRUCTURE USING EPOXY RESIN INJECTION AND SHOTCRETE.

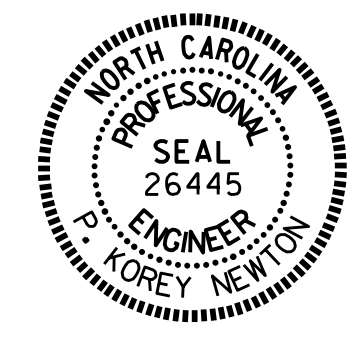
NOTES

- PROFILE INFORMATION IS TAKEN FROM ORIGINAL PLANS AND THE ROUTINE INSPECTION, DATED 06/15/2017.
- BRIDGE ORIENTATION CONFORMS TO EXISTING BRIDGE PLANS.

I hereby certify that this structure was rehabilitated according to these plans or as noted therein.

Resident Engineer _____ Date _____

PROJECT NO. I-5940
DUPLIN COUNTY
 BRIDGE NO. 300429



DocuSigned by:
 P. Corey Newton
 6/23/2019

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
GENERAL DRAWING
 FOR BRIDGE 429 ON
 I-40 EBL OVER
 NC 41

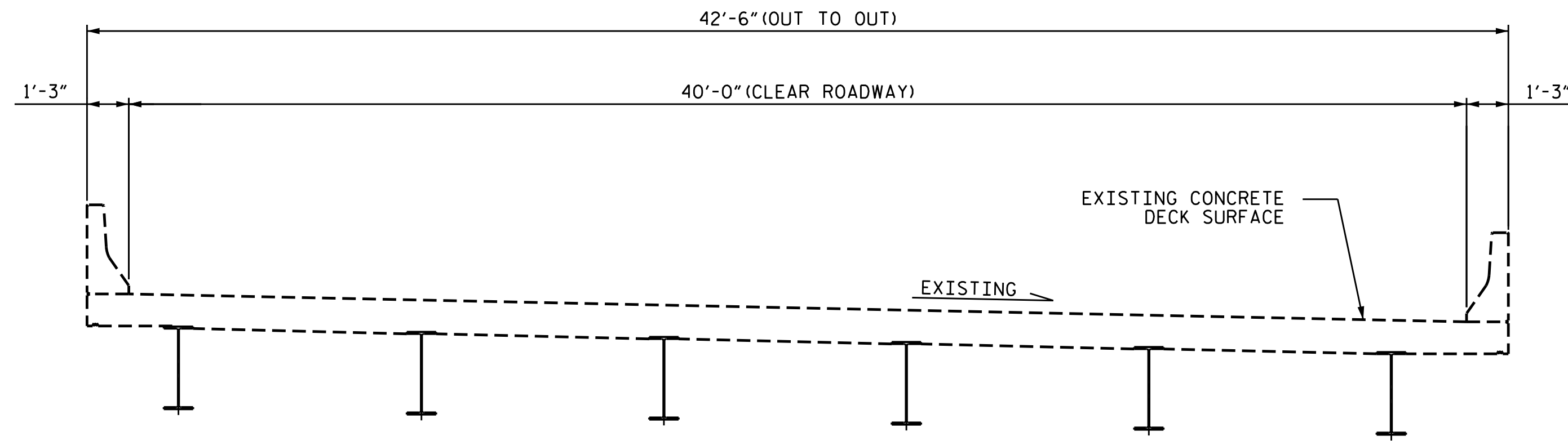
DRAWN BY : S. T. SANDOR DATE : 12/2018
 CHECKED BY : W. C. SMITH DATE : 05/2019

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

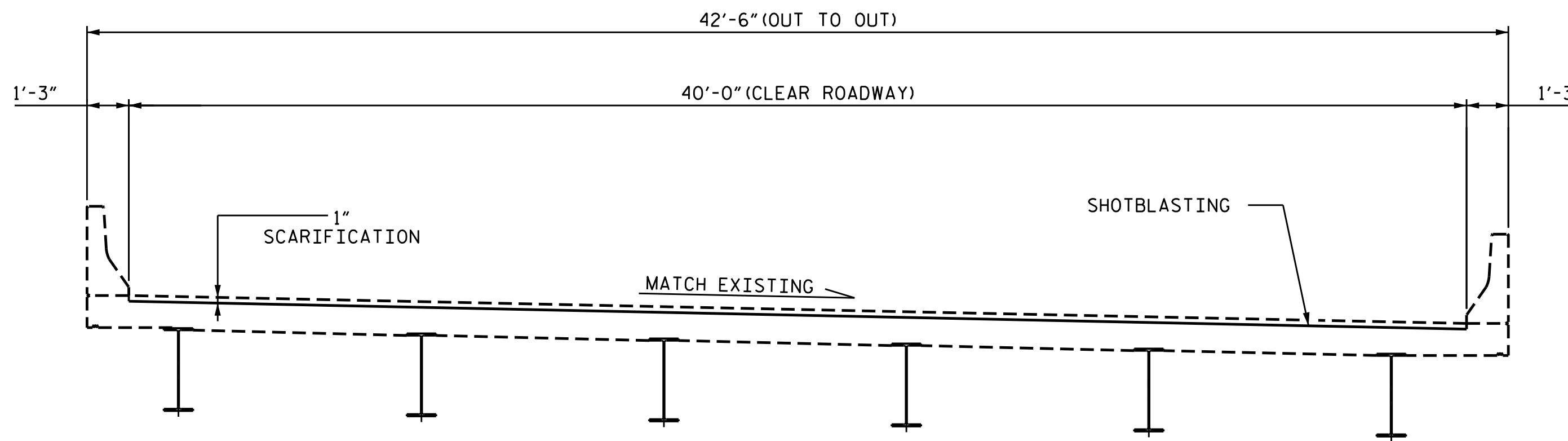
REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	TOTAL SHEETS
1			3			S3-1
2			4			113

NOTES

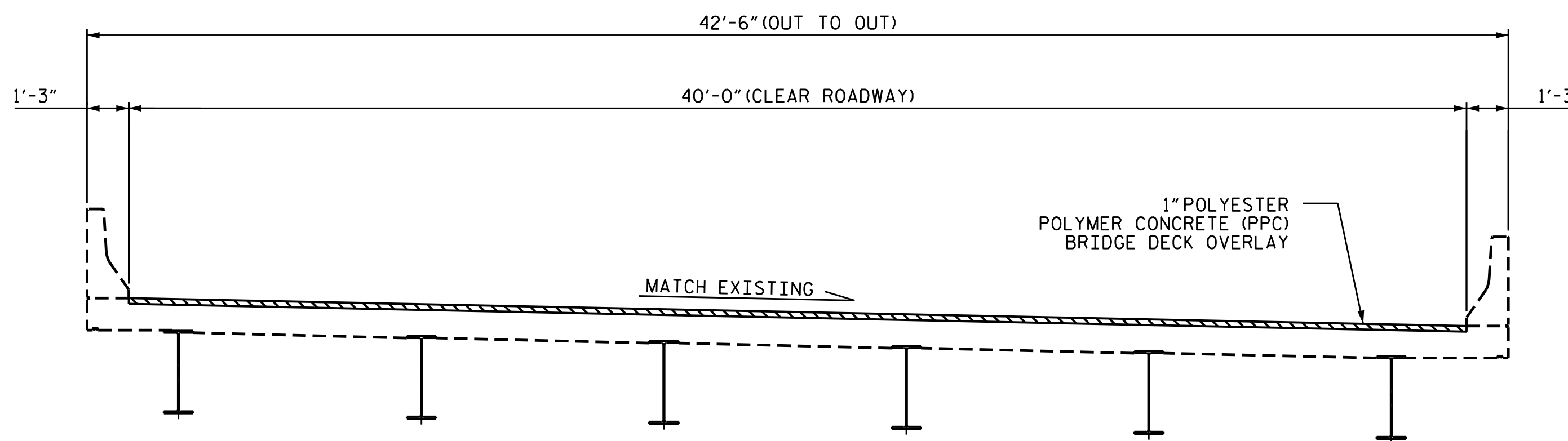
SEE TRANSPORTATION MANAGEMENT PLANS FOR LANE WIDTHS, SEQUENCING AND OTHER TRAFFIC CONTROL MEASURES FOR STAGING OF OVERLAY SURFACE PREPARATION AND POLYESTER POLYMER CONCRETE PLACEMENT.



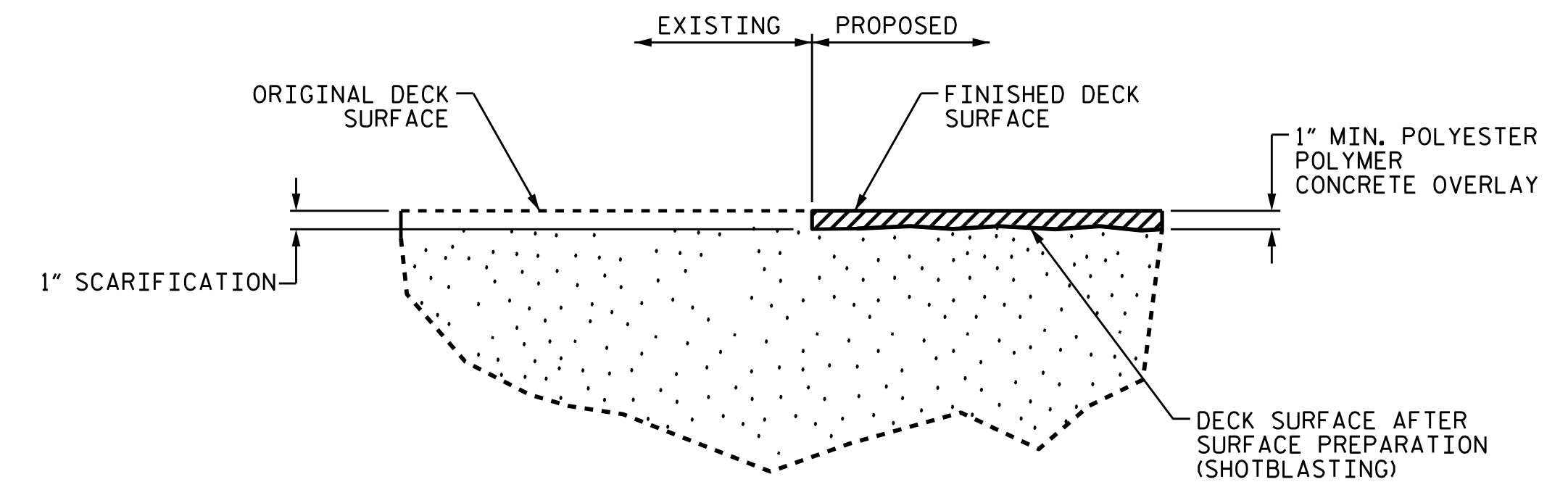
TYPICAL SECTION
(EXISTING)



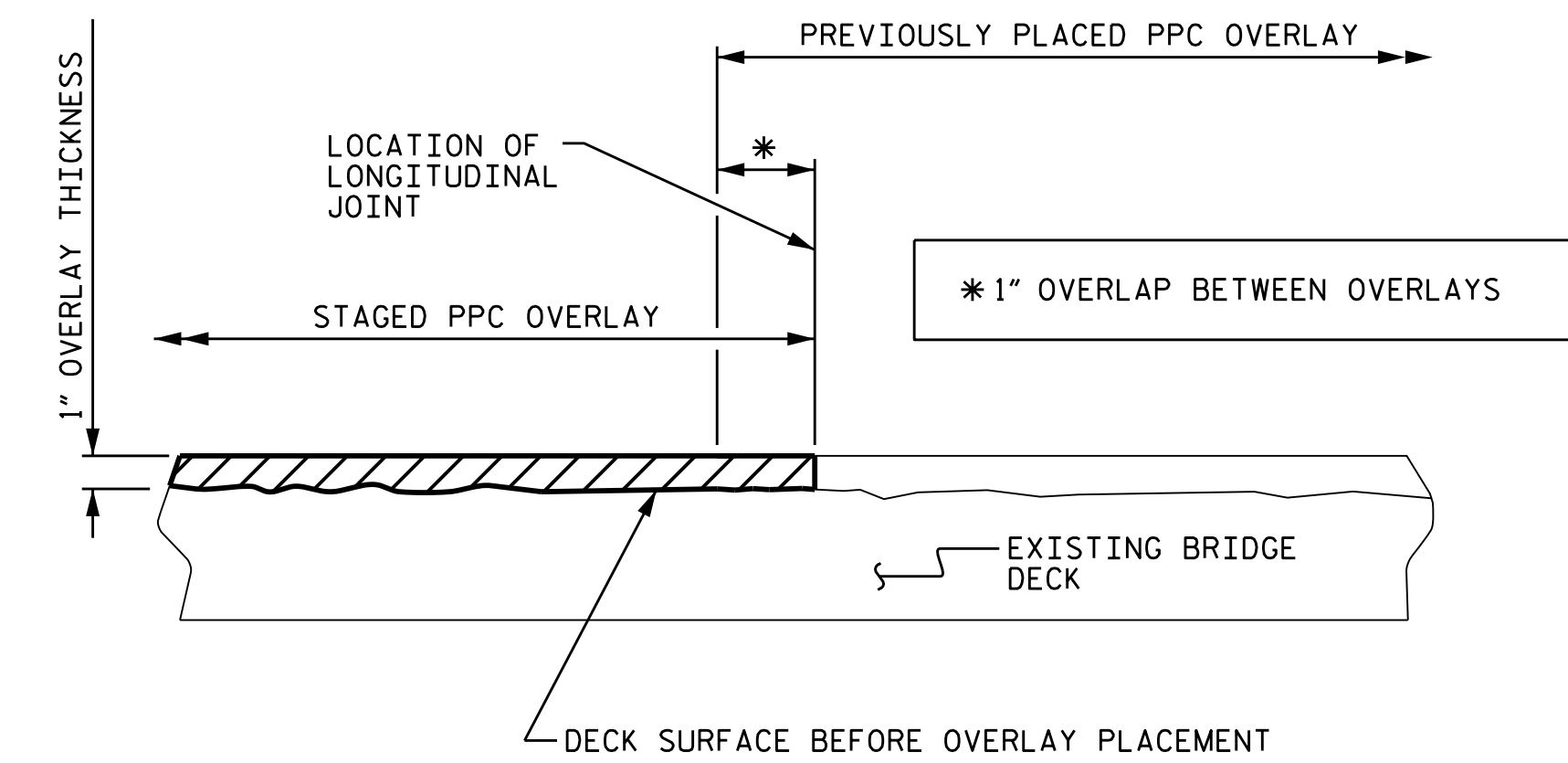
TYPICAL SECTION
(DECK PREPARATION)



TYPICAL SECTION
(PROPOSED)

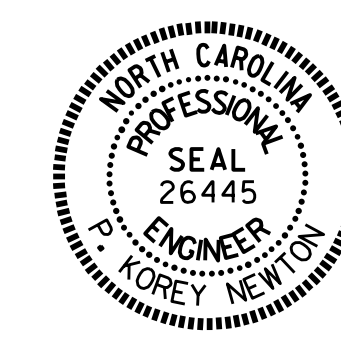


**DETAIL FOR POLYESTER
POLYMER CONCRETE OVERLAY**



STAGED PPC OVERLAY JOINT
(AS NEEDED)

PROJECT NO. I-5940
DUPLIN COUNTY
 BRIDGE NO. 300429



DocuSigned by:
P. Corey Newton
 6/23/2019

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

**TYPICAL SECTION
 AND SURFACE
 PREPARATION DETAILS**

DRAWN BY : S. T. SANDOR DATE : 11/2018
 CHECKED BY : W. C. SMITH DATE : 05/2019

DOCUMENT NOT CONSIDERED
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 SIGNATURES COMPLETED




REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	TOTAL SHEETS
1			3			33-2
2			4			113

SUMMARY OF QUANTITIES FOR SPAN "A" AND APPROACH SLAB 1

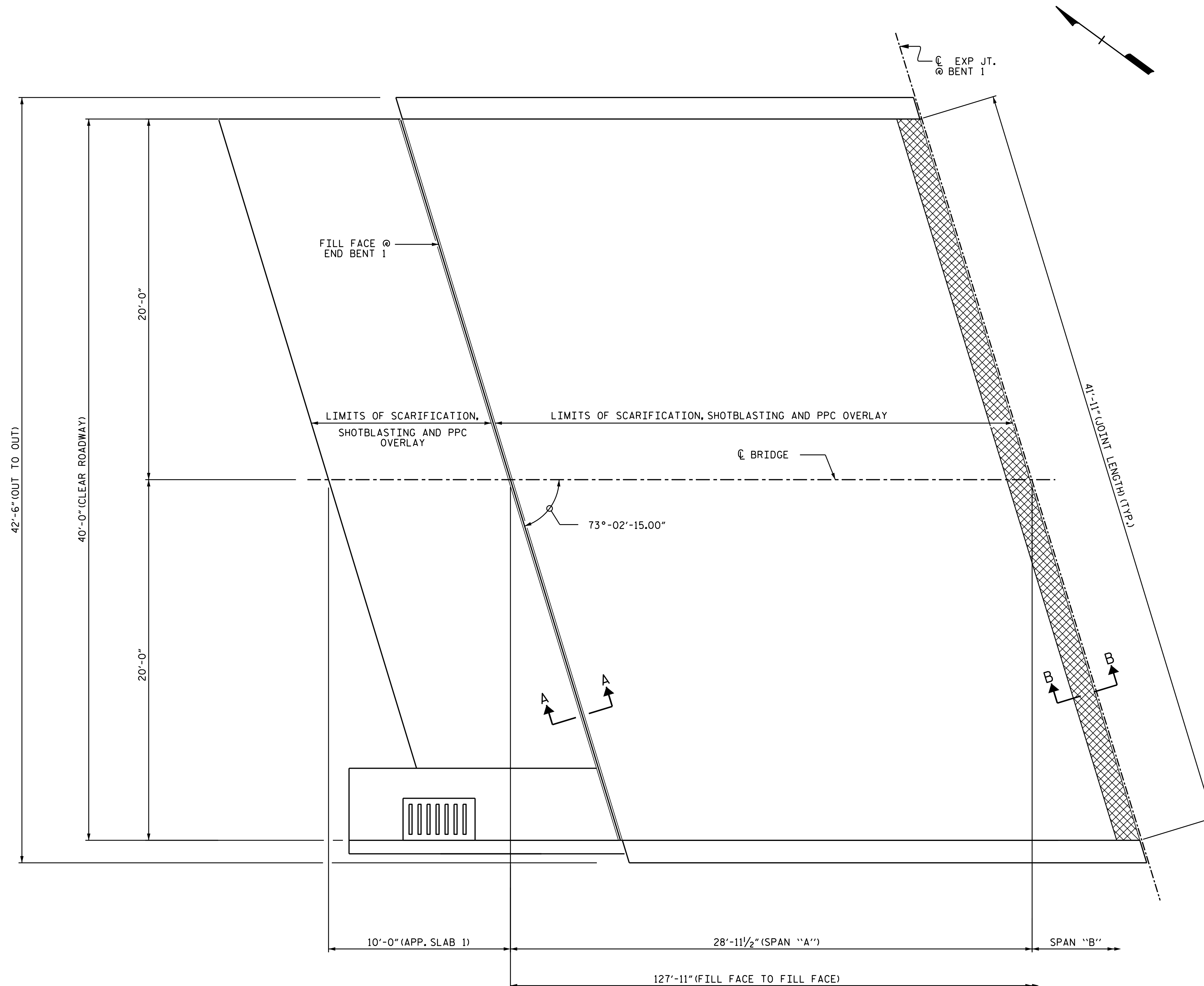
	ESTIMATE	ACTUAL
SCARIFYING BRIDGE DECK	173.2 SY	
POLYSTER POLYMER CONCRETE MATERIALS	4.8 CY	
SHOTBLASTING BRIDGE DECK	173.2 SY	
PLACING & FINISHING PPC OVERLAY	173.2 SY	
CONCRETE DECK REPAIRS FOR PPC OVERLAY	10.9 SY	
GROOVING BRIDGE DECK	1,424.5 SF	
CLASS II SURFACE PREPARATION	0.0 SY	

NOTES:

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

-  - SCARIFYING AND SHOTBLASTING OF BRIDGE DECK FOR PPC OVERLAY
-  - APPROX. AREA CLASS II SURFACE PREPARATION
-  - CONCRETE DECK REPAIRS FOR PPC OVERLAY

NO DEFICIENCIES NOTED DURING FIELD INSPECTION. THE CONTRACTOR AND ENGINEER SHALL INSPECT THE DECK SURFACE AFTER SCARIFICATION FOR POTENTIAL CLASS II REPAIRS.



PLAN OF SPAN "A" AND APPROACH SLAB 1

(SEE SHEET NO. S4-6 FOR SECTIONS A-A AND B-B)

PROJECT NO. I-5940
DUPLIN COUNTY
 BRIDGE NO. 300429



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

**SURFACE PREPARATION
 SPAN "A" AND
 APPROACH SLAB 1**

DRAWN BY : S. T. SANDOR DATE : 01/2019
 CHECKED BY : W. C. SMITH DATE : 05/2019

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

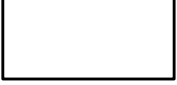


REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	TOTAL SHEETS
1			3			S3-3
2			4			113

SUMMARY OF QUANTITIES FOR SPAN "B"

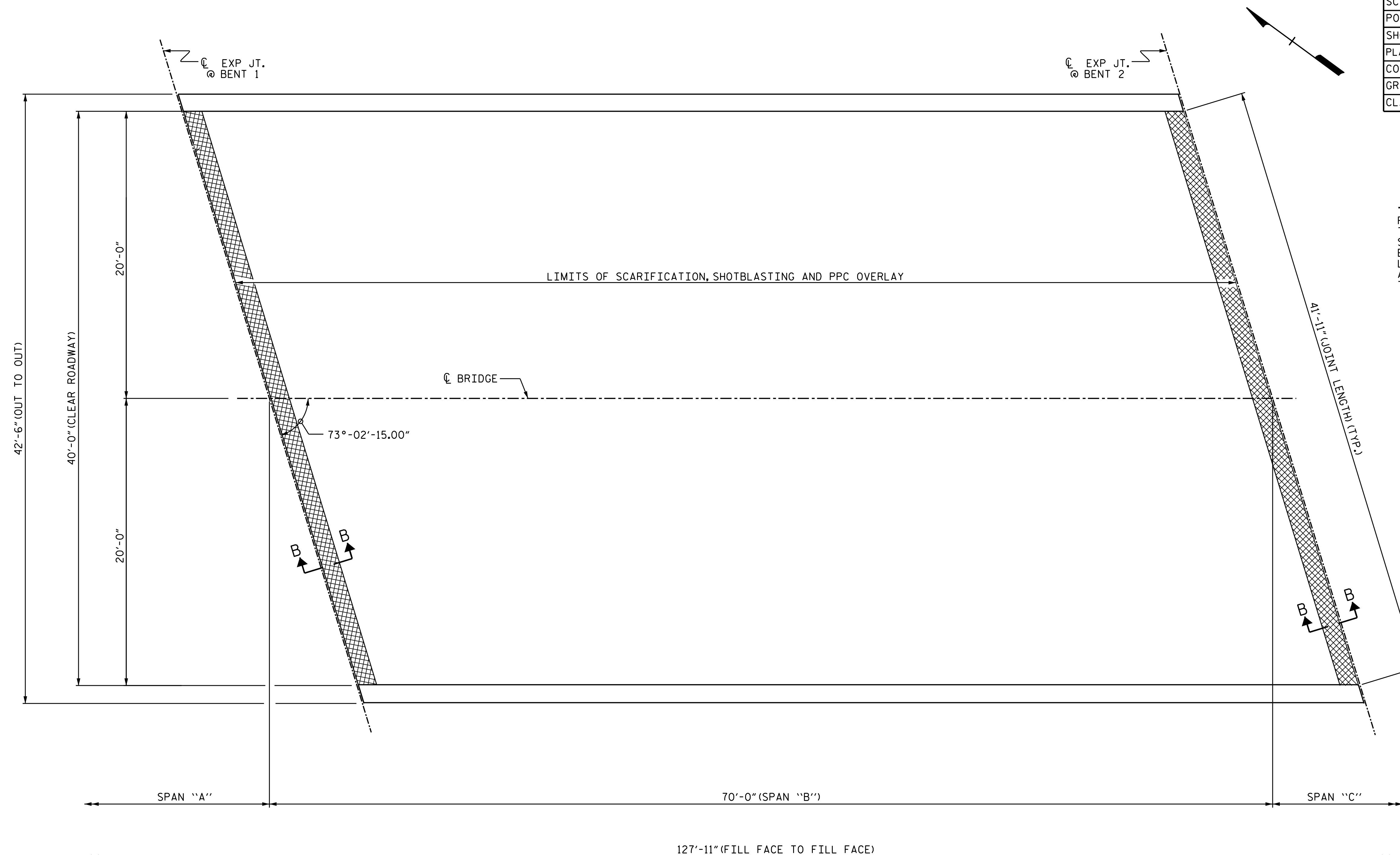
	ESTIMATE	ACTUAL
SCARIFYING BRIDGE DECK	311.2 SY	
POLYSTER POLYMER CONCRETE MATERIALS	8.7 CY	
SHOTBLASTING BRIDGE DECK	311.2 SY	
PLACING & FINISHING PPC OVERLAY	311.2 SY	
CONCRETE DECK REPAIRS FOR PPC OVERLAY	12.4 SY	
GROOVING BRIDGE DECK	2,577.7 SF	
CLASS II SURFACE PREPARATION	0.0 SY	

NOTES:

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

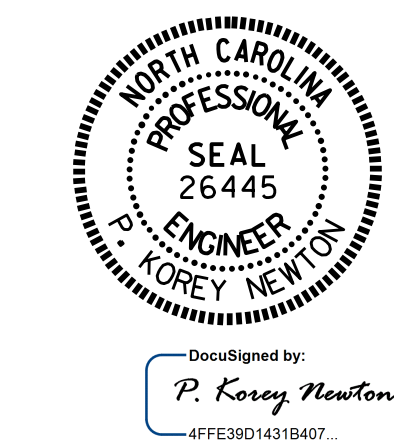
-  - SCARIFYING AND SHOTBLASTING OF BRIDGE DECK FOR PPC OVERLAY
-  - APPROX. AREA CLASS II SURFACE PREPARATION
-  - CONCRETE DECK REPAIRS FOR PPC OVERLAY

NO DEFICIENCIES NOTED DURING FIELD INSPECTION. THE CONTRACTOR AND ENGINEER SHALL INSPECT THE DECK SURFACE AFTER SCARIFICATION FOR POTENTIAL CLASS II REPAIRS.



PLAN OF SPAN "B"
(SEE SHEET NO. S4-6 FOR SECTION B-B)

PROJECT NO. I-5940
DUPLIN COUNTY
 BRIDGE NO. 300429



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

**SURFACE PREPARATION
 SPAN "B"**

DRAWN BY : S. T. SANDOR DATE : 01/2019
 CHECKED BY : W. C. SMITH DATE : 05/2019

DocuSigned by:
 P. Corey Newton
 6/23/2019

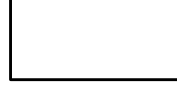
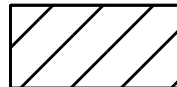

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	TOTAL SHEETS
1			3			S3-4
2			4			113

SUMMARY OF QUANTITIES FOR SPAN "C" AND APPROACH SLAB 2

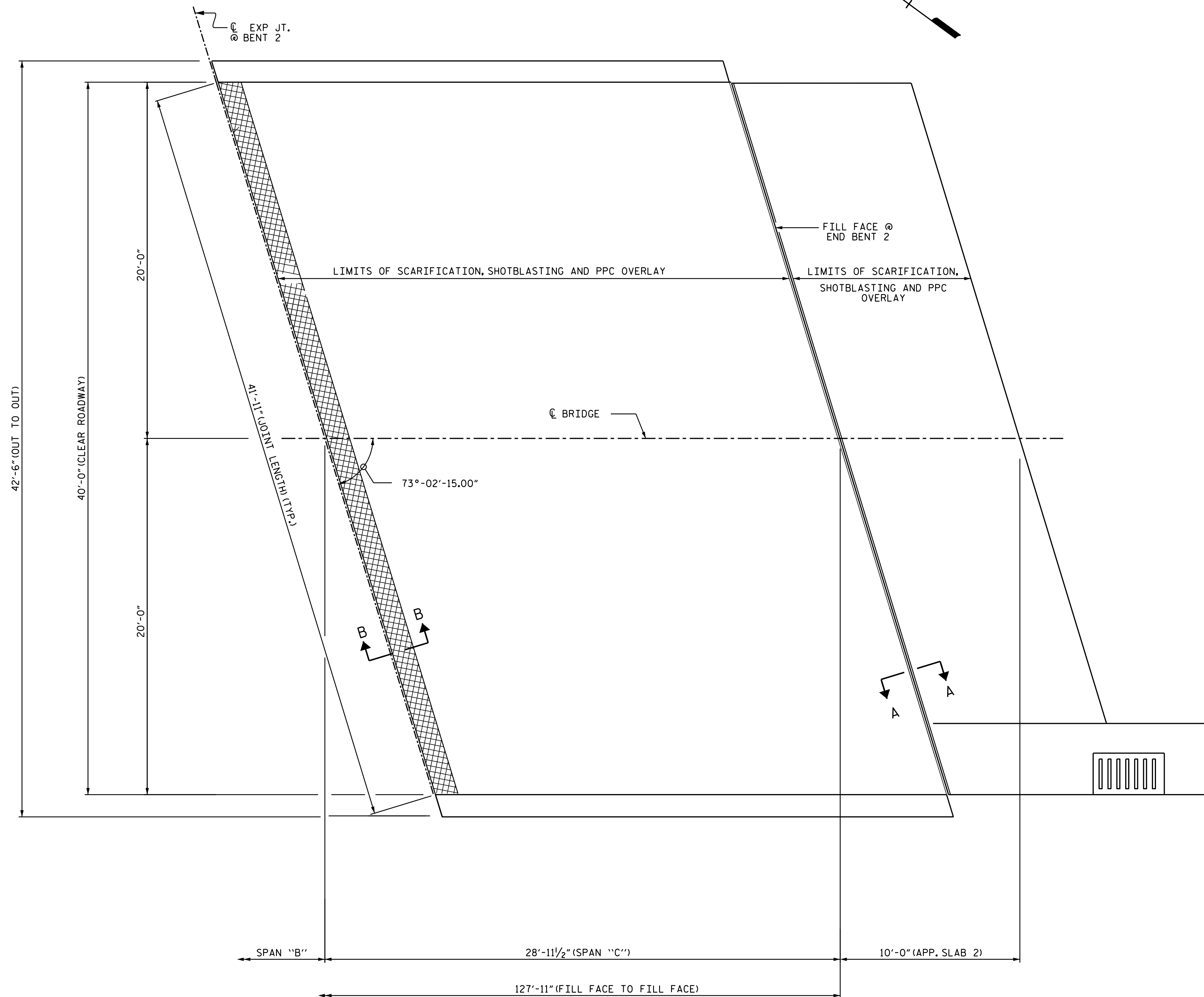
	ESTIMATE	ACTUAL
SCARIFYING BRIDGE DECK	173.2 SY	
POLYSTER POLYMER CONCRETE MATERIALS	4.8 CY	
SHOTBLASTING BRIDGE DECK	173.2 SY	
PLACING & FINISHING PPC OVERLAY	173.2 SY	
CONCRETE DECK REPAIRS FOR PPC OVERLAY	10.9 SY	
GROOVING BRIDGE DECK	1,424.5 SF	
CLASS II SURFACE PREPARATION	0.0 SY	

NOTES:

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

-  - SCARIFYING AND SHOTBLASTING OF BRIDGE DECK FOR PPC OVERLAY
-  - APPROX. AREA CLASS II SURFACE PREPARATION
-  - CONCRETE DECK REPAIRS FOR PPC OVERLAY

NO DEFICIENCIES NOTED DURING FIELD INSPECTION. THE CONTRACTOR AND ENGINEER SHALL INSPECT THE DECK SURFACE AFTER SCARIFICATION FOR POTENTIAL CLASS II REPAIRS.



PLAN OF SPAN "C" AND APPROACH SLAB 2

(SEE SHEET NO. S4-6 FOR SECTIONS A-A AND B-B)

PROJECT NO. I-5940
DUPLIN COUNTY
 BRIDGE NO. 300429

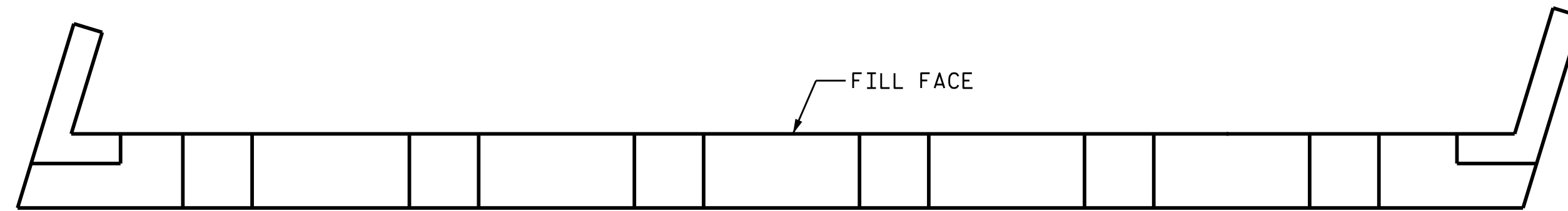


STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 SURFACE PREPARATION
 SPAN "C" AND
 APPROACH SLAB 2

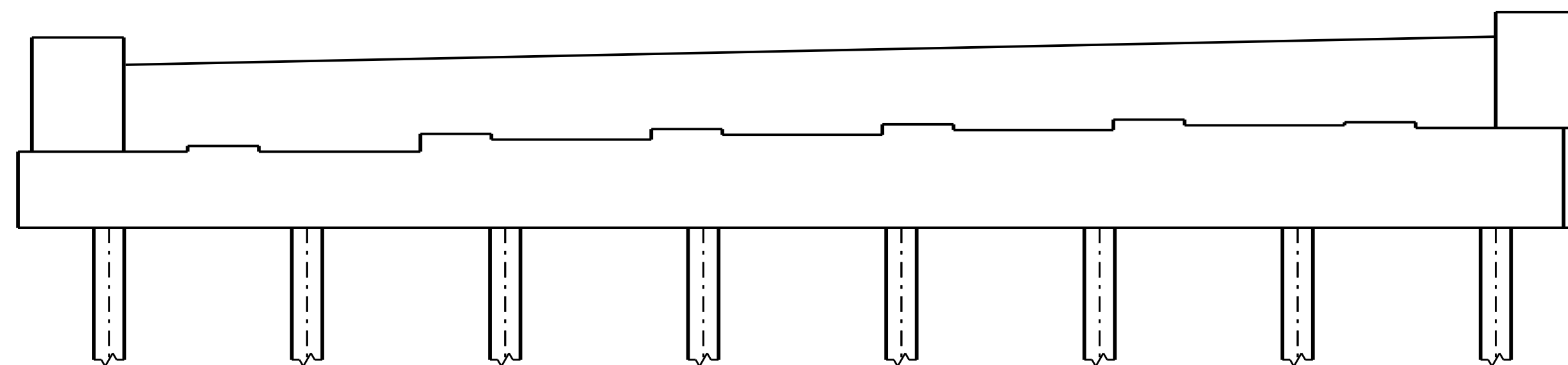
DRAWN BY : S. T. SANDOR DATE : 01/2019
 CHECKED BY : W. C. SMITH DATE : 05/2019

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S3-5
1			3			TOTAL SHEETS
2			4			113

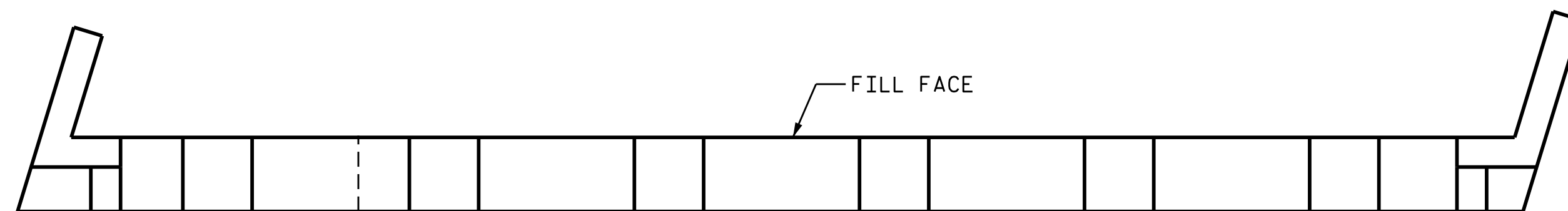


PLAN
(TOP OF CAP)

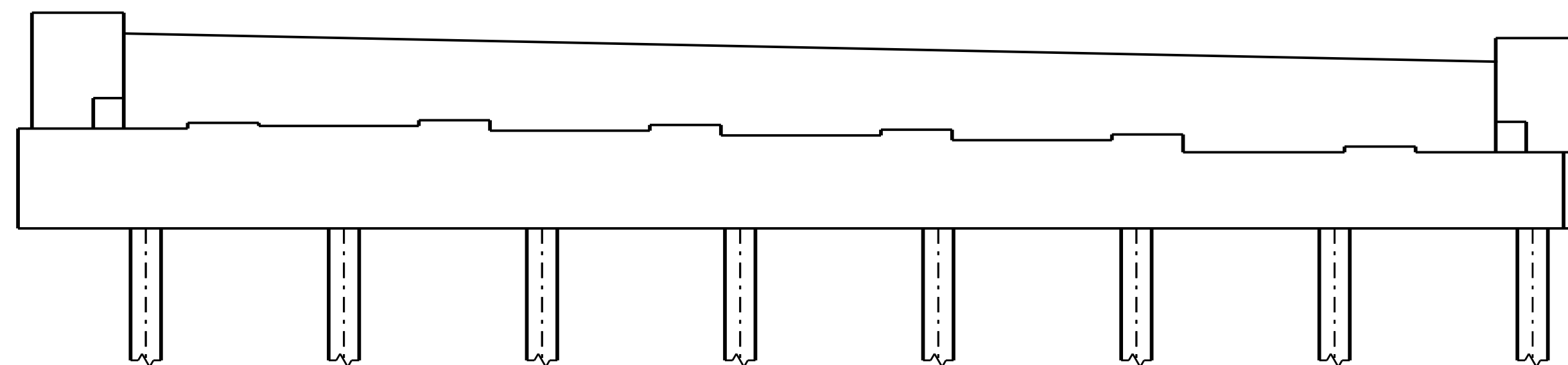


ELEVATION

END BENT 1



PLAN
(TOP OF CAP)



ELEVATION

END BENT 2

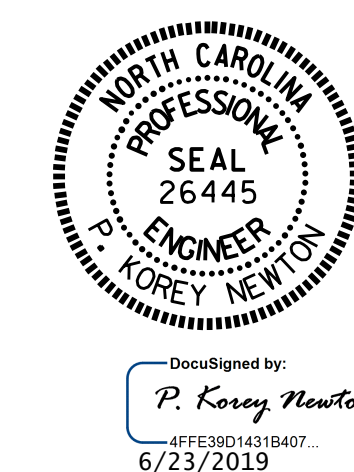
REPAIR QUANTITY TABLE

REPAIRS END BENT 1 & 2	QUANTITIES			
	ESTIMATE		ACTUAL	
CONCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL, CORNER)	0.0	0.0		
COLUMN	0.0	0.0		
SHOTCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL, CORNER)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LN. FT		LN. FT
CAP		0.0		
COLUMN		0.0		

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

- ERI - EPOXY RESIN INJECTION
- ▨ - SHOTCRETE REPAIRS
- ▩ - CONCRETE REPAIRS

PROJECT NO. I-5940
DUPLIN COUNTY
 BRIDGE NO. 300429



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 SUBSTRUCTURE
 REPAIR
 END BENT 1 &
 END BENT 2

DRAWN BY : P. D. BRYANT / S. T. SANDOR DATE : 01/2019
 CHECKED BY : W. C. SMITH DATE : 05/2019

DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
 SIGNATURES COMPLETED

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

NOTES:

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

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

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR CONCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.

CONCRETE REPAIRS MAY BE SUBSTITUTED IN LIEU OF SHOTCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

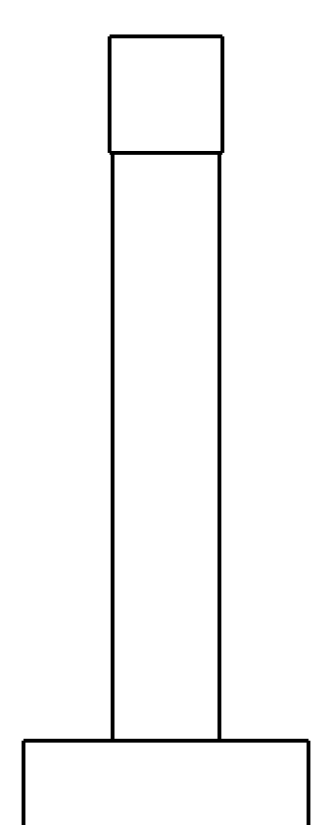
REPAIR QUANTITY TABLE

BENT 1	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		

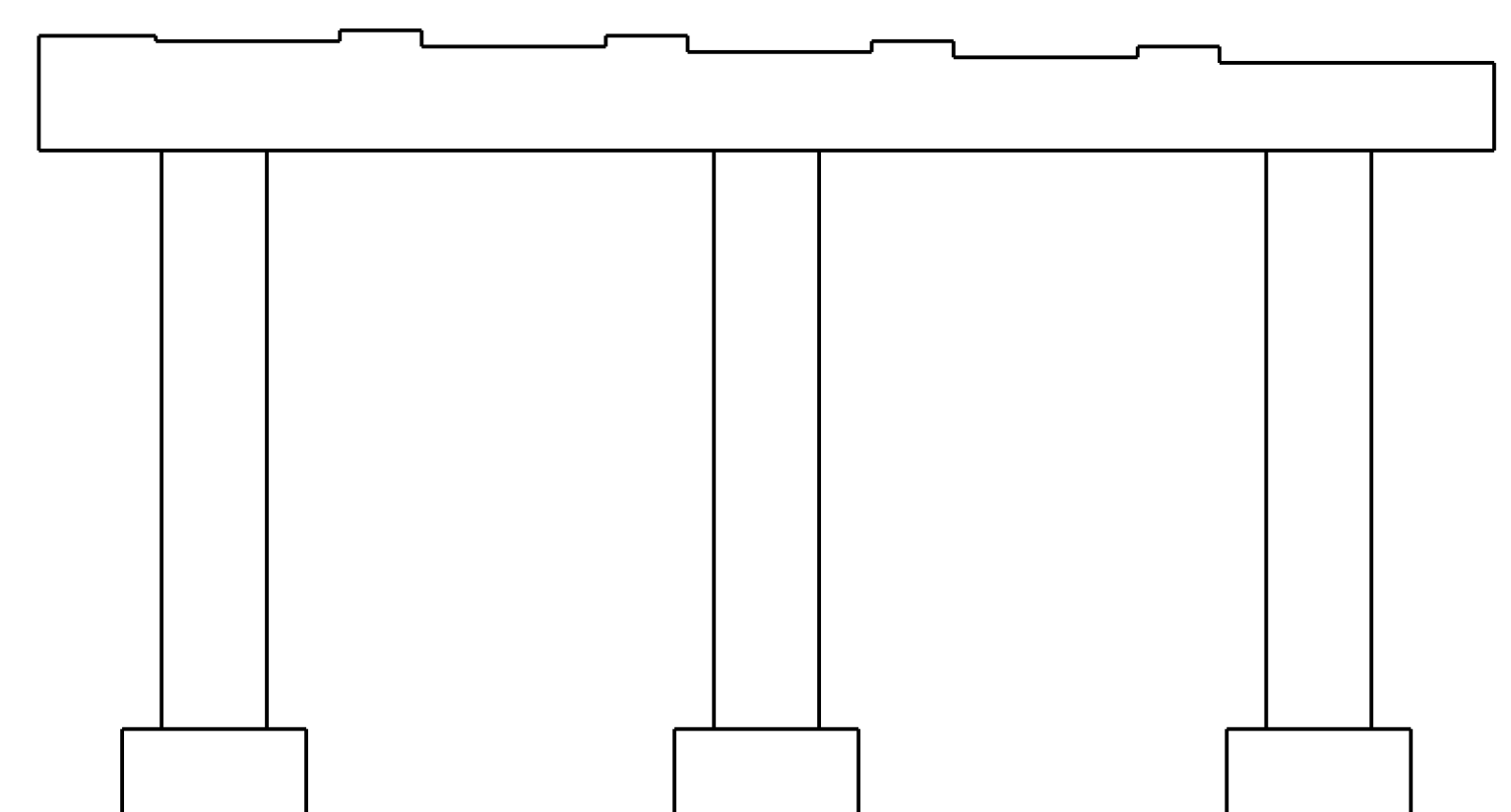
VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN. OF 1" BEHIND REBAR AND MIN. 1" CL TO SAWCUT. SEE REPAIR DETAILS.



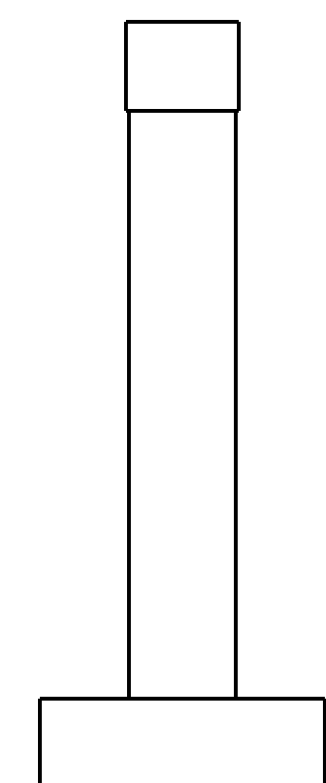
PLAN
TOP OF CAP



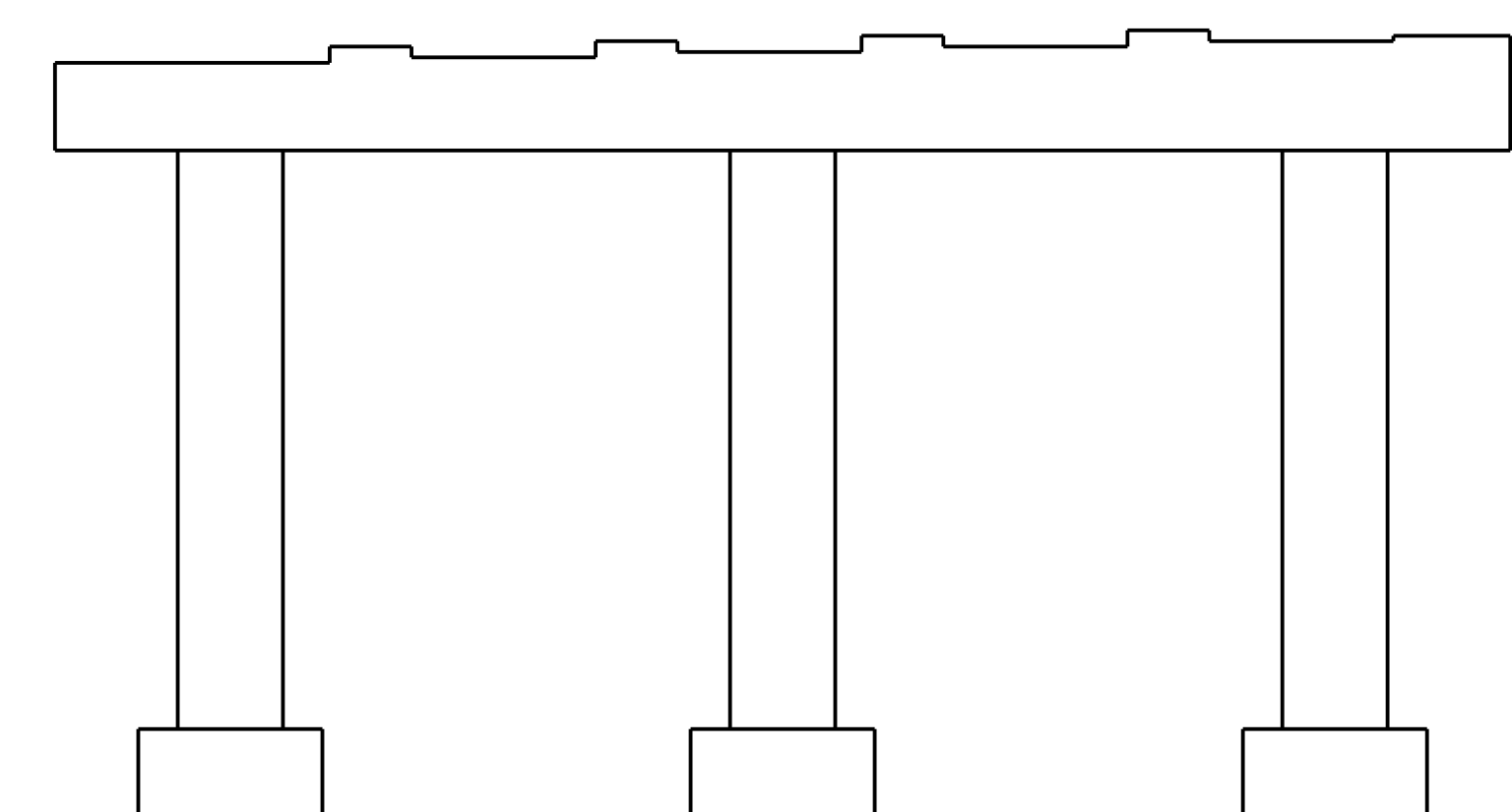
END VIEW
NORTH END



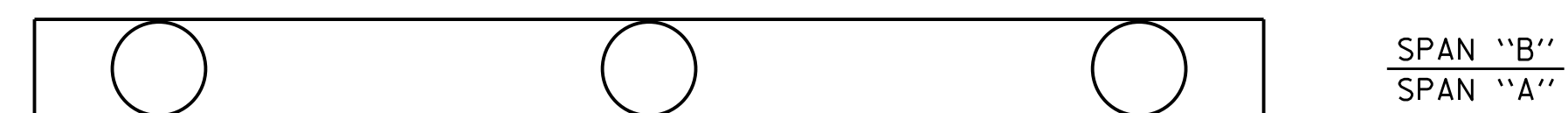
ELEVATION
WEST SIDE



END VIEW
SOUTH SIDE



ELEVATION
EAST SIDE



PLAN
BOTTOM OF CAP

- CONCRETE REPAIR
- SHOTCRETE REPAIR
- ERI EPOXY RESIN INJECTION

PROJECT NO. I-5940
DUPLIN COUNTY
 BRIDGE NO. 300429



DocuSigned by:
P. Corey Newton
49FE39D14518A07...
 6/23/2019

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

SUBSTRUCTURE
BENT 1

DRAWN BY : P. D. BRYANT / S. T. SANDOR DATE : 01/2019
 CHECKED BY : W. C. SMITH DATE : 05/2019

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REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	TOTAL SHEETS
1			3			S3-7
2			4			113

NOTES:

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

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

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR CONCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.

CONCRETE REPAIRS MAY BE SUBSTITUTED IN LIEU OF SHOTCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

REPAIR QUANTITY TABLE

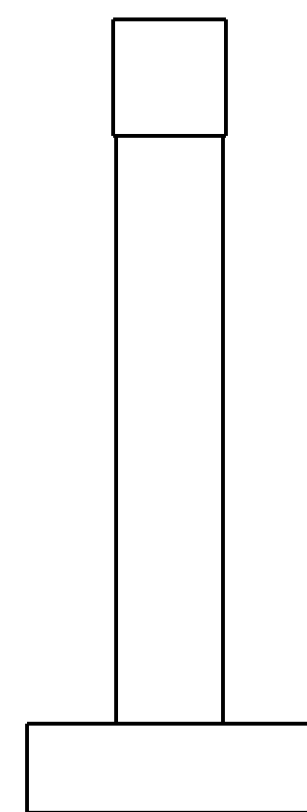
BENT 2	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	1.0	0.5		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		

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

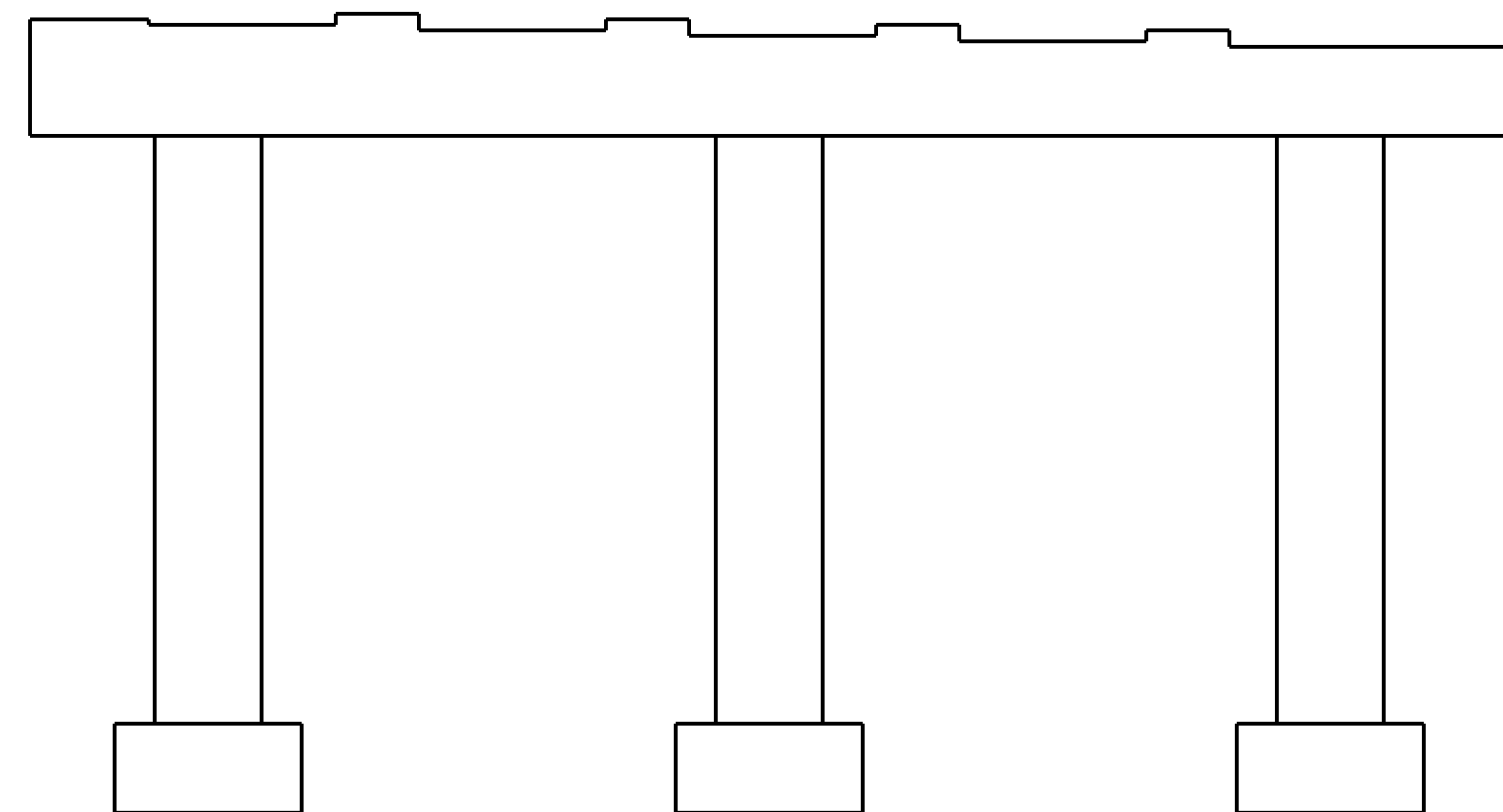


SPAN "B"
SPAN "C"

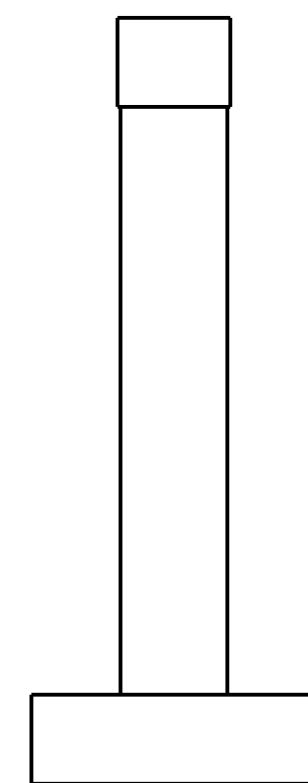
PLAN
TOP OF CAP



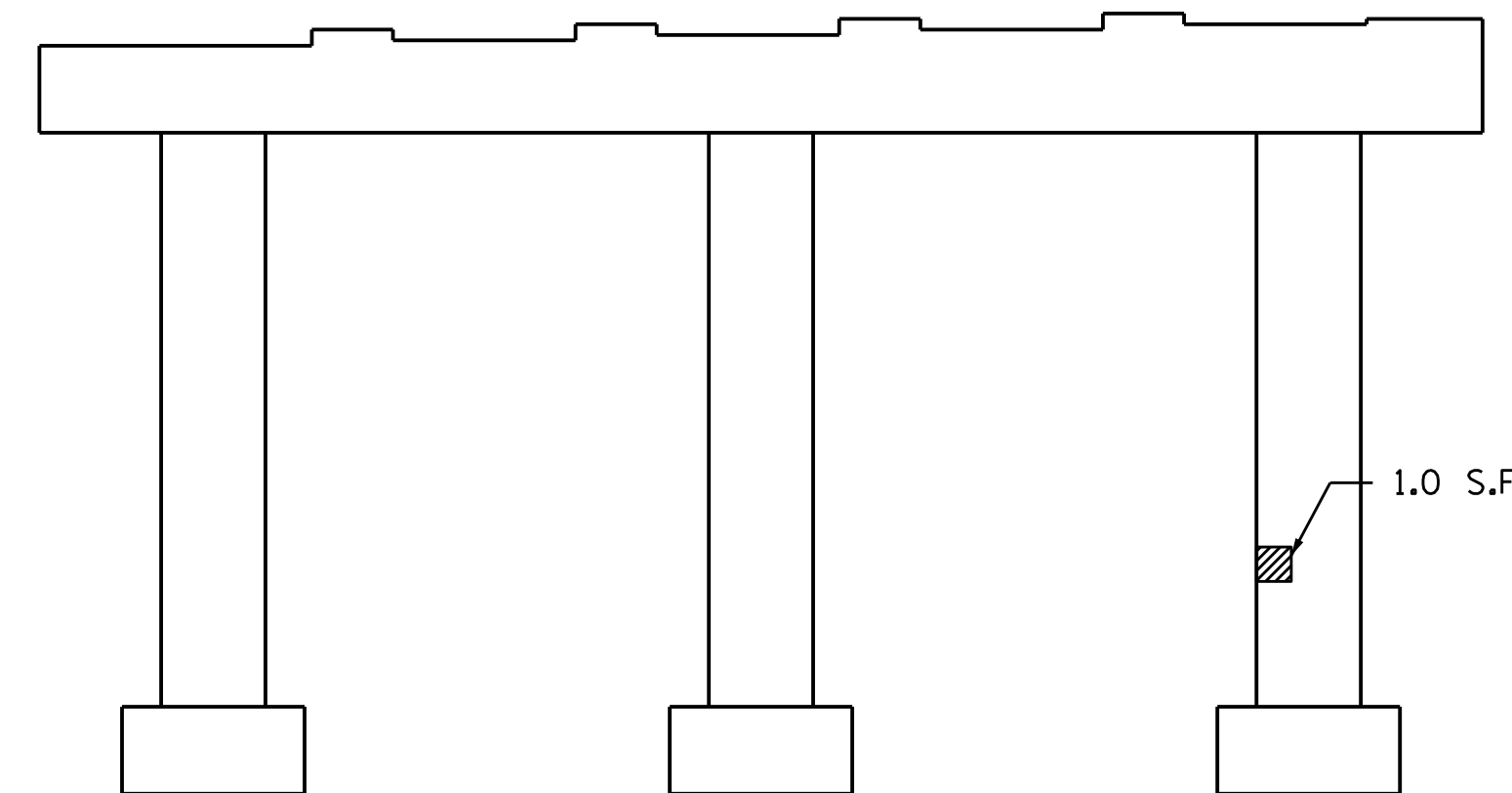
END VIEW
NORTH END



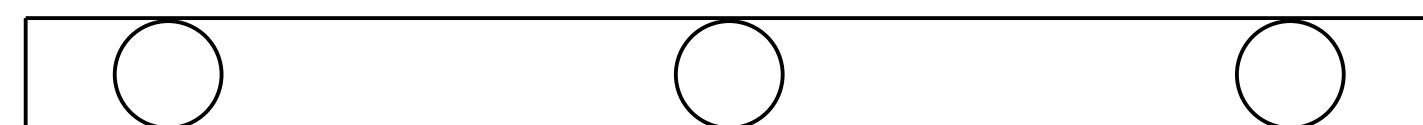
ELEVATION
WEST SIDE



END VIEW
SOUTH SIDE



ELEVATION
EAST SIDE



SPAN "C"
SPAN "B"

PLAN
BOTTOM OF CAP

- CONCRETE REPAIR
- SHOTCRETE REPAIR
- ERI EPOXY RESIN INJECTION

PROJECT NO. I-5940
DUPLIN COUNTY
BRIDGE NO. 300429



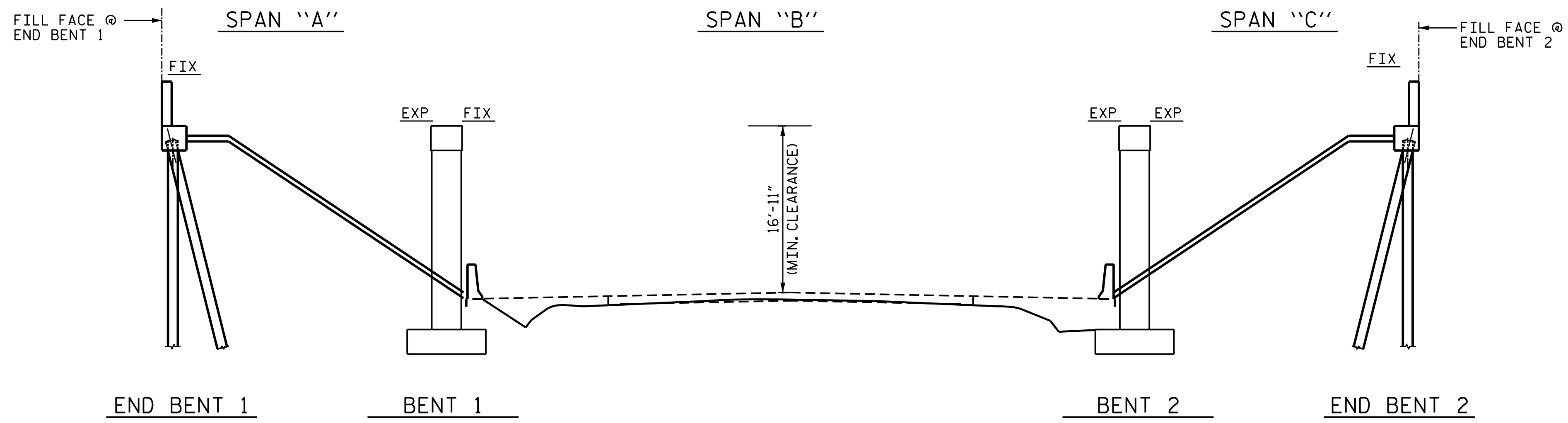
DocuSigned by:
P. Corey Newton
6/23/2019

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
SUBSTRUCTURE
BENT 2

DRAWN BY : P. D. BRYANT / S. T. SANDOR DATE : 01/2019
CHECKED BY : W. C. SMITH DATE : 05/2019

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REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	TOTAL SHEETS
1			3			S3-8
2			4			113



ELEVATION
(SECTION ALONG \bar{C} ROADWAY)

SCOPE OF WORK

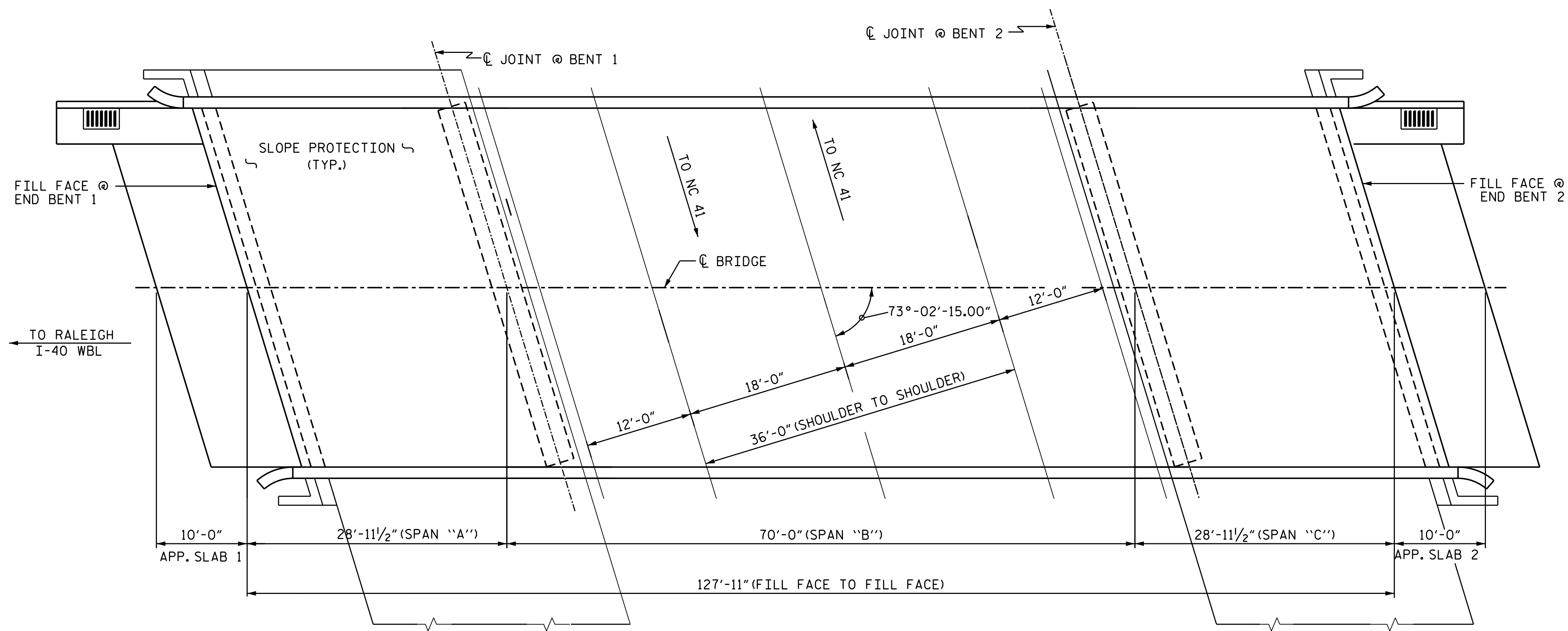
- PARTIALLY REMOVE BRIDGE DECK CONCRETE BY SCARIFICATION AND SHOTBLASTING METHODS.
- PERFORM JOINTS AND DECK REPAIRS IN PREPARED AREAS.
- OVERLAY PREPARED BRIDGE DECK WITH POLYESTER POLYMER CONCRETE.
- RECONSTRUCT BRIDGE JOINTS AND INSTALL BACKER ROD AND SILICONE JOINT SEALANT.
- GROOVE POLYESTER POLYMER CONCRETE DECK.
- REPAIR SUBSTRUCTURE USING EPOXY RESIN INJECTION AND SHOTCRETE.

NOTES

- PROFILE INFORMATION IS TAKEN FROM ORIGINAL PLANS AND THE ROUTINE INSPECTION, DATED 06/15/2017.
- BRIDGE ORIENTATION CONFORMS TO EXISTING BRIDGE PLANS.
- FOR SLOPE PROTECTION REPAIR SEE SHEET S4-XX.

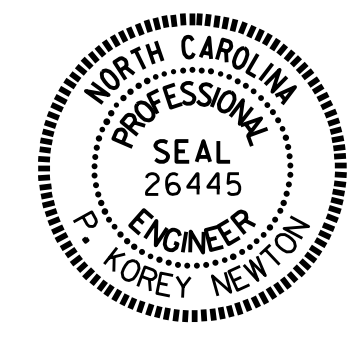
I hereby certify that this structure was rehabilitated according to these plans or as noted therein.

Resident Engineer _____ Date _____



PLAN
(COLUMNS & FOOTINGS NOT SHOWN IN PLAN VIEW FOR CLARITY)

PROJECT NO. I-5940
DUPLIN COUNTY
 BRIDGE NO. 300430



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
GENERAL DRAWING
 FOR BRIDGE 430 ON
 I-40 WBL OVER
 NC 41

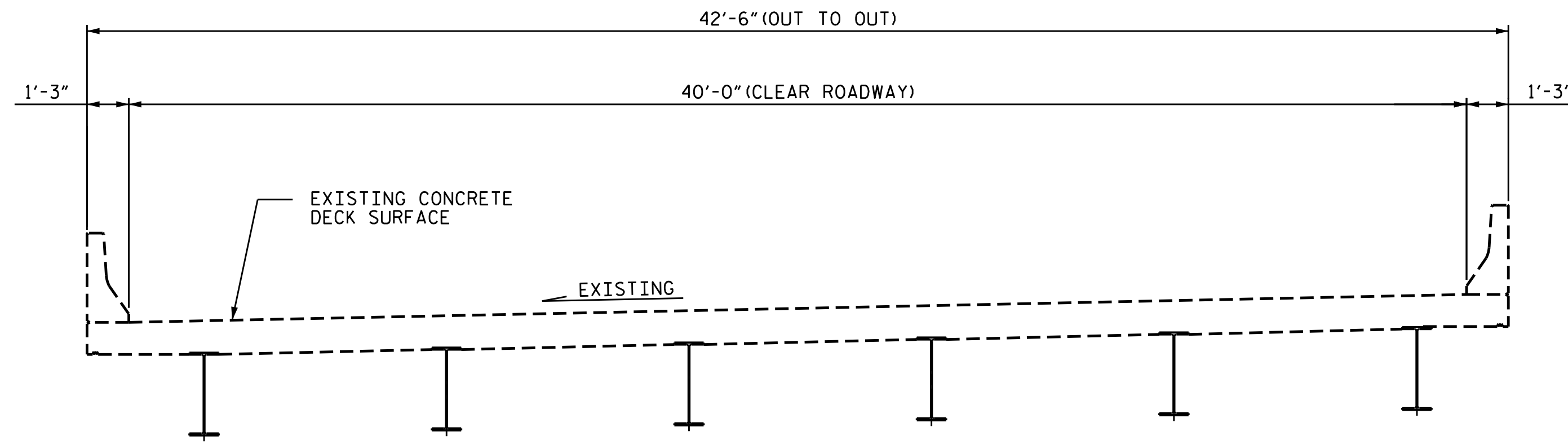
DRAWN BY : S. T. SANDOR DATE : 12/2018
 CHECKED BY : W. C. SMITH DATE : 05/2019

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

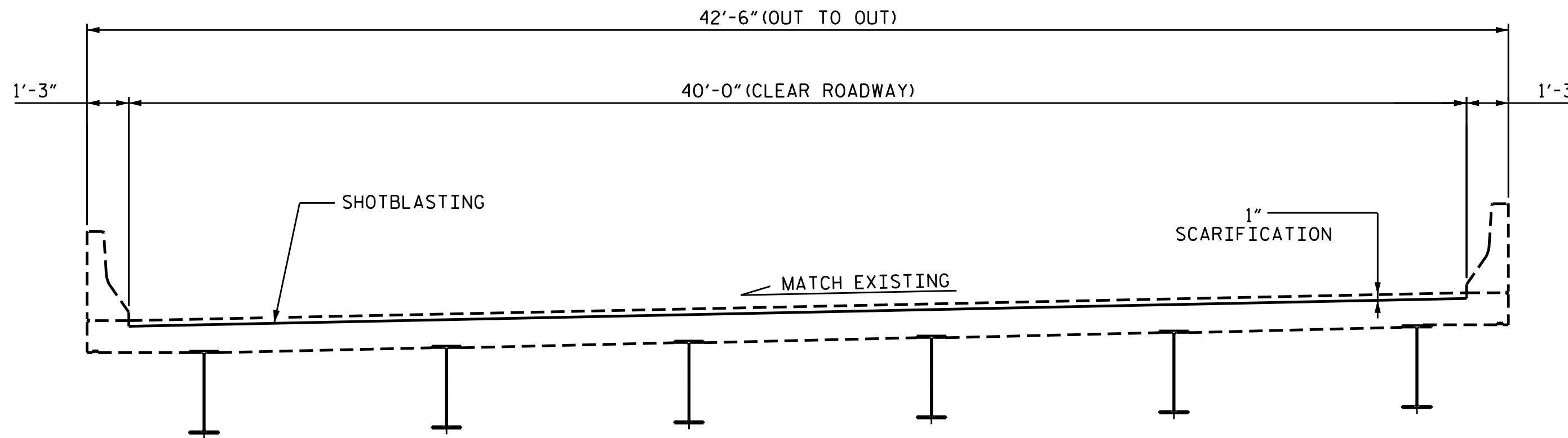
REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	TOTAL SHEETS
1			3			S4-1
2			4			113

NOTES

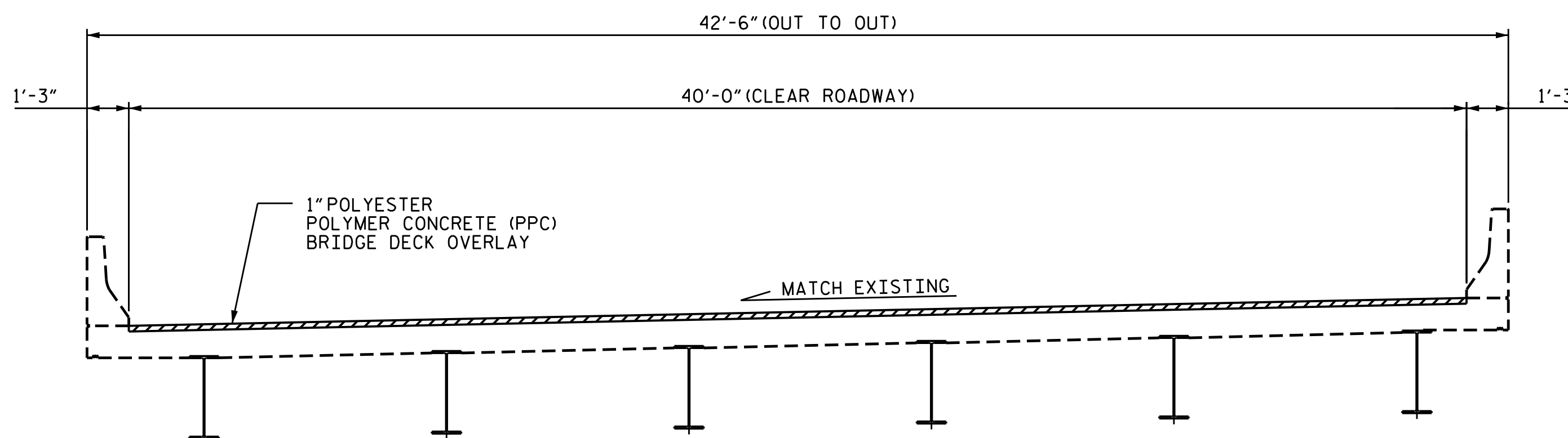
SEE TRANSPORTATION MANAGEMENT PLANS FOR LANE WIDTHS, SEQUENCING AND OTHER TRAFFIC CONTROL MEASURES FOR STAGING OF OVERLAY SURFACE PREPARATION AND POLYESTER POLYMER CONCRETE PLACEMENT.



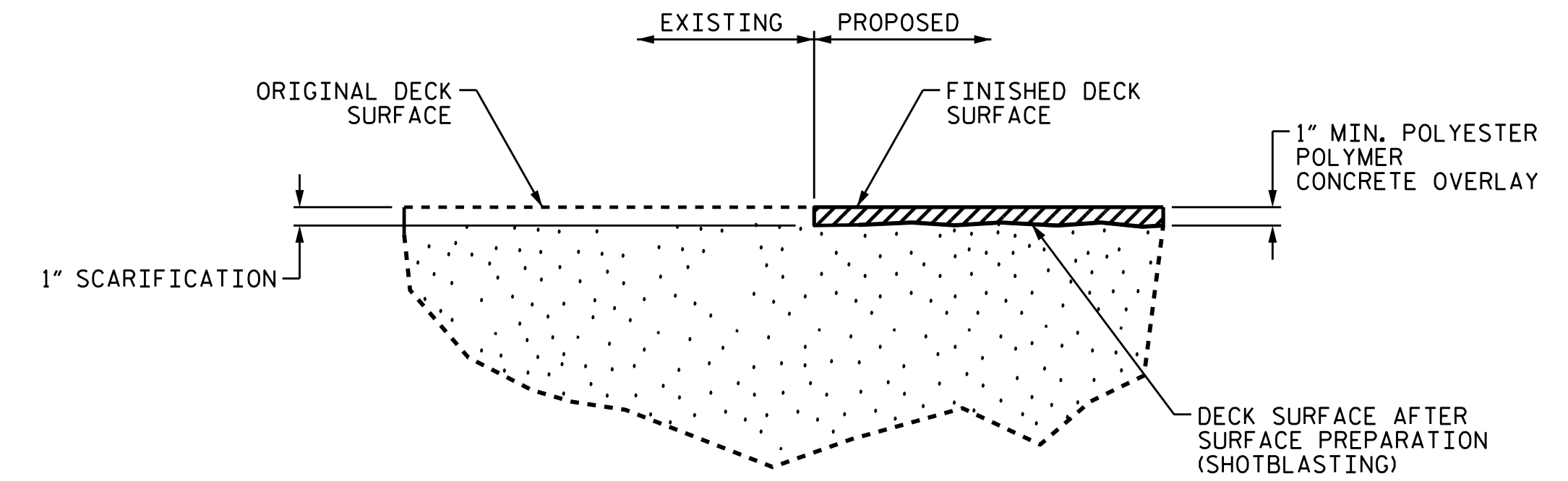
TYPICAL SECTION
(EXISTING)



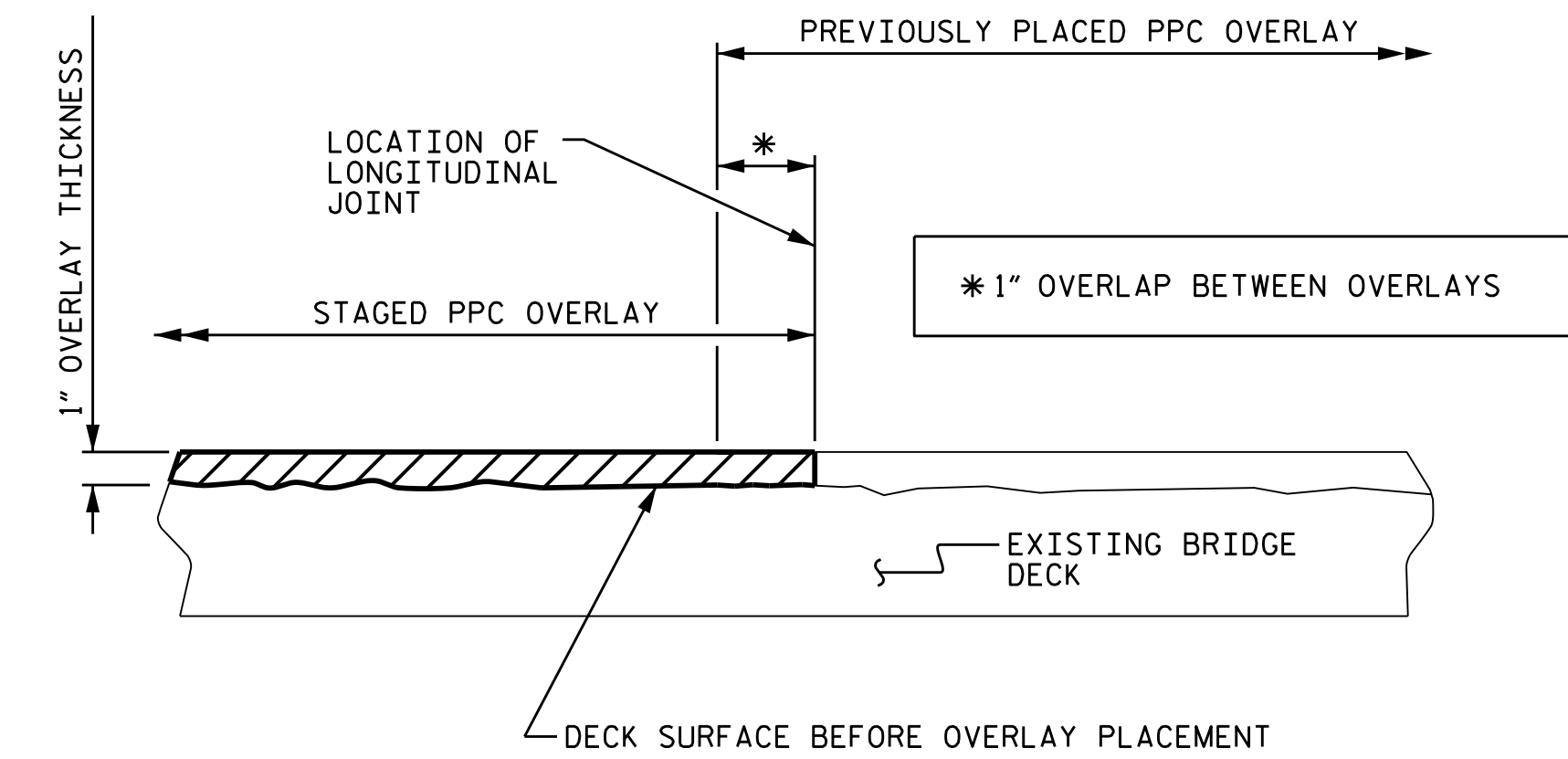
TYPICAL SECTION
(DECK PREPARATION)



TYPICAL SECTION
(PROPOSED)

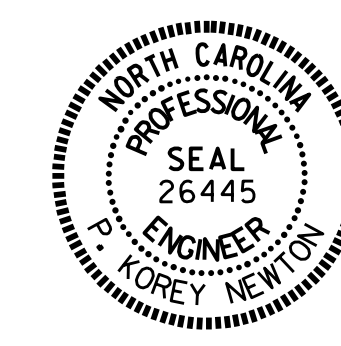


DETAIL FOR POLYESTER POLYMER CONCRETE OVERLAY



STAGED PPC OVERLAY JOINT
(AS NEEDED)

PROJECT NO. I-5940
DUPLIN COUNTY
 BRIDGE NO. 300430



DocuSigned by:
P. Corey Newton
 6/23/2019

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

TYPICAL SECTION AND SURFACE PREPARATION DETAILS

DRAWN BY : S. T. SANDOR DATE : 11/2018
 CHECKED BY : W. C. SMITH DATE : 05/2019

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

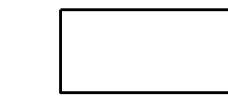
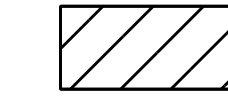

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	TOTAL SHEETS
1			3			4
2			4			113

SUMMARY OF QUANTITIES FOR SPAN "A" AND APPROACH SLAB 1

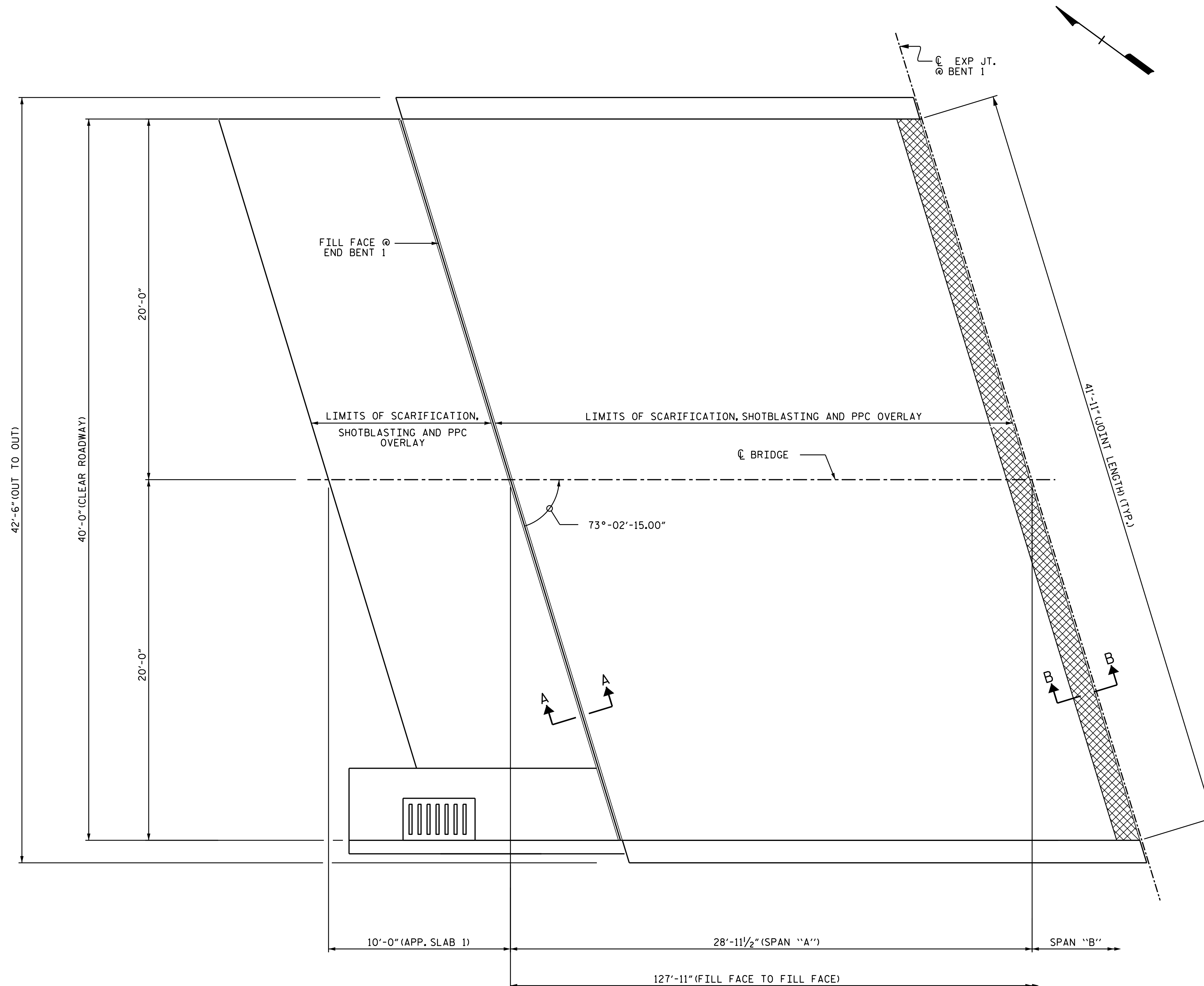
	ESTIMATE	ACTUAL
SCARIFYING BRIDGE DECK	173.2 SY	
POLYMER POLYMER CONCRETE MATERIALS	4.8 CY	
SHOTBLASTING BRIDGE DECK	173.2 SY	
PLACING & FINISHING PPC OVERLAY	173.2 SY	
CONCRETE DECK REPAIRS FOR PPC OVERLAY	10.9 SY	
GROOVING BRIDGE DECK	1,424.5 SF	
CLASS II SURFACE PREPARATION	0.0 SY	

NOTES:

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

-  - SCARIFYING AND SHOTBLASTING OF BRIDGE DECK FOR PPC OVERLAY
-  - APPROX. AREA CLASS II SURFACE PREPARATION
-  - CONCRETE DECK REPAIRS FOR PPC OVERLAY

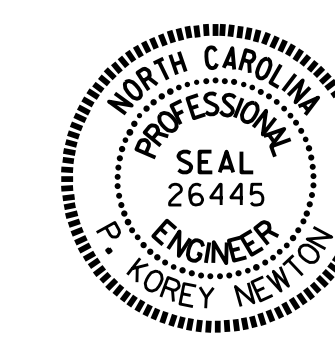
NO DEFICIENCIES NOTED DURING FIELD INSPECTION. THE CONTRACTOR AND ENGINEER SHALL INSPECT THE DECK SURFACE AFTER SCARIFICATION FOR POTENTIAL CLASS II REPAIRS.



PLAN OF SPAN "A" AND APPROACH SLAB 1

(SEE SHEET NO. S4-6 FOR SECTIONS A-A AND B-B)

PROJECT NO. I-5940
DUPLIN COUNTY
 BRIDGE NO. 300430



DocuSigned by:
 P. Corey Newton
 6/23/2019

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 SURFACE PREPARATION
 SPAN "A" AND
 APPROACH SLAB 1

DRAWN BY : S. T. SANDOR DATE : 01/2019
 CHECKED BY : W. C. SMITH DATE : 05/2019

DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
 SIGNATURES COMPLETED

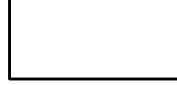


REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	TOTAL SHEETS
1			3			S4-3
2			4			113

SUMMARY OF QUANTITIES FOR SPAN "B"

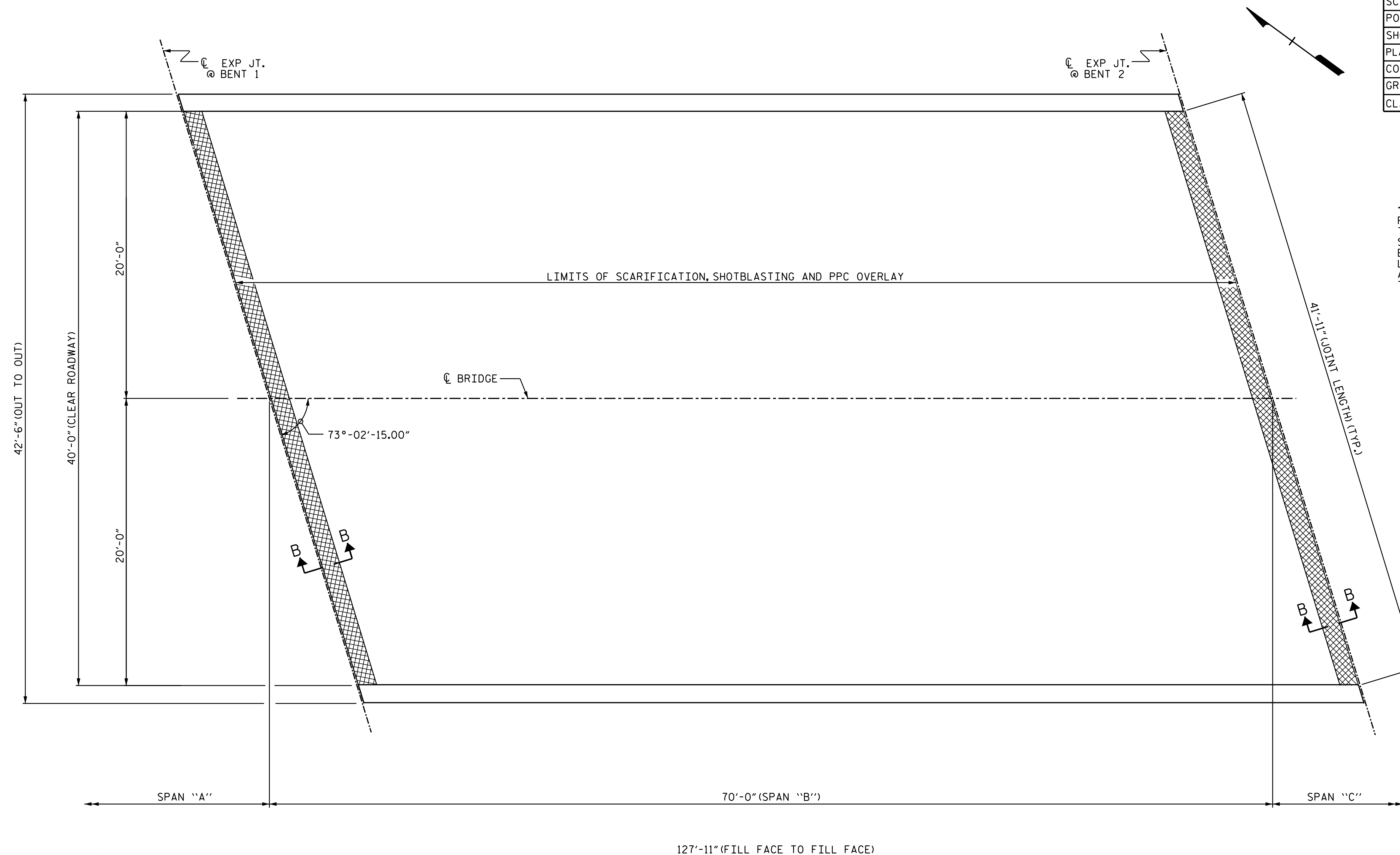
	ESTIMATE	ACTUAL
SCARIFYING BRIDGE DECK	311.2 SY	
POLYSTER POLYMER CONCRETE MATERIALS	8.7 CY	
SHOTBLASTING BRIDGE DECK	311.2 SY	
PLACING & FINISHING PPC OVERLAY	311.2 SY	
CONCRETE DECK REPAIRS FOR PPC OVERLAY	12.4 SY	
GROOVING BRIDGE DECK	2,577.7 SF	
CLASS II SURFACE PREPARATION	0.0 SY	

NOTES:

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

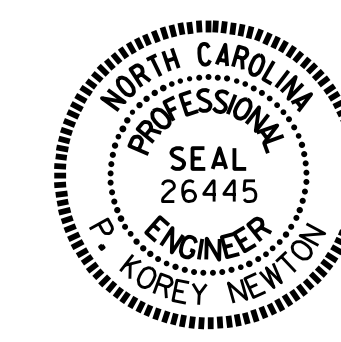
-  - SCARIFYING AND SHOTBLASTING OF BRIDGE DECK FOR PPC OVERLAY
-  - APPROX. AREA CLASS II SURFACE PREPARATION
-  - CONCRETE DECK REPAIRS FOR PPC OVERLAY

NO DEFICIENCIES NOTED DURING FIELD INSPECTION. THE CONTRACTOR AND ENGINEER SHALL INSPECT THE DECK SURFACE AFTER SCARIFICATION FOR POTENTIAL CLASS II REPAIRS.



PLAN OF SPAN "B"
(SEE SHEET NO. S4-6 FOR SECTION B-B)

PROJECT NO. I-5940
DUPLIN COUNTY
 BRIDGE NO. 300430



DocuSigned by:
 P. Corey Newton
 49FE39D14518A07...
 6/23/2019

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

SURFACE PREPARATION
 SPAN "B"

DRAWN BY : S. T. SANDOR DATE : 01/2019
 CHECKED BY : W. C. SMITH DATE : 05/2019

DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
 SIGNATURES COMPLETED

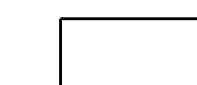
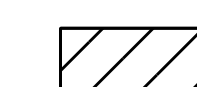
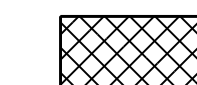
REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	TOTAL SHEETS
1			3			S4-4
2			4			113

SUMMARY OF QUANTITIES FOR SPAN "C" AND APPROACH SLAB 2

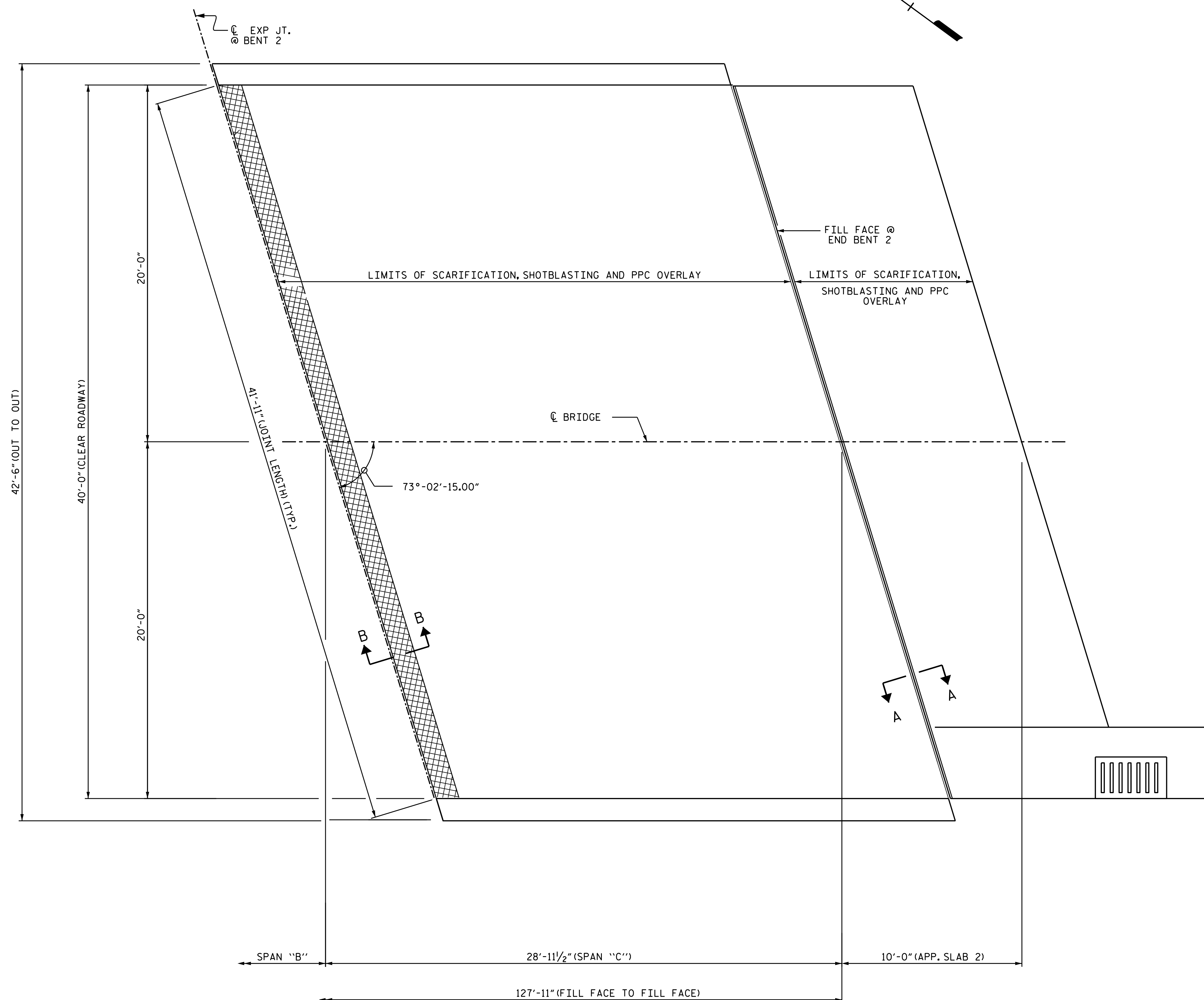
	ESTIMATE	ACTUAL
SCARIFYING BRIDGE DECK	173.2 SY	
POLYSTER POLYMER CONCRETE MATERIALS	4.8 CY	
SHOTBLASTING BRIDGE DECK	173.2 SY	
PLACING & FINISHING PPC OVERLAY	173.2 SY	
CONCRETE DECK REPAIRS FOR PPC OVERLAY	10.9 SY	
GROOVING BRIDGE DECK	1,424.5 SF	
CLASS II SURFACE PREPARATION	0.0 SY	

NOTES:

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

-  - SCARIFYING AND SHOTBLASTING OF BRIDGE DECK FOR PPC OVERLAY
-  - APPROX. AREA CLASS II SURFACE PREPARATION
-  - CONCRETE DECK REPAIRS FOR PPC OVERLAY

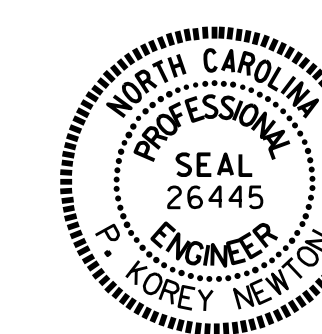
NO DEFICIENCIES NOTED DURING FIELD INSPECTION. THE CONTRACTOR AND ENGINEER SHALL INSPECT THE DECK SURFACE AFTER SCARIFICATION FOR POTENTIAL CLASS II REPAIRS.



PLAN OF SPAN "C" AND APPROACH SLAB 2

(SEE SHEET NO. S4-6 FOR SECTIONS A-A AND B-B)

PROJECT NO. I-5940
DUPLIN COUNTY
 BRIDGE NO. 300430



DocuSigned by:
 P. Corey Newton
 6/23/2019

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

SURFACE PREPARATION
 SPAN "C" AND
 APPROACH SLAB 2

DRAWN BY : S. T. SANDOR DATE : 01/2019
 CHECKED BY : W. C. SMITH DATE : 05/2019

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2			4			113

NOTES

CONTRACTOR SHALL NOTE THE EXISTING JOINT OPENINGS PRIOR OVERLAYING THE PPC. THE FINAL JOINT OPENINGS SHALL BE SAW TO MATCH THE EXISTING OPENINGS.

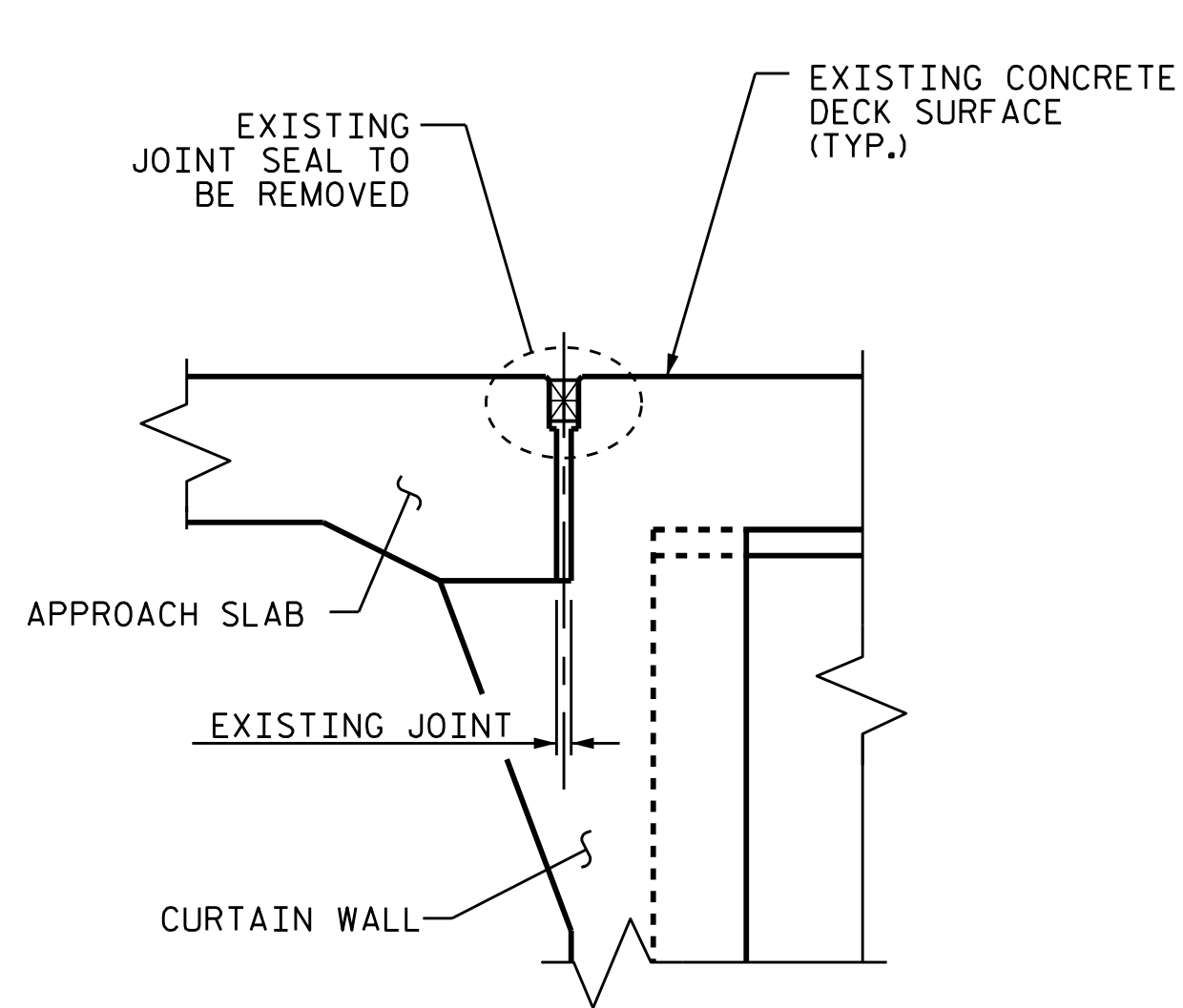
UNLESS NOTED OTHERWISE RETAIN ALL EXISTING REINFORCING STEEL. CLEAN AND REPAIR AS NEEDED.

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

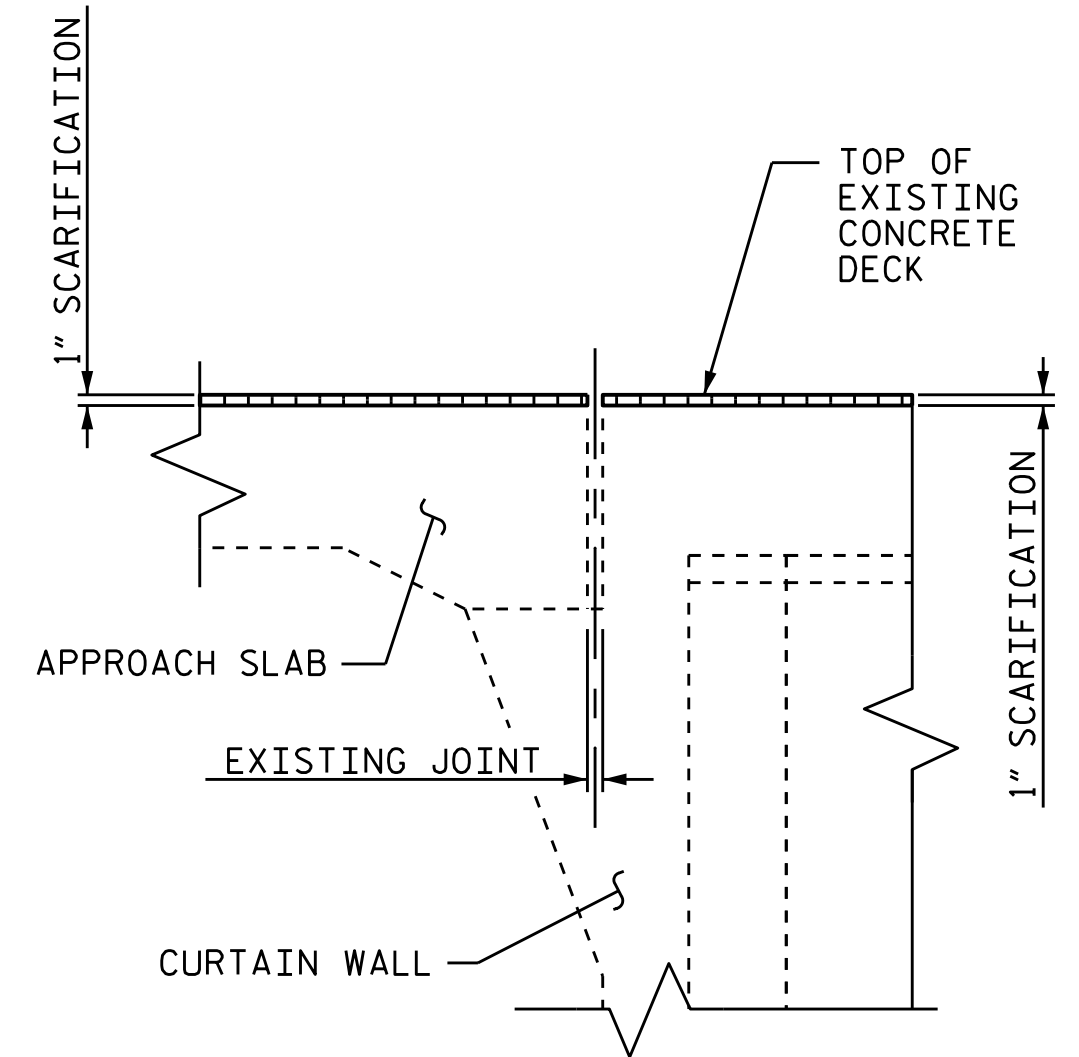
SILICONE JOINT SEALANT AND BACKER ROD SHALL BE INSTALLED AS PER MANUFACTURER'S RECOMANDATION.

THE INSTALLED SILICONE JOINT SEALANT SHALL BE WATERTIGHT.

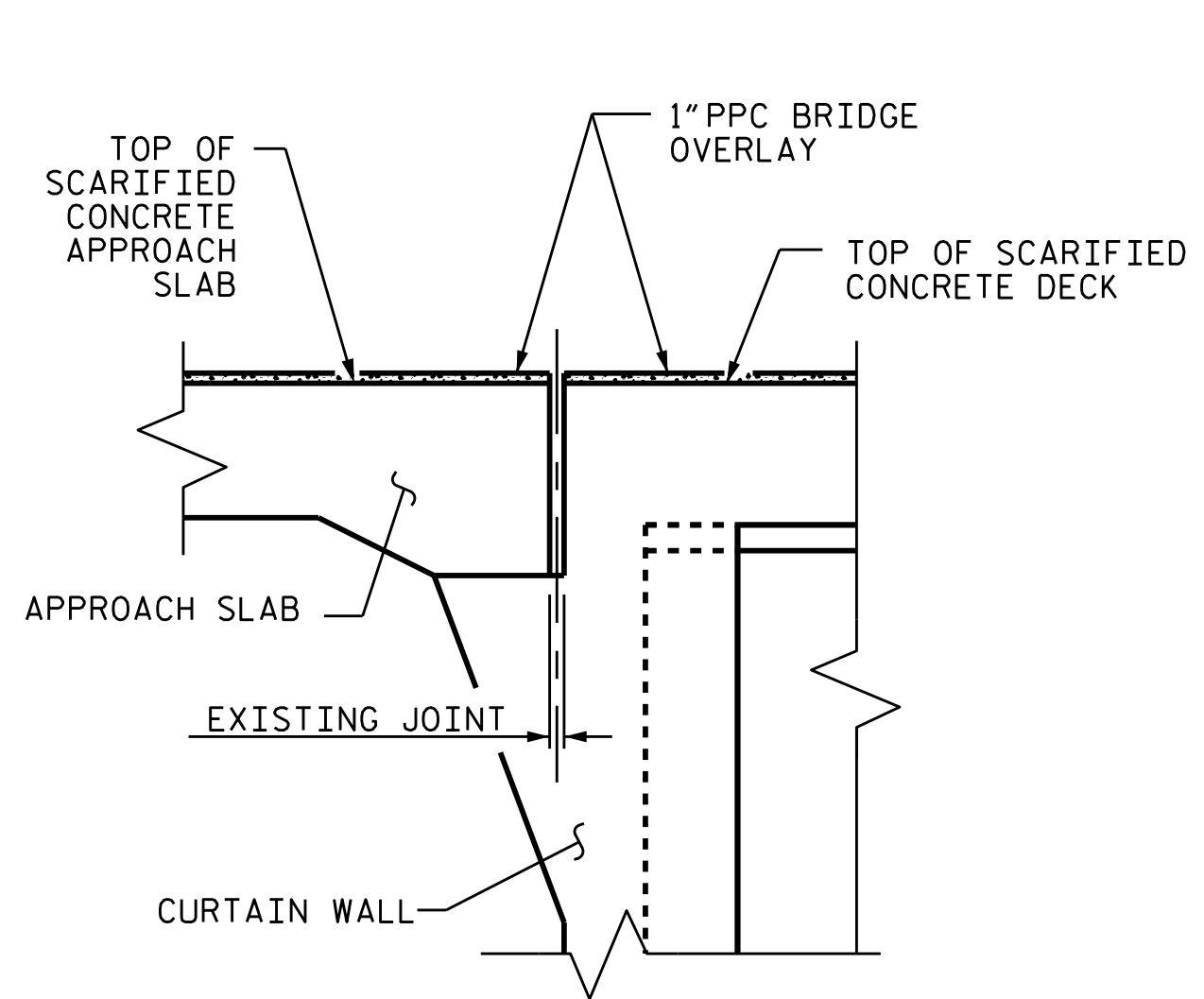
FOR POURABLE SILICONE JOINT SEALANT, SEE SPECIAL PROVISIONS.



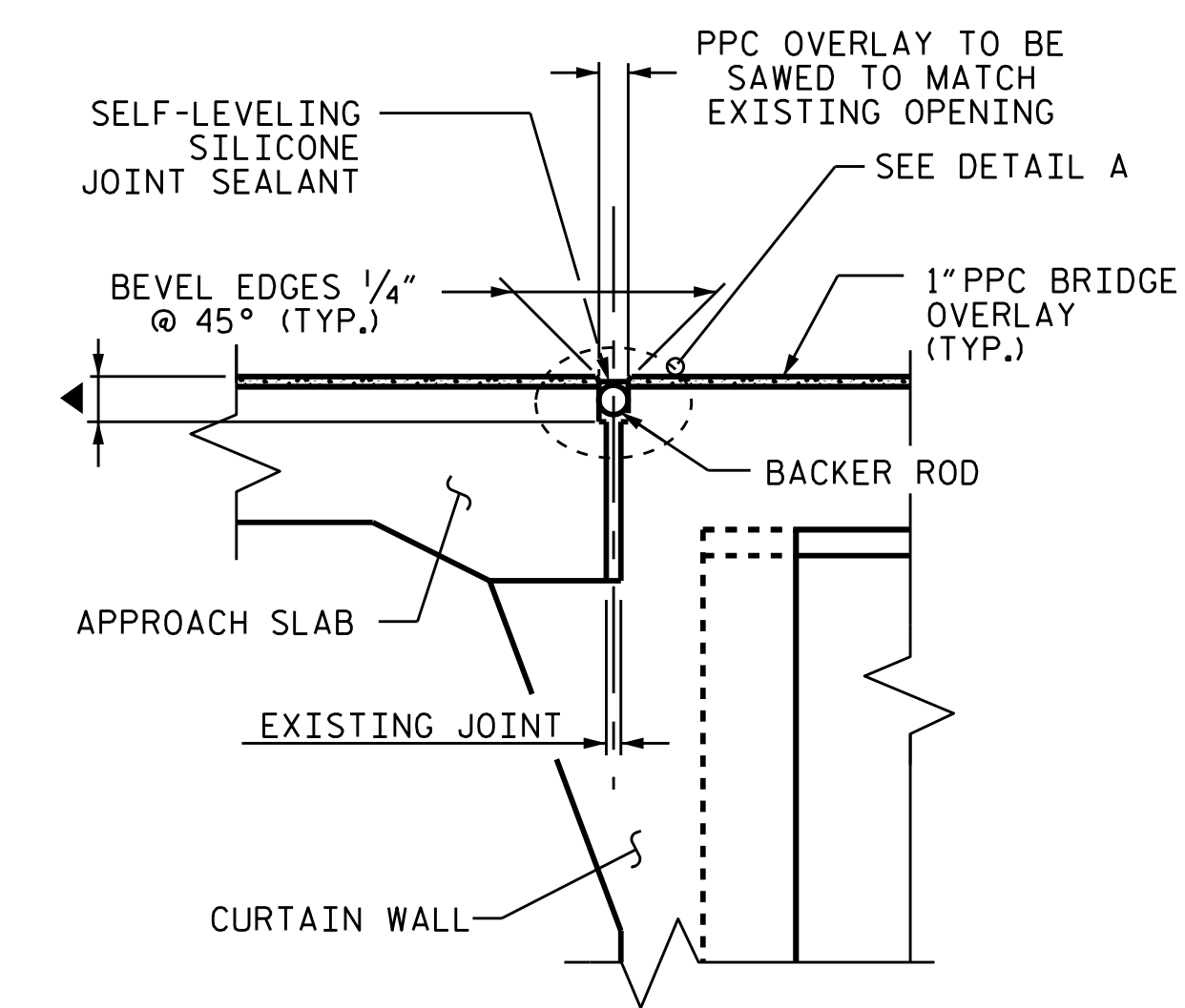
EXISTING JOINT



MINIMUM EXISTING JOINT REMOVAL & SCARIFICATION



PROPOSED JOINT PRE-SAWED & PPC OVERLAY

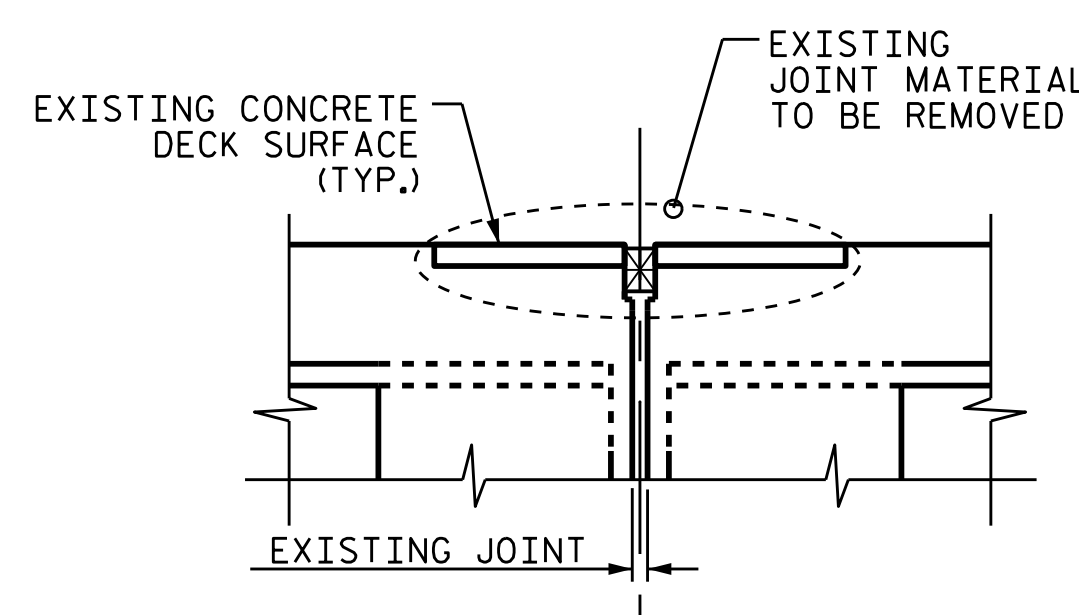


PROPOSED JOINT WITH SAWED DIMENSIONS

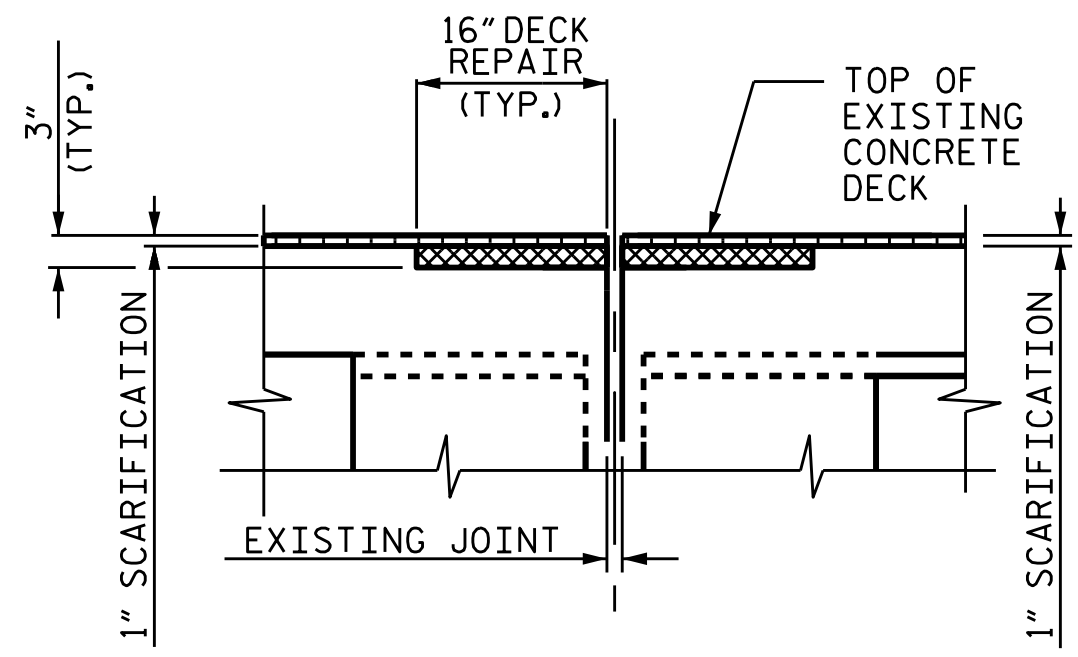
JOINT INSTALLATION SEQUENCE AT END BENTS

SECTION A-A

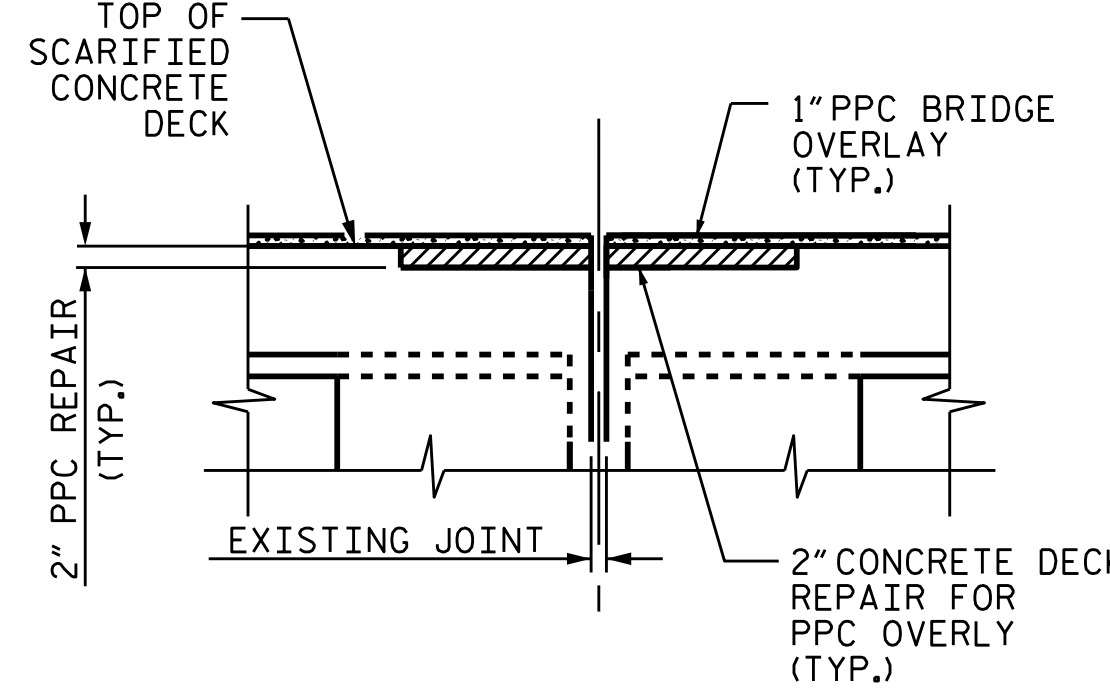
▲ SAW CUT SHALL BE 3/4" BELOW THE BOTTOM OF THE JOINT SEAL. SEE MANUFACTURER RECOMMENDATIONS



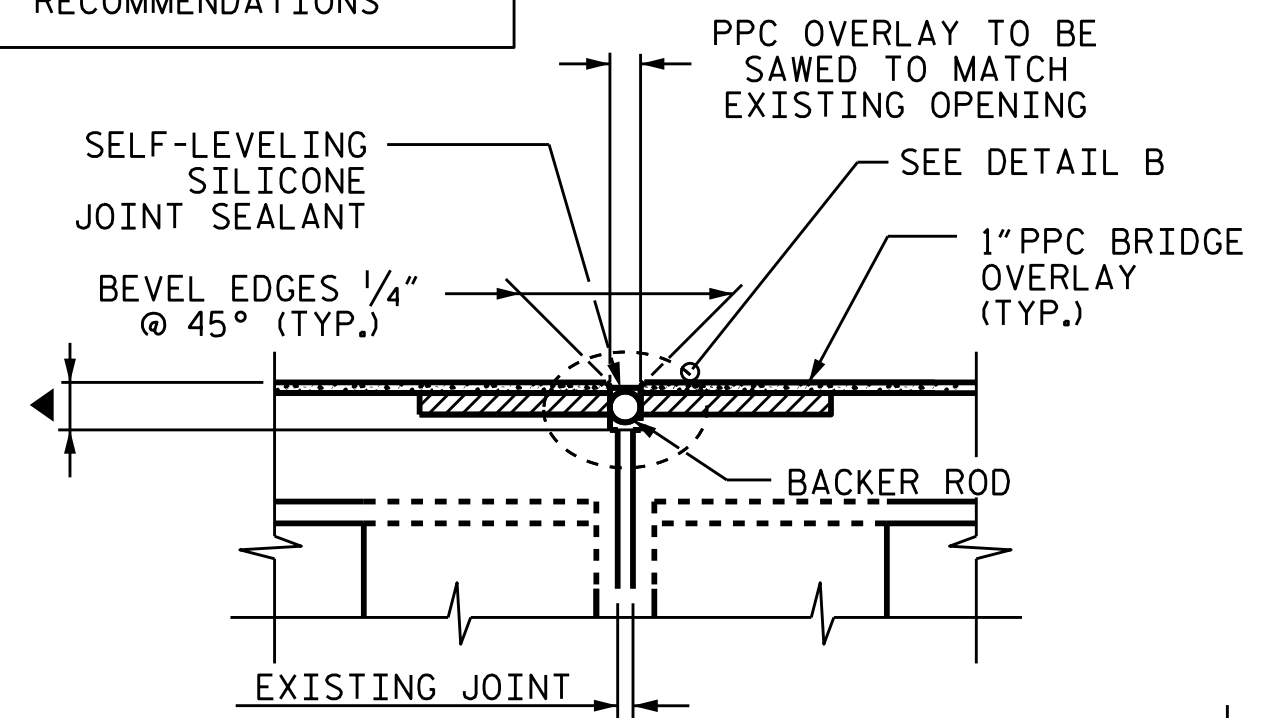
EXISTING JOINT



MINIMUM EXISTING JOINT DECK REPAIR & SCARIFICATION



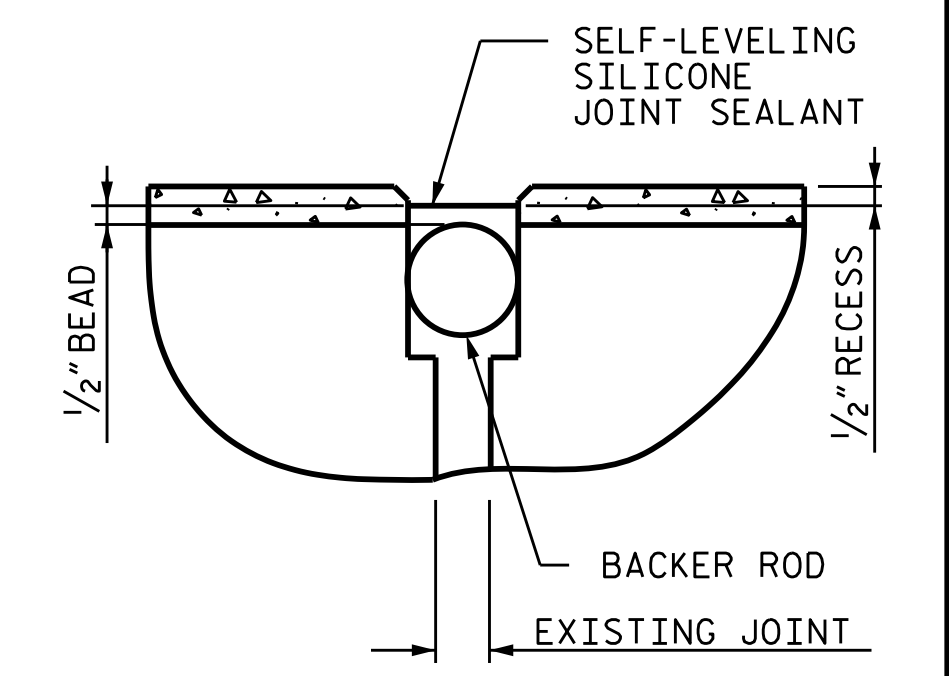
PROPOSED JOINT PRE-SAWED & PPC OVERLAY



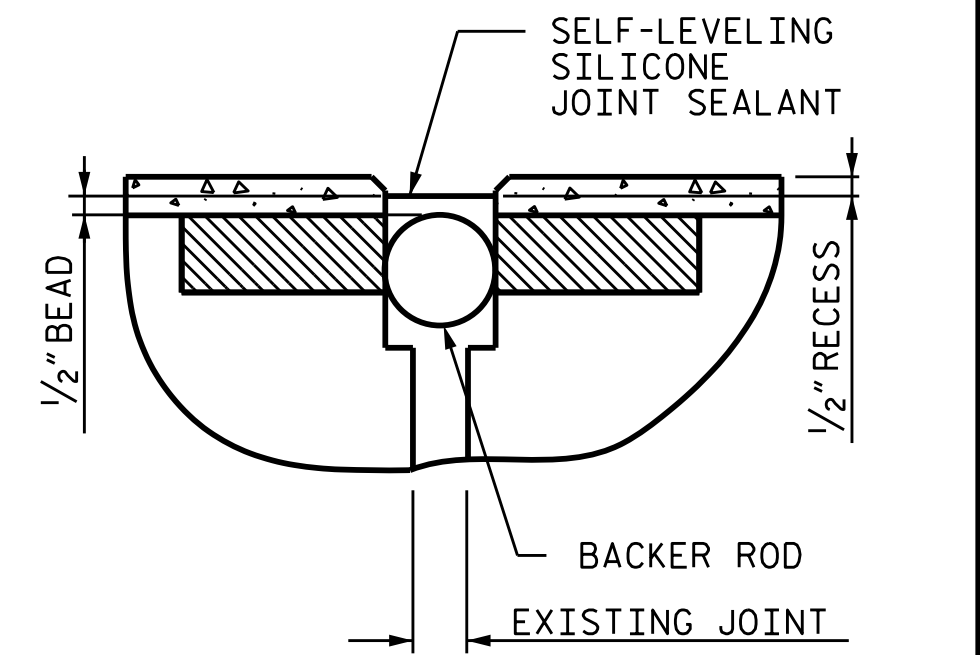
PROPOSED JOINT WITH SAWED DIMENSIONS

JOINT INSTALLATION SEQUENCE AT BENTS

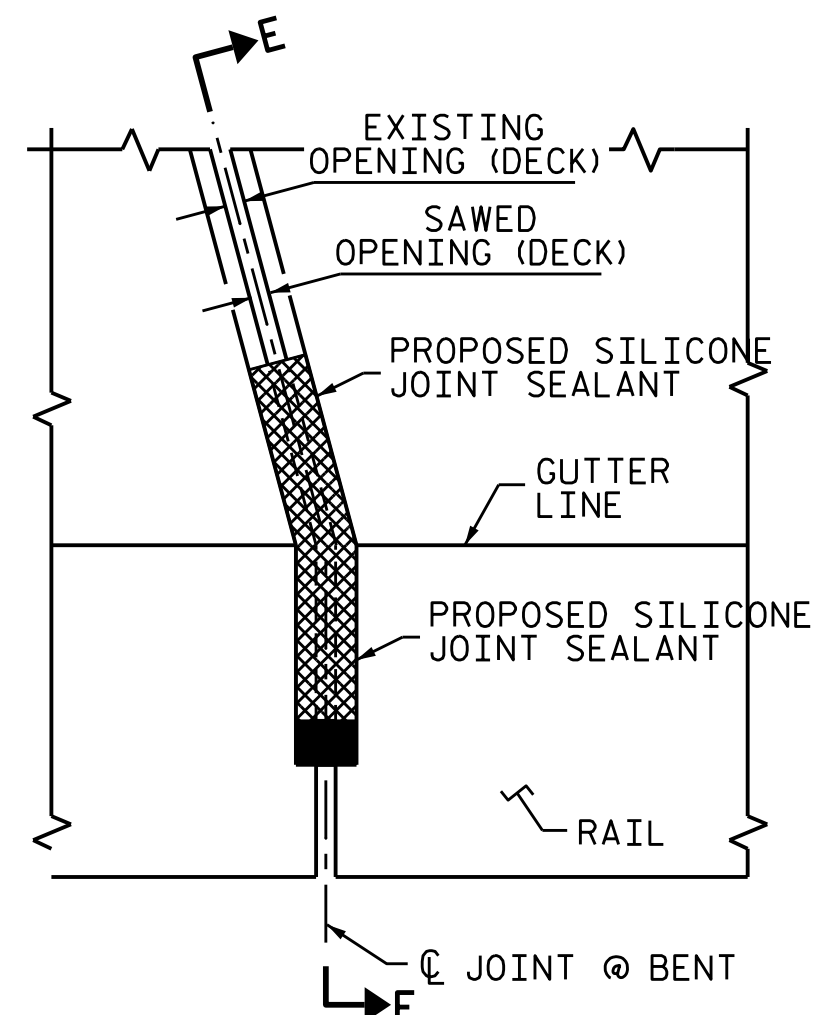
SECTION B-B



DETAIL A

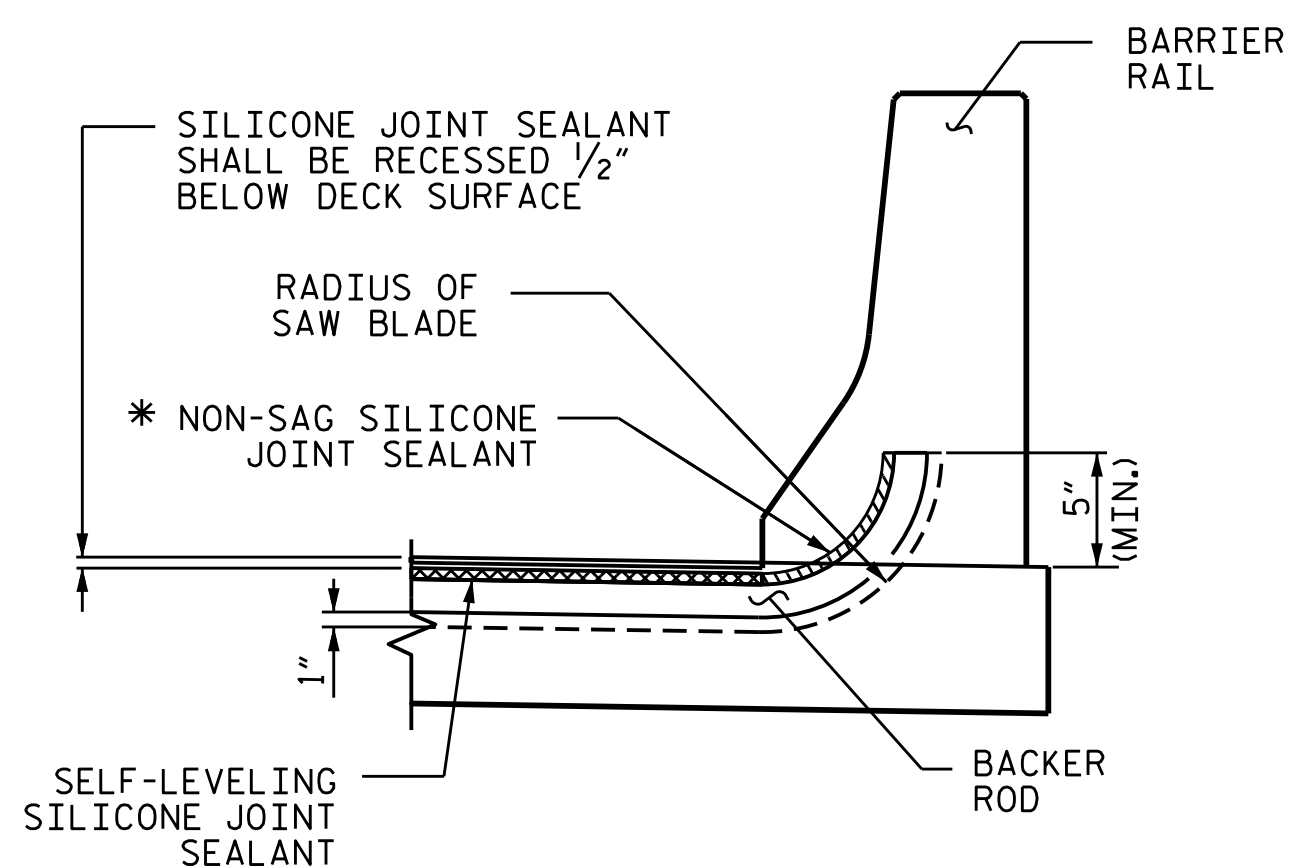


DETAIL B



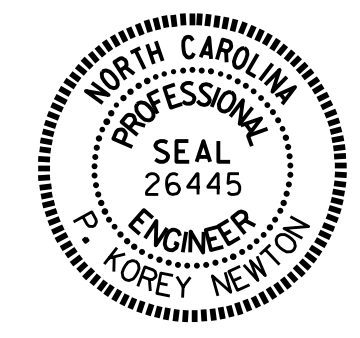
PLAN

* NON-SAG SILICONE JOINT SEALANT TO BE PLACED AND ALLOWED TO SET, PRIOR TO PLACEMENT OF SELF-LEVELING SILICONE JOINT SEALANT.



SECTION E-E

JOINT DETAIL AT BARRIER RAIL



DocuSigned by:
P. Corey Newton
6/23/2019

PROJECT NO. I-5940
DUPLIN COUNTY
BRIDGE NO. 300429 & 300430

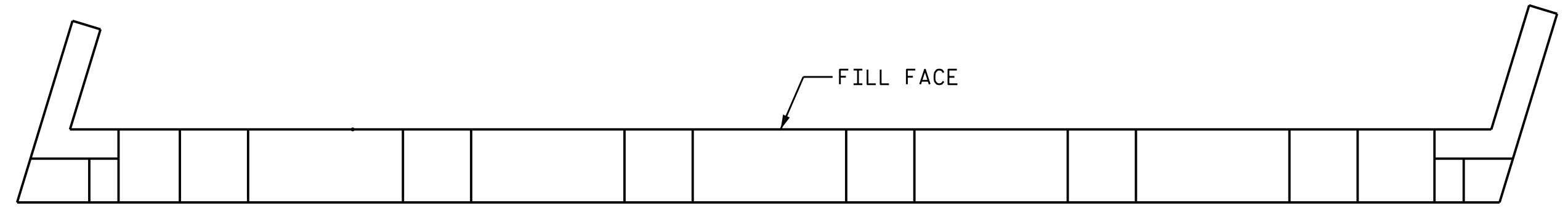
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

JOINT REPAIR DETAILS

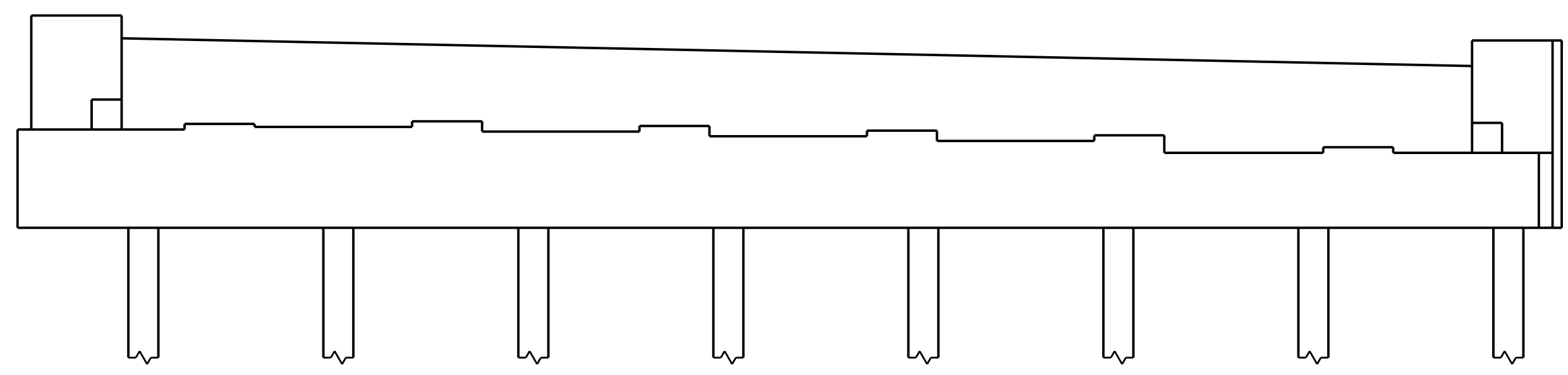
DRAWN BY : S. T. SANDOR DATE : 01/2019
CHECKED BY : W. C. SMITH DATE : 05/2019

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1			3			TOTAL SHEETS
2			4			113

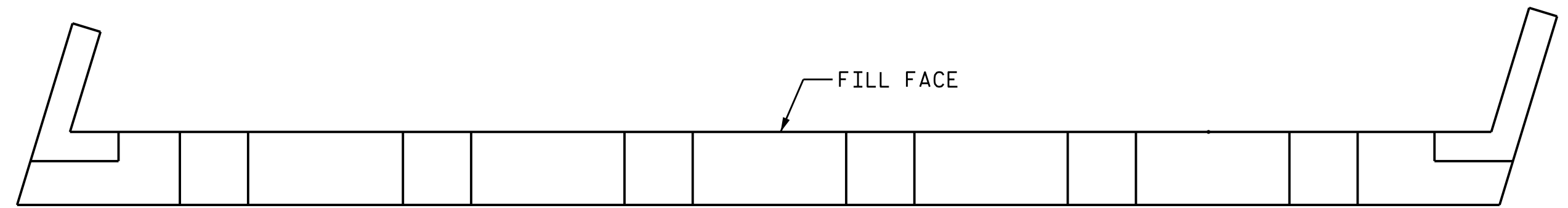


PLAN
(TOP OF CAP)

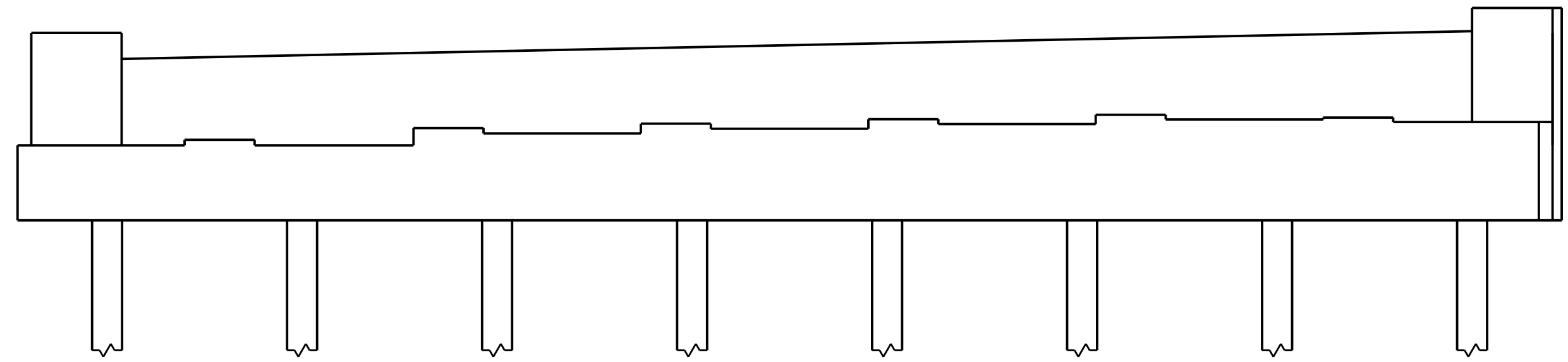


ELEVATION

END BENT 1



PLAN
(TOP OF CAP)



ELEVATION

END BENT 2

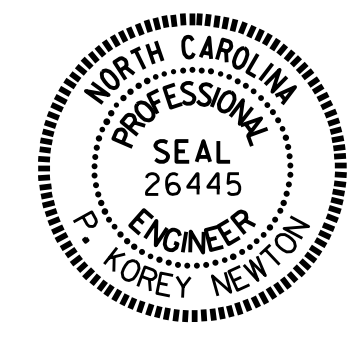
REPAIR QUANTITY TABLE

REPAIRS END BENT 1 & 2	QUANTITIES			
	ESTIMATE		ACTUAL	
CONCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL, CORNER)	0.0	0.0		
COLUMN	0.0	0.0		
SHOTCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL, CORNER)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LN. FT		LN. FT
CAP		0.0		
COLUMN		0.0		

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

- ERI - EPOXY RESIN INJECTION
- ▨ - SHOTCRETE REPAIRS
- ▩ - CONCRETE REPAIRS

PROJECT NO. I-5940
DUPLIN COUNTY
 BRIDGE NO. 300430



DocuSigned by:
P. Corey Newton
 6/23/2019

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

**SUBSTRUCTURE
 REPAIR
 END BENT 1 &
 END BENT 2**

REVISIONS						SHEET NO.
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1			3			4-7
2			4			113

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 SIGNATURES COMPLETED

DRAWN BY : P. D. BRYANT / S. T. SANDOR DATE : 01/2019
 CHECKED BY : W. C. SMITH DATE : 05/2019

NOTES:

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

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

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR CONCRETE REPAIRS, SEE SPECIAL PROVISIONS.

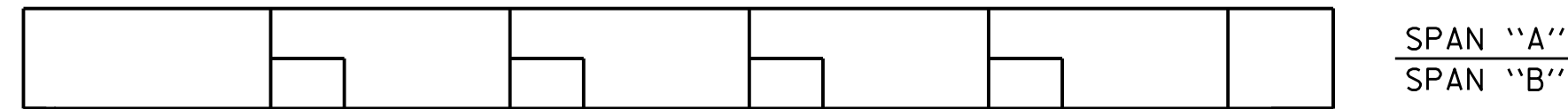
FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.

CONCRETE REPAIRS MAY BE SUBSTITUTED IN LIEU OF SHOTCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

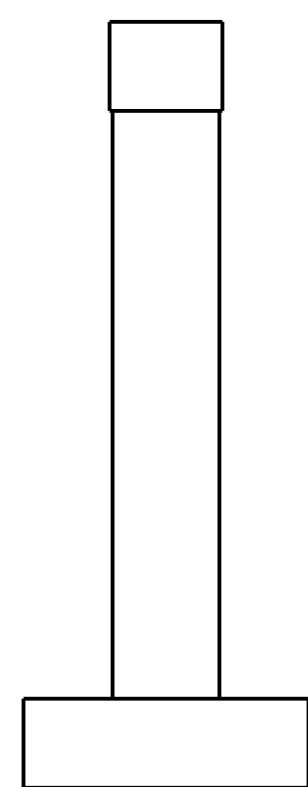
REPAIR QUANTITY TABLE

BENT 1	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	1.0	0.5		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	4.0	2.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		

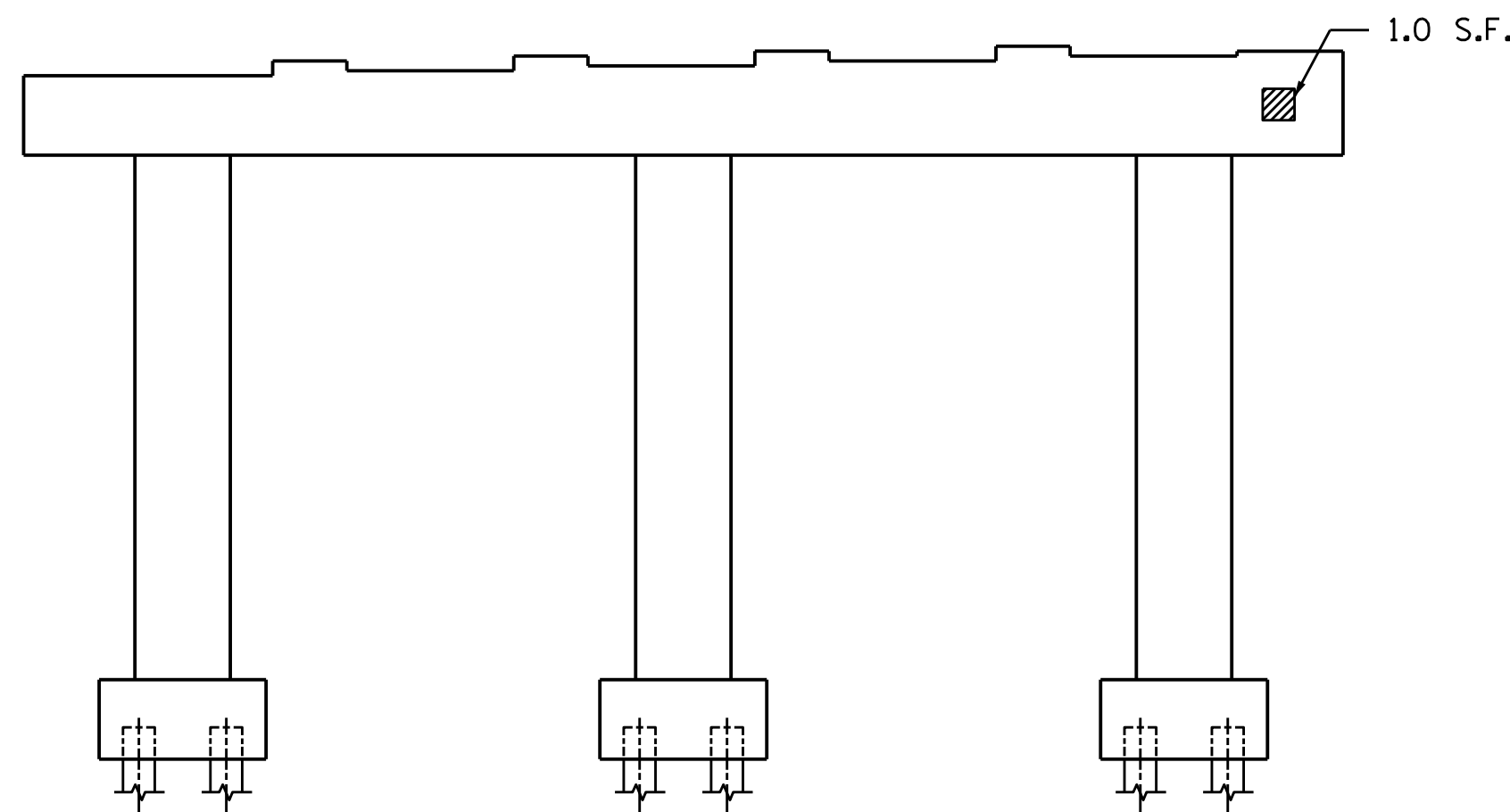
VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN. OF 1" BEHIND REBAR AND MIN. 1" CL TO SAWCUT. SEE REPAIR DETAILS.



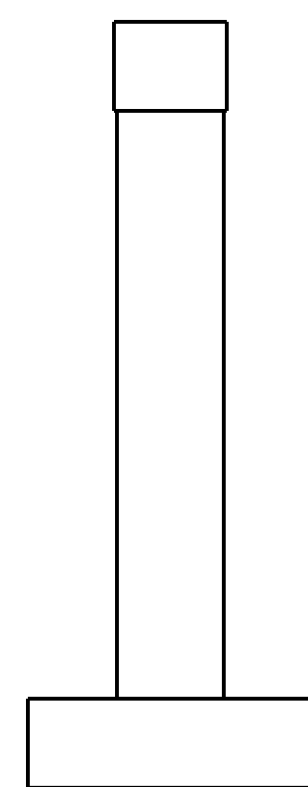
PLAN
TOP OF CAP



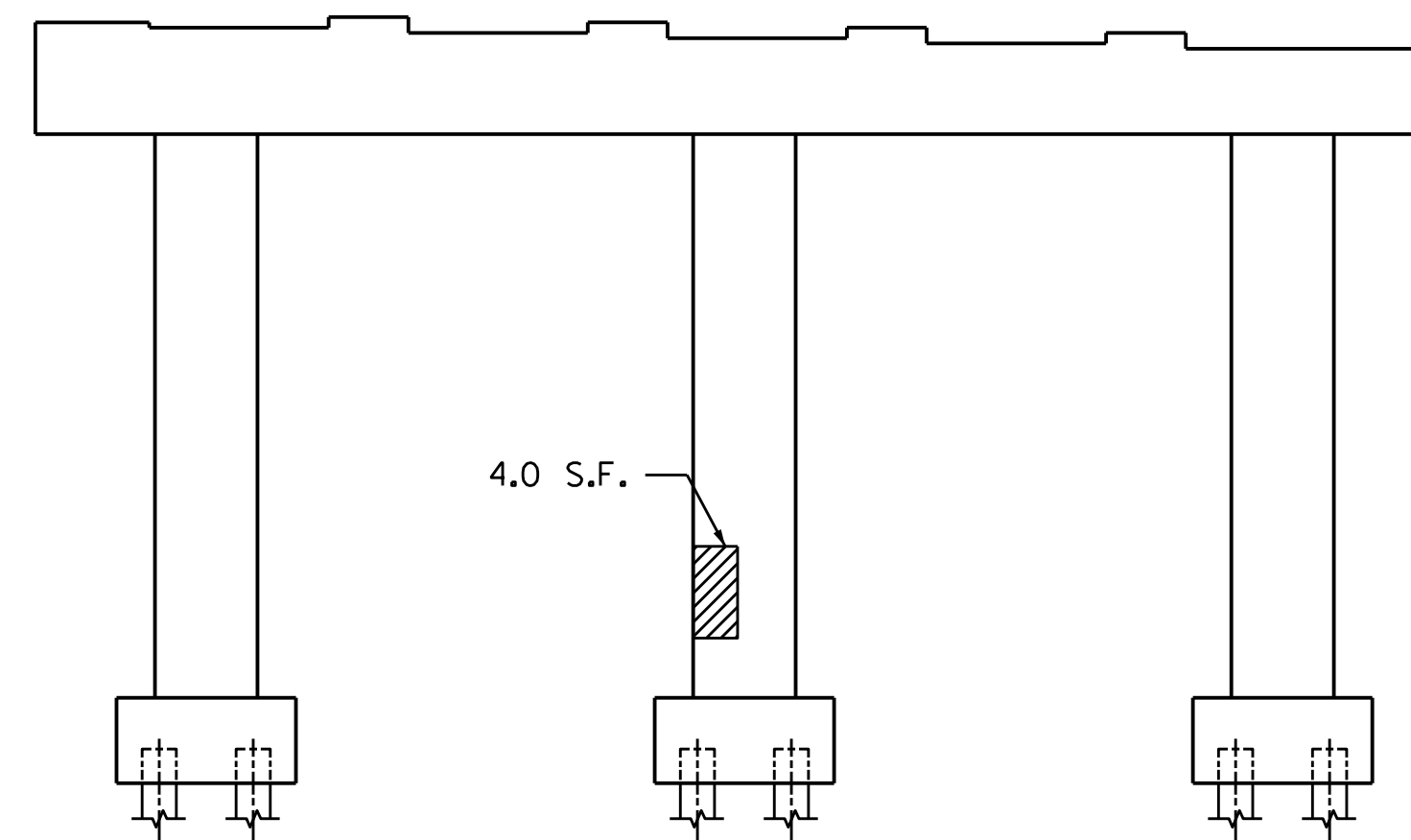
END VIEW
NORTH END



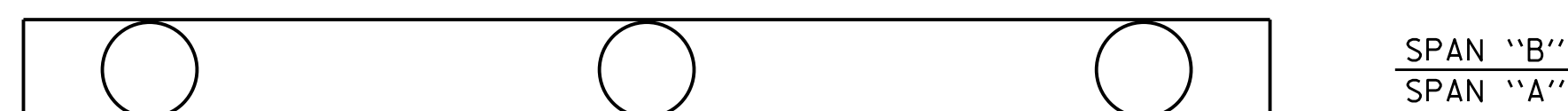
ELEVATION
WEST SIDE



END VIEW
SOUTH SIDE



ELEVATION
EAST SIDE



PLAN
BOTTOM OF CAP

- CONCRETE REPAIR
- SHOTCRETE REPAIR
- ERI EPOXY RESIN INJECTION

PROJECT NO. I-5940
DUPLIN COUNTY
 BRIDGE NO. 300430



DocuSigned by:
P. Corey Newton
4FF639D14518A07...
 6/23/2019

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
SUBSTRUCTURE
BENT 1

DRAWN BY : P. D. BRYANT / S. T. SANDOR DATE : 01/2019
 CHECKED BY : W. C. SMITH DATE : 05/2019

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1			3			54-8
2			4			113

NOTES:

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

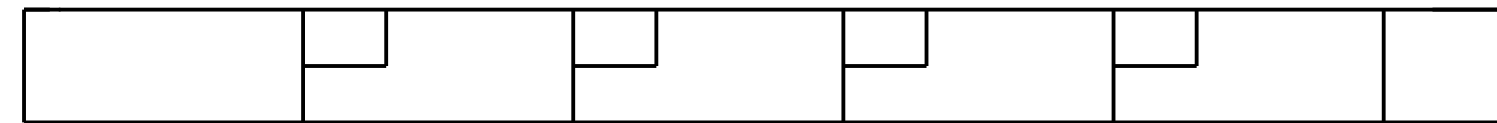
FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR CONCRETE REPAIRS, SEE SPECIAL PROVISIONS.

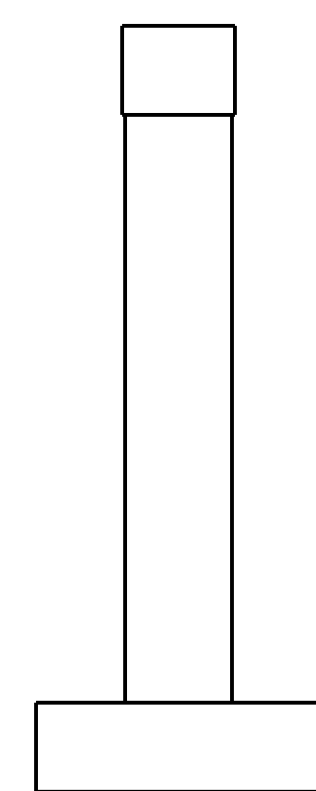
FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.

CONCRETE REPAIRS MAY BE SUBSTITUTED IN LIEU OF SHOTCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

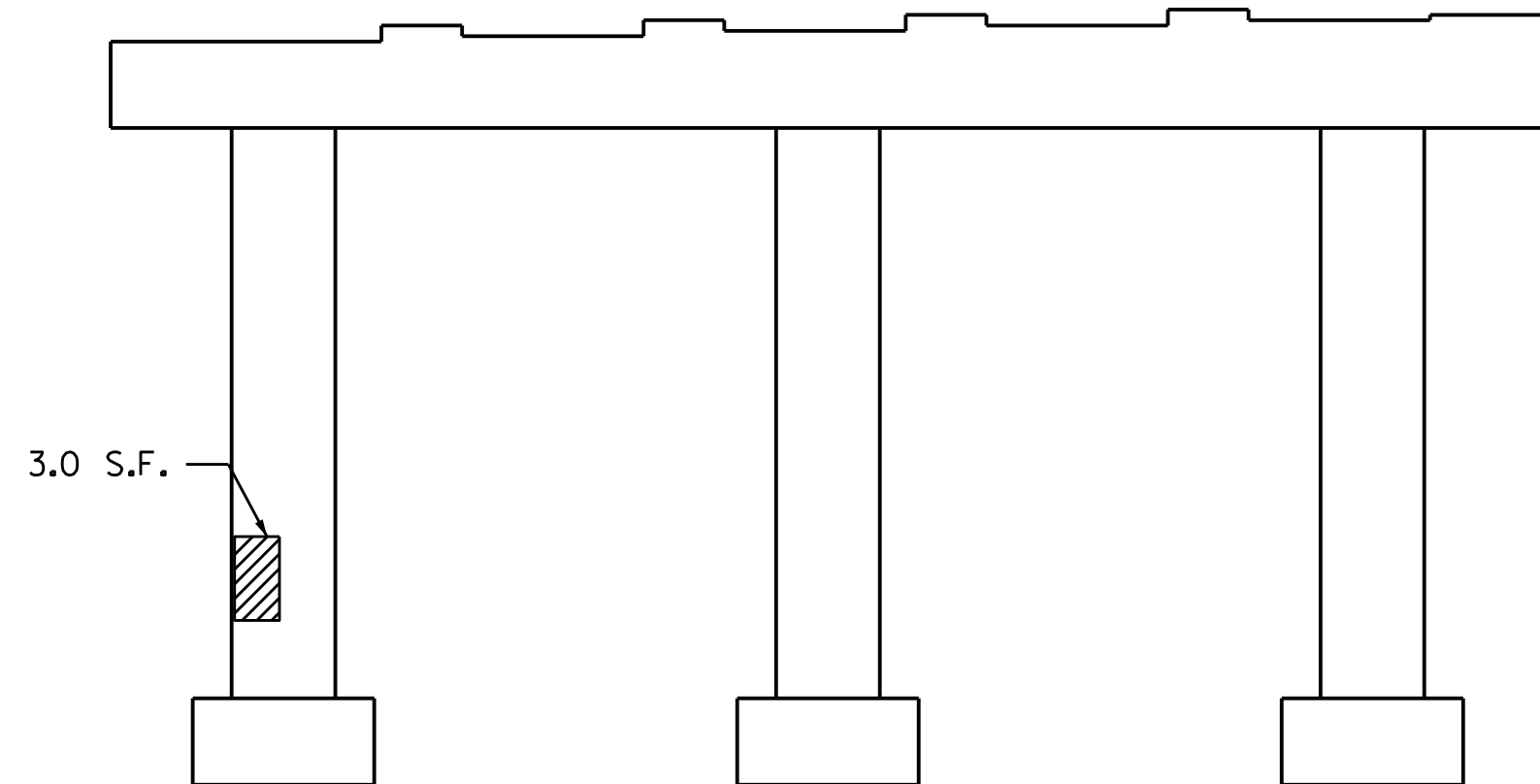


SPAN "B"
SPAN "C"

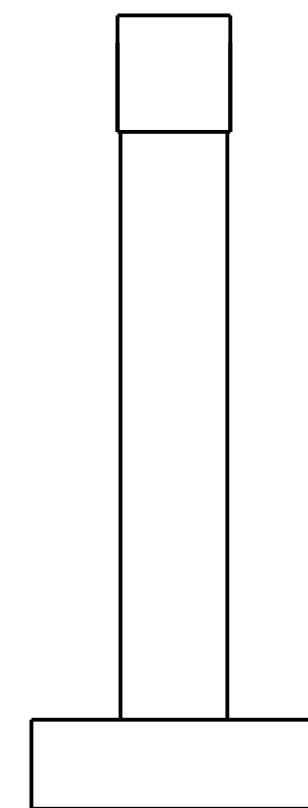
TOP OF CAP



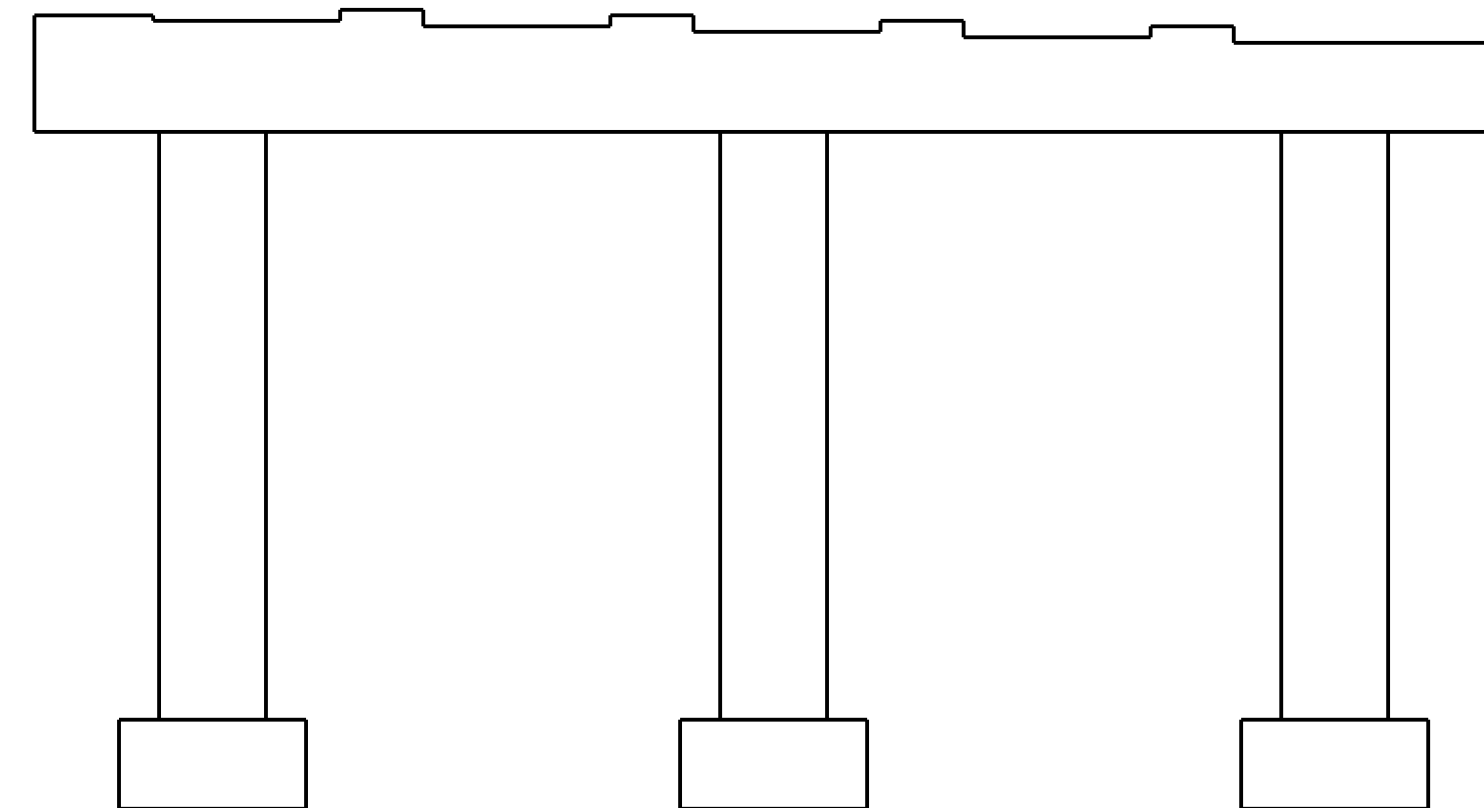
END VIEW
NORTH END



ELEVATION
WEST SIDE

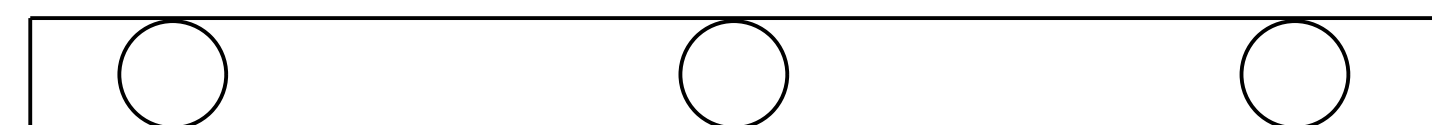


END VIEW
SOUTH SIDE



ELEVATION
EAST SIDE

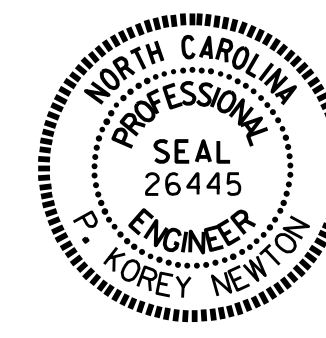
3.0 S.F.



SPAN "C"
SPAN "B"

PLAN
BOTTOM OF CAP

- CONCRETE REPAIR
- SHOTCRETE REPAIR
- ERI EPOXY RESIN INJECTION



DocuSigned by:
P. Corey Newton
6/23/2019

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

NO. 1
2

REPAIR QUANTITY TABLE				
BENT 2	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	3.0	1.5		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		

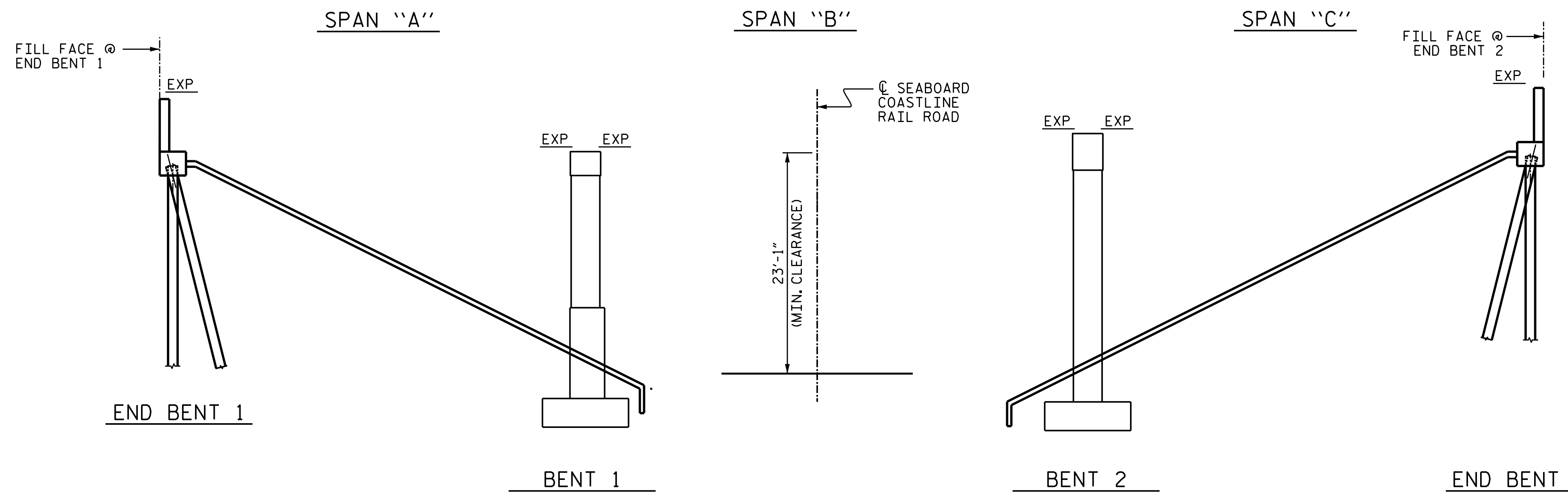
VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN. OF 1" BEHIND REBAR AND MIN. 1" CL TO SAWCUT. SEE REPAIR DETAILS.

PROJECT NO. I-5940
DUPLIN COUNTY
BRIDGE NO. 300430

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
SUBSTRUCTURE
BENT 2

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	TOTAL SHEETS
1			3			54-9
2			4			113

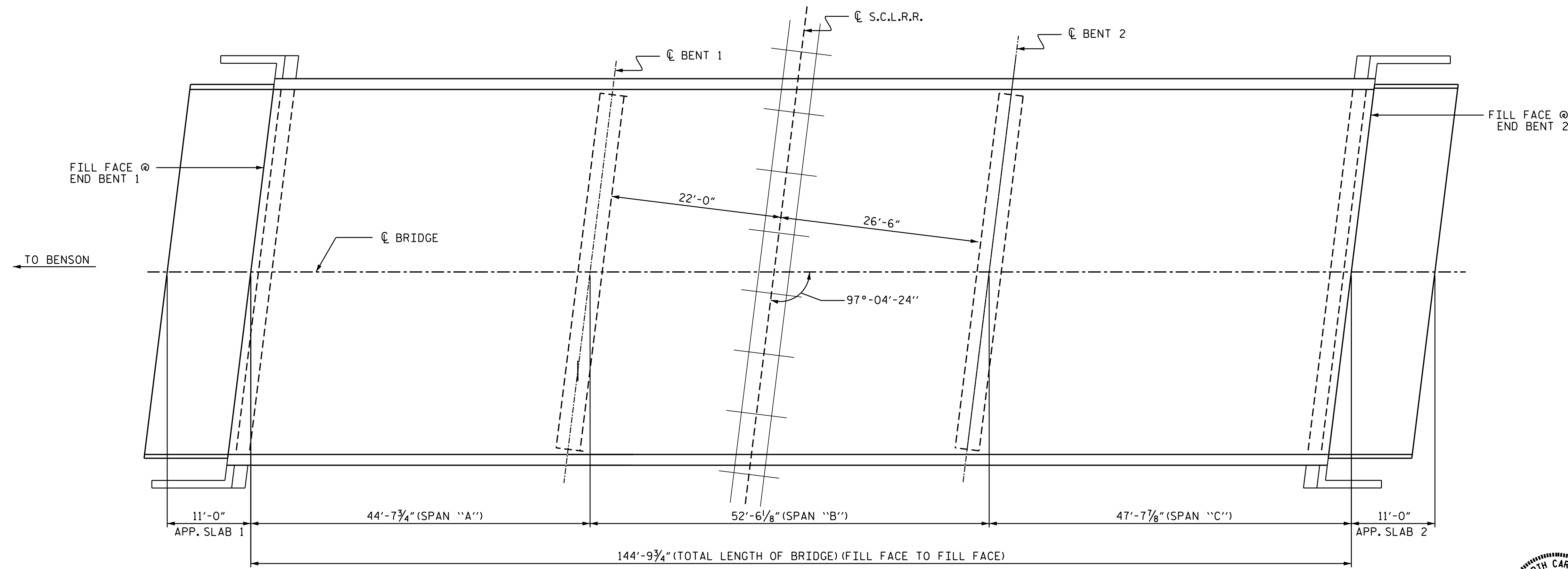
DRAWN BY : P. D. BRYANT / S. T. SANDOR DATE : 01/2019
CHECKED BY : W. C. SMITH DATE : 05/2019



ELEVATION
(SECTION ALONG ϕ ROADWAY)

- SCOPE OF WORK**
- PARTIALLY REMOVE BRIDGE DECK CONCRETE BY SCARIFICATION AND SHOTBLASTING METHODS.
 - PERFORM DECK REPAIRS IN PREPARED AREAS.
 - OVERLAY PREPARED BRIDGE DECK WITH POLYESTER POLYMER CONCRETE.
 - RECONSTRUCT BRIDGE JOINTS AND INSTALL BACKER ROD AND SILICONE JOINT SEALANT.
 - GROOVE POLYESTER POLYMER CONCRETE DECK.
 - REPAIR SUBSTRUCTURE USING EPOXY RESIN INJECTION AND SHOTCRETE.

- NOTES**
- PROFILE INFORMATION IS TAKEN FROM ORIGINAL PLANS AND THE ROUTINE INSPECTION, DATED 09/26/2017.
 - BRIDGE ORIENTATION CONFORMS TO EXISTING BRIDGE PLANS.

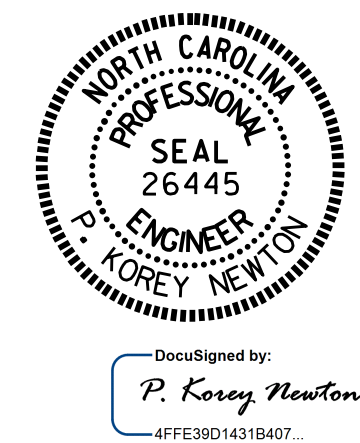


PLAN
(COLUMNS & FOOTINGS NOT SHOWN IN PLAN VIEW FOR CLARITY)

I hereby certify that this structure was rehabilitated according to these plans or as noted therein.

Resident Engineer _____ Date _____

PROJECT NO. I-5940
DUPLIN COUNTY
 BRIDGE NO. 300435



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
GENERAL DRAWING
 FOR BRIDGE 435 ON
 I-40 WBL OVER
 SEABOARD COASTLINE
 RAIL ROAD

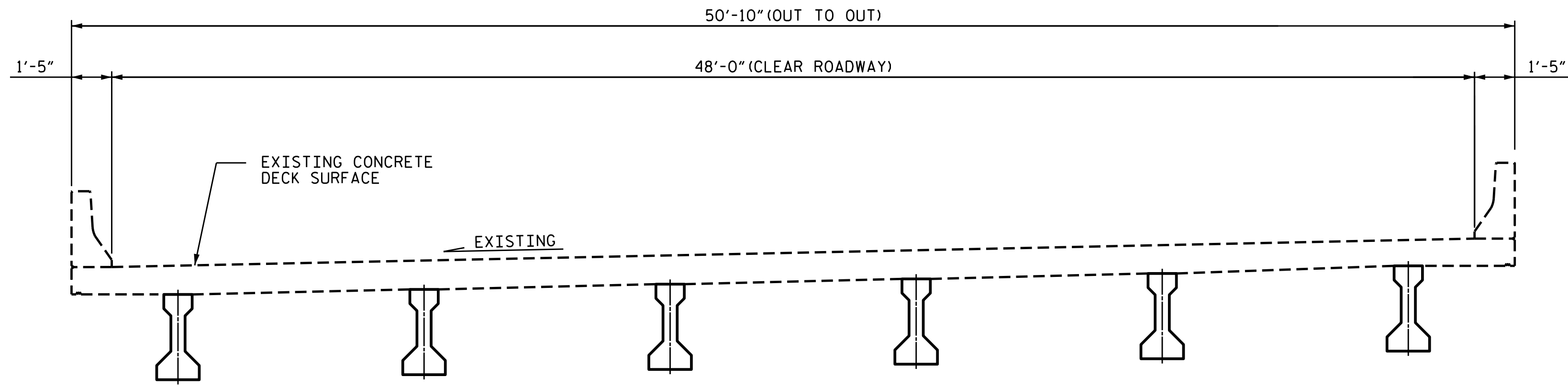
DRAWN BY : S. T. SANDOR DATE : 12/2018
 CHECKED BY : W. C. SMITH DATE : 05/2019

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

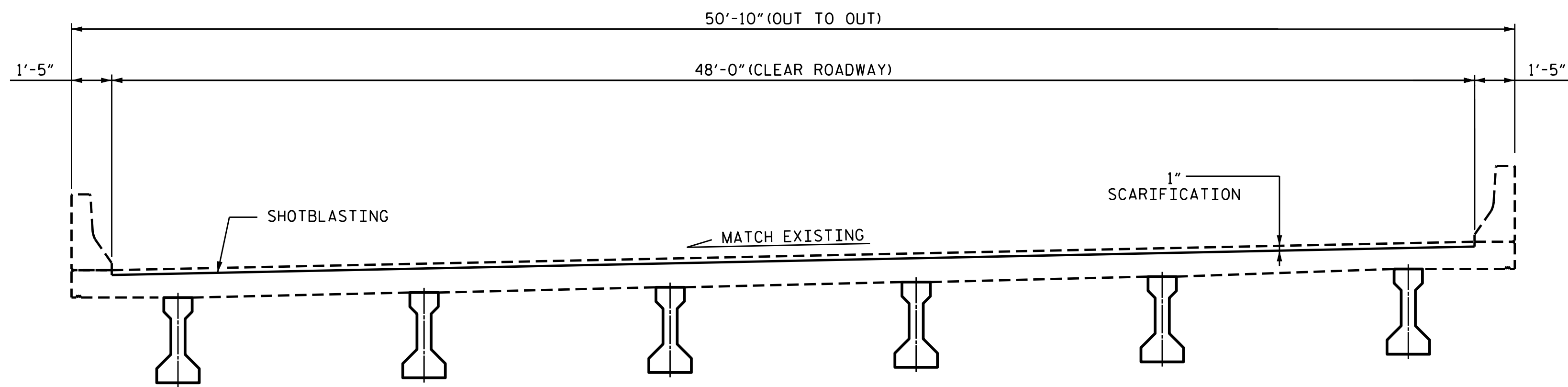
REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	TOTAL SHEETS
1			3			S5-1
2			4			113

NOTES

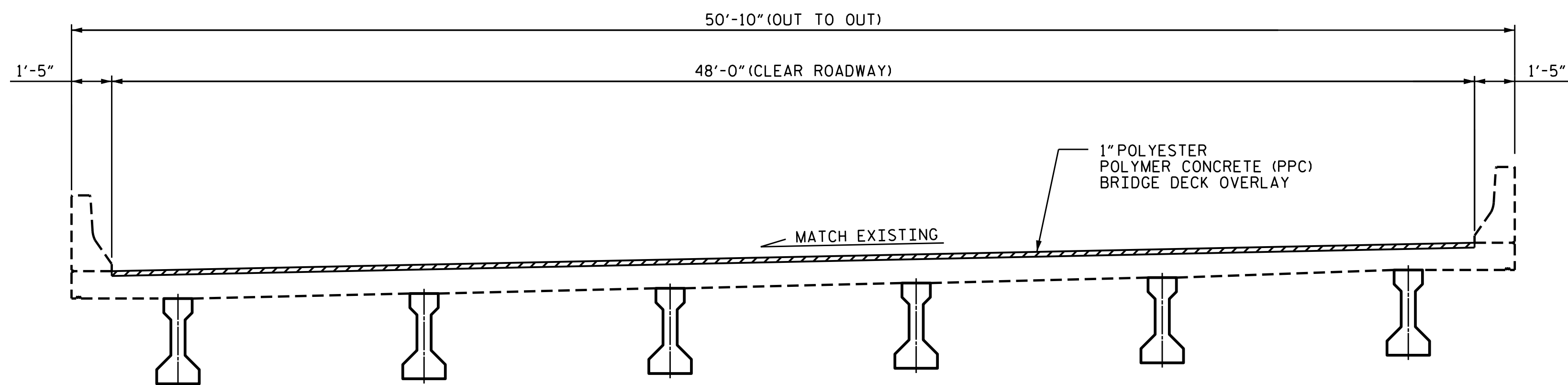
SEE TRANSPORTATION MANAGEMENT PLANS FOR LANE WIDTHS, SEQUENCING AND OTHER TRAFFIC CONTROL MEASURES FOR STAGING OF OVERLAY SURFACE PREPARATION AND POLYESTER POLYMER CONCRETE PLACEMENT.



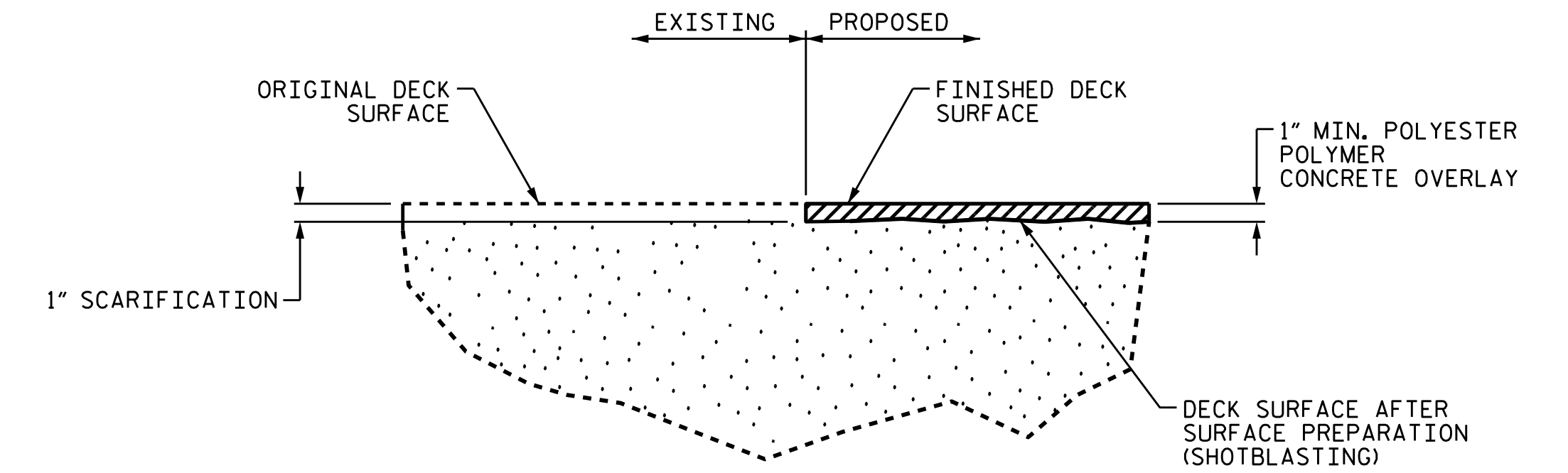
TYPICAL SECTION
(EXISTING)



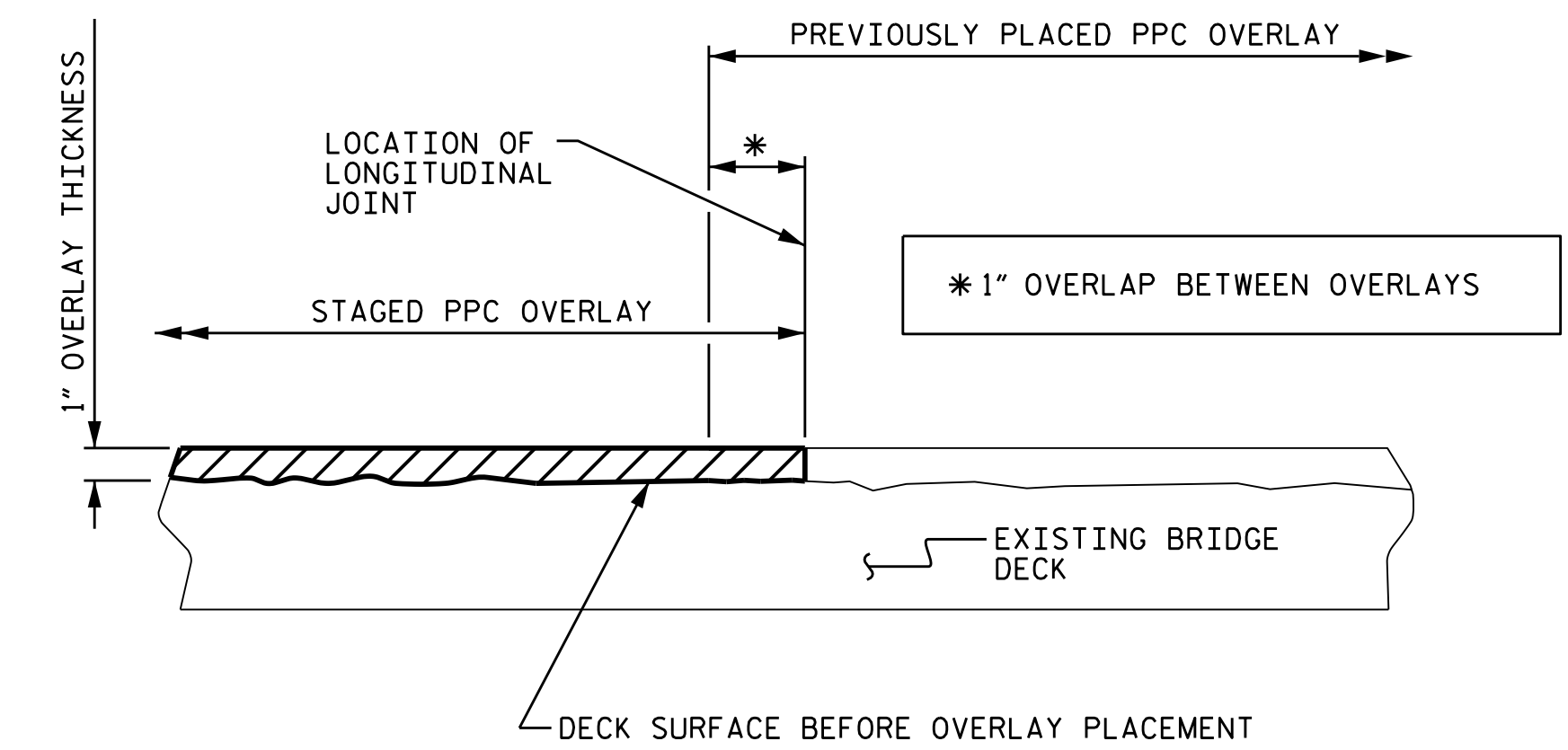
TYPICAL SECTION
(DECK PREPARATION)



TYPICAL SECTION
(PROPOSED)

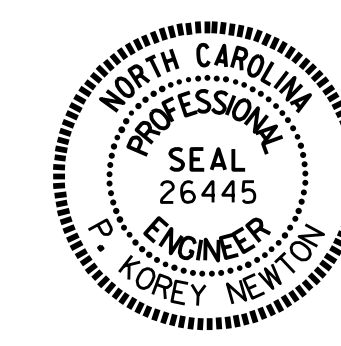


DETAIL FOR POLYESTER POLYMER CONCRETE OVERLAY



STAGED PPC OVERLAY JOINT
(AS NEEDED)

PROJECT NO. I-5940
DUPLIN COUNTY
 BRIDGE NO. 300435



DocuSigned by:
P. Corey Newton
 6/23/2019

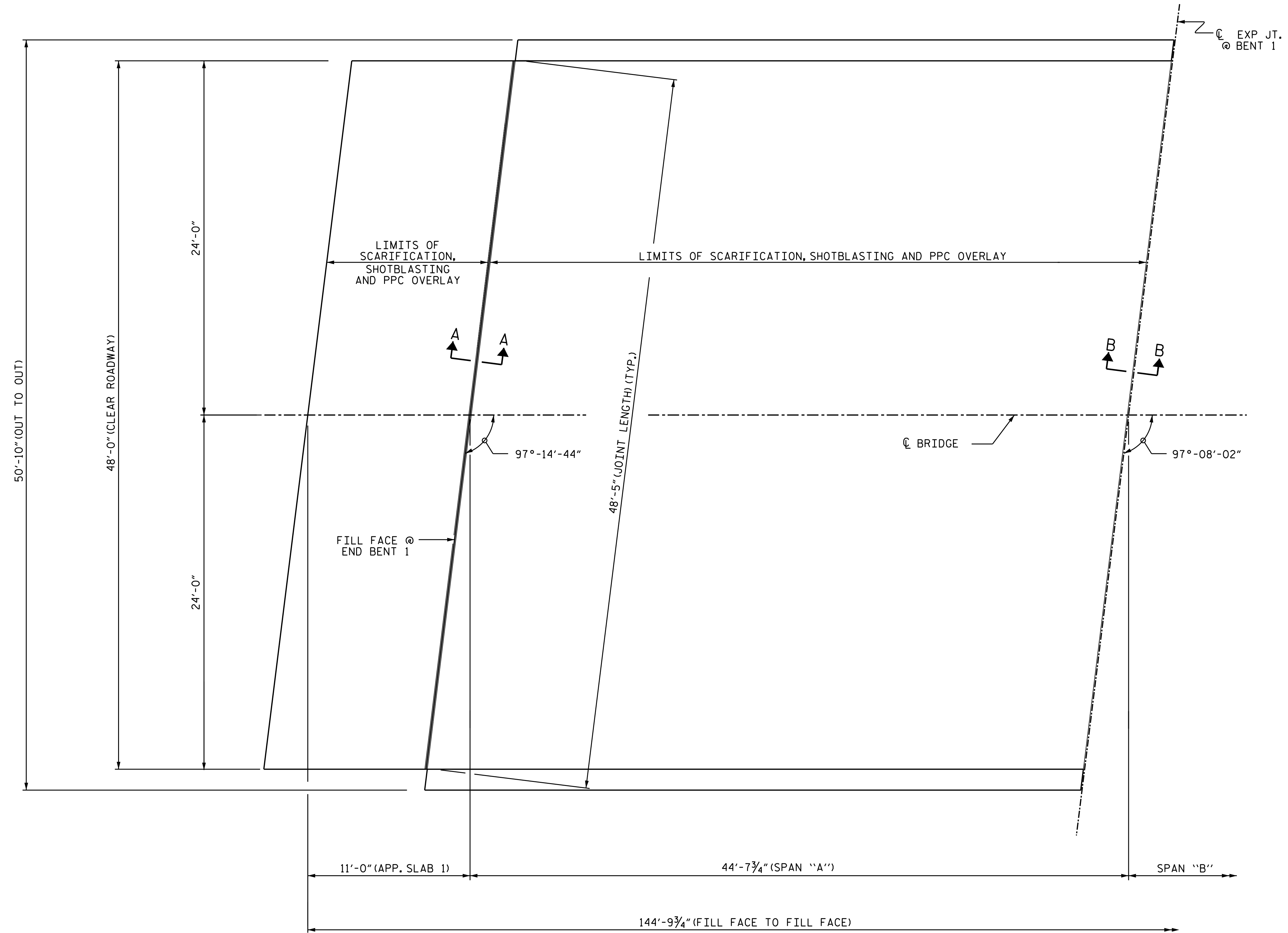
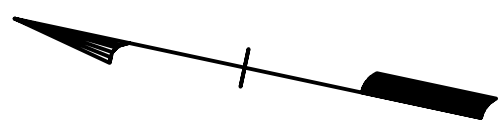
STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

TYPICAL SECTION AND SURFACE PREPARATION DETAILS

DRAWN BY : S. T. SANDOR DATE : 01/2019
 CHECKED BY : W. C. SMITH DATE : 05/2019

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	TOTAL SHEETS
1			3			S5-2
2			4			113



SUMMARY OF QUANTITIES FOR SPAN "A" AND APPROACH SLAB 1

	ESTIMATE	ACTUAL
SCARIFYING BRIDGE DECK	296.8 SY	
POLYSTER POLYMER CONCRETE MATERIALS	8.2 CY	
SHOTBLASTING BRIDGE DECK	296.8 SY	
PLACING & FINISHING PPC OVERLAY	296.8 SY	
CLASS II SURFACE PREPARATION	0.0 SY	
GROOVING BRIDGE DECK	2,479.5 SF	

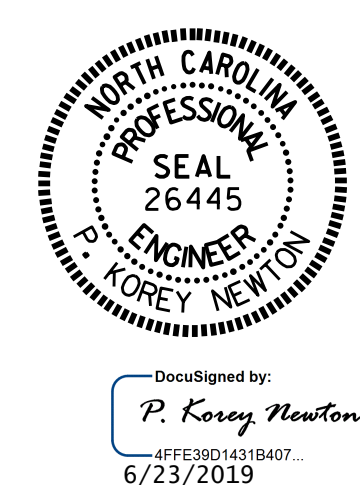
NOTES:
 REPAIR LOCATIONS AND ESTIMATED QUANTITIES ARE GIVEN WITH THE BEST INFORMATION AVAILABLE. IF ADDITIONAL REPAIRS NOT SHOWN IN DRAWINGS ARE DEEMED NECESSARY BY ENGINEER, THE ENGINEER WILL NOTE ON THE DRAWINGS THE APPROXIMATE LOCATIONS AND DESCRIPTION OF THE REPAIRS AND ADJUST THE ACTUAL QUANTITIES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

- SCARIFYING AND SHOTBLASTING OF BRIDGE DECK FOR PPC OVERLAY
- APPROX. AREA CLASS II SURFACE PREPARATION

NO DEFICIENCIES NOTED DURING FIELD INSPECTION. THE CONTRACTOR AND ENGINEER SHALL INSPECT THE DECK SURFACE AFTER SCARIFICATION FOR POTENTIAL CLASS II REPAIRS.

PROJECT NO. I-5940
DUPLIN COUNTY
 BRIDGE NO. 300435

PLAN OF SPAN "A" AND APPROACH SLAB 1
 (SEE SHEET NO. S6-6 FOR SECTION A-A & B-B)



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

**SURFACE PREPARATION
 SPAN "A" AND
 APPROACH SLAB 1**

DRAWN BY : S. T. SANDOR DATE : 01/2019
 CHECKED BY : W. C. SMITH DATE : 05/2019

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

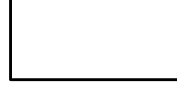

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	TOTAL SHEETS
1			3			S5-3
2			4			113

SUMMARY OF QUANTITIES FOR SPAN "B"

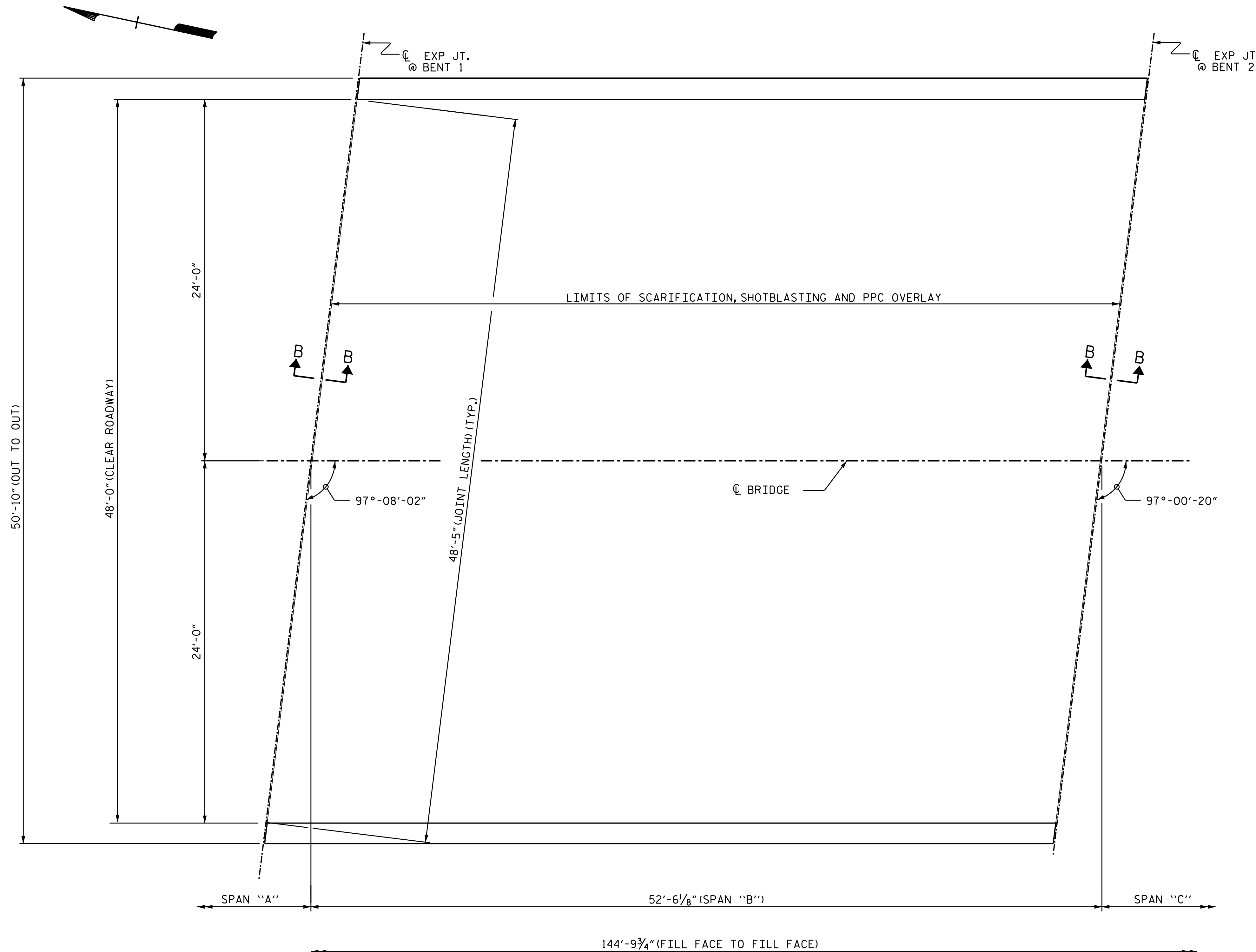
	ESTIMATE	ACTUAL
SCARIFYING BRIDGE DECK	280.1 SY	
POLYMER POLYMER CONCRETE MATERIALS	7.8 CY	
SHOTBLASTING BRIDGE DECK	280.1 SY	
PLACING & FINISHING PPC OVERLAY	280.1 SY	
CLASS II SURFACE PREPARATION	0.0 SY	
GROOVING BRIDGE DECK	2,317.7 SF	

NOTES:

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

-  - SCARIFYING AND SHOTBLASTING OF BRIDGE DECK FOR PPC OVERLAY
-  - APPROX. AREA CLASS II SURFACE PREPARATION

NO DEFICIENCIES NOTED DURING FIELD INSPECTION. THE CONTRACTOR AND ENGINEER SHALL INSPECT THE DECK SURFACE AFTER SCARIFICATION FOR POTENTIAL CLASS II REPAIRS.



PLAN OF SPAN "B"
(SEE SHEET NO. S6-6 FOR SECTION B-B)

PROJECT NO. I-5940
DUPLIN COUNTY
 BRIDGE NO. 300435



DocuSigned by:
 P. Corey Newton
 49FE39D14518A07...
 6/23/2019

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

**SURFACE PREPARATION
 SPAN "B"**

DRAWN BY : S. T. SANDOR DATE : 01/2019
 CHECKED BY : W. C. SMITH DATE : 05/2019

DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
 SIGNATURES COMPLETED

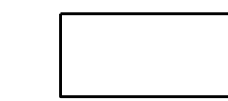
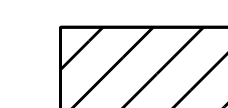
REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	TOTAL SHEETS
1			3			55-4
2			4			113

SUMMARY OF QUANTITIES FOR SPAN "C" AND APPROACH SLAB 2

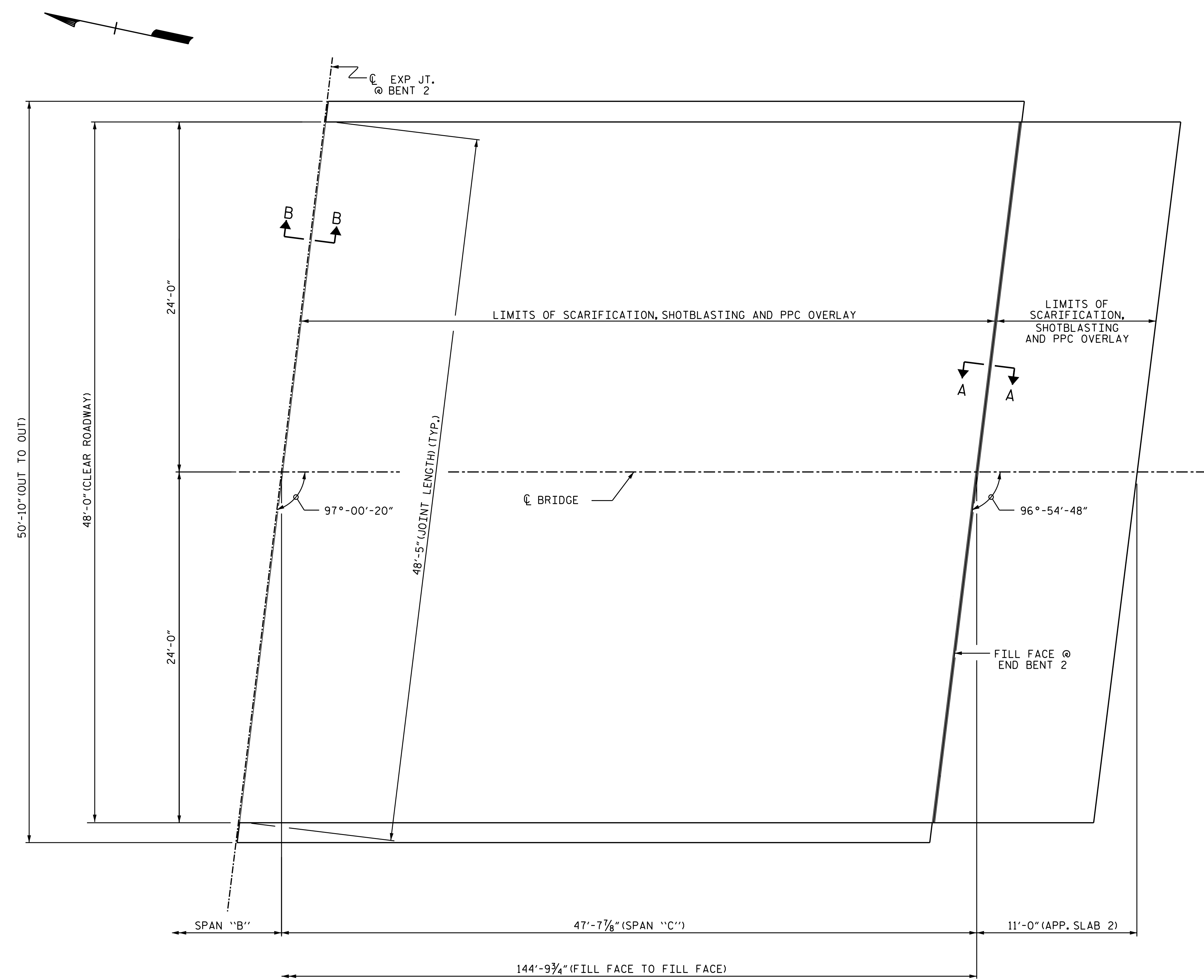
	ESTIMATE	ACTUAL
SCARIFYING BRIDGE DECK	312.9 SY	
POLYSTER POLYMER CONCRETE MATERIALS	8.7 CY	
SHOTBLASTING BRIDGE DECK	312.9 SY	
PLACING & FINISHING PPC OVERLAY	312.9 SY	
CLASS II SURFACE PREPARATION	0.0 SY	
GROOVING BRIDGE DECK	2,617.1 SF	

NOTES:

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

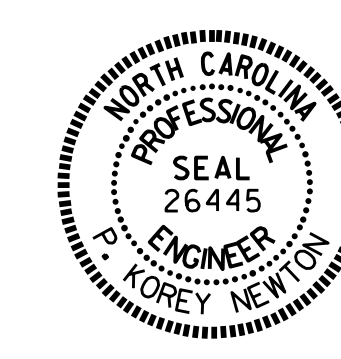
-  - SCARIFYING AND SHOTBLASTING OF BRIDGE DECK FOR PPC OVERLAY
-  - APPROX. AREA CLASS II SURFACE PREPARATION

NO DEFICIENCIES NOTED DURING FIELD INSPECTION. THE CONTRACTOR AND ENGINEER SHALL INSPECT THE DECK SURFACE AFTER SCARIFICATION FOR POTENTIAL CLASS II REPAIRS.



PLAN OF SPAN "C" AND APPROACH SLAB 2
(SEE SHEET NO. S6-6 FOR SECTION A-A & B-B)

PROJECT NO. I-5940
DUPLIN COUNTY
 BRIDGE NO. 300435

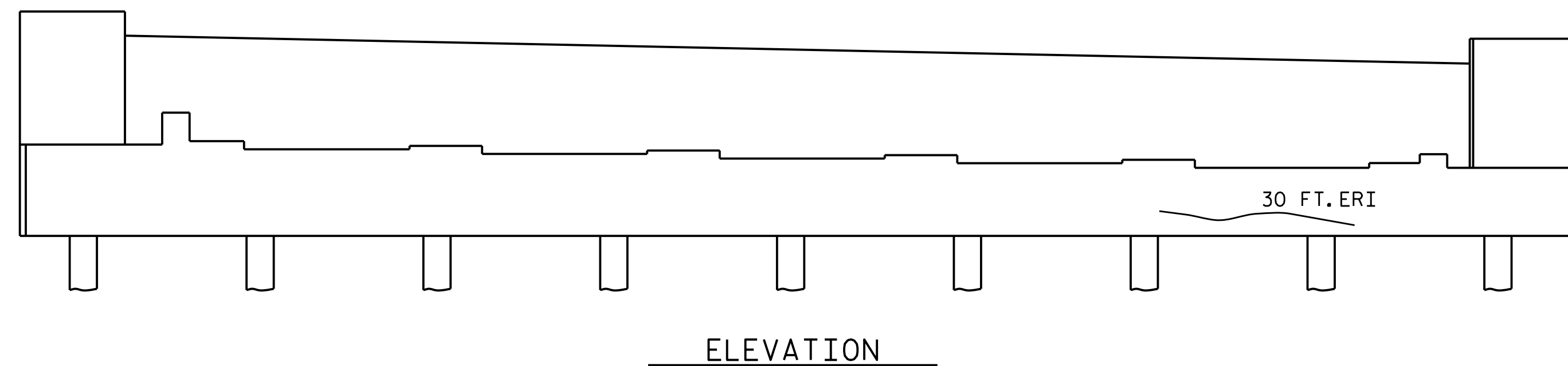
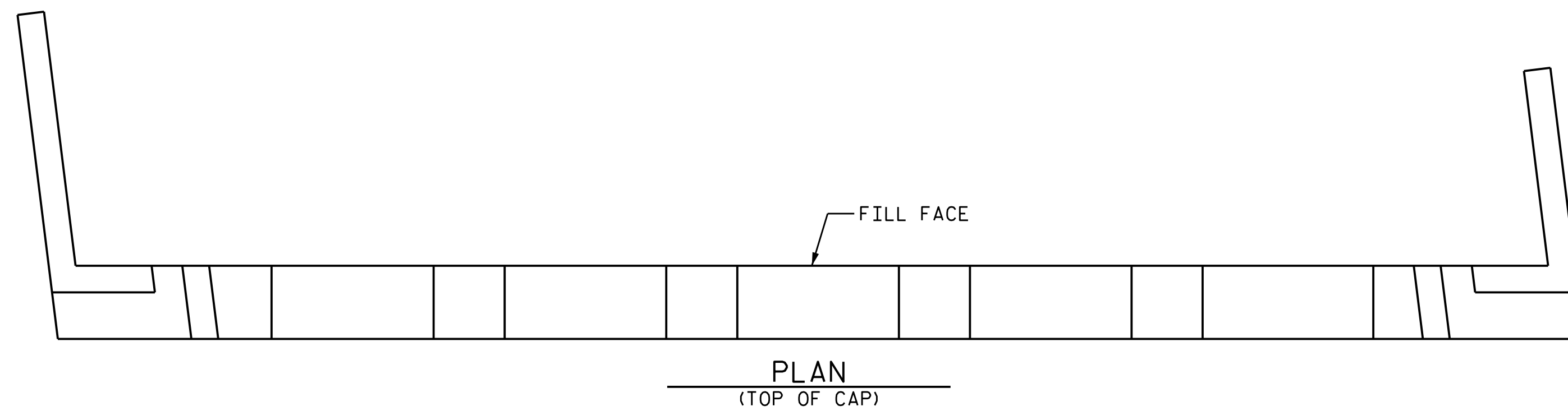


DocuSigned by:
P. Corey Newton
 49FE39D14518A07...
 6/23/2019

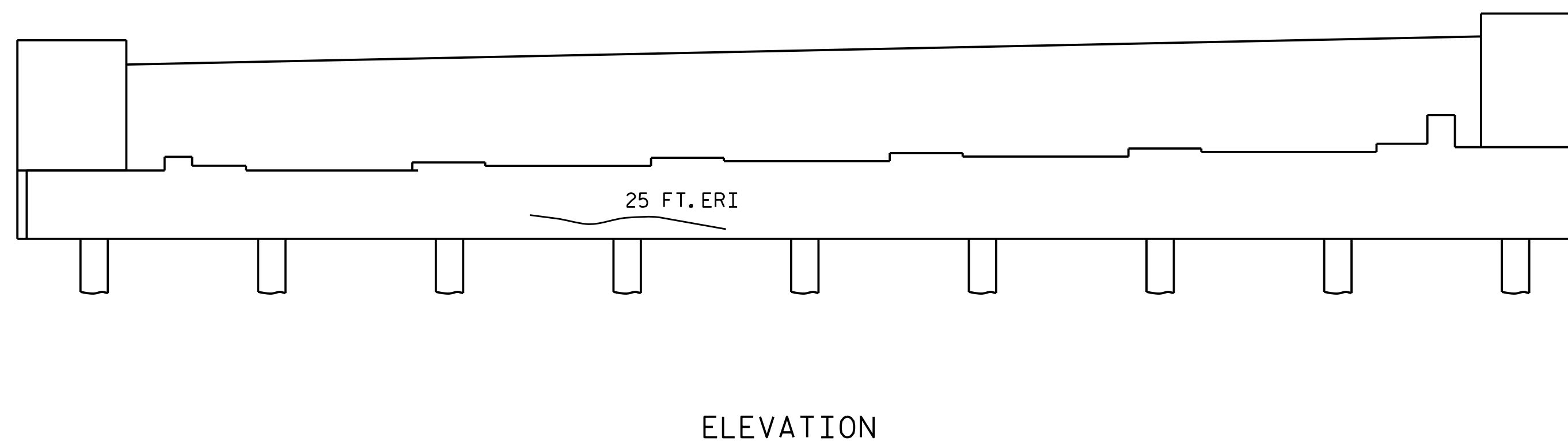
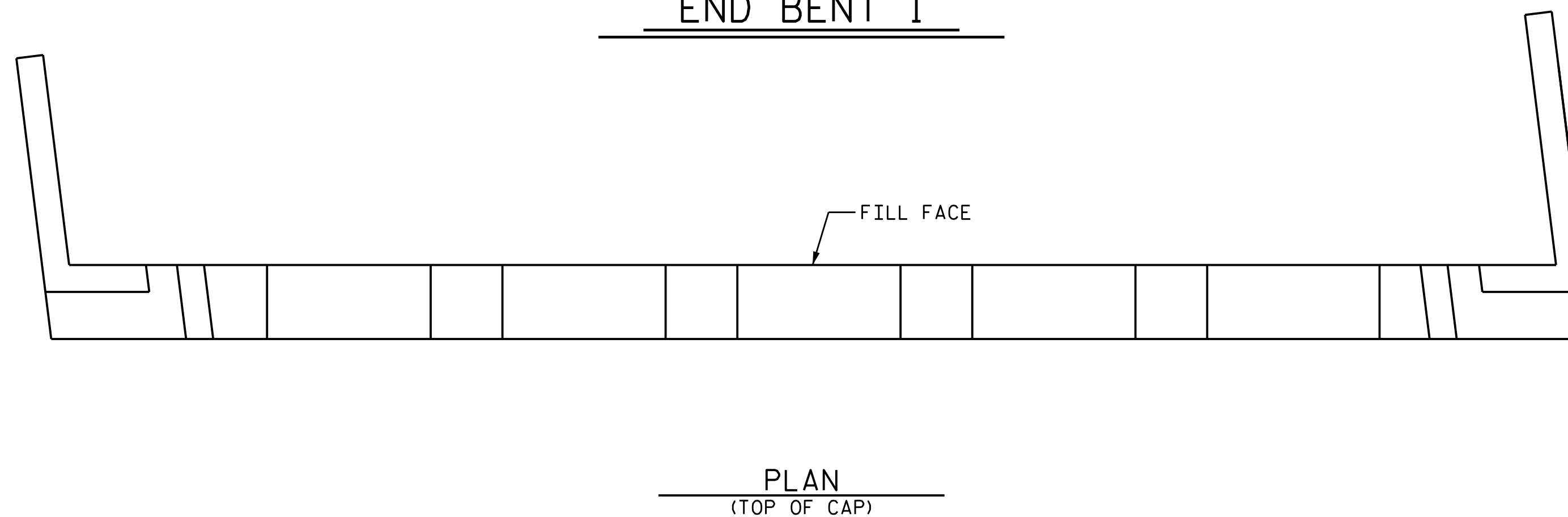
STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 SURFACE PREPARATION
 SPAN "C" AND
 APPROACH SLAB 2

DRAWN BY : S. T. SANDOR DATE : 01/2019
 CHECKED BY : W. C. SMITH DATE : 05/2019

NO.	REVISIONS		NO.	REVISIONS		SHEET NO.
	BY:	DATE:		BY:	DATE:	
1			3			S5-5
2			4			TOTAL SHEETS 113



END BENT 1



END BENT 2

REPAIR QUANTITY TABLE

REPAIRS END BENT 1 & 2	QUANTITIES			
	ESTIMATE		ACTUAL	
CONCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL, CORNER)	0.0	0.0		
COLUMN	0.0	0.0		
SHOTCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL, CORNER)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LN. FT		LN. FT
CAP		55.0		
COLUMN		0.0		

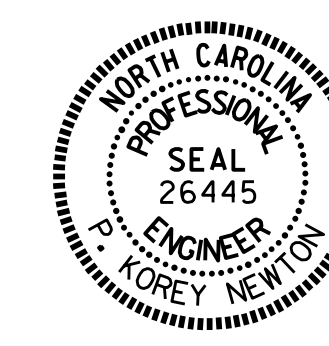
VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN. OF 1" BEHIND REBAR AND MIN. 1" CL TO SAWCUT. SEE REPAIR DETAILS.

ERI - EPOXY RESIN INJECTION

▨ - SHOTCRETE REPAIRS

▩ - CONCRETE REPAIRS

PROJECT NO. I-5940
DUPLIN COUNTY
 BRIDGE NO. 300435



DocuSigned by:
 P. Corey Newton
 6/23/2019

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 SUBSTRUCTURE
 REPAIR
 END BENT 1 &
 END BENT 2

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	TOTAL SHEETS
1			3			55-6
2			4			113

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 SIGNATURES COMPLETED

DRAWN BY : P. D. BRYANT / S. T. SANDOR DATE : 01/2019
 CHECKED BY : W. C. SMITH DATE : 05/2019

NOTES:

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

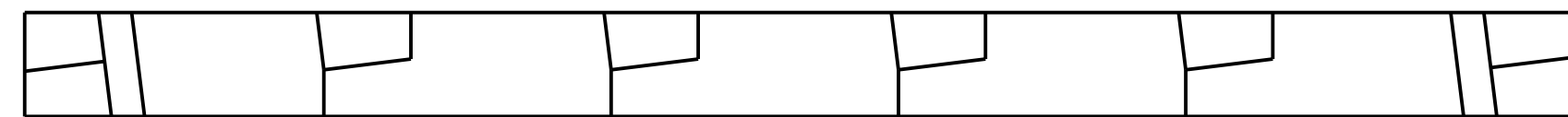
FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR CONCRETE REPAIRS, SEE SPECIAL PROVISIONS.

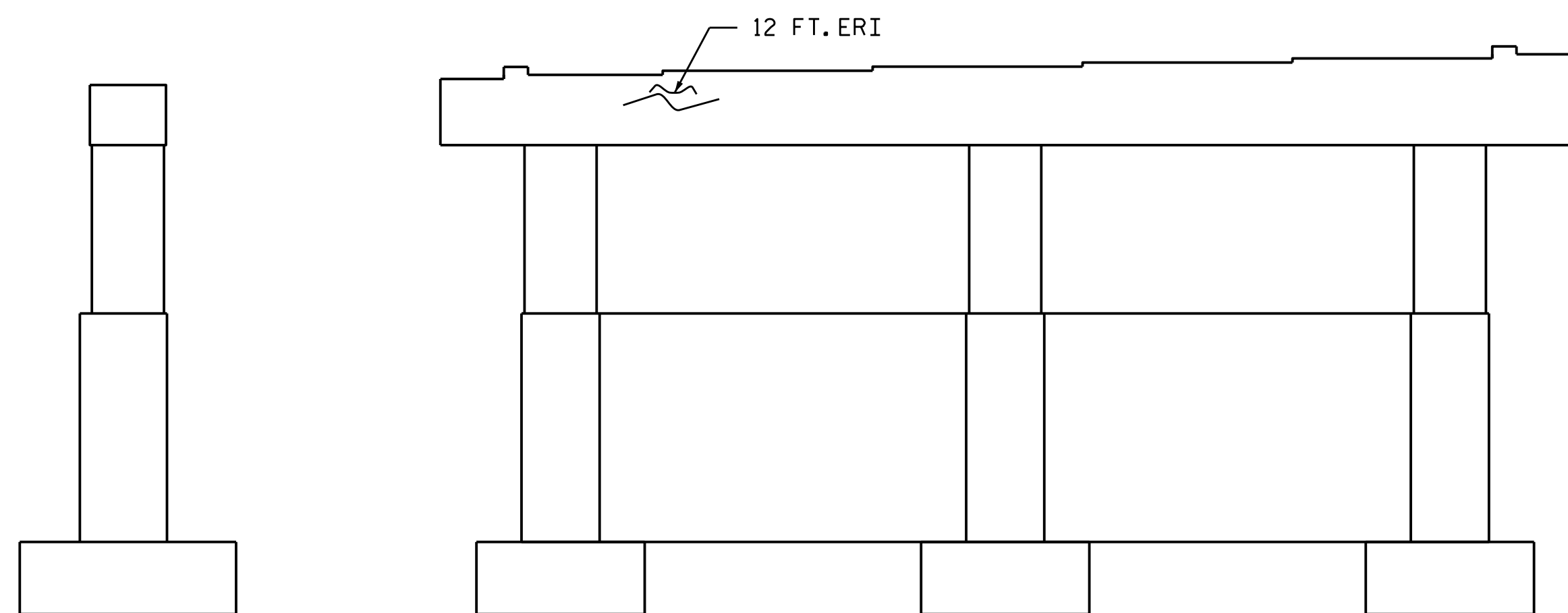
FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.

CONCRETE REPAIRS MAY BE SUBSTITUTED IN LIEU OF SHOTCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.



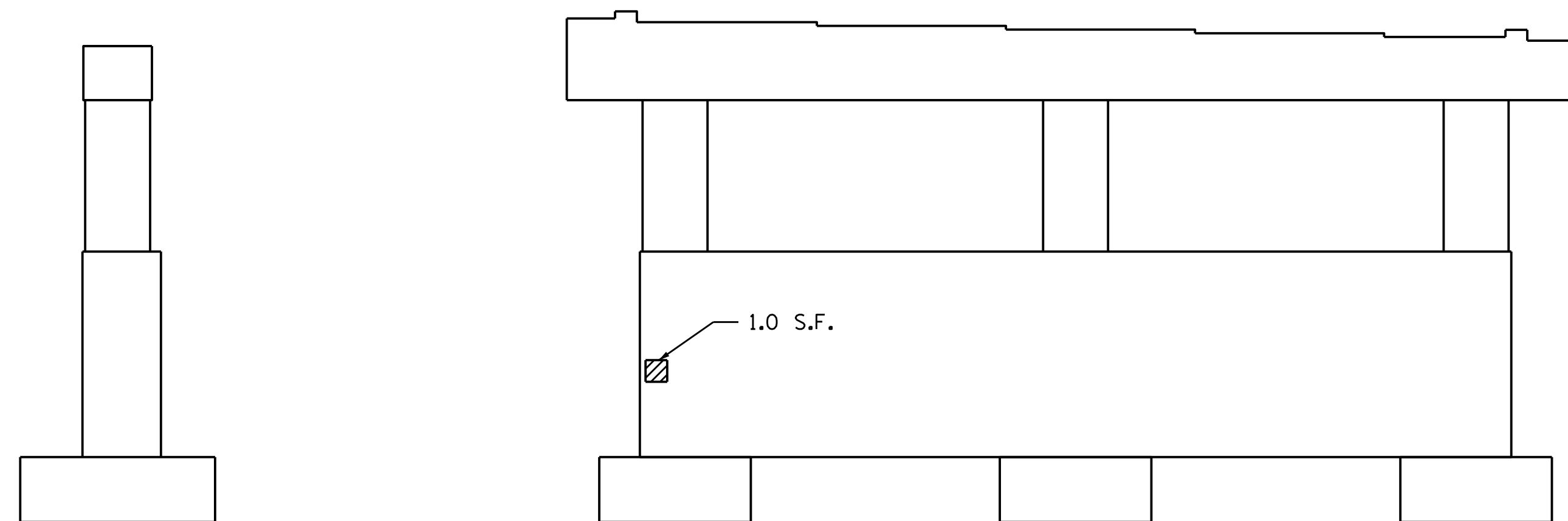
SPAN "A"
SPAN "B"

PLAN
TOP OF CAP



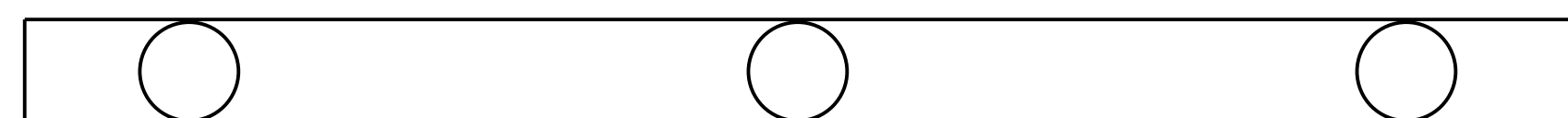
END VIEW
NORTH END

ELEVATION
WEST SIDE



END VIEW
SOUTH END

ELEVATION
EAST SIDE



SPAN "B"
SPAN "A"

PLAN
BOTTOM OF CAP



DocuSigned by:
P. Corey Newton
6/23/2019

REPAIR QUANTITY TABLE				
BENT 1	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	1.0	0.5		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		12.0		
COLUMN		0.0		

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

PROJECT NO. I-5940
DUPLIN COUNTY
BRIDGE NO. 300435

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
SUBSTRUCTURE
BENT 1

DRAWN BY : P. D. BRYANT / S. T. SANDOR DATE : 01/2019
CHECKED BY : W. C. SMITH DATE : 05/2019

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	TOTAL SHEETS
1			3			S5-7
2			4			113

NOTES:

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

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

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR CONCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.

CONCRETE REPAIRS MAY BE SUBSTITUTED IN LIEU OF SHOTCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

REPAIR QUANTITY TABLE

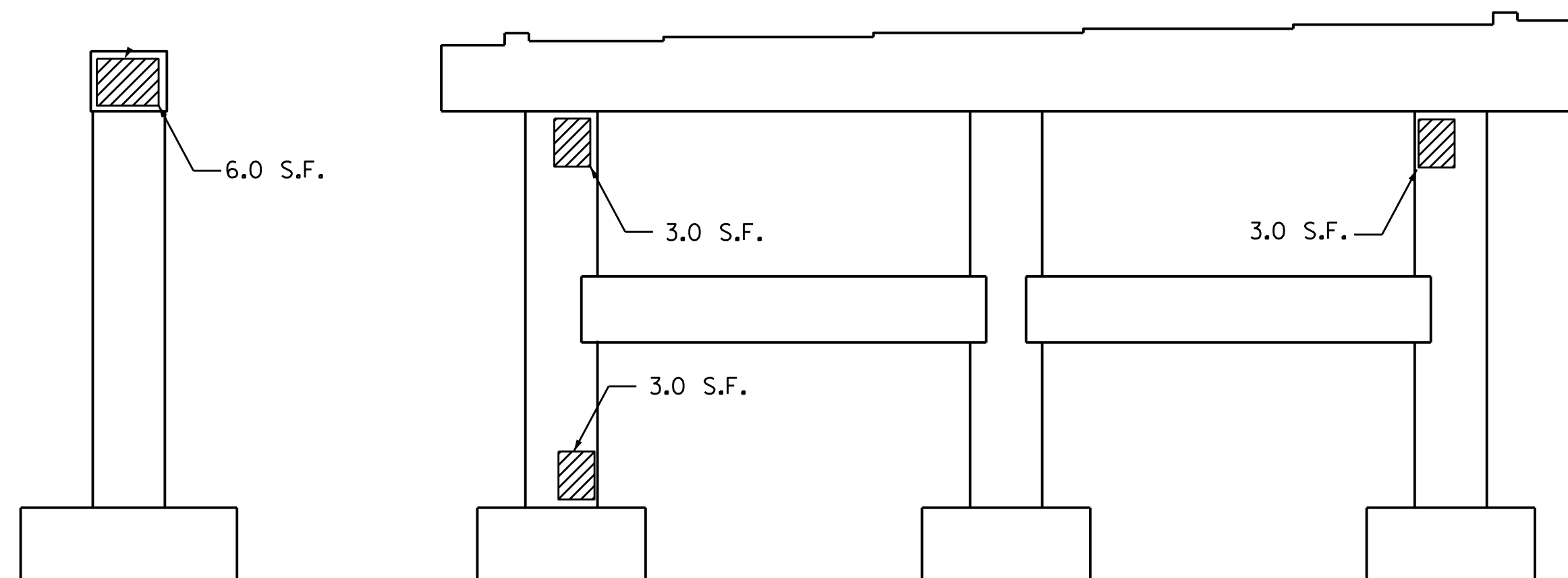
BENT 2	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	6.0	3.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	9.0	4.5		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		

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



SPAN "B"
SPAN "C"

PLAN
TOP OF CAP

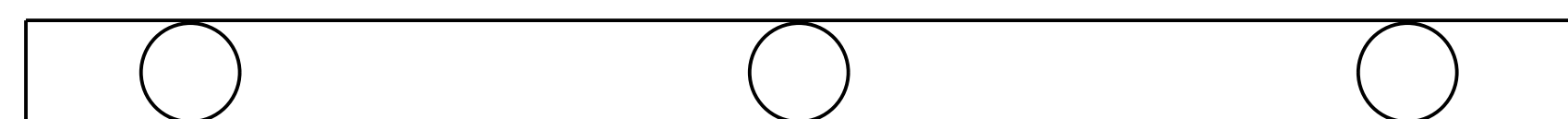


END VIEW
NORTH END

ELEVATION
WEST SIDE

END VIEW
SOUTH SIDE

ELEVATION
EAST SIDE



SPAN "C"
SPAN "B"

PLAN
BOTTOM OF CAP

- CONCRETE REPAIR
- SHOTCRETE REPAIR
- ERI EPOXY RESIN INJECTION

PROJECT NO. I-5940
DUPLIN COUNTY
BRIDGE NO. 300435



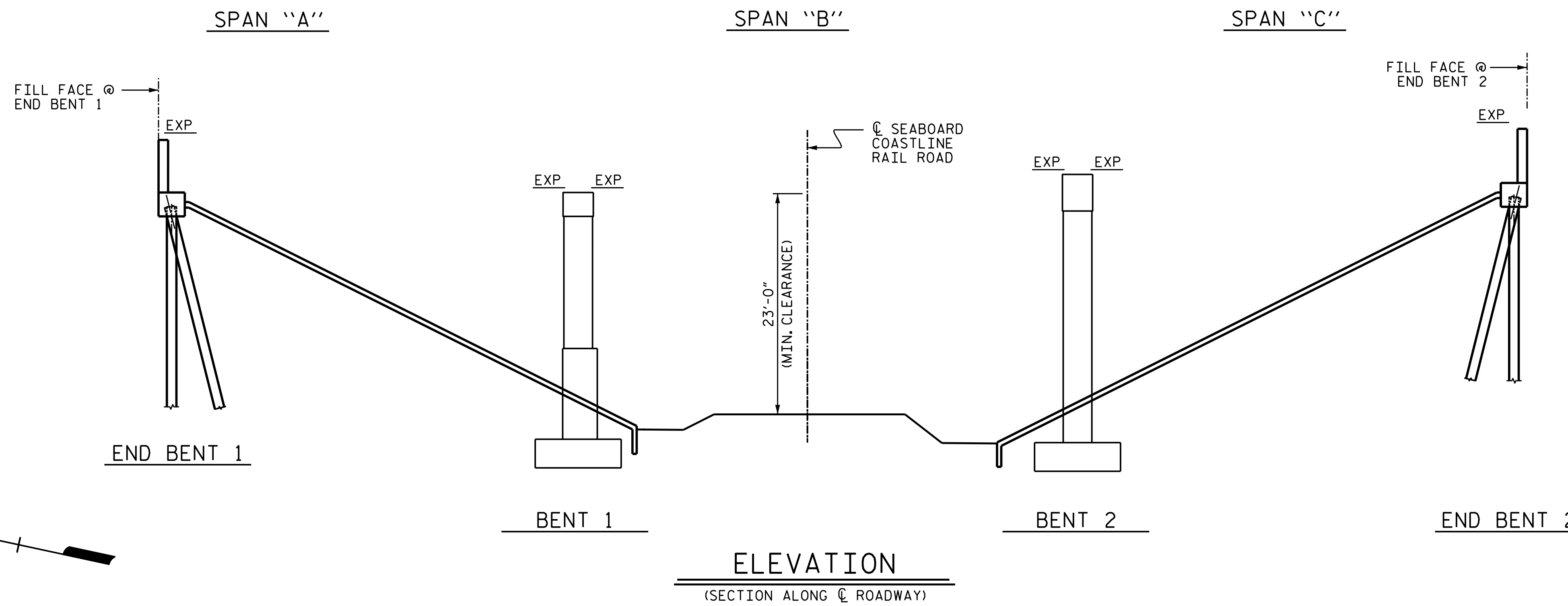
DocuSigned by:
P. Corey Newton
6/23/2019

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
SUBSTRUCTURE
BENT 2

DRAWN BY : P. D. BRYANT / S. T. SANDOR DATE : 01/2019
CHECKED BY : W. C. SMITH DATE : 05/2019

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NO.	BY:	DATE:	NO.	BY:	DATE:	TOTAL SHEETS
1			3			S5-8
2			4			113



SCOPE OF WORK

- PARTIALLY REMOVE BRIDGE DECK CONCRETE BY SCARIFICATION AND SHOTBLASTING METHODS.
- PERFORM DECK REPAIRS IN PREPARED AREAS.
- OVERLAY PREPARED BRIDGE DECK WITH POLYESTER POLYMER CONCRETE.
- RECONSTRUCT BRIDGE JOINTS AND INSTALL BACKER ROD AND SILICONE JOINT SEALANT.
- GROOVE POLYESTER POLYMER CONCRETE DECK.
- REPAIR SUBSTRUCTURE USING EPOXY RESIN INJECTION AND SHOTCRETE.

NOTES

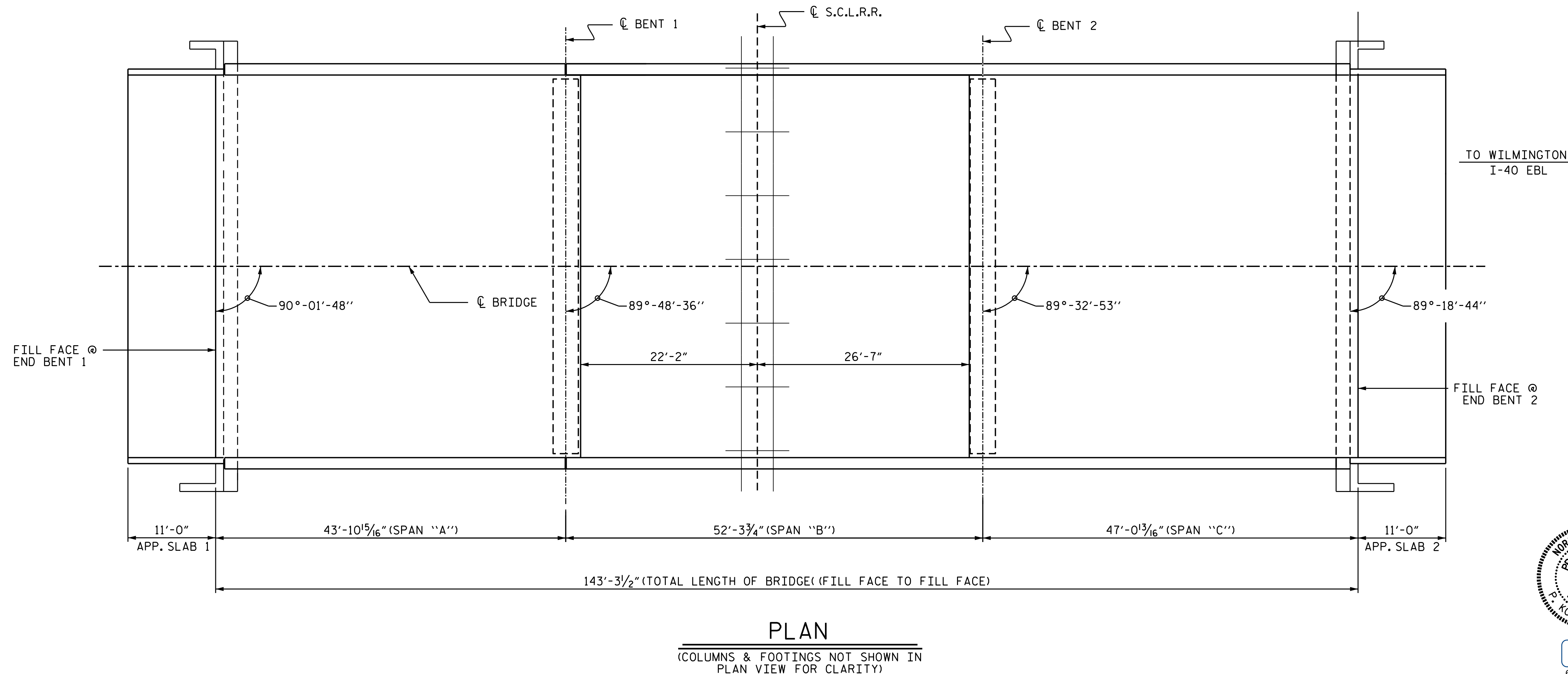
- PROFILE INFORMATION IS TAKEN FROM ORIGINAL PLANS AND THE ROUTINE INSPECTION, DATED 09/25/2017.
- BRIDGE ORIENTATION CONFORMS TO EXISTING BRIDGE PLANS.

ELEVATION

(SECTION ALONG CL ROADWAY)

I hereby certify that this structure was rehabilitated according to these plans or as noted therein.

Resident Engineer _____ Date _____



PLAN

(COLUMNS & FOOTINGS NOT SHOWN IN PLAN VIEW FOR CLARITY)

PROJECT NO. I-5940
DUPLIN COUNTY
 BRIDGE NO. 300436



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
GENERAL DRAWING
 FOR BRIDGE 436 ON
 I-40 EBL OVER
 SEABOARD COASTLINE
 RAIL ROAD

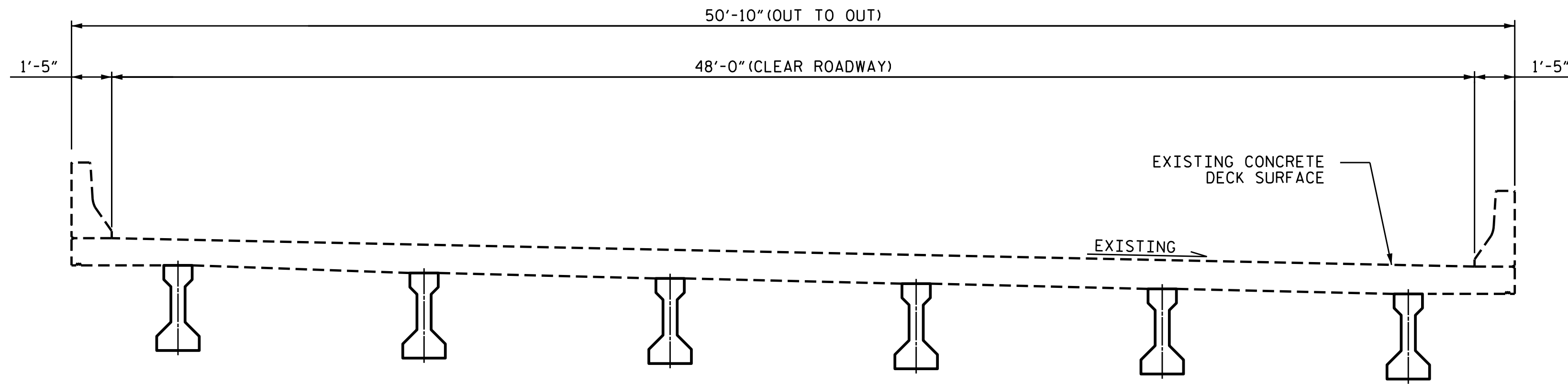
DRAWN BY : S. T. SANDOR DATE : 12/2018
 CHECKED BY : W. C. SMITH DATE : 05/2019

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

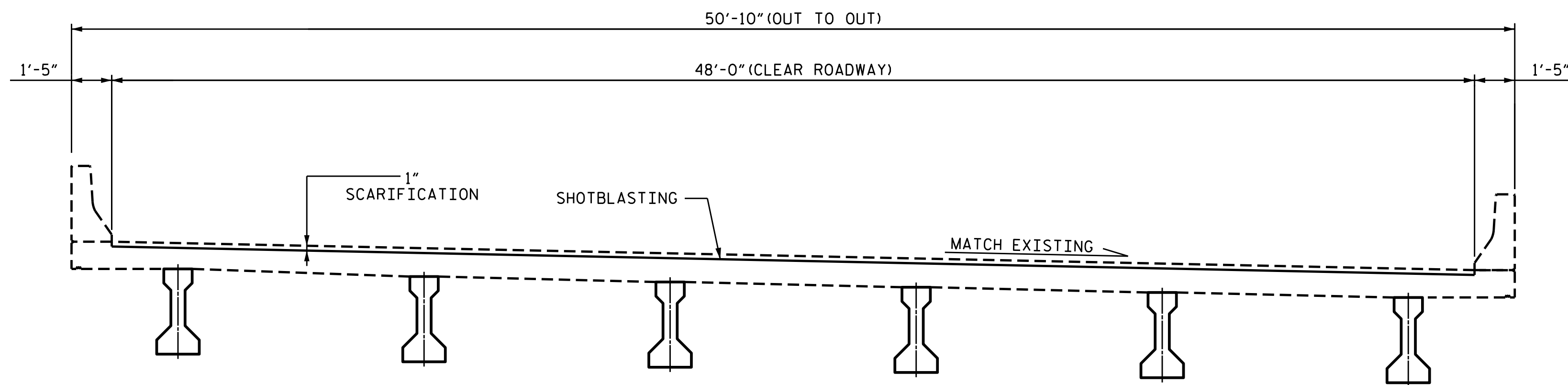
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NO.	BY:	DATE:	NO.	BY:	DATE:	TOTAL SHEETS
1			3			S6-1
2			4			113

NOTES

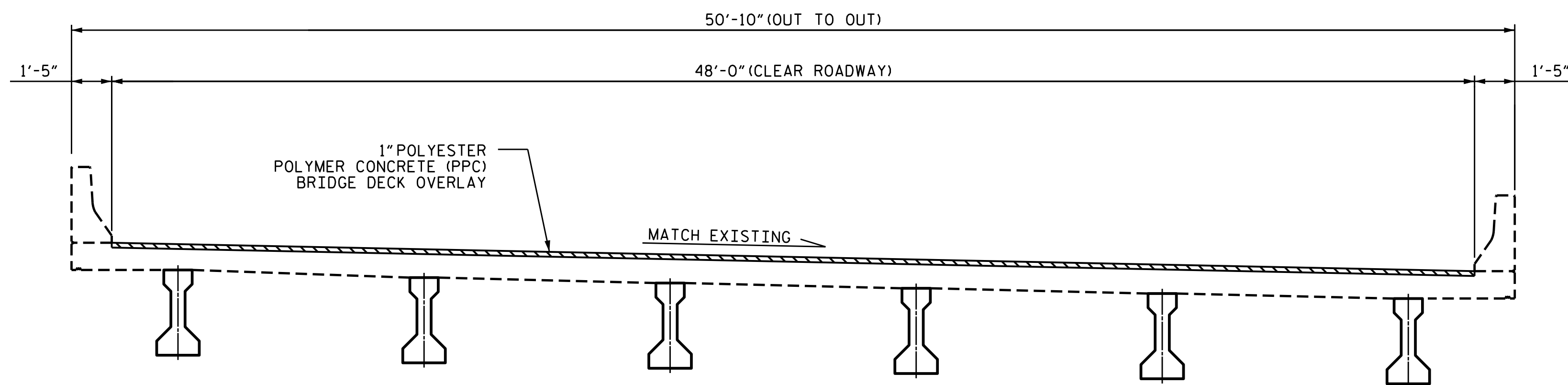
SEE TRANSPORTATION MANAGEMENT PLANS FOR LANE WIDTHS, SEQUENCING AND OTHER TRAFFIC CONTROL MEASURES FOR STAGING OF OVERLAY SURFACE PREPARATION AND POLYESTER POLYMER CONCRETE PLACEMENT.



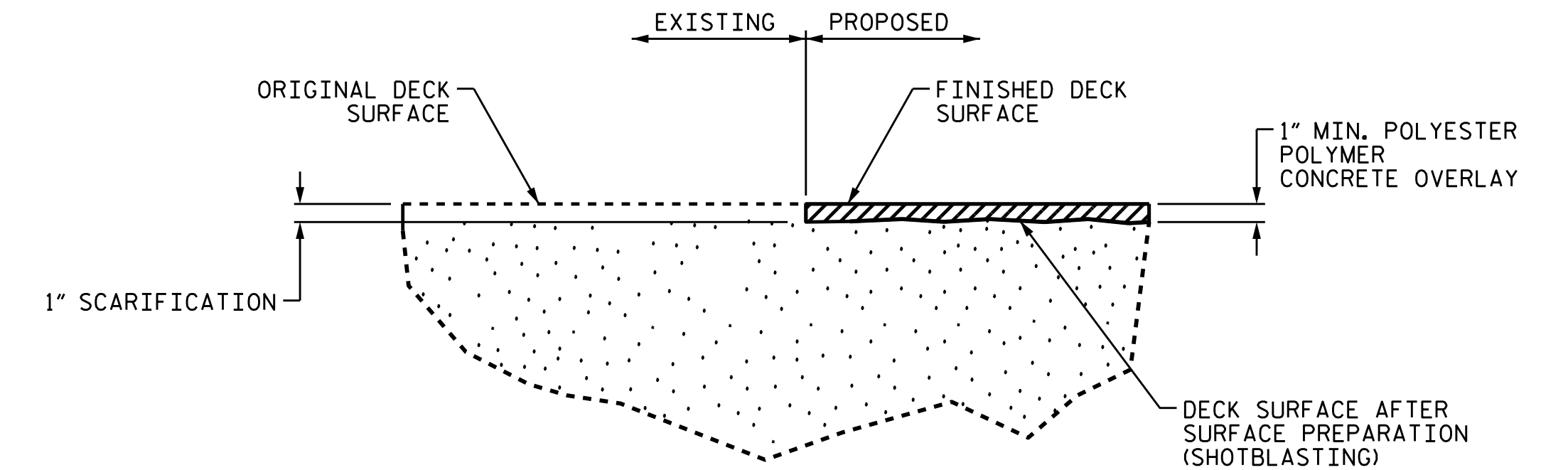
TYPICAL SECTION
(EXISTING)



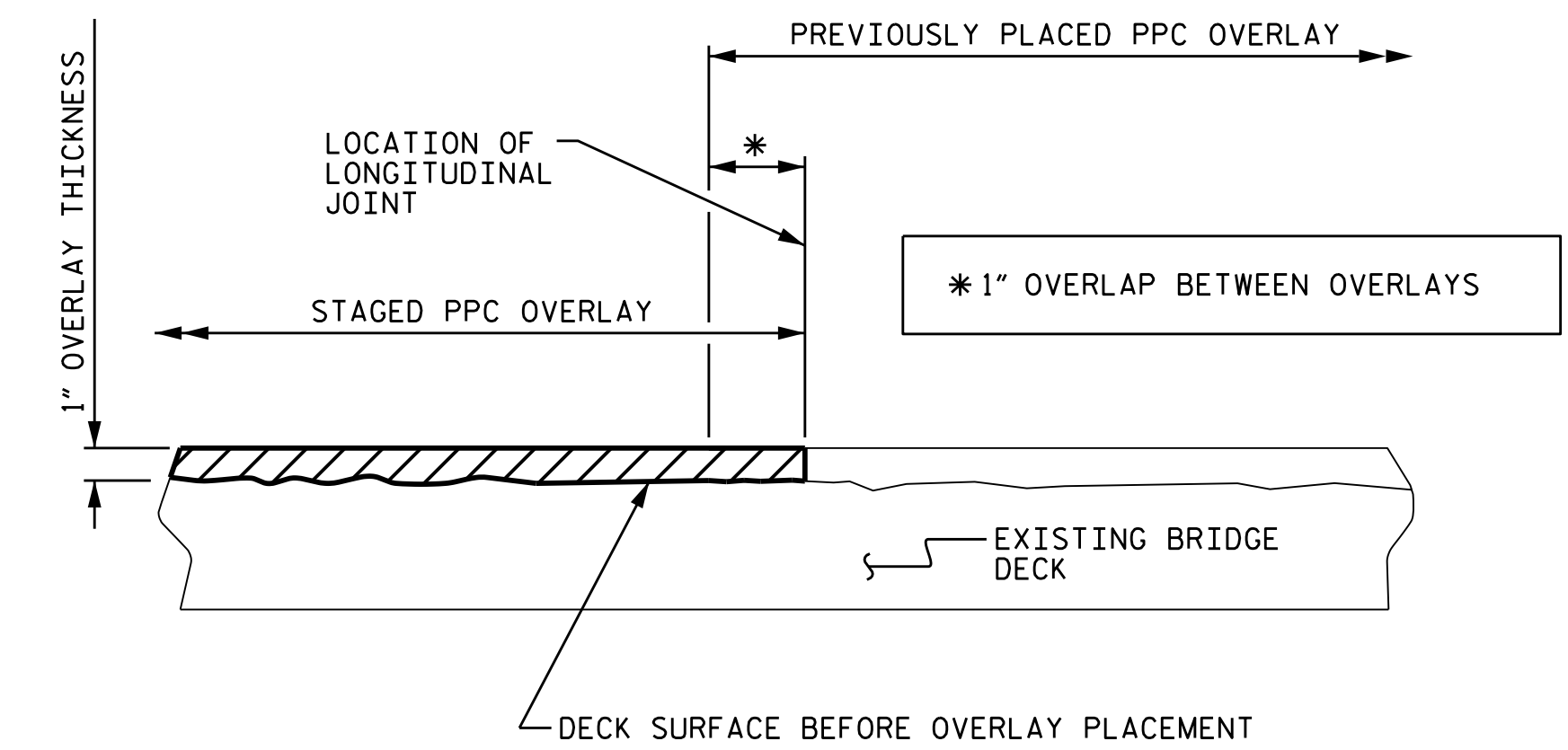
TYPICAL SECTION
(DECK PREPARATION)



TYPICAL SECTION
(PROPOSED)

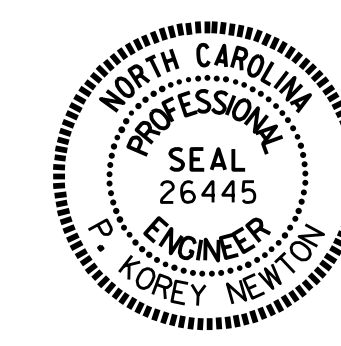


DETAIL FOR POLYESTER POLYMER CONCRETE OVERLAY



STAGED PPC OVERLAY JOINT
(AS NEEDED)

PROJECT NO. I-5940
DUPLIN COUNTY
 BRIDGE NO. 300436



DocuSigned by:
P. Corey Newton
 6/23/2019

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
**TYPICAL SECTION
 AND SURFACE
 PREPARATION DETAILS**

DRAWN BY : S. T. SANDOR DATE : 01/2019
 CHECKED BY : W. C. SMITH DATE : 05/2019

DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
 SIGNATURES COMPLETED

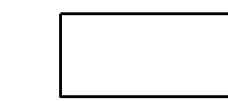
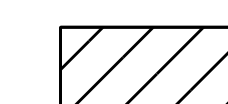
REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	TOTAL SHEETS
1			3			6-2
2			4			113

SUMMARY OF QUANTITIES FOR SPAN "A" AND APPROACH SLAB 1

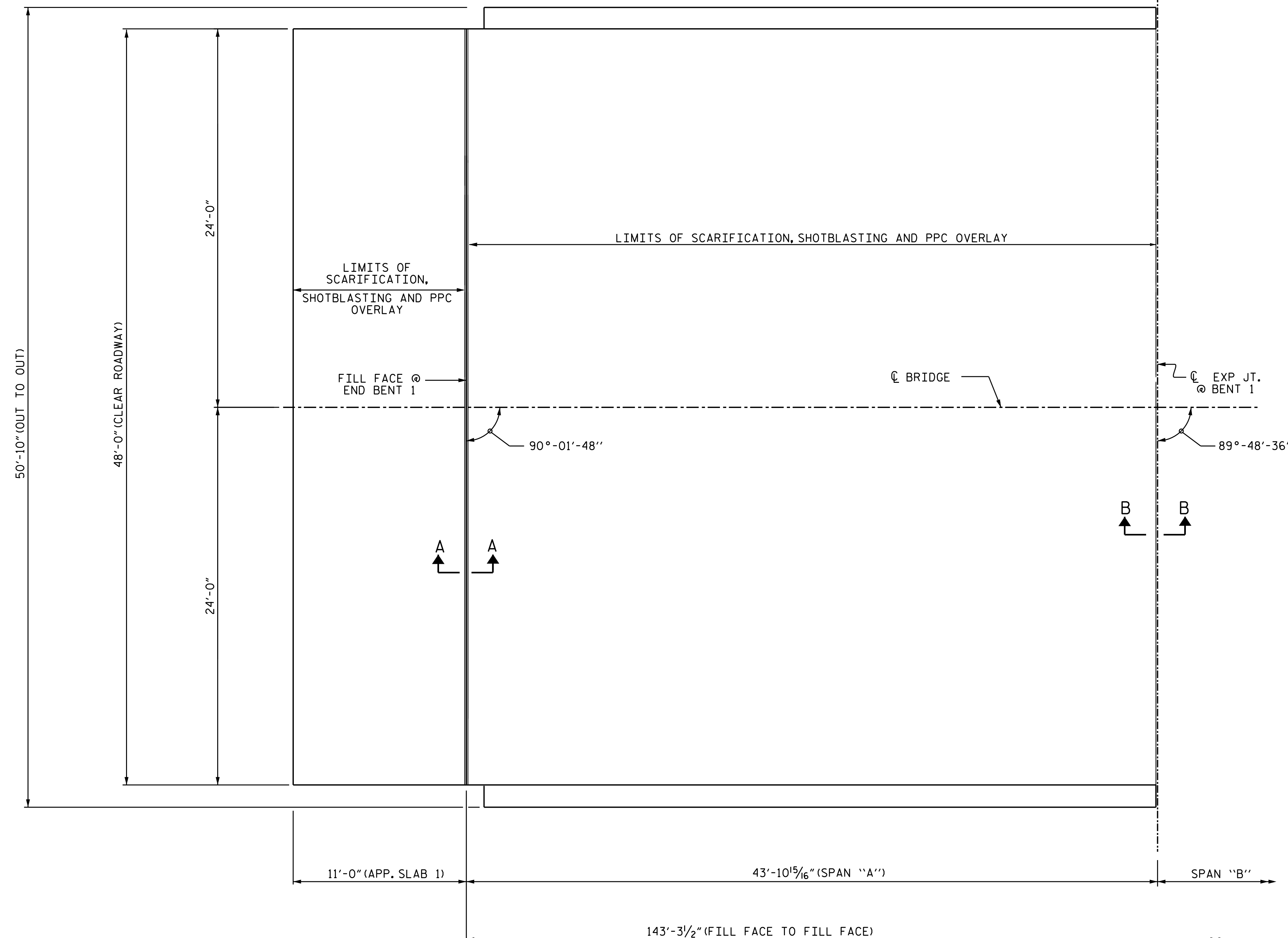
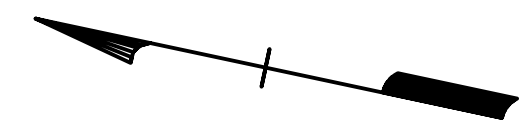
	ESTIMATE	ACTUAL
SCARIFYING BRIDGE DECK	292.9 SY	
POLYSTER POLYMER CONCRETE MATERIALS	8.1 CY	
SHOTBLASTING BRIDGE DECK	292.9 SY	
PLACING & FINISHING PPC OVERLAY	292.9 SY	
CLASS II SURFACE PREPARATION	0.0 SY	
GROOVING BRIDGE DECK	2,448.5 SF	

NOTES:

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

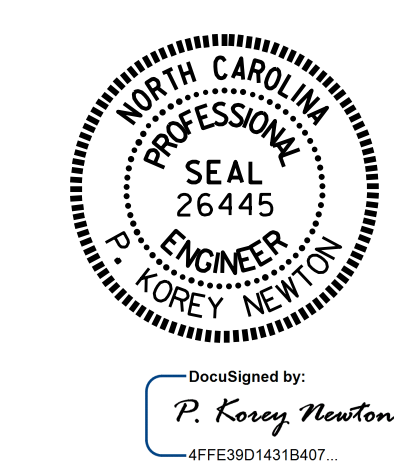
-  - SCARIFYING AND SHOTBLASTING OF BRIDGE DECK FOR PPC OVERLAY
-  - APPROX. AREA CLASS II SURFACE PREPARATION

NO DEFICIENCIES NOTED DURING FIELD INSPECTION. THE CONTRACTOR AND ENGINEER SHALL INSPECT THE DECK SURFACE AFTER SCARIFICATION FOR POTENTIAL CLASS II REPAIRS.



PLAN OF SPAN "A" AND APPROACH SLAB 1
(SEE SHEET NO. S6-6 FOR SECTIONS A-A AND B-B)

PROJECT NO. I-5940
DUPLIN COUNTY
 BRIDGE NO. 300436



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 SURFACE PREPARATION
 SPAN "A" AND
 APPROACH SLAB 1

DRAWN BY : S. T. SANDOR DATE : 01/2019
 CHECKED BY : W. C. SMITH DATE : 05/2019

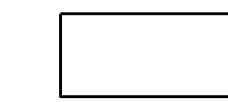

NO.	REVISIONS			NO.	REVISIONS			SHEET NO.
	BY:	DATE:			BY:	DATE:		
1				3			S6-3	
2				4			TOTAL SHEETS 113	

SUMMARY OF QUANTITIES FOR SPAN "B"

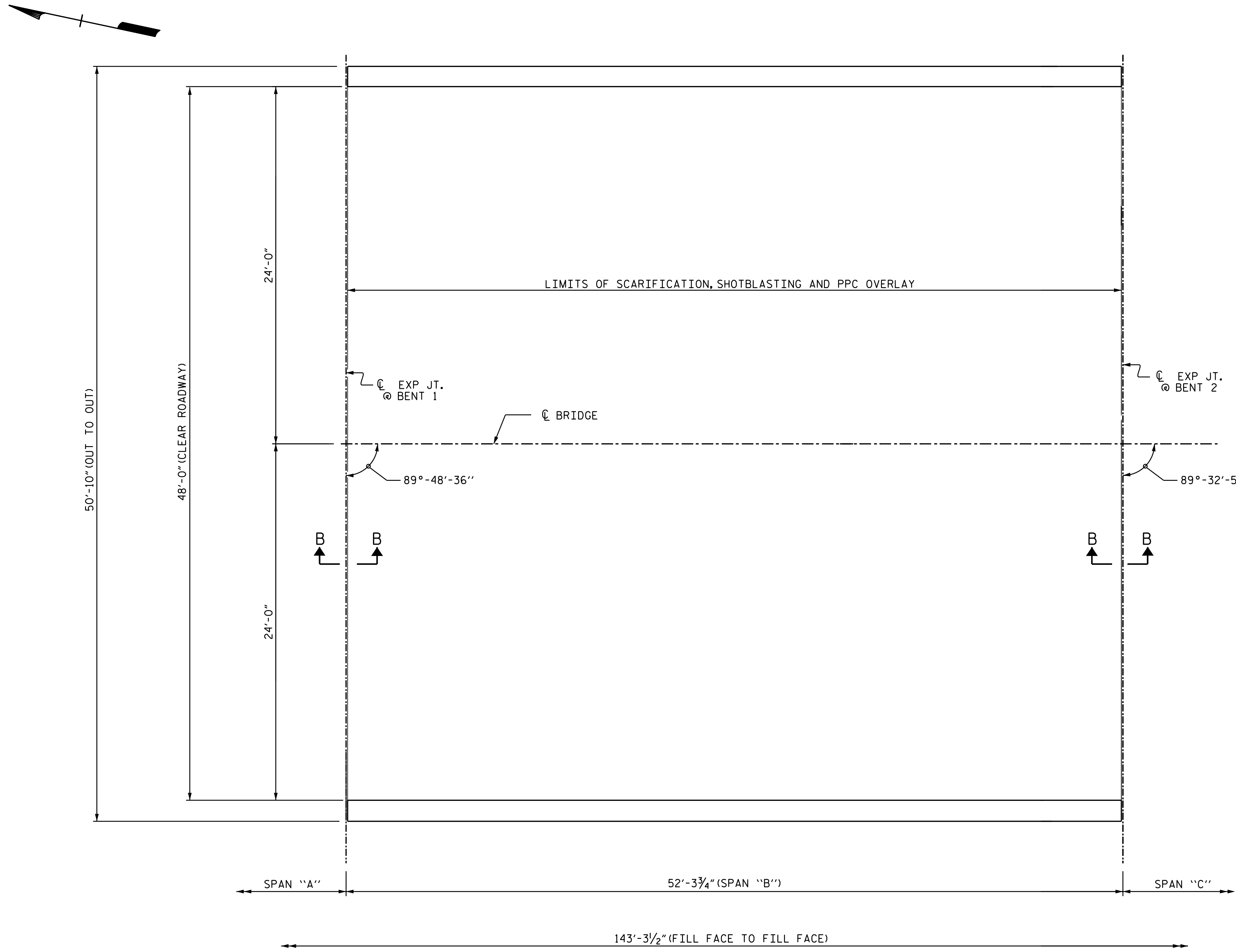
	ESTIMATE	ACTUAL
SCARIFYING BRIDGE DECK	279.0 SY	
POLYSTER POLYMER CONCRETE MATERIALS	7.8 CY	
SHOTBLASTING BRIDGE DECK	279.0 SY	
PLACING & FINISHING PPC OVERLAY	279.0 SY	
CLASS II SURFACE PREPARATION	0.0 SY	
GROOVING BRIDGE DECK	2,317.7 SF	

NOTES:

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

-  - SCARIFYING AND SHOTBLASTING OF BRIDGE DECK FOR PPC OVERLAY
-  - APPROX. AREA CLASS II SURFACE PREPARATION

NO DEFICIENCIES NOTED DURING FIELD INSPECTION. THE CONTRACTOR AND ENGINEER SHALL INSPECT THE DECK SURFACE AFTER SCARIFICATION FOR POTENTIAL CLASS II REPAIRS.



PLAN OF SPAN "B"
 (SEE SHEET NO. S6-6 FOR SECTION B-B)

PROJECT NO. I-5940
DUPLIN COUNTY
 BRIDGE NO. 300436

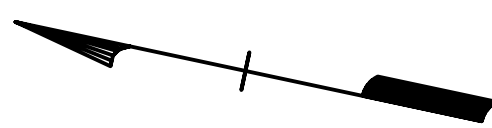


STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 SURFACE PREPARATION
 SPAN "B"

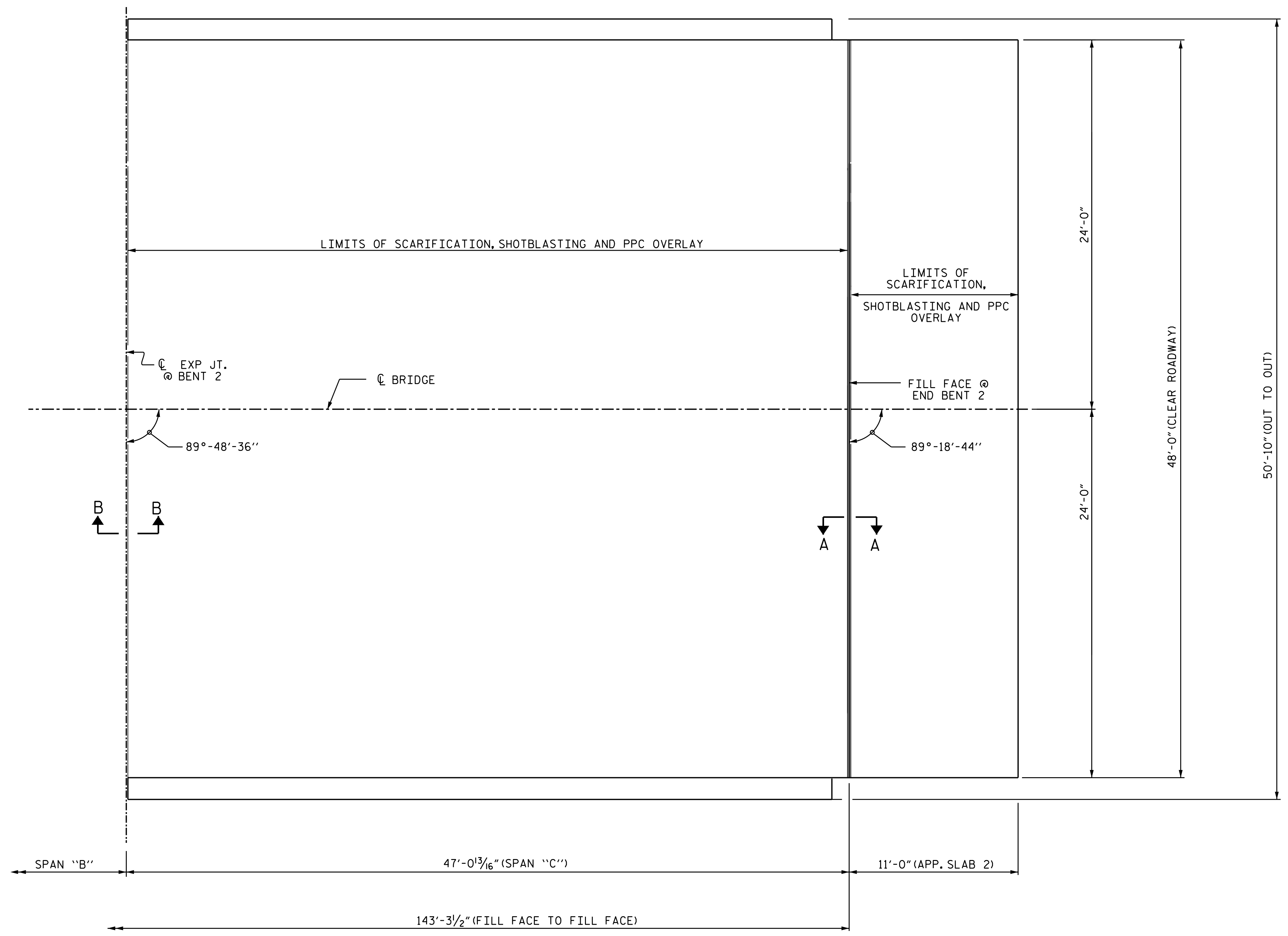
DRAWN BY : S. T. SANDOR DATE : 01/2019
 CHECKED BY : W. C. SMITH DATE : 05/2019

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	TOTAL SHEETS
1			3			S6-4
2			4			113



SUMMARY OF QUANTITIES FOR SPAN "C" AND APPROACH SLAB 2		
	ESTIMATE	ACTUAL
SCARIFYING BRIDGE DECK	309.8 SY	
POLYSTER POLYMER CONCRETE MATERIALS	8.6 CY	
SHOTBLASTING BRIDGE DECK	309.8 SY	
PLACING & FINISHING PPC OVERLAY	309.8 SY	
CLASS II SURFACE PREPARATION	0.0 SY	
GROOVING BRIDGE DECK	2,617.1 SF	



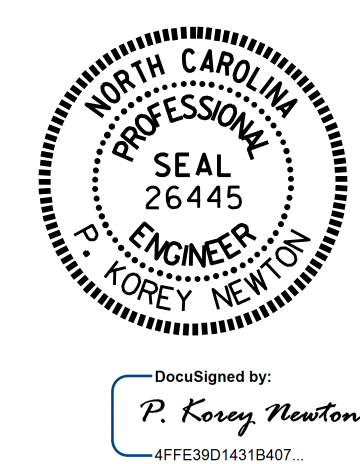
NOTES:
 REPAIR LOCATIONS AND ESTIMATED QUANTITIES ARE GIVEN WITH THE BEST INFORMATION AVAILABLE. IF ADDITIONAL REPAIRS NOT SHOWN IN DRAWINGS ARE DEEMED NECESSARY BY ENGINEER, THE ENGINEER WILL NOTE ON THE DRAWINGS THE APPROXIMATE LOCATIONS AND DESCRIPTION OF THE REPAIRS AND ADJUST THE ACTUAL QUANTITIES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

- SCARIFYING AND SHOTBLASTING OF BRIDGE DECK FOR PPC OVERLAY
- APPROX. AREA CLASS II SURFACE PREPARATION

NO DEFICIENCIES NOTED DURING FIELD INSPECTION. THE CONTRACTOR AND ENGINEER SHALL INSPECT THE DECK SURFACE AFTER SCARIFICATION FOR POTENTIAL CLASS II REPAIRS.

PLAN OF SPAN "C" AND APPROACH SLAB 2
 (SEE SHEET NO. S6-6 FOR SECTIONS A-A AND B-B)

PROJECT NO. I-5940
DUPLIN COUNTY
 BRIDGE NO. 300436

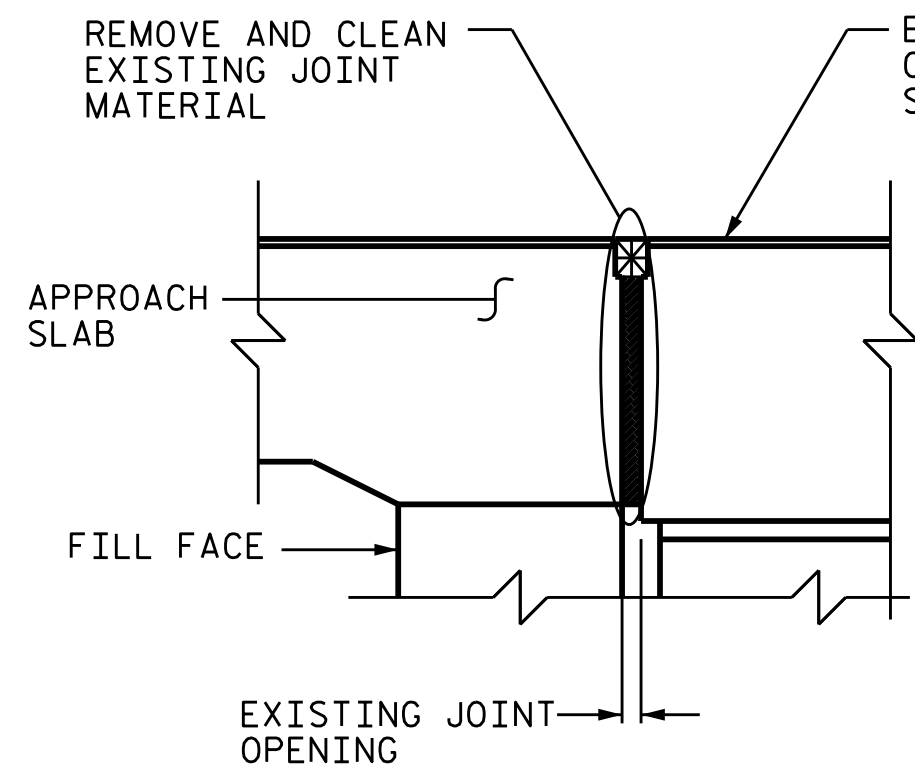


STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
**SURFACE PREPARATION
 SPAN "C" AND
 APPROACH SLAB 2**

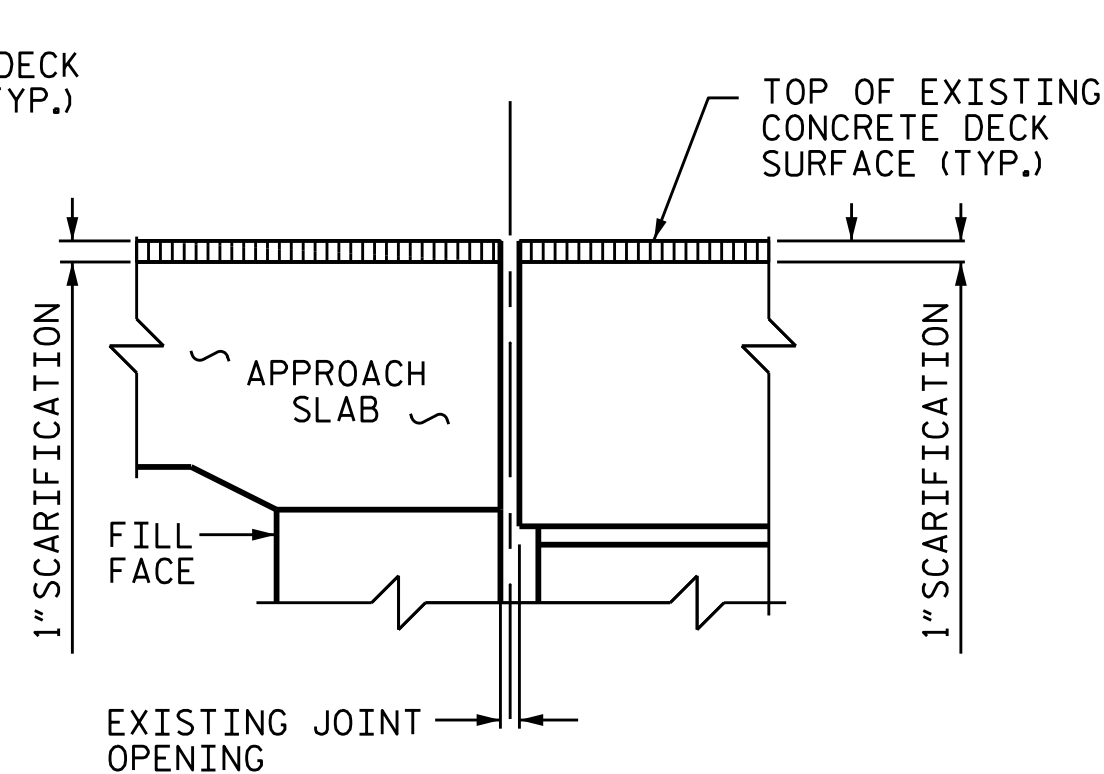
DRAWN BY : S. T. SANDOR DATE : 01/2019
 CHECKED BY : W. C. SMITH DATE : 05/2019

NO.	REVISIONS			NO.	REVISIONS			SHEET NO.
	BY:	DATE:			BY:	DATE:		
1				3			S6-5	
2				4			TOTAL SHEETS 113	

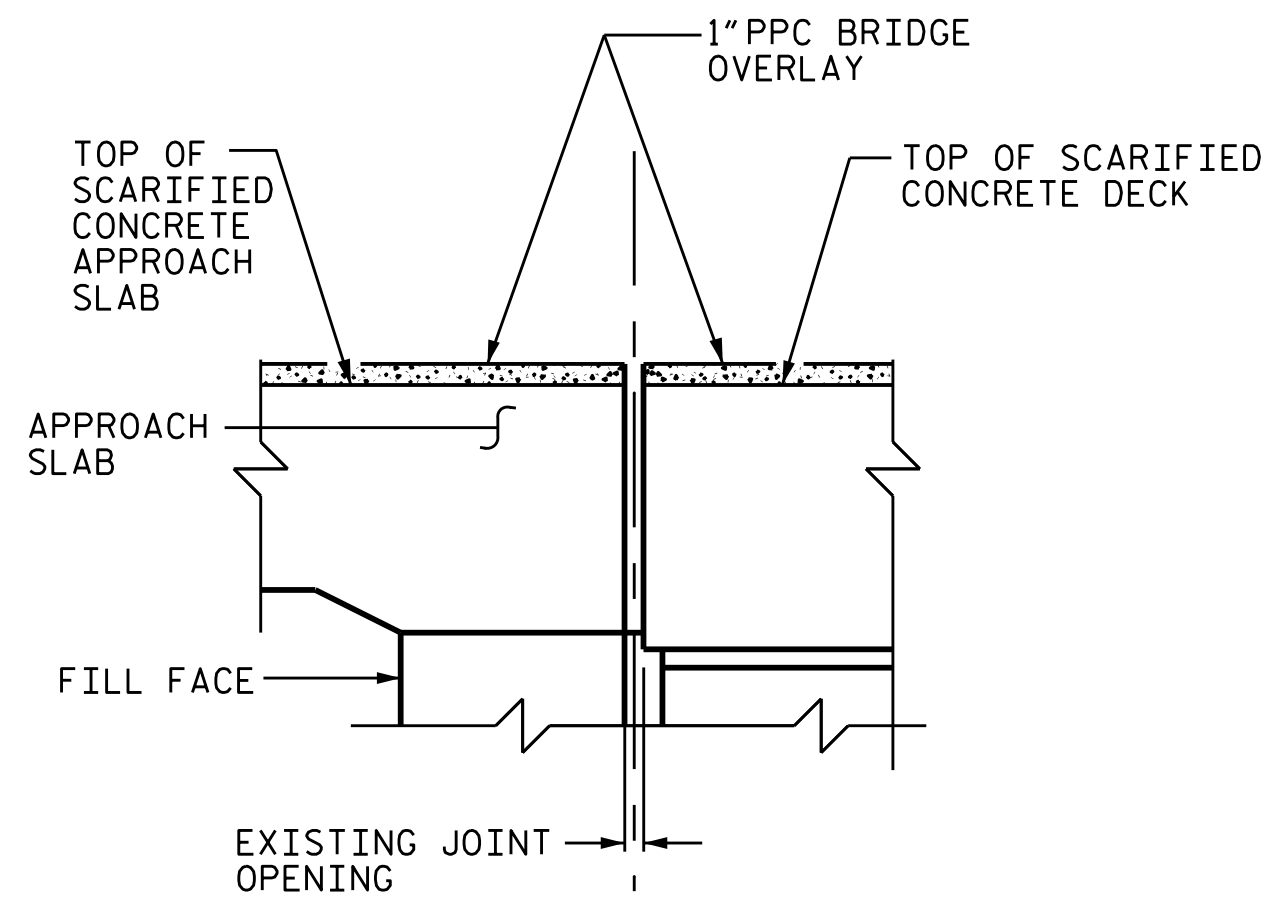
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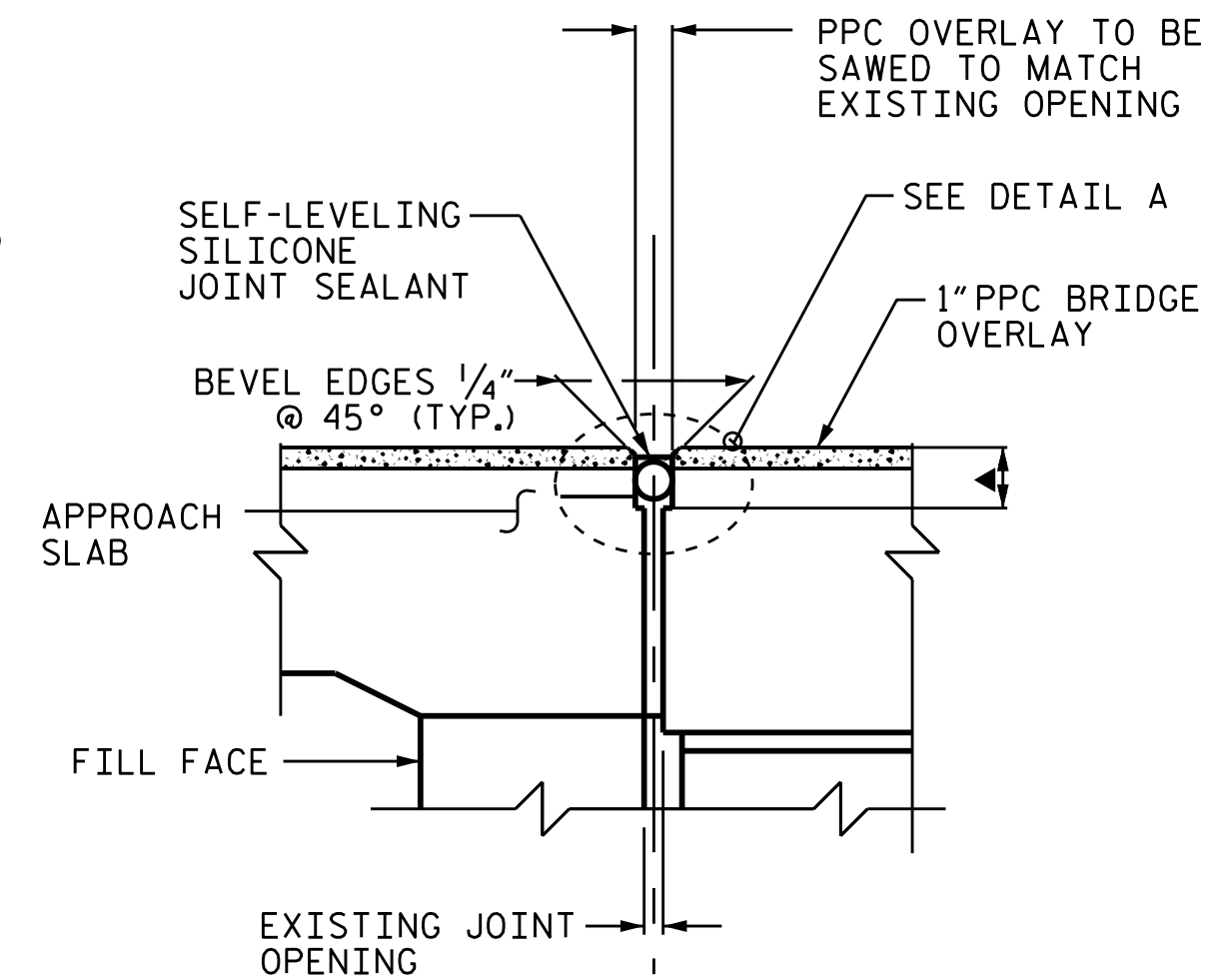
EXISTING JOINT



MINIMUM EXISTING JOINT REMOVAL & SCARIFICATION



PROPOSED JOINT PRE-SAWED & PPC OVERLAY



PROPOSED JOINT WITH SAWED DIMENSIONS

NOTES

CONTRACTOR SHALL NOTE THE EXISTING JOINT OPENINGS PRIOR OVERLAYING THE PPC. THE FINAL JOINT OPENINGS SHALL BE SAW TO MATCH THE EXISTING OPENINGS.

UNLESS NOTED OTHERWISE RETAIN ALL EXISTING REINFORCING STEEL. CLEAN AND REPAIR AS NEEDED.

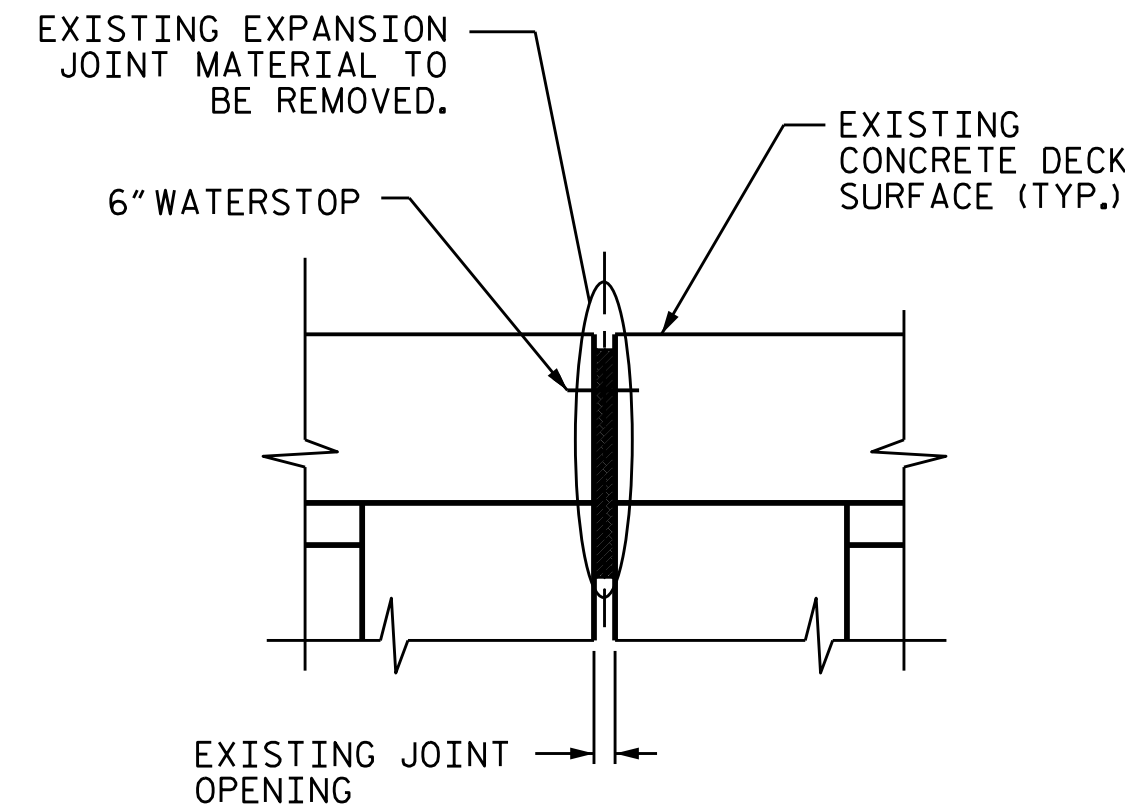
THE CONTRACTOR WILL BE NOT PERMITTED TO FORM THE JOINT IN LIEU OF SAWING THE JOINT.

SILICONE JOINT SEALANT AND BACKER ROD SHALL BE INSTALLED AS PER MANUFACTURER'S RECOMANDATION.

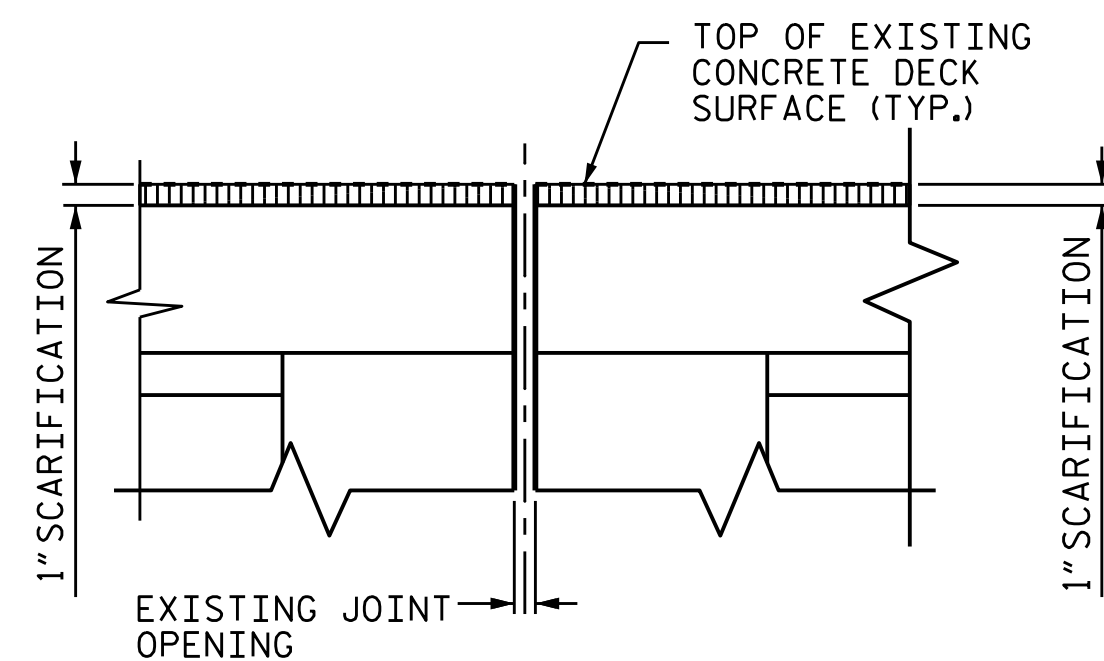
FOR POURABLE SILICONE JOINT SEALANT, SEE SPECIAL PROVISIONS.

JOINT INSTALLATION SEQUENCE AT END BENTS

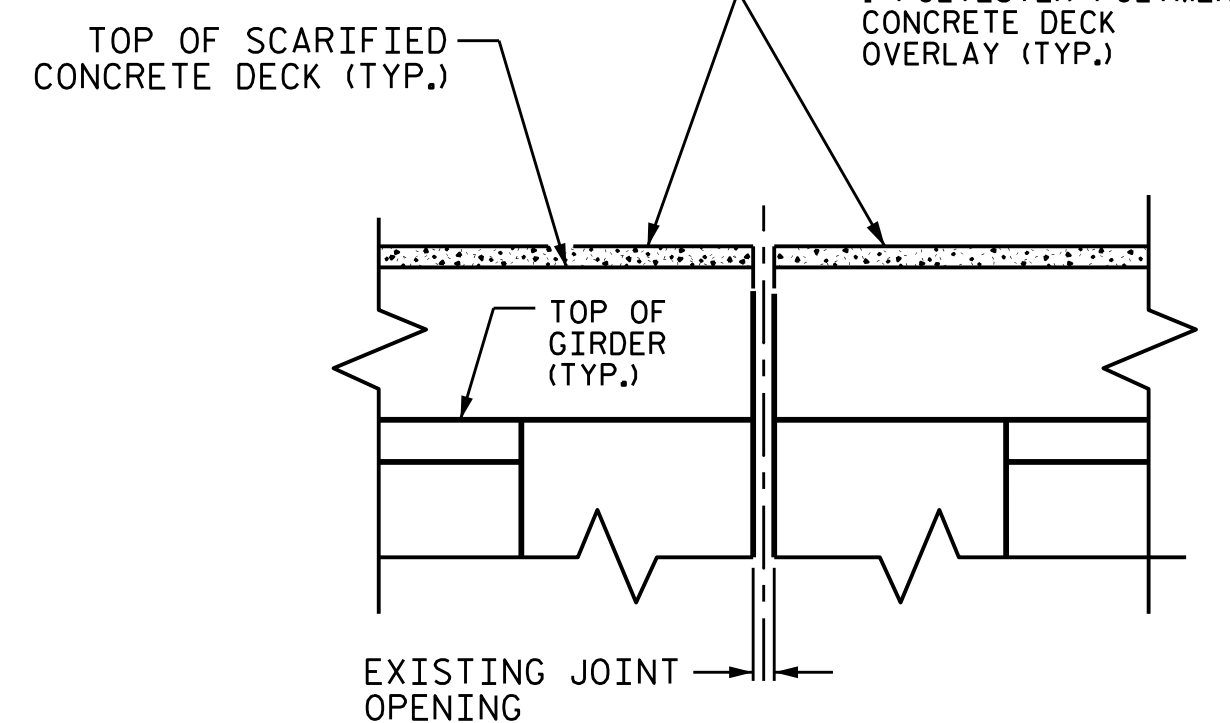
SECTION A-A



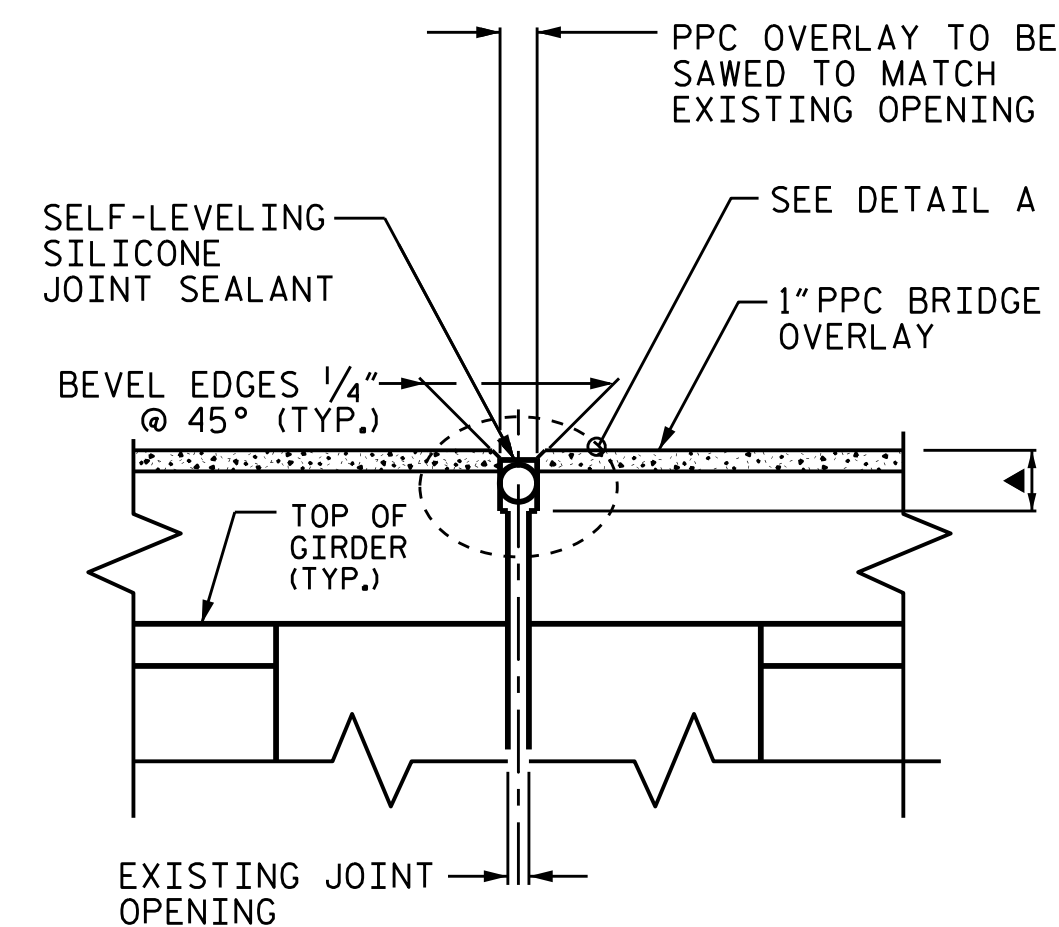
EXISTING JOINT



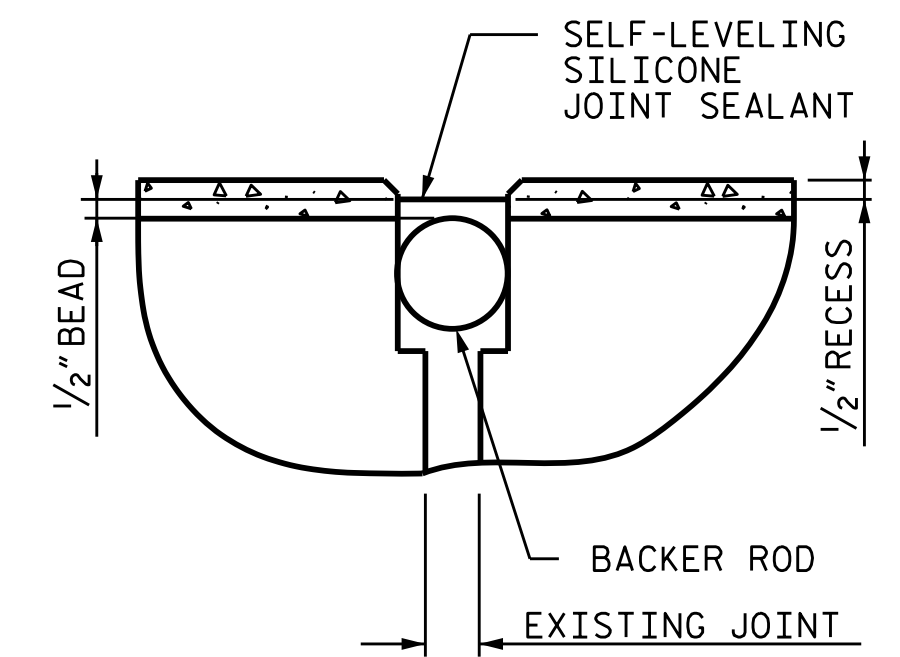
MINIMUM EXISTING JOINT REMOVAL & SCARIFICATION



PROPOSED JOINT PRE-SAWED & PPC OVERLAY



PROPOSED JOINT WITH SAWED DIMENSIONS

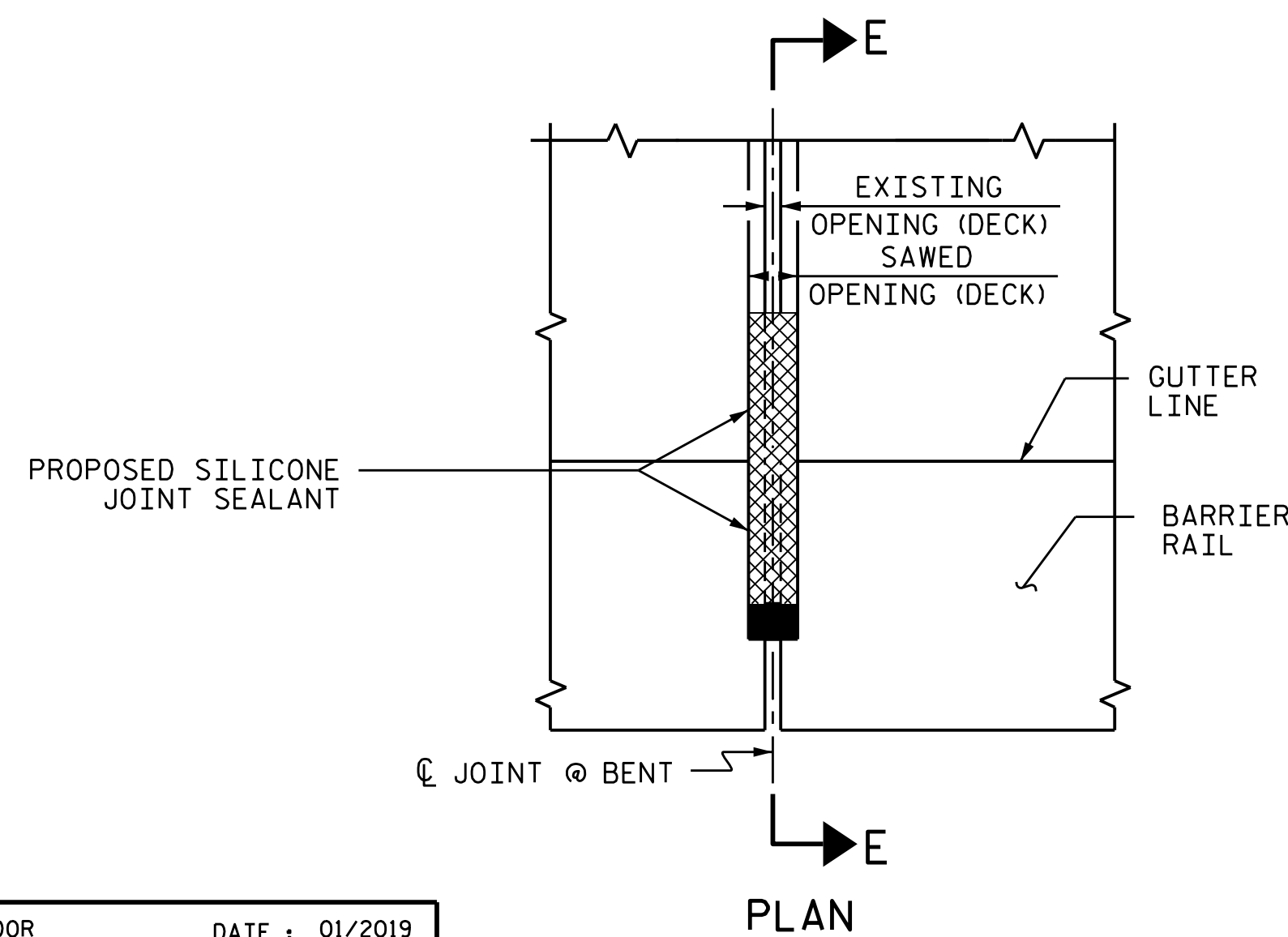


DETAIL A

▲ SAW CUT SHALL BE 3/4" BELOW THE BOTTOM OF THE JOINT SEAL. SEE MANUFACTURER RECOMMENDATIONS

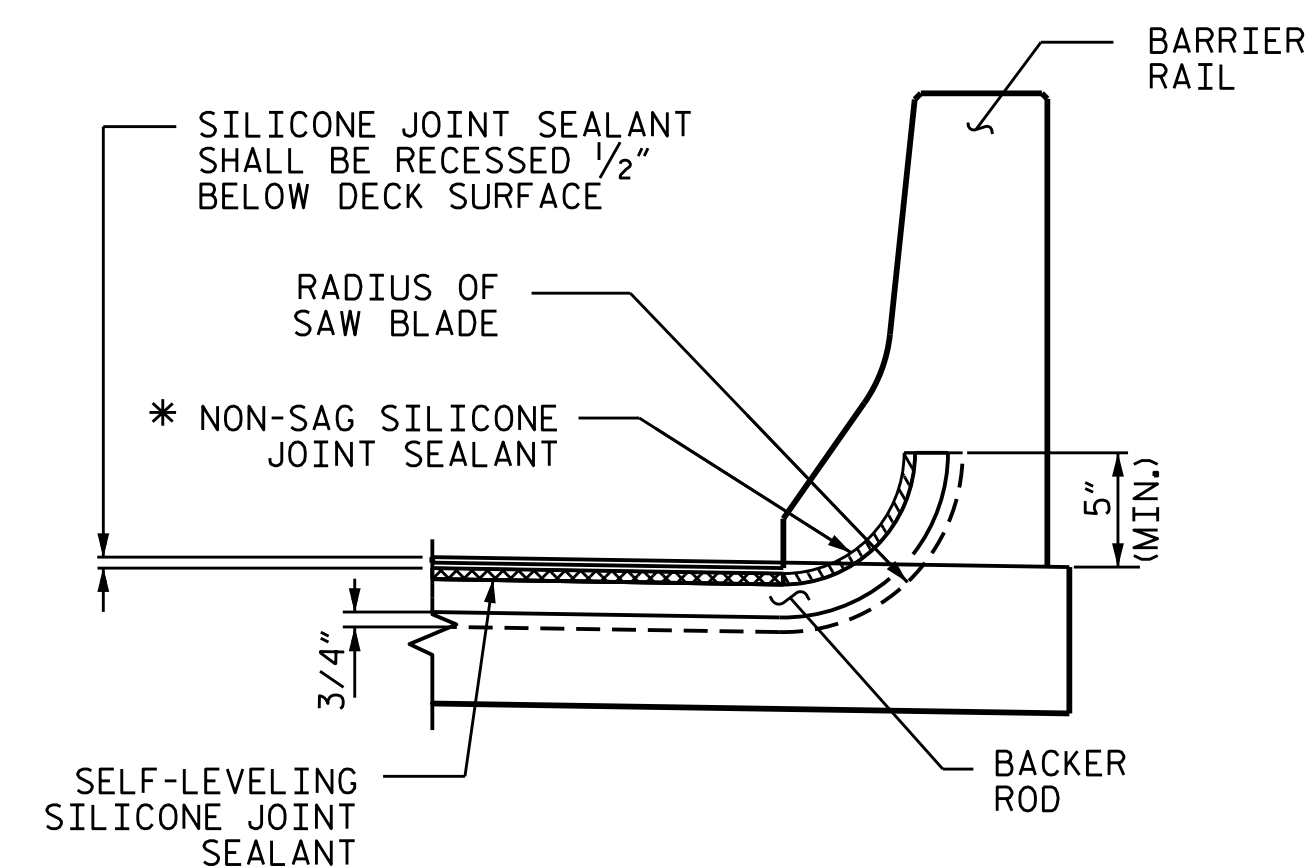
JOINT INSTALLATION SEQUENCE AT BENTS

SECTION B-B



PLAN

* NON-SAG SILICONE JOINT SEALANT TO BE PLACED AND ALLOWED TO SET, PRIOR TO PLACEMENT OF SELF-LEVELING SILICONE JOINT SEALANT.



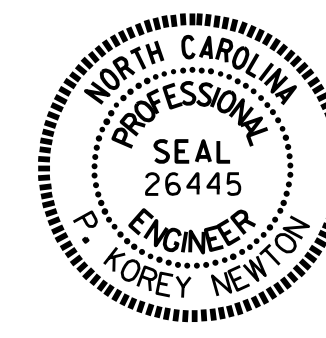
SECTION E-E

JOINT DETAIL AT BARRIER RAIL

PROJECT NO. I-5940
DUPLIN COUNTY
BRIDGE NO. 300435 & 300436

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

JOINT REPAIR DETAILS

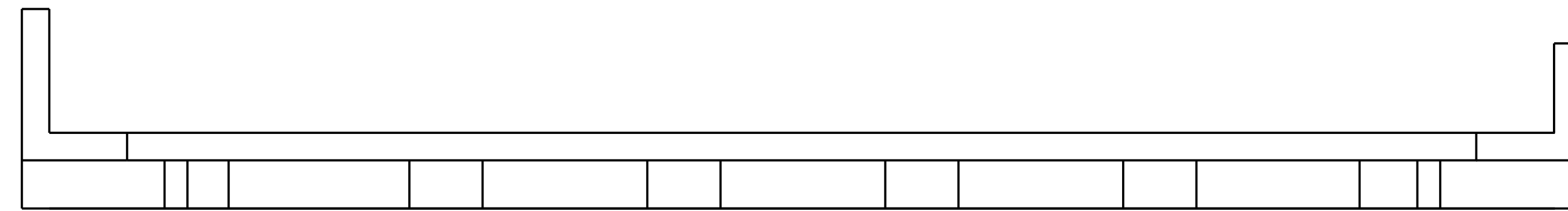


DocuSigned by:
P. Corey Newton
6/23/2019

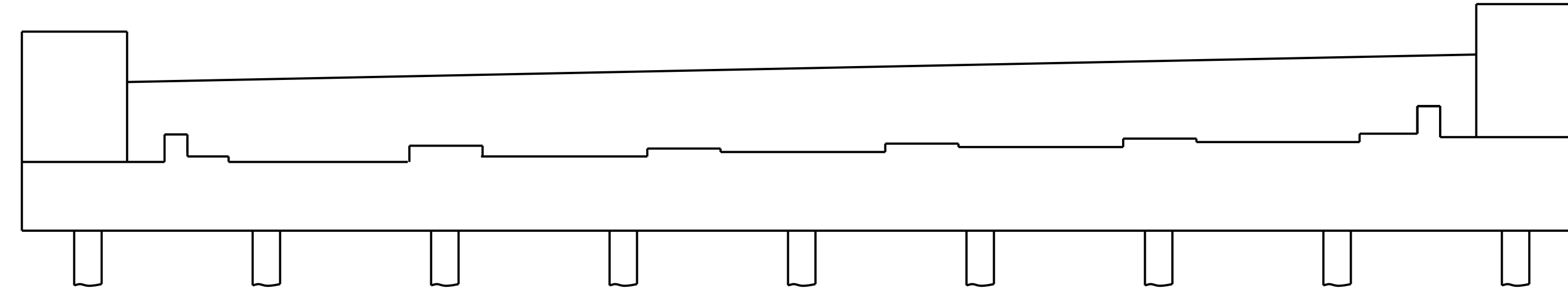
DRAWN BY : S. T. SANDOR DATE : 01/2019
CHECKED BY : W. C. SMITH DATE : 05/2019

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REVISIONS						SHEET NO.
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1			3			S6-6
2			4			113

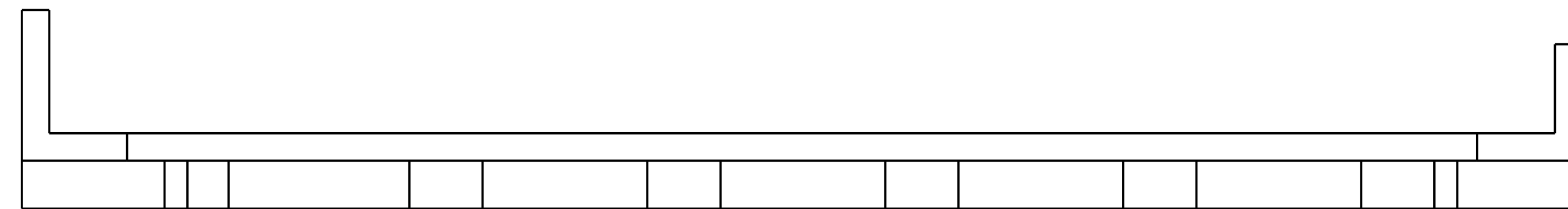


PLAN
(TOP OF CAP)

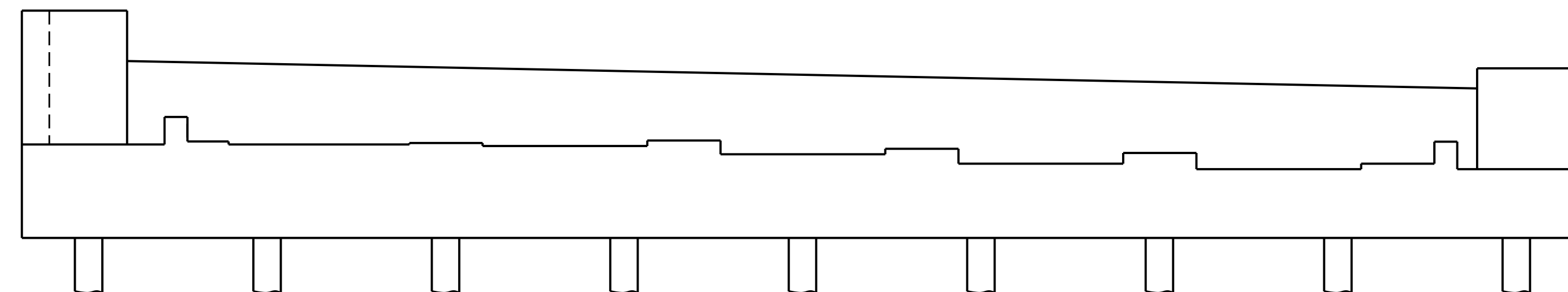


ELEVATION

END BENT 1



PLAN
(TOP OF CAP)



ELEVATION

END BENT 2

REPAIR QUANTITY TABLE

REPAIRS END BENT 1 & 2	QUANTITIES			
	ESTIMATE		ACTUAL	
CONCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL, CORNER)	0.0	0.0		
COLUMN	0.0	0.0		
SHOTCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL, CORNER)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LN. FT		LN. FT
CAP		0.0		
COLUMN		0.0		

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

ERI - EPOXY RESIN INJECTION

▨ - SHOTCRETE REPAIRS

▩ - CONCRETE REPAIRS

PROJECT NO. I-5940
DUPLIN COUNTY
 BRIDGE NO. 300436



DocuSigned by:
P. Corey Newton
6/23/2019

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

SUBSTRUCTURE
 REPAIR
 END BENT 1 &
 END BENT 2

DRAWN BY : P. D. BRYANT / S. T. SANDOR DATE : 01/2019
 CHECKED BY : W. C. SMITH DATE : 05/2019

23-JUN-2019 18:56
 S:\DPG\Division3\I5940\Stefan's Dwg's\406.0100.I-5940.SMU. E*.300436.dgn
 pknewton

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 SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	TOTAL SHEETS
1			3			6-7
2			4			113

NOTES:

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

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

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR CONCRETE REPAIRS, SEE SPECIAL PROVISIONS.

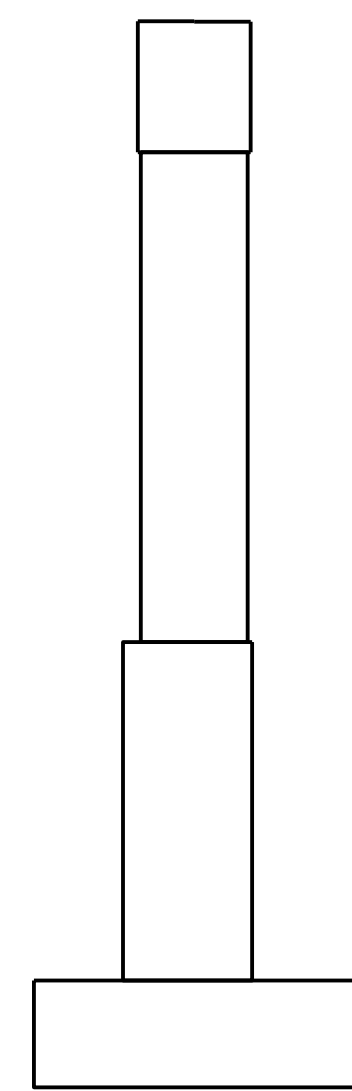
FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.

CONCRETE REPAIRS MAY BE SUBSTITUTED IN LIEU OF SHOTCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

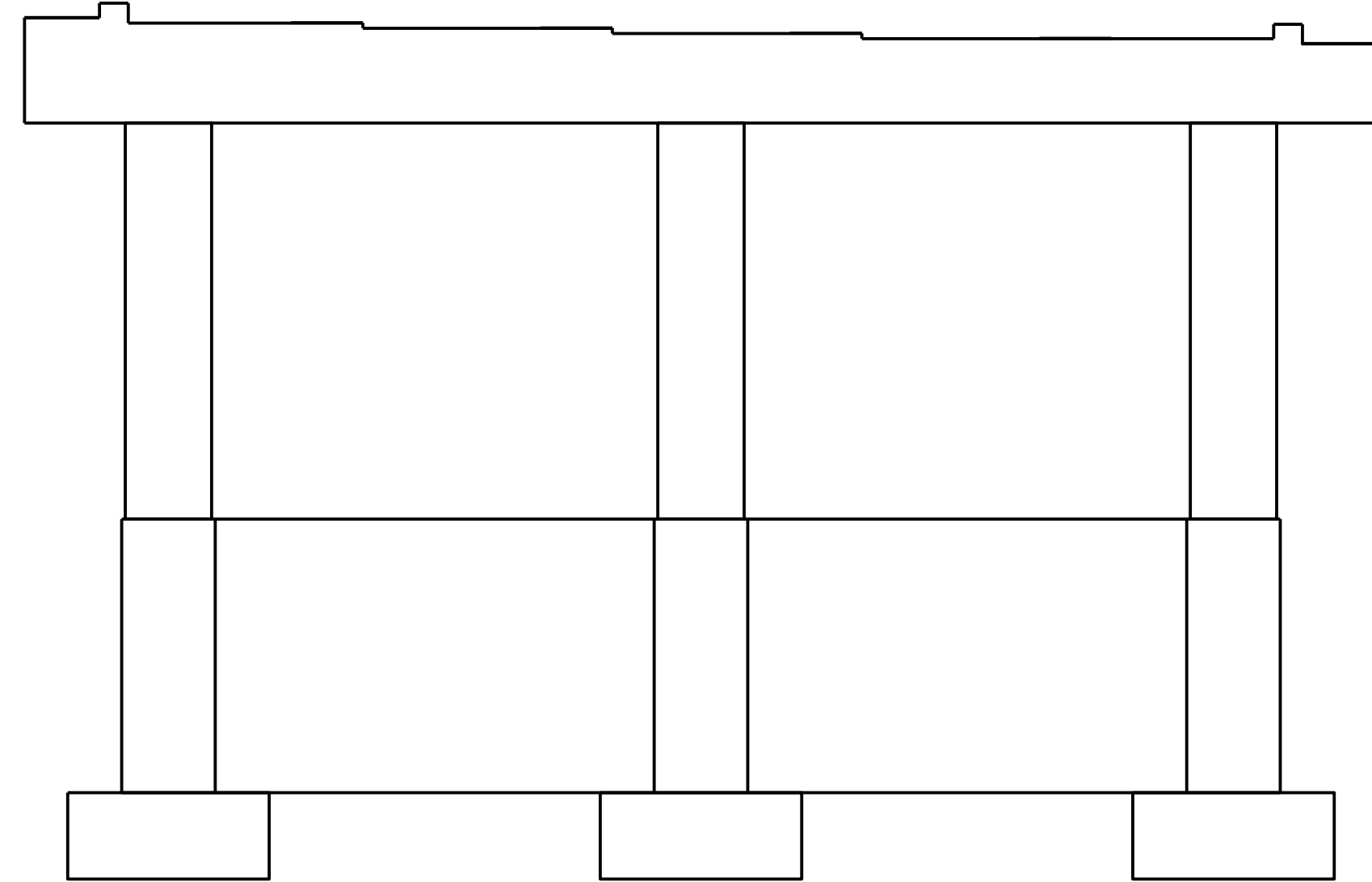


SPAN "A"
SPAN "B"

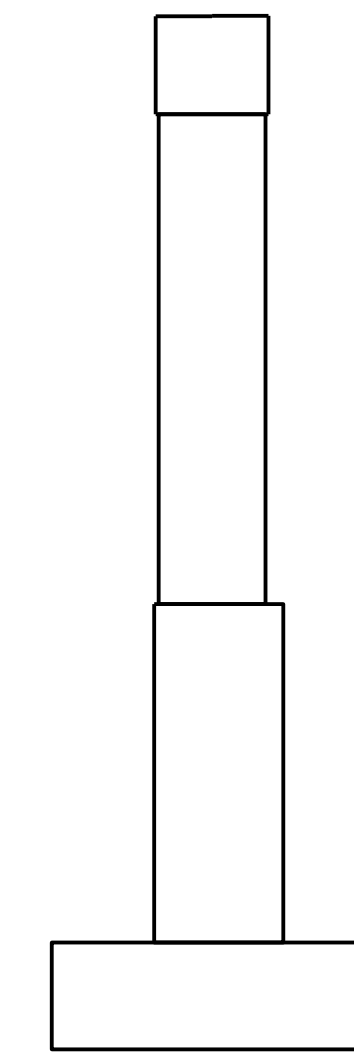
PLAN
TOP OF CAP



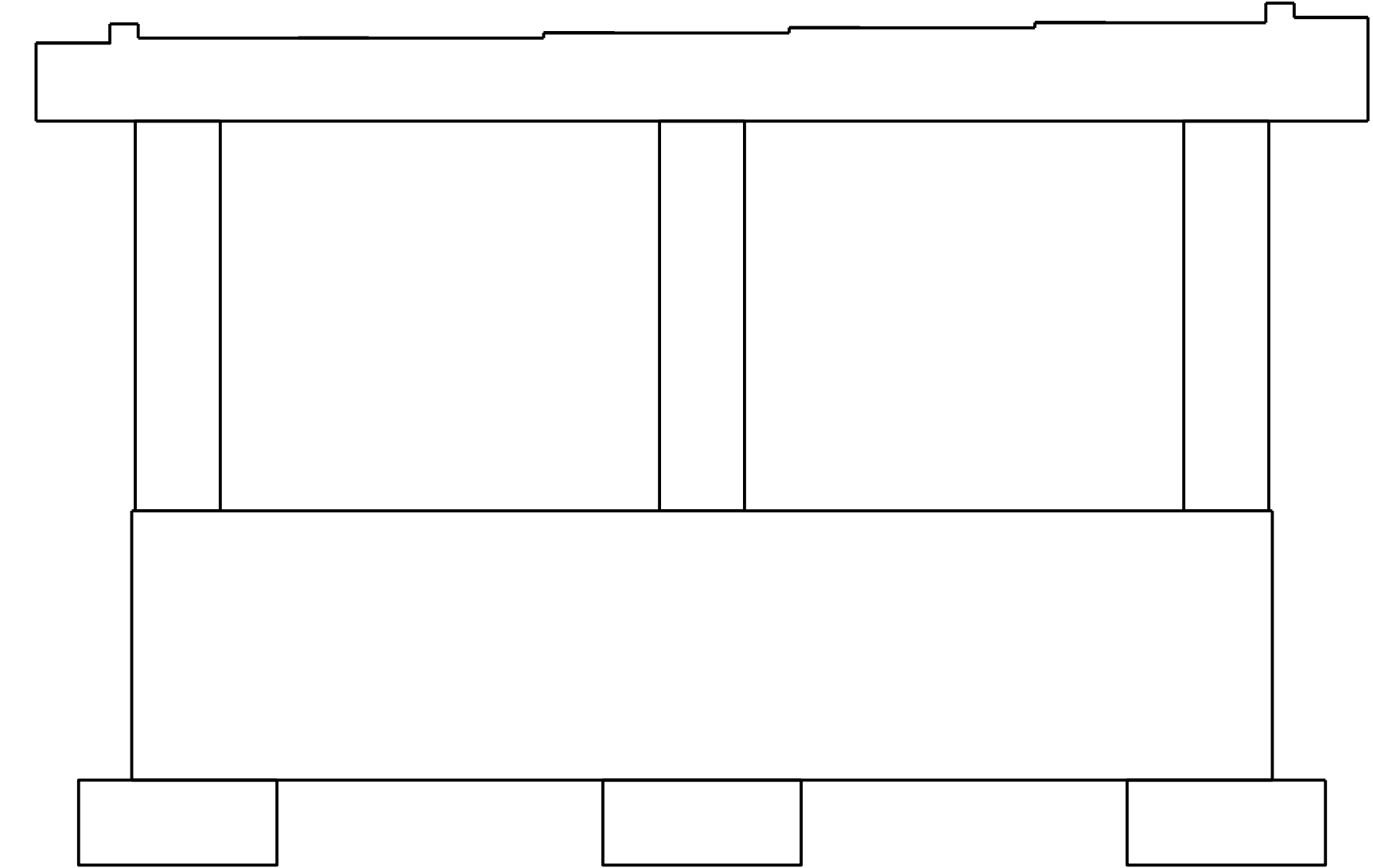
END VIEW
NORTH END



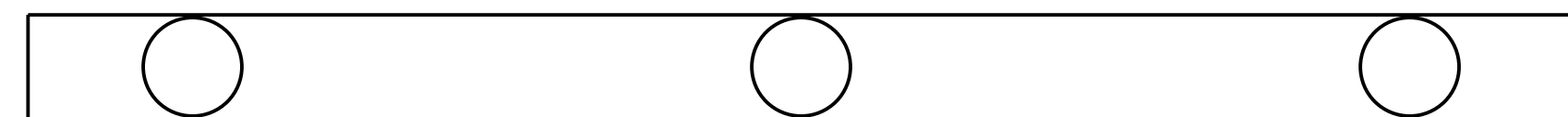
ELEVATION
WEST SIDE



END VIEW
SOUTH END



ELEVATION
EAST SIDE



SPAN "B"
SPAN "A"

PLAN
BOTTOM OF CAP

- CONCRETE REPAIR
- SHOTCRETE REPAIR
- ERI EPOXY RESIN INJECTION



DocuSigned by:
P. Corey Newton
6/23/2019

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

REPAIR QUANTITY TABLE				
BENT 1	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		

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

PROJECT NO. I-5940
DUPLIN COUNTY
BRIDGE NO. 300436

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
SUBSTRUCTURE
BENT 1

DRAWN BY : P. D. BRYANT / S. T. SANDOR DATE : 01/2019
CHECKED BY : W. C. SMITH DATE : 05/2019

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	TOTAL SHEETS
1			3			66-8
2			4			113

NOTES:

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

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

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR CONCRETE REPAIRS, SEE SPECIAL PROVISIONS.

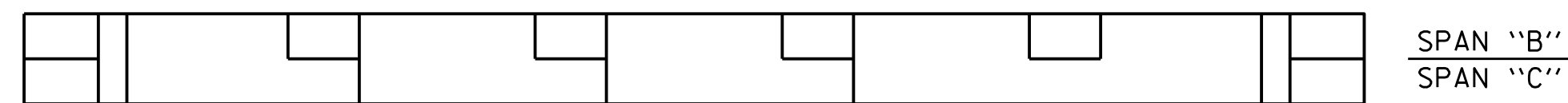
FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.

CONCRETE REPAIRS MAY BE SUBSTITUTED IN LIEU OF SHOTCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

REPAIR QUANTITY TABLE

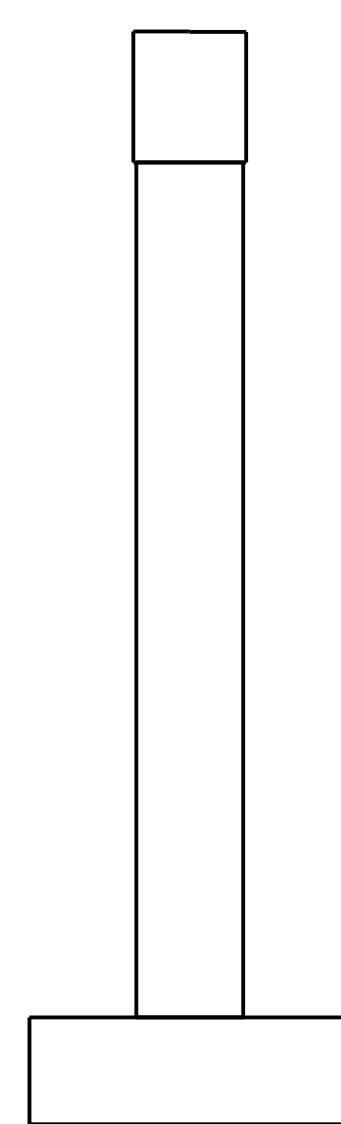
BENT 2	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		

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

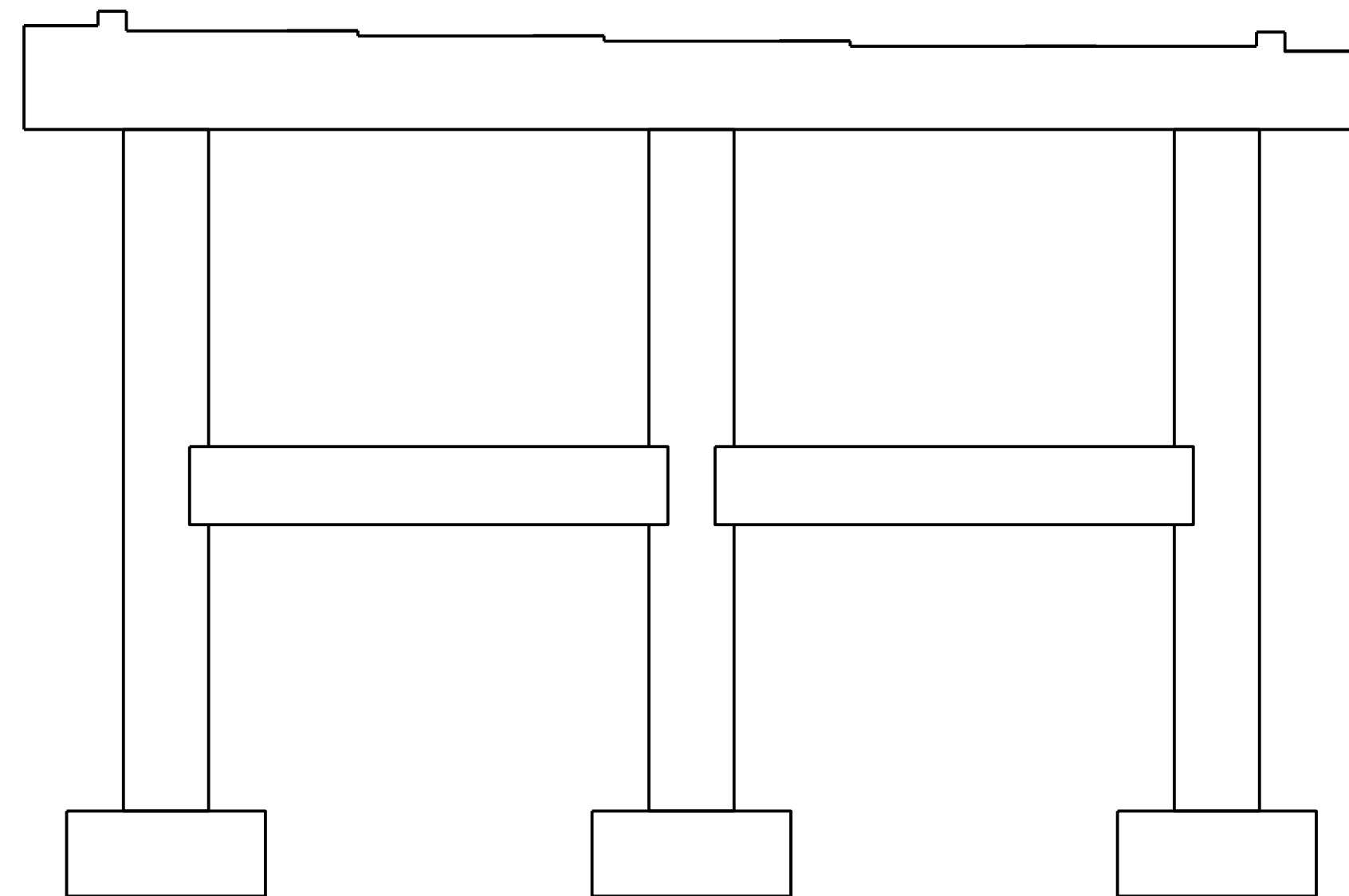


PLAN
TOP OF CAP

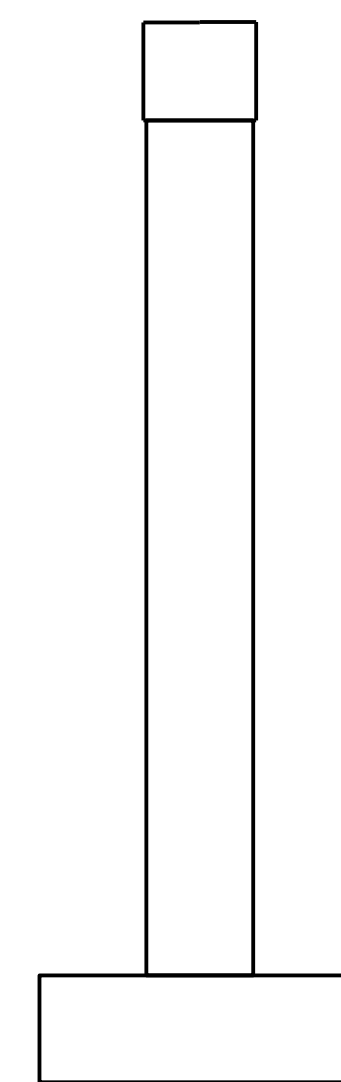
SPAN "B"
SPAN "C"



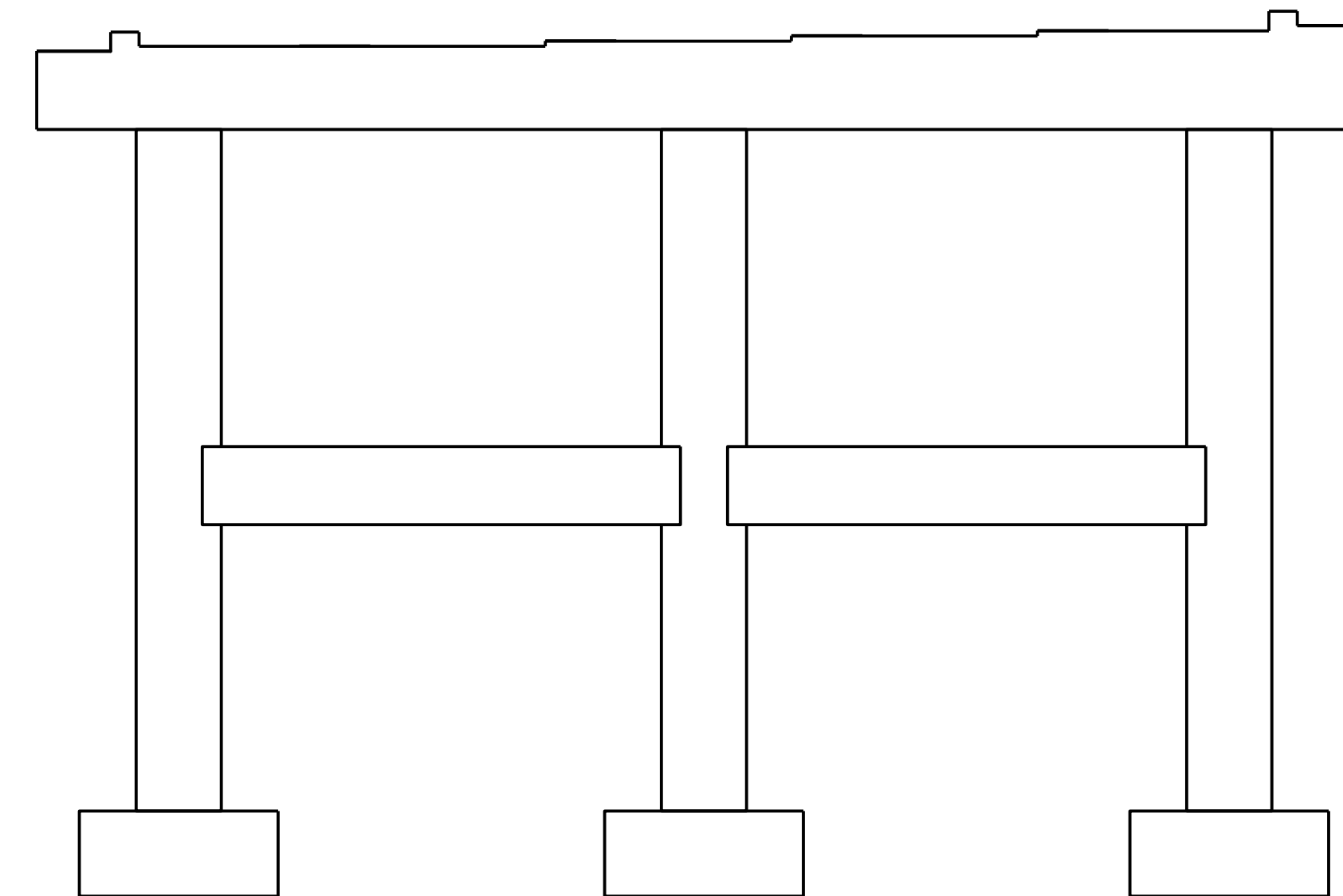
END VIEW
NORTH END



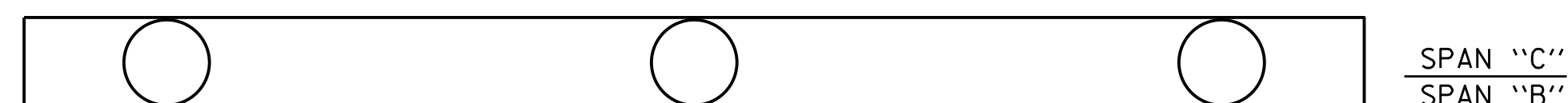
ELEVATION
WEST SIDE



END VIEW
SOUTH SIDE



ELEVATION
EAST SIDE

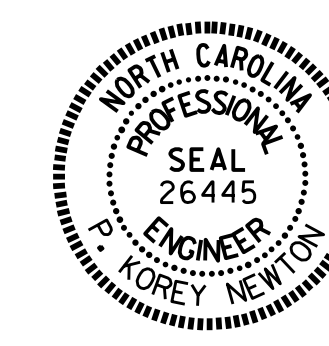


PLAN
BOTTOM OF CAP

SPAN "C"
SPAN "B"

- CONCRETE REPAIR
- SHOTCRETE REPAIR
- ERI EPOXY RESIN INJECTION

PROJECT NO. I-5940
DUPLIN COUNTY
BRIDGE NO. 300436



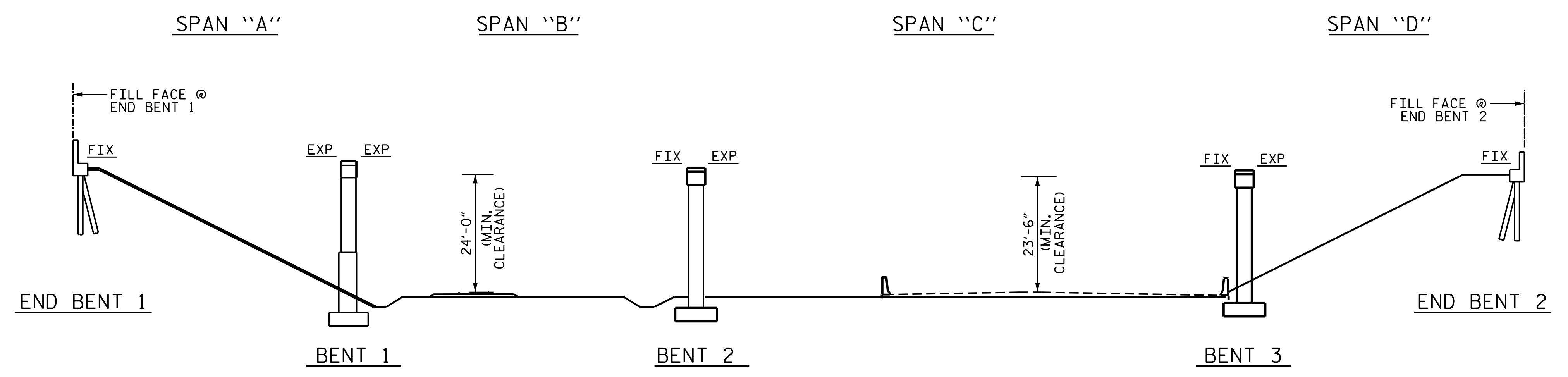
DocuSigned by:
P. Corey Newton
6/23/2019

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
SUBSTRUCTURE
BENT 2

DRAWN BY : P. D. BRYANT / S. T. SANDOR DATE : 01/2019
CHECKED BY : W. C. SMITH DATE : 05/2019

DOCUMENT NOT CONSIDERED
FINAL UNLESS ALL
SIGNATURES COMPLETED

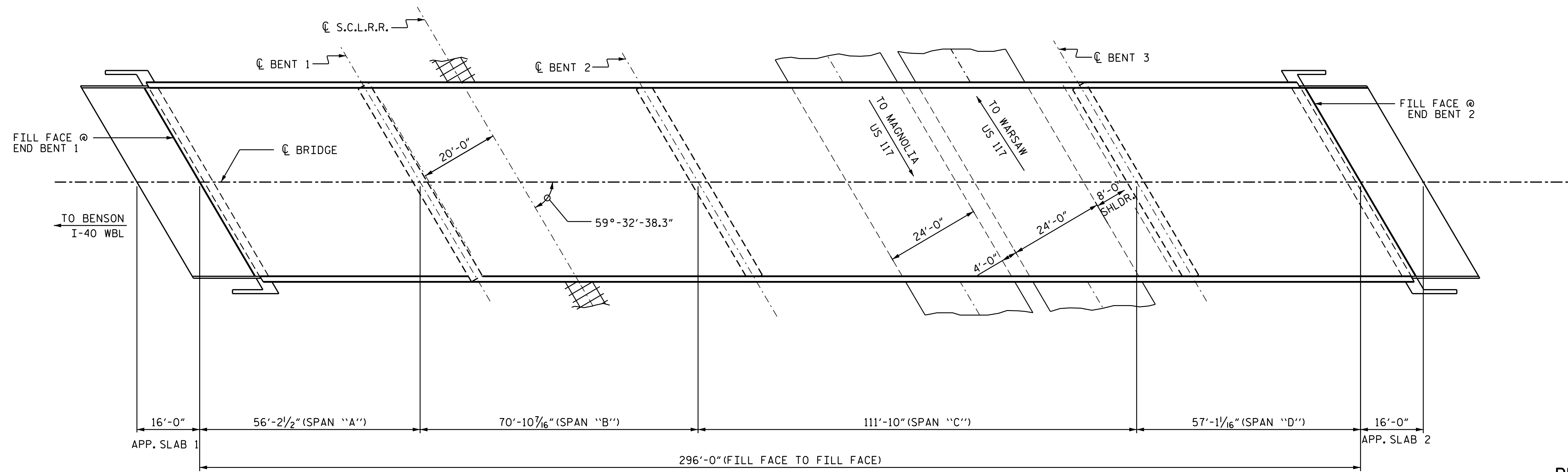
REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	TOTAL SHEETS
1			3			56-9
2			4			113



ELEVATION
(SECTION ALONG $\text{\textcircled{C}}$ ROADWAY)

NOTES

- PROFILE INFORMATION IS TAKEN FROM ORIGINAL PLANS AND THE ROUTINE INSPECTION, DATED 08/07/2017.
- BRIDGE ORIENTATION CONFORMS TO EXISTING BRIDGE PLANS.



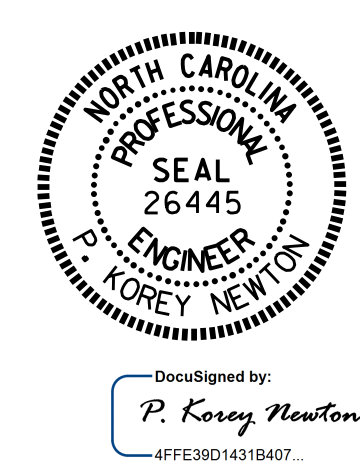
PLAN
(PILES NOT SHOWN FOR CLARITY)

SCOPE OF WORK

- PARTIALLY REMOVE BRIDGE DECK CONCRETE BY SCARIFICATION AND SHOTBLASTING METHODS.
- PERFORM JOINTS AND DECK REPAIRS IN PREPARED AREAS.
- OVERLAY PREPARED BRIDGE DECK WITH POLYESTER POLYMER CONCRETE.
- RECONSTRUCT BRIDGE JOINTS AND INSTALL BACKER ROD AND SILICONE JOINT SEALANT.
- GROOVE POLYESTER POLYMER CONCRETE DECK.
- REPAIR SUBSTRUCTURE USING EPOXY RESIN INJECTION, EPOXY COATING AND SHOTCRETE.

I hereby certify that this structure was rehabilitated according to these plans or as noted therein.

Resident Engineer _____ Date _____



PROJECT NO. I-5940
DUPLIN COUNTY
 BRIDGE NO. 300437

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
GENERAL DRAWING
 FOR BRIDGE #437 ON
 I-40 WBL, OVER
 SCL RR & US117

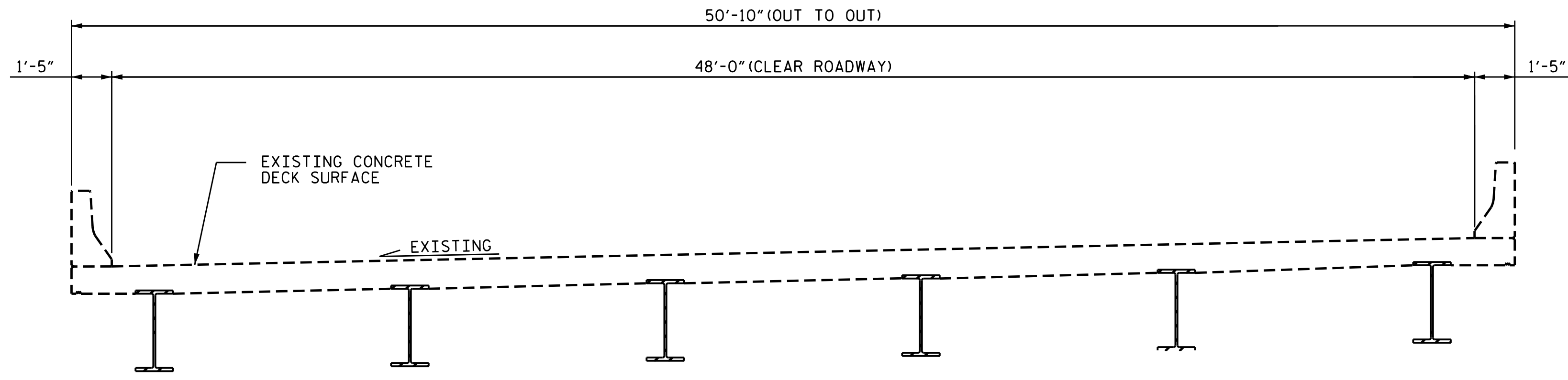
DRAWN BY : P.D. BRYANT / S.T. SANDOR DATE : 12/2018
 CHECKED BY : W.C. SMITH DATE : 05/2019

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

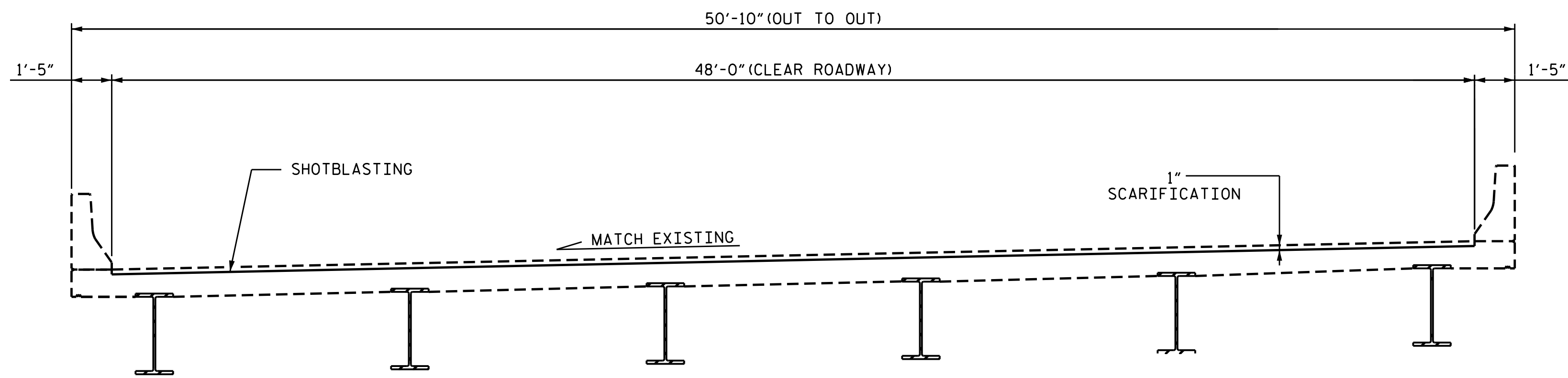
REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S7-1
1			3			TOTAL SHEETS
2			4			113

NOTES

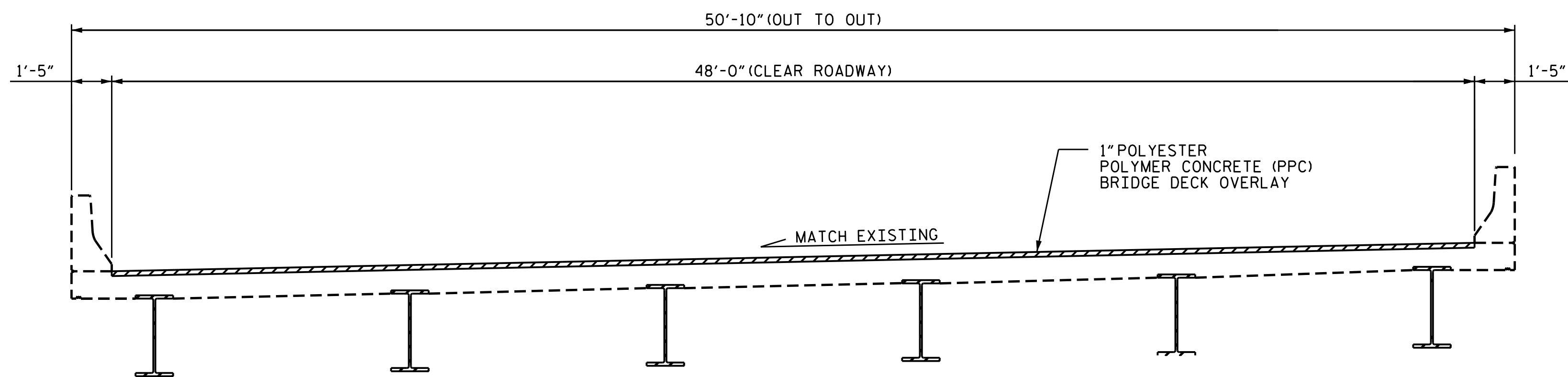
SEE TRANSPORTATION MANAGEMENT PLANS FOR LANE WIDTHS, SEQUENCING AND OTHER TRAFFIC CONTROL MEASURES FOR STAGING OF OVERLAY SURFACE PREPARATION AND POLYESTER POLYMER CONCRETE PLACEMENT.



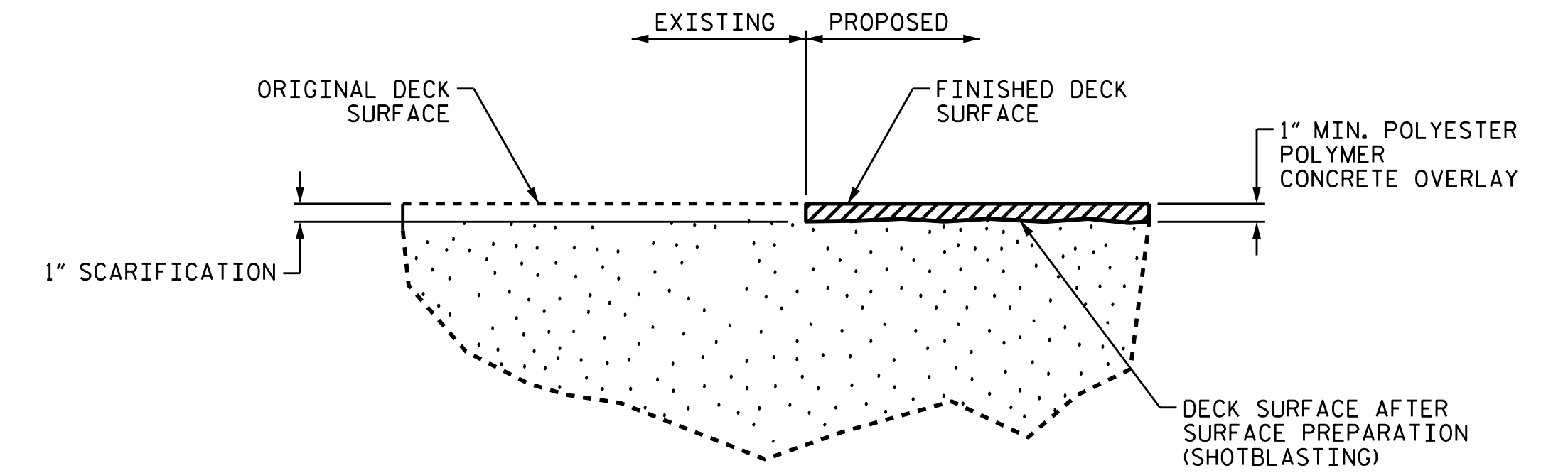
TYPICAL SECTION
(EXISTING)



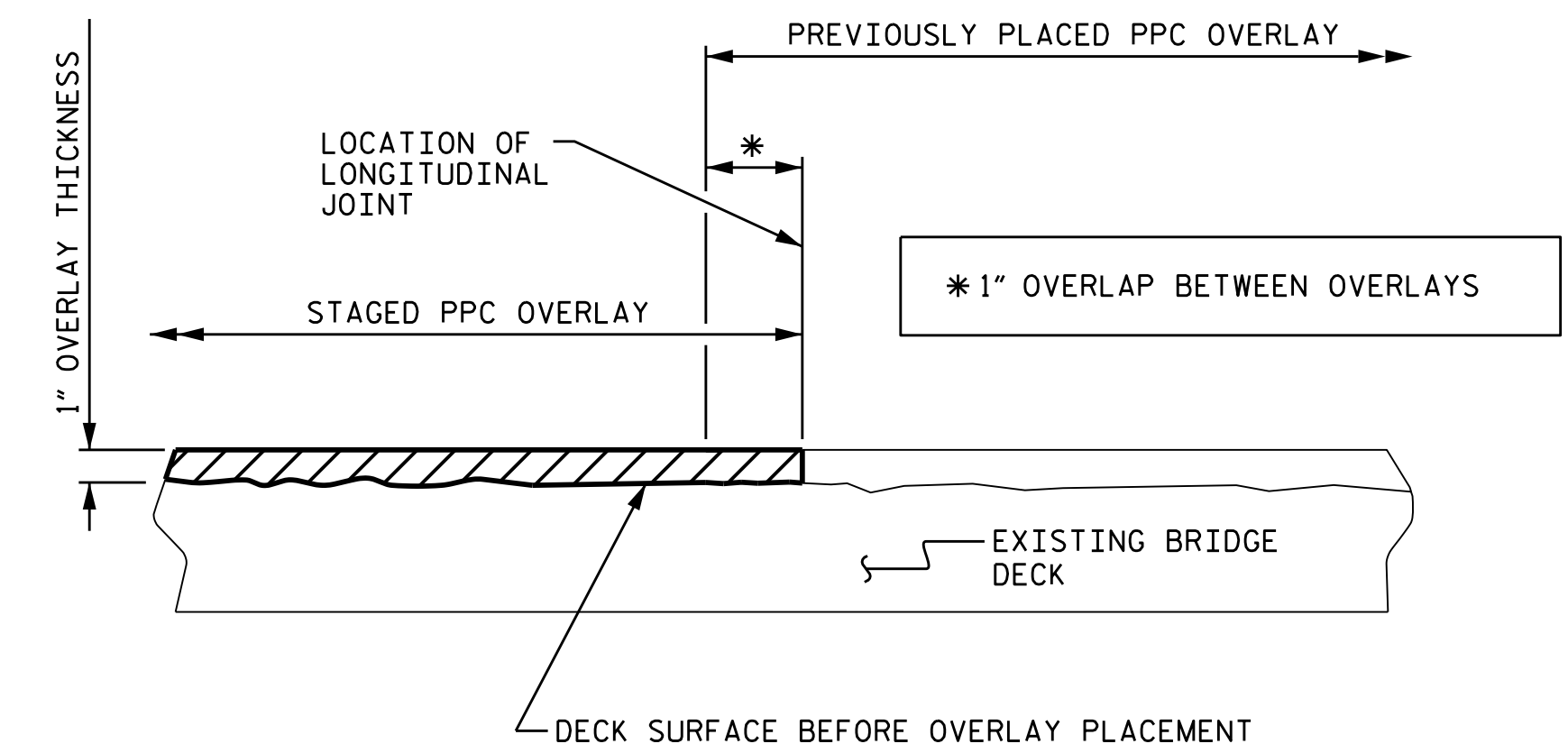
TYPICAL SECTION
(DECK PREPARATION)



TYPICAL SECTION
(PROPOSED)



**DETAIL FOR POLYESTER
POLYMER CONCRETE OVERLAY**



STAGED PPC OVERLAY JOINT
(AS NEEDED)

PROJECT NO. I-5940
DUPLIN COUNTY
 BRIDGE NO. 300437



DocuSigned by:
P. Corey Newton
 6/23/2019

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

**TYPICAL SECTION
 AND SURFACE
 PREPARATION DETAILS**

DRAWN BY : S. T. SANDOR DATE : 01/2019
 CHECKED BY : W. C. SMITH DATE : 05/2019

DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
 SIGNATURES COMPLETED




REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	TOTAL SHEETS
1			3			S7-2
2			4			113

SUMMARY OF QUANTITIES FOR SPAN "A" AND APPROACH SLAB 1

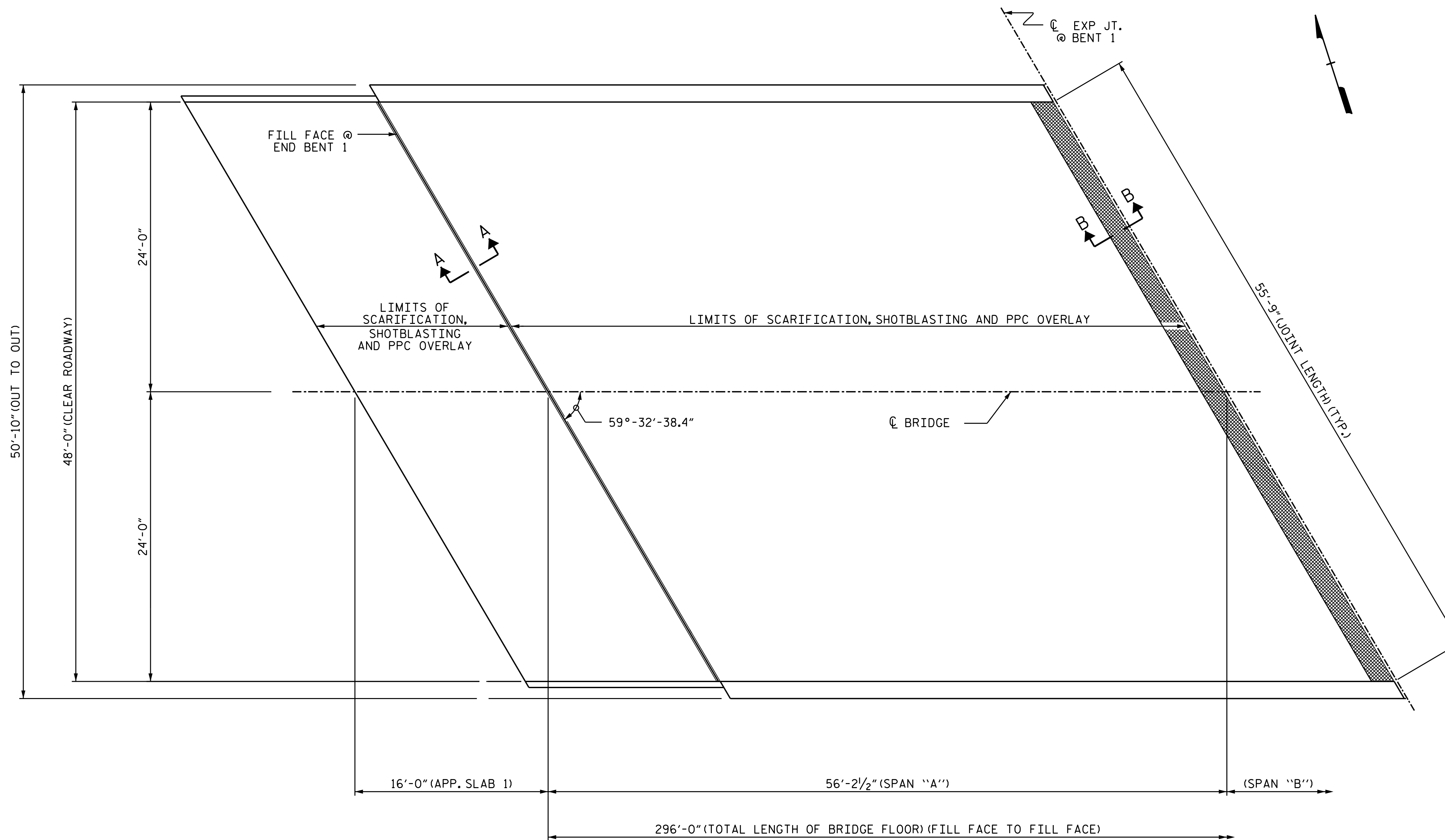
	ESTIMATE	ACTUAL
SCARIFYING BRIDGE DECK	385.2 SY	
POLYSTER POLYMER CONCRETE MATERIALS	10.7 CY	
SHOTBLASTING BRIDGE DECK	385.2 SY	
PLACING & FINISHING PPC OVERLAY	385.2 SY	
CONCRETE DECK REPAIRS FOR PPC OVERLAY	14.9 SY	
GROOVING BRIDGE DECK	3,121.9 SF	
CLASS II SUREFACE PREPARATION	0.0 SY	

NOTES:

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

-  - SCARIFYING AND SHOTBLASTING OF BRIDGE DECK FOR PPC OVERLAY
-  - APPROX. AREA CLASS II SURFACE PREPARATION
-  - CONCRETE DECK REPAIRS FOR PPC OVERLAY

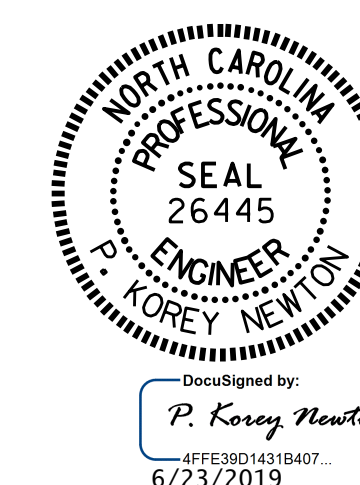
NO DEFICIENCIES NOTED DURING FIELD INSPECTION. THE CONTRACTOR AND ENGINEER SHALL INSPECT THE DECK SURFACE AFTER SCARIFICATION FOR POTENTIAL CLASS II REPAIRS.



PLAN OF SPAN "A" AND APPROACH SLAB 1

(SEE SHEET NO. S8-7 FOR SECTIONS A-A AND B-B)

PROJECT NO. I-5940
DUPLIN COUNTY
 BRIDGE NO. 300437



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 SURFACE PREPARATION
 SPAN "A" AND
 APPROACH SLAB 1

DRAWN BY : S. T. SANDOR DATE : 01/2019
 CHECKED BY : W. C. SMITH DATE : 05/2019

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

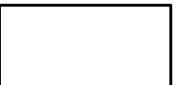

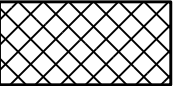
REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	TOTAL SHEETS
1			3			S7-3
2			4			113

SUMMARY OF QUANTITIES FOR SPAN "B"

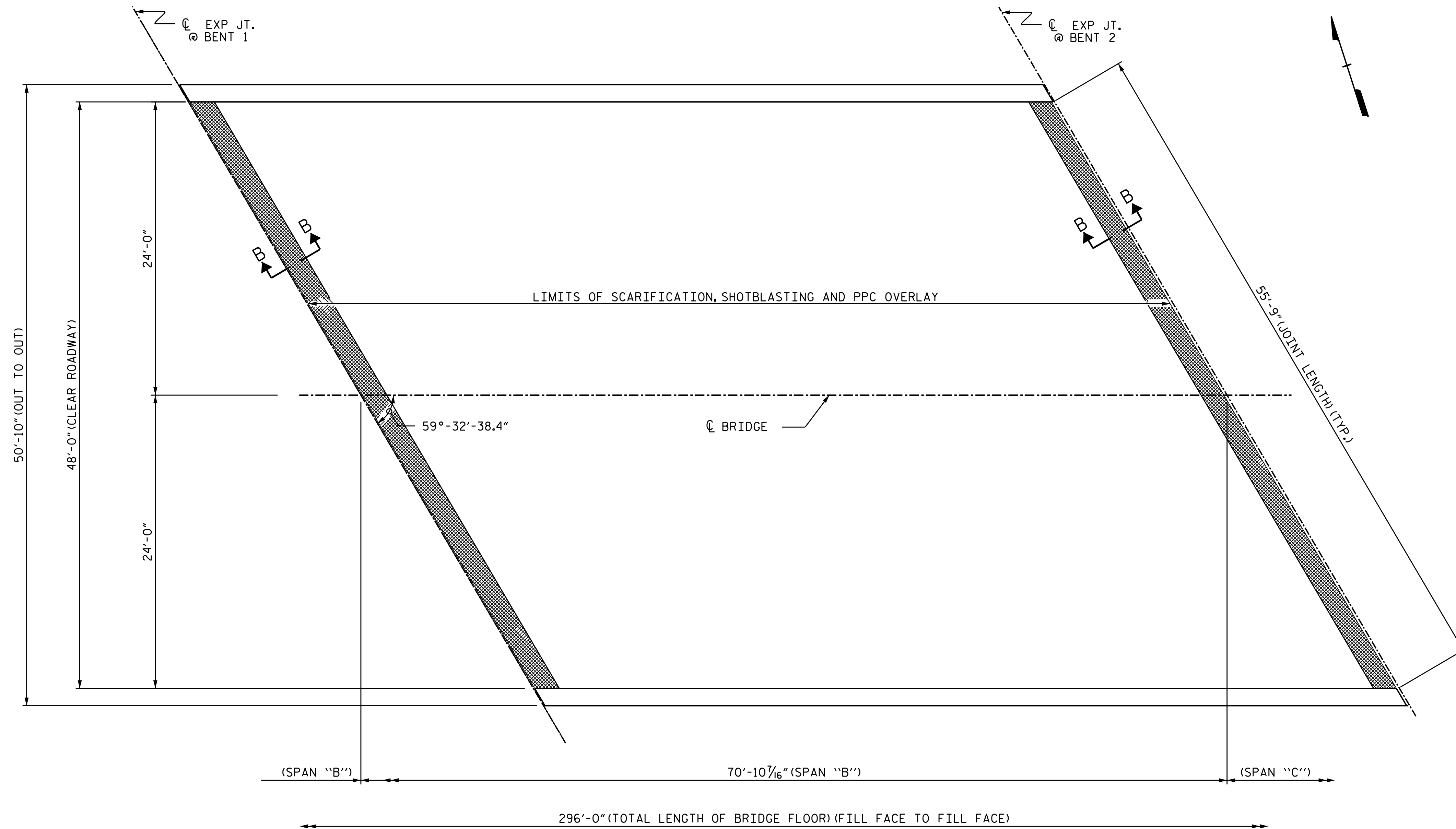
	ESTIMATE	ACTUAL
SCARIFYING BRIDGE DECK	378.0 SY	
POLYSTER POLYMER CONCRETE MATERIALS	10.5 CY	
SHOTBLASTING BRIDGE DECK	378.0 SY	
PLACING & FINISHING PPC OVERLAY	378.0 SY	
CONCRETE DECK REPAIRS FOR PPC OVERLAY	17.0 SY	
GROOVING BRIDGE DECK	3,009.1 SF	
CLASS II SUREFACE PREPARATION	0.0 SY	

NOTES:

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

-  - SCARIFYING AND SHOTBLASTING OF BRIDGE DECK FOR PPC OVERLAY
-  - APPROX. AREA CLASS II SURFACE PREPARATION
-  - CONCRETE DECK REPAIRS FOR PPC OVERLAY

NO DEFICIENCIES NOTED DURING FIELD INSPECTION. THE CONTRACTOR AND ENGINEER SHALL INSPECT THE DECK SURFACE AFTER SCARIFICATION FOR POTENTIAL CLASS II REPAIRS.



PLAN OF SPAN "B"

(SEE SHEET NO. S8-7 FOR SECTION B-B)

PROJECT NO. I-5940
DUPLIN COUNTY
 BRIDGE NO. 300437



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

SURFACE PREPARATION
 SPAN "B"

DRAWN BY : S. T. SANDOR DATE : 01/2019
 CHECKED BY : W. C. SMITH DATE : 05/2019

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

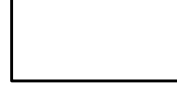


REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	TOTAL SHEETS
1			3			ST-4
2			4			113

SUMMARY OF QUANTITIES FOR SPAN "C"

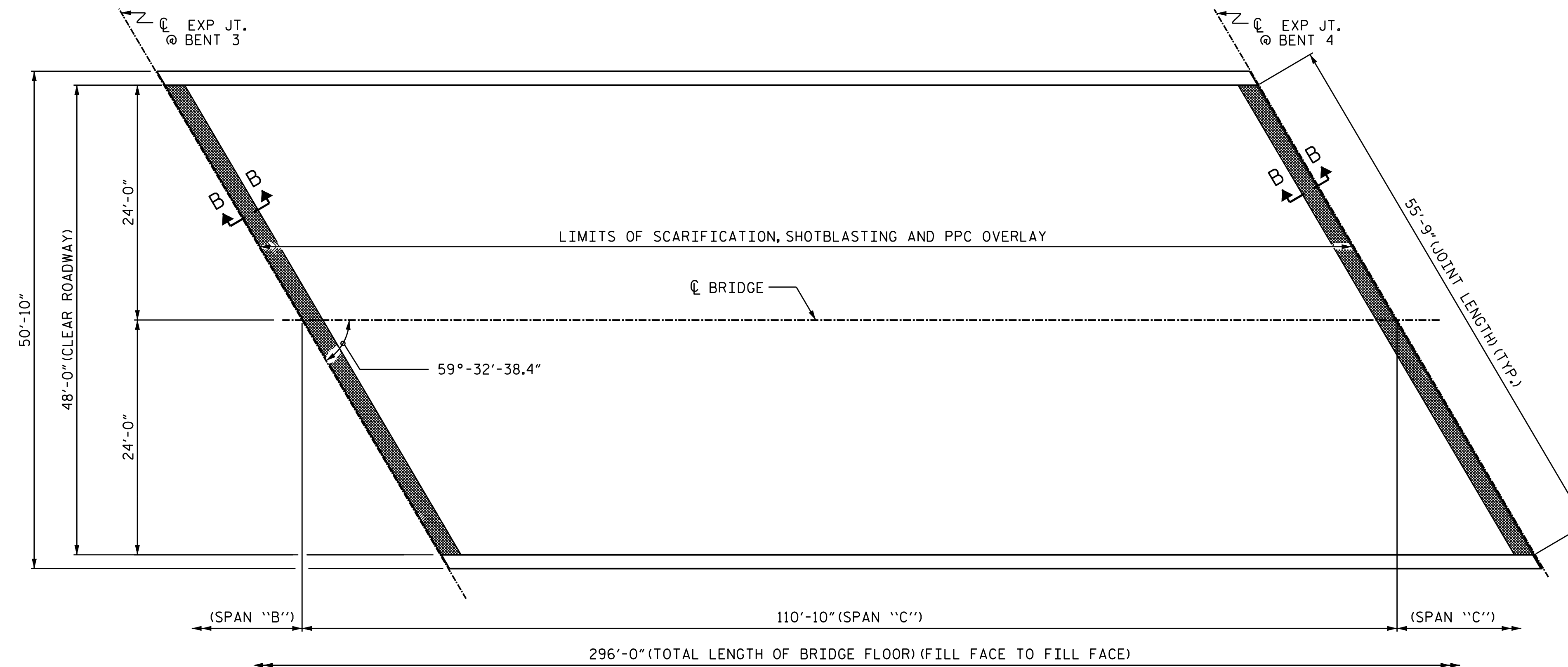
	ESTIMATE	ACTUAL
SCARIFYING BRIDGE DECK	591.1 SY	
POLYSTER POLYMER CONCRETE MATERIALS	16.4 CY	
SHOTBLASTING BRIDGE DECK	591.1 SY	
PLACING & FINISHING PPC OVERLAY	591.1 SY	
CONCRETE DECK REPAIRS FOR PPC OVERLAY	17.0 SY	
GROOVING BRIDGE DECK	3,330.1 SF	
CLASS II SUREFACE PREPARATION	0.0 SY	

NOTES:

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

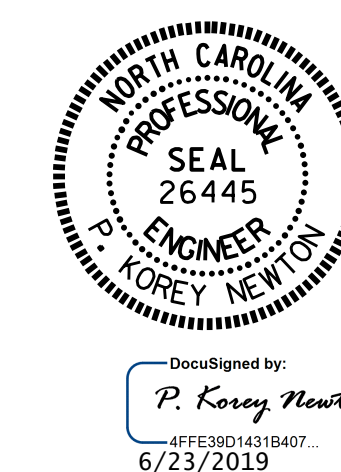
-  - SCARIFYING AND SHOTBLASTING OF BRIDGE DECK FOR PPC OVERLAY
-  - APPROX. AREA CLASS II SURFACE PREPARATION
-  - CONCRETE DECK REPAIRS FOR PPC OVERLAY

NO DEFICIENCIES NOTED DURING FIELD INSPECTION. THE CONTRACTOR AND ENGINEER SHALL INSPECT THE DECK SURFACE AFTER SCARIFICATION FOR POTENTIAL CLASS II REPAIRS.



PLAN OF SPAN "C"
(SEE SHEET NO. S8-7 FOR SECTION B-B)

PROJECT NO. I-5940
DUPLIN COUNTY
 BRIDGE NO. 300437



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 SURFACE PREPARATION
 SPAN "C"

DRAWN BY : S. T. SANDOR DATE : 01/2019
 CHECKED BY : W. C. SMITH DATE : 05/2019

DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
 SIGNATURES COMPLETED




REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	TOTAL SHEETS
1			3			ST-5
2			4			113

SUMMARY OF QUANTITIES FOR SPAN "D" AND APPROACH SLAB 2

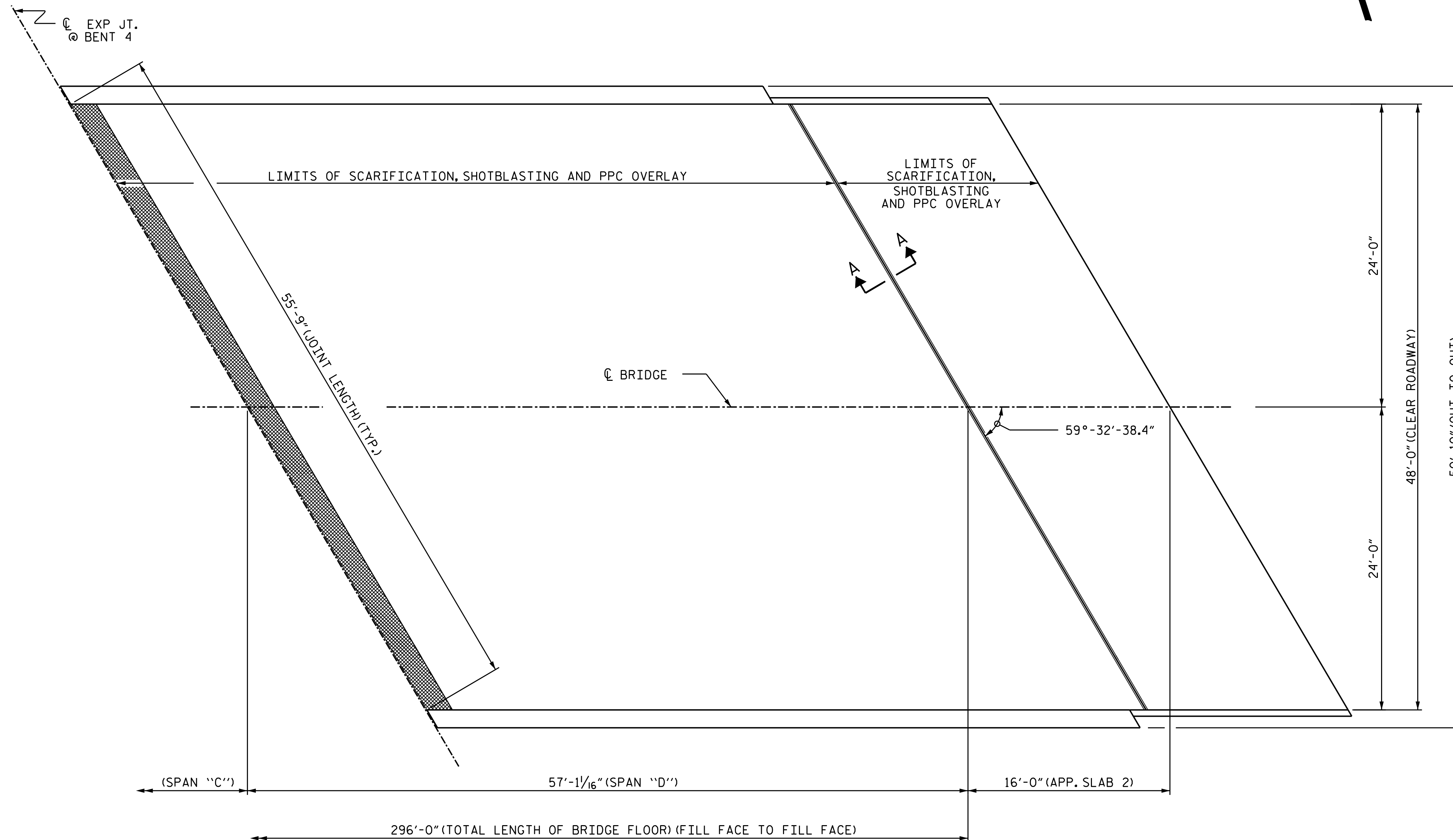
	ESTIMATE	ACTUAL
SCARIFYING BRIDGE DECK	389.9 SY	
POLYSTER POLYMER CONCRETE MATERIALS	10.8 CY	
SHOTBLASTING BRIDGE DECK	389.9 SY	
PLACING & FINISHING PPC OVERLAY	389.9 SY	
CONCRETE DECK REPAIRS FOR PPC OVERLAY	14.9 SY	
GROOVING BRIDGE DECK	3,142.2 SF	
CLASS II SUREFACE PREPARATION	0.0 SY	

NOTES:

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

-  - SCARIFYING AND SHOTBLASTING OF BRIDGE DECK FOR PPC OVERLAY
-  - APPROX. AREA CLASS II SURFACE PREPARATION
-  - CONCRETE DECK REPAIRS FOR PPC OVERLAY

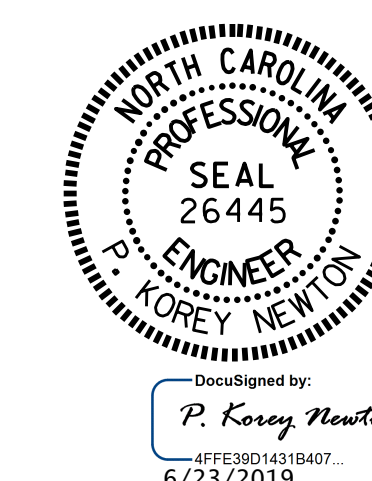
NO DEFICIENCIES NOTED DURING FIELD INSPECTION. THE CONTRACTOR AND ENGINEER SHALL INSPECT THE DECK SURFACE AFTER SCARIFICATION FOR POTENTIAL CLASS II REPAIRS.



PLAN OF SPAN "D" AND APPROACH SLAB 2

(SEE SHEET NO. S8-7 FOR SECTIONS A-A AND B-B)

PROJECT NO. I-5940
DUPLIN COUNTY
 BRIDGE NO. 300437



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 SURFACE PREPARATION
 SPAN "D" AND
 APPROACH SLAB 2

DRAWN BY : S. T. SANDOR DATE : 01/2019
 CHECKED BY : W. C. SMITH DATE : 05/2019

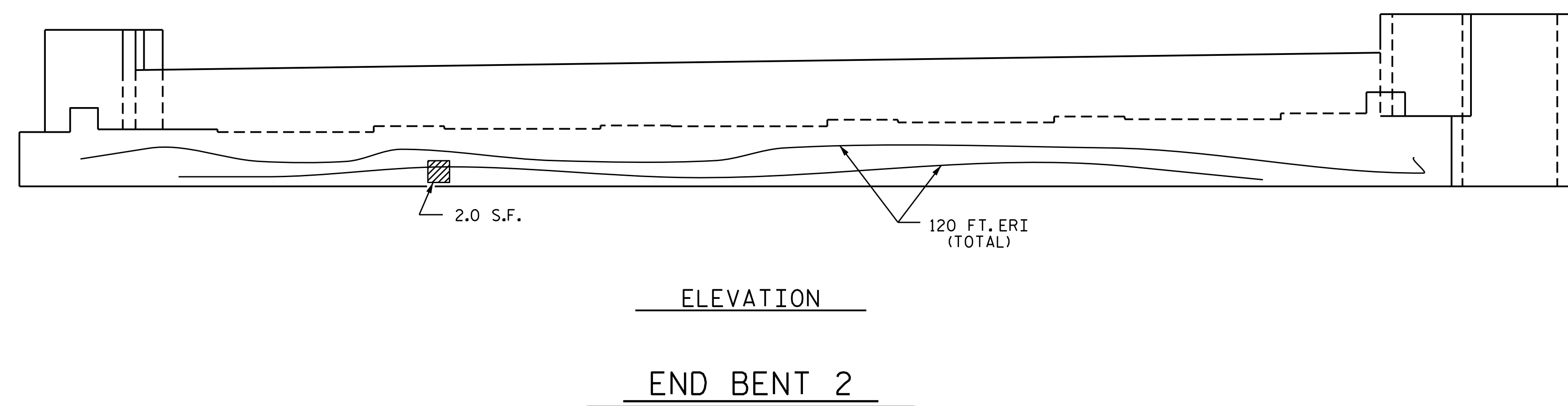
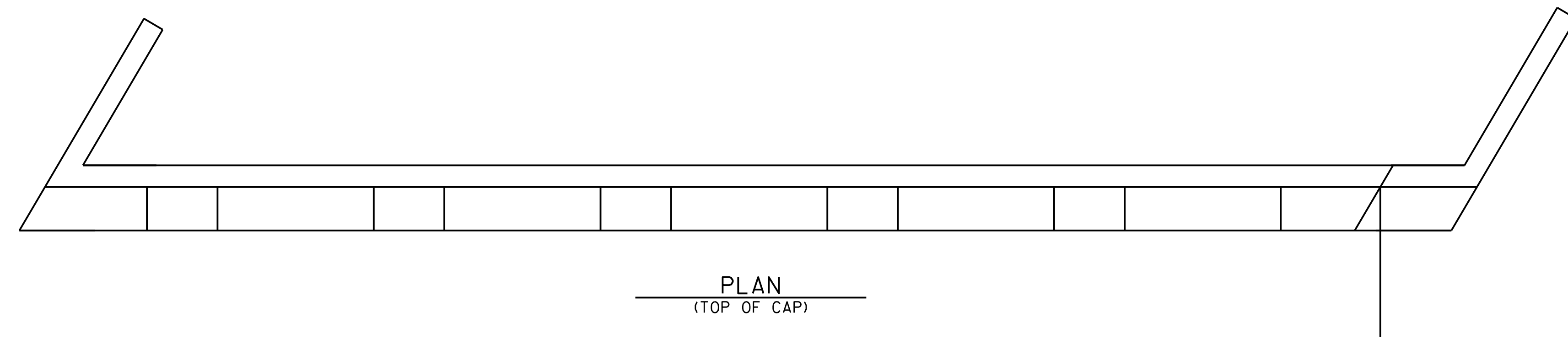
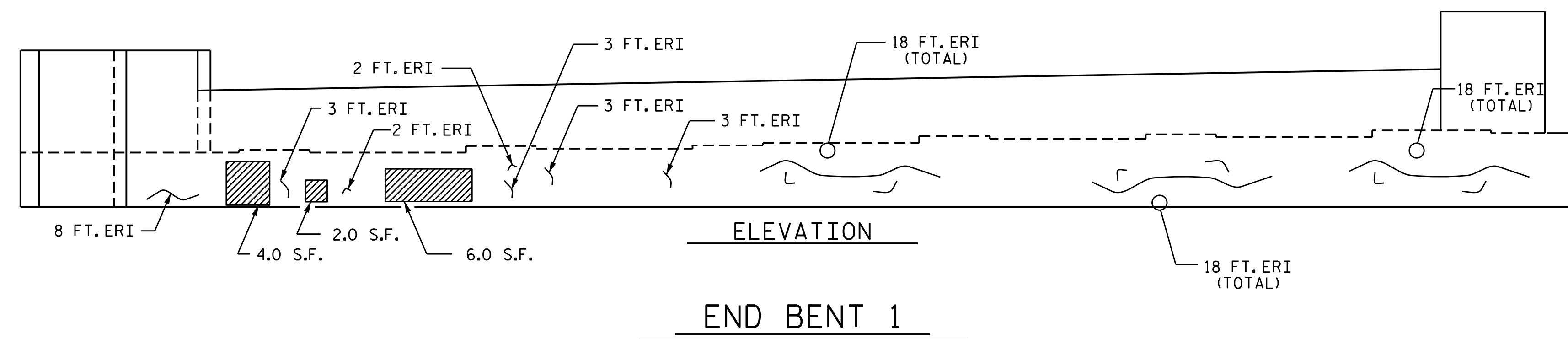
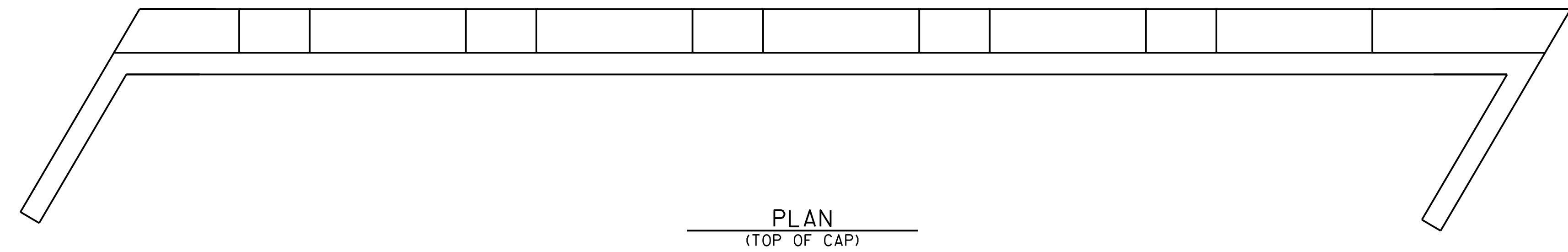
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	TOTAL SHEETS
1			3			57-6
2			4			113

REPAIR QUANTITY TABLE

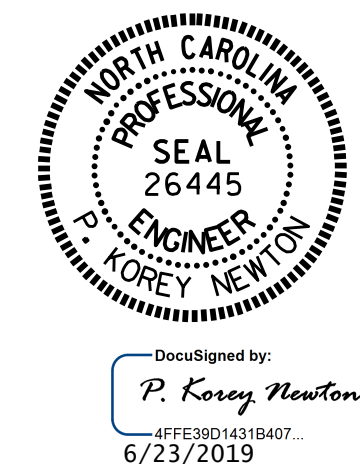
REPAIRS END BENT 1 & 2	QUANTITIES			
	ESTIMATE		ACTUAL	
CONCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL, CORNER)	0.0	0.0		
COLUMN	0.0	0.0		
SHOTCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	14.0	7.0		
CAP (HORIZONTAL, CORNER)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION	LN. FT		LN. FT	
CAP	200.0			
COLUMN	0.0			

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



- ERI - EPOXY RESIN INJECTION
- ▨ - SHOTCRETE REPAIRS
- ▩ - CONCRETE REPAIRS

PROJECT NO. I-5940
DUPLIN COUNTY
 BRIDGE NO. 300437



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
**SUBSTRUCTURE
 REPAIR
 END BENT 1 &
 END BENT 2**

DRAWN BY : S. T. SANDOR DATE : 01/2019
 CHECKED BY : W. C. SMITH DATE : 05/2019

DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
 SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	TOTAL SHEETS
1			3			ST-7
2			4			113

NOTES:

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

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

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR CONCRETE REPAIRS, SEE SPECIAL PROVISIONS.

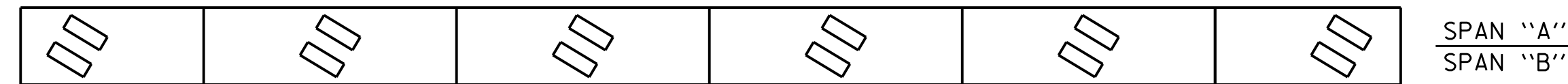
FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.

CONCRETE REPAIRS MAY BE SUBSTITUTED IN LIEU OF SHOTCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

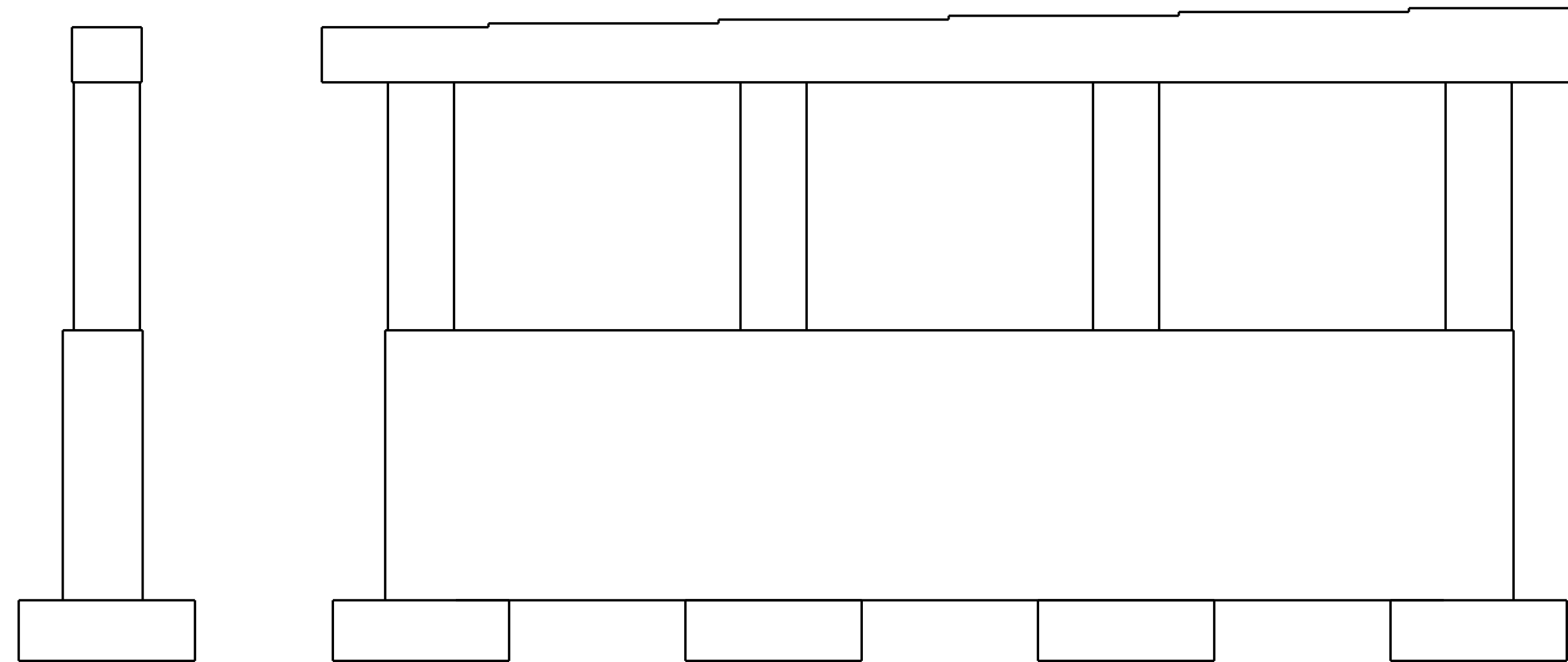
REPAIR QUANTITY TABLE

BENT 1	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		

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

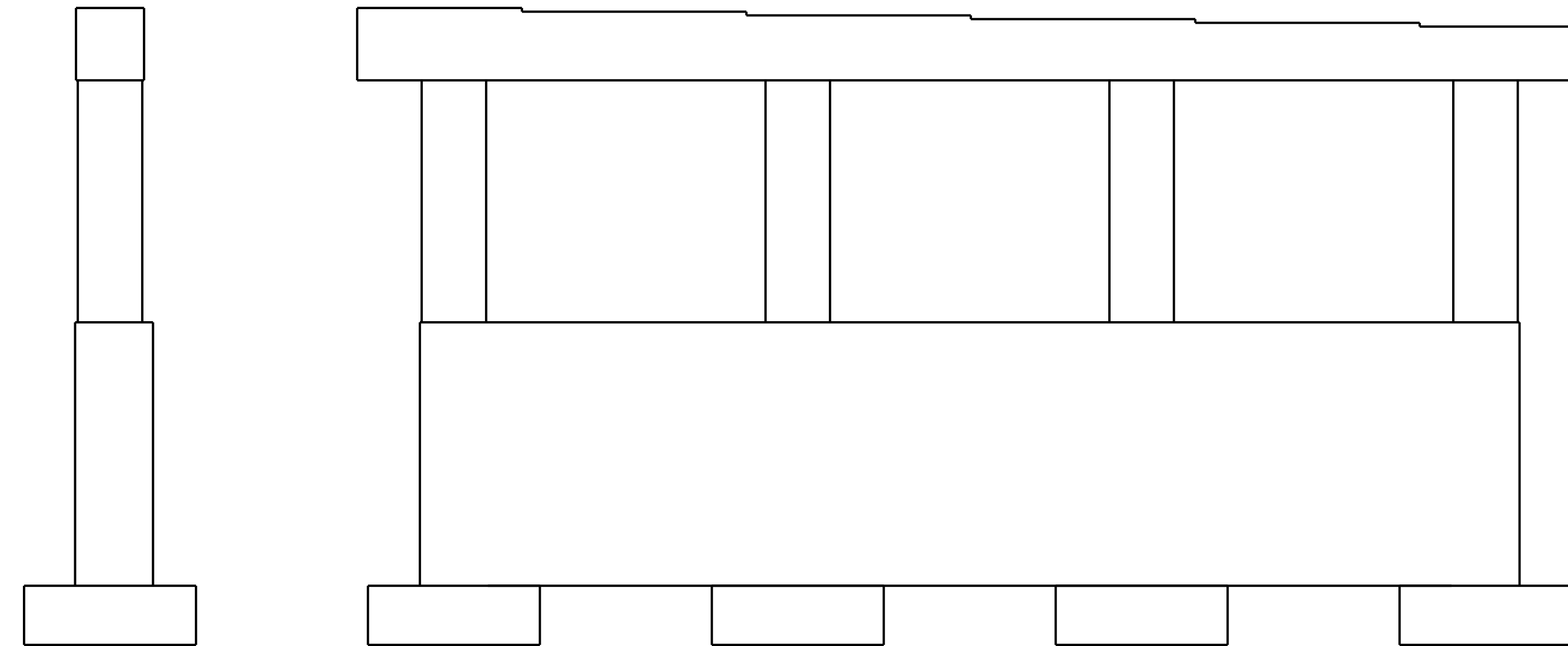


PLAN
TOP OF CAP



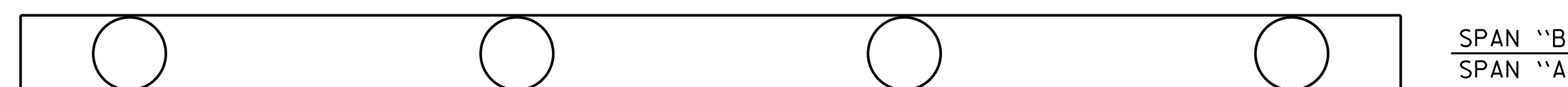
END VIEW
NORTH END

ELEVATION
WEST SIDE



END VIEW
SOUTH SIDE

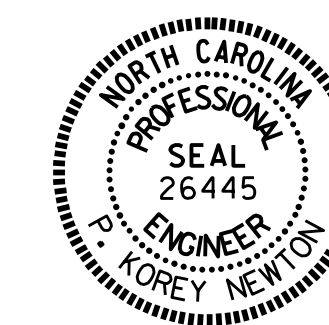
ELEVATION
EAST SIDE



PLAN
BOTTOM OF CAP

- CONCRETE REPAIR
- SHOTCRETE REPAIR
- ERI EPOXY RESIN INJECTION

PROJECT NO. I-5940
DUPLIN COUNTY
 BRIDGE NO. 300437



DocuSigned by:
P. Corey Newton
 6/23/2019

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
SUBSTRUCTURE
BENT 1

DRAWN BY : P. D. BRYANT / S. T. SANDOR DATE : 01/2019
 CHECKED BY : W. C. SMITH DATE : 05/2019

DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
 SIGNATURES COMPLETED

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

NOTES:

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

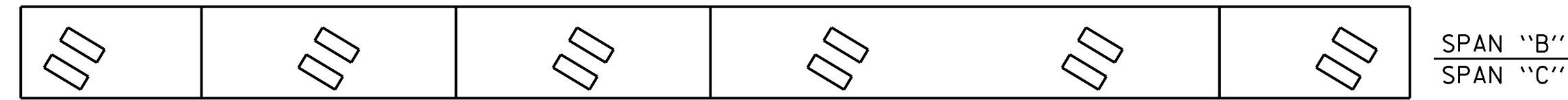
FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR CONCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.

CONCRETE REPAIRS MAY BE SUBSTITUTED IN LIEU OF SHOTCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

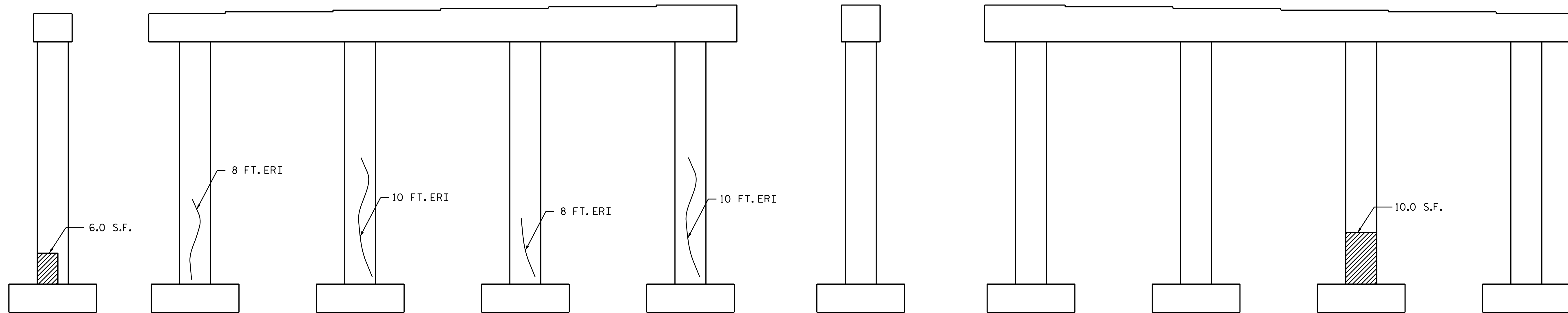


SPAN "B"
SPAN "C"

PLAN
TOP OF CAP

REPAIR QUANTITY TABLE				
BENT 2	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	16.0	8.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		10.0		
COLUMN		36.0		

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



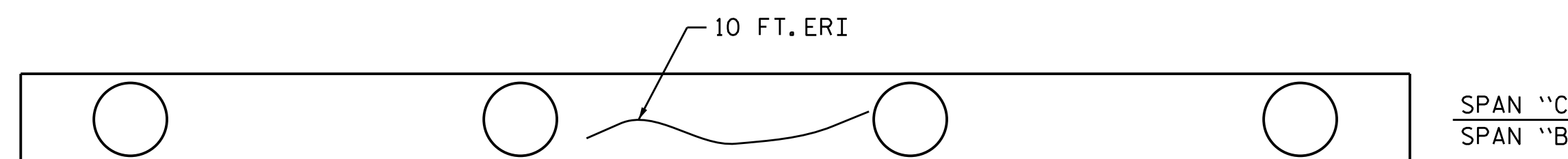
END VIEW
NORTH END

ELEVATION
WEST SIDE

END VIEW
SOUTH SIDE

ELEVATION
EAST SIDE

PROJECT NO. I-5940
DUPLIN COUNTY
BRIDGE NO. 300437



SPAN "C"
SPAN "B"

PLAN
BOTTOM OF CAP

- CONCRETE REPAIR
- SHOTCRETE REPAIR
- ERI EPOXY RESIN INJECTION



DocuSigned by:
P. Corey Newton
6/23/2019

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
SUBSTRUCTURE
BENT 2

DRAWN BY : P. D. BRYANT / S. T. SANDOR DATE : 01/2019
CHECKED BY : W. C. SMITH DATE : 05/2019

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SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	TOTAL SHEETS
1			3			S7-9
2			4			113

NOTES:

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

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

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

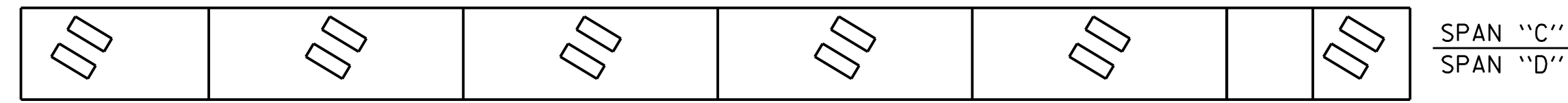
FOR CONCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.

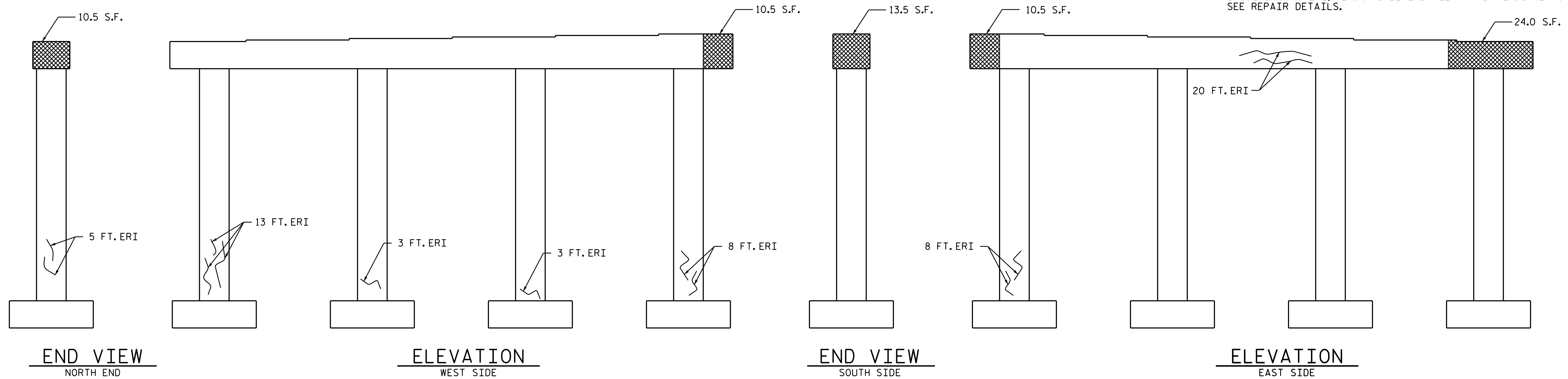
REPAIR QUANTITY TABLE

BENT 3	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	69.0	34.5		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		43.0		
COLUMN		40.0		

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



PLAN
TOP OF CAP



END VIEW
NORTH END

ELEVATION
WEST SIDE

END VIEW
SOUTH SIDE

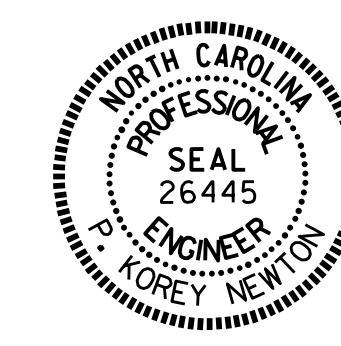
ELEVATION
EAST SIDE



PLAN
BOTTOM OF CAP

- CONCRETE REPAIR
- SHOTCRETE REPAIR
- ERI EPOXY RESIN INJECTION

PROJECT NO. I-5940
DUPLIN COUNTY
 BRIDGE NO. 300437



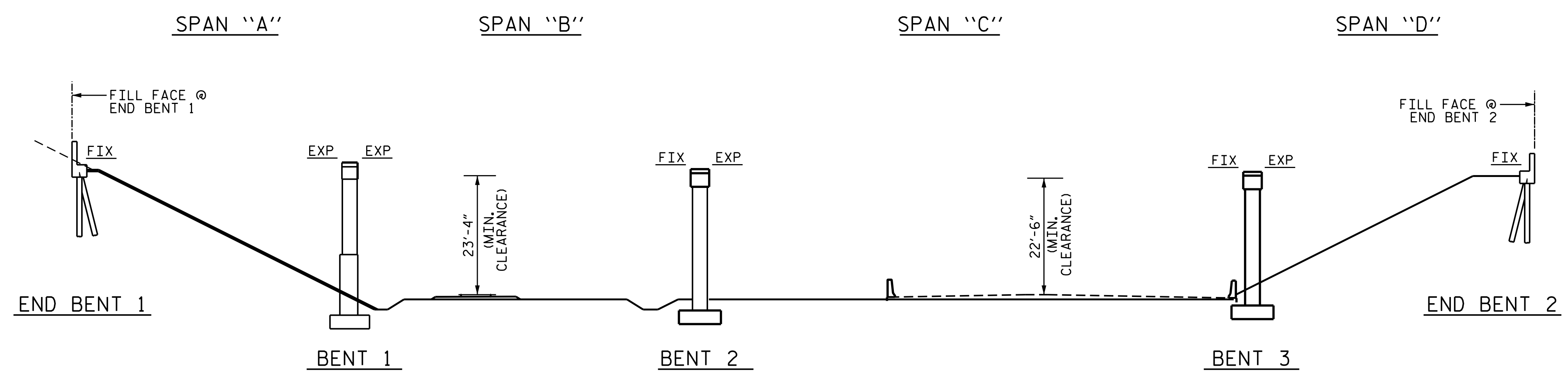
DocuSigned by:
P. Corey Newton
 4FF639D14518A07...
 6/23/2019

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
SUBSTRUCTURE
BENT 3

DRAWN BY : P. D. BRYANT / S. T. SANDOR DATE : 01/2019
 CHECKED BY : W. C. SMITH DATE : 05/2019

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REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	TOTAL SHEETS
1			3			S7-10
2			4			113



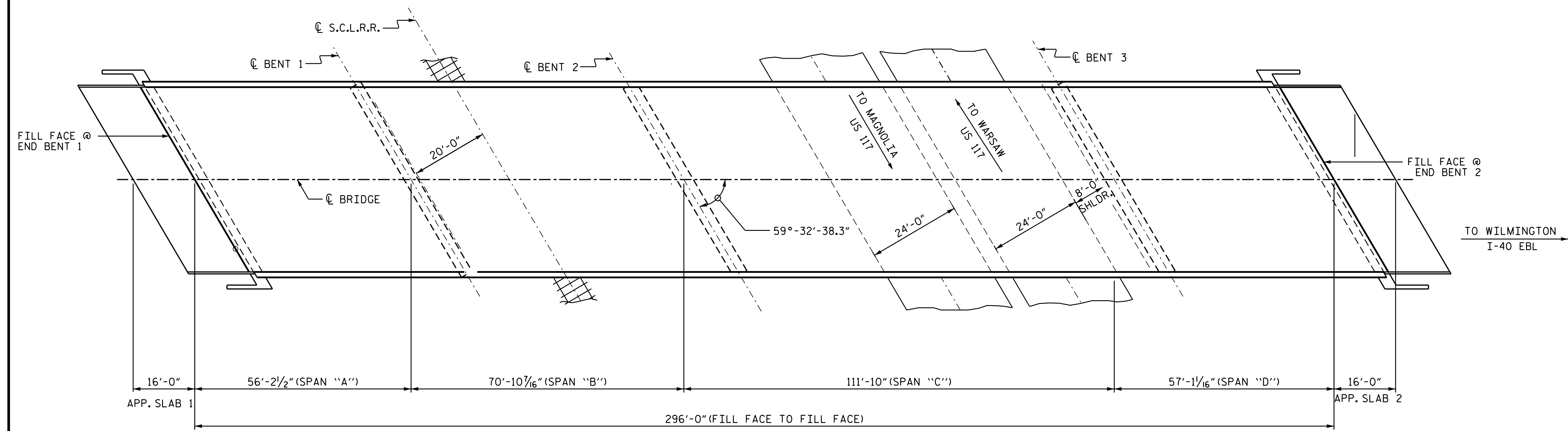
ELEVATION
(SECTION ALONG $\text{\textcircled{C}}$ ROADWAY)

SCOPE OF WORK

- PARTIALLY REMOVE BRIDGE DECK CONCRETE BY SCARIFICATION AND SHOTBLASTING METHODS.
- PERFORM JOINTS AND DECK REPAIRS IN PREPARED AREAS.
- OVERLAY PREPARED BRIDGE DECK WITH POLYESTER POLYMER CONCRETE.
- RECONSTRUCT BRIDGE JOINTS AND INSTALL BACKER ROD AND SILICONE JOINT SEALANT.
- GROOVE POLYESTER POLYMER CONCRETE DECK.
- REPAIR SUBSTRUCTURE USING EPOXY RESIN INJECTION AND SHOTCRETE.

NOTES

- PROFILE INFORMATION IS TAKEN FROM ORIGINAL PLANS AND THE ROUTINE INSPECTION, DATED 08/07/2017.
- BRIDGE ORIENTATION CONFORMS TO EXISTING BRIDGE PLANS.

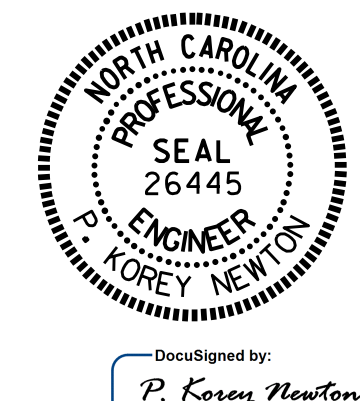


PLAN
(PILES NOT SHOWN FOR CLARITY)

PROJECT NO. I-5940
DUPLIN COUNTY
 BRIDGE NO. 300438

I hereby certify that this structure was rehabilitated according to these plans or as noted therein.

Resident Engineer _____ Date _____



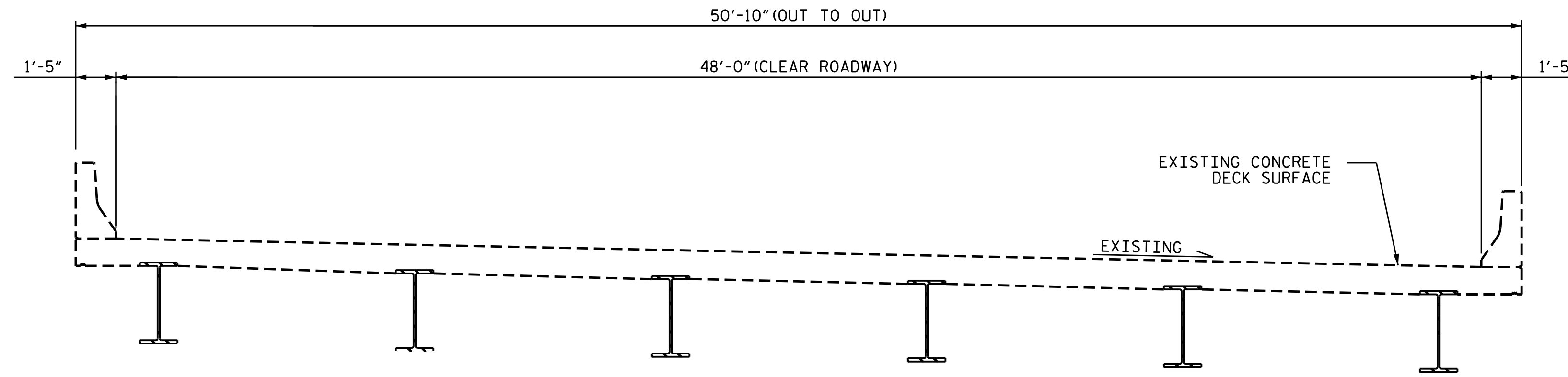
STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
GENERAL DRAWING
 FOR BRIDGE #437 ON
 I-40 EBL, OVER
 SCL RR & US117

DRAWN BY : S. T. SANDOR DATE : 01/2019
 CHECKED BY : W. C. SMITH DATE : 05/2019

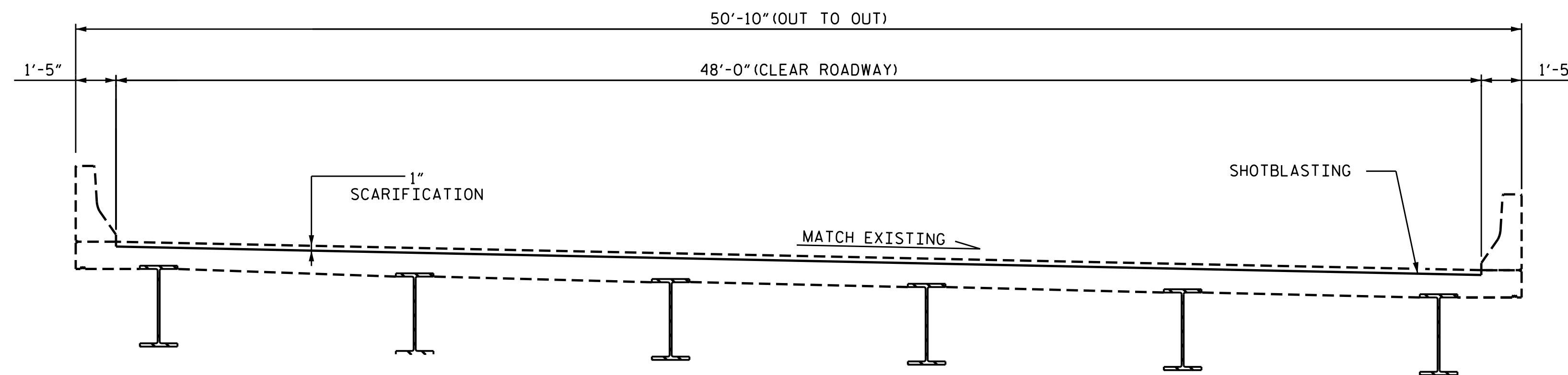
REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	TOTAL SHEETS
1			3			113
2			4			

NOTES

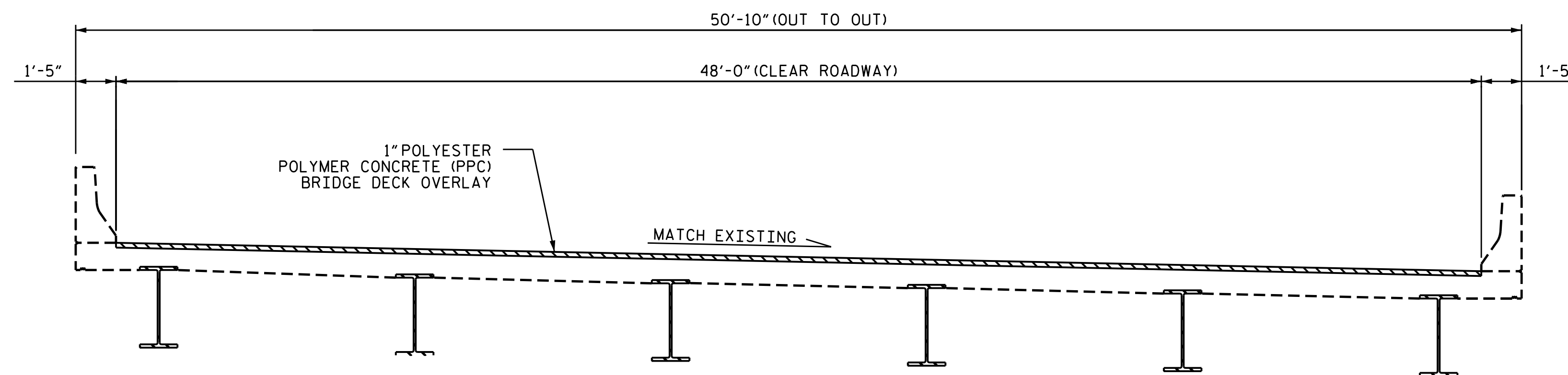
SEE TRANSPORTATION MANAGEMENT PLANS FOR LANE WIDTHS, SEQUENCING AND OTHER TRAFFIC CONTROL MEASURES FOR STAGING OF OVERLAY SURFACE PREPARATION AND POLYESTER POLYMER CONCRETE PLACEMENT.



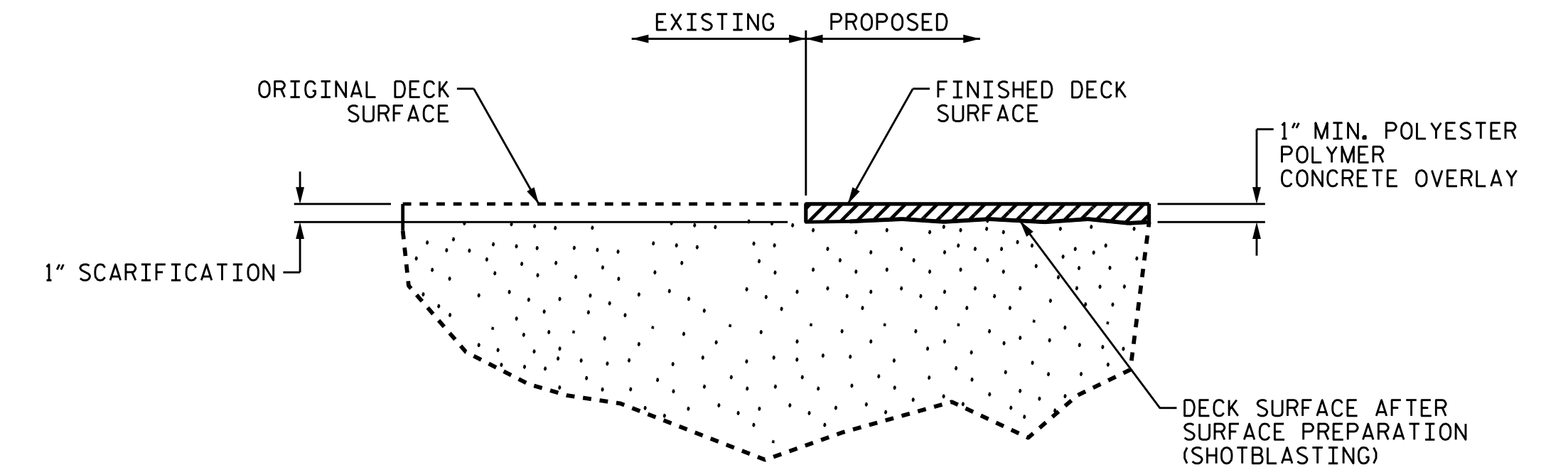
TYPICAL SECTION
(EXISTING)



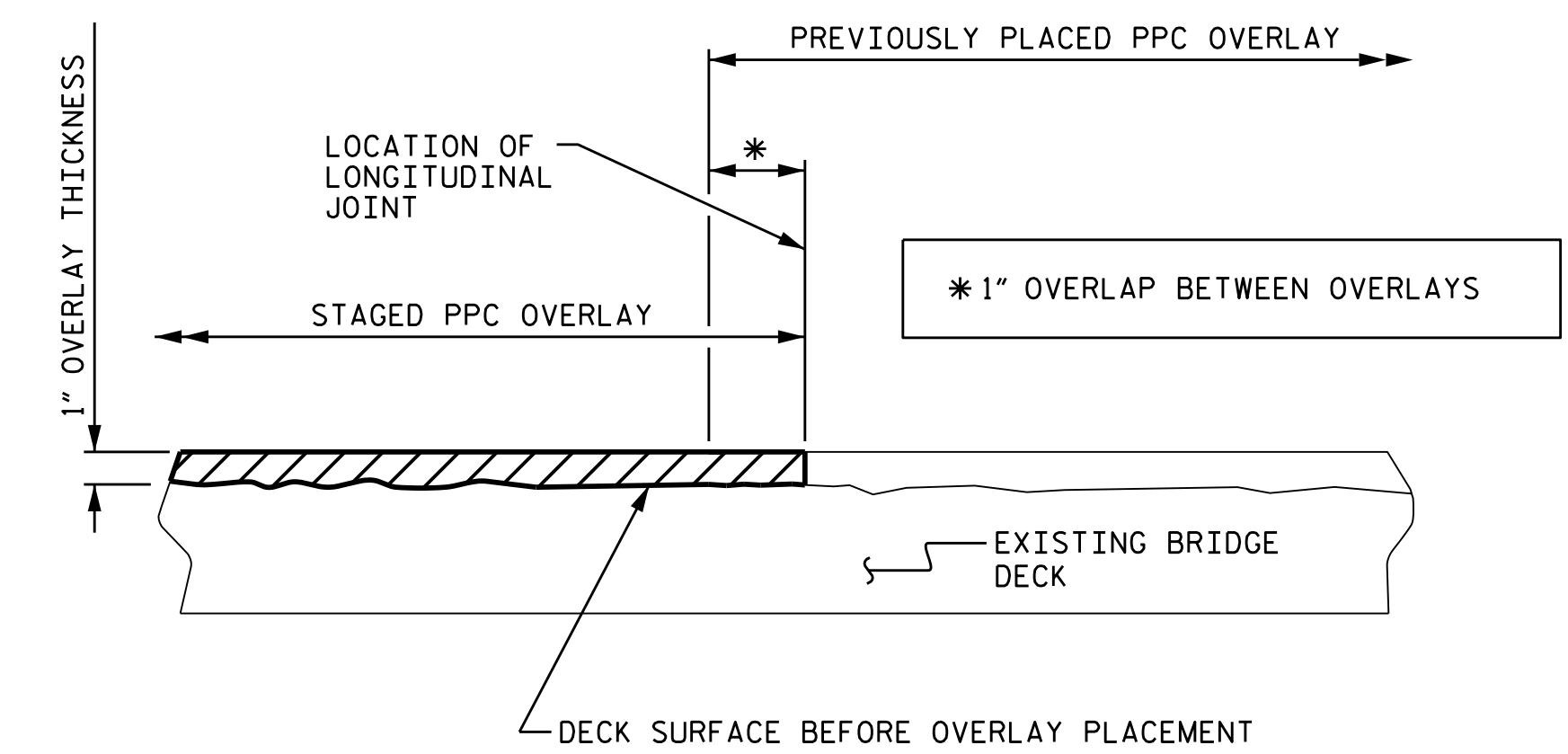
TYPICAL SECTION
(DECK PREPARATION)



TYPICAL SECTION
(PROPOSED)



**DETAIL FOR POLYESTER
POLYMER CONCRETE OVERLAY**



STAGED PPC OVERLAY JOINT
(AS NEEDED)

PROJECT NO. I-5940
DUPLIN COUNTY
 BRIDGE NO. 300438



DocuSigned by:
 P. Corey Newton
 6/23/2019

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
**TYPICAL SECTION
 AND SURFACE
 PREPARATION DETAILS**

DRAWN BY : S. T. SANDOR DATE : 01/2019
 CHECKED BY : W. C. SMITH DATE : 05/2019

23-JUN-2019 19:00
 S:\DPG1\Division3\I5940\Stefan's Dwg's\408.0121.I-5940.SMU.TS.300438.dgn
 pknewton

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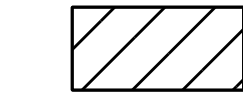

REVISIONS						SHEET NO.	
NO.	BY:	DATE:	NO.	BY:	DATE:	S8-2	
1			3			TOTAL SHEETS	
2			4			114	

SUMMARY OF QUANTITIES FOR SPAN "A" AND APPROACH SLAB 1

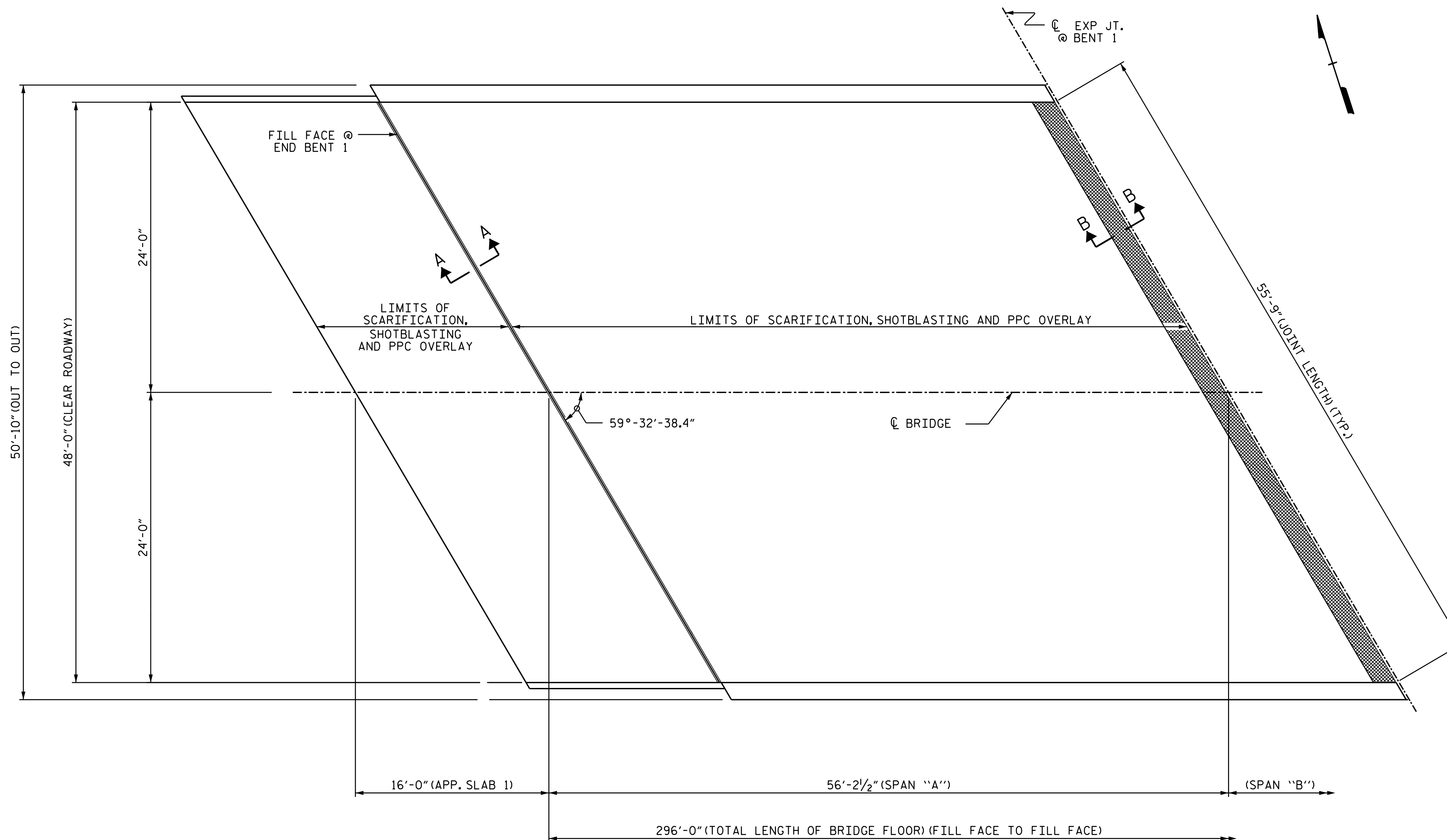
	ESTIMATE	ACTUAL
SCARIFYING BRIDGE DECK	385.2 SY	
POLYSTER POLYMER CONCRETE MATERIALS	10.7 CY	
SHOTBLASTING BRIDGE DECK	385.2 SY	
PLACING & FINISHING PPC OVERLAY	385.2 SY	
CONCRETE DECK REPAIRS FOR PPC OVERLAY	14.9 SY	
GROOVING BRIDGE DECK	3,121.9 SF	
CLASS II SUREFACE PREPARATION	0.0 SY	

NOTES:

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

-  - SCARIFYING AND SHOTBLASTING OF BRIDGE DECK FOR PPC OVERLAY
-  - APPROX. AREA CLASS II SURFACE PREPARATION
-  - CONCRETE DECK REPAIRS FOR PPC OVERLAY

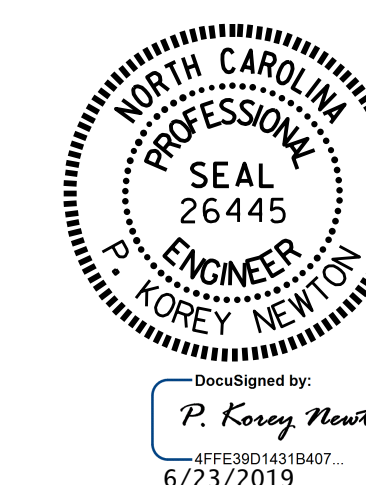
NO DEFICIENCIES NOTED DURING FIELD INSPECTION. THE CONTRACTOR AND ENGINEER SHALL INSPECT THE DECK SURFACE AFTER SCARIFICATION FOR POTENTIAL CLASS II REPAIRS.



PLAN OF SPAN "A" AND APPROACH SLAB 1

(SEE SHEET NO. S8-7 FOR SECTIONS A-A AND B-B)

PROJECT NO. I-5940
DUPLIN COUNTY
 BRIDGE NO. 300438



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 SURFACE PREPARATION
 SPAN "A" AND
 APPROACH SLAB 1

DRAWN BY : S. T. SANDOR DATE : 01/2019
 CHECKED BY : W. C. SMITH DATE : 05/2019

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REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	TOTAL SHEETS
1			3			S8-3
2			4			113

SUMMARY OF QUANTITIES FOR SPAN "B"

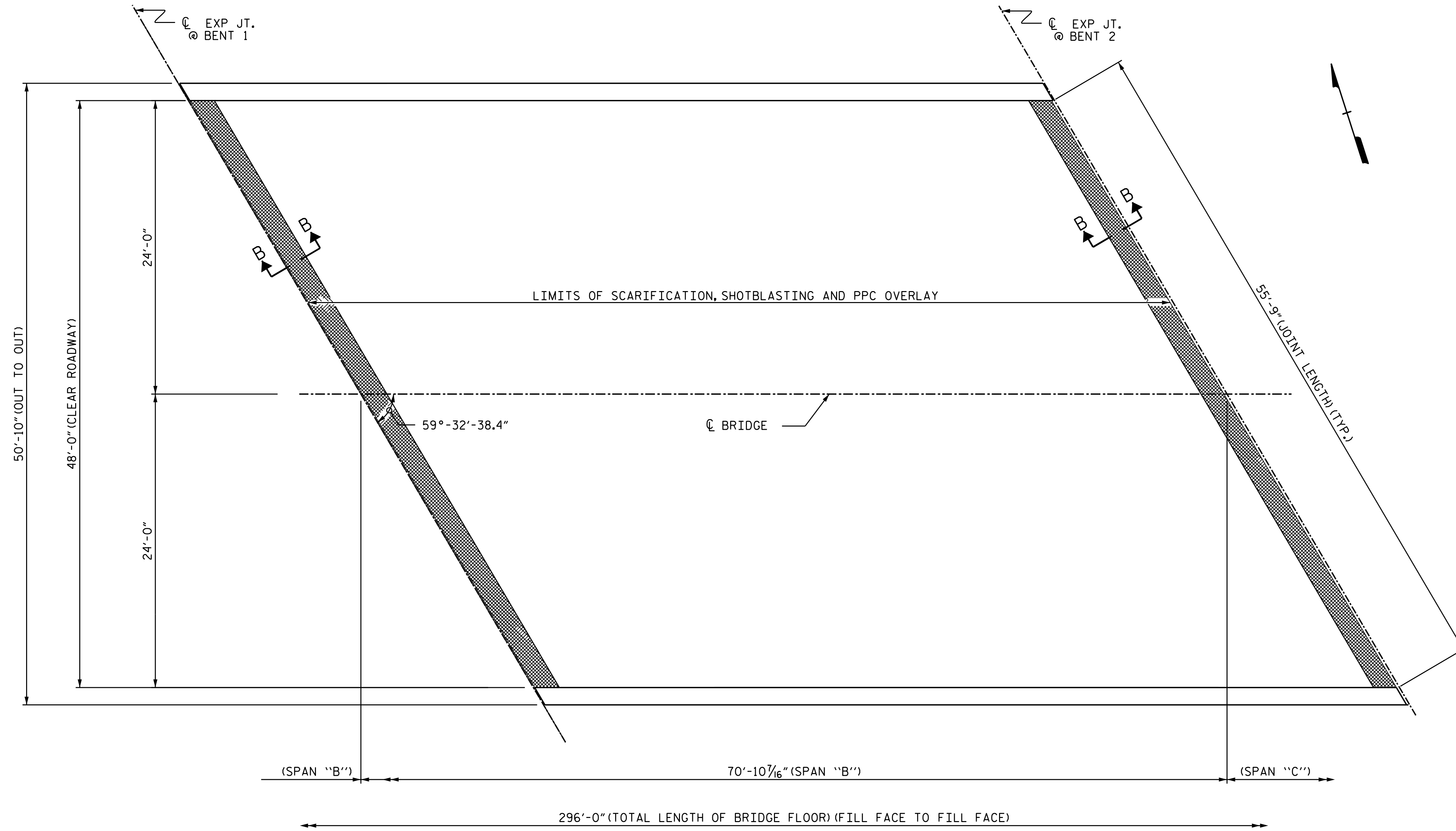
	ESTIMATE	ACTUAL
SCARIFYING BRIDGE DECK	378.0 SY	
POLYSTER POLYMER CONCRETE MATERIALS	10.5 CY	
SHOTBLASTING BRIDGE DECK	378.0 SY	
PLACING & FINISHING PPC OVERLAY	378.0 SY	
CONCRETE DECK REPAIRS FOR PPC OVERLAY	17.0 SY	
GROOVING BRIDGE DECK	3,009.1 SF	
CLASS II SUREFACE PREPARATION	0.0 SY	

NOTES:

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

-  - SCARIFYING AND SHOTBLASTING OF BRIDGE DECK FOR PPC OVERLAY
-  - APPROX. AREA CLASS II SURFACE PREPARATION
-  - CONCRETE DECK REPAIRS FOR PPC OVERLAY

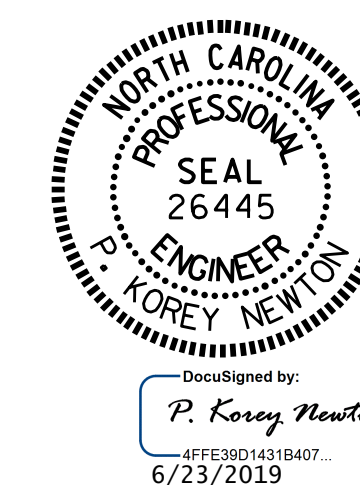
NO DEFICIENCIES NOTED DURING FIELD INSPECTION. THE CONTRACTOR AND ENGINEER SHALL INSPECT THE DECK SURFACE AFTER SCARIFICATION FOR POTENTIAL CLASS II REPAIRS.



PLAN OF SPAN "B"

(SEE SHEET NO. S8-7 FOR SECTION B-B)

PROJECT NO. I-5940
DUPLIN COUNTY
 BRIDGE NO. 300438



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

SURFACE PREPARATION
 SPAN "B"

DRAWN BY : S. T. SANDOR DATE : 01/2019
 CHECKED BY : W. C. SMITH DATE : 05/2019

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REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	TOTAL SHEETS
1			3			S8-4
2			4			113

SUMMARY OF QUANTITIES FOR SPAN "C"

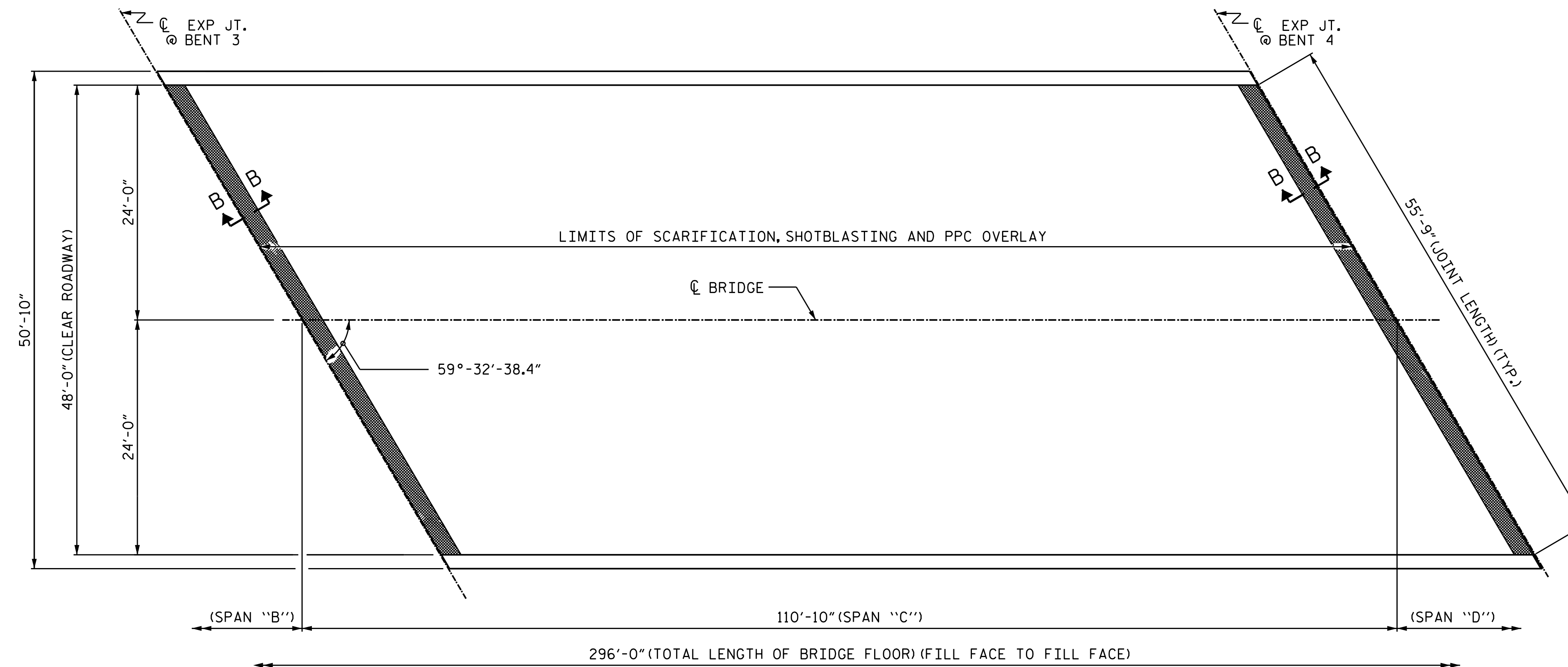
	ESTIMATE	ACTUAL
SCARIFYING BRIDGE DECK	591.1 SY	
POLYSTER POLYMER CONCRETE MATERIALS	16.4 CY	
SHOTBLASTING BRIDGE DECK	591.1 SY	
PLACING & FINISHING PPC OVERLAY	591.1 SY	
CONCRETE DECK REPAIRS FOR PPC OVERLAY	17.0 SY	
GROOVING BRIDGE DECK	3,330.1 SF	
CLASS II SUREFACE PREPARATION	0.0 SY	

NOTES:

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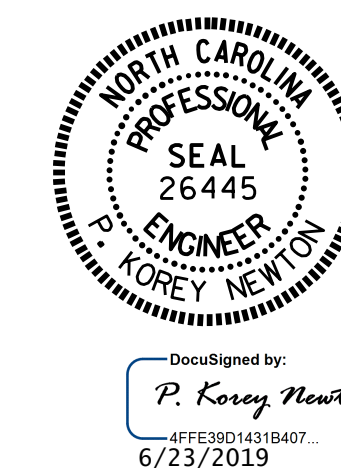
-  - SCARIFYING AND SHOTBLASTING OF BRIDGE DECK FOR PPC OVERLAY
-  - APPROX. AREA CLASS II SURFACE PREPARATION
-  - CONCRETE DECK REPAIRS FOR PPC OVERLAY

NO DEFICIENCIES NOTED DURING FIELD INSPECTION. THE CONTRACTOR AND ENGINEER SHALL INSPECT THE DECK SURFACE AFTER SCARIFICATION FOR POTENTIAL CLASS II REPAIRS.



PLAN OF SPAN "C"
(SEE SHEET NO. S8-7 FOR SECTION B-B)

PROJECT NO. I-5940
DUPLIN COUNTY
 BRIDGE NO. 300438



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 SURFACE PREPARATION
 SPAN "C"

DRAWN BY : S. T. SANDOR DATE : 01/2019
 CHECKED BY : W. C. SMITH DATE : 05/2019




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

SUMMARY OF QUANTITIES FOR SPAN "D" AND APPROACH SLAB 2

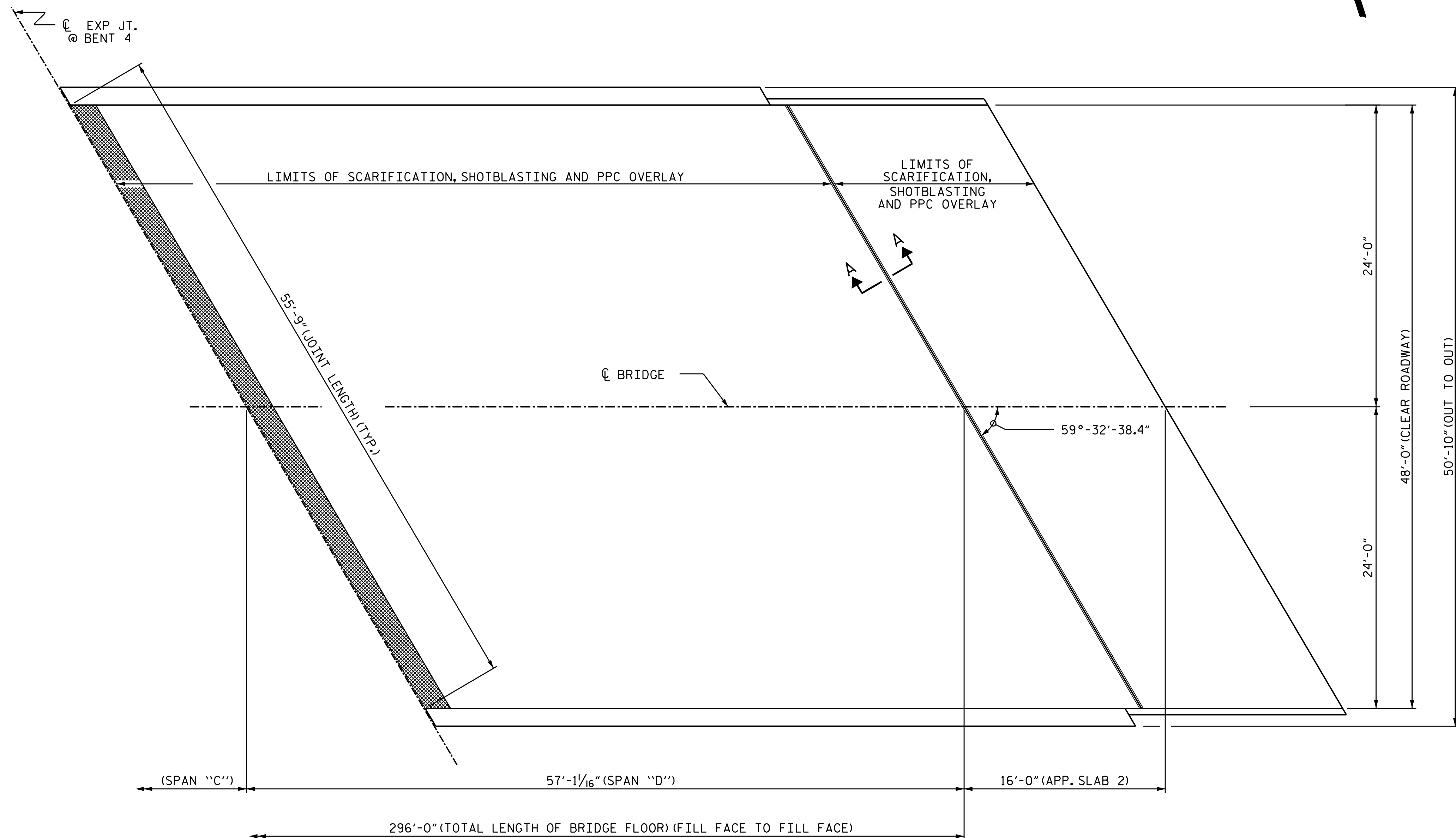
	ESTIMATE	ACTUAL
SCARIFYING BRIDGE DECK	389.9 SY	
POLYSTER POLYMER CONCRETE MATERIALS	10.8 CY	
SHOTBLASTING BRIDGE DECK	389.9 SY	
PLACING & FINISHING PPC OVERLAY	389.9 SY	
CONCRETE DECK REPAIRS FOR PPC OVERLAY	14.9 SY	
GROOVING BRIDGE DECK	3,142.2 SF	
CLASS II SUREFACE PREPARATION	0.0 SY	

NOTES:

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-  - SCARIFYING AND SHOTBLASTING OF BRIDGE DECK FOR PPC OVERLAY
-  - APPROX. AREA CLASS II SURFACE PREPARATION
-  - CONCRETE DECK REPAIRS FOR PPC OVERLAY

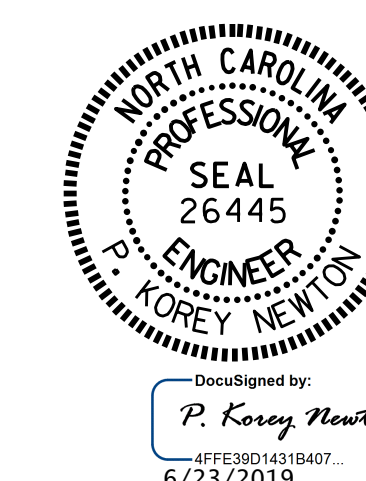
NO DEFICIENCIES NOTED DURING FIELD INSPECTION. THE CONTRACTOR AND ENGINEER SHALL INSPECT THE DECK SURFACE AFTER SCARIFICATION FOR POTENTIAL CLASS II REPAIRS.



PLAN OF SPAN "D" AND APPROACH SLAB 2

(SEE SHEET NO. S8-7 FOR SECTIONS A-A AND B-B)

PROJECT NO. I-5940
DUPLIN COUNTY
 BRIDGE NO. 300438



Drawn/Checked by:
 P. Corey Newton
 6/23/2019

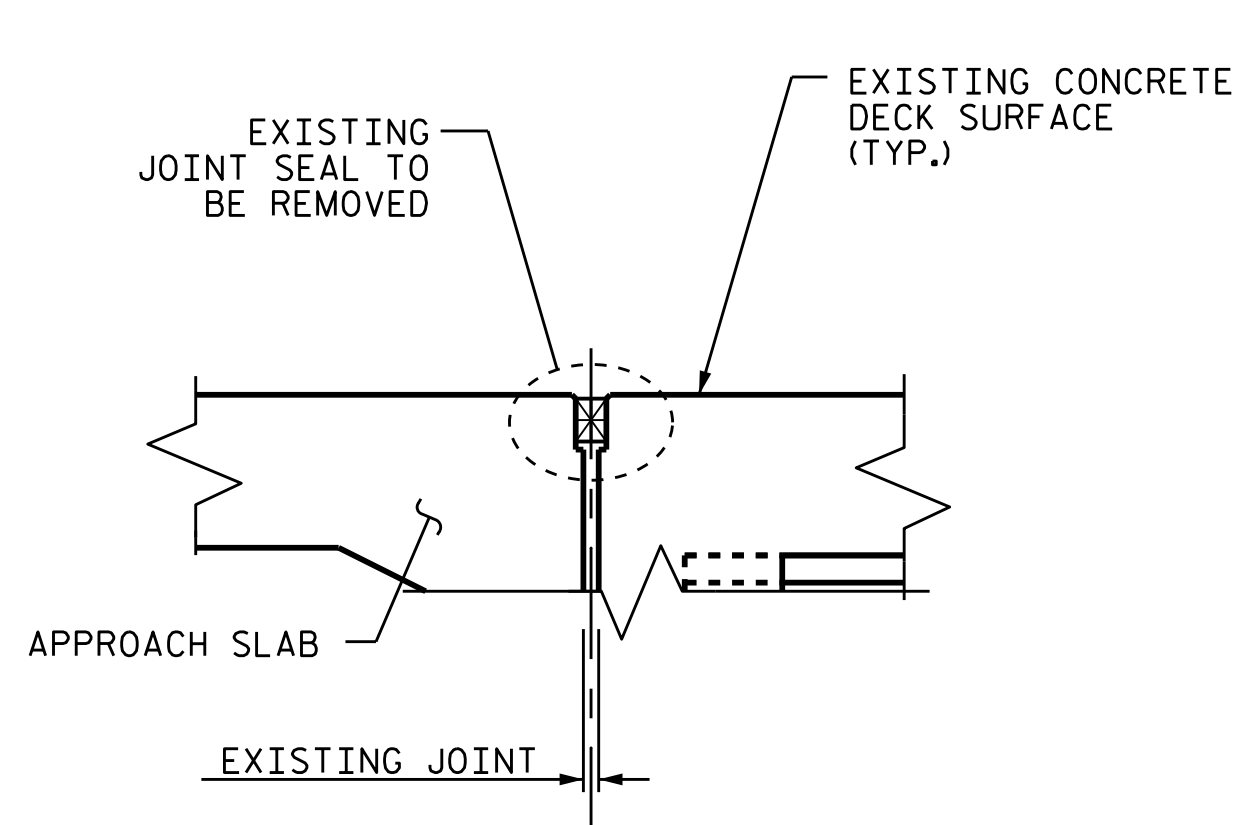
STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

SURFACE PREPARATION
 SPAN "D" AND
 APPROACH SLAB 2

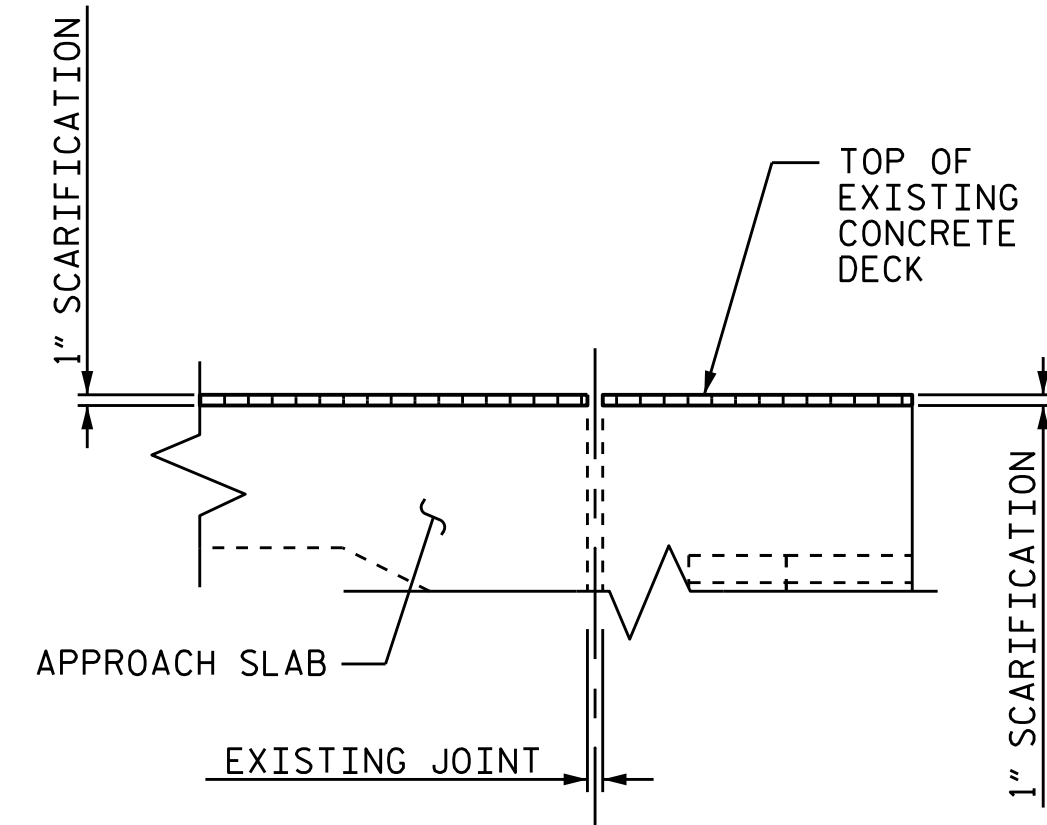
DRAWN BY : S. T. SANDOR DATE : 01/2019
 CHECKED BY : W. C. SMITH DATE : 05/2019

DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
 SIGNATURES COMPLETED

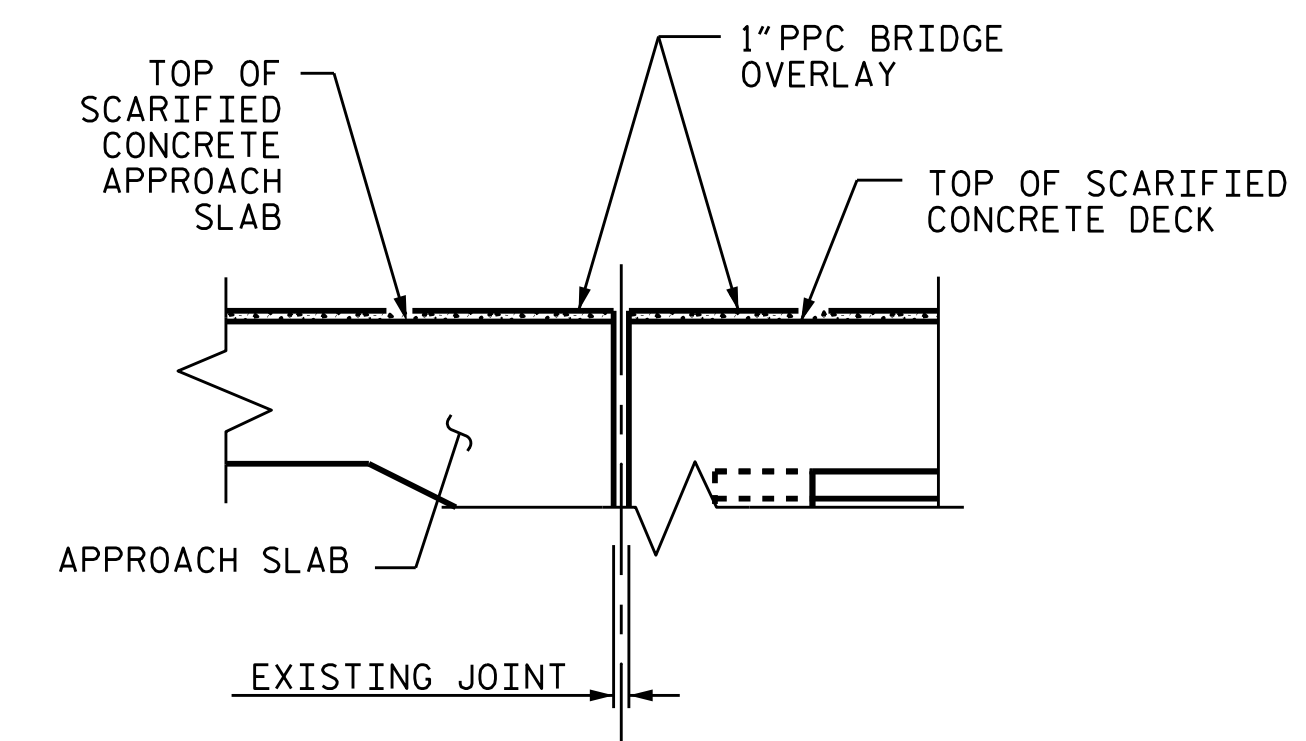
REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	TOTAL SHEETS
1			3			S8-6
2			4			113



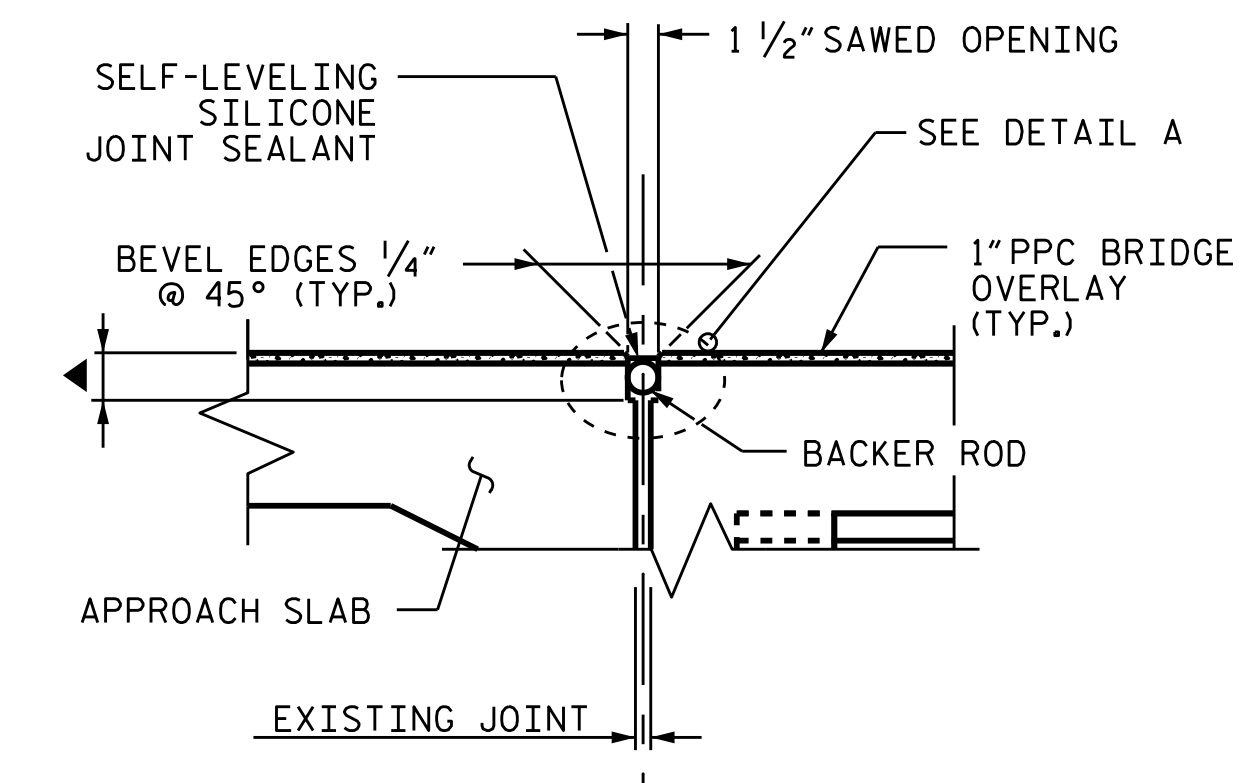
EXISTING JOINT



MINIMUM EXISTING JOINT REMOVAL & SCARIFICATION

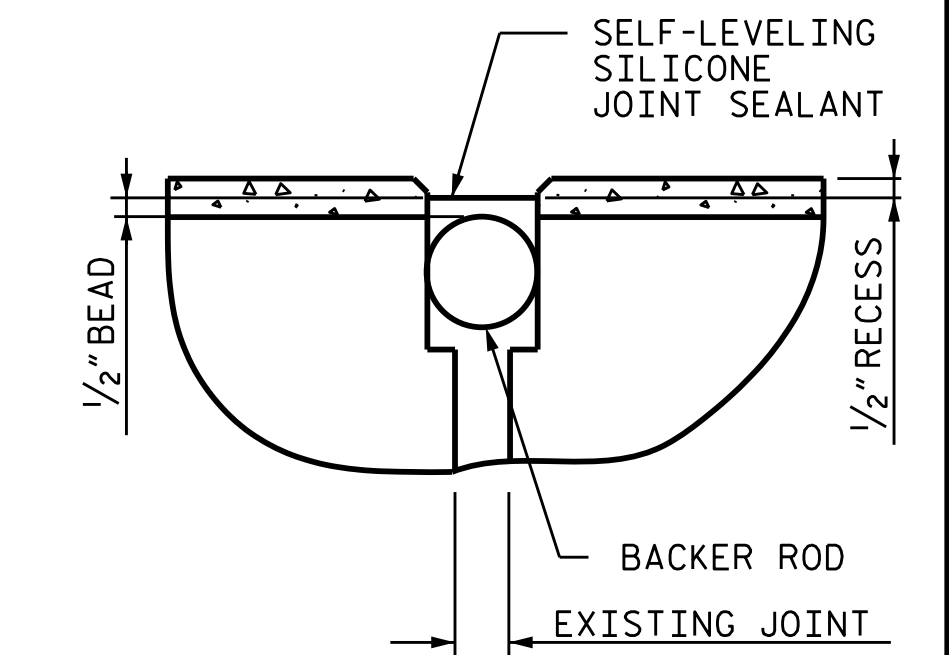


PROPOSED JOINT PRE-SAWED & PPC OVERLAY



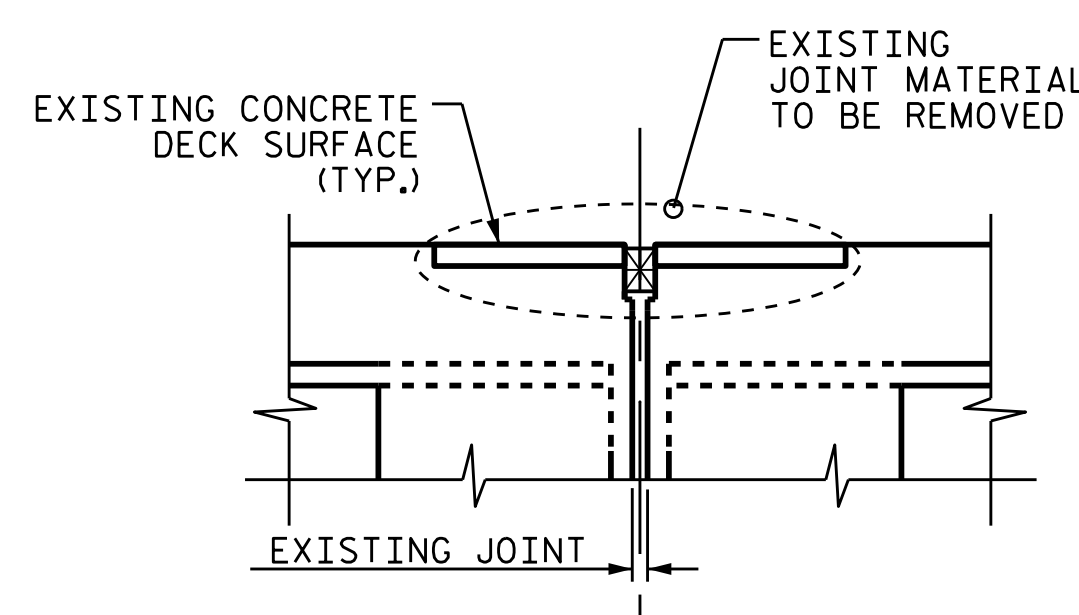
PROPOSED JOINT WITH SAWED DIMENSIONS

NOTES
 CONTRACTOR SHALL NOTE THE EXISTING JOINT OPENINGS PRIOR OVERLAYING THE PPC. THE FINAL JOINT OPENINGS SHALL BE SAW TO MATCH THE EXISTING OPENINGS.
 UNLESS NOTED OTHERWISE RETAIN ALL EXISTING REINFORCING STEEL. CLEAN AND REPAIR AS NEEDED.
 THE CONTRACTOR WILL BE NOT PERMITTED TO FORM THE JOINT IN LIEU OF SAWING THE JOINT.
 SILICONE JOINT SEALANT AND BACKER ROD SHALL BE INSTALLED AS PER MANUFACTURER'S RECOMANDATION.

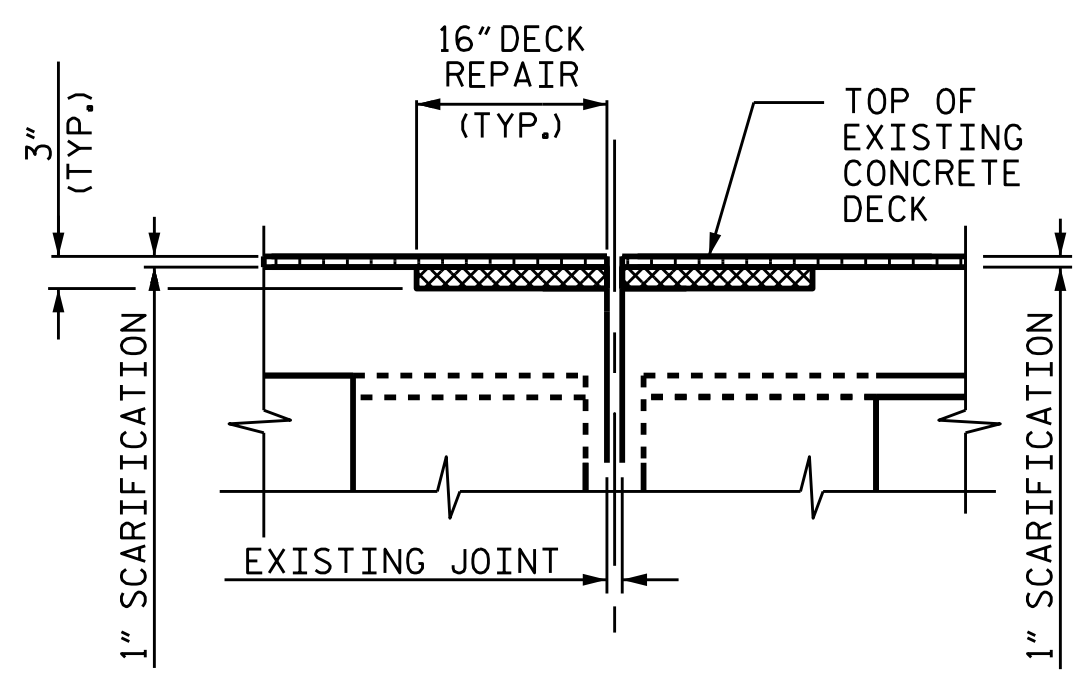


DETAIL A

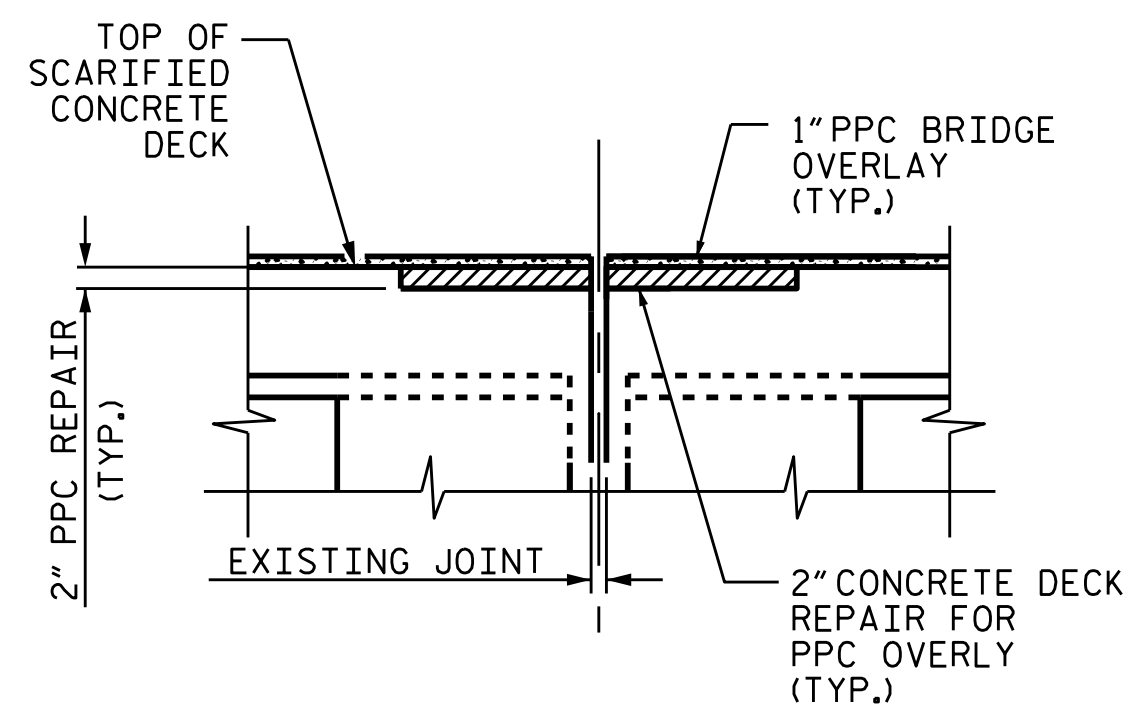
JOINT INSTALLATION SEQUENCE AT END BENTS
 SECTION A-A



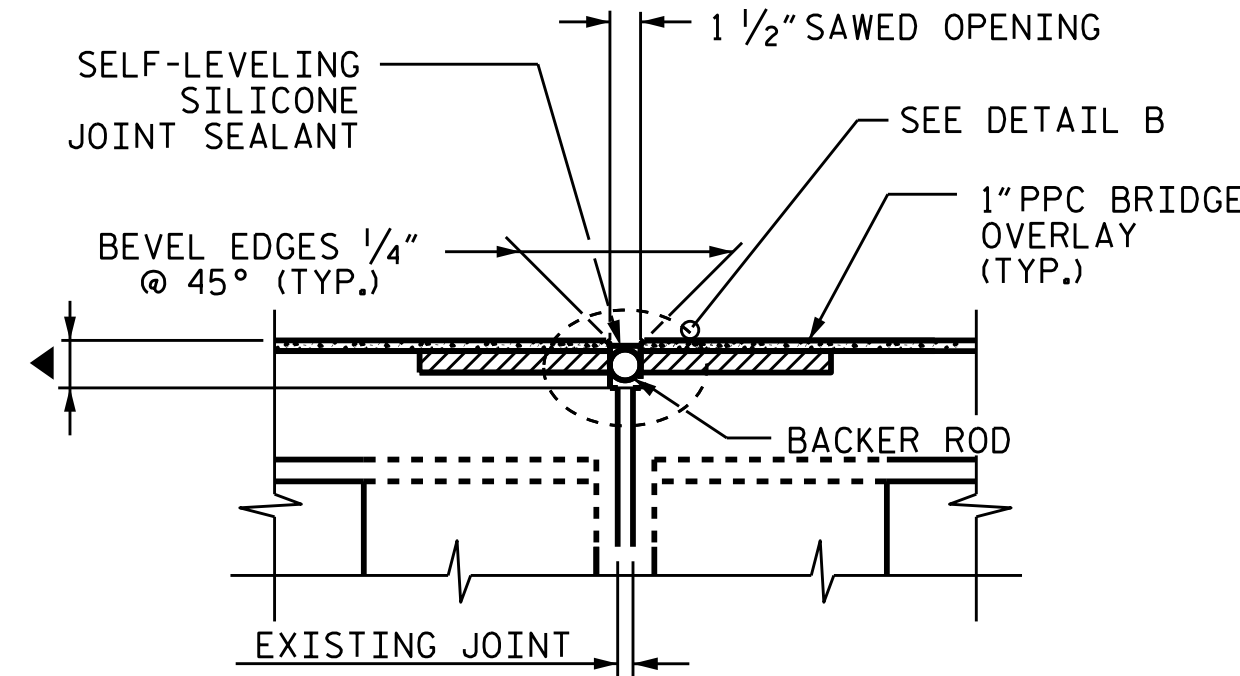
EXISTING JOINT



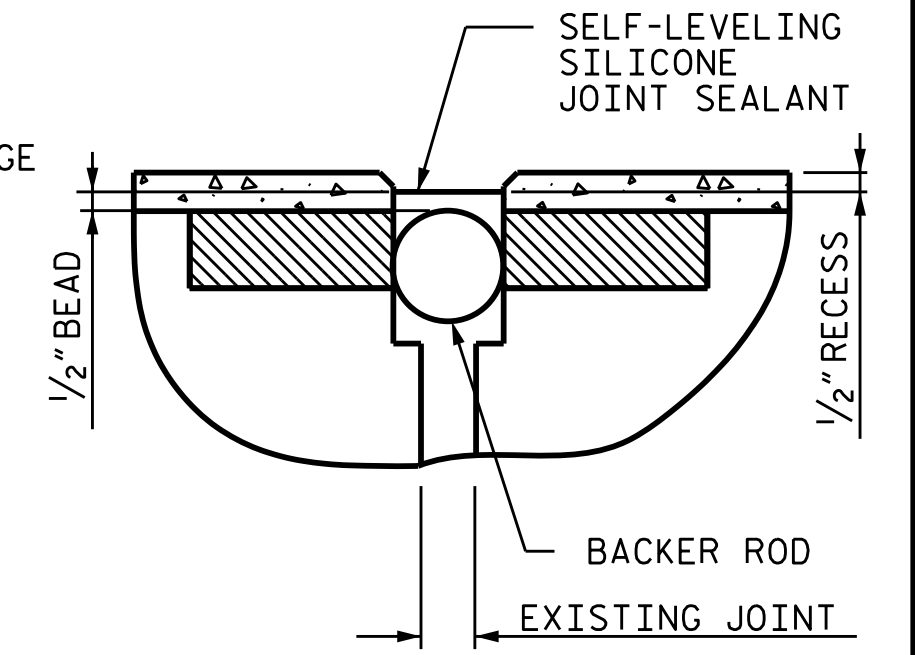
MINIMUM EXISTING JOINT DECK REPAIR & SCARIFICATION



PROPOSED JOINT PRE-SAWED & PPC OVERLAY

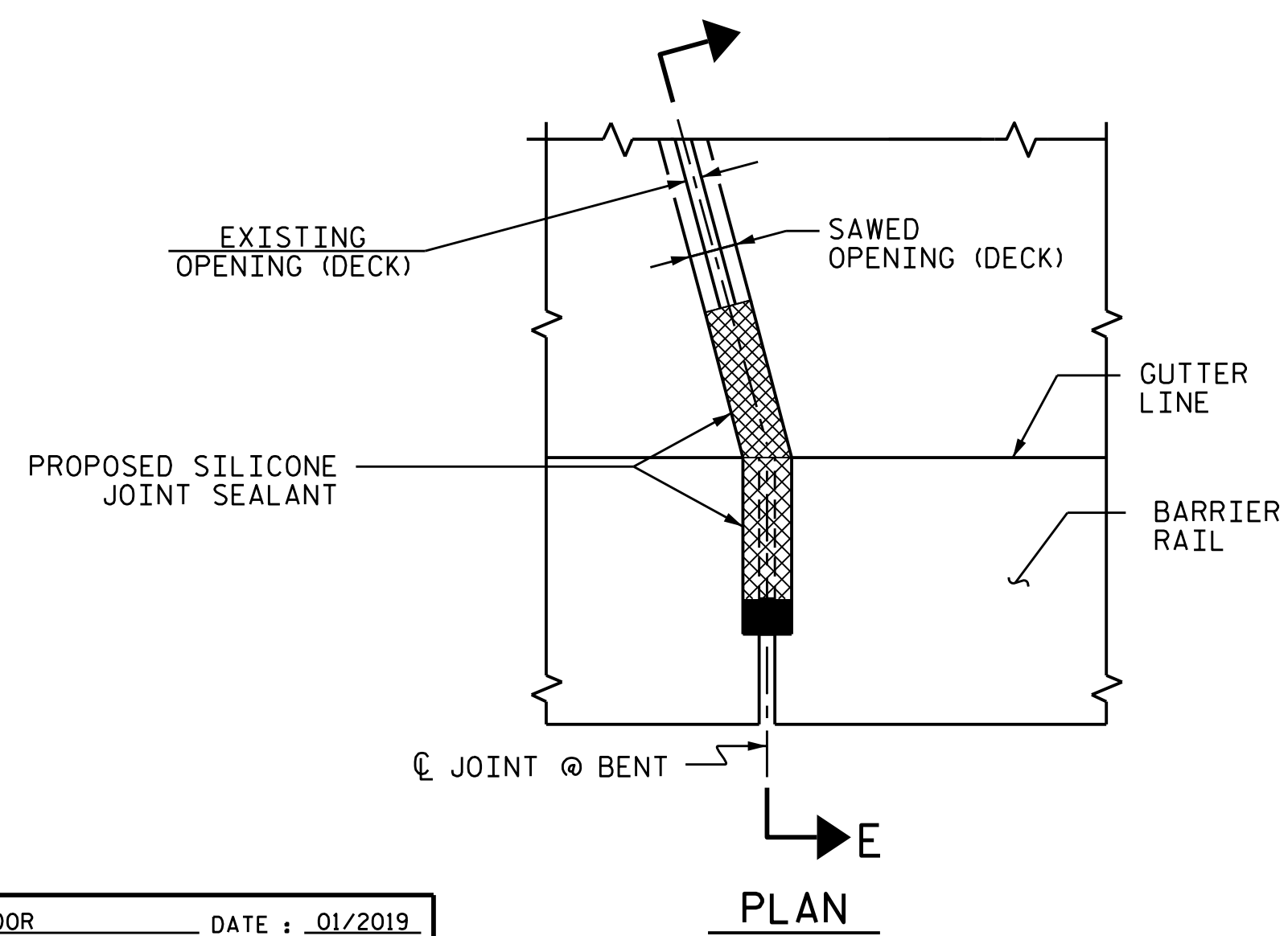


PROPOSED JOINT WITH SAWED DIMENSIONS



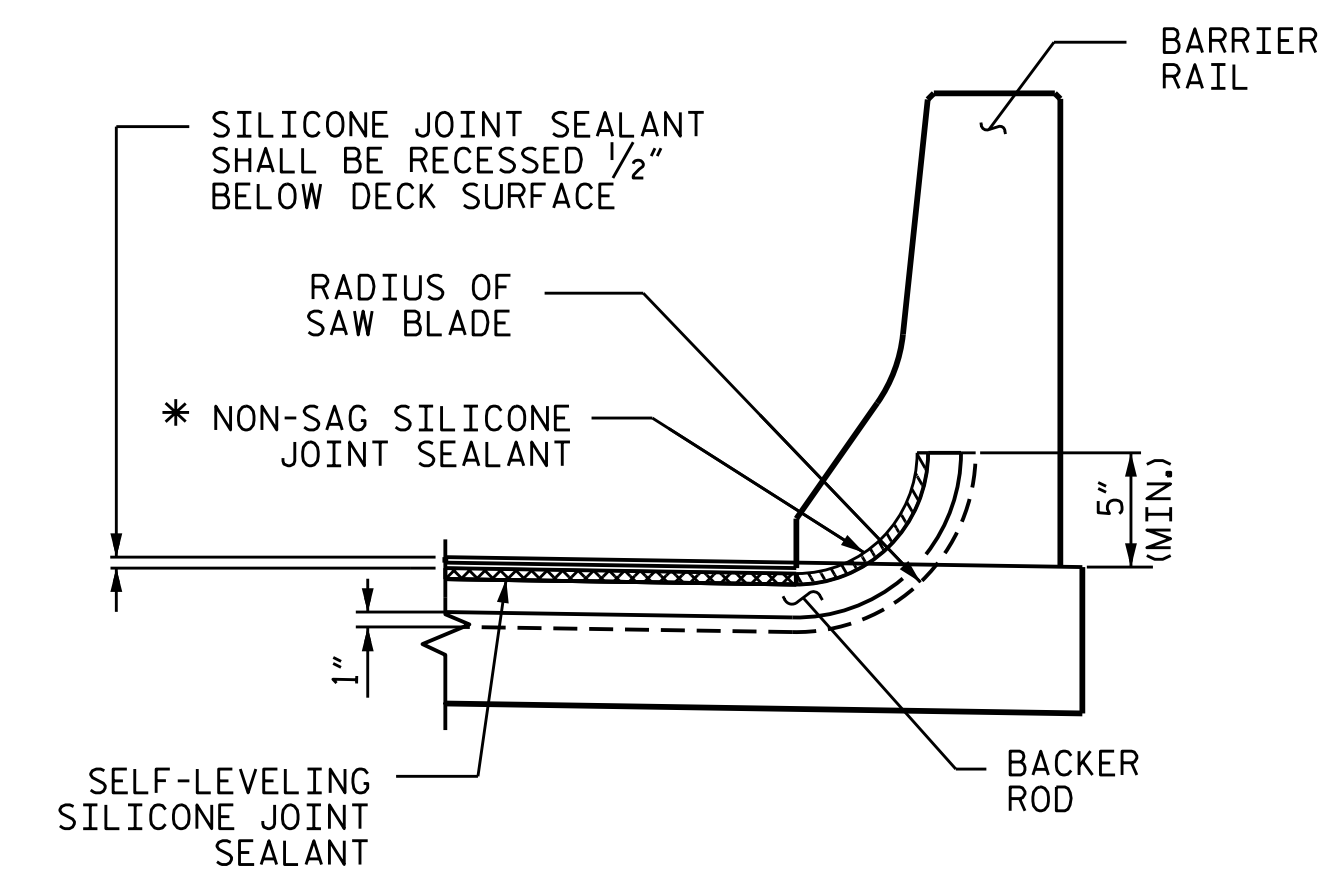
DETAIL B

JOINT INSTALLATION SEQUENCE AT END BENTS
 SECTION B-B



PLAN

* NON-SAG SILICONE JOINT SEALANT TO BE PLACED AND ALLOWED TO SET, PRIOR TO PLACEMENT OF SELF-LEVELING SILICONE JOINT SEALANT.



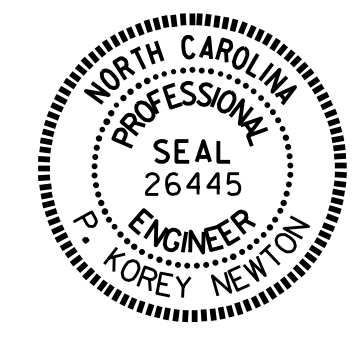
SECTION E-E

JOINT DETAIL AT BARRIER RAIL

▲ SAW CUT SHALL BE 3/4" BELOW THE BOTTOM OF THE JOINT SEAL. SEE MANUFACTURER RECOMMENDATIONS

PROJECT NO. I-5940
 DUPLIN COUNTY
 BRIDGE NO. 300437 & 300438

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
JOINT REPAIR DETAILS



DocuSigned by:
 P. Corey Newton
 6/23/2019

DRAWN BY : S. T. SANDOR DATE : 01/2019
 CHECKED BY : W. C. SMITH DATE : 05/2019

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

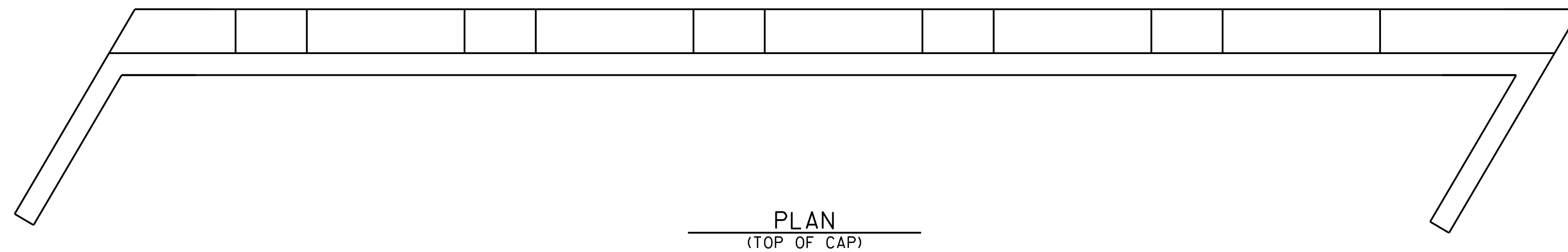
REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	S8-7
1			3			TOTAL SHEETS
2			4			113

REPAIR QUANTITY TABLE

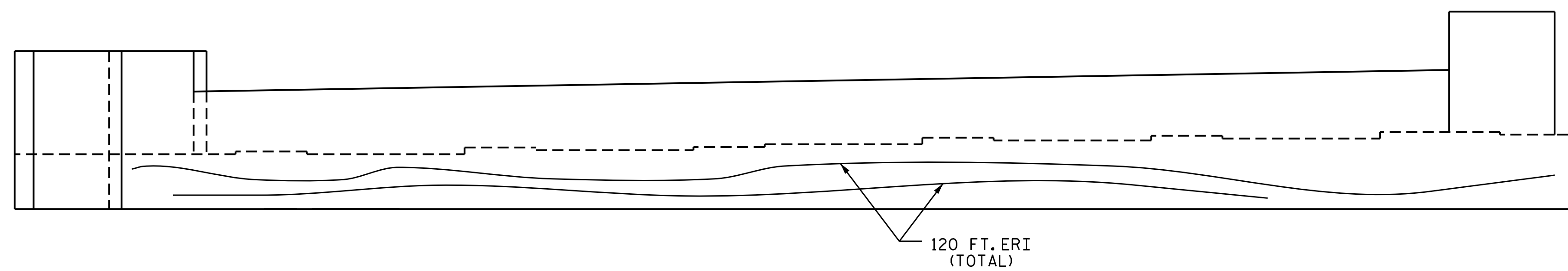
REPAIRS END BENT 1 & 2	QUANTITIES			
	ESTIMATE		ACTUAL	
CONCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL, CORNER)	0.0	0.0		
COLUMN	0.0	0.0		
SHOTCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL, CORNER)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION	LN. FT		LN. FT	
CAP	240.0			
COLUMN	0.0			

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

- ERI - EPOXY RESIN INJECTION
- ▨ - SHOTCRETE REPAIRS
- ▣ - CONCRETE REPAIRS



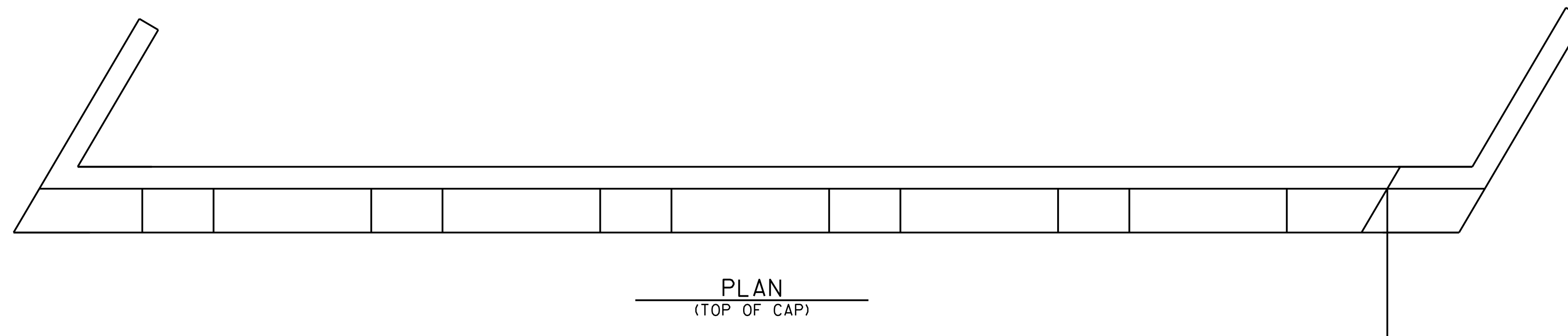
PLAN
(TOP OF CAP)



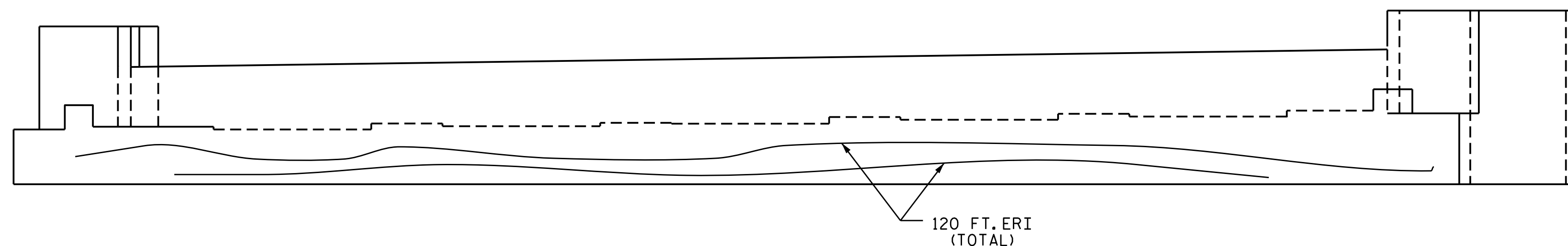
ELEVATION

END BENT 1

120 FT. ERI
(TOTAL)



PLAN
(TOP OF CAP)

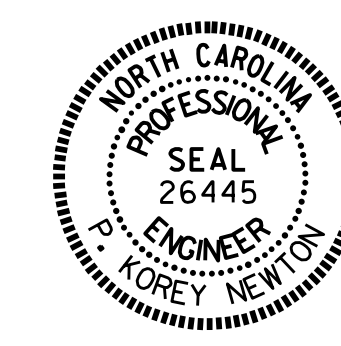


ELEVATION

END BENT 2

120 FT. ERI
(TOTAL)

PROJECT NO. I-5940
DUPLIN COUNTY
 BRIDGE NO. 300438



DocuSigned by:
 P. Corey Newton
 6/23/2019

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

**SUBSTRUCTURE
 REPAIR
 END BENT 1 &
 END BENT 2**

DRAWN BY : S. T. SANDOR DATE : 01/2019
 CHECKED BY : W. C. SMITH DATE : 05/2019

DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
 SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	TOTAL SHEETS
1			3			88-8
2			4			113

NOTES:

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

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

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR CONCRETE REPAIRS, SEE SPECIAL PROVISIONS.

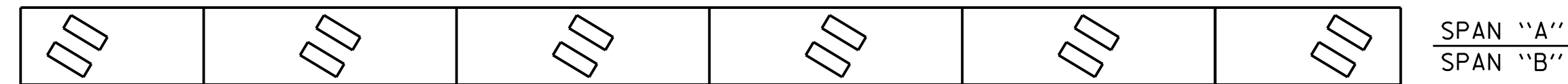
FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.

CONCRETE REPAIRS MAY BE SUBSTITUTED IN LIEU OF SHOTCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

REPAIR QUANTITY TABLE

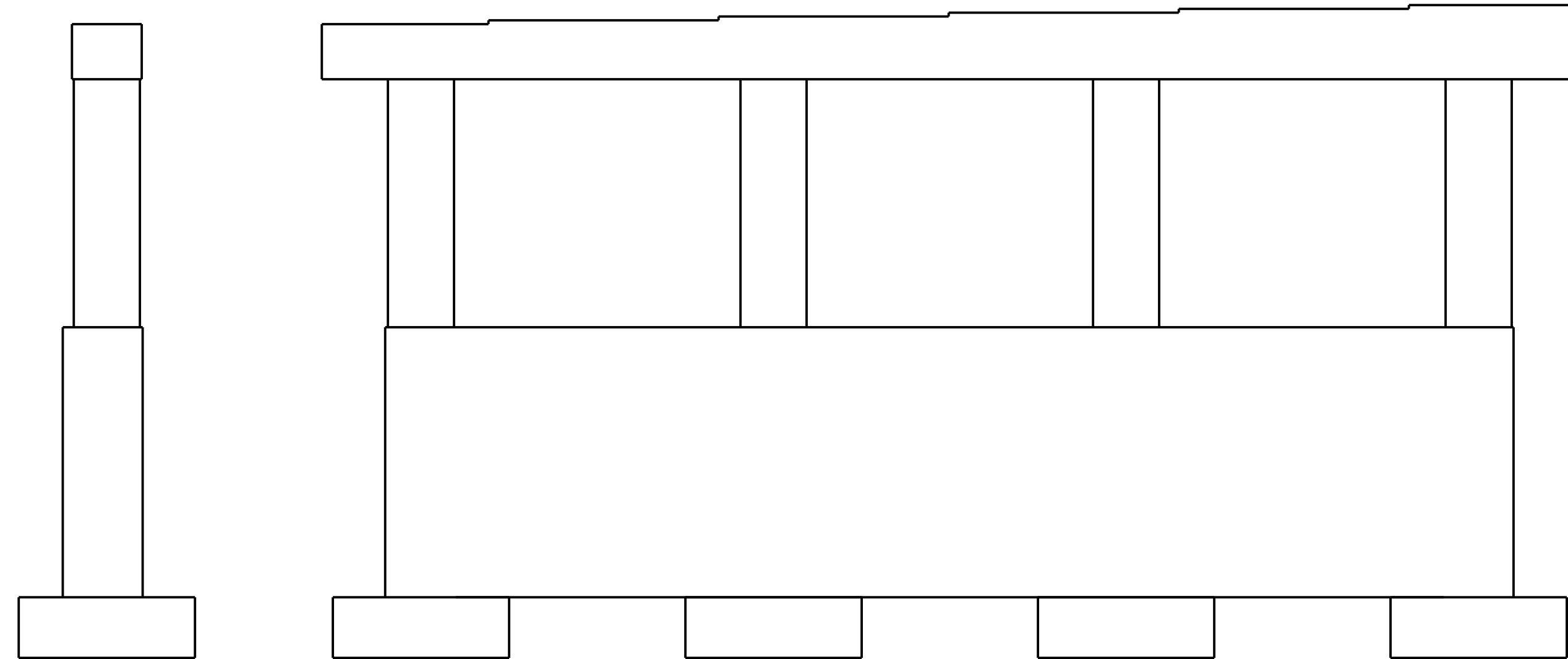
BENT 1	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		

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



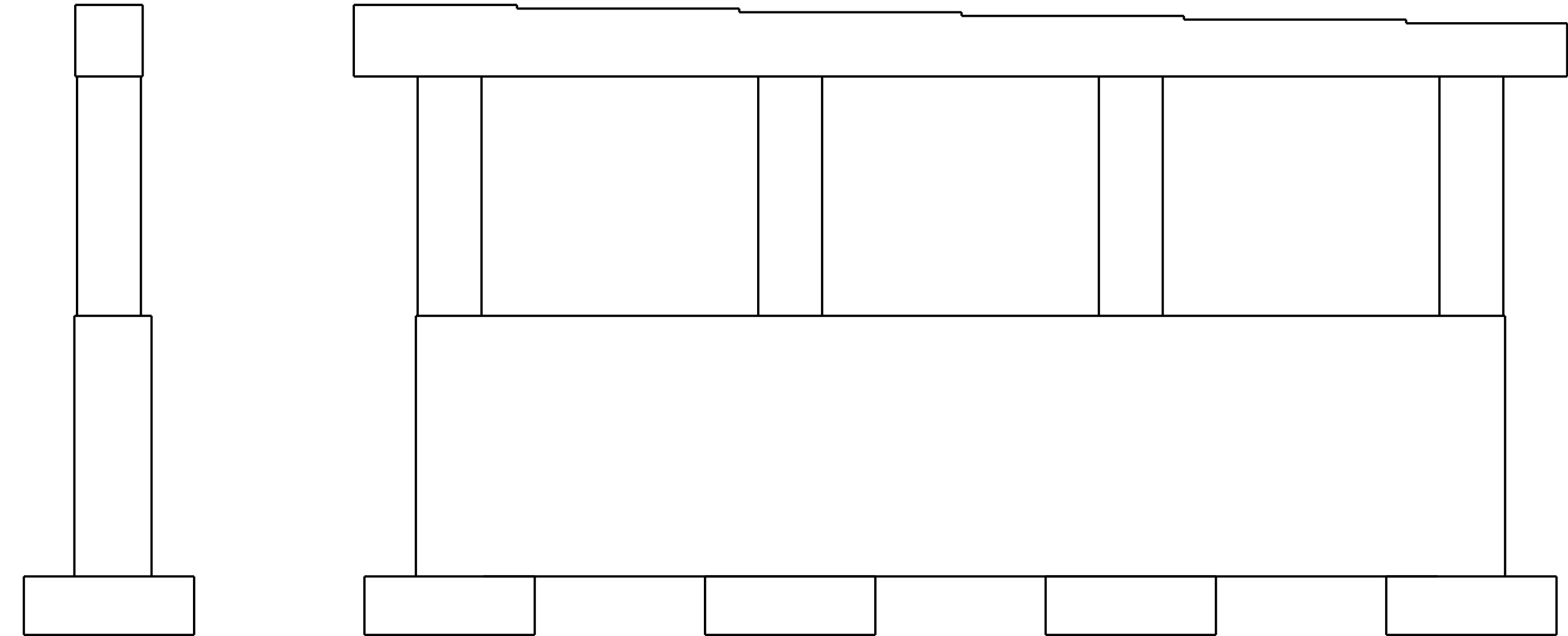
SPAN "A"
SPAN "B"

PLAN
TOP OF CAP



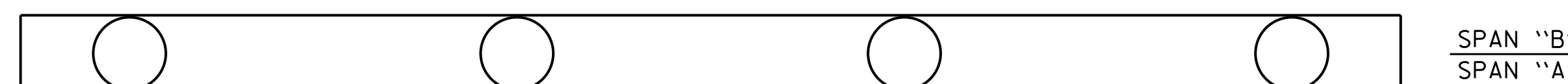
END VIEW
NORTH END

ELEVATION
WEST SIDE



END VIEW
SOUTH SIDE

ELEVATION
EAST SIDE



SPAN "B"
SPAN "A"

PLAN
BOTTOM OF CAP

- CONCRETE REPAIR
- SHOTCRETE REPAIR
- ERI EPOXY RESIN INJECTION

PROJECT NO. I-5940
DUPLIN COUNTY
 BRIDGE NO. 300438



DocuSigned by:
P. Corey Newton
 6/23/2019

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
SUBSTRUCTURE
BENT 1

DRAWN BY : P. D. BRYANT / S. T. SANDOR DATE : 01/2019
 CHECKED BY : W. C. SMITH DATE : 05/2019

DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
 SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	TOTAL SHEETS
1			3			88-9
2			4			113

NOTES:

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

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

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR CONCRETE REPAIRS, SEE SPECIAL PROVISIONS.

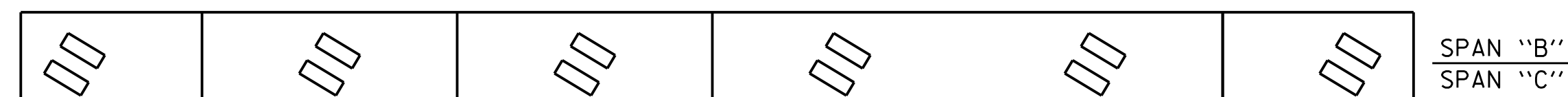
FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.

CONCRETE REPAIRS MAY BE SUBSTITUTED IN LIEU OF SHOTCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

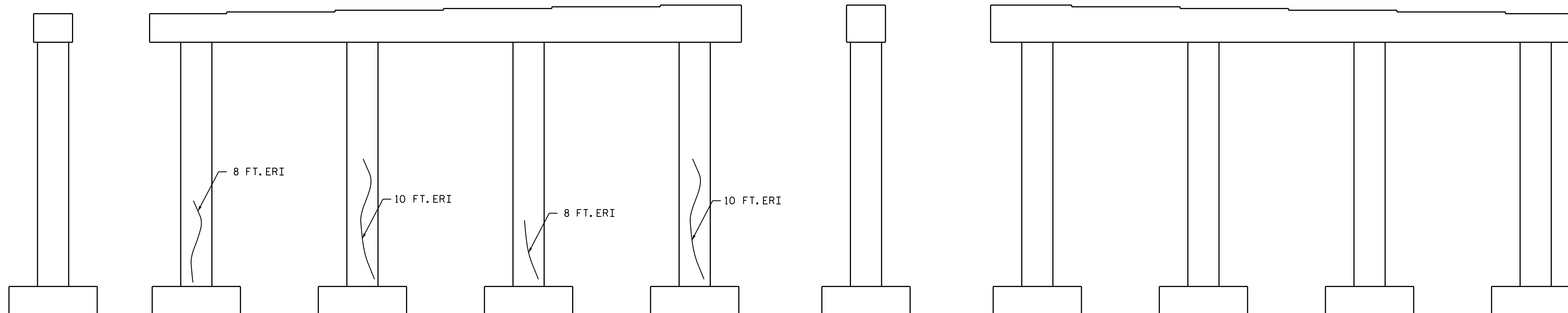
REPAIR QUANTITY TABLE

BENT 2	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		36.0		

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



PLAN
TOP OF CAP



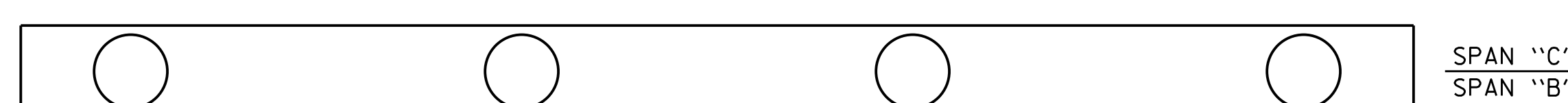
END VIEW
NORTH END

ELEVATION
WEST SIDE

END VIEW
SOUTH SIDE

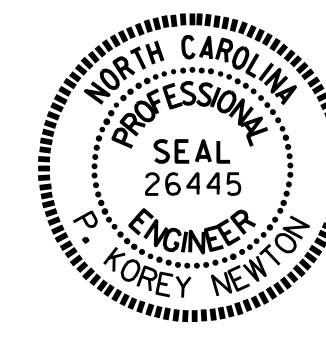
ELEVATION
EAST SIDE

PROJECT NO. I-5940
DUPLIN COUNTY
 BRIDGE NO. 300438



PLAN
BOTTOM OF CAP

- CONCRETE REPAIR
- SHOTCRETE REPAIR
- ERI EPOXY RESIN INJECTION



DocuSigned by:
P. Corey Newton
 6/23/2019

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
SUBSTRUCTURE
BENT 2

DRAWN BY : P. D. BRYANT / S. T. SANDOR DATE : 01/2019
 CHECKED BY : W. C. SMITH DATE : 05/2019

DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
 SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	TOTAL SHEETS
1			3			S8-10
2			4			113

NOTES:

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

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

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR CONCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.

CONCRETE REPAIRS MAY BE SUBSTITUTED IN LIEU OF SHOTCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

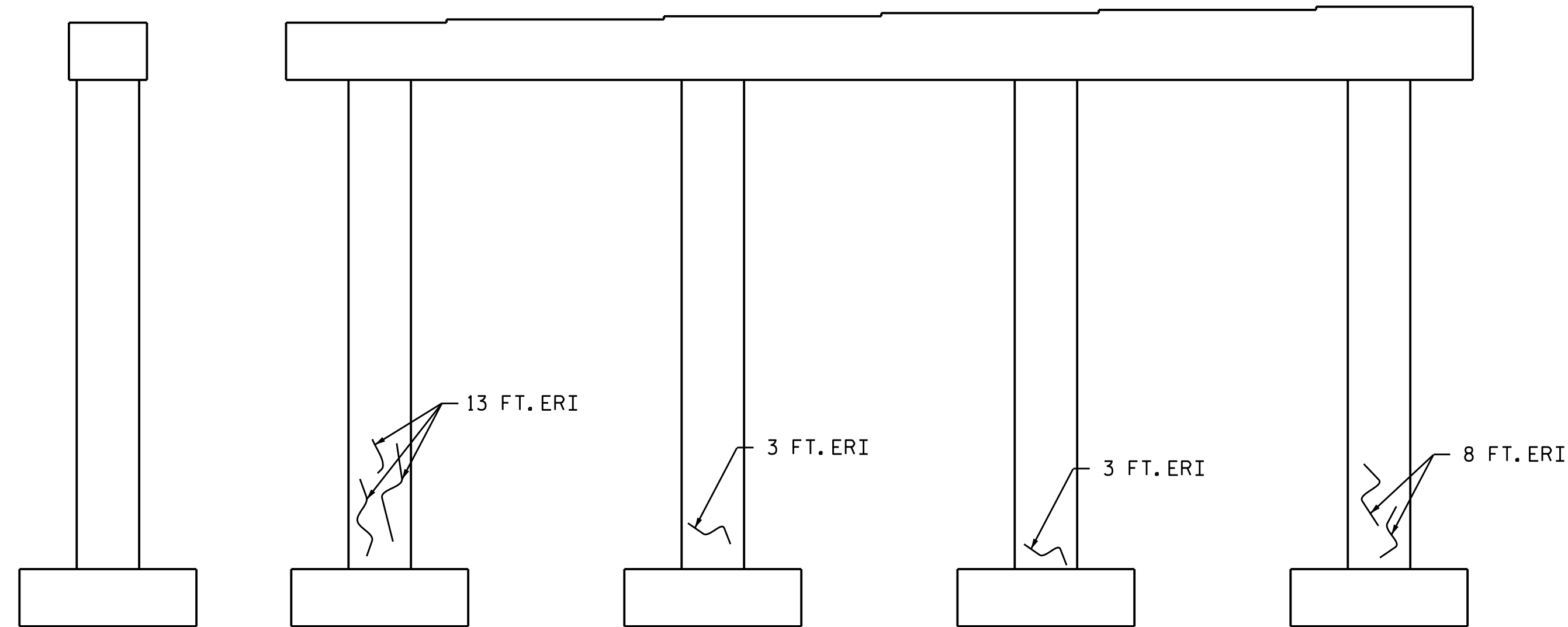


SPAN "C"
SPAN "D"

PLAN
TOP OF CAP

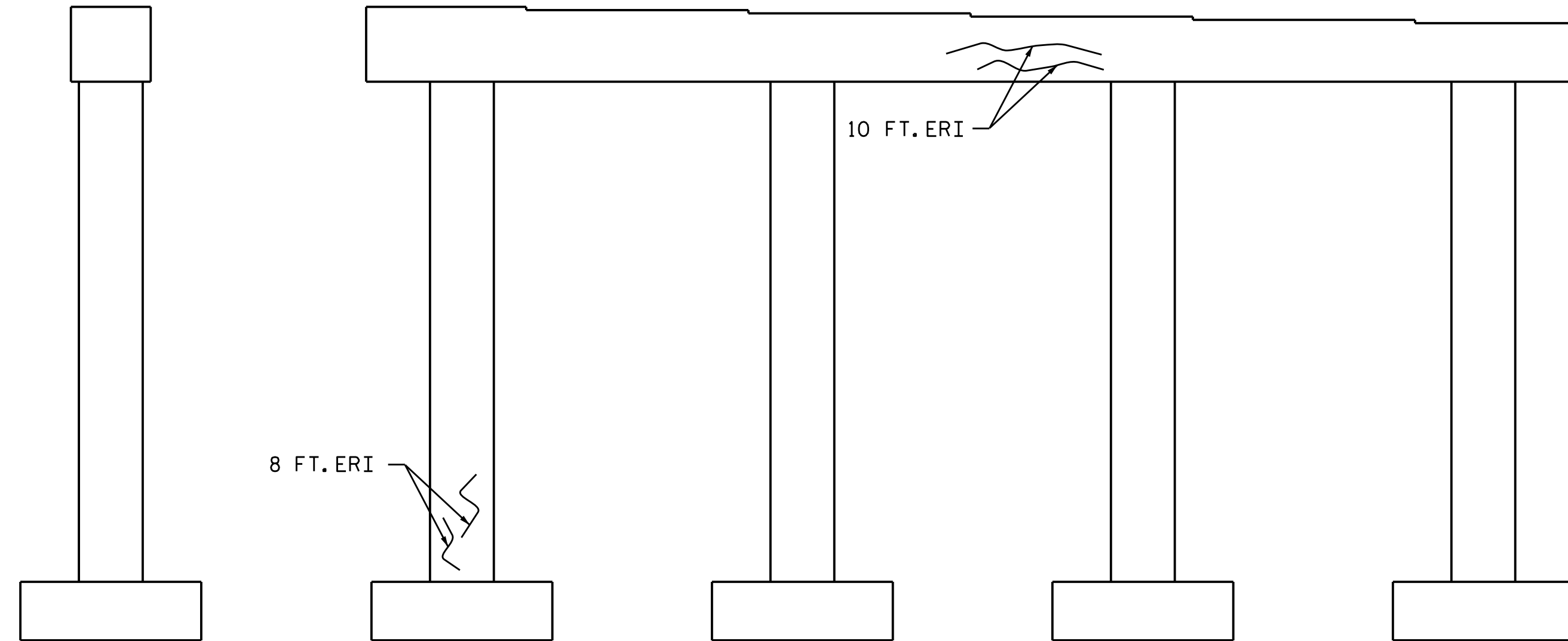
REPAIR QUANTITY TABLE				
BENT 3	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	29.0	14.5		
CAP (HORIZONTAL FACE)	10.0	5.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		33.0		
COLUMN		35.0		

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



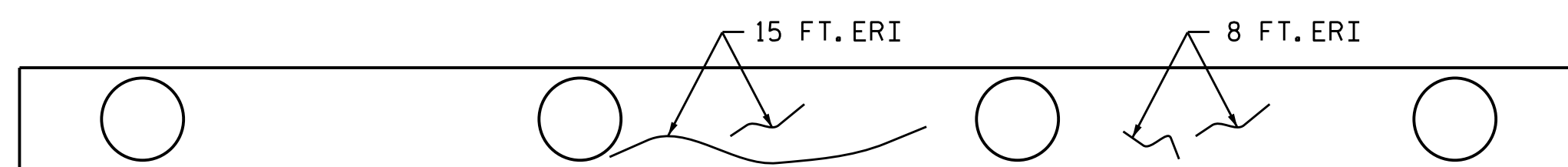
END VIEW
NORTH END

ELEVATION
WEST SIDE



END VIEW
SOUTH SIDE

ELEVATION
EAST SIDE



SPAN "D"
SPAN "C"

PLAN
BOTTOM OF CAP

- CONCRETE REPAIR
- SHOTCRETE REPAIR
- ERI EPOXY RESIN INJECTION

PROJECT NO. I-5940
DUPLIN COUNTY
 BRIDGE NO. 300438



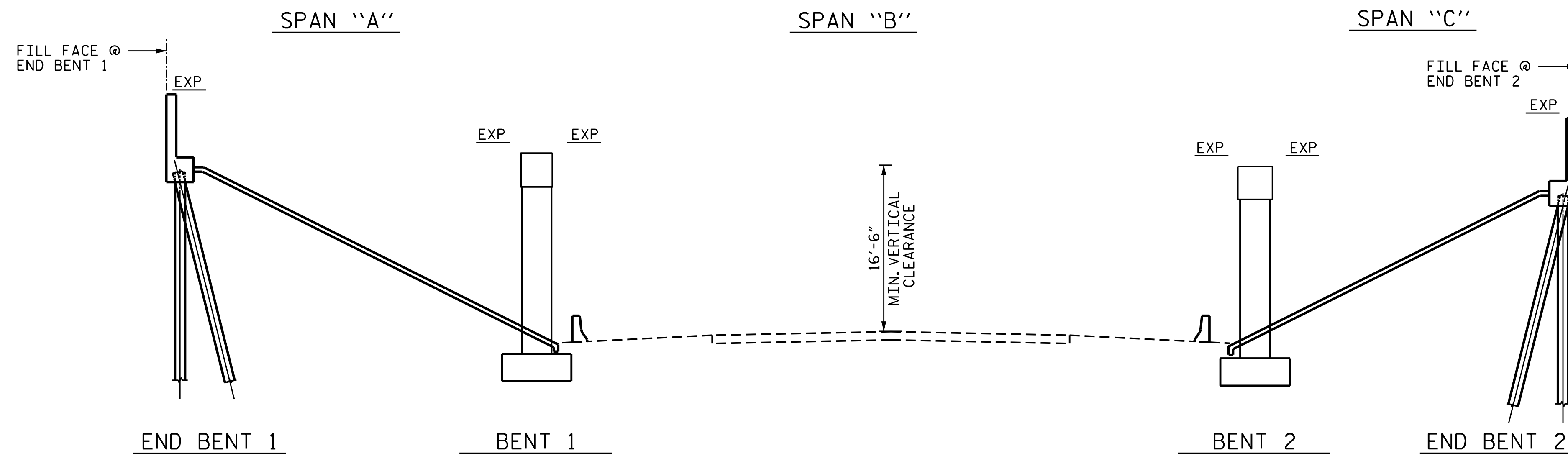
DocuSigned by:
P. Corey Newton
 6/23/2019

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
SUBSTRUCTURE
BENT 3

DRAWN BY : P. D. BRYANT / S. T. SANDOR DATE : 01/2019
 CHECKED BY : W. C. SMITH DATE : 05/2019

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



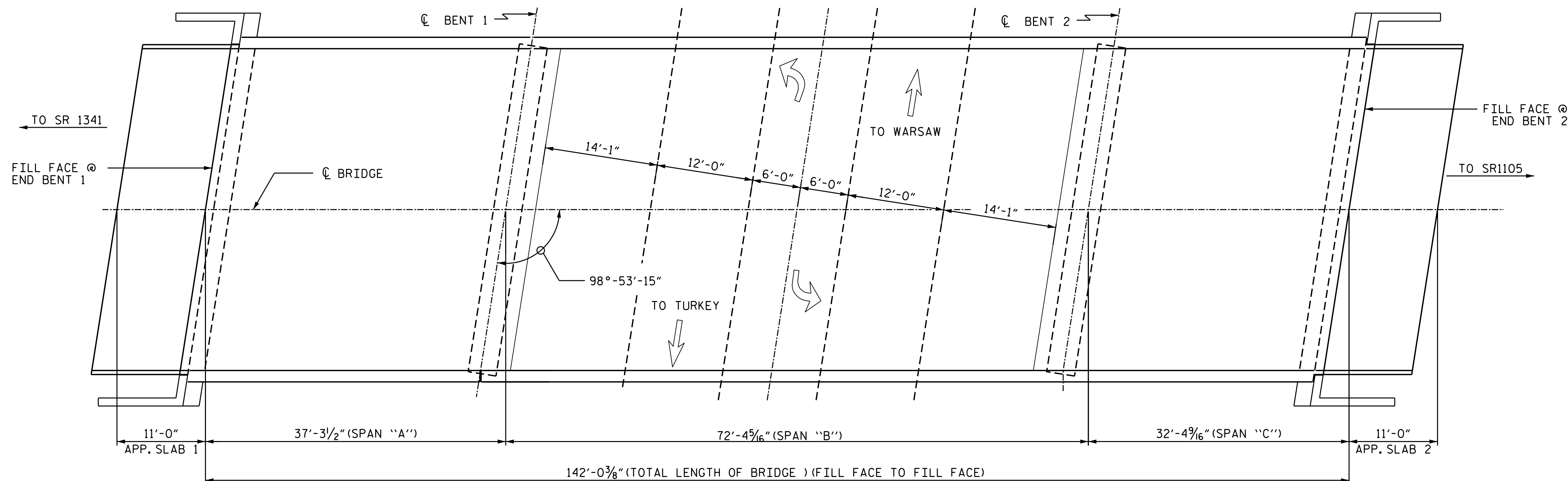
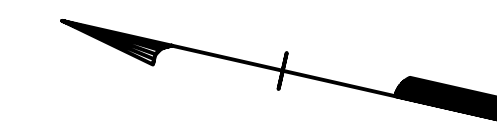
ELEVATION
(SECTION ALONG CL ROADWAY)

SCOPE OF WORK

- PARTIALLY REMOVE BRIDGE DECK CONCRETE BY SCARIFICATION AND SHOTBLASTING METHODS.
- PERFORM DECK REPAIRS IN PREPARED AREAS.
- OVERLAY PREPARED BRIDGE DECK WITH POLYESTER POLYMER CONCRETE.
- RECONSTRUCT BRIDGE JOINTS AND INSTALL BACKER ROD AND SILICONE JOINT SEALANT.
- GROOVE POLYESTER POLYMER CONCRETE DECK.
- REPAIR SUBSTRUCTURE USING EPOXY RESIN INJECTION AND SHOTCRETE.

NOTES

- PROFILE INFORMATION IS TAKEN FROM ORIGINAL PLANS AND THE ROUTINE INSPECTION, DATED 09/21/2017.
- BRIDGE ORIENTATION CONFORMS TO EXISTING BRIDGE PLANS.



PLAN
(COLUMNS & FOOTINGS NOT SHOWN IN PLAN VIEW FOR CLARITY)

I hereby certify that this structure was rehabilitated according to these plans or as noted therein.

Resident Engineer _____ Date _____

PROJECT NO. I-5940
DUPLIN COUNTY
 BRIDGE NO. 300449



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
GENERAL DRAWING
 FOR BRIDGE 450 ON
 I-40 WBL OVER
 NC 24

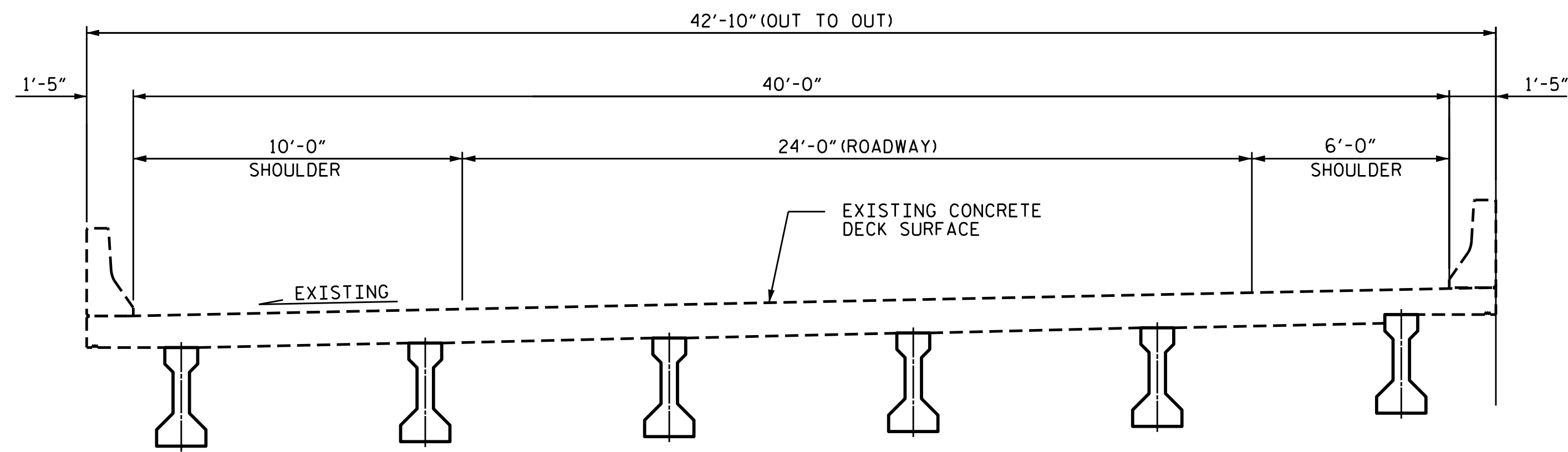
DRAWN BY : S. T. SANDOR DATE : 12/2018
 CHECKED BY : W. C. SMITH DATE : 05/2019

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

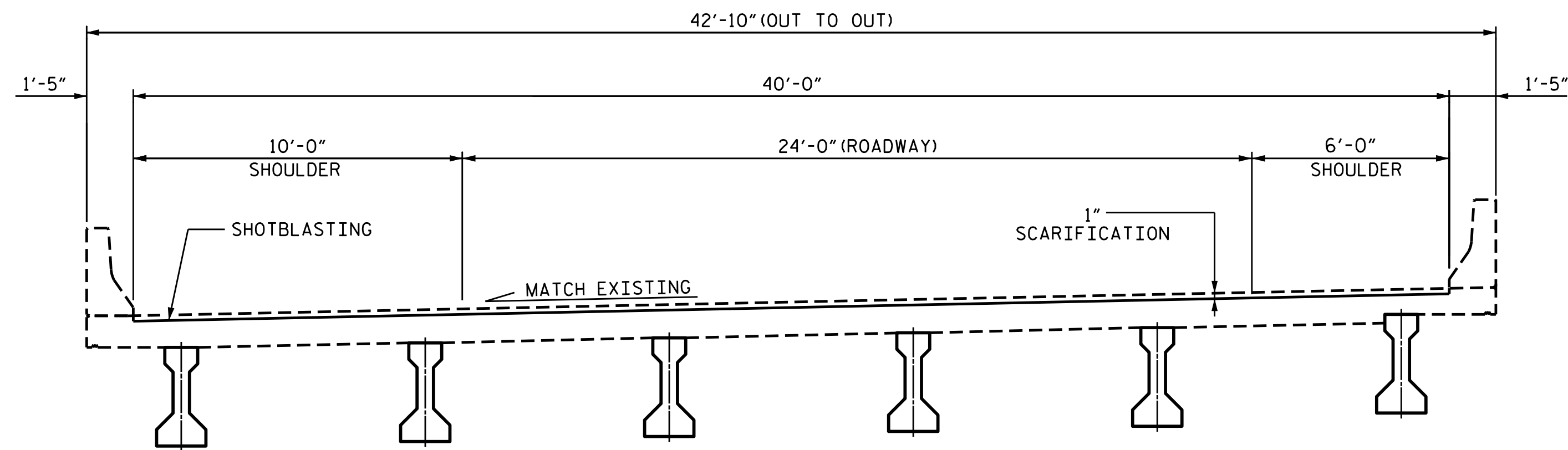
REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	TOTAL SHEETS
1			3			S9-1
2			4			113

NOTES

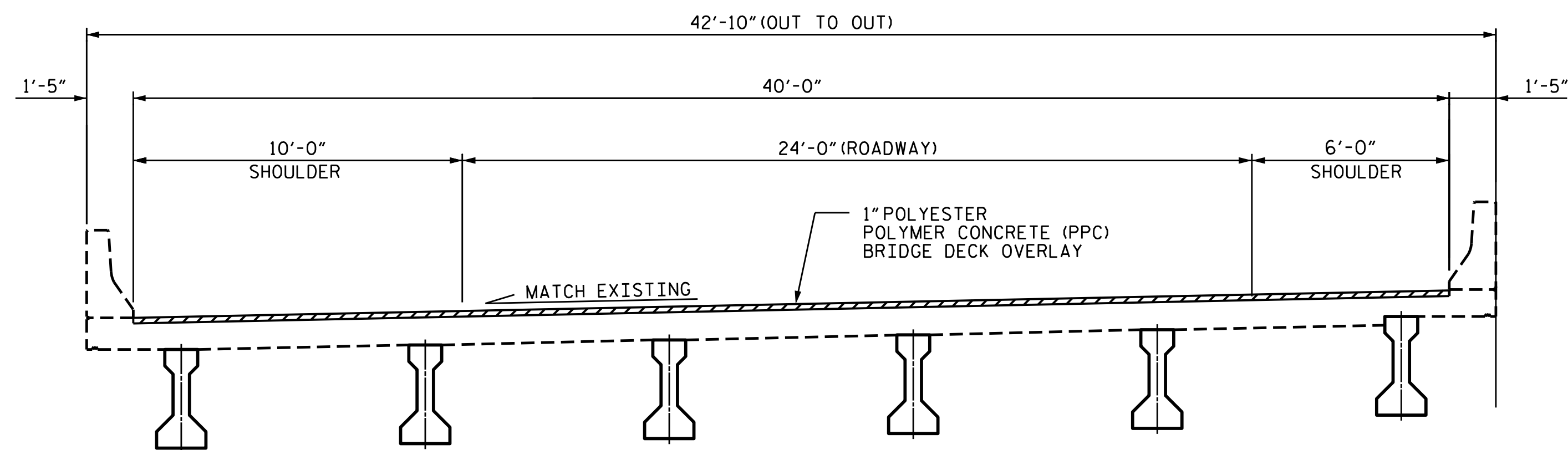
SEE TRANSPORTATION MANAGEMENT PLANS FOR LANE WIDTHS, SEQUENCING AND OTHER TRAFFIC CONTROL MEASURES FOR STAGING OF OVERLAY SURFACE PREPARATION AND POLYESTER POLYMER CONCRETE PLACEMENT.



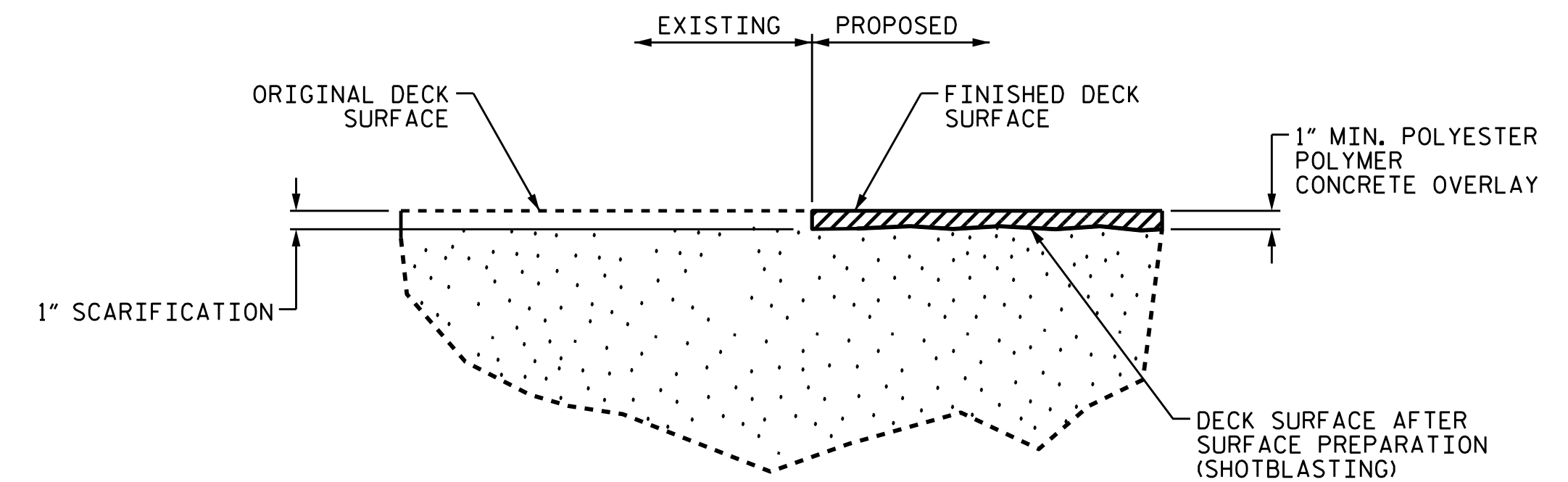
TYPICAL SECTION
(EXISTING)



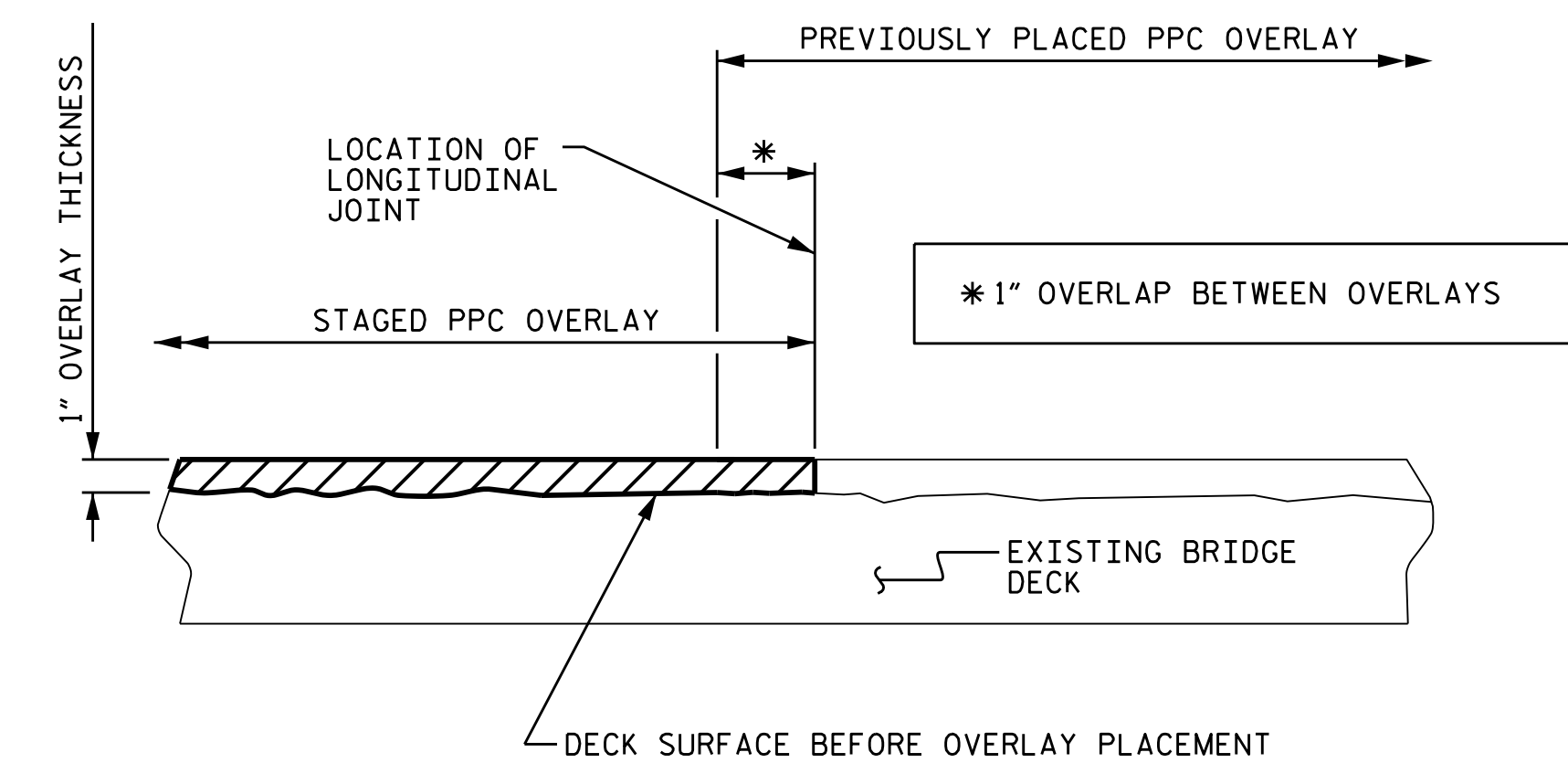
TYPICAL SECTION
(DECK PREPARATION)



TYPICAL SECTION
(PROPOSED)



**DETAIL FOR POLYESTER
POLYMER CONCRETE OVERLAY**



STAGED PPC OVERLAY JOINT
(AS NEEDED)

PROJECT NO. I-5940
DUPLIN COUNTY
 BRIDGE NO. 300449



DocuSigned by:
P. Corey Newton
 6/23/2019

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
**TYPICAL SECTION
 AND SURFACE
 PREPARATION DETAILS**

DRAWN BY : S. T. SANDOR DATE : 01/2019
 CHECKED BY : W. C. SMITH DATE : 05/2019

DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
 SIGNATURES COMPLETED

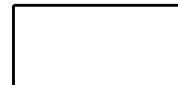
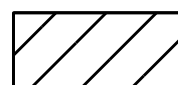
REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	TOTAL SHEETS
1			3			S9-2
2			4			113

SUMMARY OF QUANTITIES FOR SPAN "A" AND APPROACH SLAB 1

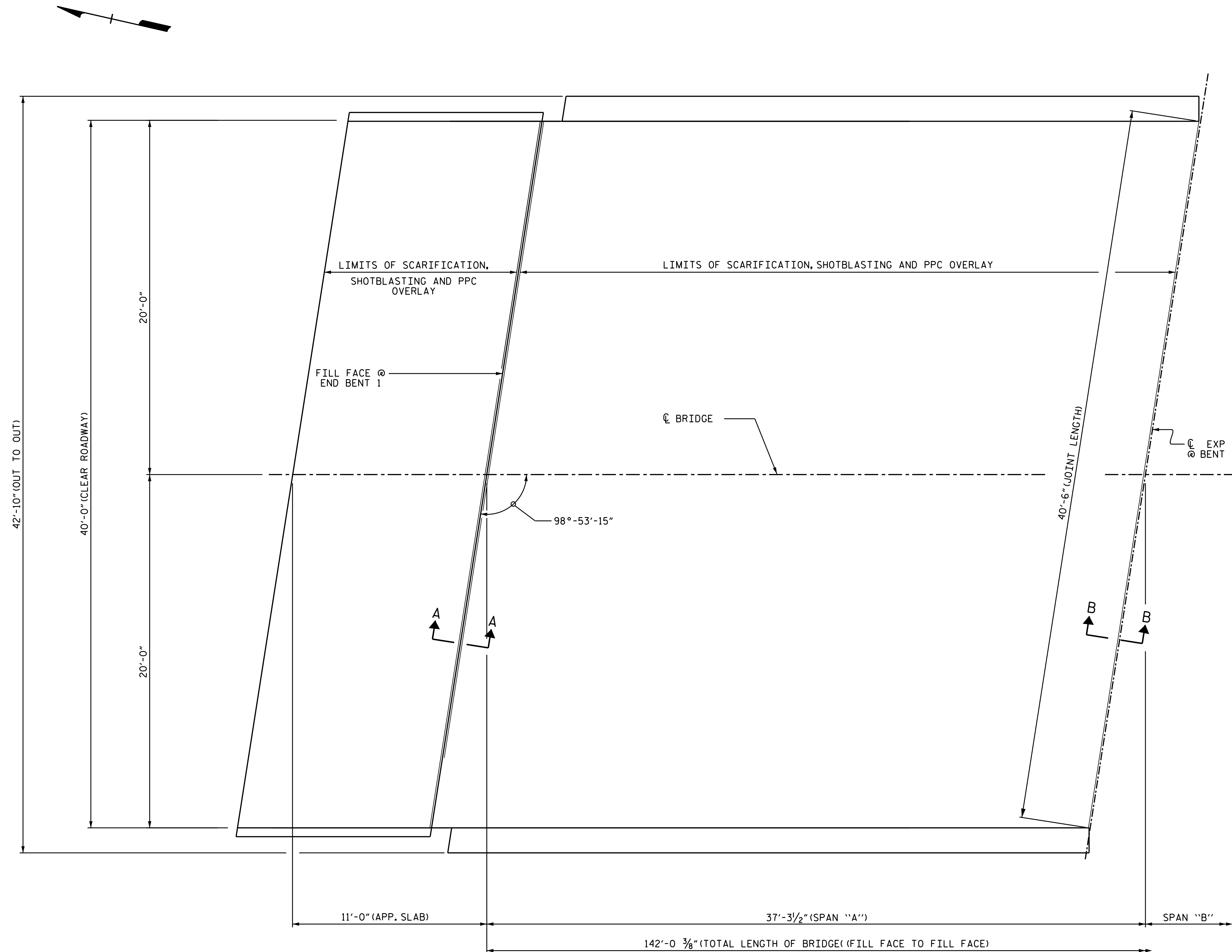
	ESTIMATE	ACTUAL
SCARIFYING BRIDGE DECK	214.7 SY	
POLYSTER POLYMER CONCRETE MATERIALS	6.0 CY	
SHOTBLASTING BRIDGE DECK	214.7 SY	
PLACING & FINISHING PPC OVERLAY	214.7 SY	
CLASS II SURFACE PREPARATION	0.0 SY	
GROOVING BRIDGE DECK	1,709.1 SF	

NOTES:

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

-  - SCARIFYING AND SHOTBLASTING OF BRIDGE DECK FOR PPC OVERLAY
-  - APPROX. AREA CLASS II SURFACE PREPARATION

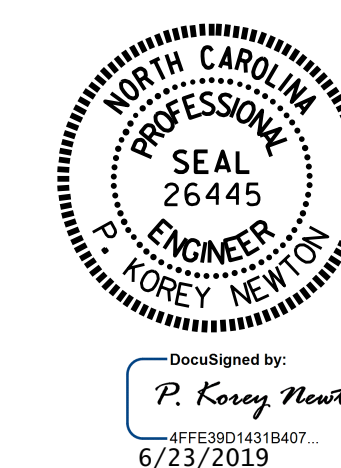
NO DEFICIENCIES NOTED DURING FIELD INSPECTION. THE CONTRACTOR AND ENGINEER SHALL INSPECT THE DECK SURFACE AFTER SCARIFICATION FOR POTENTIAL CLASS II REPAIRS.



PLAN OF SPAN "A" AND APPROACH SLAB

(SEE SHEET NO. S10-6 FOR SECTIONS A-A AND B-B)

PROJECT NO. I-5940
DUPLIN COUNTY
 BRIDGE NO. 300449



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
**SURFACE PREPARATION
 SPAN "A" AND
 APPROACH SLAB 1**

DRAWN BY : S. T. SANDOR DATE : 01/2019
 CHECKED BY : W. C. SMITH DATE : 05/2019

DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
 SIGNATURES COMPLETED


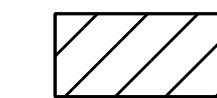
REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	TOTAL SHEETS
1			3			S9-3
2			4			113

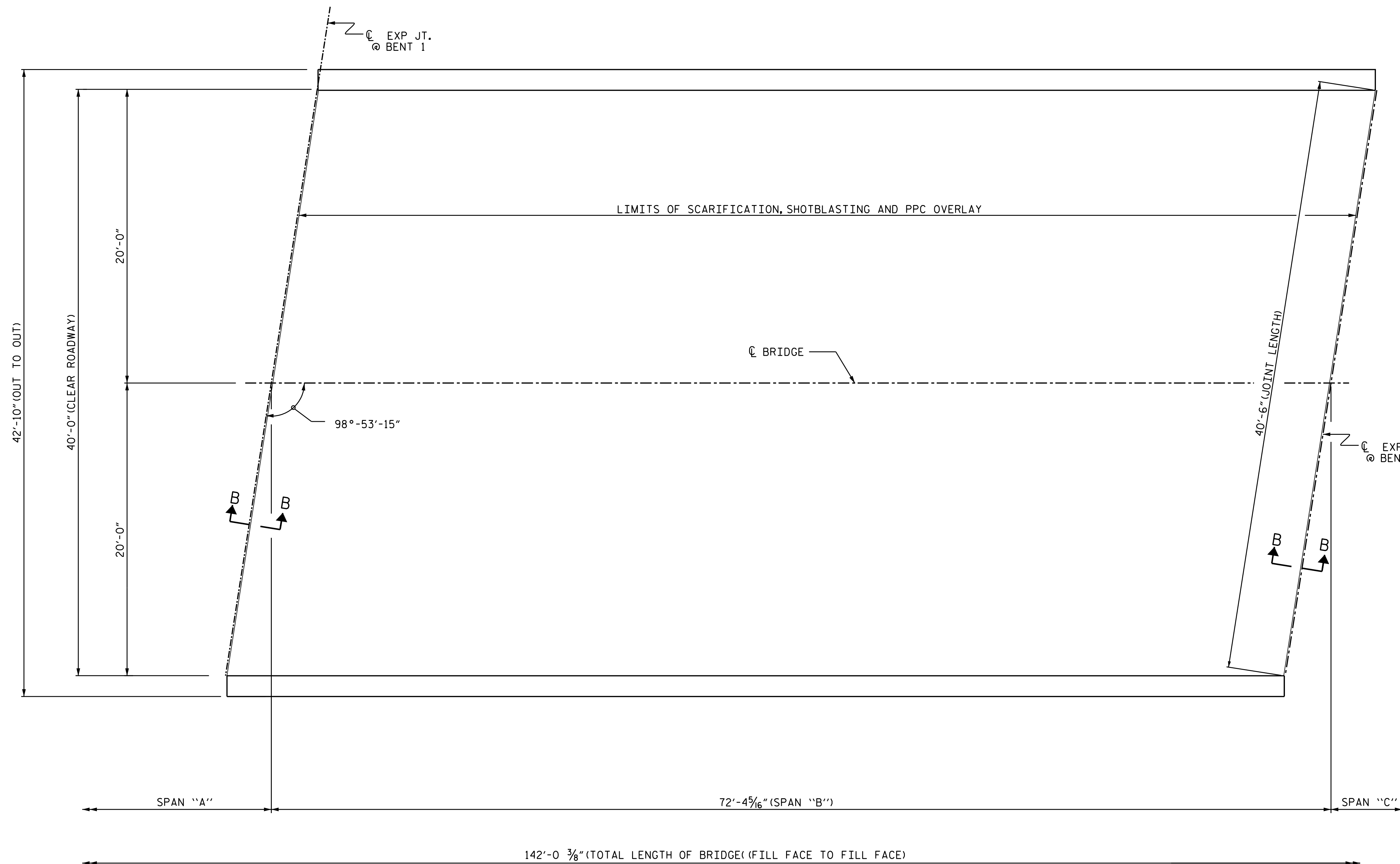
SUMMARY OF QUANTITIES FOR SPAN "B"

	ESTIMATE	ACTUAL
SCARIFYING BRIDGE DECK	321.6 SY	
POLYSTER POLYMER CONCRETE MATERIALS	9.0 CY	
SHOTBLASTING BRIDGE DECK	321.6 SY	
PLACING & FINISHING PPC OVERLAY	321.6 SY	
CLASS II SURFACE PREPARATION	0.0 SY	
GROOVING BRIDGE DECK	2,628.0 SF	

NOTES:

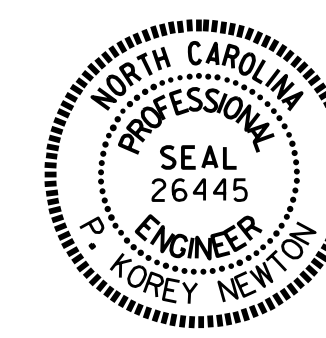
REPAIR LOCATIONS AND ESTIMATED QUANTITIES ARE GIVEN WITH THE BEST INFORMATION AVAILABLE. IF ADDITIONAL REPAIRS NOT SHOWN IN DRAWINGS ARE DEEMED NECESSARY BY ENGINEER, THE ENGINEER WILL NOTE ON THE DRAWINGS THE APPROXIMATE LOCATIONS AND DESCRIPTION OF THE REPAIRS AND ADJUST THE ACTUAL QUANTITIES ENTERED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

-  - SCARIFYING AND SHOTBLASTING OF BRIDGE DECK FOR PPC OVERLAY
-  - APPROX. AREA CLASS II SURFACE PREPARATION



PLAN OF SPAN "B"
(SEE SHEET NO. S10-6 FOR SECTION B-B)

PROJECT NO. I-5940
DUPLIN COUNTY
 BRIDGE NO. 300449



DocuSigned by:
 P. Corey Newton
 6/23/2019

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

**SURFACE PREPARATION
 SPAN "B"**

DRAWN BY : S. T. SANDOR DATE : 01/2019
 CHECKED BY : W. C. SMITH DATE : 05/2019

DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
 SIGNATURES COMPLETED

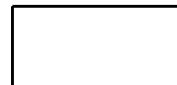

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	TOTAL SHEETS
1			3			S9-4
2			4			113

SUMMARY OF QUANTITIES FOR SPAN "C" AND APPROACH SLAB 2

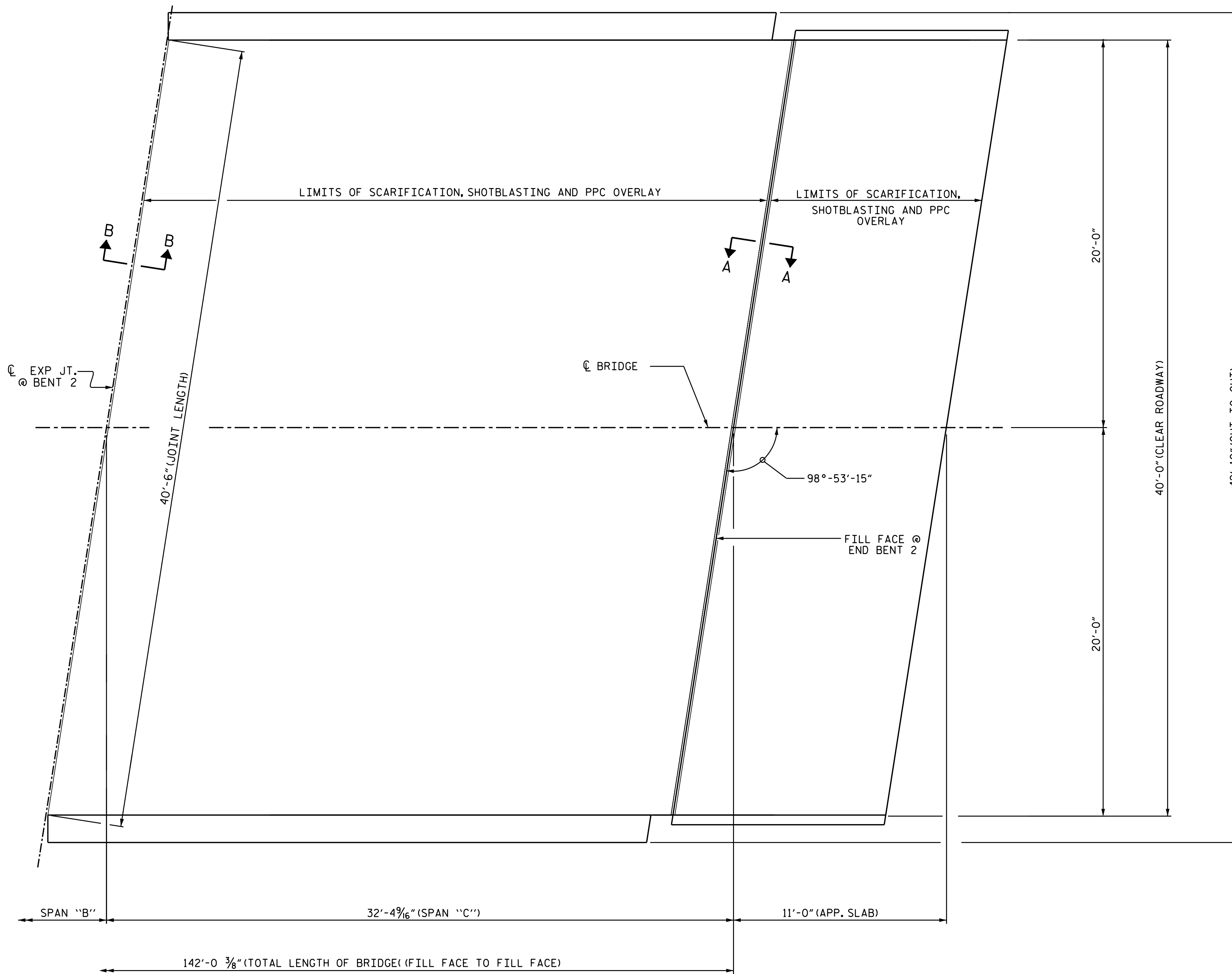
	ESTIMATE	ACTUAL
SCARIFYING BRIDGE DECK	192.8 SY	
POLYMER POLYMER CONCRETE MATERIALS	5.4 CY	
SHOTBLASTING BRIDGE DECK	192.8 SY	
PLACING & FINISHING PPC OVERLAY	192.8 SY	
CLASS II SURFACE PREPARATION	0.0 SY	
GROOVING BRIDGE DECK	1,531.1 SF	

NOTES:

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

-  - SCARIFYING AND SHOTBLASTING OF BRIDGE DECK FOR PPC OVERLAY
-  - APPROX. AREA CLASS II SURFACE PREPARATION

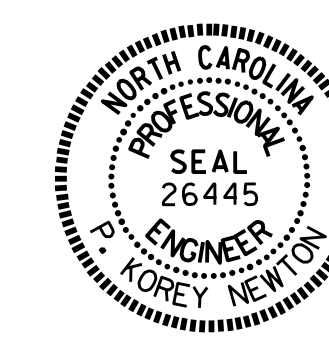
NO DEFICIENCIES NOTED DURING FIELD INSPECTION. THE CONTRACTOR AND ENGINEER SHALL INSPECT THE DECK SURFACE AFTER SCARIFICATION FOR POTENTIAL CLASS II REPAIRS.



PLAN OF SPAN "C" AND APPROACH SLAB 2

(SEE SHEET NO. S10-6 FOR SECTIONS A-A AND B-B)

PROJECT NO. I-5940
DUPLIN COUNTY
 BRIDGE NO. 300449



DocuSigned by:
 P. Corey Newton
 4FEF39D14518A07...
 6/23/2019

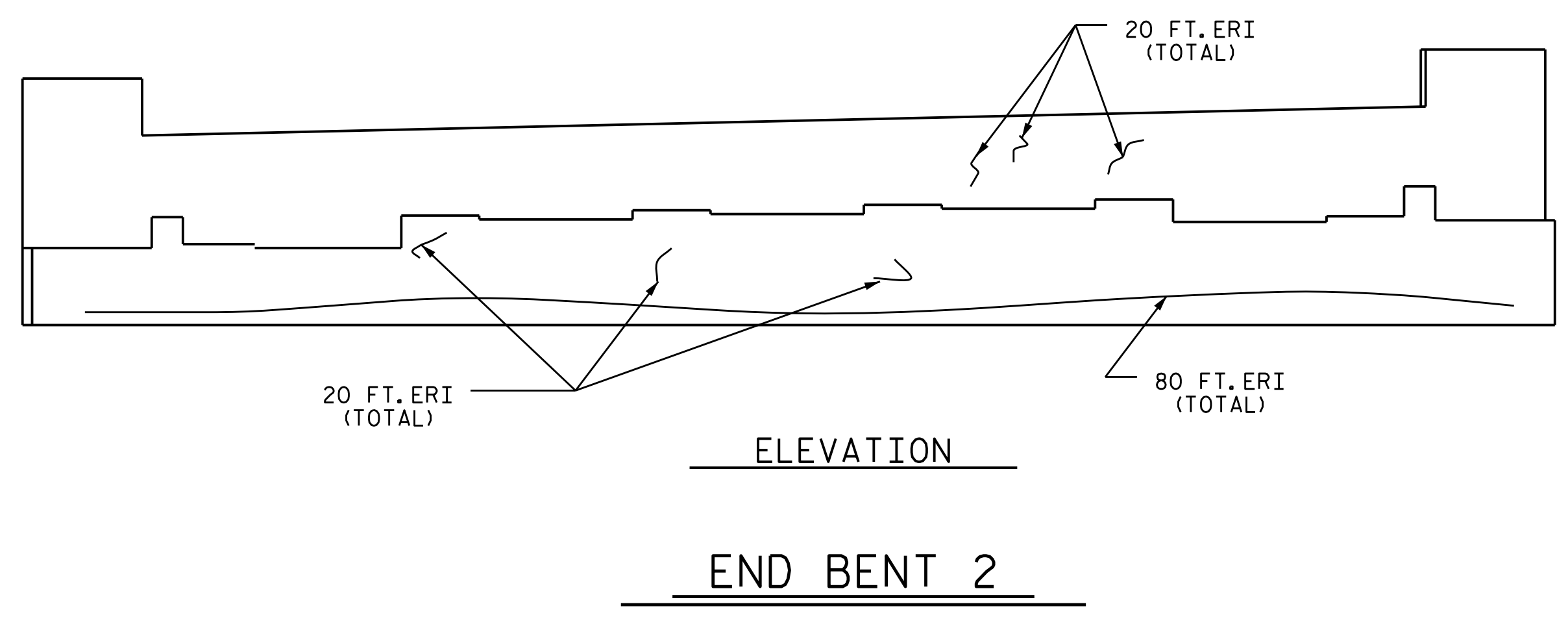
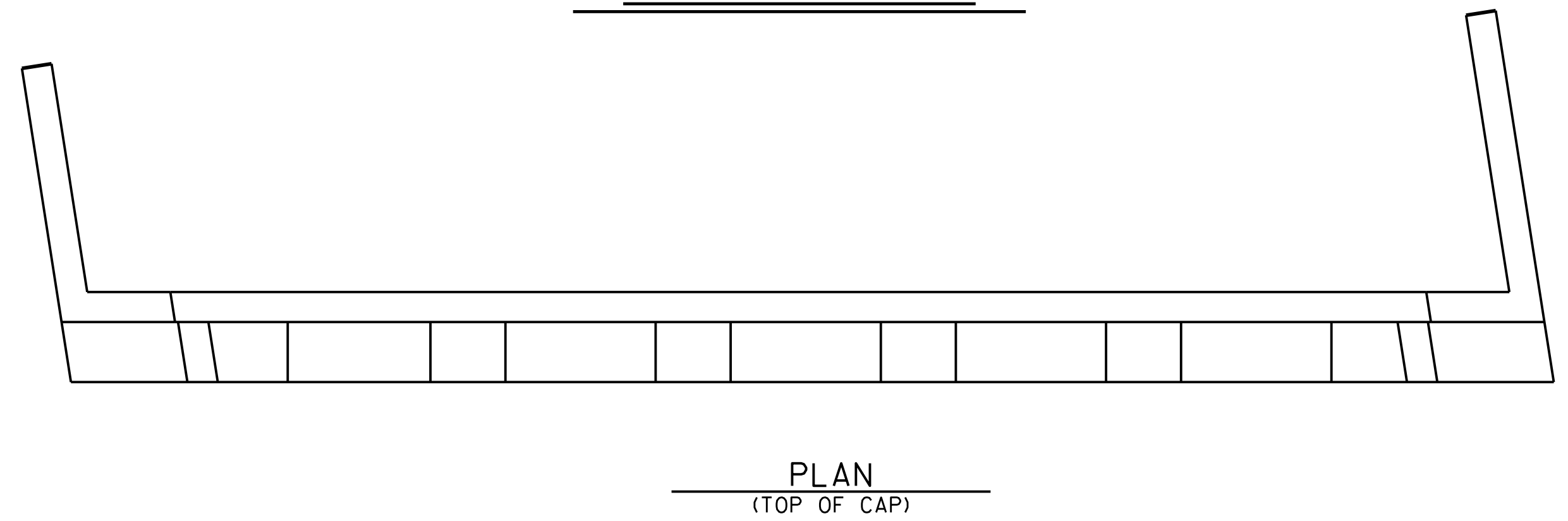
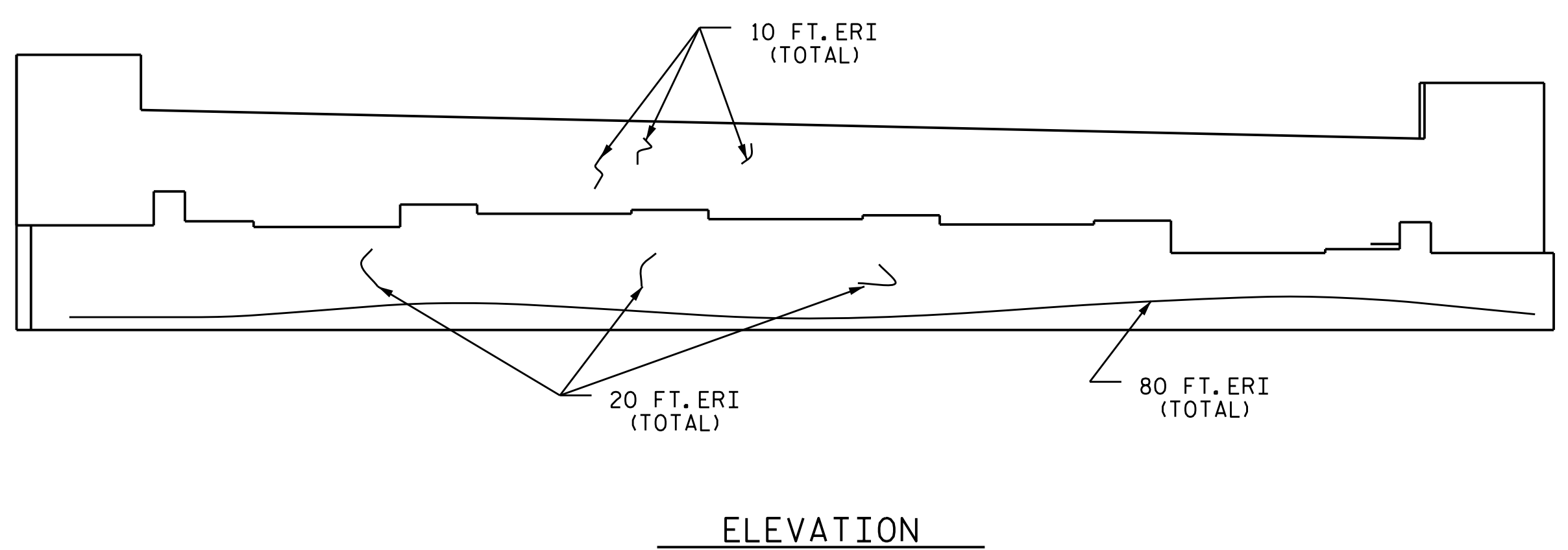
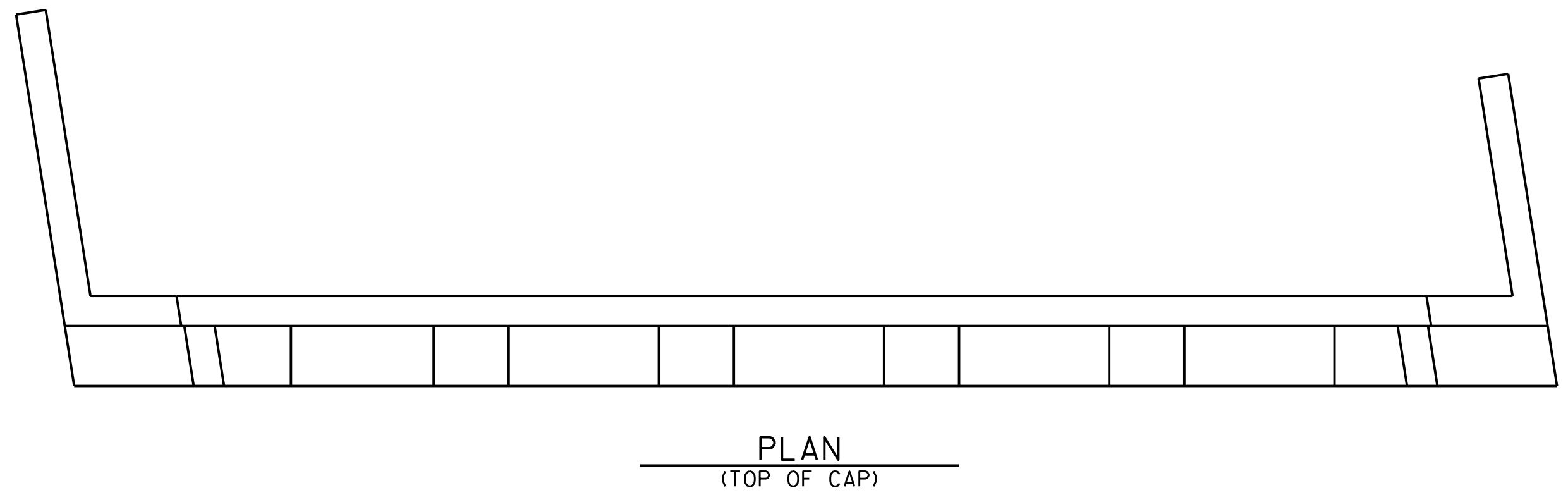
STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

SURFACE PREPARATION
 SPAN "C" AND
 APPROACH SLAB 2

DRAWN BY : S. T. SANDOR DATE : 01/2019
 CHECKED BY : W. C. SMITH DATE : 05/2019

DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
 SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	TOTAL SHEETS
1			3			S9-5
2			4			113



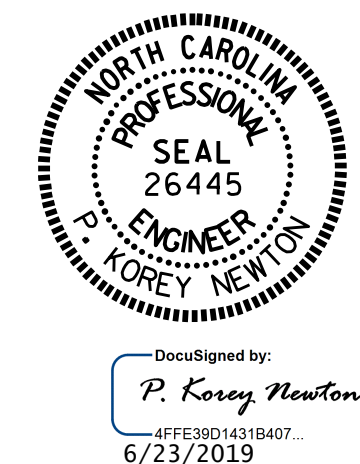
- ERI - EPOXY RESIN INJECTION
- SHOTCRETE REPAIRS
- CONCRETE REPAIRS

REPAIR QUANTITY TABLE

REPAIRS END BENT 1 & 2	QUANTITIES			
	ESTIMATE		ACTUAL	
CONCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL, CORNER)	0.0	0.0		
COLUMN	0.0	0.0		
SHOTCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL, CORNER)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LN. FT		LN. FT
CAP		230.0		
COLUMN		0.0		

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

PROJECT NO. I-5940
DUPLIN COUNTY
 BRIDGE NO. 300449



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
**SUBSTRUCTURE
 REPAIR
 END BENT 1 &
 END BENT 2**

DRAWN BY : S. T. SANDOR DATE : 01/2019
 CHECKED BY : W. C. SMITH DATE : 05/2019

DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
 SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	TOTAL SHEETS
1			3			99-6
2			4			113

NOTES:

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

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

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR CONCRETE REPAIRS, SEE SPECIAL PROVISIONS.

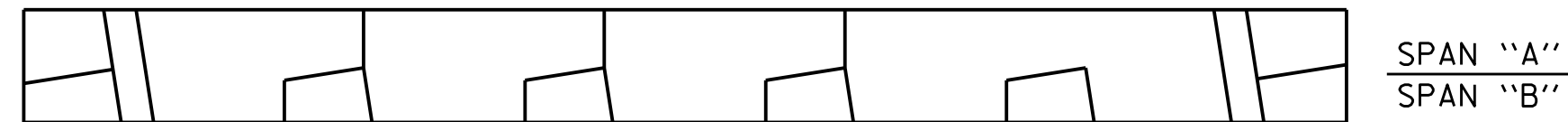
FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.

CONCRETE REPAIRS MAY BE SUBSTITUTED IN LIEU OF SHOTCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

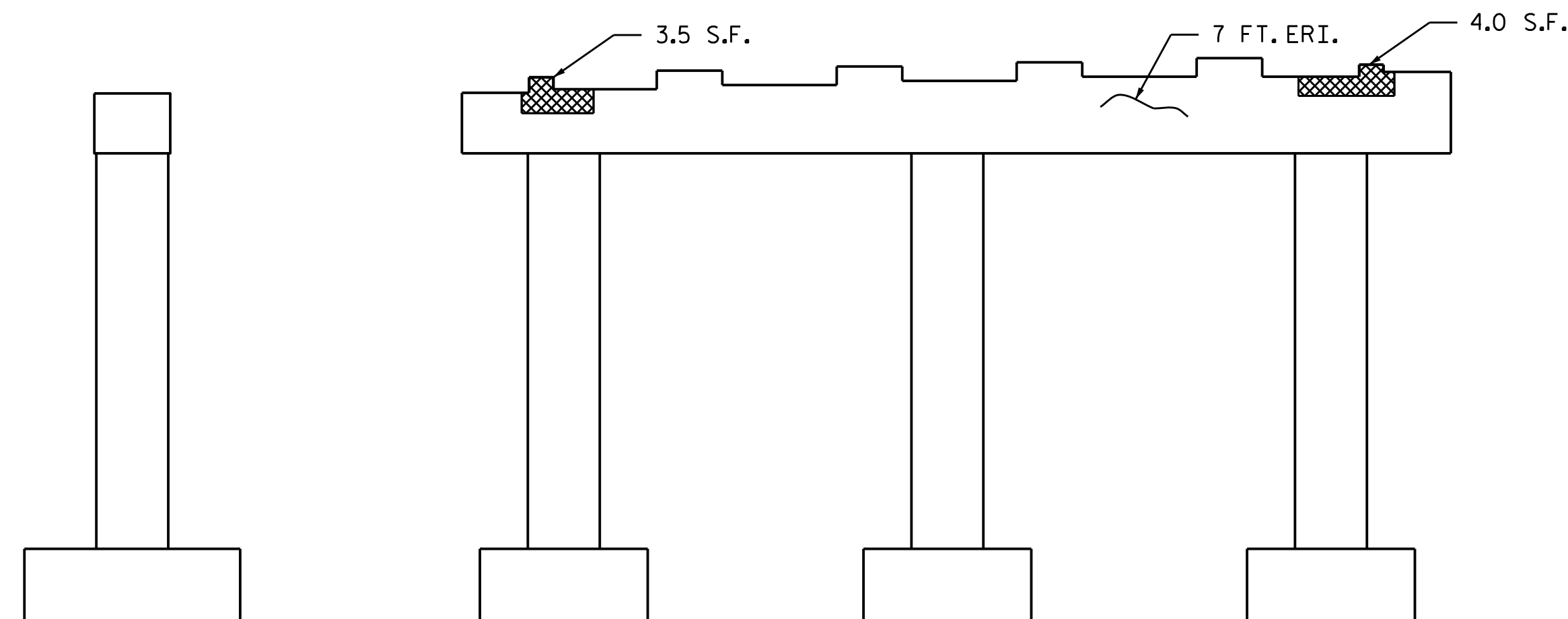
REPAIR QUANTITY TABLE

BENT 1	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	1.0	0.5		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	7.5	3.8		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		7.0		
COLUMN		5.0		

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



PLAN
TOP OF CAP

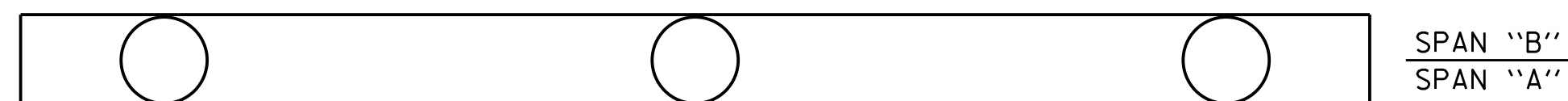


END VIEW
NORTH END

ELEVATION
WEST SIDE

END VIEW
SOUTH SIDE

ELEVATION
EAST SIDE



PLAN
BOTTOM OF CAP

- CONCRETE REPAIR
- SHOTCRETE REPAIR
- ERI EPOXY RESIN INJECTION

PROJECT NO. I-5940
DUPLIN COUNTY
 BRIDGE NO. 300449



DocuSigned by:
P. Corey Newton
 49FE39D14518A07...
 6/23/2019

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
SUBSTRUCTURE
BENT 1

DRAWN BY : P. D. BRYANT / S. T. SANDOR DATE : 01/2019
 CHECKED BY : W. C. SMITH DATE : 05/2019

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 SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	TOTAL SHEETS
1			3			S9-7
2			4			113

NOTES:

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

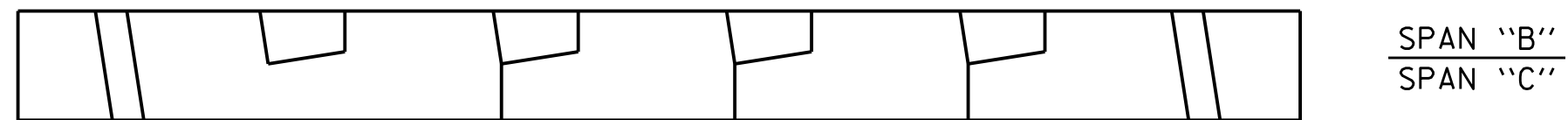
FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR CONCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.

CONCRETE REPAIRS MAY BE SUBSTITUTED IN LIEU OF SHOTCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

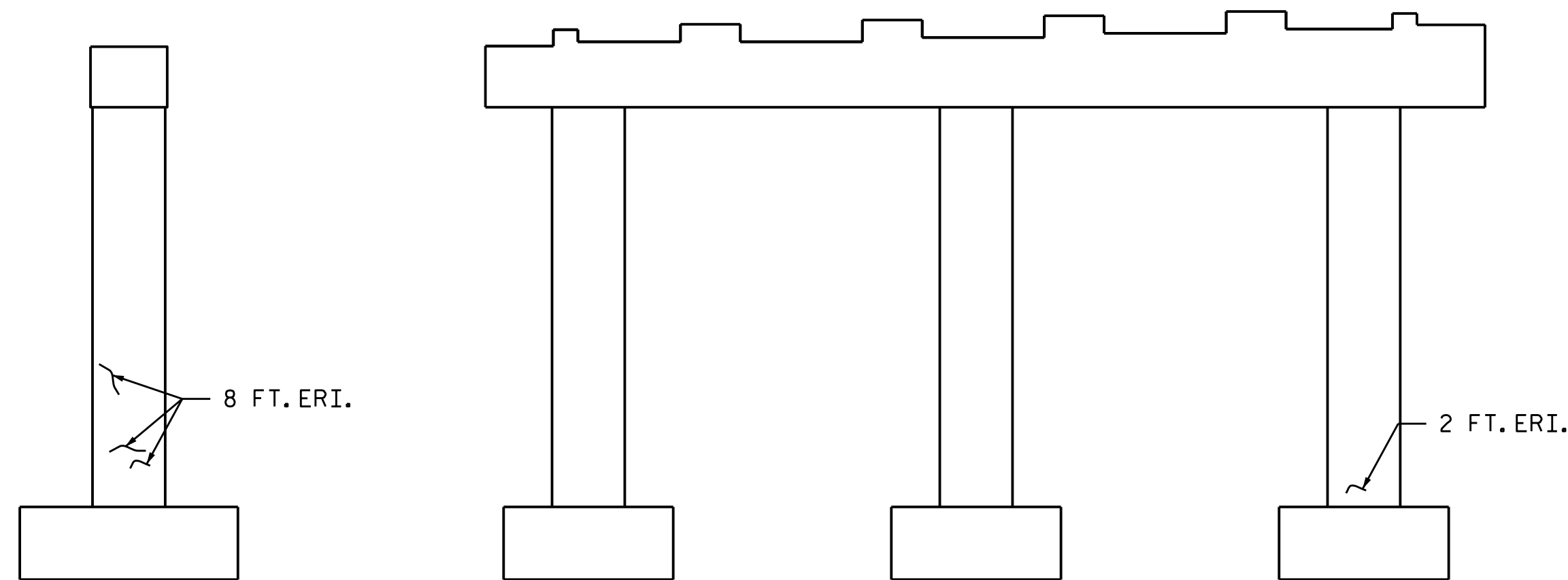


PLAN
TOP OF CAP

SPAN "B"
SPAN "C"

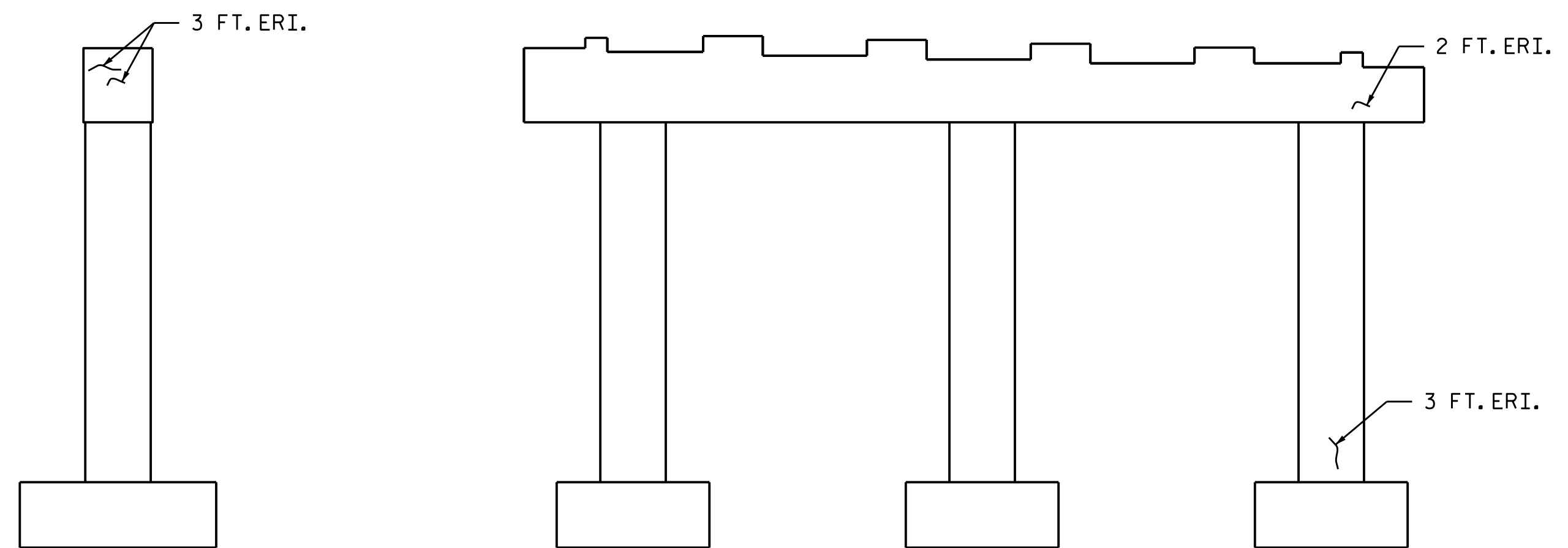
REPAIR QUANTITY TABLE				
BENT 2	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		8.0		
COLUMN		13.0		

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



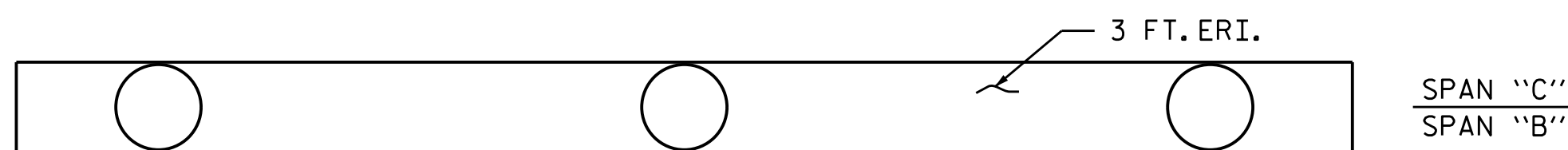
END VIEW
NORTH END

ELEVATION
WEST SIDE



END VIEW
SOUTH SIDE

ELEVATION
EAST SIDE



PLAN
BOTTOM OF CAP

SPAN "C"
SPAN "B"

- CONCRETE REPAIR
- SHOTCRETE REPAIR
- ERI EPOXY RESIN INJECTION

PROJECT NO. I-5940
DUPLIN COUNTY
BRIDGE NO. 300449



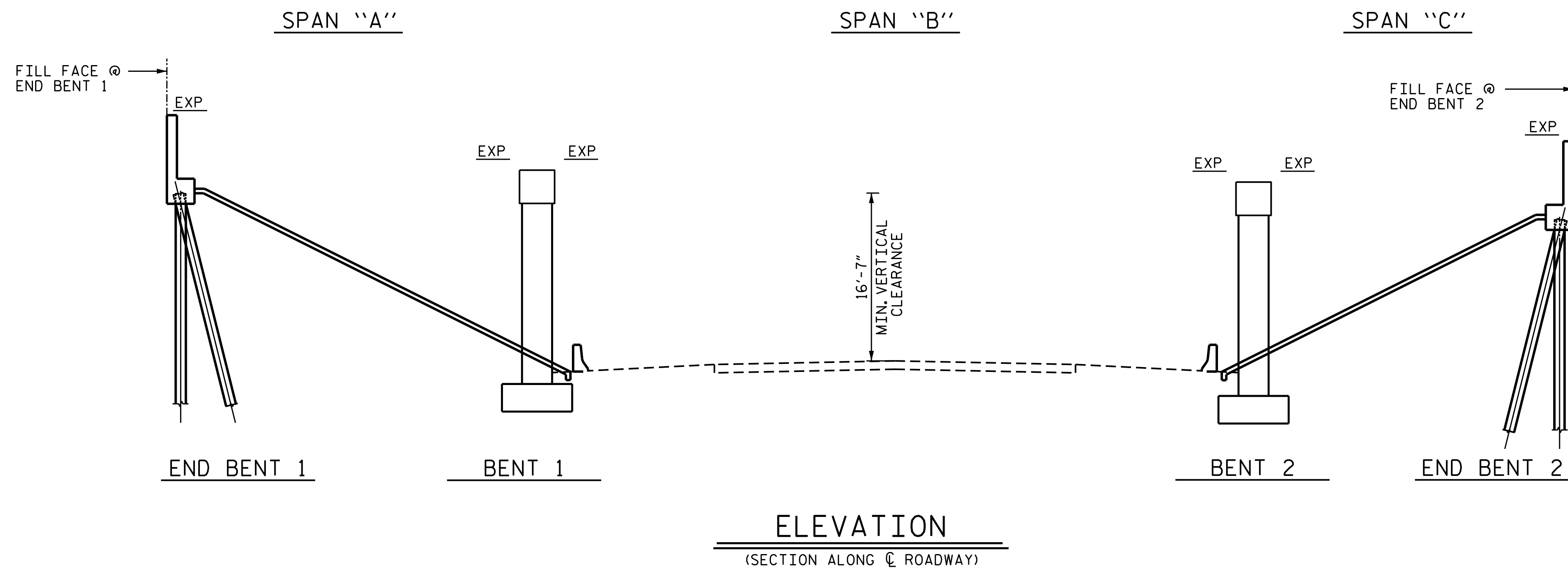
DocuSigned by:
P. Corey Newton
6/23/2019

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
SUBSTRUCTURE
BENT 2

DRAWN BY : P. D. BRYANT / S. T. SANDOR DATE : 01/2019
CHECKED BY : W. C. SMITH DATE : 05/2019

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SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	TOTAL SHEETS
1			3			99-8
2			4			113

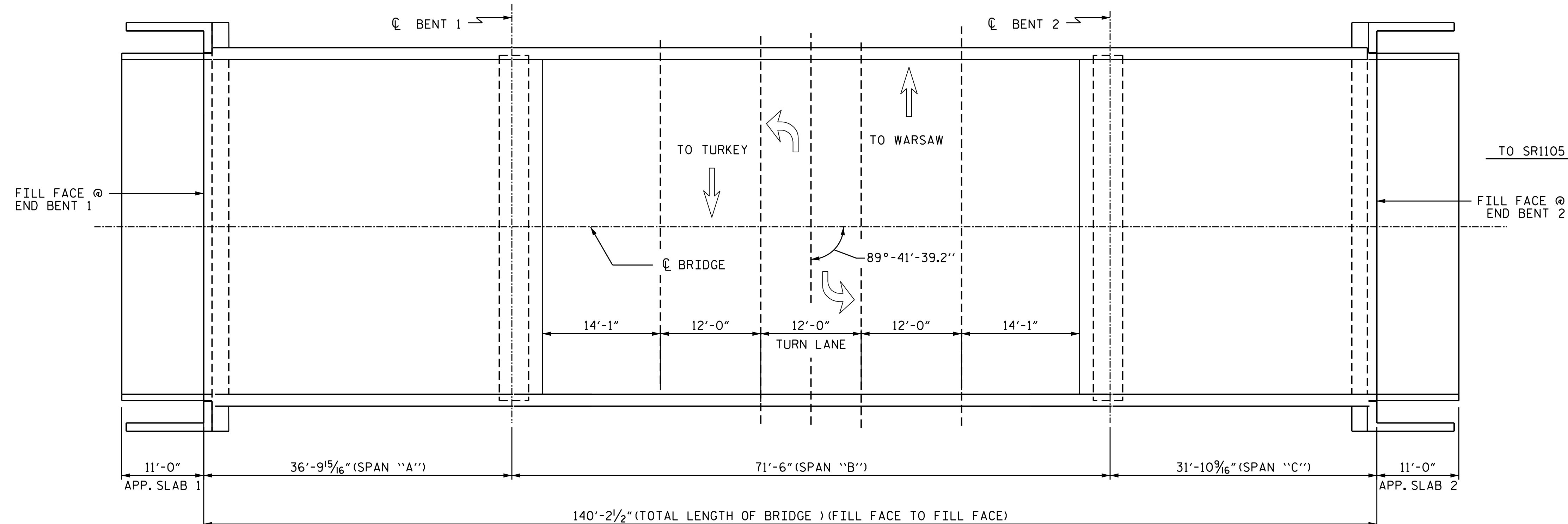


SCOPE OF WORK

- PARTIALLY REMOVE BRIDGE DECK CONCRETE BY SCARIFICATION AND SHOTBLASTING METHODS.
- PERFORM DECK REPAIRS IN PREPARED AREAS.
- OVERLAY PREPARED BRIDGE DECK WITH POLYESTER POLYMER CONCRETE.
- RECONSTRUCT BRIDGE JOINTS AND INSTALL BACKER ROD AND SILICONE JOINT SEALANT.
- GROOVE POLYESTER POLYMER CONCRETE DECK.
- REPAIR SUBSTRUCTURE USING EPOXY RESIN INJECTION AND SHOTCRETE.

NOTES

- PROFILE INFORMATION IS TAKEN FROM ORIGINAL PLANS AND THE ROUTINE INSPECTION, DATED 09/22/2017.
- BRIDGE ORIENTATION CONFORMS TO EXISTING BRIDGE PLANS.



I hereby certify that this structure was rehabilitated according to these plans or as noted therein.

Resident Engineer _____ Date _____

PROJECT NO. I-5940
DUPLIN COUNTY
 BRIDGE NO. 300450

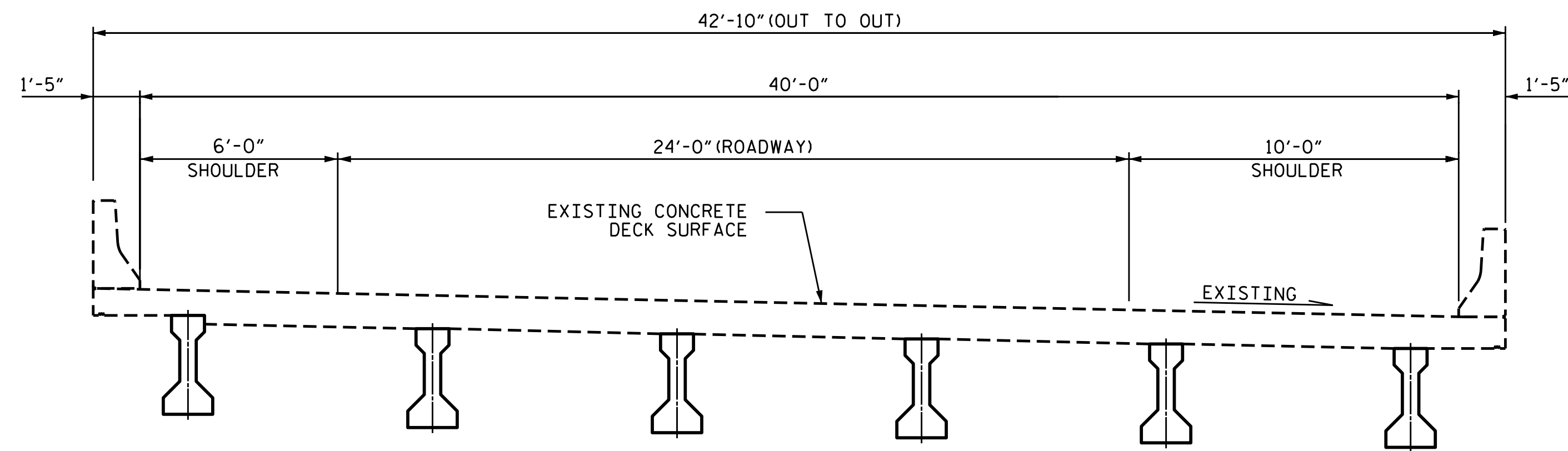


STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
GENERAL DRAWING
 FOR BRIDGE 450 ON
 I-40 EBL OVER
 NC 24

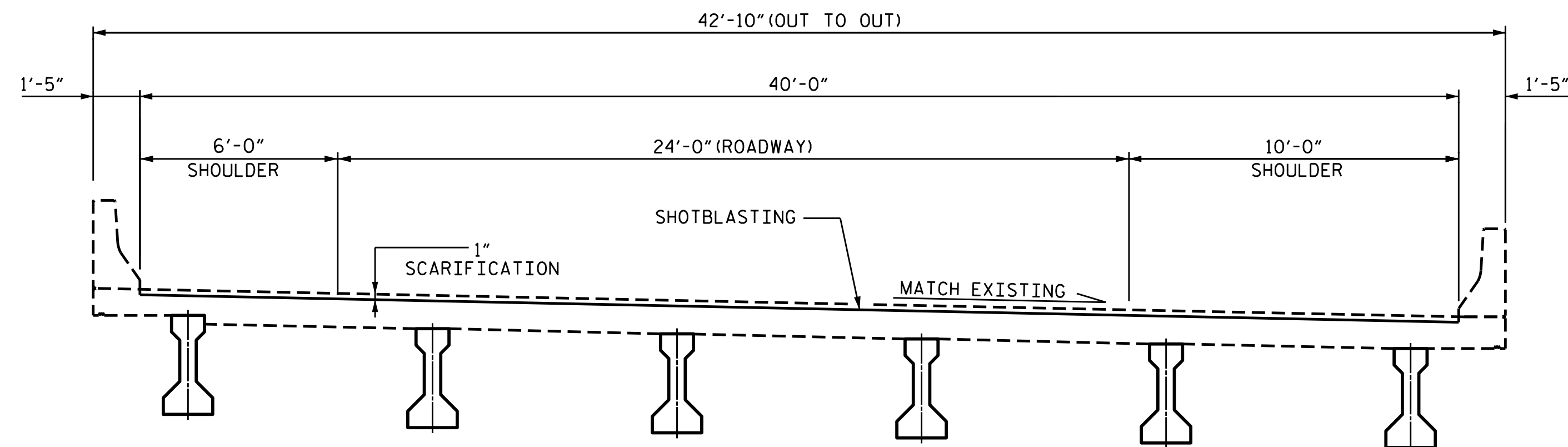
DRAWN BY : S. T. SANDOR DATE : 12/2018
 CHECKED BY : W. C. SMITH DATE : 05/2019

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

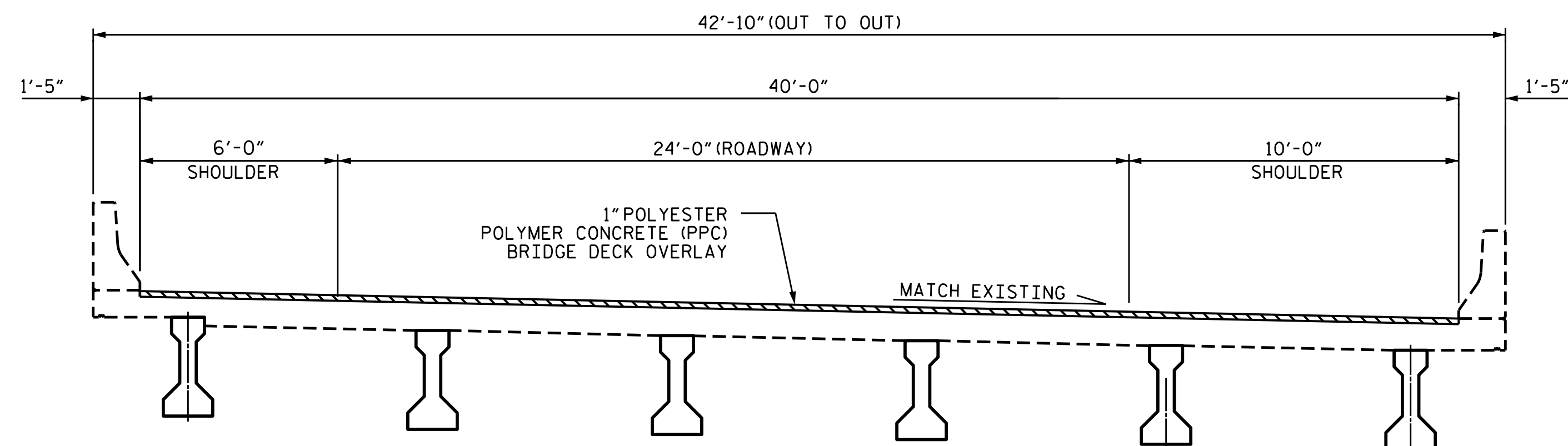
REVISIONS						SHEET NO.	
NO.	BY:	DATE:	NO.	BY:	DATE:	TOTAL SHEETS	
1			3			110	111
2			4			112	113



TYPICAL SECTION
(EXISTING)



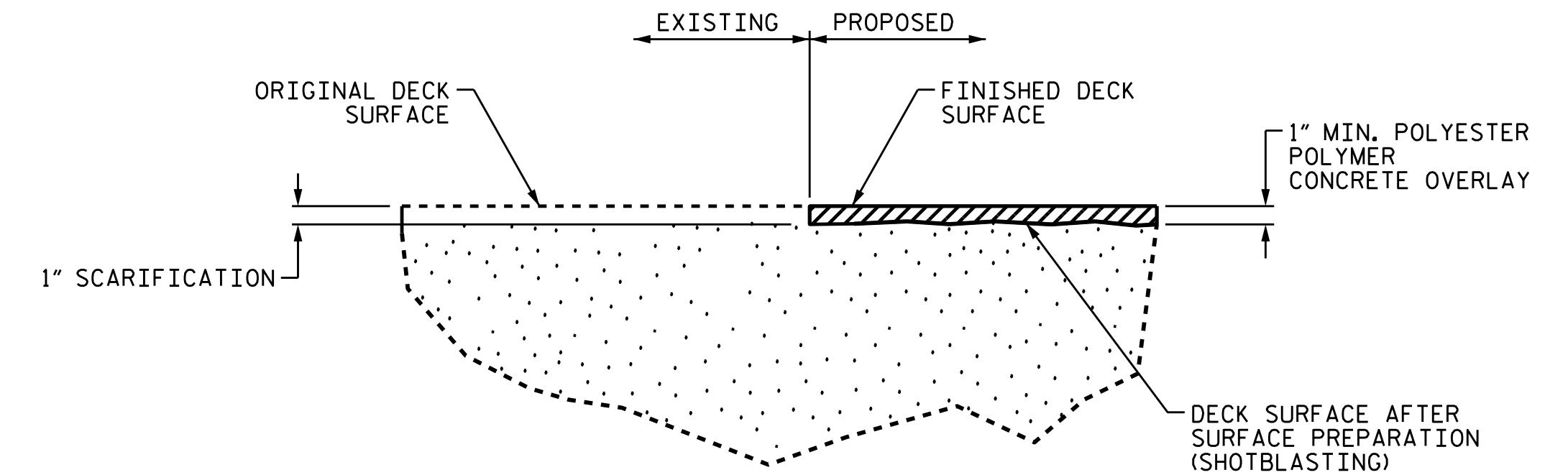
TYPICAL SECTION
(DECK PREPARATION)



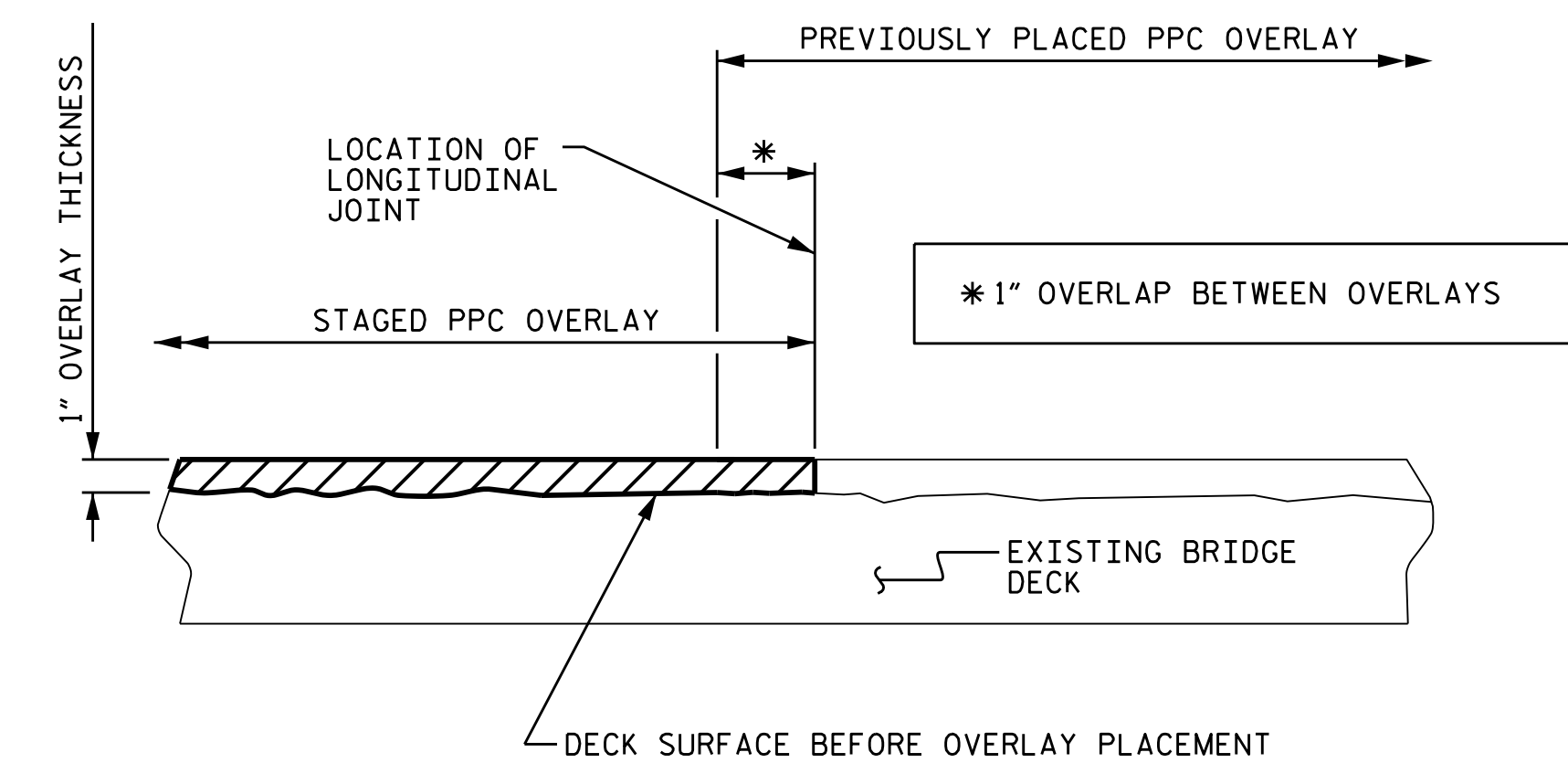
TYPICAL SECTION
(PROPOSED)

NOTES

SEE TRANSPORTATION MANAGEMENT PLANS FOR LANE WIDTHS, SEQUENCING AND OTHER TRAFFIC CONTROL MEASURES FOR STAGING OF OVERLAY SURFACE PREPARATION AND POLYESTER POLYMER CONCRETE PLACEMENT.

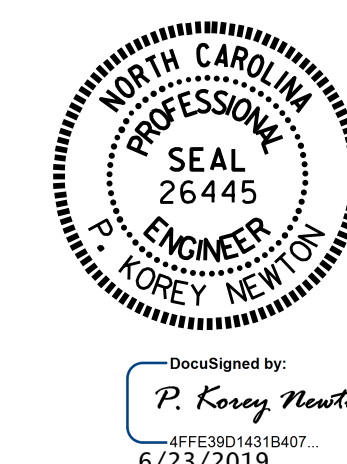


DETAIL FOR POLYESTER POLYMER CONCRETE OVERLAY



STAGED PPC OVERLAY JOINT
(AS NEEDED)

PROJECT NO. I-5940
DUPLIN COUNTY
 BRIDGE NO. 300450



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
**TYPICAL SECTION
 AND SURFACE
 PREPARATION DETAILS**

DRAWN BY : S. T. SANDOR DATE : 01/2019
 CHECKED BY : W. C. SMITH DATE : 05/2019

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REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	TOTAL SHEETS
1			3			S10-2
2			4			113

SUMMARY OF QUANTITIES FOR SPAN "A" AND APPROACH SLAB 1

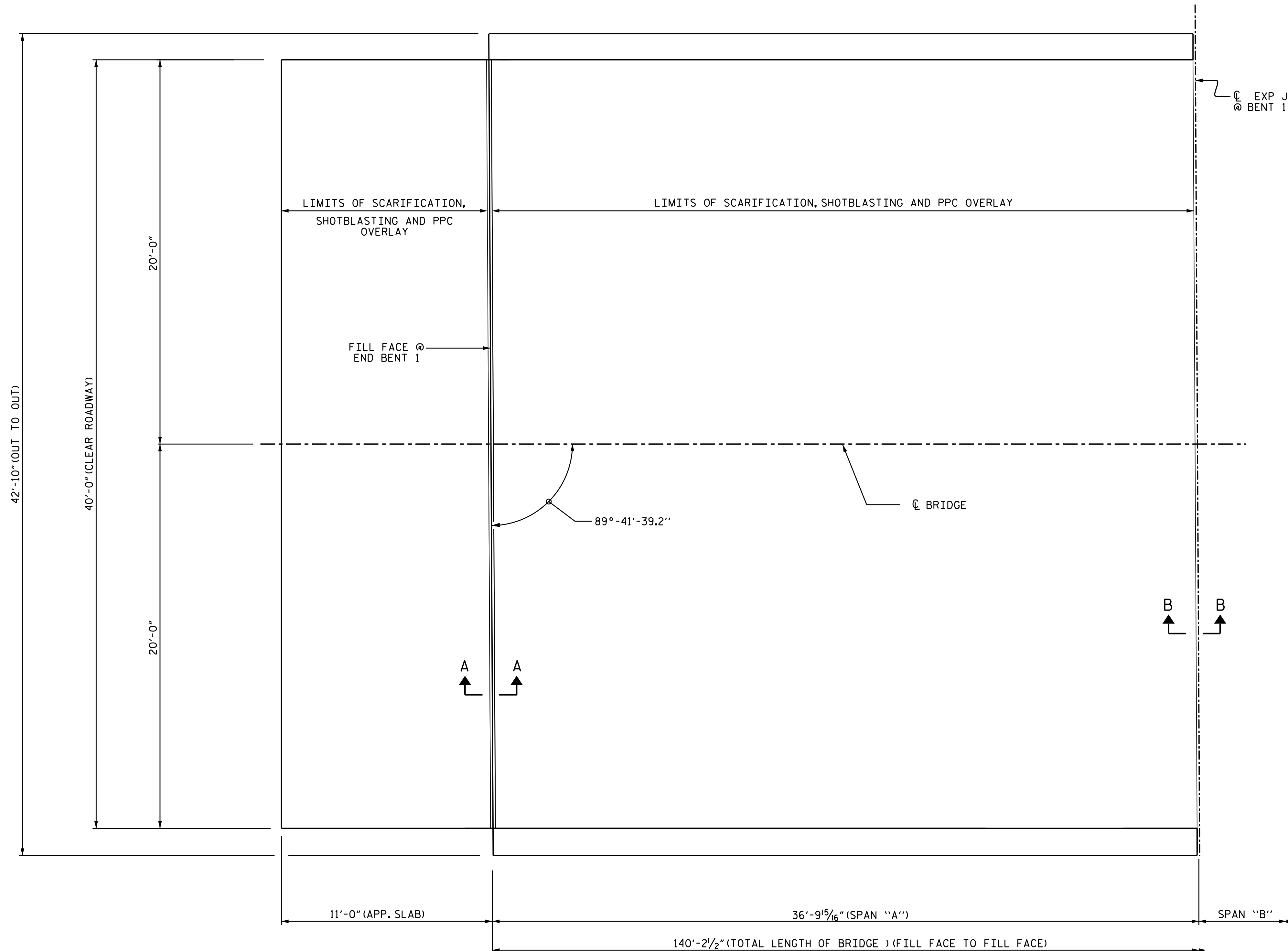
	ESTIMATE	ACTUAL
SCARIFYING BRIDGE DECK	212.6 SY	
POLYMER POLYMER CONCRETE MATERIALS	5.9 CY	
SHOTBLASTING BRIDGE DECK	212.6 SY	
PLACING & FINISHING PPC OVERLAY	212.6 SY	
CLASS II SURFACE PREPARATION	0.0 SY	
GROOVING BRIDGE DECK	1,686.6 SF	

NOTES:

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

-  - SCARIFYING AND SHOTBLASTING OF BRIDGE DECK FOR PPC OVERLAY
-  - APPROX. AREA CLASS II SURFACE PREPARATION

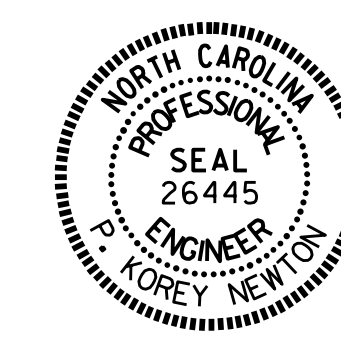
NO DEFICIENCIES NOTED DURING FIELD INSPECTION. THE CONTRACTOR AND ENGINEER SHALL INSPECT THE DECK SURFACE AFTER SCARIFICATION FOR POTENTIAL CLASS II REPAIRS.



PLAN OF SPAN "A" AND APPROACH SLAB 1

(SEE SHEET NO. S10-6 FOR SECTIONS A-A AND B-B)

PROJECT NO. I-5940
DUPLIN COUNTY
 BRIDGE NO. 300450



DocuSigned by:
 P. Corey Newton
 4FE73D1451B8D7...
 6/23/2019

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

SURFACE PREPARATION
 SPAN "A" AND
 APPROACH SLAB 1

DRAWN BY : S. T. SANDOR DATE : 01/2019
 CHECKED BY : W. C. SMITH DATE : 05/2019

DOCUMENT NOT CONSIDERED
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REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	TOTAL SHEETS
1			3			S10-3
2			4			113

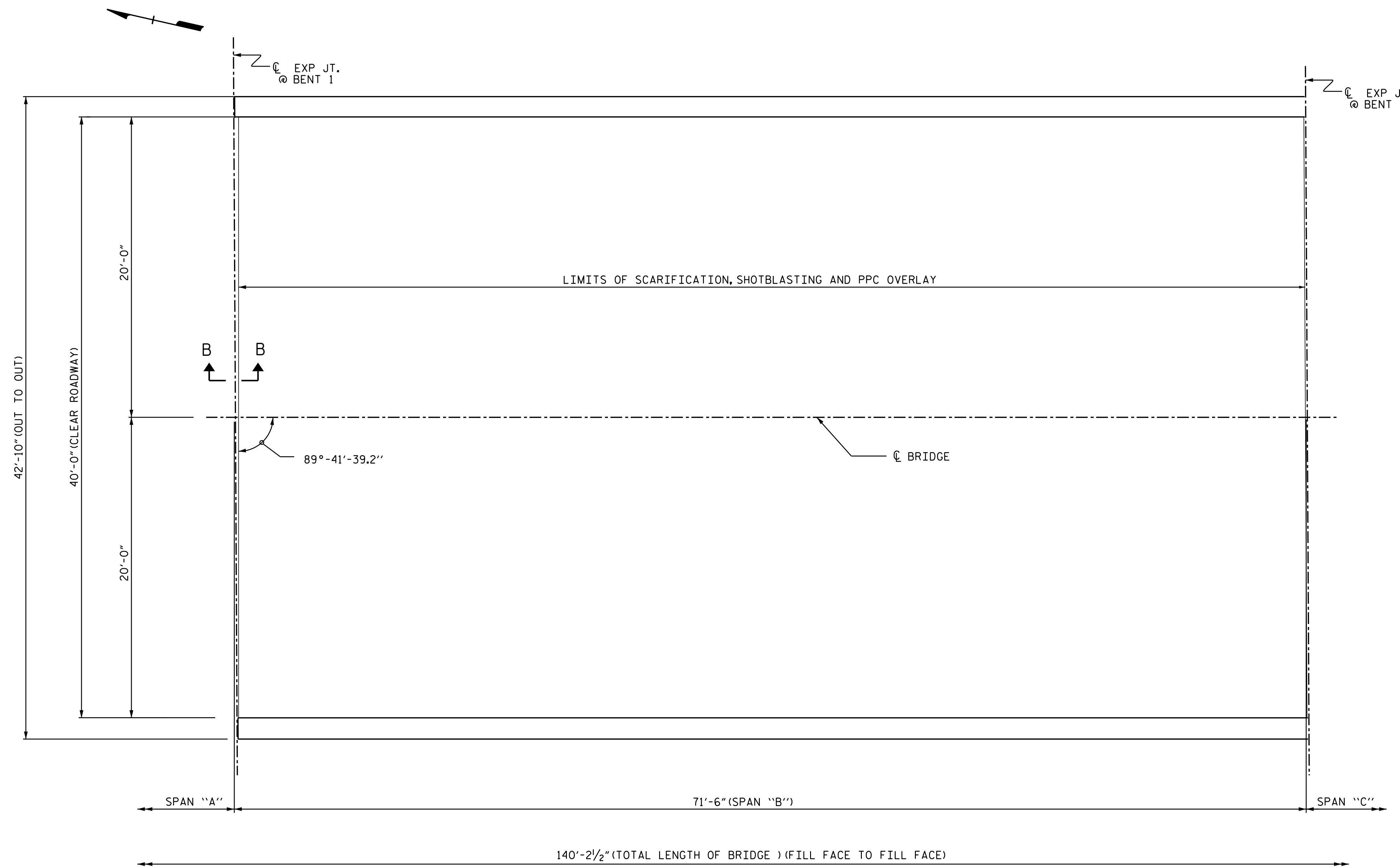
SUMMARY OF QUANTITIES FOR SPAN "B"

	ESTIMATE	ACTUAL
SCARIFYING BRIDGE DECK	317.8 SY	
POLYSTER POLYMER CONCRETE MATERIALS	8.8 CY	
SHOTBLASTING BRIDGE DECK	317.8 SY	
PLACING & FINISHING PPC OVERLAY	317.8 SY	
CLASS II SURFACE PREPARATION	0.0 SY	
GROOVING BRIDGE DECK	2,603.3 SF	

NOTES:

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

-  - SCARIFYING AND SHOTBLASTING OF BRIDGE DECK FOR PPC OVERLAY
-  - APPROX. AREA CLASS II SURFACE PREPARATION



PLAN OF SPAN "B"
 (SEE SHEET NO. S10-6 FOR SECTION B-B)

PROJECT NO. I-5940
DUPLIN COUNTY
 BRIDGE NO. 300450



DocuSigned by:
 P. Corey Newton
 6/23/2019

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

SURFACE PREPARATION
 SPAN "B"

DRAWN BY : S. T. SANDOR DATE : 01/2019
 CHECKED BY : W. C. SMITH DATE : 05/2019

DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
 SIGNATURES COMPLETED

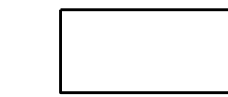

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	TOTAL SHEETS
1			3			S10-4
2			4			113

SUMMARY OF QUANTITIES FOR SPAN "C" AND APPROACH SLAB 2

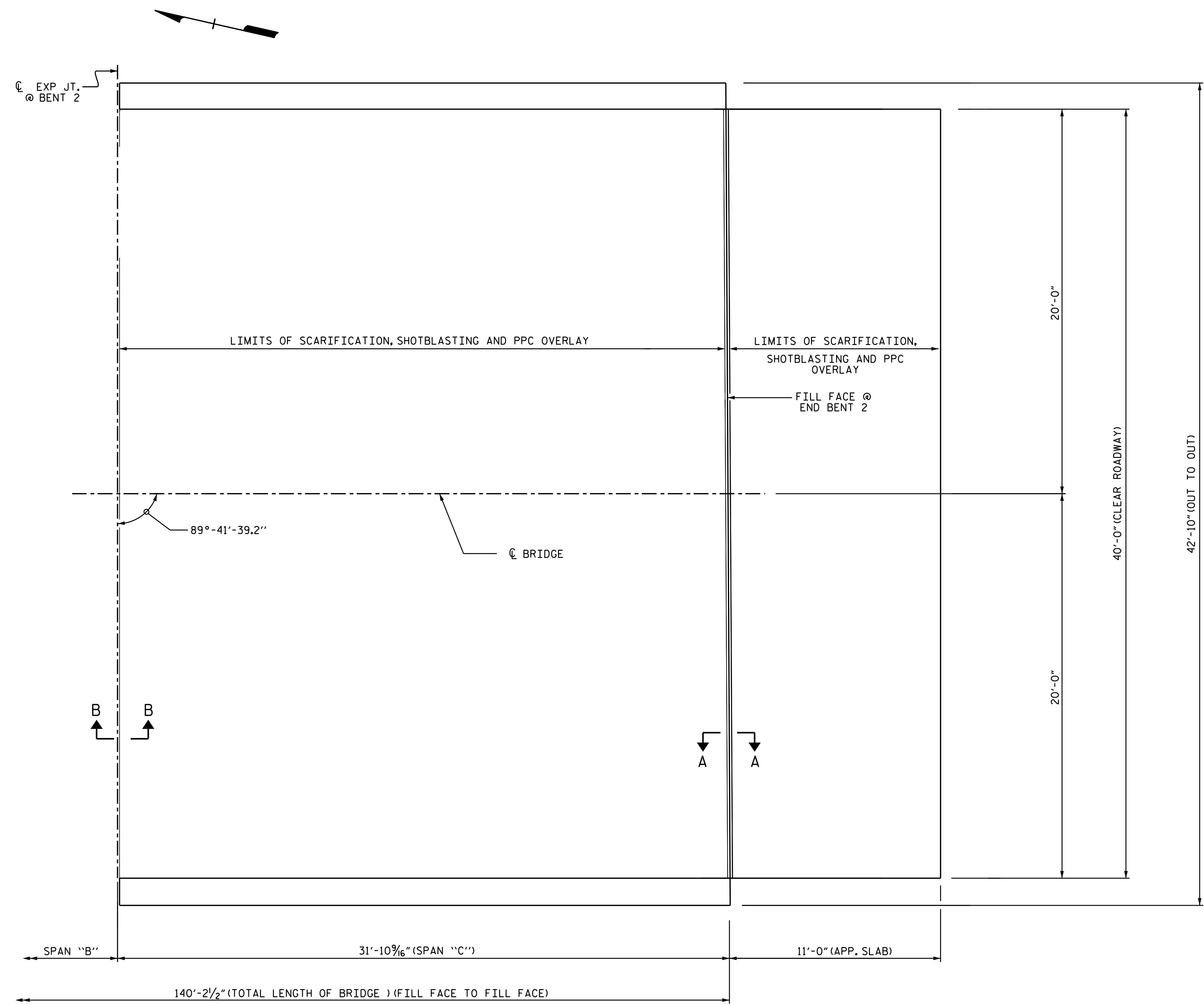
	ESTIMATE	ACTUAL
SCARIFYING BRIDGE DECK	190.6 SY	
POLYMER POLYMER CONCRETE MATERIALS	5.3 CY	
SHOTBLASTING BRIDGE DECK	190.6 SY	
PLACING & FINISHING PPC OVERLAY	190.6 SY	
CLASS II SURFACE PREPARATION	0.0 SY	
GROOVING BRIDGE DECK	1,512.6 SF	

NOTES:

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

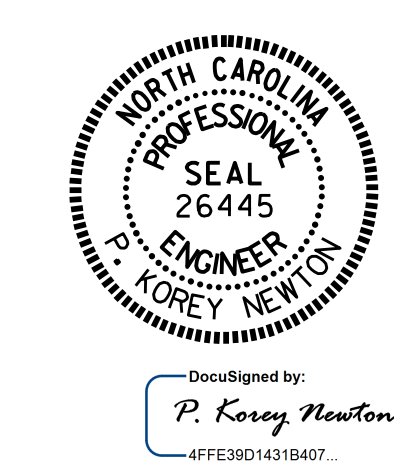
-  - SCARIFYING AND SHOTBLASTING OF BRIDGE DECK FOR PPC OVERLAY
-  - APPROX. AREA CLASS II SURFACE PREPARATION

NO DEFICIENCIES NOTED DURING FIELD INSPECTION. THE CONTRACTOR AND ENGINEER SHALL INSPECT THE DECK SURFACE AFTER SCARIFICATION FOR POTENTIAL CLASS II REPAIRS.



PLAN OF SPAN "C" AND APPROACH SLAB 2
(SEE SHEET NO. S10-6 FOR SECTIONS A-A AND B-B)

PROJECT NO. I-5940
DUPLIN COUNTY
 BRIDGE NO. 300450



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 SURFACE PREPARATION
 SPAN "C" AND
 APPROACH SLAB 2

DRAWN BY : S. T. SANDOR DATE : 01/2019
 CHECKED BY : W. C. SMITH DATE : 05/2019

REVISIONS						SHEET NO.	
NO.	BY:	DATE:	NO.	BY:	DATE:	TOTAL SHEETS	
1			3			S10-5	
2			4			113	

NOTES

CONTRACTOR SHALL NOTE THE EXISTING JOINT OPENINGS PRIOR OVERLAYING THE PPC. THE FINAL JOINT OPENINGS SHALL BE SAW TO MATCH THE EXISTING OPENINGS.

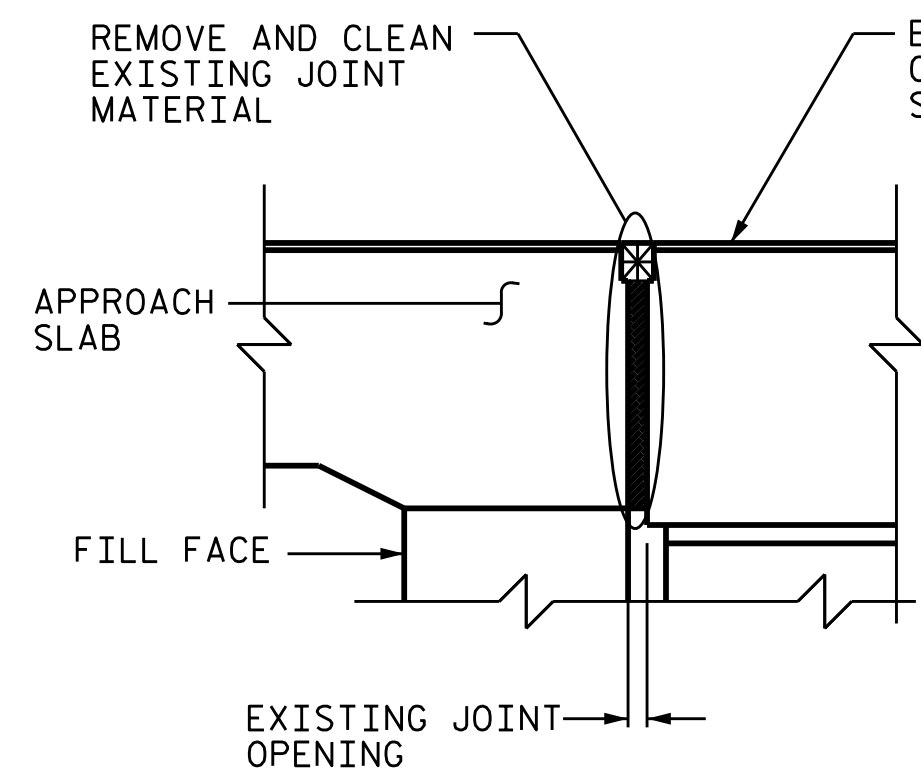
UNLESS NOTED OTHERWISE RETAIN ALL EXISTING REINFORCING STEEL. CLEAN AND REPAIR AS NEEDED.

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

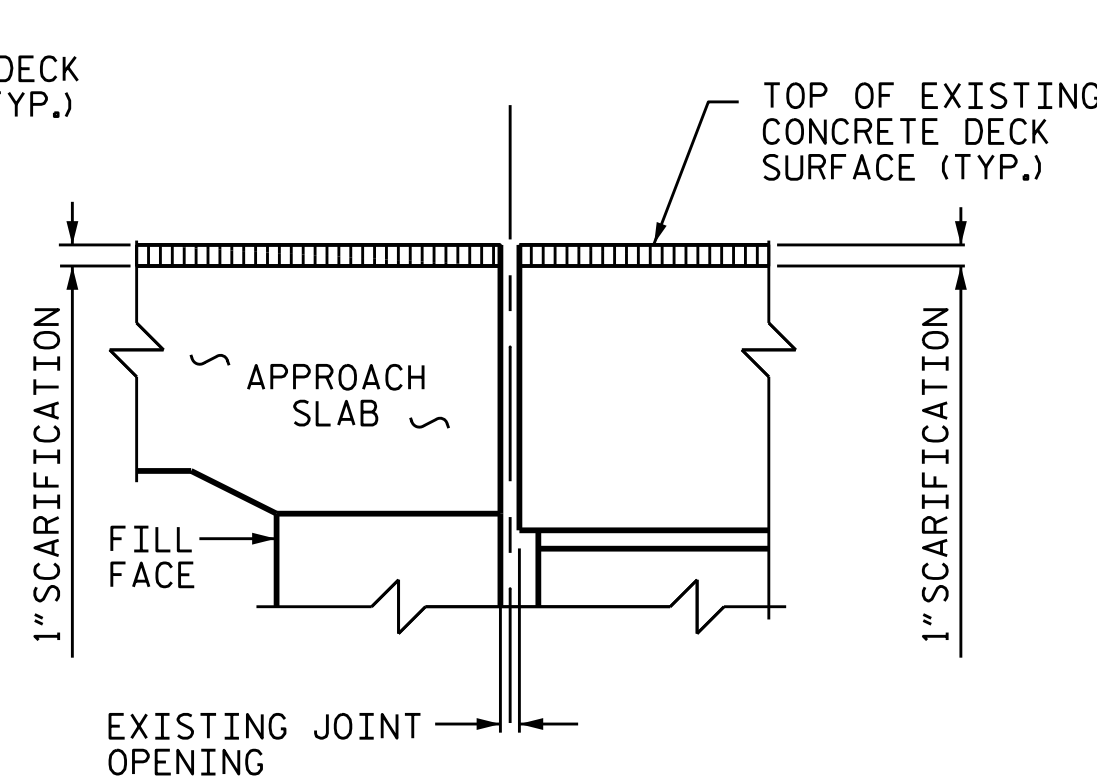
SILICONE JOINT SEALANT AND BACKER ROD SHALL BE INSTALLED AS PER MANUFACTURER'S RECOMANDATION.

THE INSTALLED SILICONE JOINT SEALANT SHALL BE WATERTIGHT.

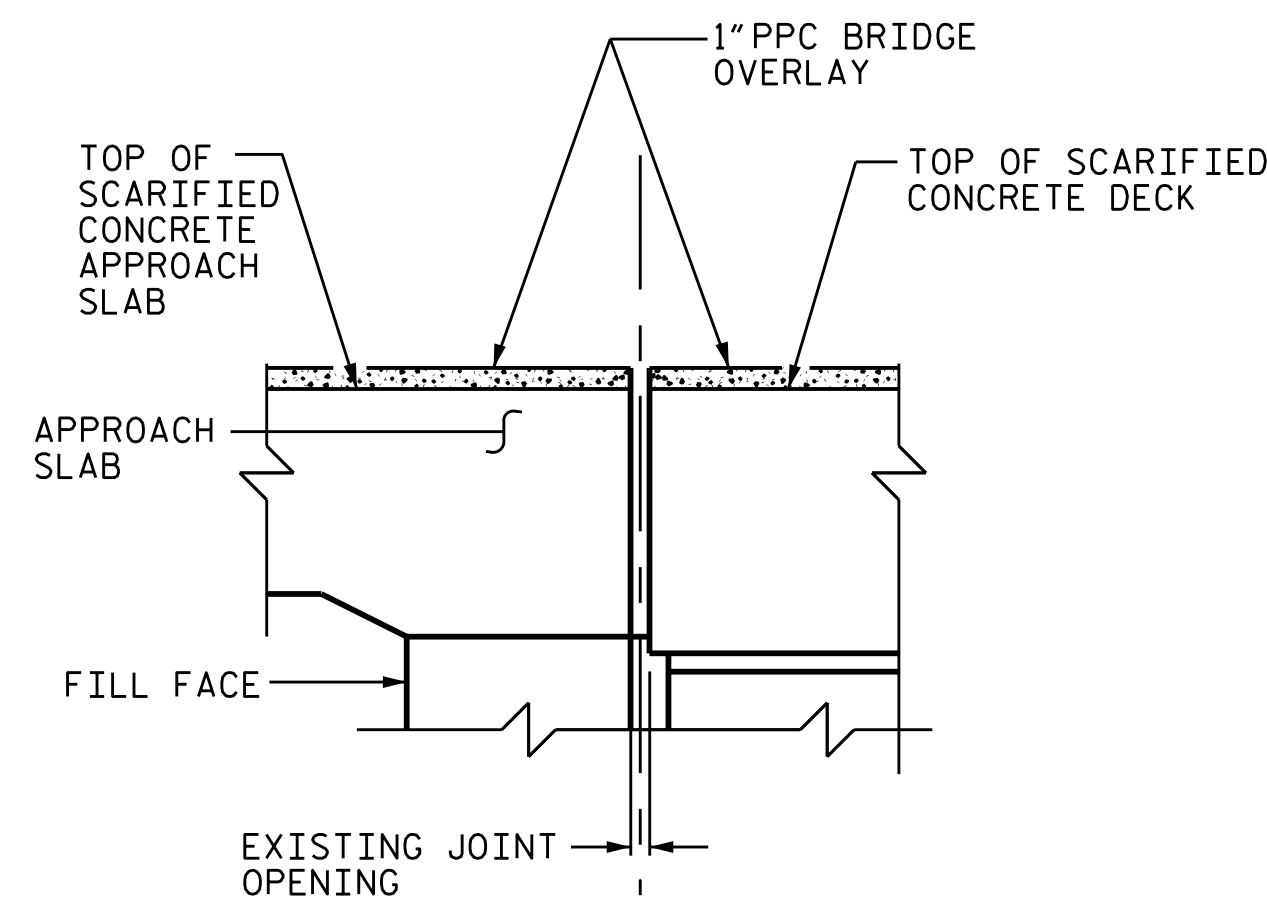
FOR POURABLE SILICONE JOINT SEALANT, SEE SPECIAL PROVISIONS.



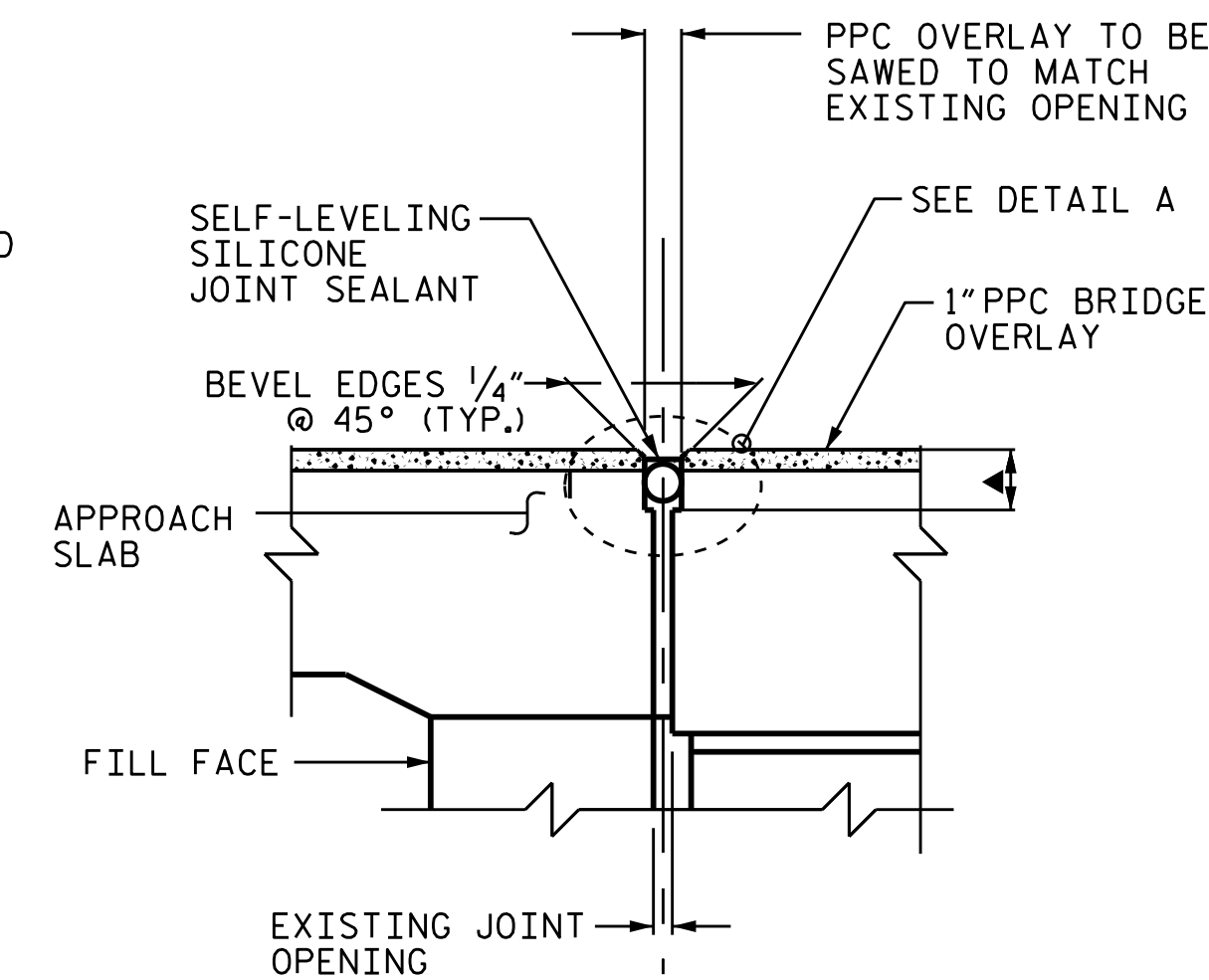
EXISTING JOINT



MINIMUM EXISTING JOINT REMOVAL & SCARIFICATION



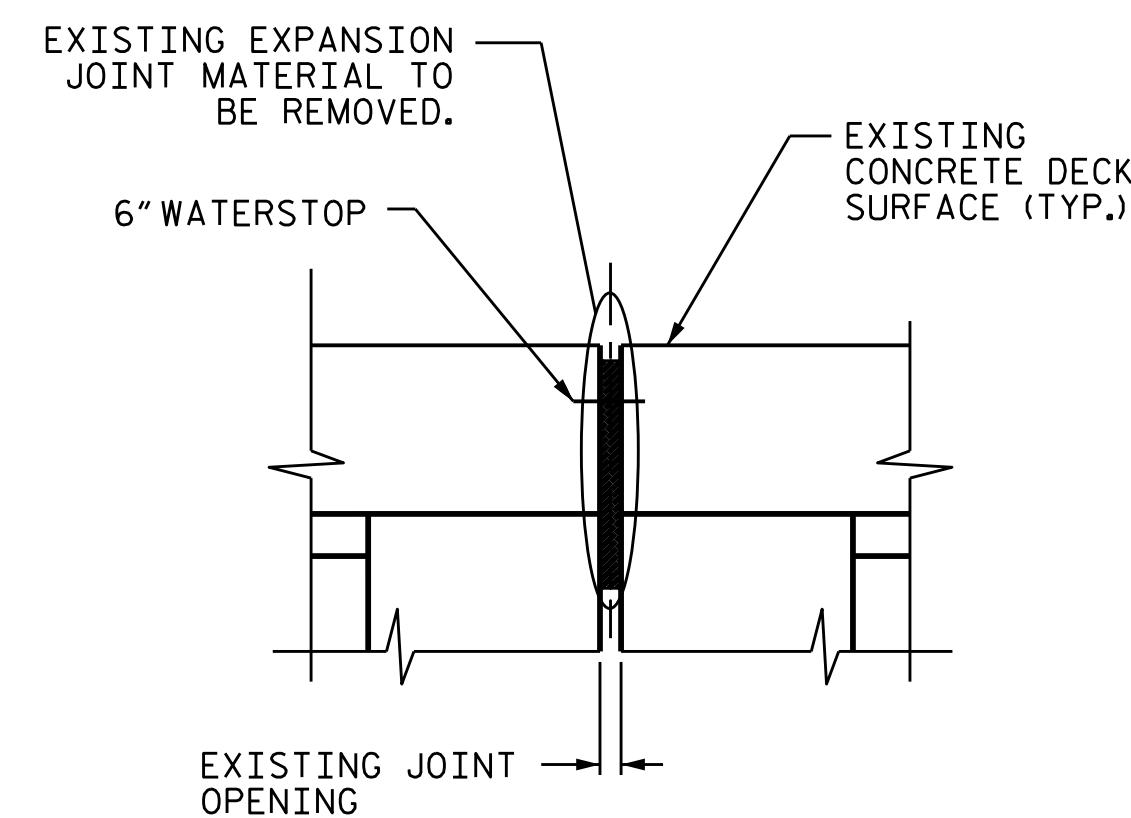
PROPOSED JOINT PRE-SAWED & PPC OVERLAY



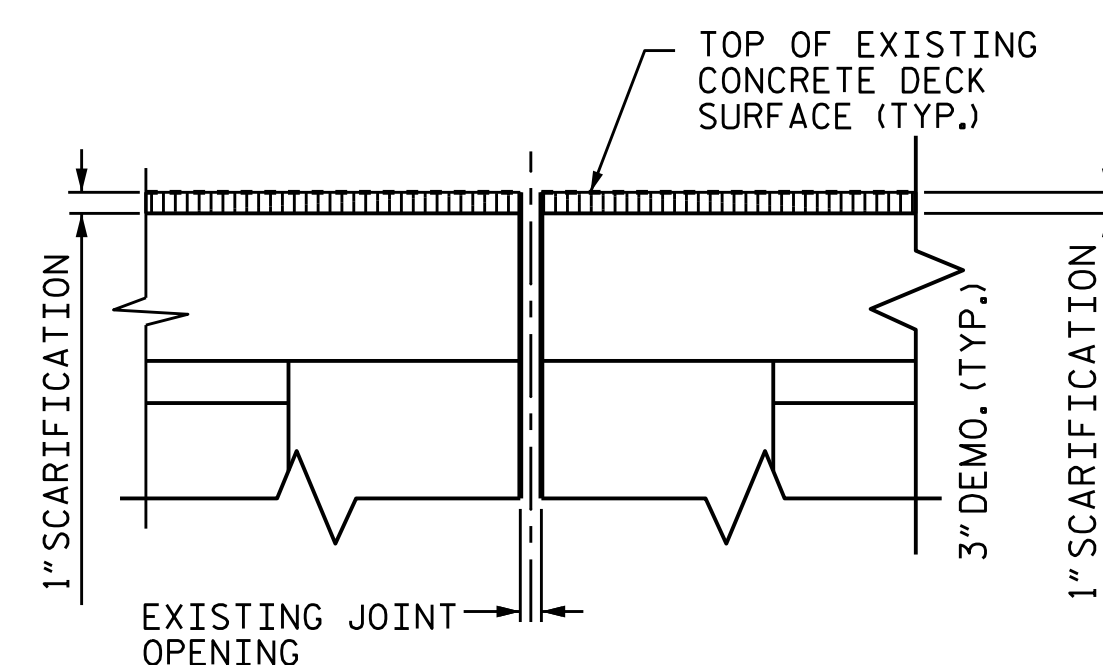
PROPOSED JOINT WITH SAWED DIMENSIONS

JOINT INSTALLATION SEQUENCE AT END BENTS

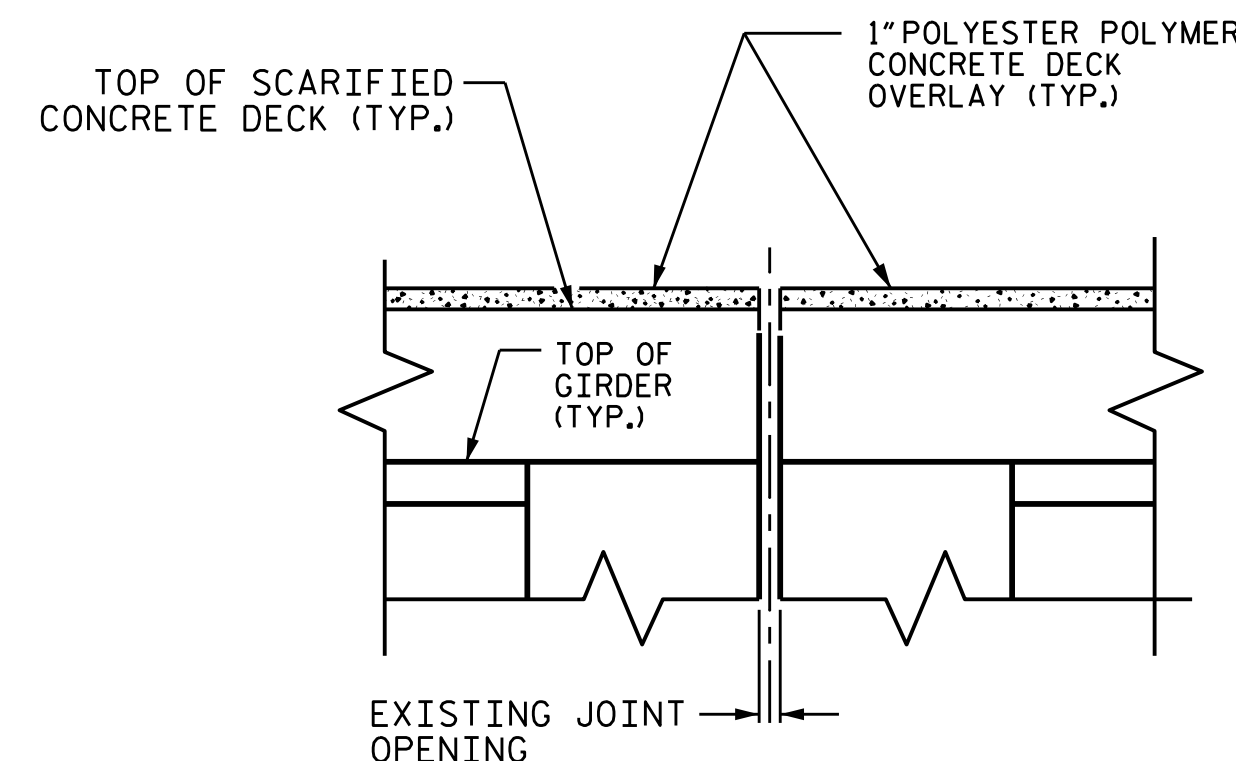
SECTION A-A



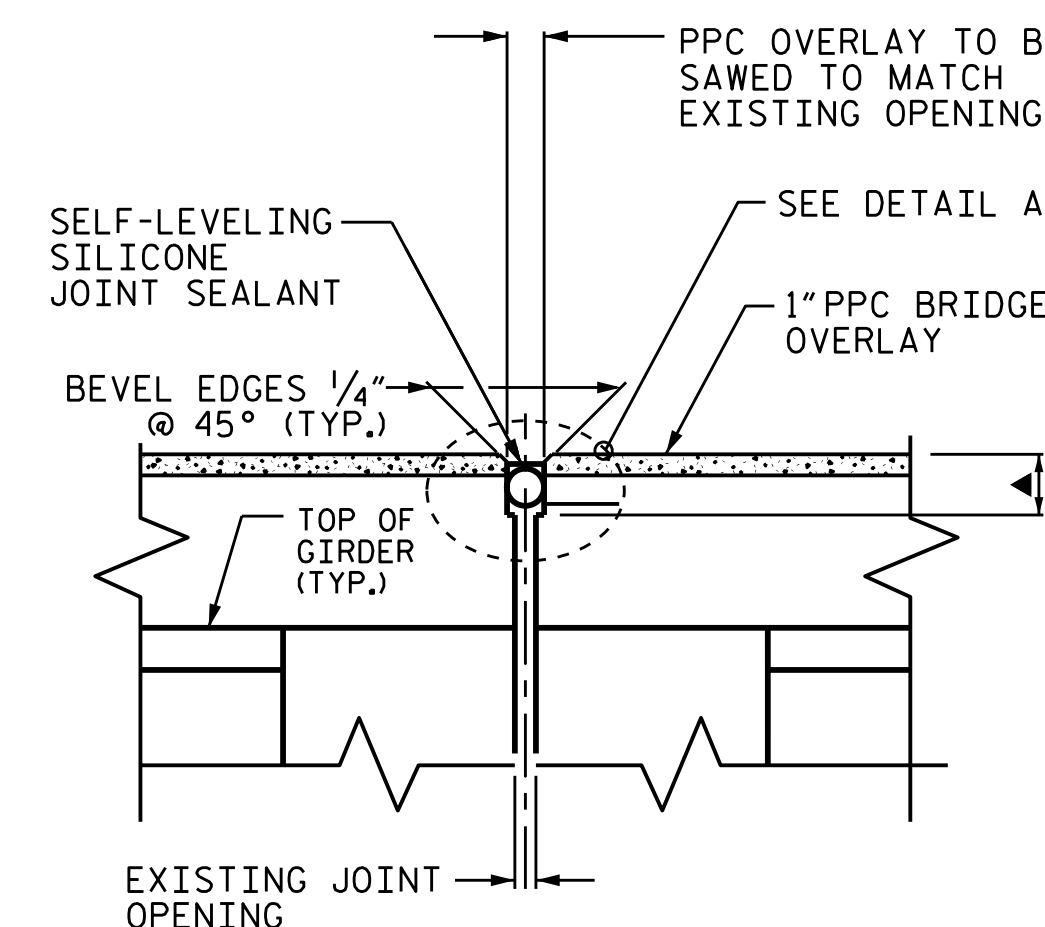
EXISTING JOINT



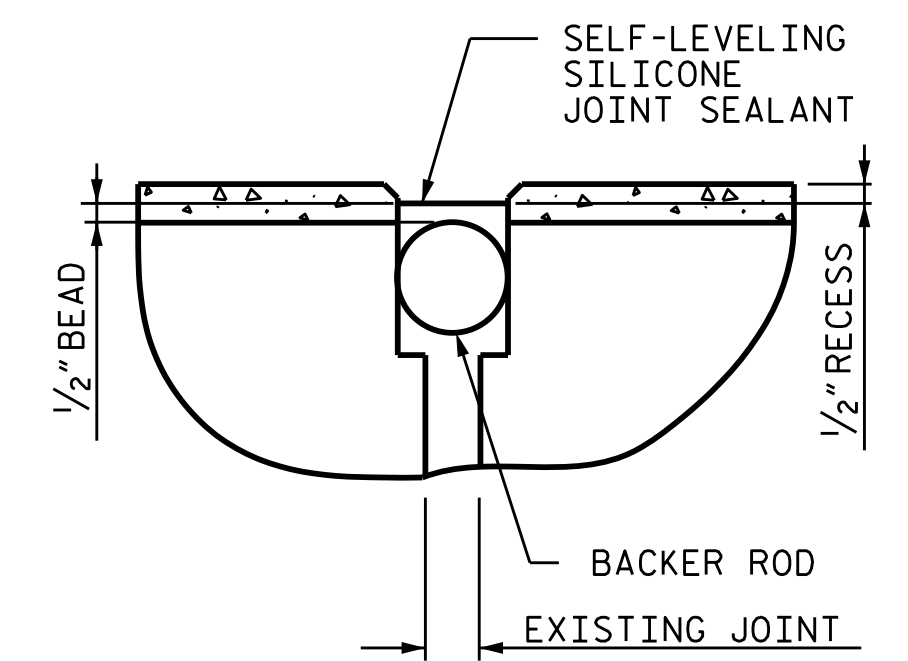
MINIMUM EXISTING JOINT REMOVAL & SCARIFICATION



PROPOSED JOINT PRE-SAWED & PPC OVERLAY



PROPOSED JOINT WITH SAWED DIMENSIONS

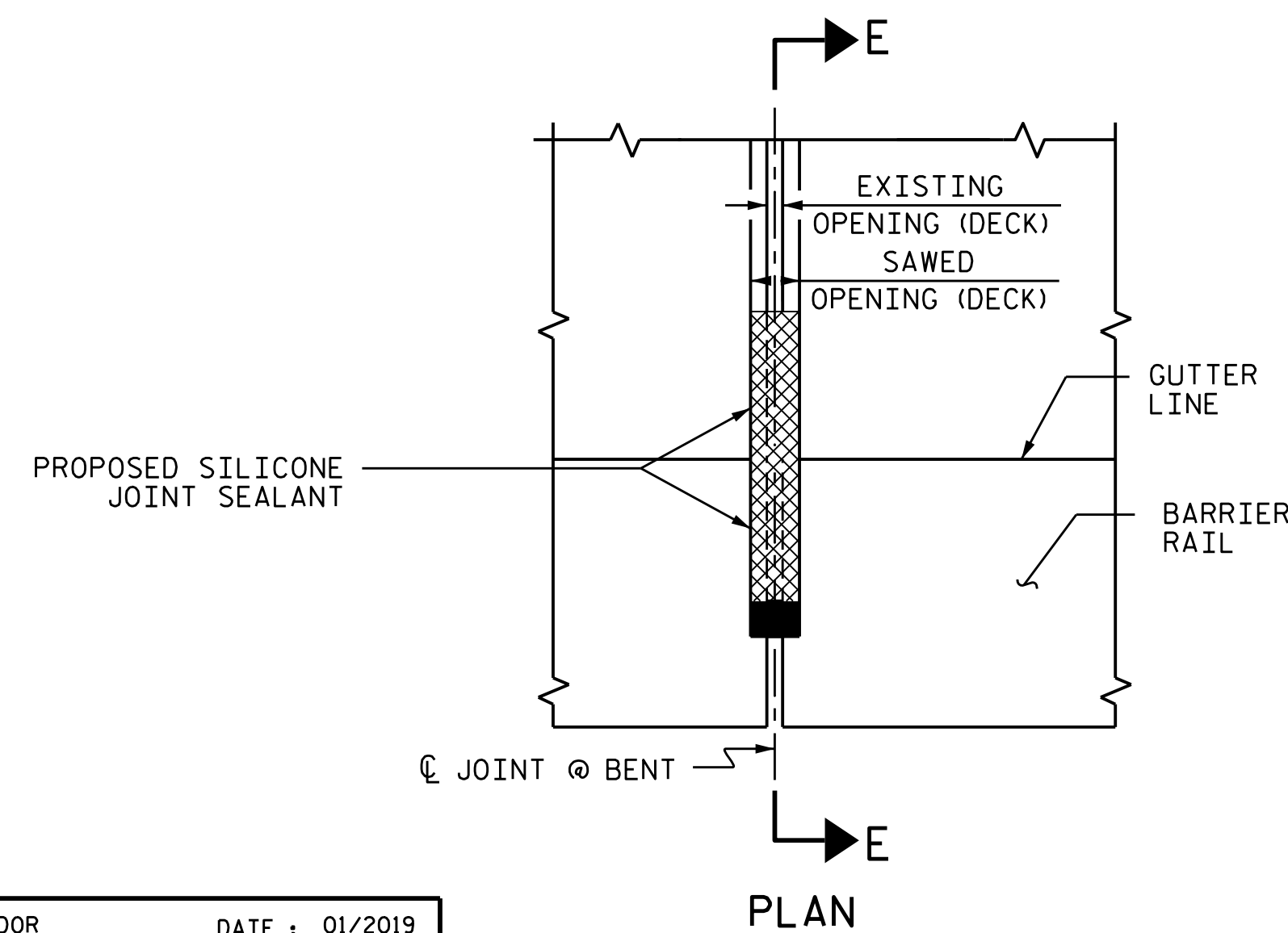


DETAIL A

▲ SAW CUT SHALL BE 3/4" BELOW THE BOTTOM OF THE JOINT SEAL. SEE MANUFACTURER RECOMMENDATIONS

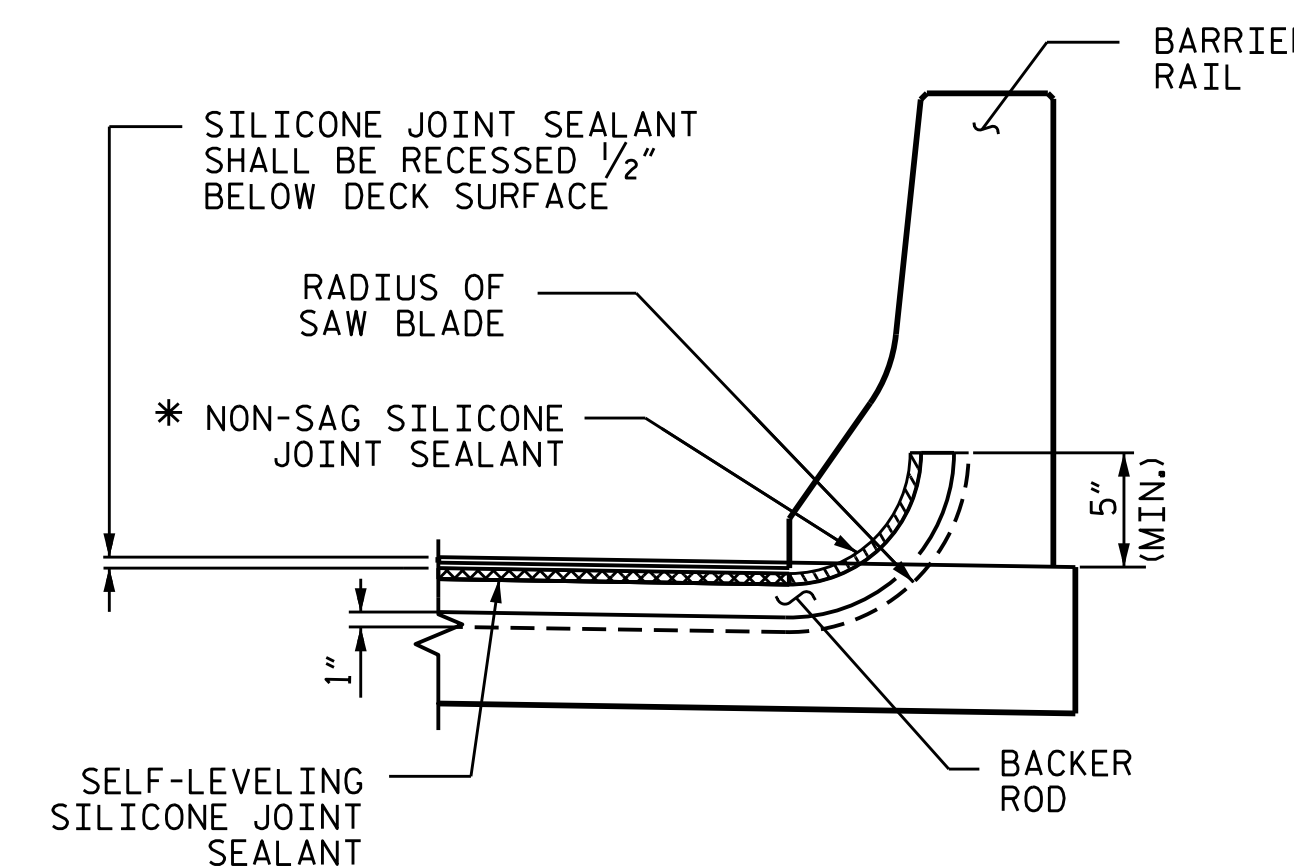
JOINT INSTALLATION SEQUENCE AT BENTS

SECTION B-B



PLAN

*NON-SAG SILICONE JOINT SEALANT TO BE PLACED AND ALLOWED TO SET, PRIOR TO PLACEMENT OF SELF-LEVELING SILICONE JOINT SEALANT.



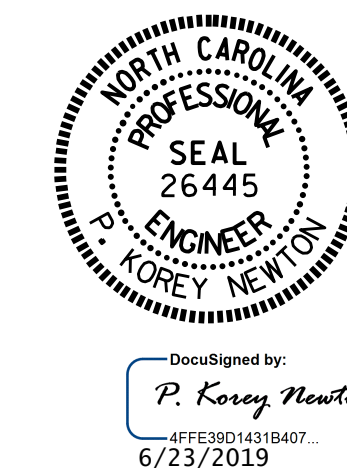
SECTION E-E

JOINT DETAIL AT BARRIER RAIL

PROJECT NO. I-5940
DUPLIN COUNTY
 BRIDGE NO. 300449 & 300450

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

JOINT REPAIR DETAILS

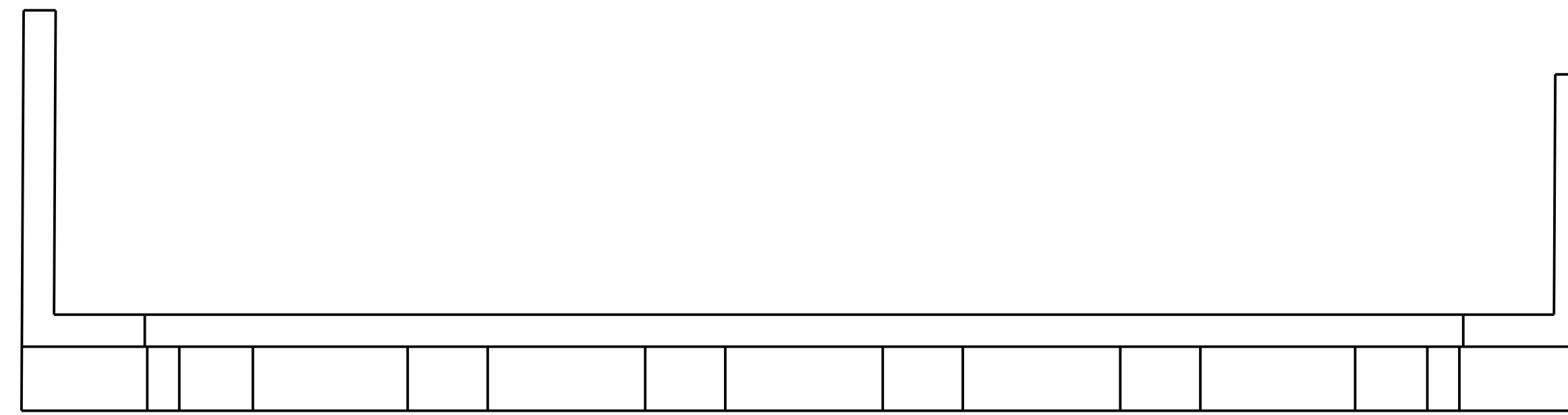


DocuSigned by:
 P. Corey Newton
 6/23/2019

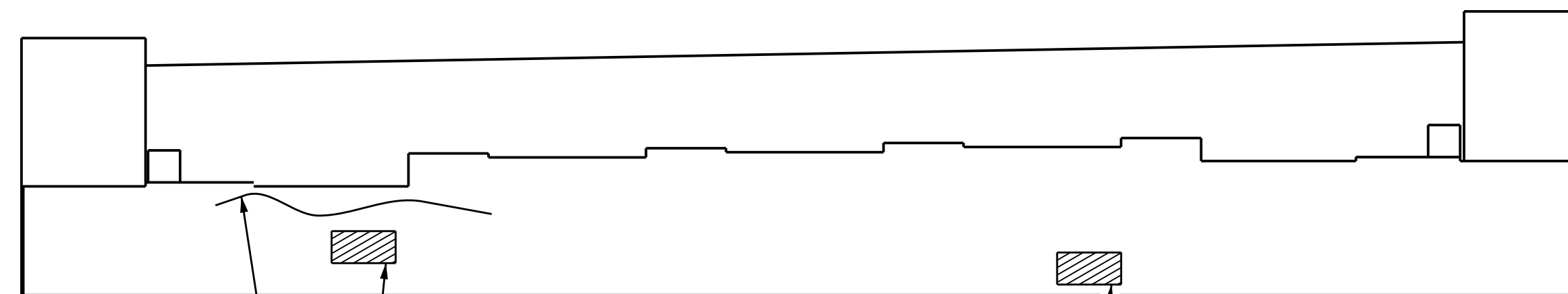
DRAWN BY : S. T. SANDOR DATE : 01/2019
 CHECKED BY : W. C. SMITH DATE : 05/2019

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1			3			S10-6
2			4			113



PLAN
(TOP OF CAP)



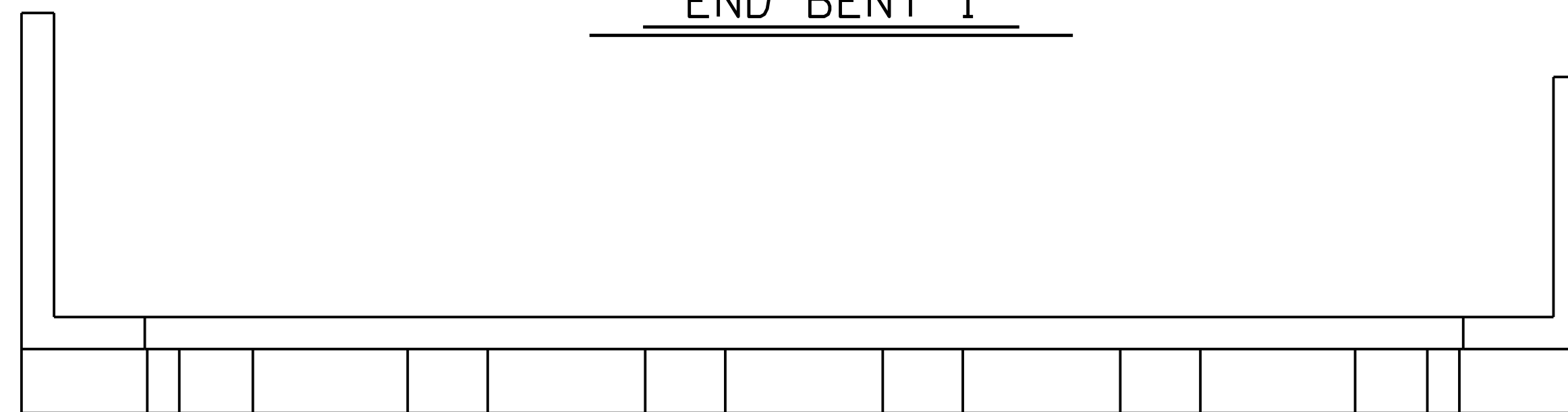
15 FT. ERI
(TOTAL)

2.0 S.F.

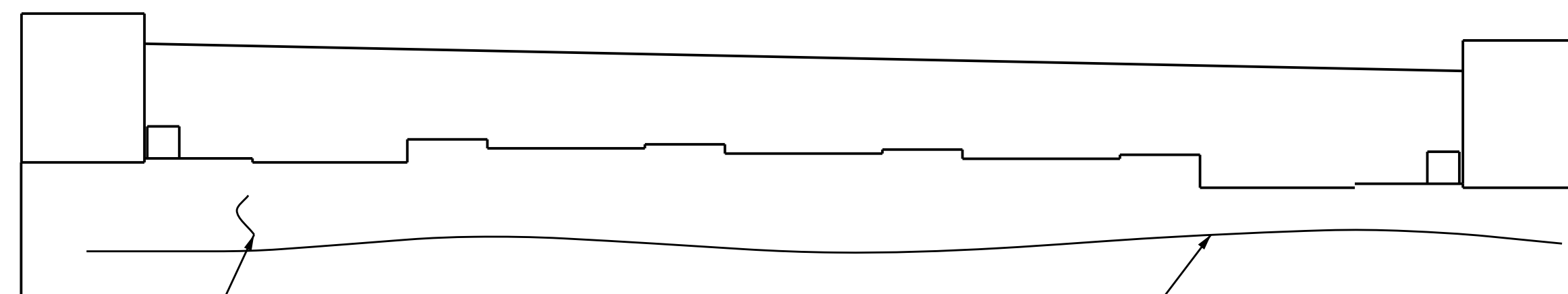
2.0 S.F.

ELEVATION

END BENT 1



PLAN
(TOP OF CAP)



4 FT. ERI

50 FT. ERI
(TOTAL)

ELEVATION

END BENT 2

REPAIR QUANTITY TABLE

REPAIRS END BENT 1 & 2	QUANTITIES			
	ESTIMATE		ACTUAL	
CONCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL, CORNER)	0.0	0.0		
COLUMN	0.0	0.0		
SHOTCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	4.0	2.0		
CAP (HORIZONTAL, CORNER)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION	LN. FT		LN. FT	
CAP	69.0			
COLUMN	0.0			

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

ERI - EPOXY RESIN INJECTION

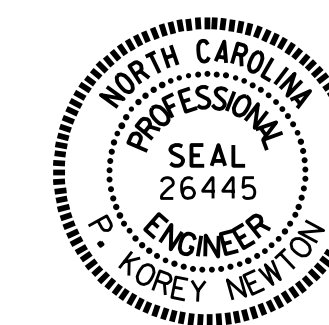
▨ - SHOTCRETE REPAIRS

▩ - CONCRETE REPAIRS

PROJECT NO. I-5940

DUPLIN COUNTY

BRIDGE NO. 300450



DocuSigned by:
P. Corey Newton
6/23/2019

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

SUBSTRUCTURE
REPAIR
END BENT 1 &
END BENT 2

DRAWN BY : S. T. SANDOR DATE : 01/2019
CHECKED BY : W. C. SMITH DATE : 05/2019

23-JUN-2019 19:05
S:\DPG\Division3\I5940\Stefan's Dwg's\410.0169.1-5940.SMU. E*.300450.dgn
pknewton

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FINAL UNLESS ALL
SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	TOTAL SHEETS
1			3			S10-7
2			4			113

NOTES:

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

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR CONCRETE REPAIRS, SEE SPECIAL PROVISIONS.

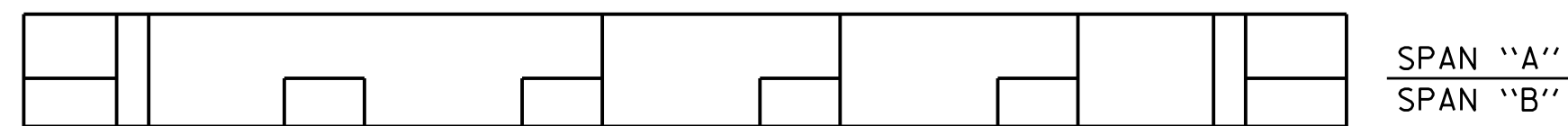
FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.

CONCRETE REPAIRS MAY BE SUBSTITUTED IN LIEU OF SHOTCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

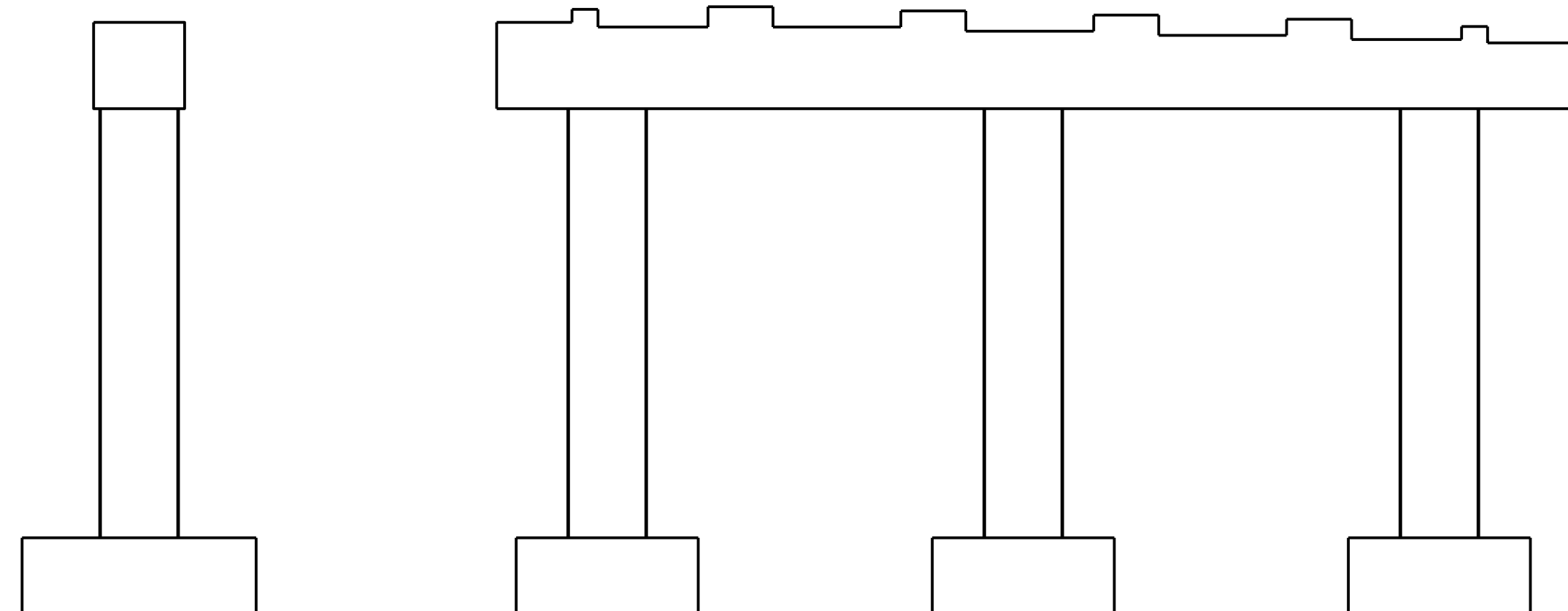
REPAIR QUANTITY TABLE

BENT 1	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	6.0	3.0		
COLUMN	24.0	12.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		

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

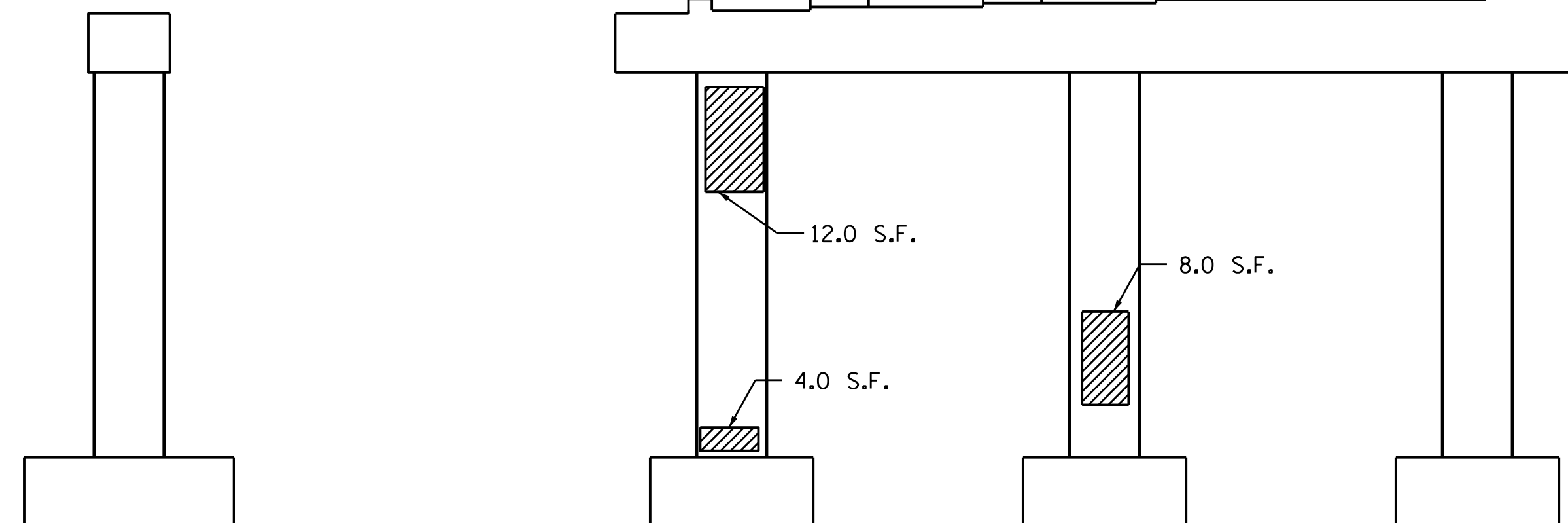


PLAN
TOP OF CAP



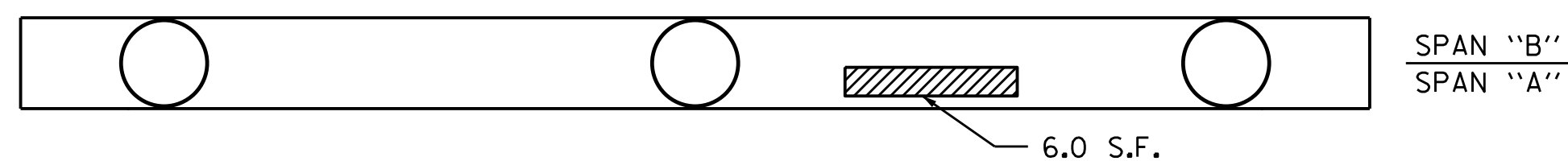
END VIEW
NORTH END

ELEVATION
WEST SIDE



END VIEW
SOUTH SIDE

ELEVATION
EAST SIDE



PLAN
BOTTOM OF CAP

- CONCRETE REPAIR
- SHOTCRETE REPAIR
- ERI EPOXY RESIN INJECTION

PROJECT NO. I-5940
DUPLIN COUNTY
 BRIDGE NO. 300450



DocuSigned by:
P. Corey Newton
 49FE39D14518A07...
 6/23/2019

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
SUBSTRUCTURE
BENT 1

DRAWN BY : P. D. BRYANT / S. T. SANDOR DATE : 01/2019
 CHECKED BY : W. C. SMITH DATE : 05/2019

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REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	TOTAL SHEETS
1			3			S10-8
2			4			113

NOTES:

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FOR CONCRETE REPAIRS, SEE SPECIAL PROVISIONS.

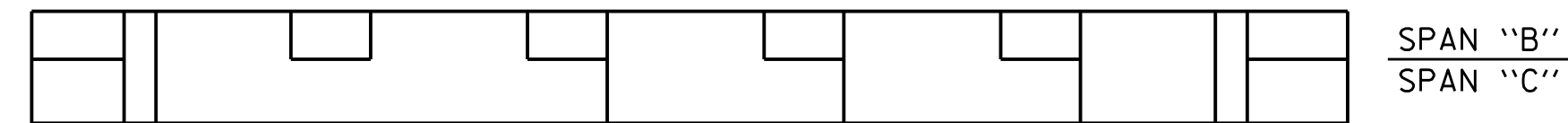
FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.

CONCRETE REPAIRS MAY BE SUBSTITUTED IN LIEU OF SHOTCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

REPAIR QUANTITY TABLE

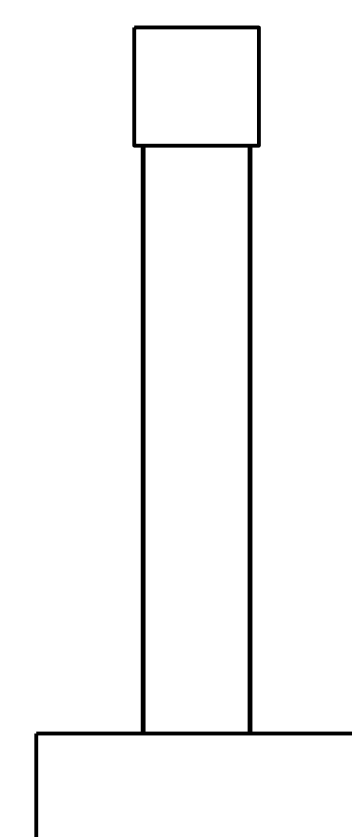
BENT 2	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	2.0	1.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		

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

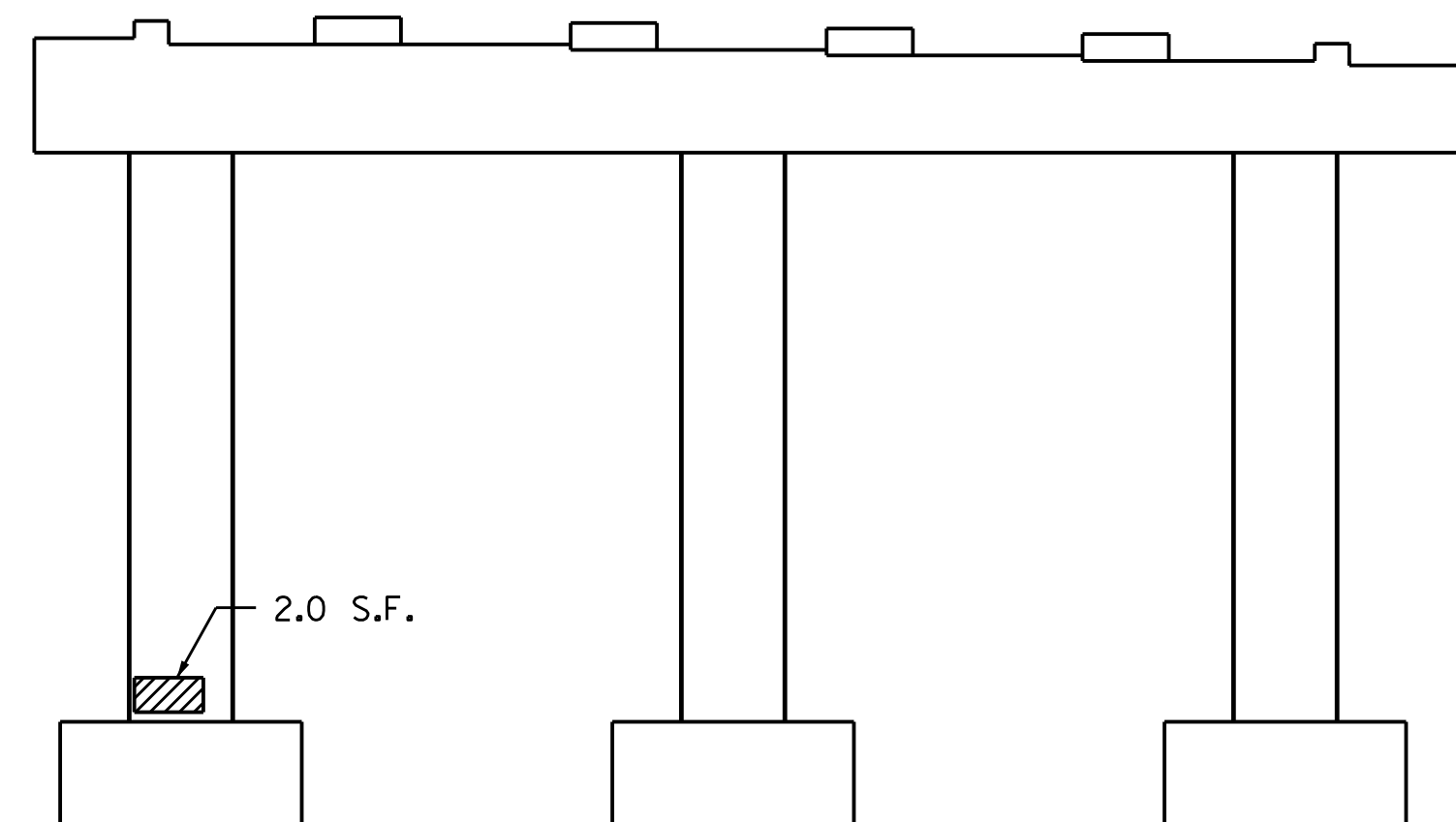


SPAN "B"
SPAN "C"

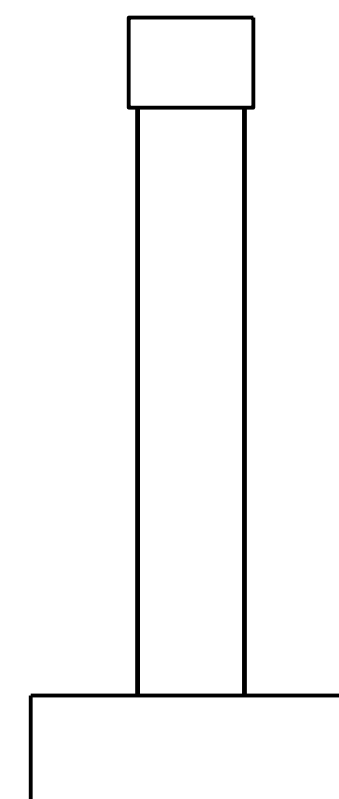
PLAN
TOP OF CAP



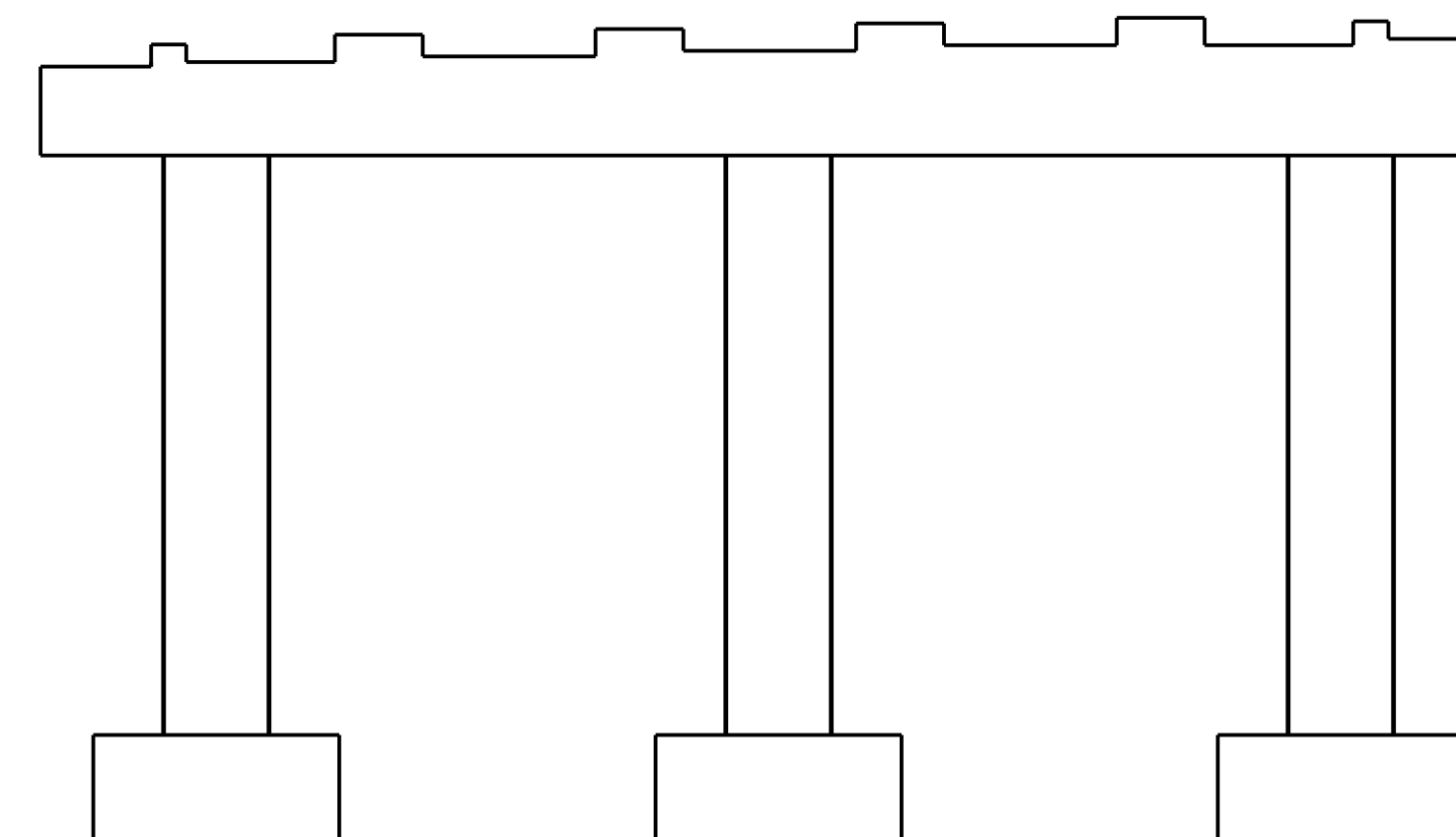
END VIEW
NORTH END



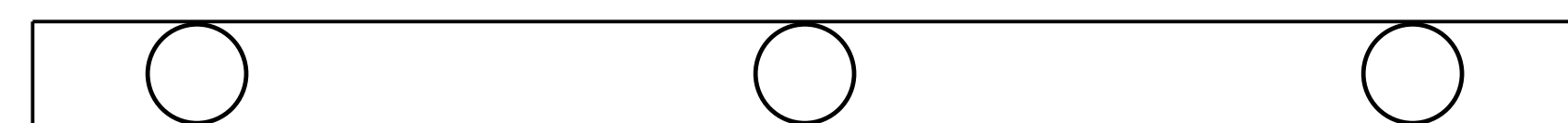
ELEVATION
WEST SIDE



END VIEW
SOUTH SIDE



ELEVATION
EAST SIDE



SPAN "C"
SPAN "B"

PLAN
BOTTOM OF CAP

- CONCRETE REPAIR
- SHOTCRETE REPAIR
- ERI EPOXY RESIN INJECTION

PROJECT NO. I-5940
DUPLIN COUNTY
BRIDGE NO. 300450



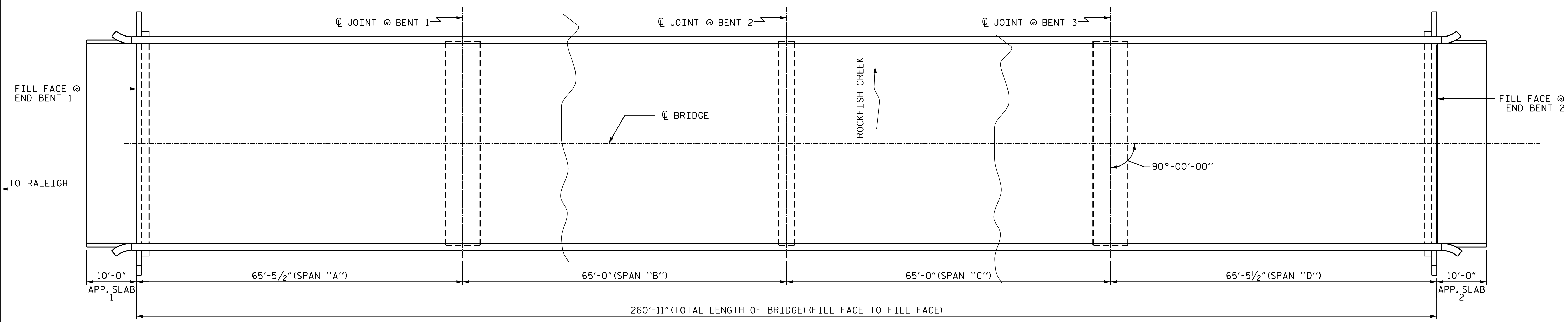
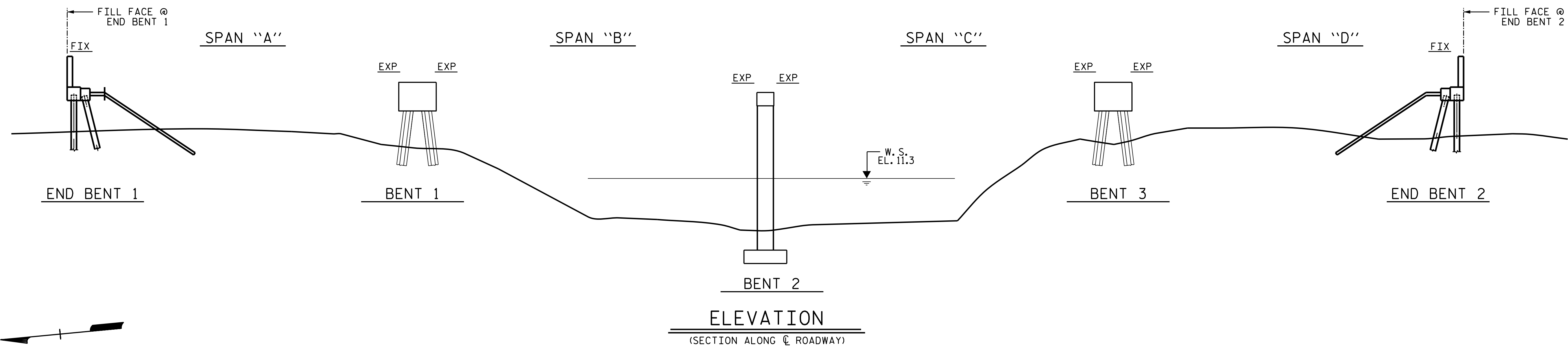
DocuSigned by:
P. Corey Newton
6/23/2019

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
SUBSTRUCTURE
BENT 2

DRAWN BY : P. D. BRYANT / S. T. SANDOR DATE : 01/2019
CHECKED BY : W. C. SMITH DATE : 05/2019

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REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	TOTAL SHEETS
1			3			S10-9
2			4			113



SCOPE OF WORK

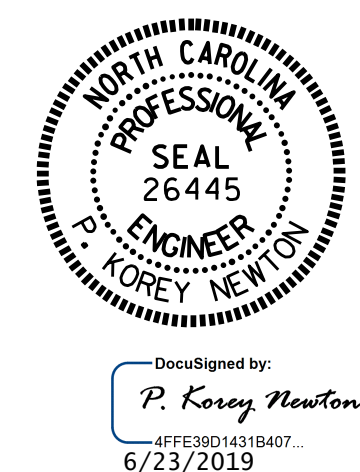
- PARTIALLY REMOVE BRIDGE DECK CONCRETE BY SCARIFICATION AND SHOTBLASTING METHODS.
- PERFORM DECK REPAIRS IN PREPARED AREAS.
- OVERLAY PREPARED BRIDGE DECK WITH POLYESTER POLYMER CONCRETE.
- RECONSTRUCT BRIDGE JOINTS AND INSTALL BACKER ROD AND SILICONE JOINT SEALANT.
- GROOVE POLYESTER POLYMER CONCRETE DECK.
- REPAIR SUBSTRUCTURE USING EPOXY RESIN INJECTION AND SHOTCRETE.

NOTES

- PROFILE INFORMATION IS TAKEN FROM ORIGINAL PLANS AND THE ROUTINE INSPECTION, DATED 10/24/2016.
- BRIDGE ORIENTATION CONFORMS TO EXISTING BRIDGE PLANS.

I hereby certify that this structure was rehabilitated according to these plans or as noted therein.

Resident Engineer _____ Date _____



PROJECT NO. I-5940
PENDER COUNTY
 BRIDGE NO. 700234

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
GENERAL DRAWING
 FOR BRIDGE 234 ON
 I-40 WBL OVER
 ROCKFISH CREEK

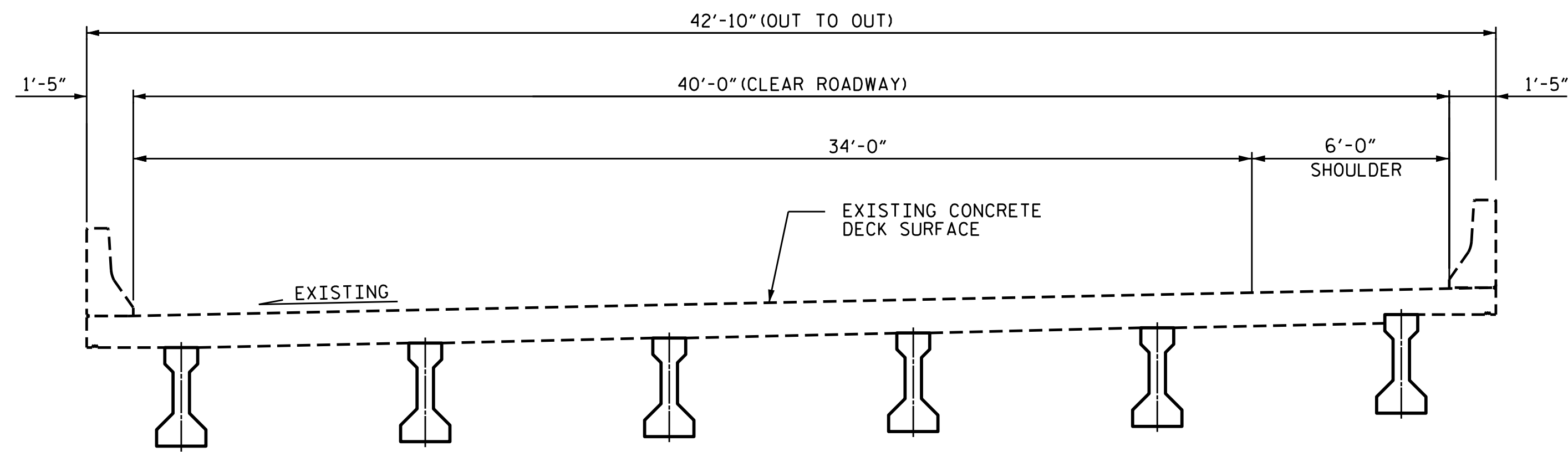
DRAWN BY : S. T. SANDOR DATE : 12/2018
 CHECKED BY : W. C. SMITH DATE : 05/2019

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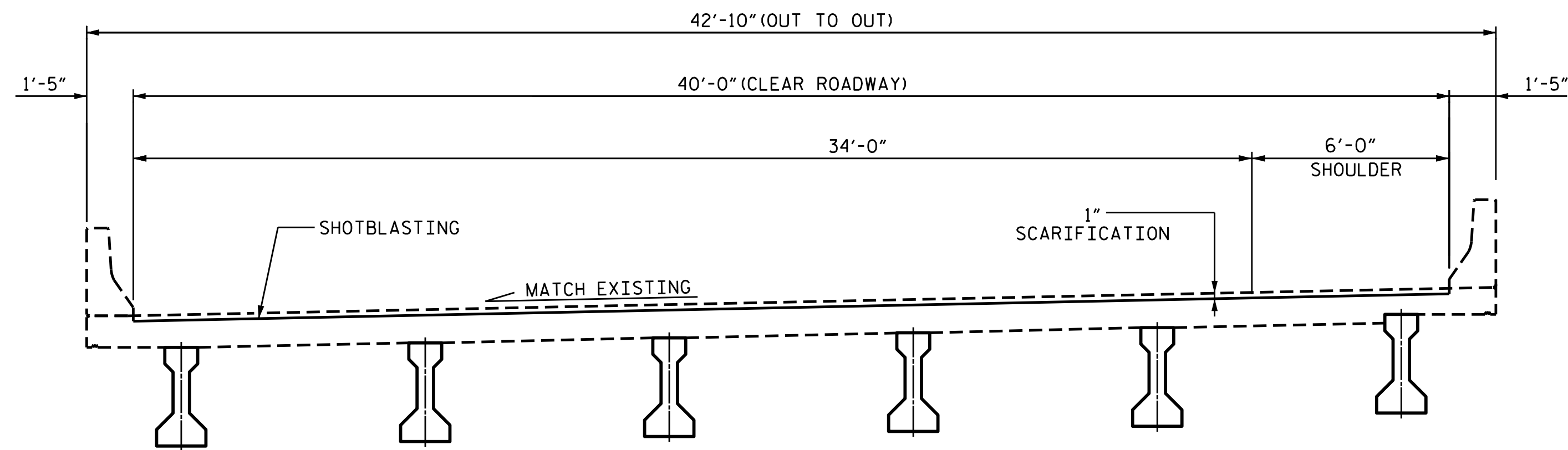
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NO.	BY:	DATE:	NO.	BY:	DATE:	TOTAL SHEETS
1			3			S11-1
2			4			113

NOTES

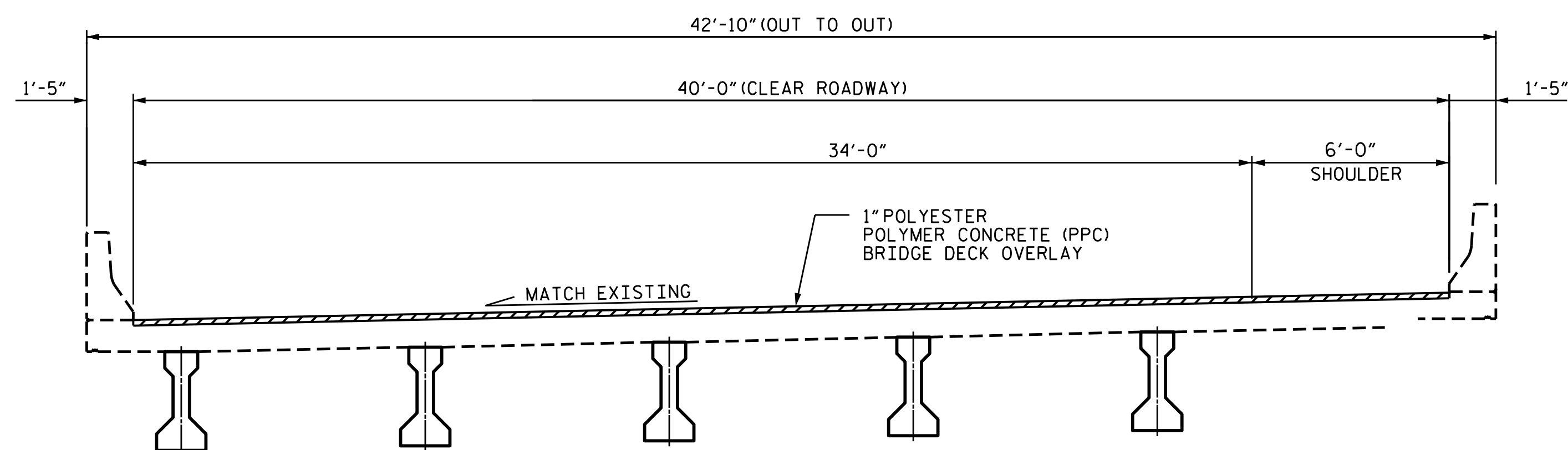
SEE TRANSPORTATION MANAGEMENT PLANS FOR LANE WIDTHS, SEQUENCING AND OTHER TRAFFIC CONTROL MEASURES FOR STAGING OF OVERLAY SURFACE PREPARATION AND POLYESTER POLYMER CONCRETE PLACEMENT.



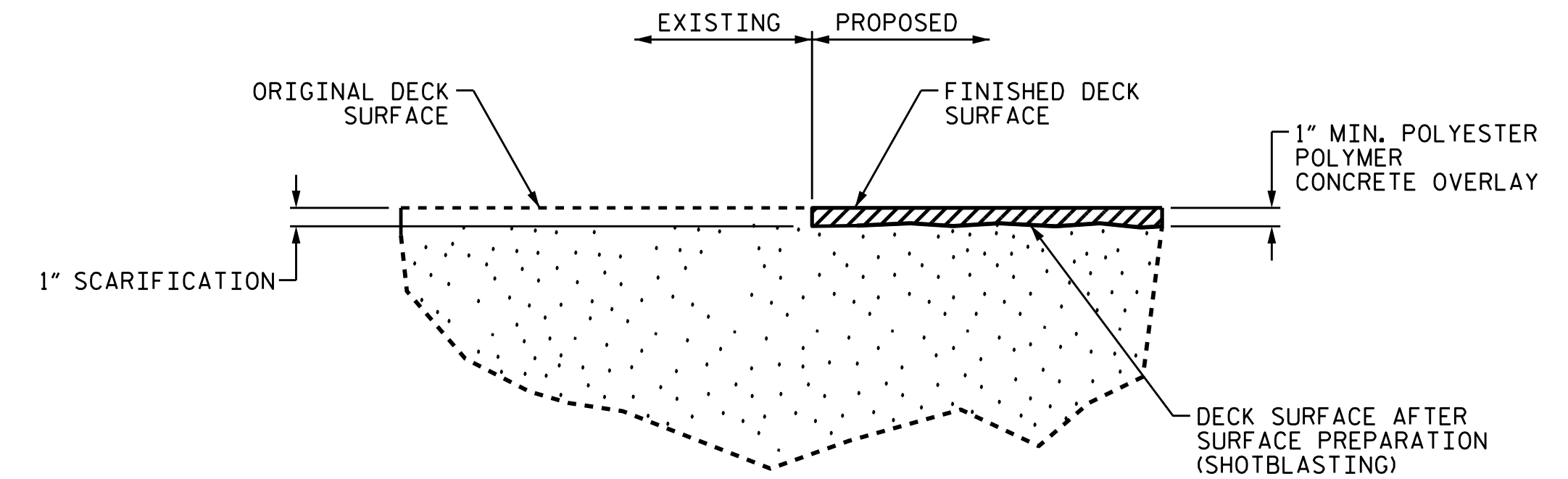
TYPICAL SECTION
(EXISTING)



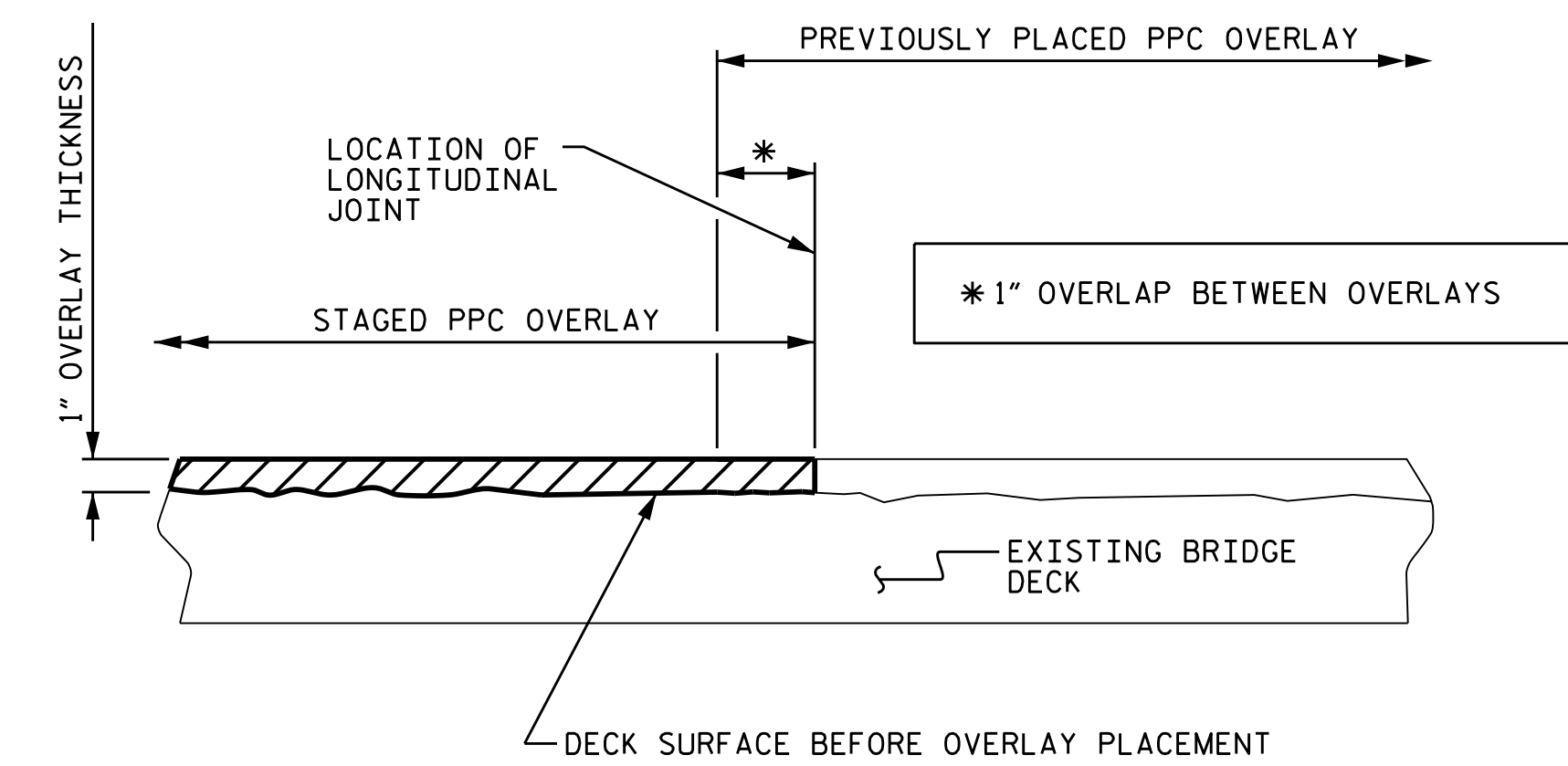
TYPICAL SECTION
(DECK PREPARATION)



TYPICAL SECTION
(PROPOSED)

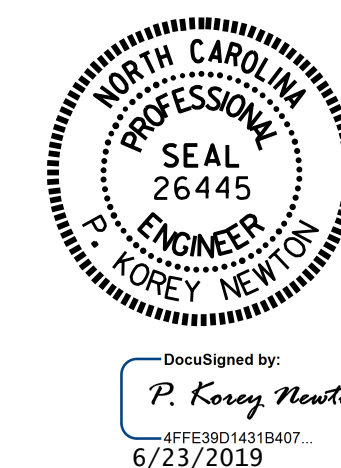


DETAIL FOR POLYESTER POLYMER CONCRETE OVERLAY



STAGED PPC OVERLAY JOINT
(AS NEEDED)

PROJECT NO. I-5940
PENDER COUNTY
 BRIDGE NO. 700234

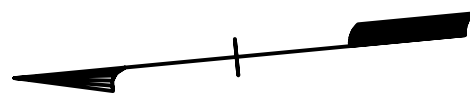


STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
**TYPICAL SECTION
 AND SURFACE
 PREPARATION DETAILS**

DRAWN BY : S. T. SANDOR DATE : 01/2019
 CHECKED BY : W. C. SMITH DATE : 05/2019

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2			4			113



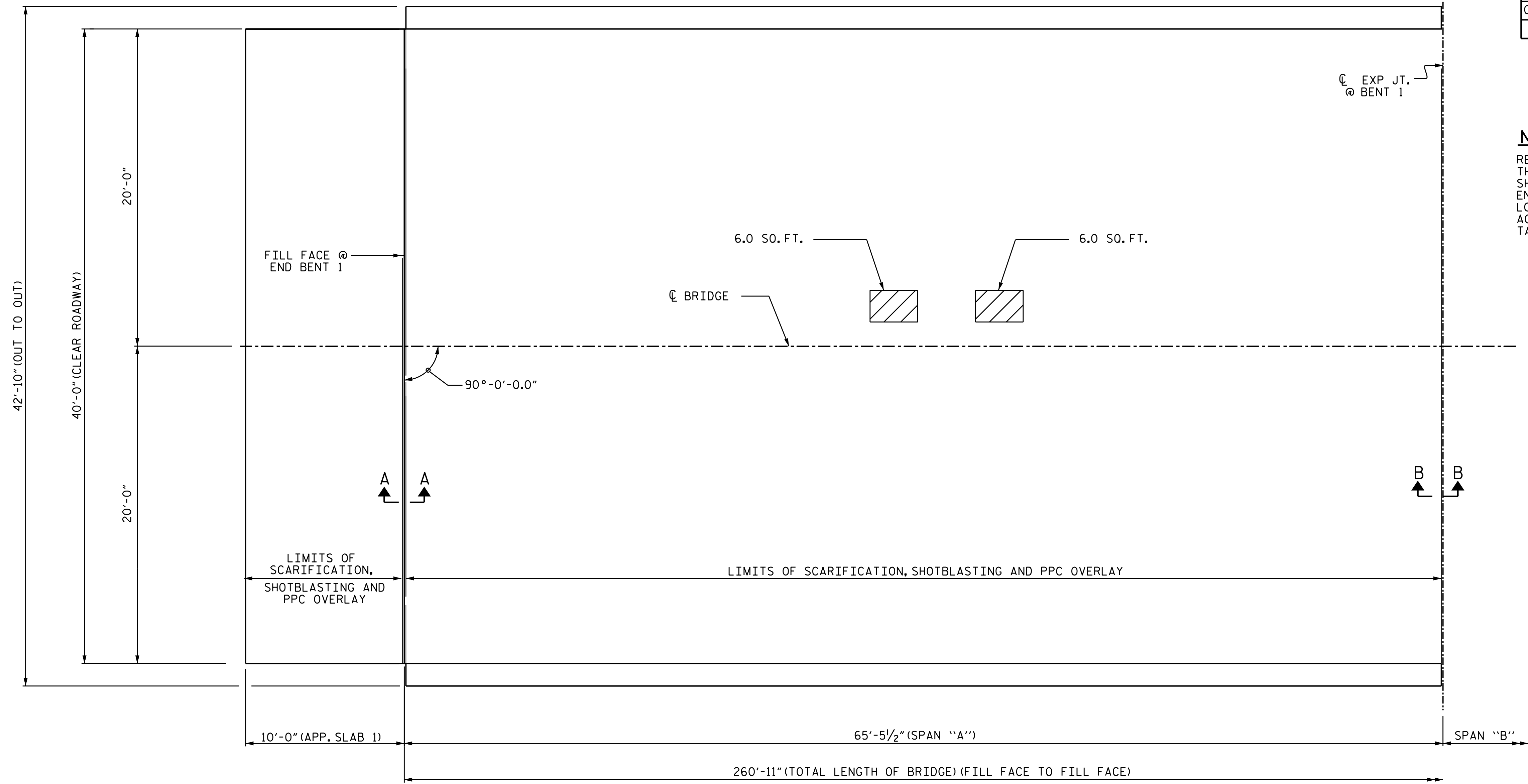
SUMMARY OF QUANTITIES FOR SPAN "A" AND APPROACH SLAB 1

	ESTIMATE	ACTUAL
SCARIFYING BRIDGE DECK	335.4 SY	
POLYSTER POLYMER CONCRETE MATERIALS	9.3 CY	
CLASS II SURFACE PREPARATION	1.4 SY	
SHOTBLASTING BRIDGE DECK	335.4 SY	
PLACING & FINISHING PPC OVERLAY	335.4 SY	
GROOVING BRIDGE DECK	2,718.1 SF	

NOTES:

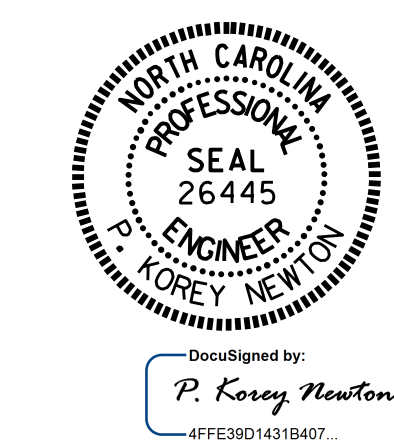
REPAIR LOCATIONS AND ESTIMATED QUANTITIES ARE GIVEN WITH THE BEST INFORMATION AVAILABLE. IF ADDITIONAL REPAIRS NOT SHOWN IN DRAWINGS ARE DEEMED NECESSARY BY ENGINEER, THE ENGINEER WILL NOTE ON THE DRAWINGS THE APPROXIMATE LOCATIONS AND DESCRIPTION OF THE REPAIRS AND ADJUST THE ACTUAL QUANTITIES ENTERED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

- SCARIFYING AND SHOTBLASTING OF BRIDGE DECK FOR PPC OVERLAY
- APPROX. AREA CLASS II SURFACE PREPARATION



PLAN OF SPAN "A" AND APPROACH SLAB 1
(SEE SHEET NO. S12-7 FOR SECTIONS A-A AND B-B)

PROJECT NO. I-5940
PENDER COUNTY
 BRIDGE NO. 700234



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 SURFACE PREPARATION
 SPAN "A" AND
 APPROACH SLAB 1

DRAWN BY : S. T. SANDOR DATE : 01/2019
 CHECKED BY : W. C. SMITH DATE : 05/2019

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



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1			3			S11-3
2			4			113

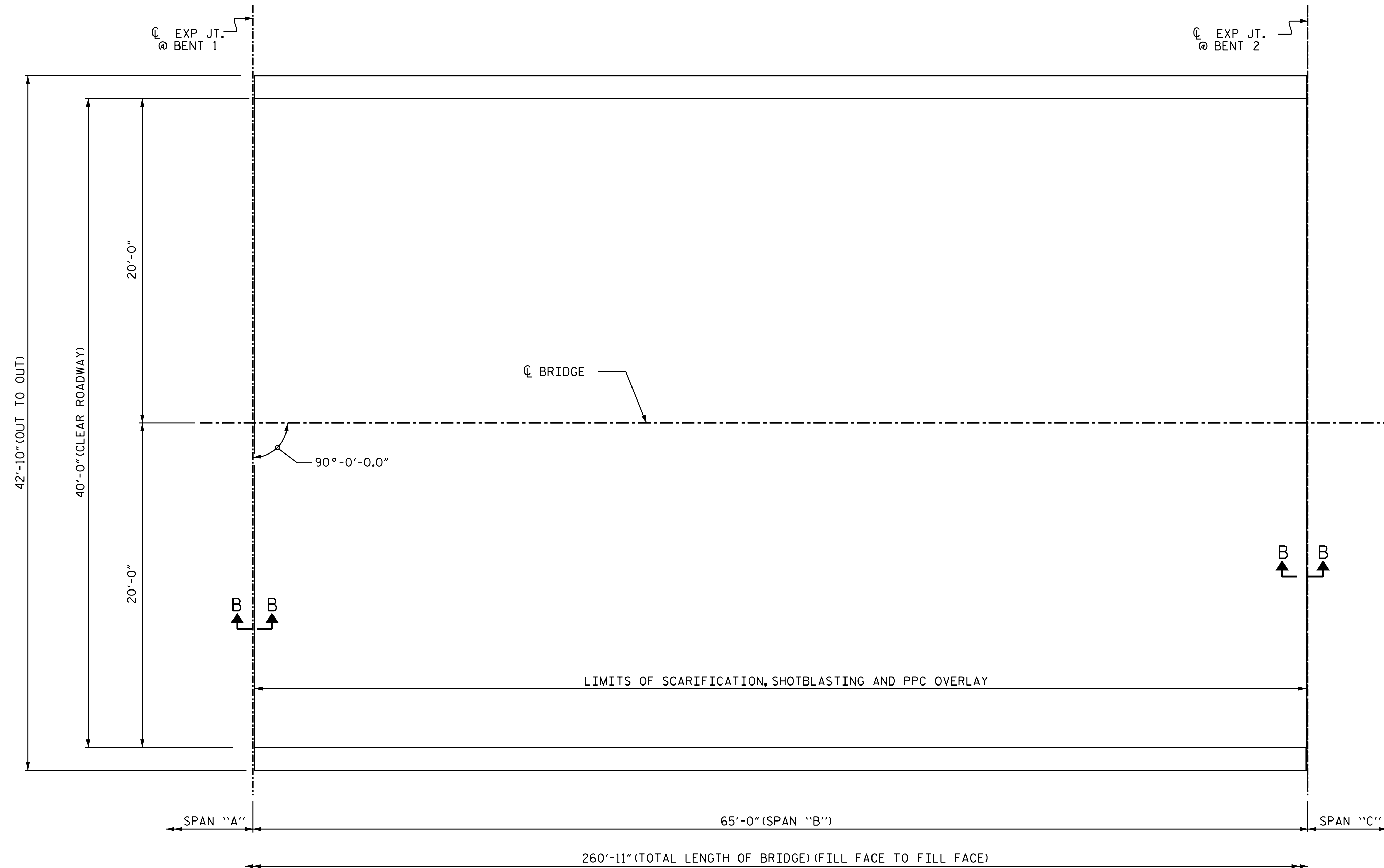
SUMMARY OF QUANTITIES FOR SPAN "B"

	ESTIMATE	ACTUAL
SCARIFYING BRIDGE DECK	288.9 SY	
POLYSTER POLYMER CONCRETE MATERIALS	8.0 CY	
CLASS II SURFACE PREPARATION	0.0 SY	
SHOTBLASTING BRIDGE DECK	288.9 SY	
PLACING & FINISHING PPC OVERLAY	288.9 SY	
GROOVING BRIDGE DECK	2,355.8 SF	

NOTES:

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

-  - SCARIFYING AND SHOTBLASTING OF BRIDGE DECK FOR PPC OVERLAY
-  - APPROX. AREA CLASS II SURFACE PREPARATION



PLAN OF SPAN "B"
(SEE SHEET NO. S12-7 FOR SECTION B-B)

PROJECT NO. I-5940
PENDER COUNTY
 BRIDGE NO. 700234



DocuSigned by:
P. Corey Newton
 6/23/2019

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

**SURFACE PREPARATION
 SPAN "B"**

DRAWN BY : S. T. SANDOR DATE : 01/2019
 CHECKED BY : W. C. SMITH DATE : 05/2019

DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
 SIGNATURES COMPLETED



REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	TOTAL SHEETS
1			3			S11-4
2			4			113

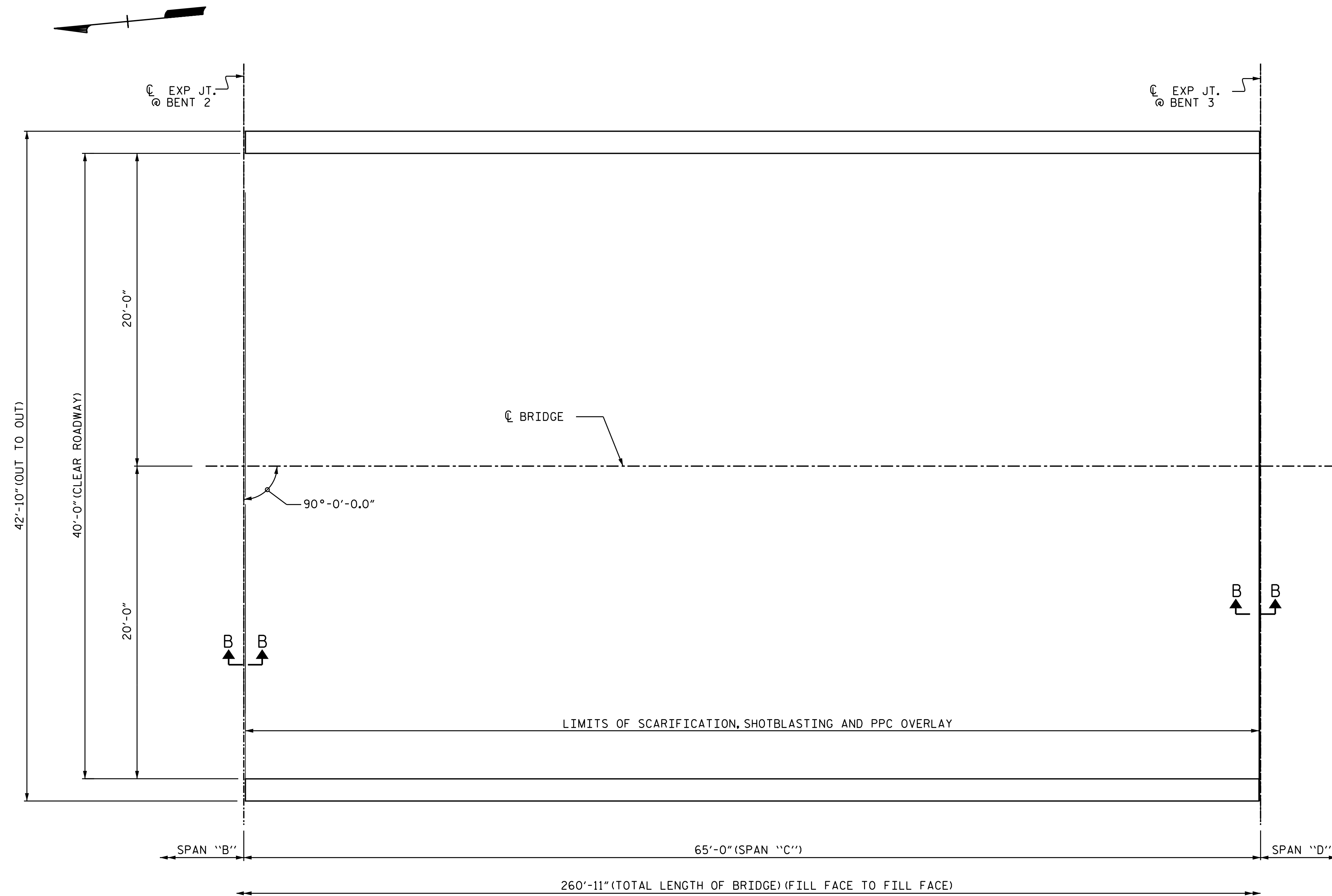
SUMMARY OF QUANTITIES FOR SPAN "C"

	ESTIMATE	ACTUAL
SCARIFYING BRIDGE DECK	288.9 SY	
POLYSTER POLYMER CONCRETE MATERIALS	8.0 CY	
CLASS II SURFACE PREPARATION	0.0 SY	
SHOTBLASTING BRIDGE DECK	288.9 SY	
PLACING & FINISHING PPC OVERLAY	288.9 SY	
GROOVING BRIDGE DECK	2,355.8 SF	

NOTES:

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

-  - SCARIFYING AND SHOTBLASTING OF BRIDGE DECK FOR PPC OVERLAY
-  - APPROX. AREA CLASS II SURFACE PREPARATION



PLAN OF SPAN "C"

(SEE SHEET NO. S12-7 FOR SECTION B-B)

PROJECT NO. I-5940
PENDER COUNTY
 BRIDGE NO. 700234



DocuSigned by:
 P. Corey Newton
 49FE39D14518A07...
 6/23/2019

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 SURFACE PREPARATION
 SPAN "C"

DRAWN BY : S. T. SANDOR DATE : 01/2019
 CHECKED BY : W. C. SMITH DATE : 05/2019

DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
 SIGNATURES COMPLETED



REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	TOTAL SHEETS
1			3			S11-5
2			4			113

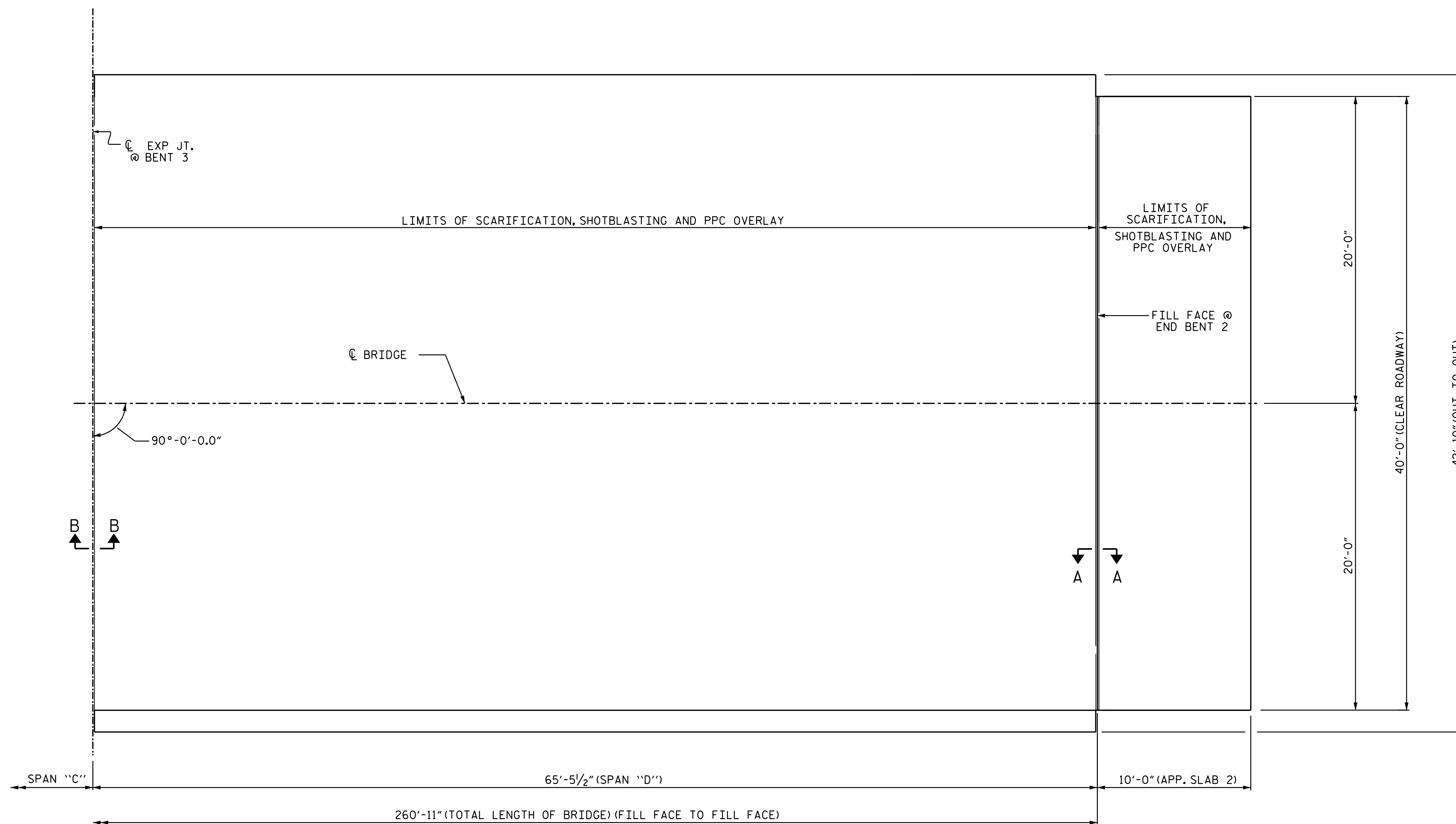
SUMMARY OF QUANTITIES FOR SPAN "D" AND APPROACH SLAB 2

	ESTIMATE	ACTUAL
SCARIFYING BRIDGE DECK	335.4 SY	
POLYSTER POLYMER CONCRETE MATERIALS	9.3 CY	
CLASS II SURFACE PREPARATION	0.0 SY	
SHOTBLASTING BRIDGE DECK	335.4 SY	
PLACING & FINISHING PPC OVERLAY	335.4 SY	
GROOVING BRIDGE DECK	2,718.1 SF	

NOTES:

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

-  - SCARIFYING AND SHOTBLASTING OF BRIDGE DECK FOR PPC OVERLAY
-  - APPROX. AREA CLASS II SURFACE PREPARATION



PROJECT NO. I-5940
PENDER COUNTY
 BRIDGE NO. 700234

PLAN OF SPAN "D" AND APPROACH SLAB 2

(SEE SHEET NO. S12-7 FOR SECTIONS A-A AND B-B)



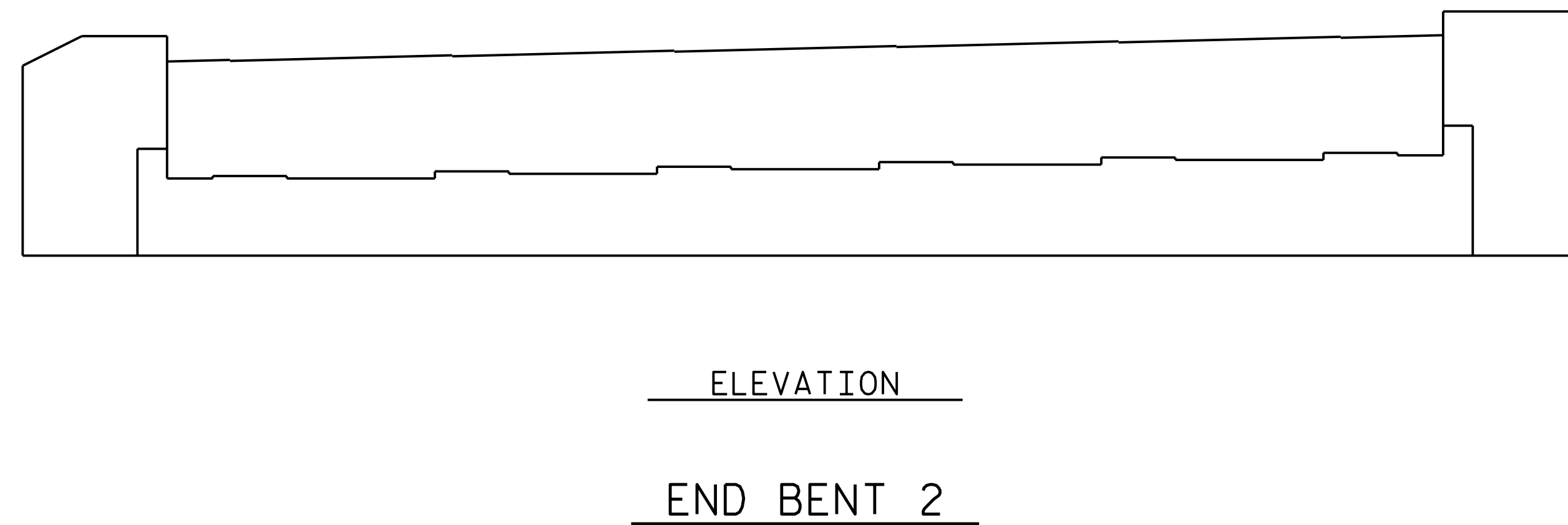
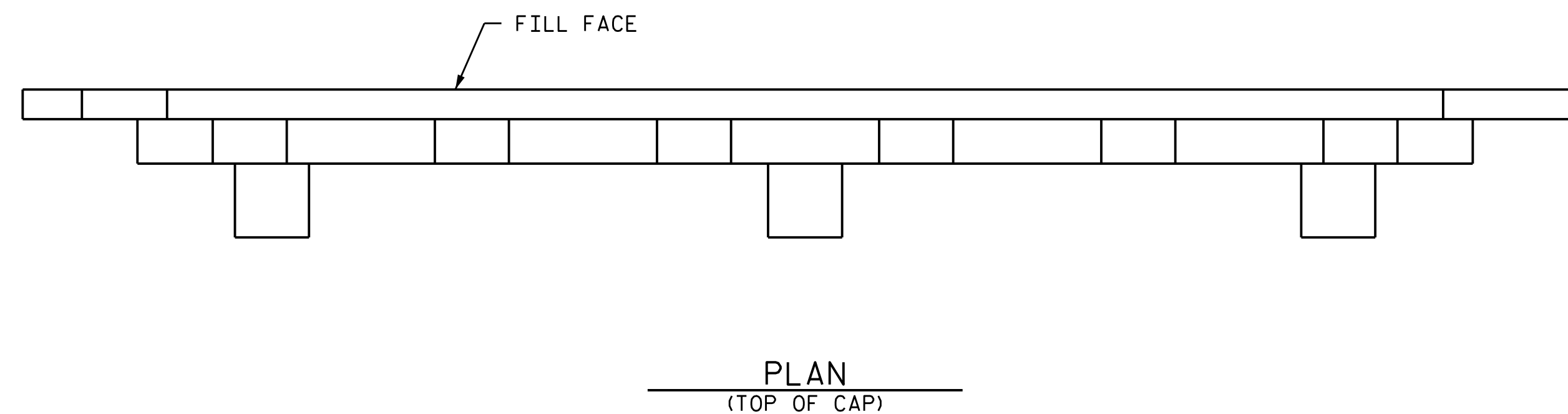
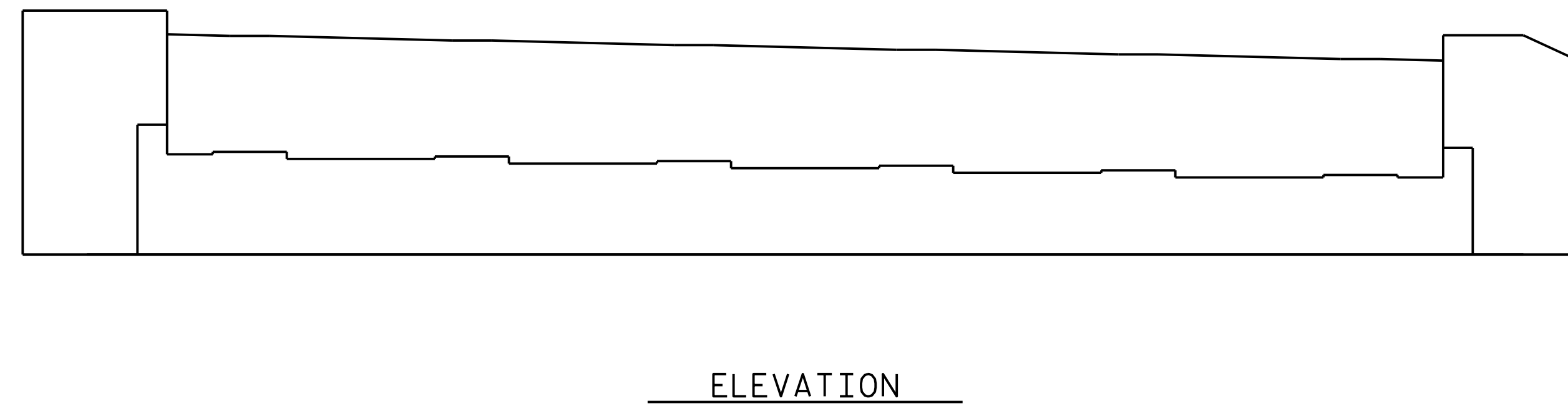
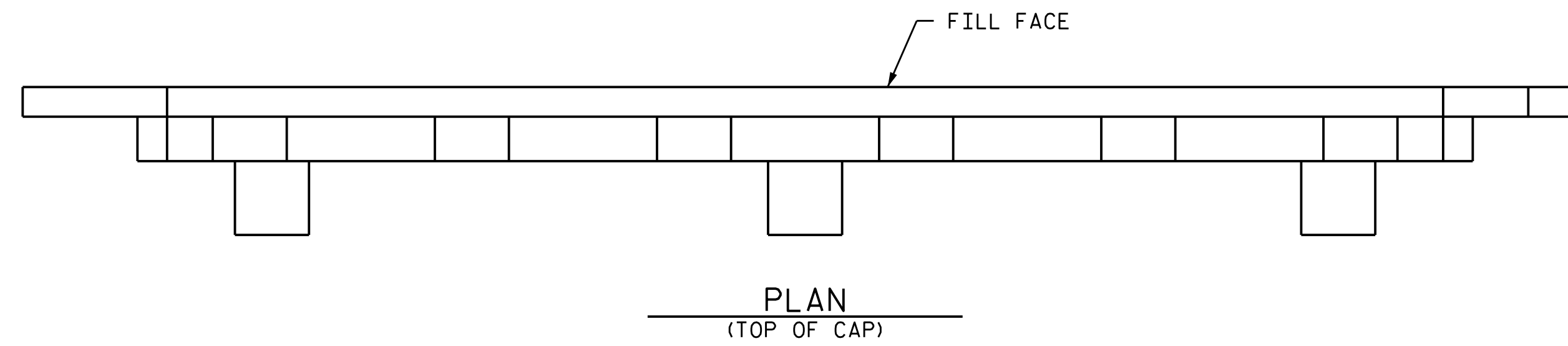
DocuSigned by:
 P. Corey Newton
 4FF639D1451B407...
 6/23/2019

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 SURFACE PREPARATION
 SPAN "D" AND
 APPROACH SLAB 2

DRAWN BY : S. T. SANDOR DATE : 01/2019
 CHECKED BY : W. C. SMITH DATE : 05/2019

DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
 SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	TOTAL SHEETS
1			3			S11-6
2			4			113



REPAIR QUANTITY TABLE

REPAIRS END BENT 1 & 2	QUANTITIES			
	ESTIMATE		ACTUAL	
CONCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL, CORNER)	0.0	0.0		
COLUMN	0.0	0.0		
SHOTCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL, CORNER)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LN. FT		LN. FT
CAP		0.0		
COLUMN		0.0		

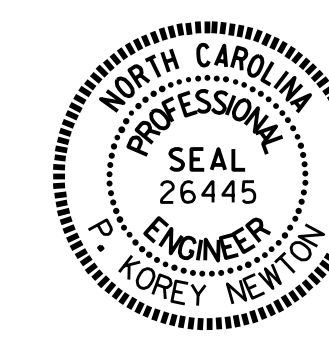
VALUES IN CHART REPRESENT ESTIMATED REPAIR TOTALS AFTER REMOVAL OF UNSOUND CONCRETE, MIN. OF 1" BEHIND REBAR AND MIN. 1" CL TO SAWCUT. SEE REPAIR DETAILS.

ERI - EPOXY RESIN INJECTION

▨ - SHOTCRETE REPAIRS

▩ - CONCRETE REPAIRS

PROJECT NO. I-5940
PENDER COUNTY
 BRIDGE NO. 700234



DocuSigned by:
P. Corey Newton
49FE39D14518A07...
 6/23/2019

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

SUBSTRUCTURE REPAIR END BENT 1 & END BENT 2

DRAWN BY : P. D. BRYANT / S. T. SANDOR DATE : 01/2019
 CHECKED BY : W. C. SMITH DATE : 05/2019

23-JUN-2019 19:06
 S:\DPG1\Division3\I5940\Stefan's Dwg's\411.0187.I-5940.SMU. E*.700234.dgn
 pknewton

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 SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	TOTAL SHEETS
1			3			S11-7
2			4			113

NOTES:

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

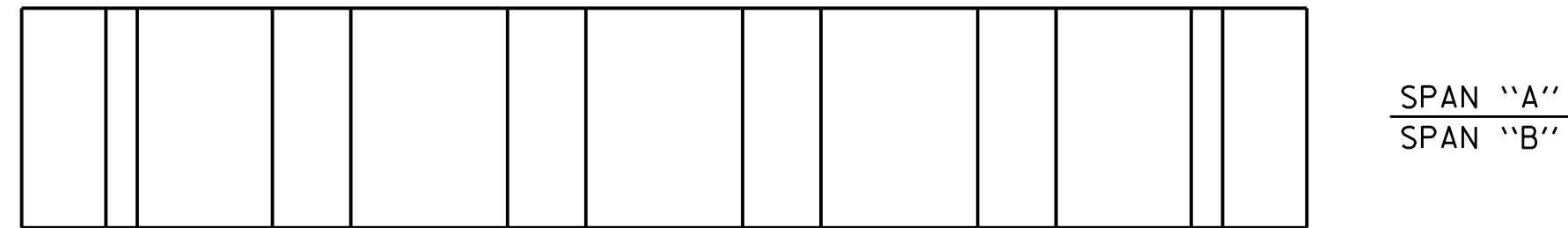
FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

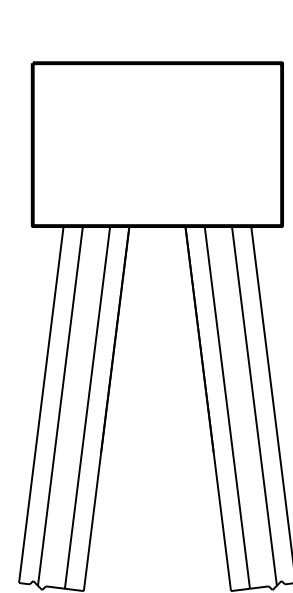
FOR CONCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.

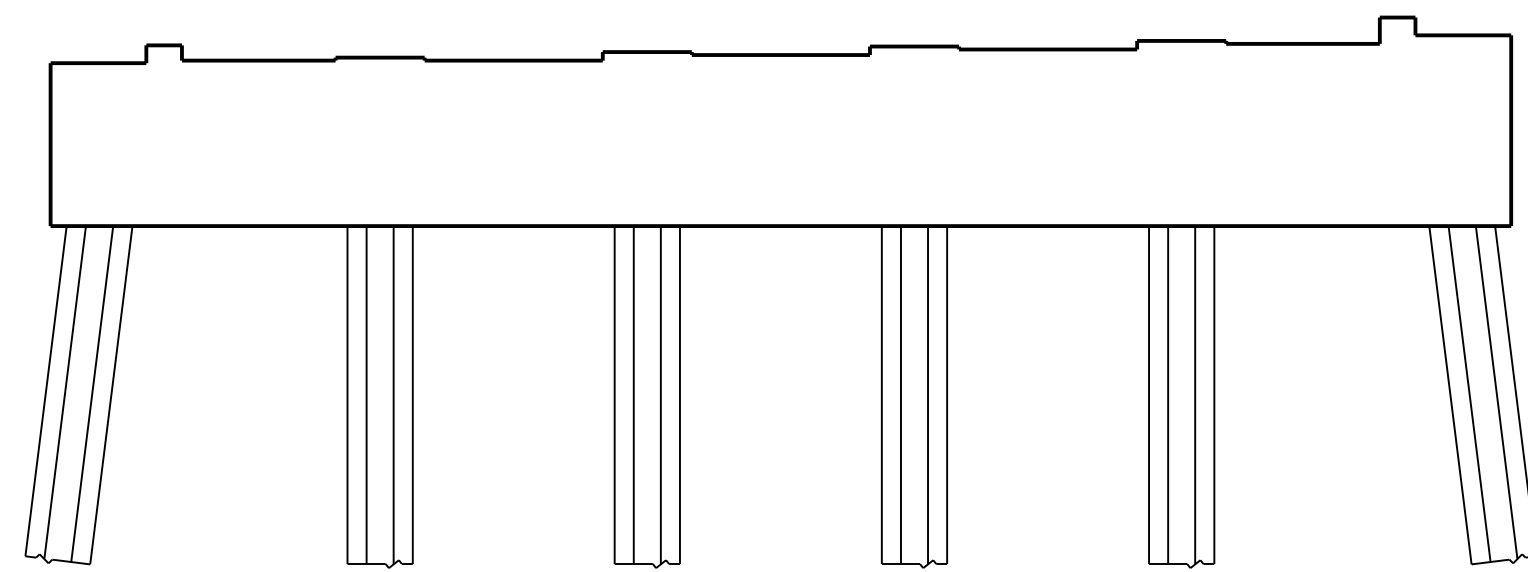
CONCRETE REPAIRS MAY BE SUBSTITUTED IN LIEU OF SHOTCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.



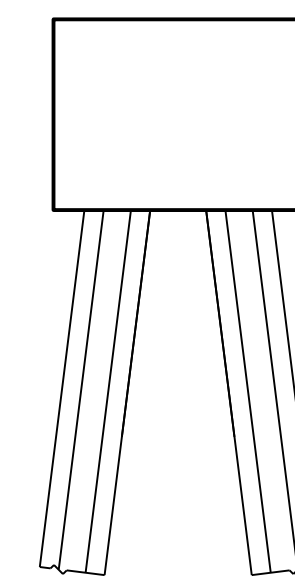
PLAN
TOP OF CAP



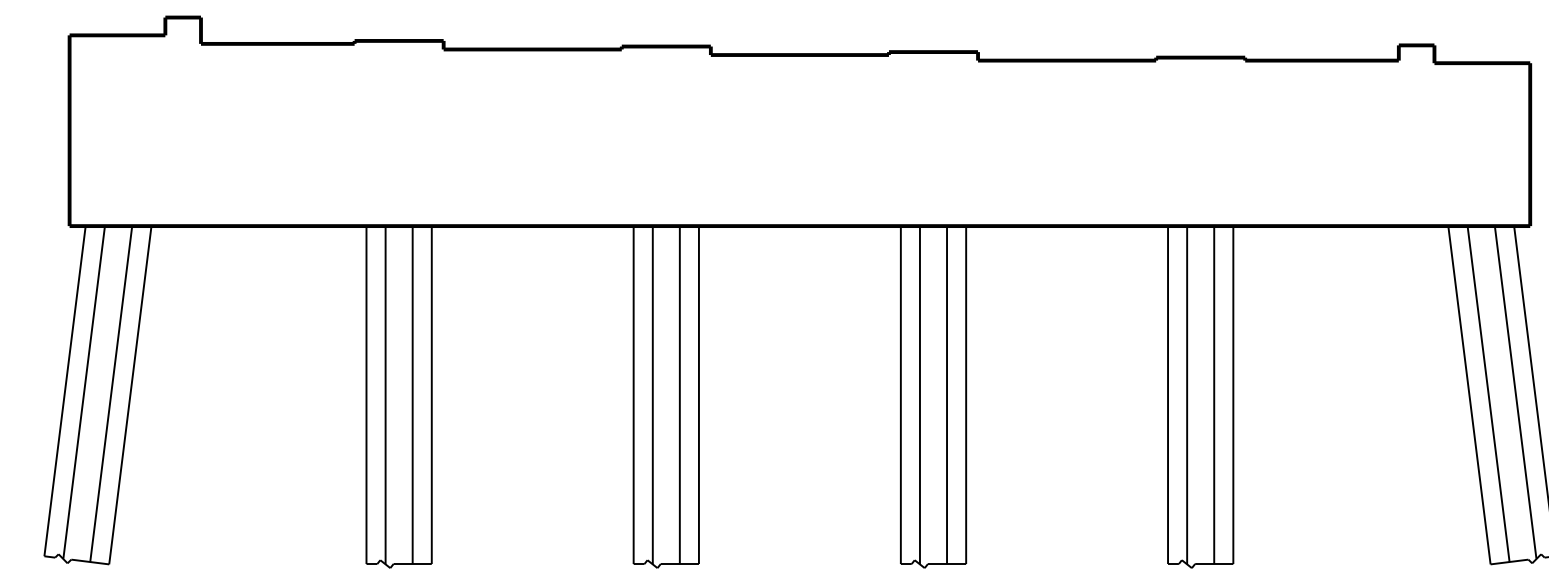
END VIEW
NORTH END



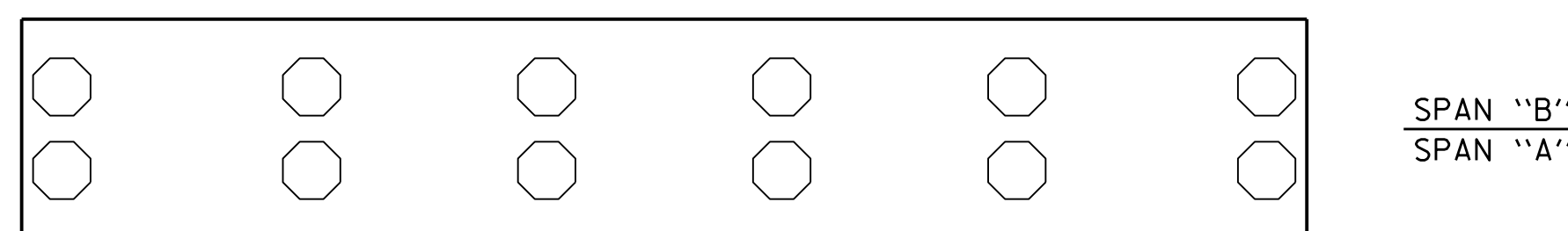
ELEVATION
WEST SIDE





END VIEW
SOUTH SIDE

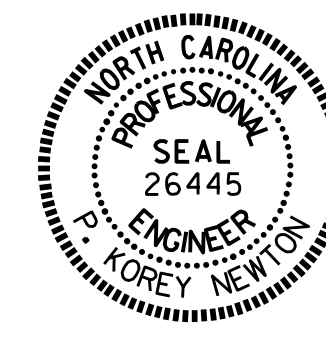


ELEVATION
EAST SIDE



PLAN
BOTTOM OF CAP

-  CONCRETE REPAIR
-  SHOTCRETE REPAIR
- ERI EPOXY RESIN INJECTION



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P. Corey Newton
6/23/2019

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NO. 1
2

PROJECT NO. I-5940
PENDER COUNTY
BRIDGE NO. 700234

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
SUBSTRUCTURE
BENT 1

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	TOTAL SHEETS
1			3			S11-8
2			4			113

REPAIR QUANTITY TABLE				
BENT 1	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		

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

DRAWN BY : P. D. BRYANT / S. T. SANDOR DATE : 01/2019
CHECKED BY : W. C. SMITH DATE : 05/2019

NOTES:

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

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

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR CONCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.

CONCRETE REPAIRS MAY BE SUBSTITUTED IN LIEU OF SHOTCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

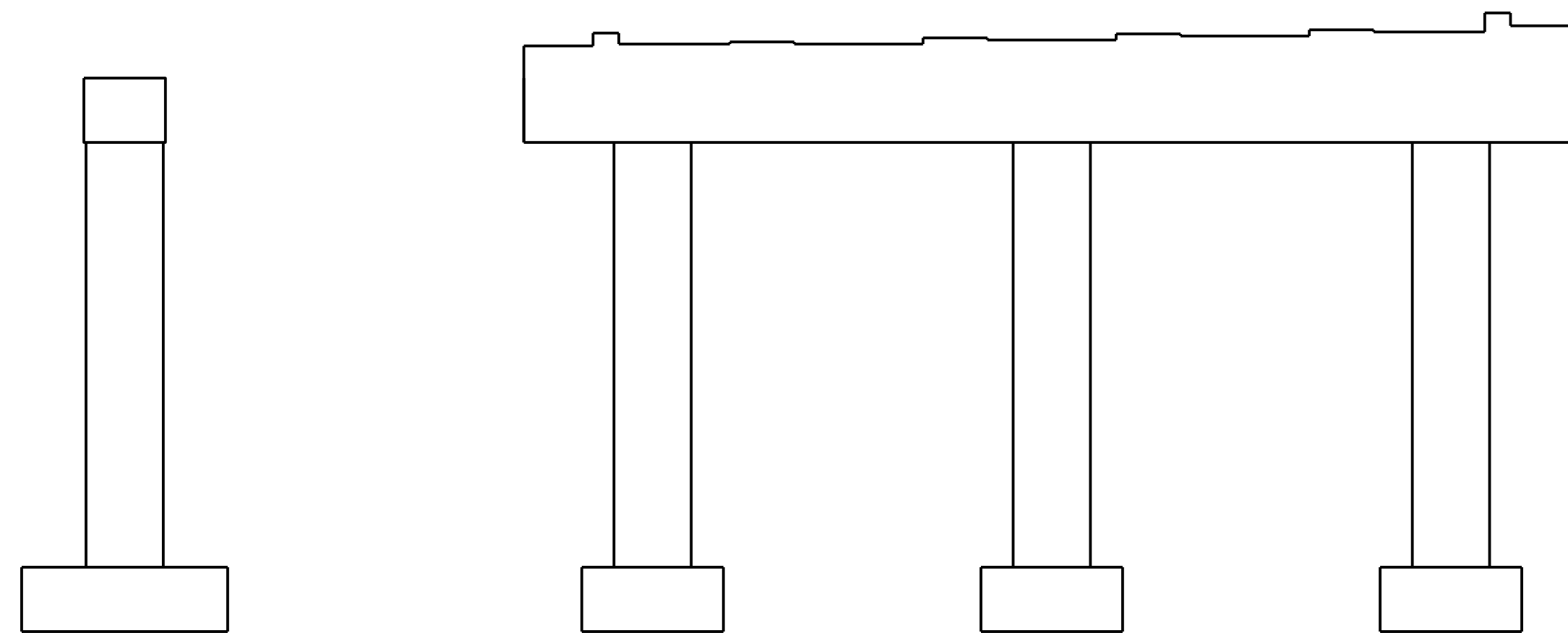
REPAIR QUANTITY TABLE

BENT 2	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		

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



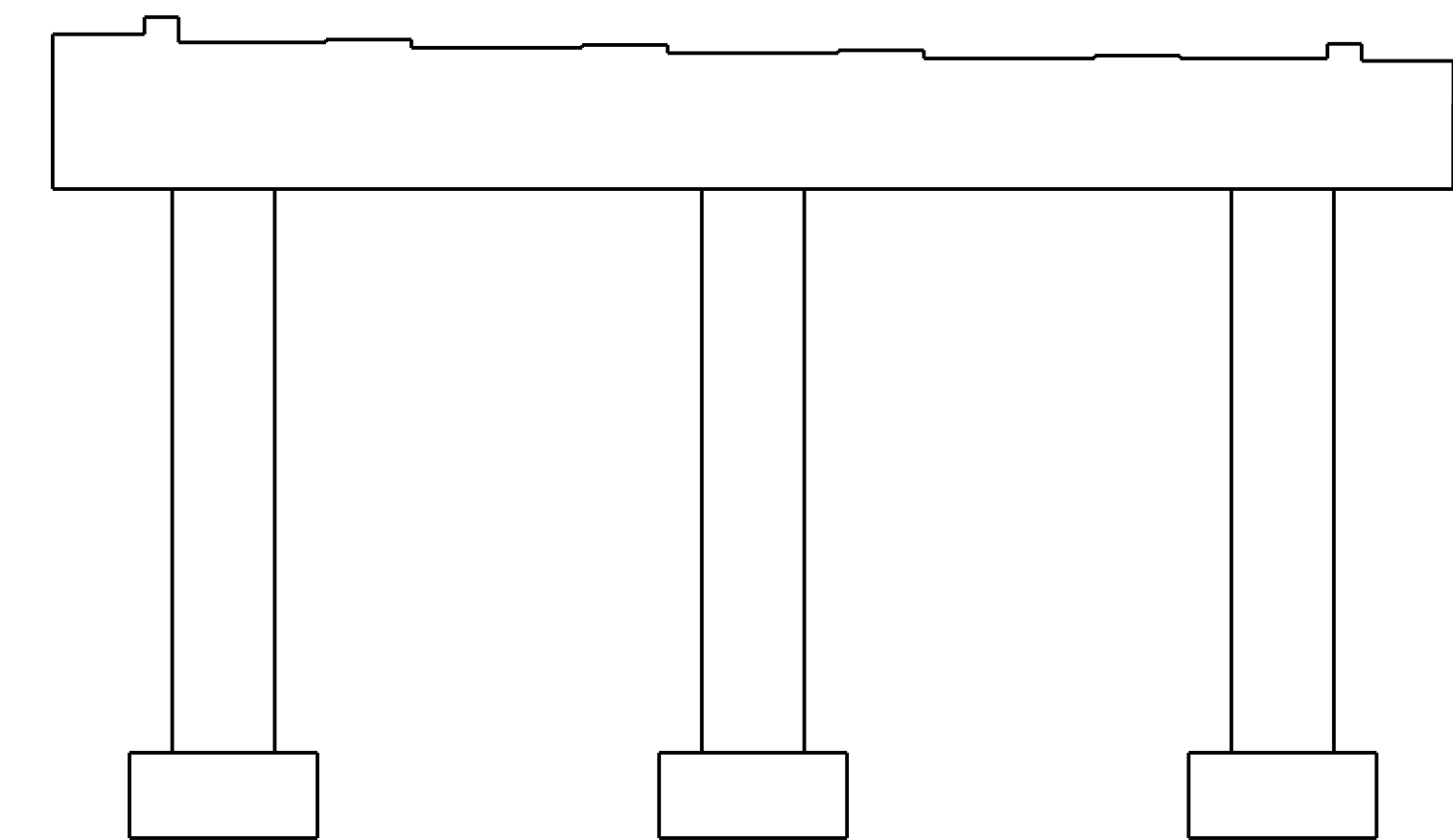
PLAN
TOP OF CAP



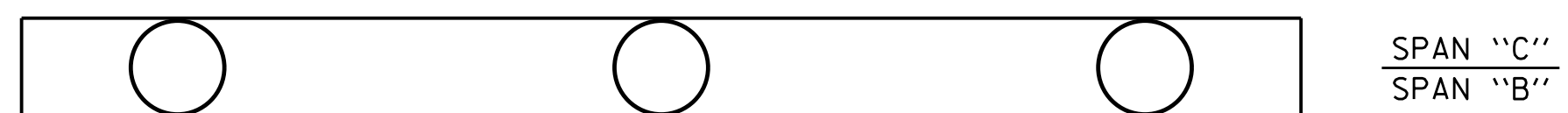
END VIEW
NORTH END

ELEVATION
WEST SIDE



END VIEW
SOUTH SIDE



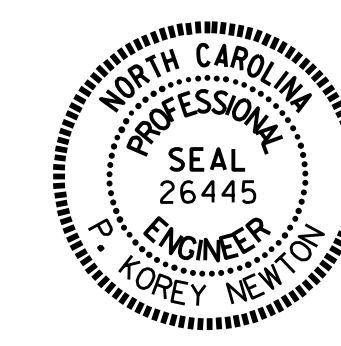
ELEVATION
EAST SIDE



PLAN
BOTTOM OF CAP

-  CONCRETE REPAIR
-  SHOTCRETE REPAIR
- ERI EPOXY RESIN INJECTION

PROJECT NO. I-5940
PENDER COUNTY
 BRIDGE NO. 700234



DocuSigned by:
P. Corey Newton
 6/23/2019

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
SUBSTRUCTURE
BENT 2

DRAWN BY : P. D. BRYANT / S. T. SANDOR DATE : 01/2019
 CHECKED BY : W. C. SMITH DATE : 05/2019

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NO.	REVISIONS			NO.	REVISIONS			SHEET NO.
	BY:	DATE:			BY:	DATE:		
1				3			S11-9	
2				4			TOTAL SHEETS 113	

NOTES:

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

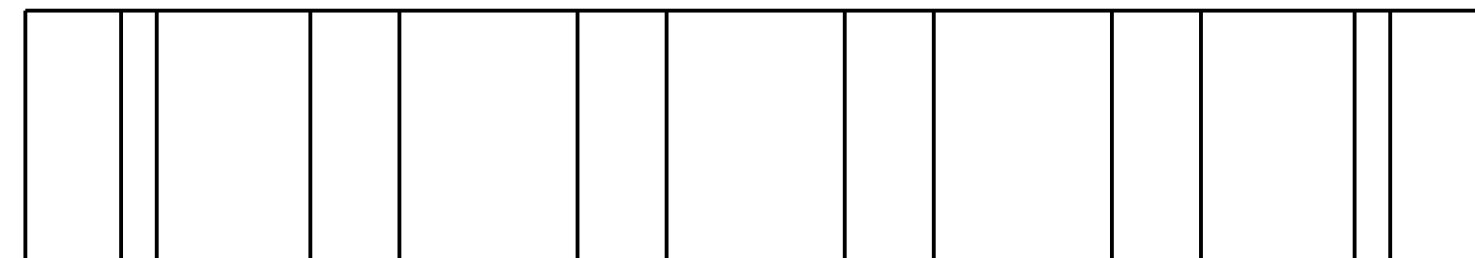
FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR CONCRETE REPAIRS, SEE SPECIAL PROVISIONS.

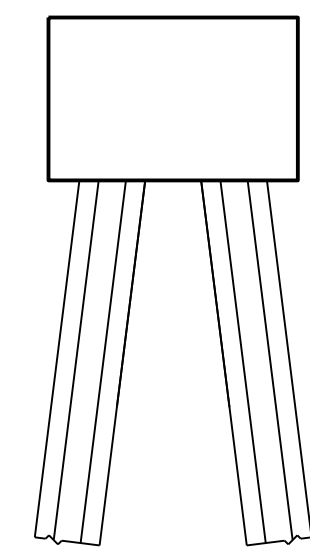
FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.

CONCRETE REPAIRS MAY BE SUBSTITUTED IN LIEU OF SHOTCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

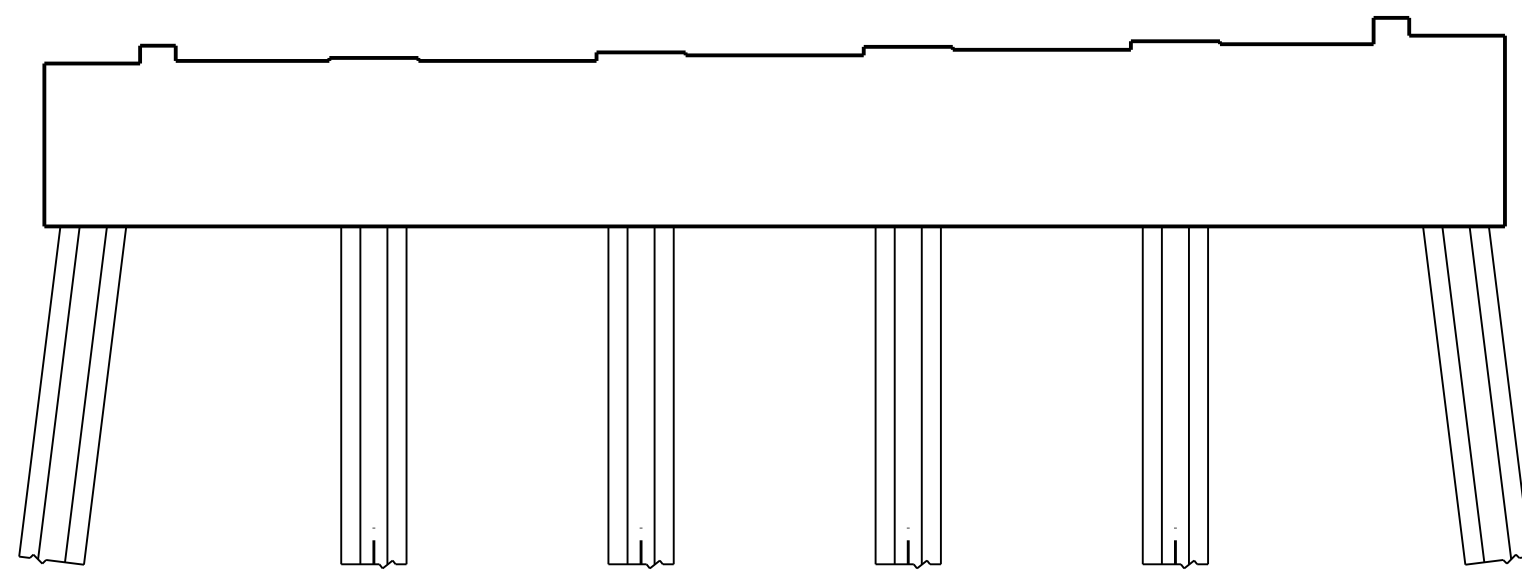


SPAN "C"
SPAN "D"

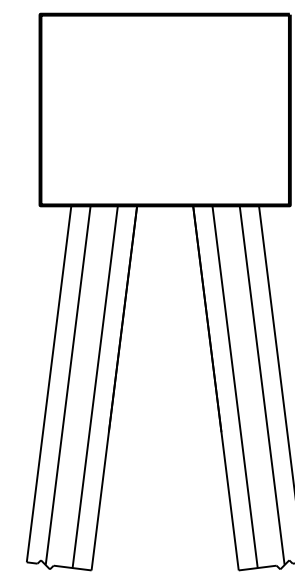
PLAN
TOP OF CAP



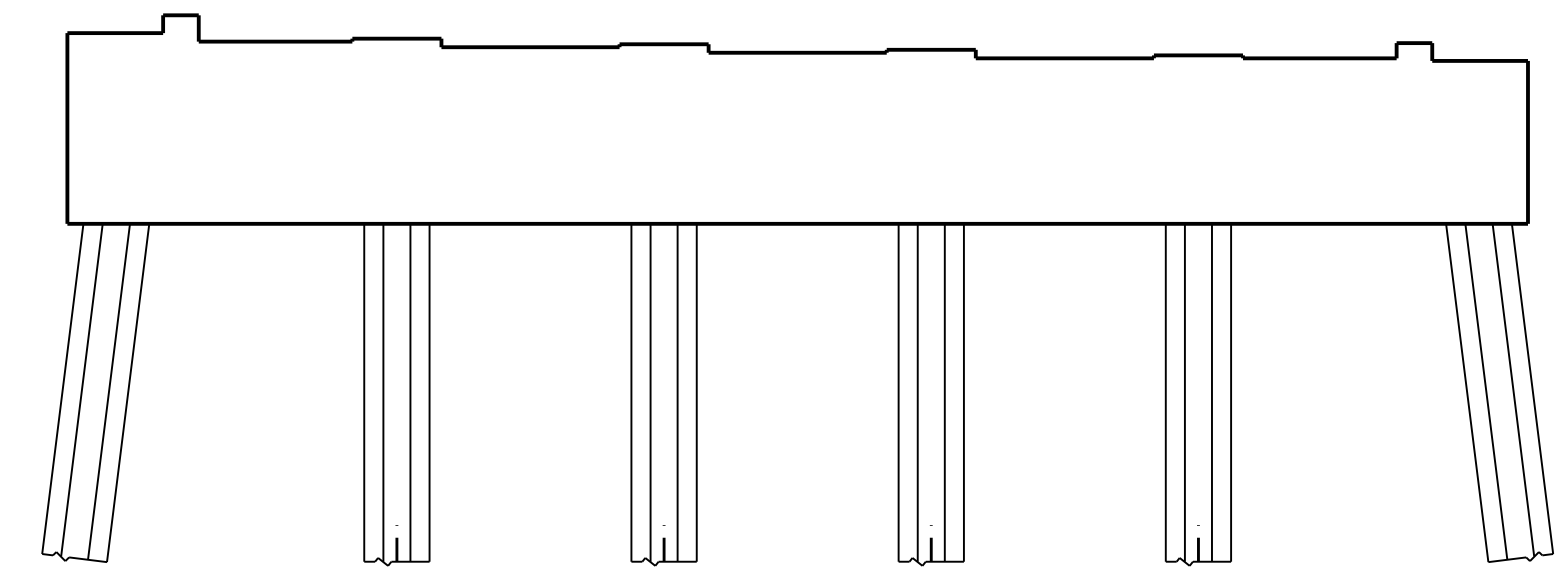
END VIEW
NORTH END



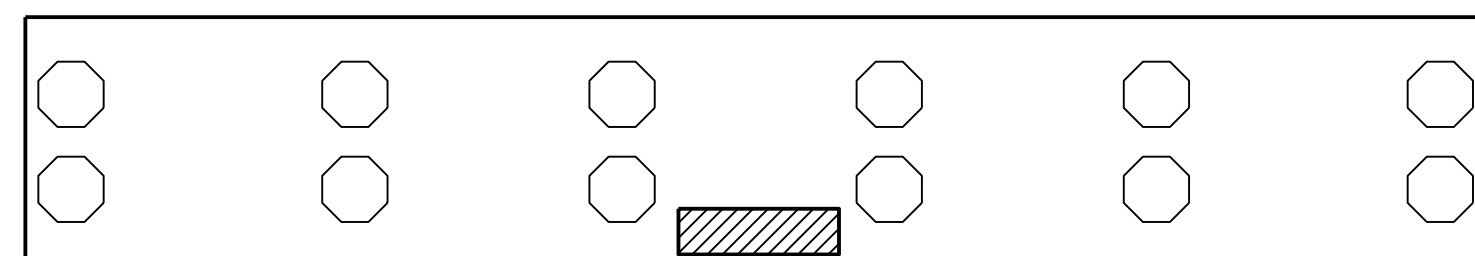
ELEVATION
WEST SIDE



END VIEW
SOUTH SIDE



ELEVATION
EAST SIDE



SPAN "D"
SPAN "C"

5.0 SQ FT

PLAN
BOTTOM OF CAP

- CONCRETE REPAIR
- SHOTCRETE REPAIR
- ERI EPOXY RESIN INJECTION



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P. Corey Newton
6/23/2019

DocuSigned by:
P. Corey Newton
6/23/2019

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NO. 1
BY: 2
DATE: 3
NO. 4
BY: 4
DATE: 4

REVISIONS

NO.	BY:	DATE:	NO.	BY:	DATE:	SHEET NO.
1			3			S11-10
2			4			TOTAL SHEETS 113

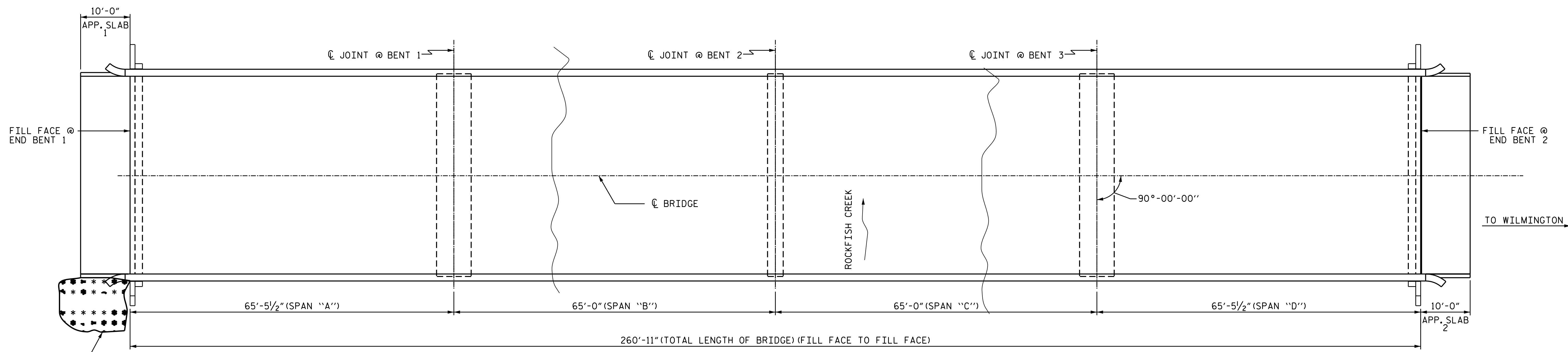
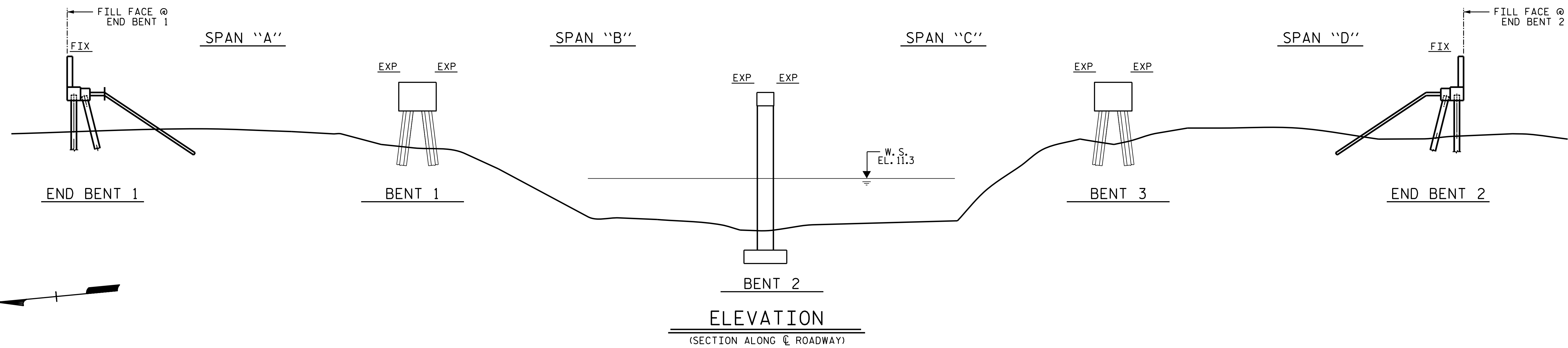
PROJECT NO. _____
PROJECT NO. I-5940
PENDER COUNTY
BRIDGE NO. 700234

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
SUBSTRUCTURE
BENT 3

REPAIR QUANTITY TABLE				
BENT 3	QUANTITIES			
	ESTIMATE	ACTUAL		
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	5.0	2.5		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		

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

DRAWN BY : P. D. BRYANT / S. T. SANDOR DATE : 01/2019
CHECKED BY : W. C. SMITH DATE : 05/2019



SCOPE OF WORK

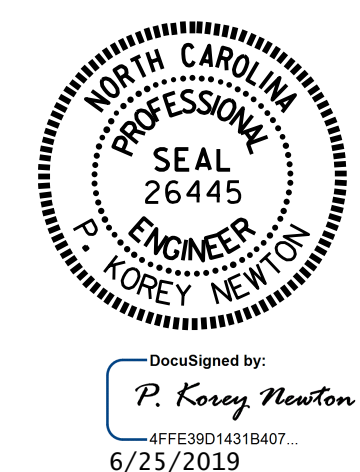
- PARTIALLY REMOVE BRIDGE DECK CONCRETE BY SCARIFICATION AND SHOTBLASTING METHODS.
- PERFORM DECK REPAIRS IN PREPARED AREAS.
- OVERLAY PREPARED BRIDGE DECK WITH POLYESTER POLYMER CONCRETE.
- RECONSTRUCT BRIDGE JOINTS AND INSTALL BACKER ROD AND SILICONE JOINT SEALANT.
- GROOVE POLYESTER POLYMER CONCRETE DECK.
- REPAIR SUBSTRUCTURE USING EPOXY RESIN INJECTION AND SHOTCRETE.
- PLACE #57 STONE TO REPAIR WASHOUT TO THE SATISFACTION OF THE ENGINEER.

NOTES

- PROFILE INFORMATION IS TAKEN FROM ORIGINAL PLANS AND THE ROUTINE INSPECTION, DATED 10/25/2016.
- BRIDGE ORIENTATION CONFORMS TO EXISTING BRIDGE PLANS.

I hereby certify that this structure was rehabilitated according to these plans or as noted therein.

Resident Engineer _____ Date _____



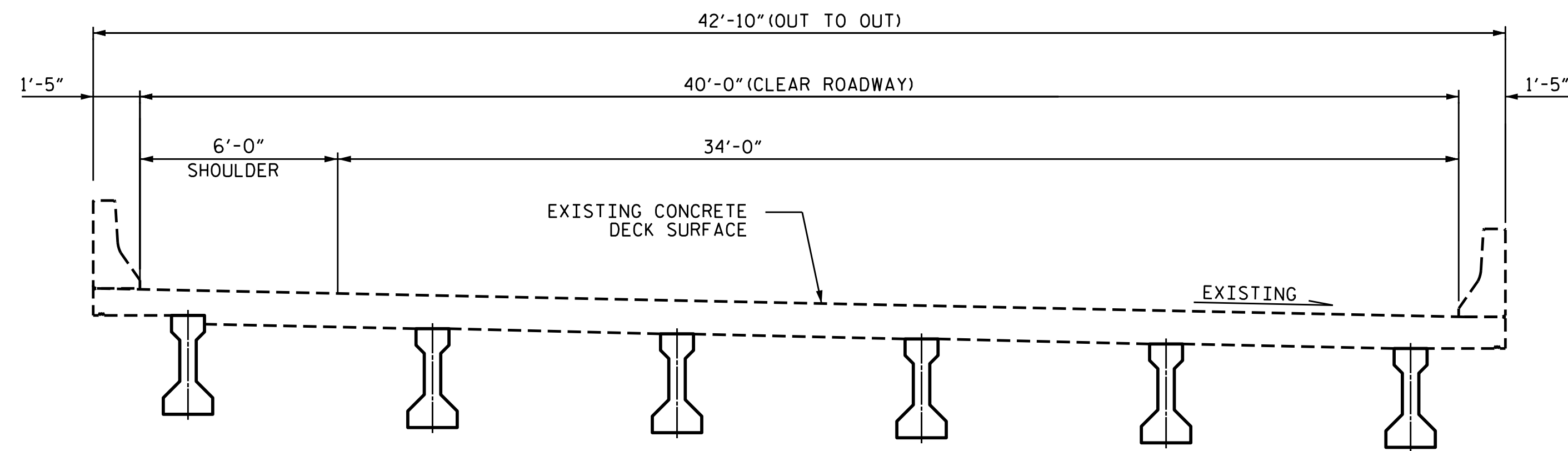
PROJECT NO. I-5940
PENDER COUNTY
 BRIDGE NO. 700235

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
GENERAL DRAWING
 FOR BRIDGE 235 ON
 I-40 EBL OVER
 ROCKFISH CREEK

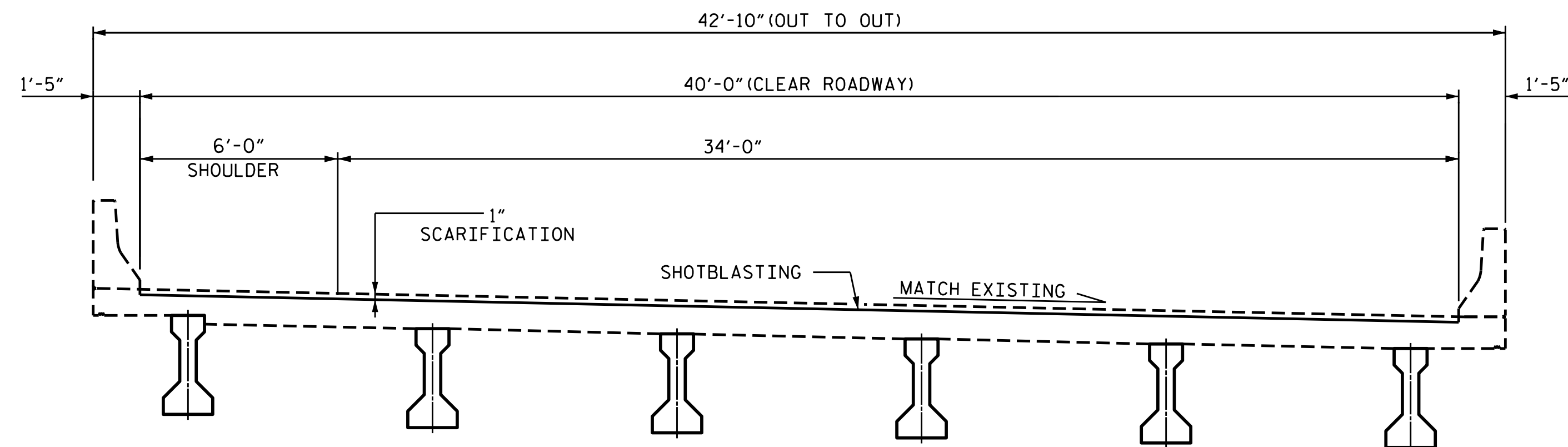
DRAWN BY : S. T. SANDOR DATE : 12/2018
 CHECKED BY : W. C. SMITH DATE : 05/2019

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

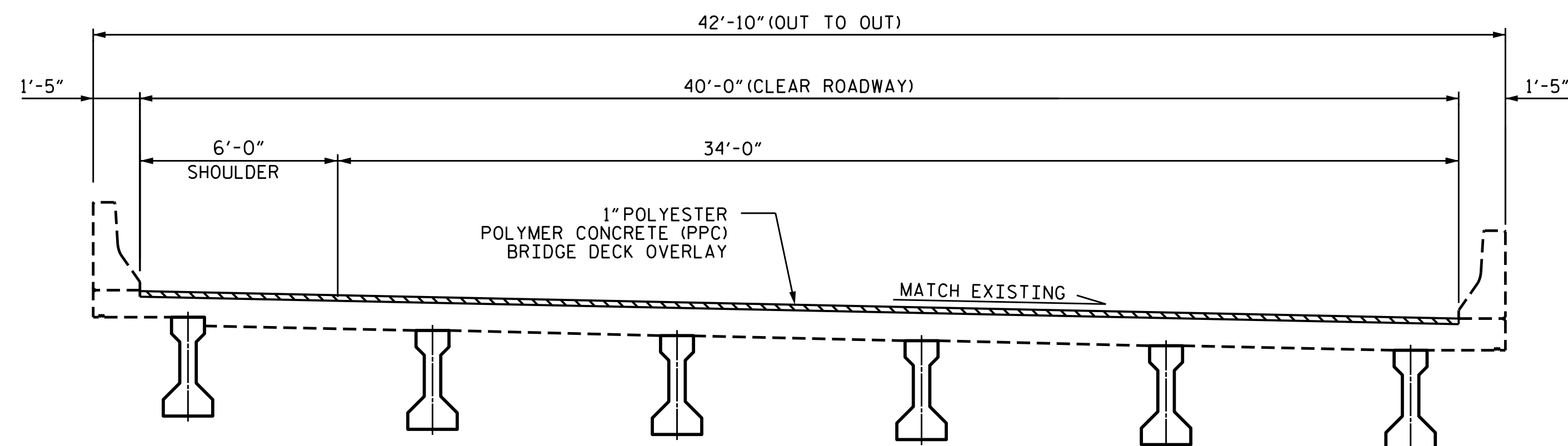
REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	TOTAL SHEETS
1			3			S12-1
2			4			113



TYPICAL SECTION
(EXISTING)



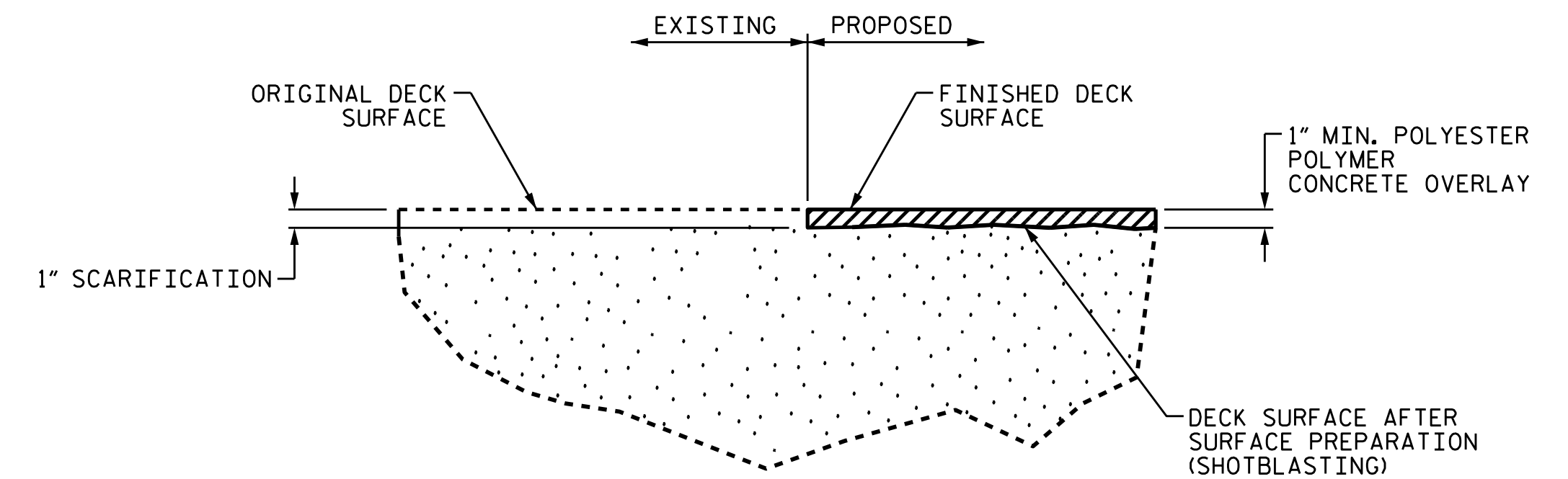
TYPICAL SECTION
(DECK PREPARATION)



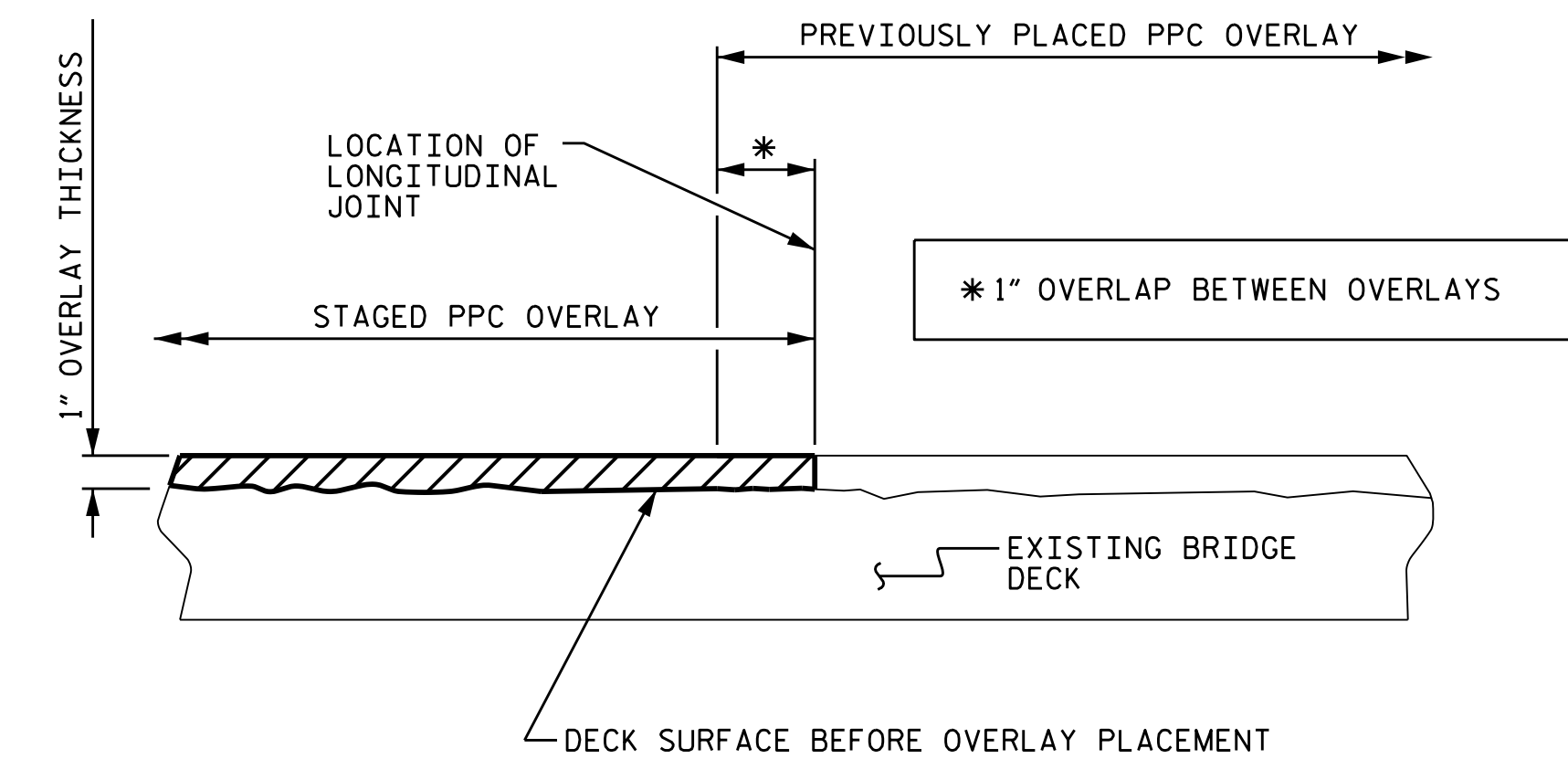
TYPICAL SECTION
(PROPOSED)

NOTES

SEE TRANSPORTATION MANAGEMENT PLANS FOR LANE WIDTHS, SEQUENCING AND OTHER TRAFFIC CONTROL MEASURES FOR STAGING OF OVERLAY SURFACE PREPARATION AND POLYESTER POLYMER CONCRETE PLACEMENT.



DETAIL FOR POLYESTER POLYMER CONCRETE OVERLAY



STAGED PPC OVERLAY JOINT
(AS NEEDED)

PROJECT NO. I-5940
PENDER COUNTY
 BRIDGE NO. 700235



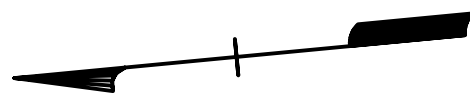
DocuSigned by:
 P. Corey Newton
 6/23/2019

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
**TYPICAL SECTION
 AND SURFACE
 PREPARATION DETAILS**

DRAWN BY : S. T. SANDOR DATE : 01/2019
 CHECKED BY : W. C. SMITH DATE : 05/2019

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1			3			S12-2
2			4			113



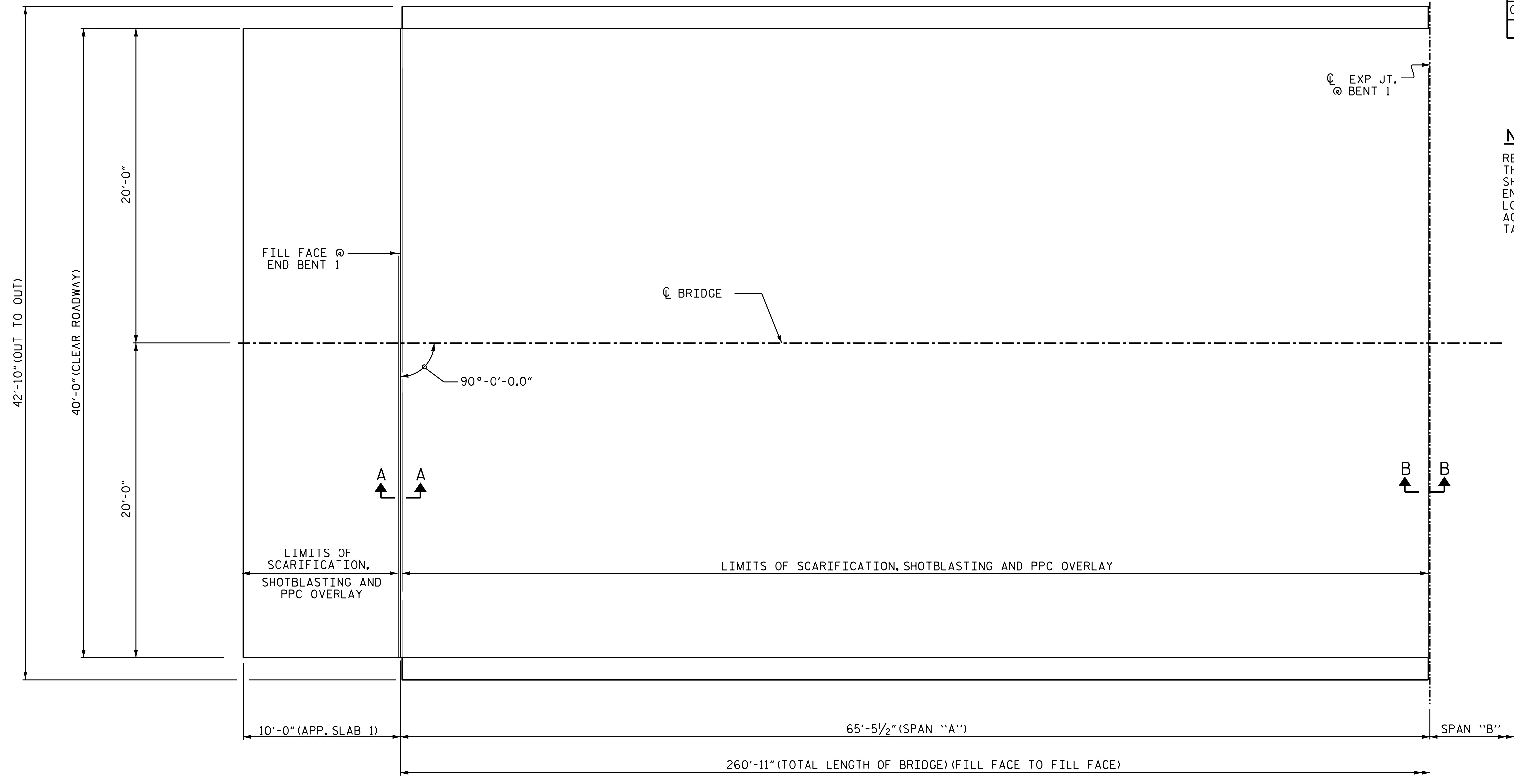
SUMMARY OF QUANTITIES FOR SPAN "A" AND APPROACH SLAB 1

	ESTIMATE	ACTUAL
SCARIFYING BRIDGE DECK	335.4 SY	
POLYSTER POLYMER CONCRETE MATERIALS	9.3 CY	
CLASS II SURFACE PREPARATION	0.0 SY	
SHOTBLASTING BRIDGE DECK	335.4 SY	
PLACING & FINISHING PPC OVERLAY	335.4 SY	
GROOVING BRIDGE DECK	2,718.1 SF	

NOTES:

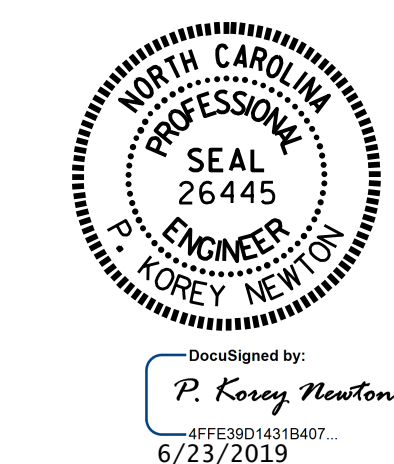
REPAIR LOCATIONS AND ESTIMATED QUANTITIES ARE GIVEN WITH THE BEST INFORMATION AVAILABLE. IF ADDITIONAL REPAIRS NOT SHOWN IN DRAWINGS ARE DEEMED NECESSARY BY ENGINEER, THE ENGINEER WILL NOTE ON THE DRAWINGS THE APPROXIMATE LOCATIONS AND DESCRIPTION OF THE REPAIRS AND ADJUST THE ACTUAL QUANTITIES ENTERED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

- SCARIFYING AND SHOTBLASTING OF BRIDGE DECK FOR PPC OVERLAY
- APPROX. AREA CLASS II SURFACE PREPARATION



PLAN OF SPAN "A" AND APPROACH SLAB 1
(SEE SHEET NO. S12-7 FOR SECTIONS A-A AND B-B)

PROJECT NO. I-5940
PENDER COUNTY
 BRIDGE NO. 700235



DocuSigned by:
P. Corey Newton
6/23/2019

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

**SURFACE PREPARATION
 SPAN "A" AND
 APPROACH SLAB 1**

DRAWN BY : S. T. SANDOR DATE : 01/2019
 CHECKED BY : W. C. SMITH DATE : 05/2019

DOCUMENT NOT CONSIDERED
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2			4			113	

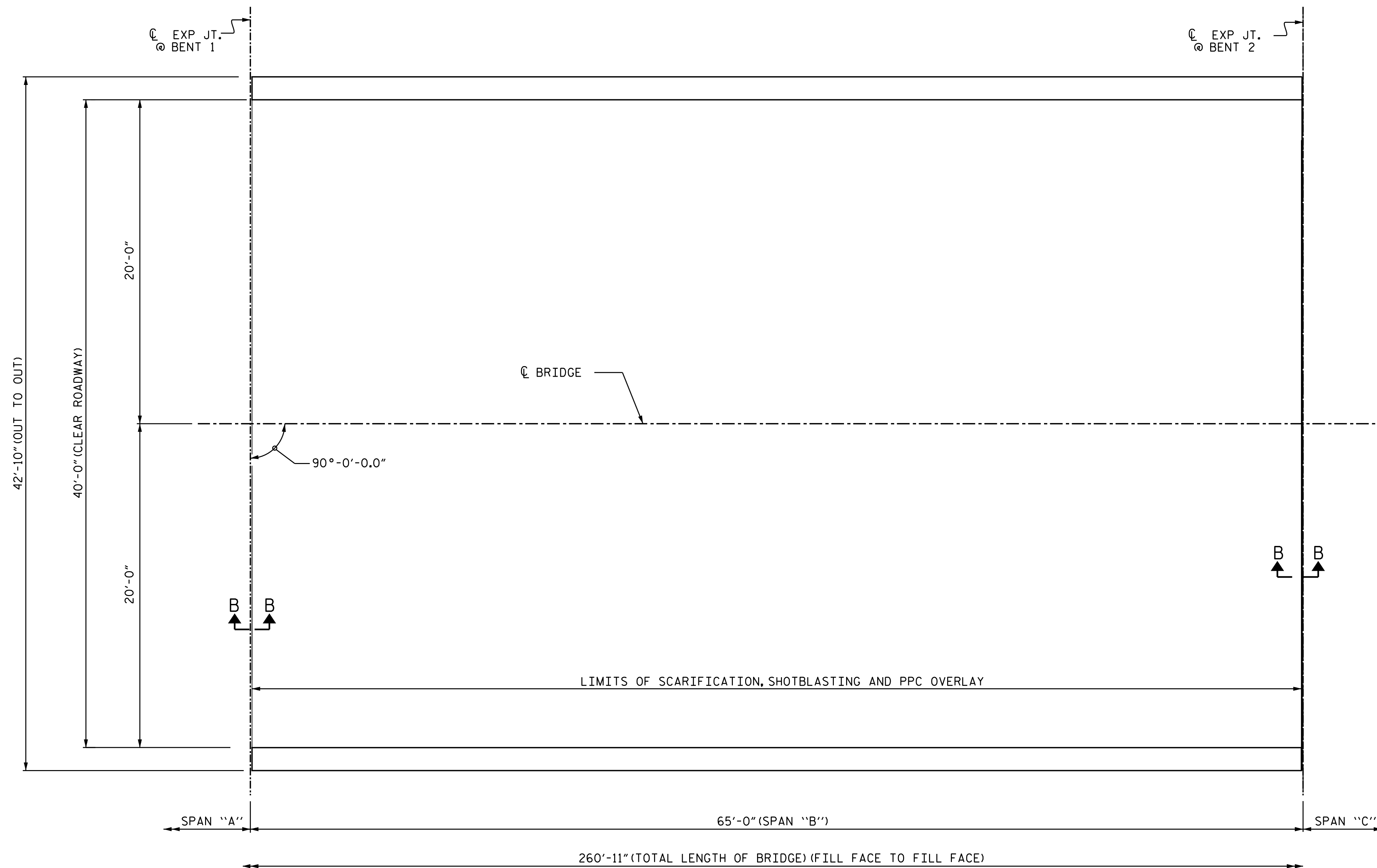
SUMMARY OF QUANTITIES FOR SPAN "B"

	ESTIMATE	ACTUAL
SCARIFYING BRIDGE DECK	288.9 SY	
POLYSTER POLYMER CONCRETE MATERIALS	8.0 CY	
CLASS II SURFACE PREPARATION	0.0 SY	
SHOTBLASTING BRIDGE DECK	288.9 SY	
PLACING & FINISHING PPC OVERLAY	288.9 SY	
GROOVING BRIDGE DECK	2,355.8 SF	

NOTES:

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

-  - SCARIFYING AND SHOTBLASTING OF BRIDGE DECK FOR PPC OVERLAY
-  - APPROX. AREA CLASS II SURFACE PREPARATION



PLAN OF SPAN "B"
(SEE SHEET NO. S12-7 FOR SECTION B-B)

PROJECT NO. I-5940
PENDER COUNTY
 BRIDGE NO. 700235



DocuSigned by:
P. Corey Newton
 6/23/2019

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

**SURFACE PREPARATION
 SPAN "B"**

DRAWN BY : S. T. SANDOR DATE : 01/2019
 CHECKED BY : W. C. SMITH DATE : 05/2019

DOCUMENT NOT CONSIDERED
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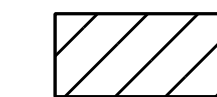
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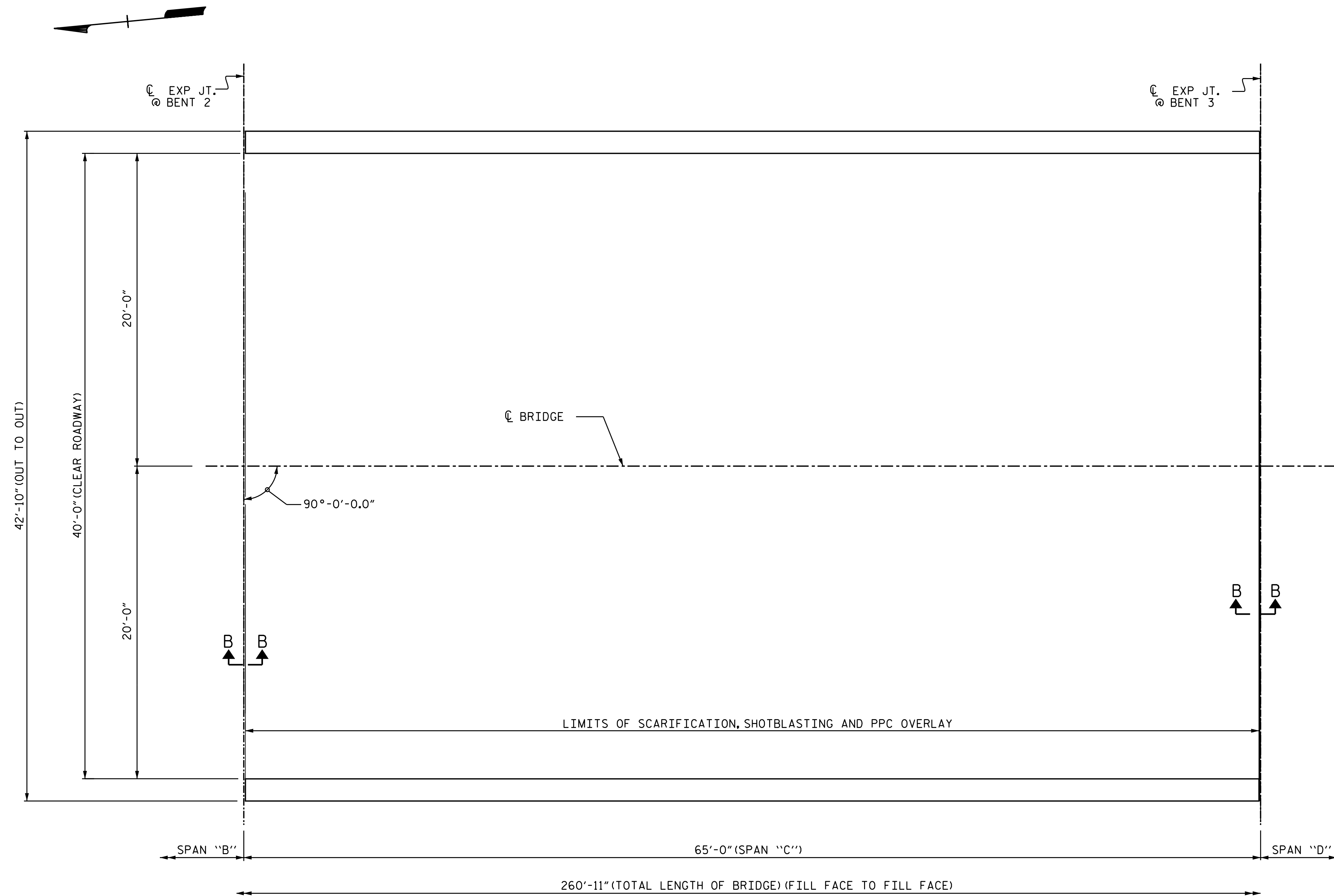
SUMMARY OF QUANTITIES FOR SPAN "C"

	ESTIMATE	ACTUAL
SCARIFYING BRIDGE DECK	288.9 SY	
POLYSTER POLYMER CONCRETE MATERIALS	8.0 CY	
CLASS II SURFACE PREPARATION	0.0 SY	
SHOTBLASTING BRIDGE DECK	288.9 SY	
PLACING & FINISHING PPC OVERLAY	288.9 SY	
GROOVING BRIDGE DECK	2,355.8 SF	

NOTES:

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

-  - SCARIFYING AND SHOTBLASTING OF BRIDGE DECK FOR PPC OVERLAY
-  - APPROX. AREA CLASS II SURFACE PREPARATION



PLAN OF SPAN "C"

(SEE SHEET NO. S12-7 FOR SECTION B-B)

PROJECT NO. I-5940
PENDER COUNTY
 BRIDGE NO. 700235



DocuSigned by:
 P. Corey Newton
 49F93D1451B8D7...
 6/23/2019

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

**SURFACE PREPARATION
 SPAN "C"**

DRAWN BY : S. T. SANDOR DATE : 01/2019
 CHECKED BY : W. C. SMITH DATE : 05/2019

DOCUMENT NOT CONSIDERED
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2			4			113

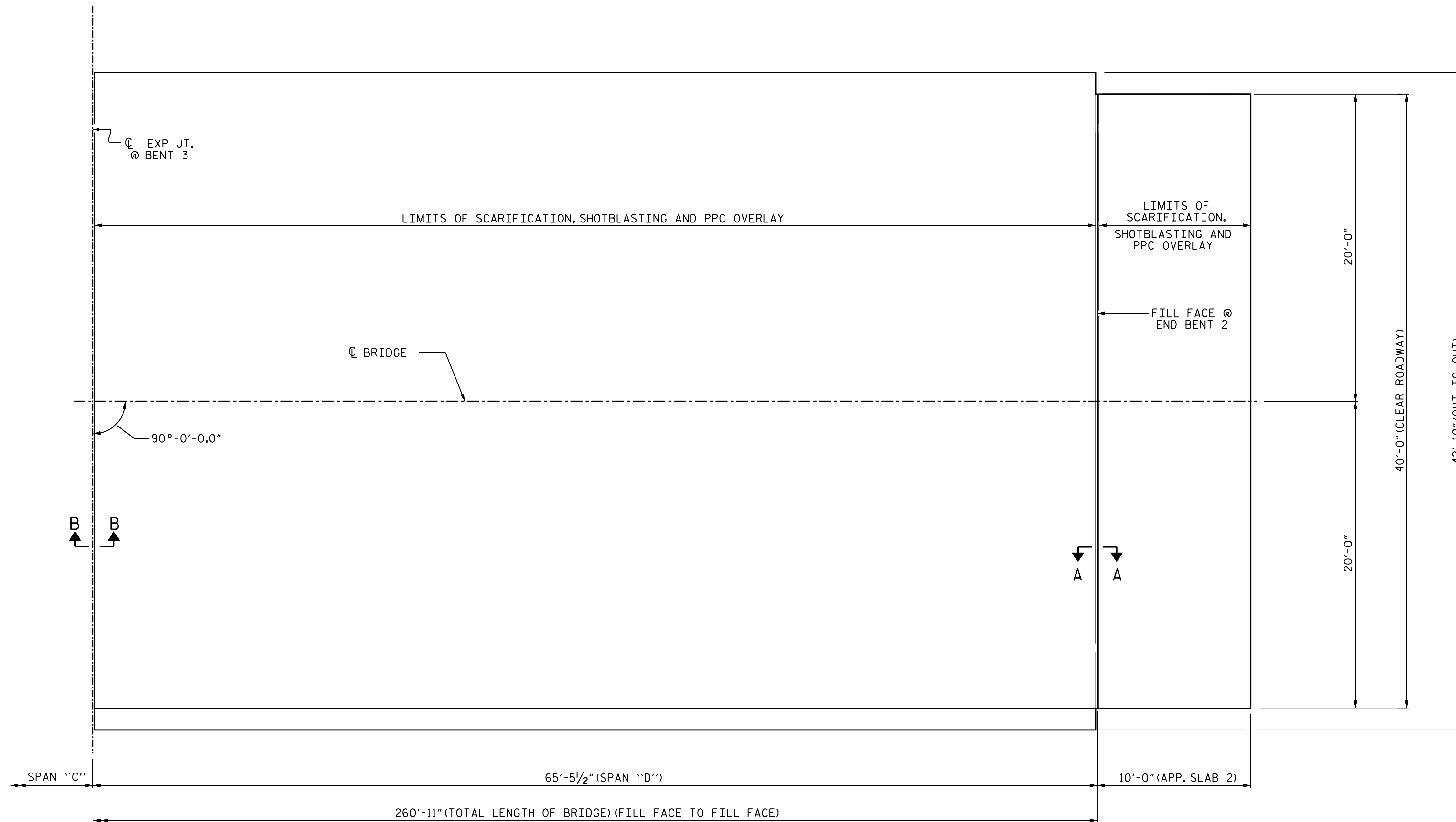
SUMMARY OF QUANTITIES FOR SPAN "D" AND APPROACH SLAB 2

	ESTIMATE	ACTUAL
SCARIFYING BRIDGE DECK	335.4 SY	
POLYSTER POLYMER CONCRETE MATERIALS	9.3 CY	
CLASS II SURFACE PREPARATION	0.0 SY	
SHOTBLASTING BRIDGE DECK	335.4 SY	
PLACING & FINISHING PPC OVERLAY	335.4 SY	
GROOVING BRIDGE DECK	2,718.1 SF	

NOTES:

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

-  - SCARIFYING AND SHOTBLASTING OF BRIDGE DECK FOR PPC OVERLAY
-  - APPROX. AREA CLASS II SURFACE PREPARATION



PLAN OF SPAN "D" AND APPROACH SLAB 2

(SEE SHEET NO. S12-7 FOR SECTIONS A-A AND B-B)

PROJECT NO. I-5940
PENDER COUNTY
 BRIDGE NO. 700235



DocuSigned by:
 P. Corey Newton
 4FF639D4518A07...
 6/23/2019

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

SURFACE PREPARATION
 SPAN "D" AND
 APPROACH SLAB 2

DRAWN BY : S. T. SANDOR DATE : 01/2019
 CHECKED BY : W. C. SMITH DATE : 05/2019

DOCUMENT NOT CONSIDERED
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2			4			113

NOTES

CONTRACTOR SHALL NOTE THE EXISTING JOINT OPENINGS PRIOR OVERLAYING THE PPC. THE FINAL JOINT OPENINGS SHALL BE SAW TO MATCH THE EXISTING OPENINGS.

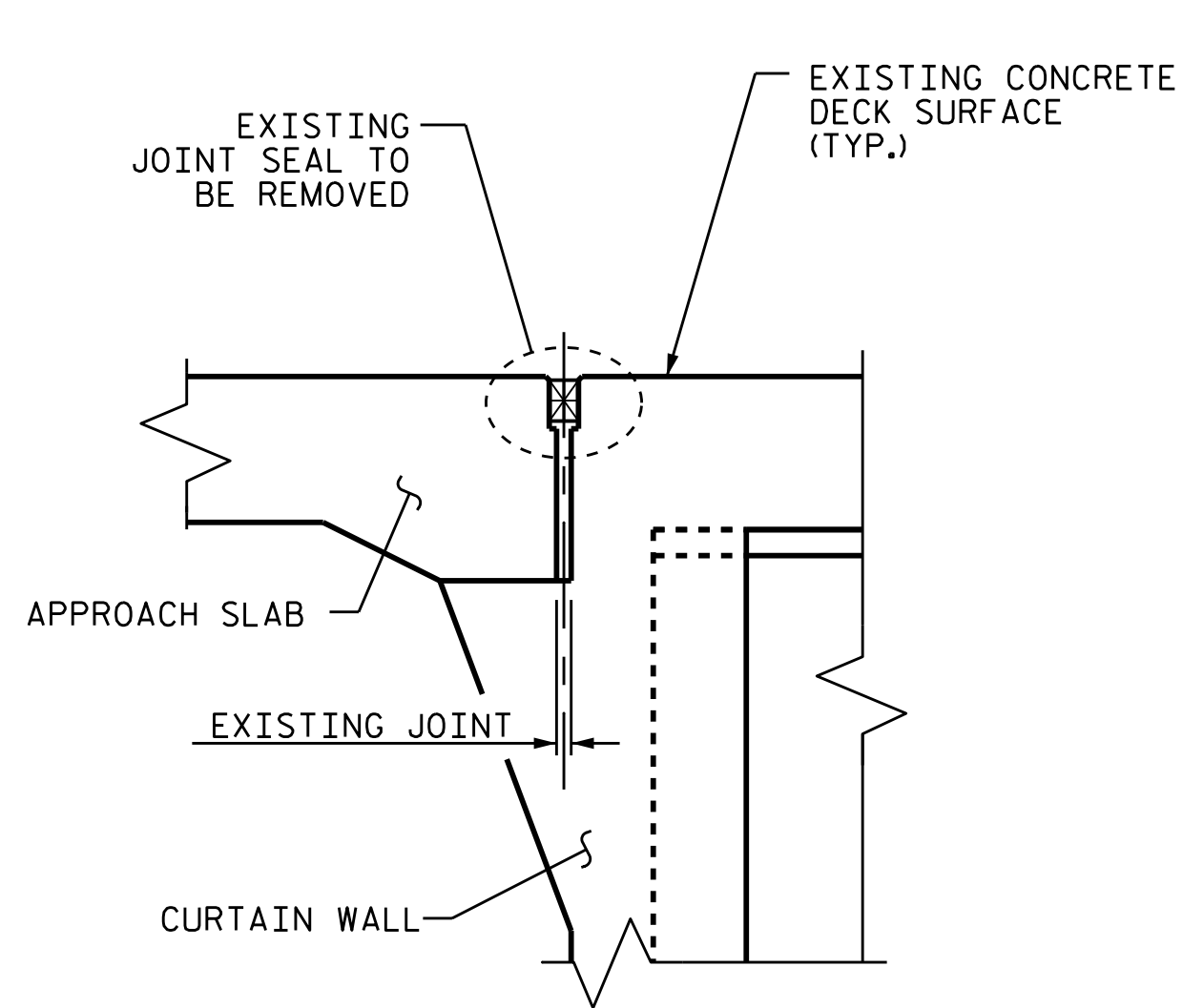
UNLESS NOTED OTHERWISE RETAIN ALL EXISTING REINFORCING STEEL. CLEAN AND REPAIR AS NEEDED.

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

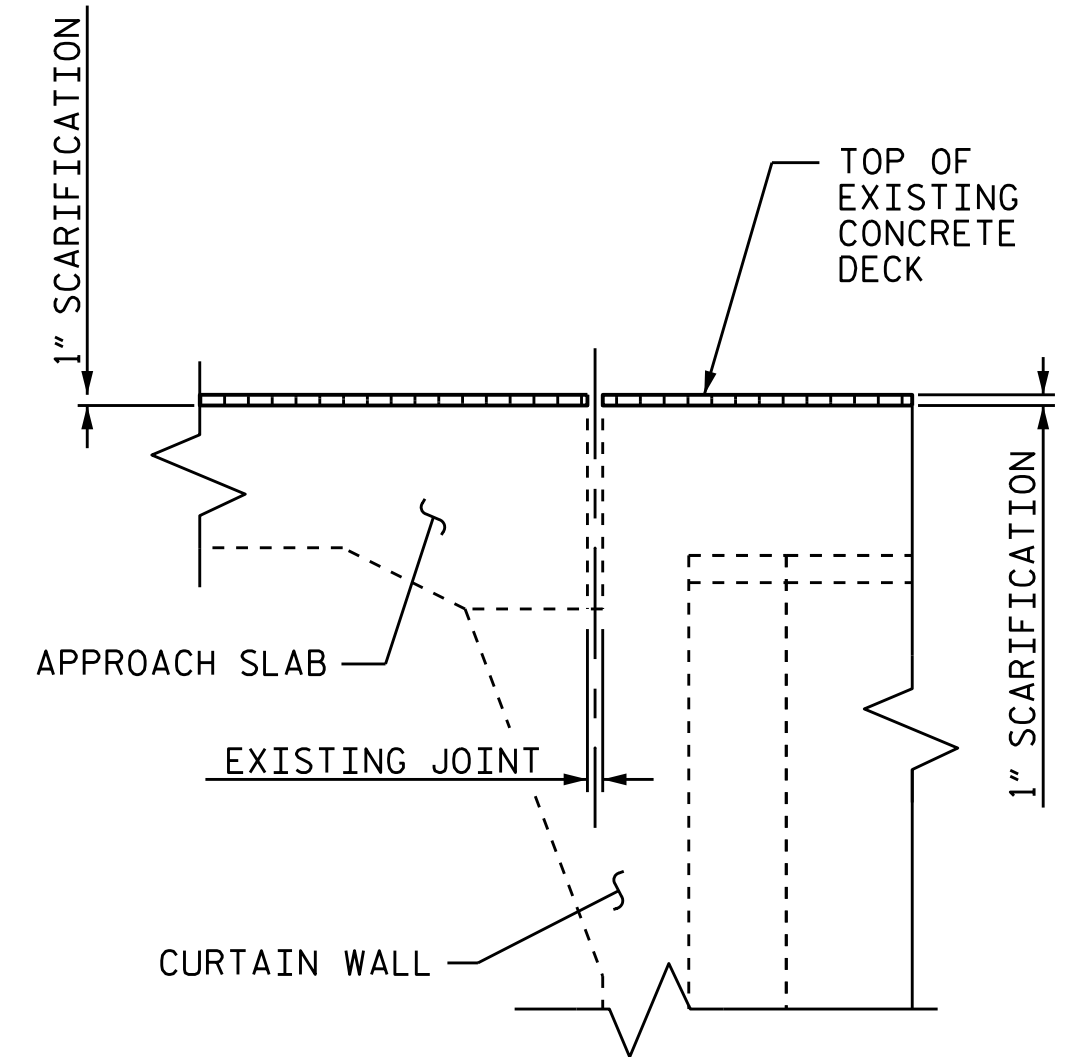
SILICONE JOINT SEALANT AND BACKER ROD SHALL BE INSTALLED AS PER MANUFACTURER'S RECOMANDATION.

THE INSTALLED SILICONE JOINT SEALANT SHALL BE WATERTIGHT.

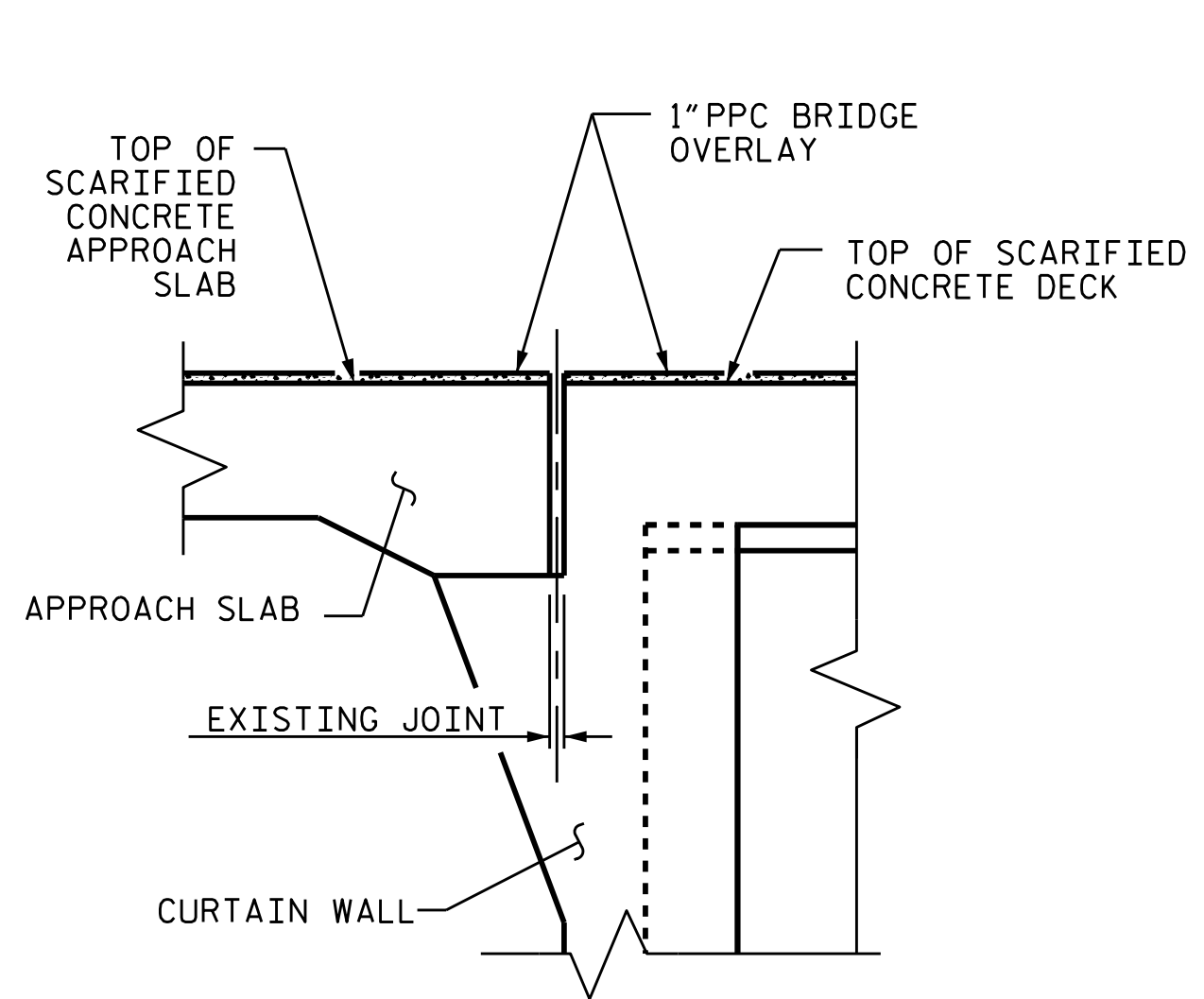
FOR POURABLAE SILICONE JOINT SEALANT, SEE SPECIAL PROVISIONS.



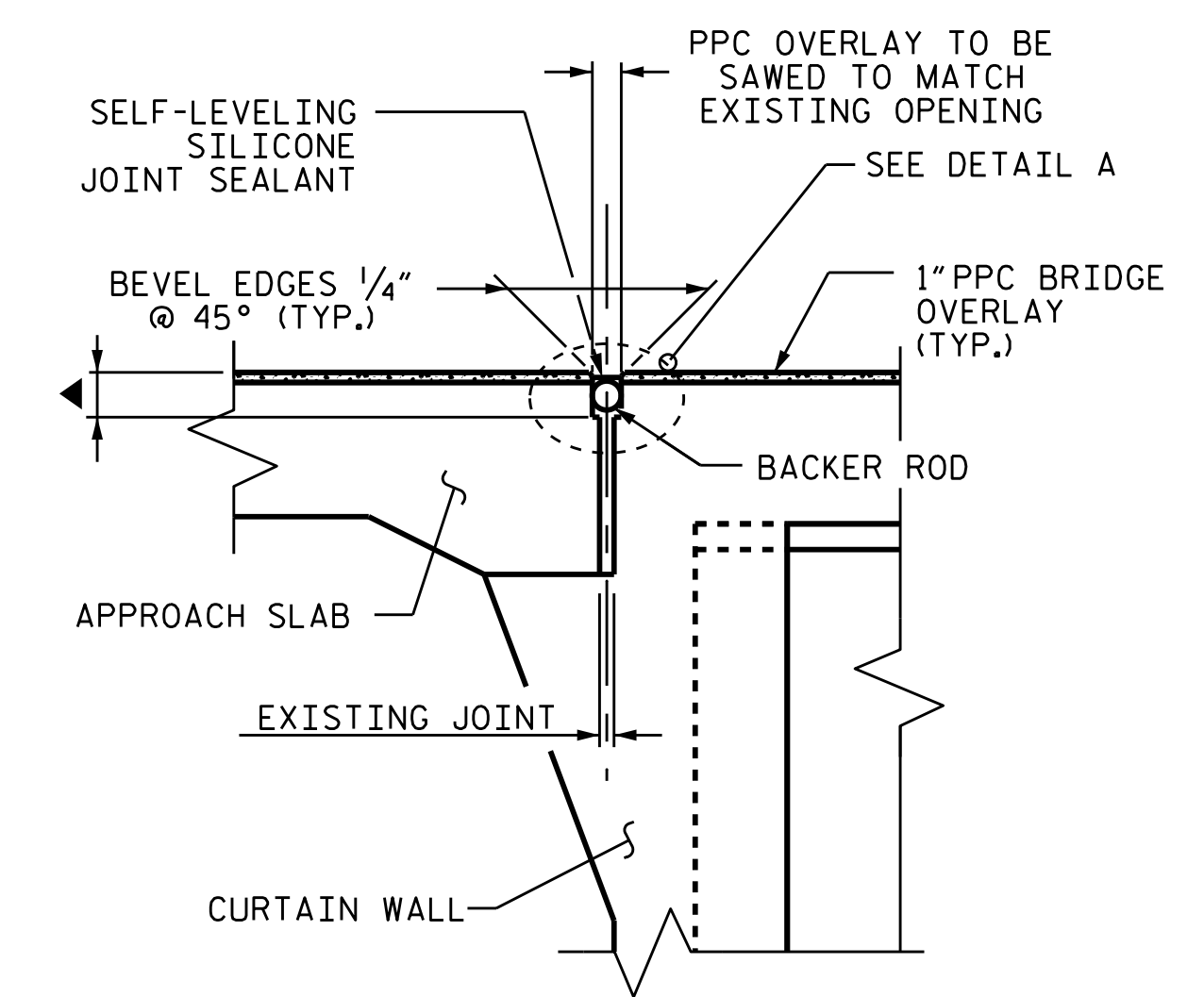
EXISTING JOINT



MINIMUM EXISTING JOINT REMOVAL & SCARIFICATION



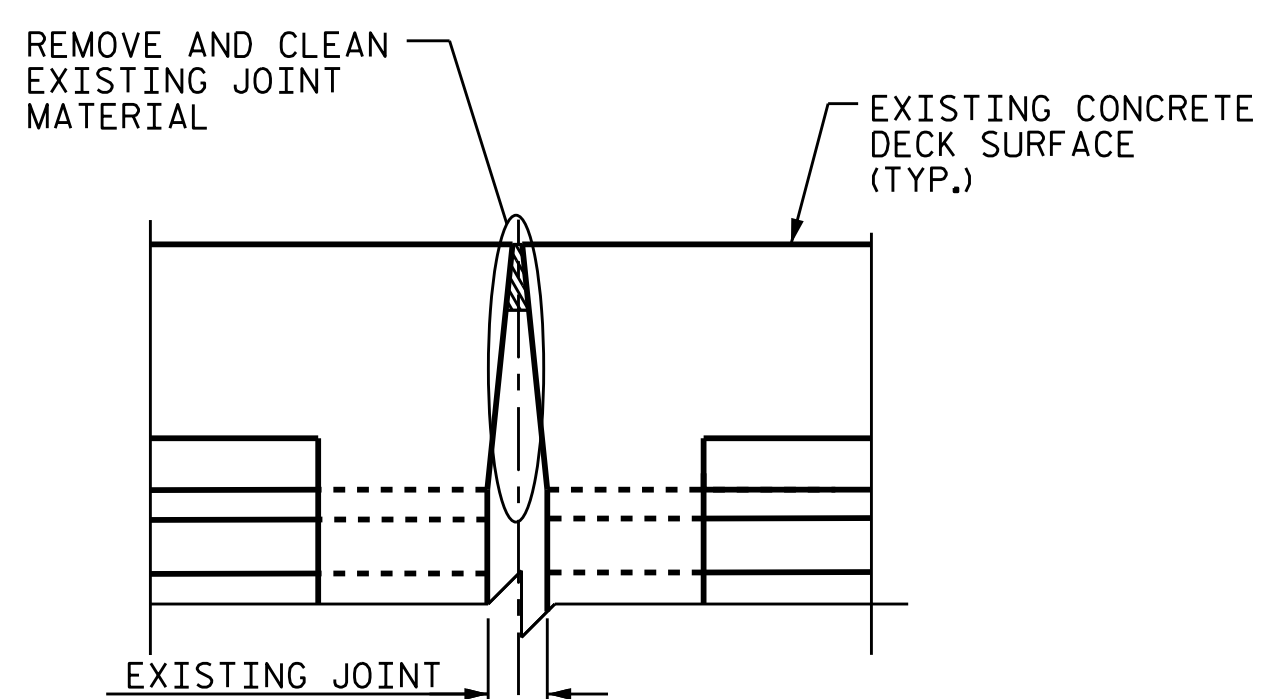
PROPOSED JOINT PRE-SAWED & PPC OVERLAY



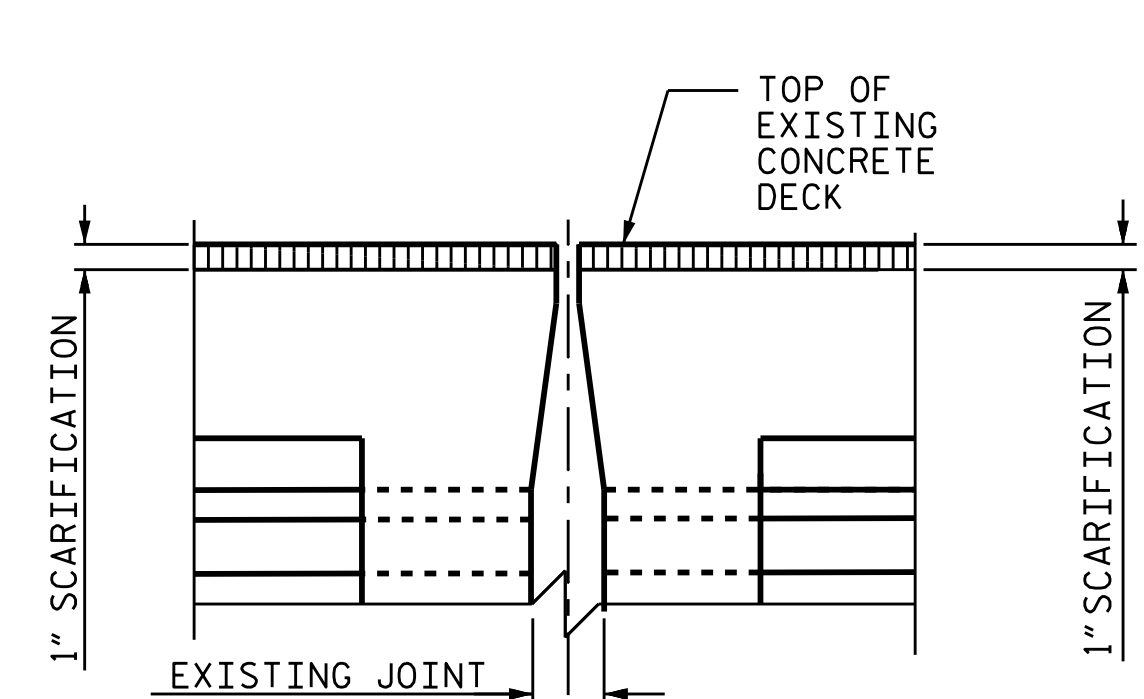
PROPOSED JOINT WITH SAWED DIMENSIONS

JOINT INSTALLATION SEQUENCE AT END BENTS

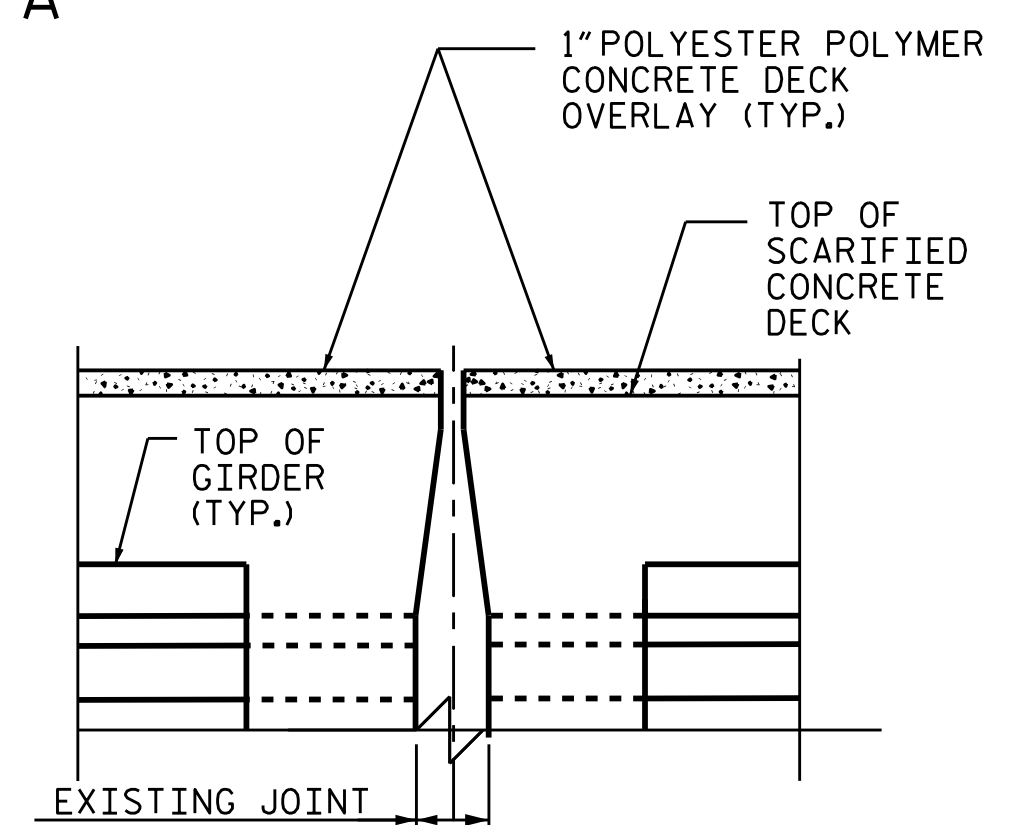
SECTION A-A



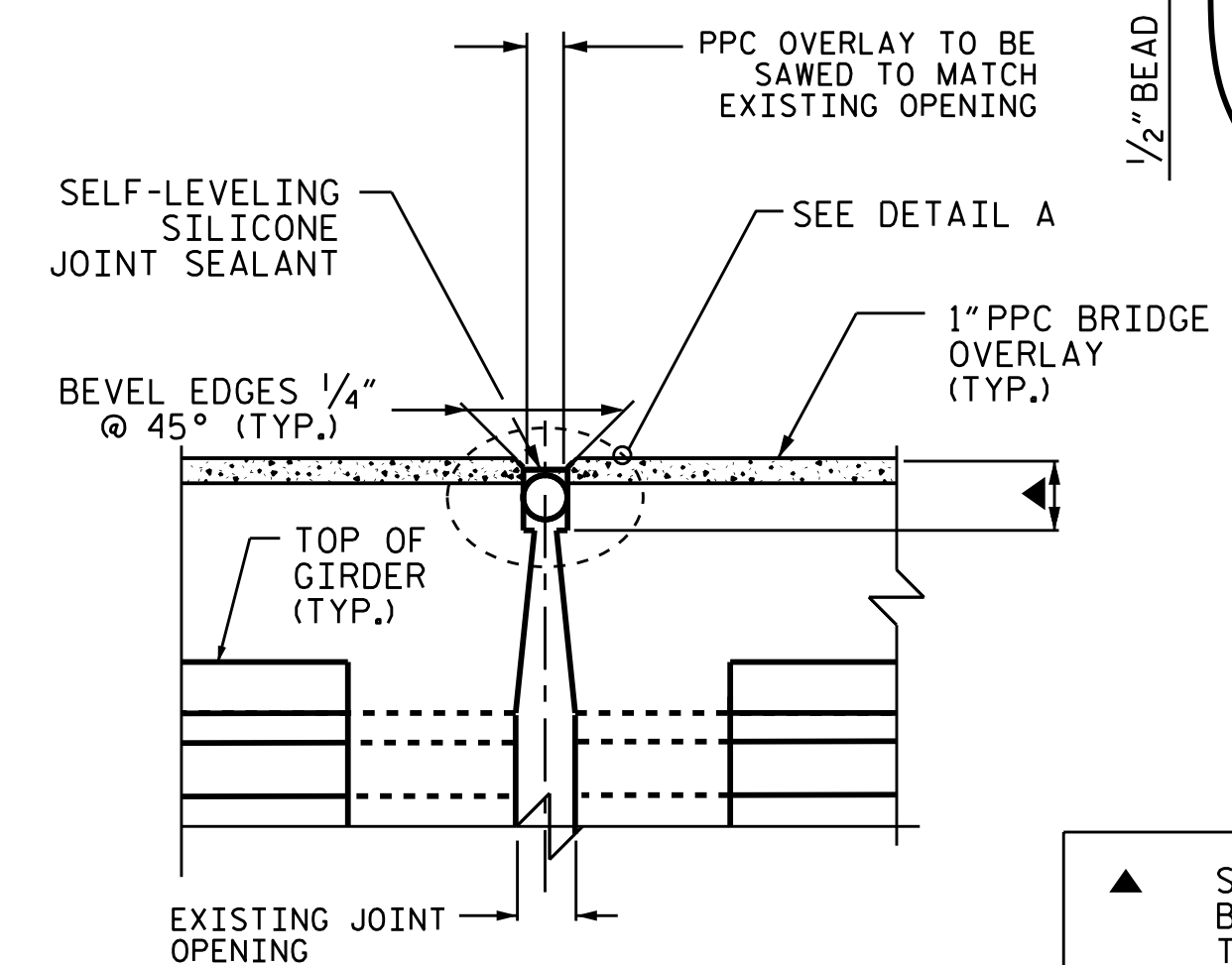
EXISTING JOINT



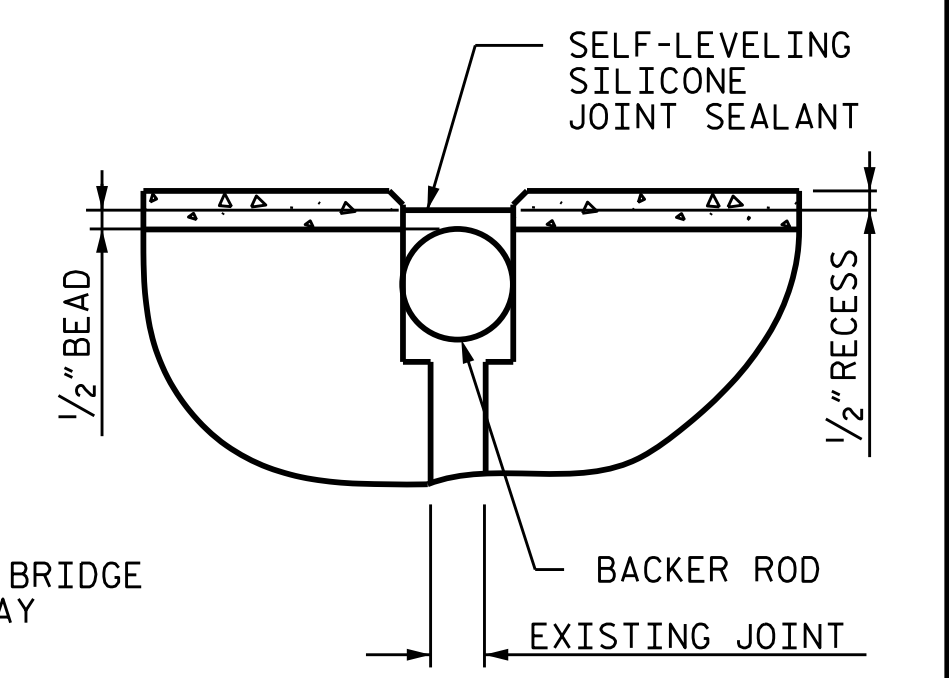
MINIMUM EXISTING JOINT REMOVAL & SCARIFICATION



PROPOSED JOINT PRE-SAWED & PPC OVERLAY



PROPOSED JOINT WITH SAWED DIMENSIONS

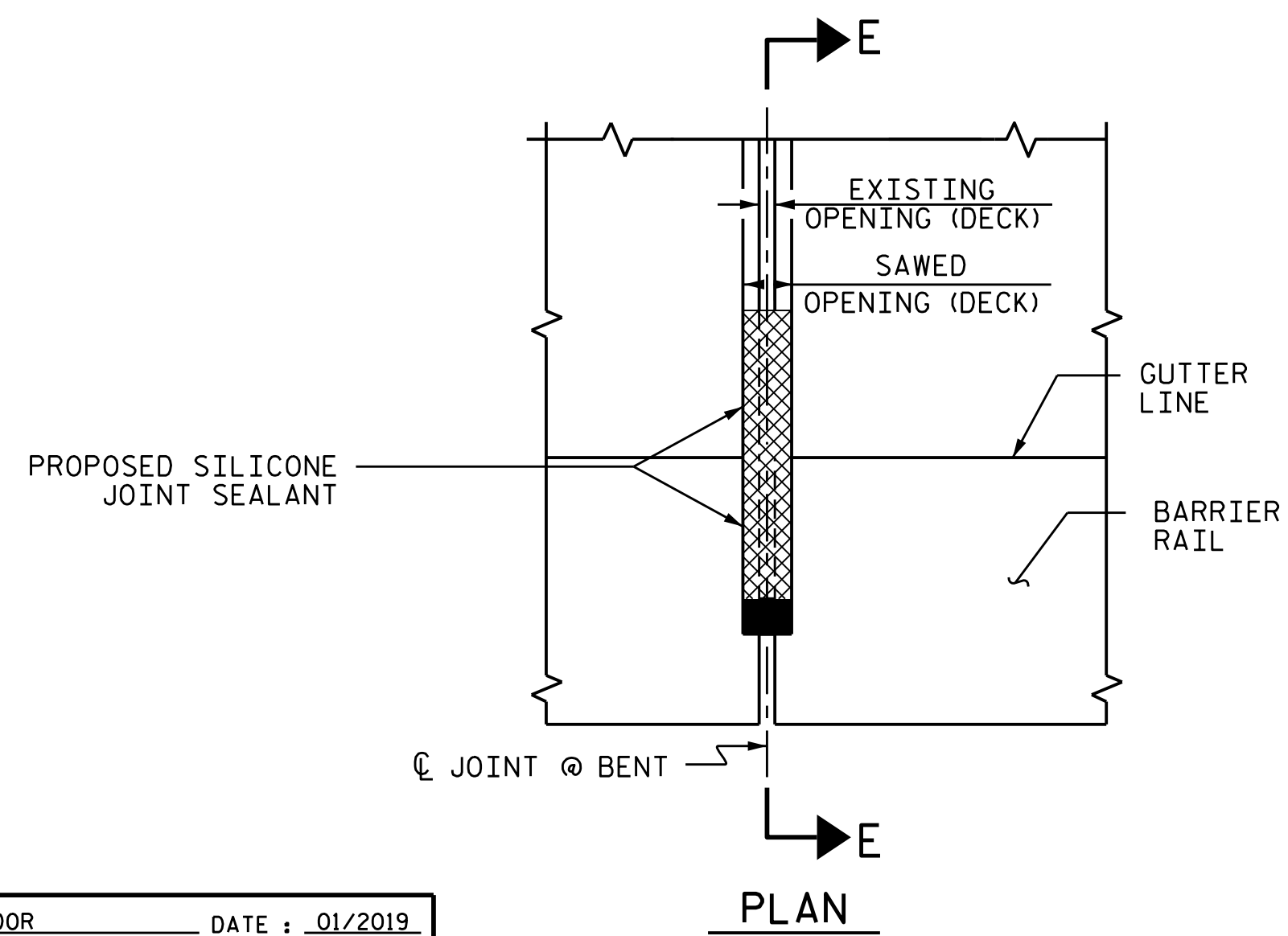


DETAIL A

▲ SAW CUT SHALL BE 3/4" BELOW THE BOTTOM OF THE JOINT SEAL. SEE MANUFACTURER RECOMMENDATIONS

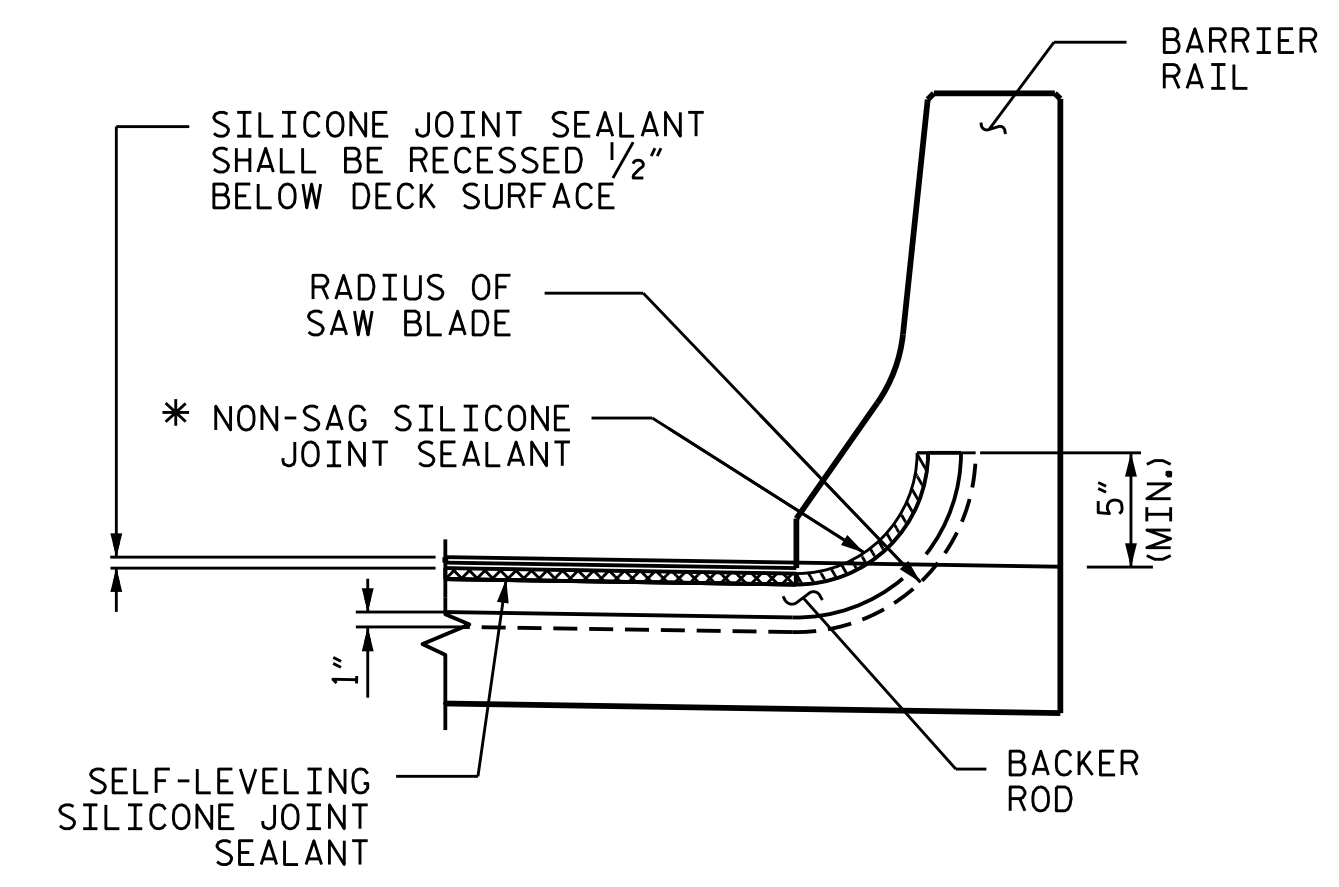
JOINT INSTALLATION SEQUENCE AT BENTS

SECTION B-B



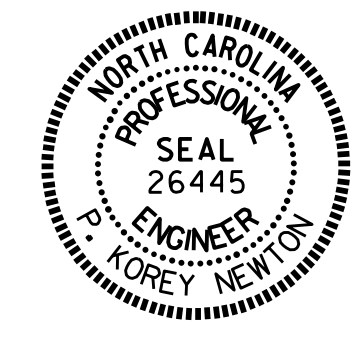
PLAN

* NON-SAG SILICONE JOINT SEALANT TO BE PLACED AND ALLOWED TO SET, PRIOR TO PLACEMENT OF SELF-LEVELING SILICONE JOINT SEALANT.



SECTION E-E

JOINT DETAIL AT BARRIER RAIL



DocuSigned by:
P. Corey Newton
6/23/2019

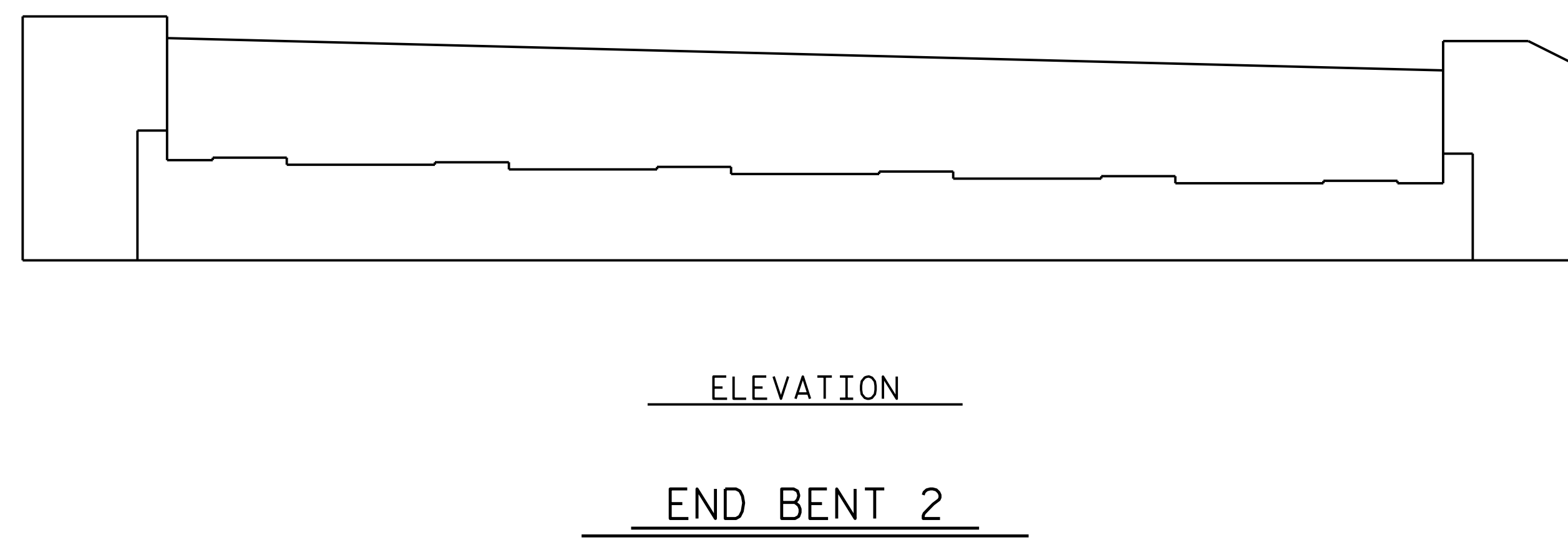
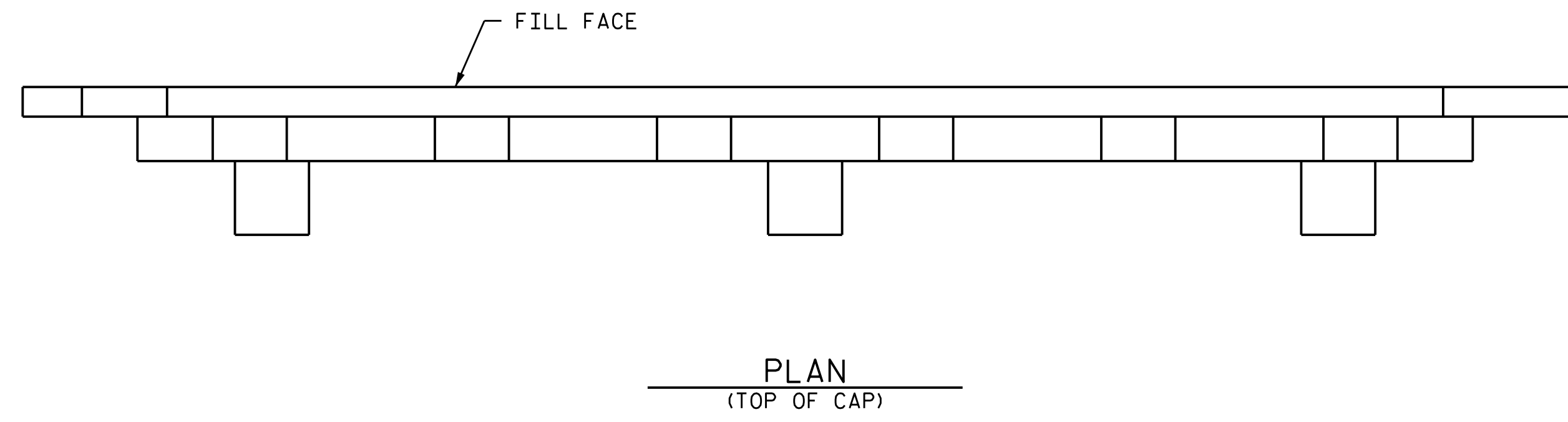
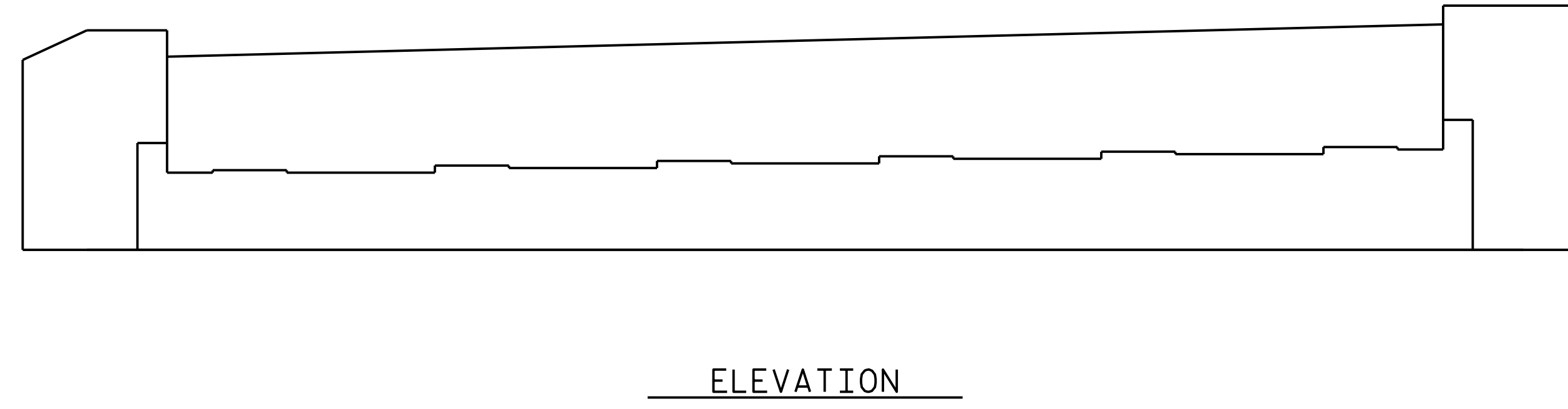
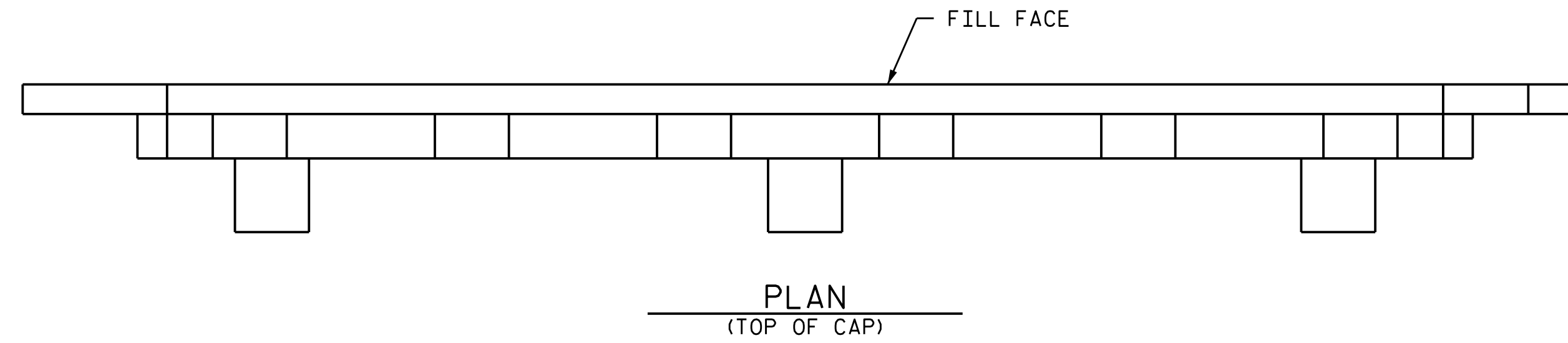
PROJECT NO. I-5940
PENDER COUNTY
BRIDGE NO. 700234 & 700235

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
JOINT REPAIR DETAILS

DRAWN BY : S. T. SANDOR DATE : 01/2019
CHECKED BY : W. C. SMITH DATE : 05/2019

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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2			4			113



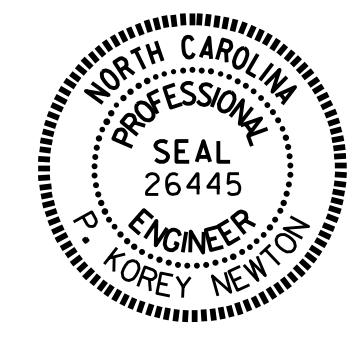
REPAIR QUANTITY TABLE

REPAIRS END BENT 1 & 2	QUANTITIES			
	ESTIMATE		ACTUAL	
CONCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL, CORNER)	0.0	0.0		
COLUMN	0.0	0.0		
SHOTCRETE REPAIRS	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL, CORNER)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LN. FT		LN. FT
CAP		0.0		
COLUMN		0.0		

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

- ERI - EPOXY RESIN INJECTION
- ▨ - SHOTCRETE REPAIRS
- ▩ - CONCRETE REPAIRS

PROJECT NO. I-5940
PENDER COUNTY
 BRIDGE NO. 700235



DocuSigned by:
 P. Corey Newton
 6/23/2019

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

**SUBSTRUCTURE
 REPAIR
 END BENT 1 &
 END BENT 2**

REVISIONS						SHEET NO.
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2			4			113

DRAWN BY : P.D. BRYANT / S.T. SANDOR DATE : 01/2019
 CHECKED BY : W.C. SMITH DATE : 05/2019

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

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR CONCRETE REPAIRS, SEE SPECIAL PROVISIONS.

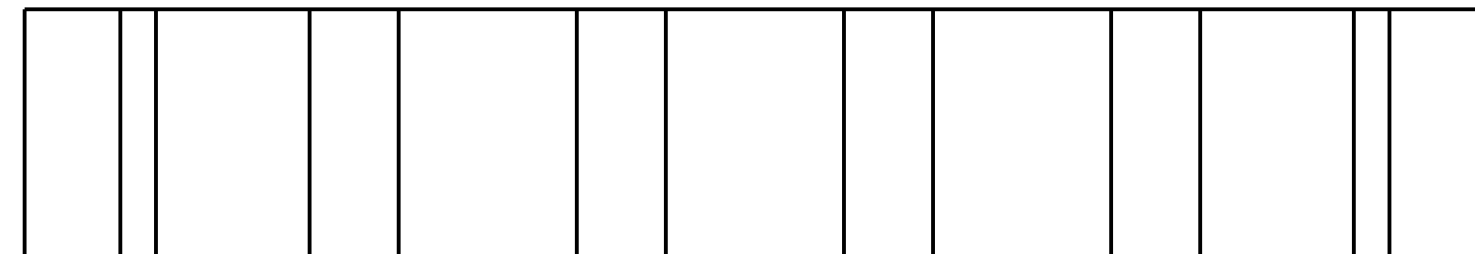
FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.

CONCRETE REPAIRS MAY BE SUBSTITUTED IN LIEU OF SHOTCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

REPAIR QUANTITY TABLE

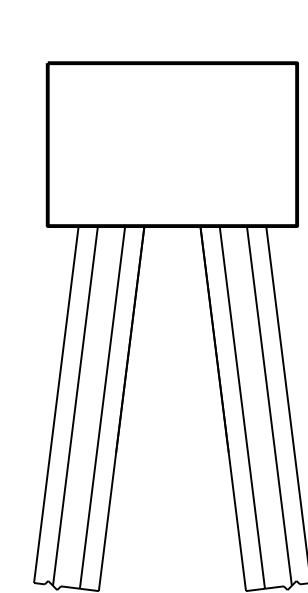
BENT 1	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		

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

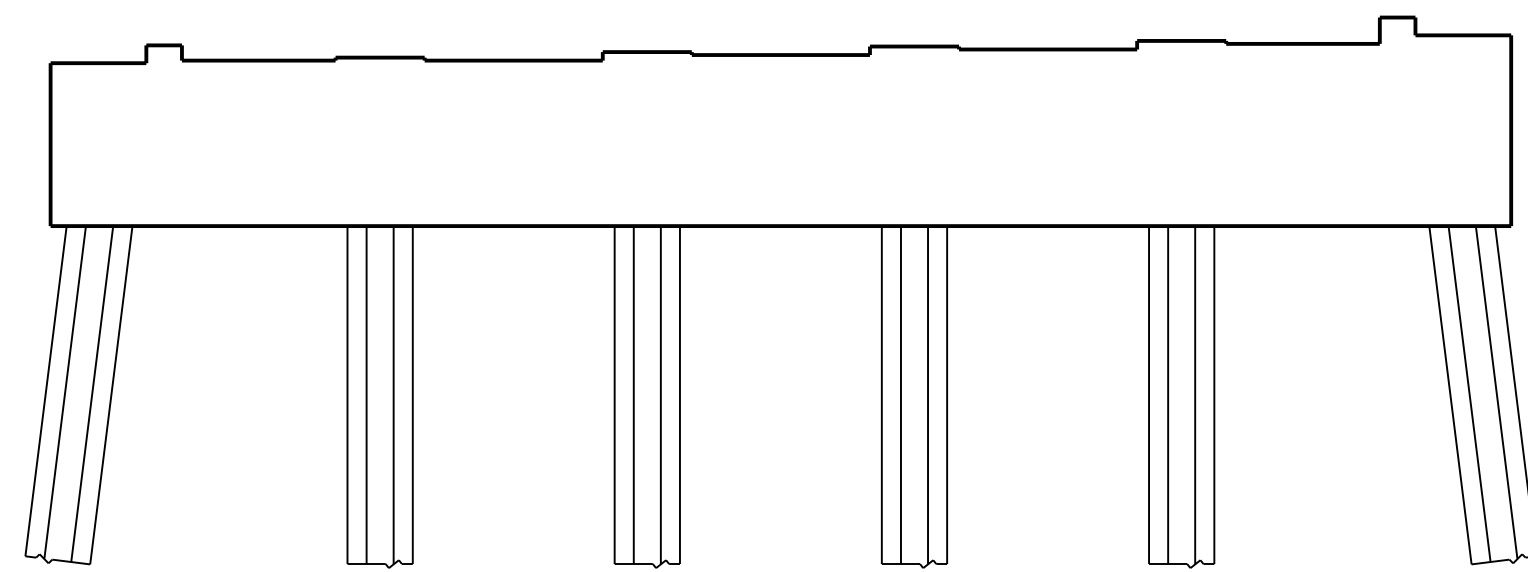


SPAN "A"
SPAN "B"

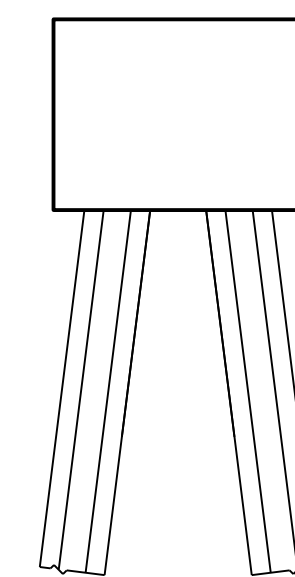
PLAN
TOP OF CAP



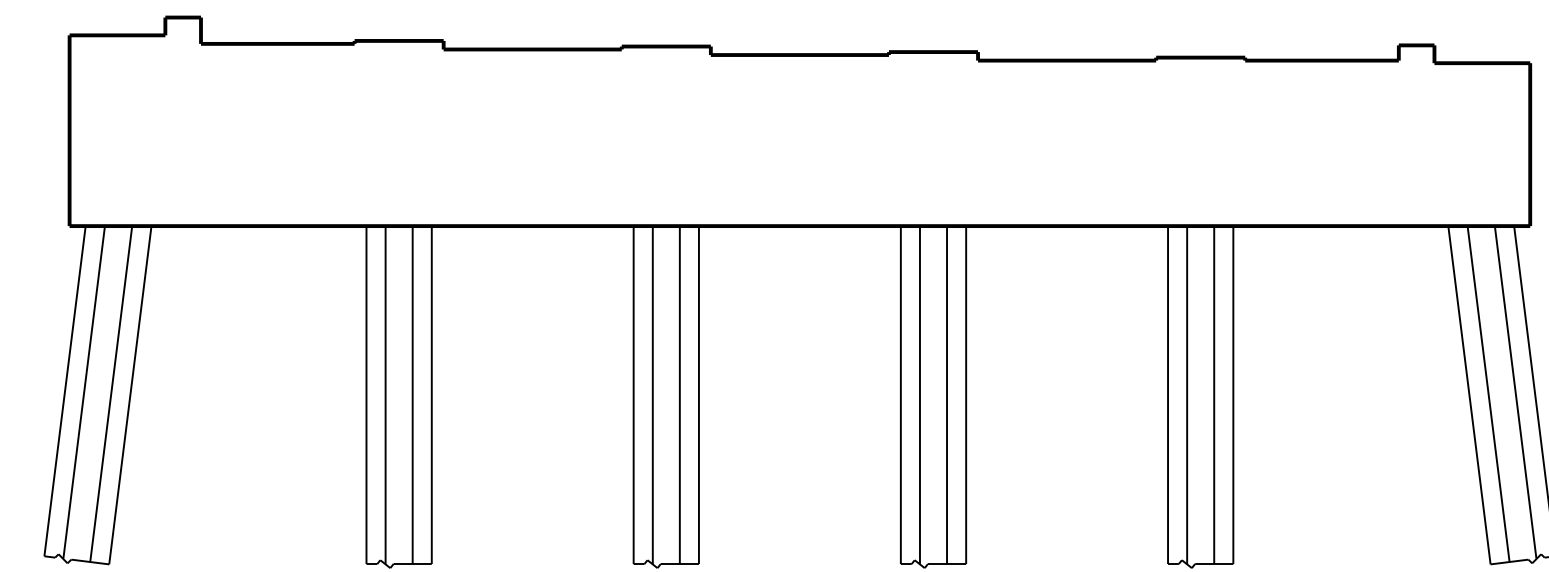
END VIEW
NORTH END



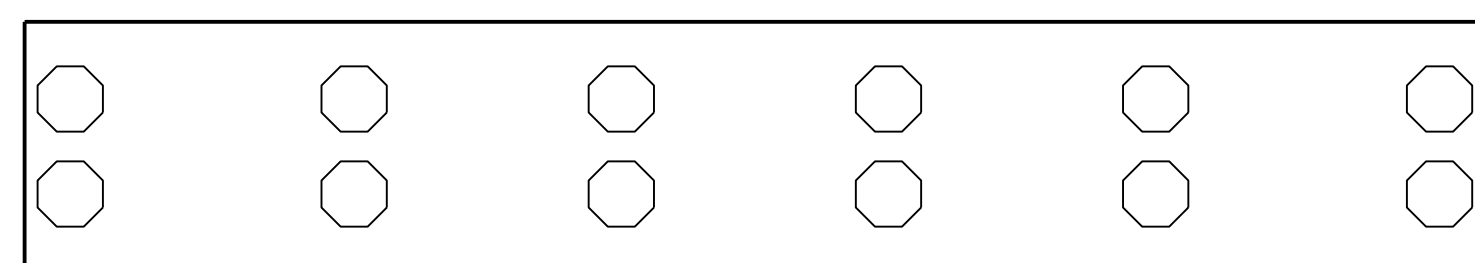
ELEVATION
WEST SIDE



END VIEW
SOUTH SIDE



ELEVATION
EAST SIDE

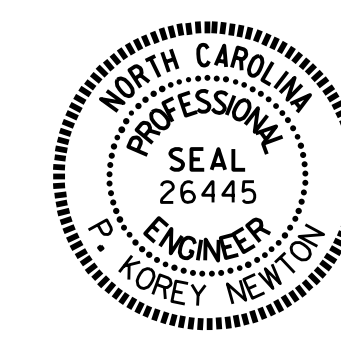


SPAN "B"
SPAN "A"

PLAN
BOTTOM OF CAP

- CONCRETE REPAIR
- SHOTCRETE REPAIR
- ERI EPOXY RESIN INJECTION

PROJECT NO. I-5940
PENDER COUNTY
 BRIDGE NO. 700235



DocuSigned by:
P. Corey Newton
44FE39D14518A07...
 6/23/2019

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

**SUBSTRUCTURE
 BENT 1**

DRAWN BY : P. D. BRYANT / S. T. SANDOR DATE : 01/2019
 CHECKED BY : W. C. SMITH DATE : 05/2019

DOCUMENT NOT CONSIDERED
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NOTES:

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

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR CONCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.

CONCRETE REPAIRS MAY BE SUBSTITUTED IN LIEU OF SHOTCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

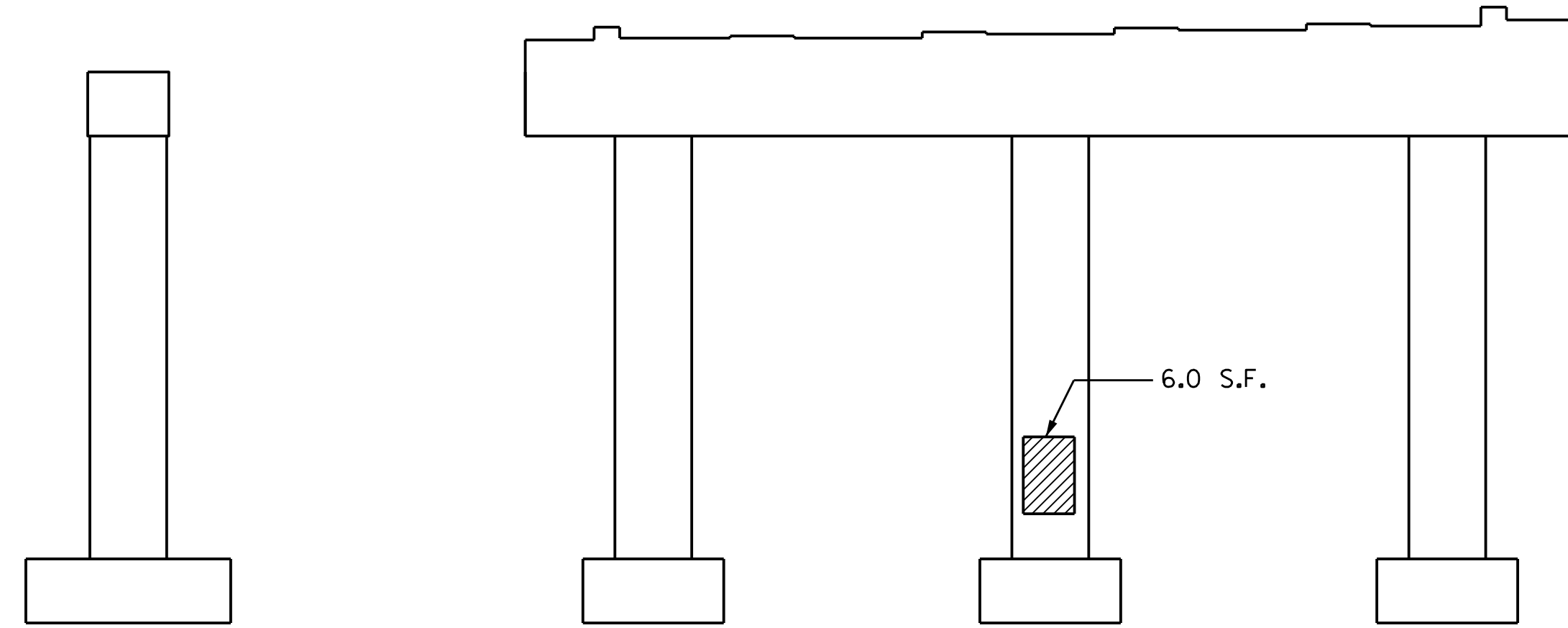
REPAIR QUANTITY TABLE

BENT 2	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	6.0	3.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		

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

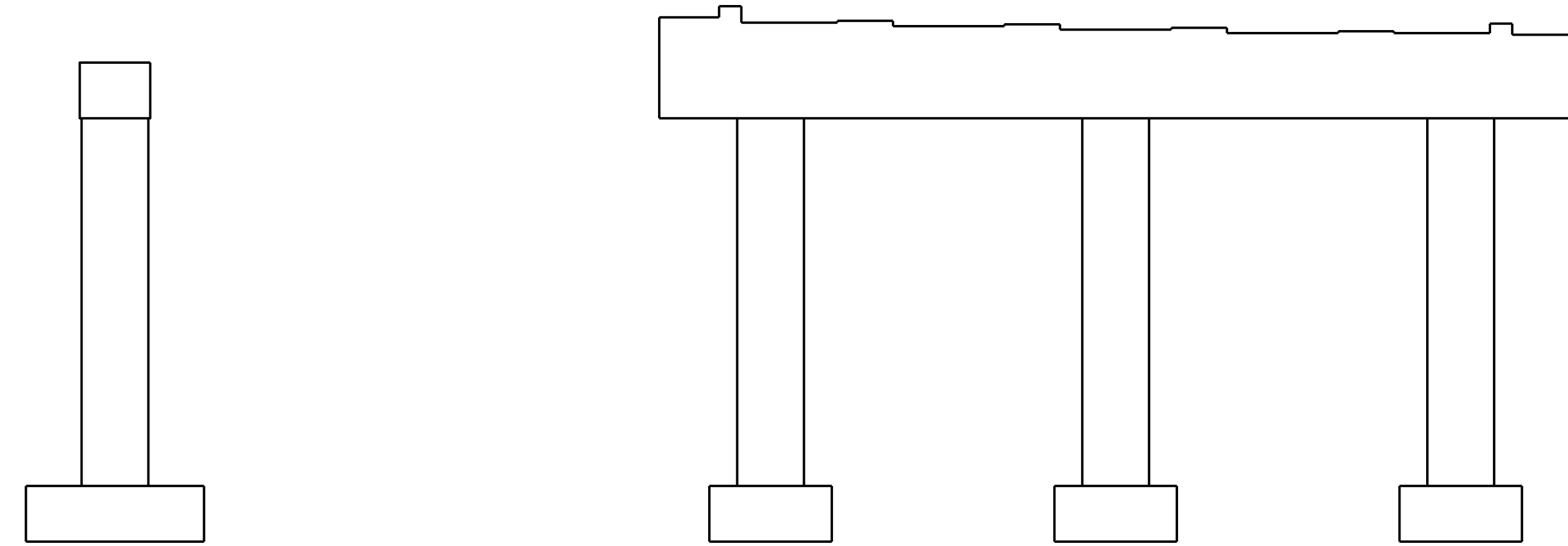


PLAN
TOP OF CAP



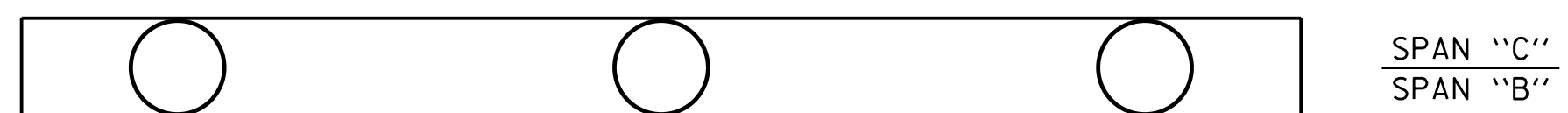
END VIEW
NORTH END

ELEVATION
WEST SIDE



END VIEW
SOUTH SIDE

ELEVATION
EAST SIDE



PLAN
BOTTOM OF CAP

- CONCRETE REPAIR
- SHOTCRETE REPAIR
- ERI EPOXY RESIN INJECTION

PROJECT NO. I-5940
PENDER COUNTY
 BRIDGE NO. 700235



DocuSigned by:
P. Corey Newton
 6/23/2019

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

SUBSTRUCTURE
BENT 2

DRAWN BY : P. D. BRYANT / S. T. SANDOR DATE : 01/2019
 CHECKED BY : W. C. SMITH DATE : 05/2019

DOCUMENT NOT CONSIDERED
 FINAL UNLESS ALL
 SIGNATURES COMPLETED

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	TOTAL SHEETS
1			3			S12-10
2			4			113

NOTES:

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

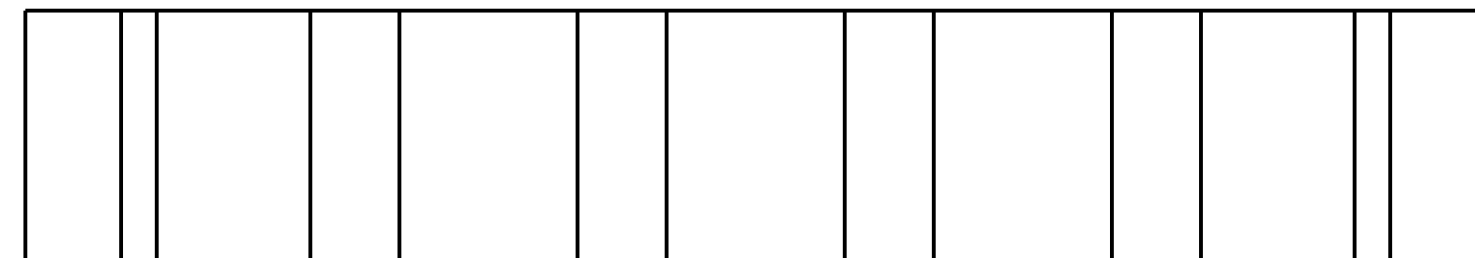
FOR CAP AND COLUMN REPAIR DETAILS, SEE "TYPICAL CAP AND COLUMN REPAIR DETAILS" SHEET.

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR CONCRETE REPAIRS, SEE SPECIAL PROVISIONS.

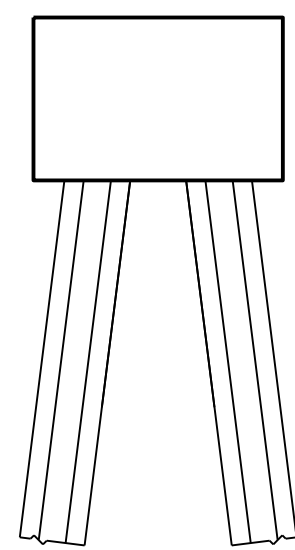
FOR EPOXY RESIN INJECTION, SEE SPECIAL PROVISIONS.

CONCRETE REPAIRS MAY BE SUBSTITUTED IN LIEU OF SHOTCRETE REPAIRS WITH THE APPROVAL OF THE ENGINEER.

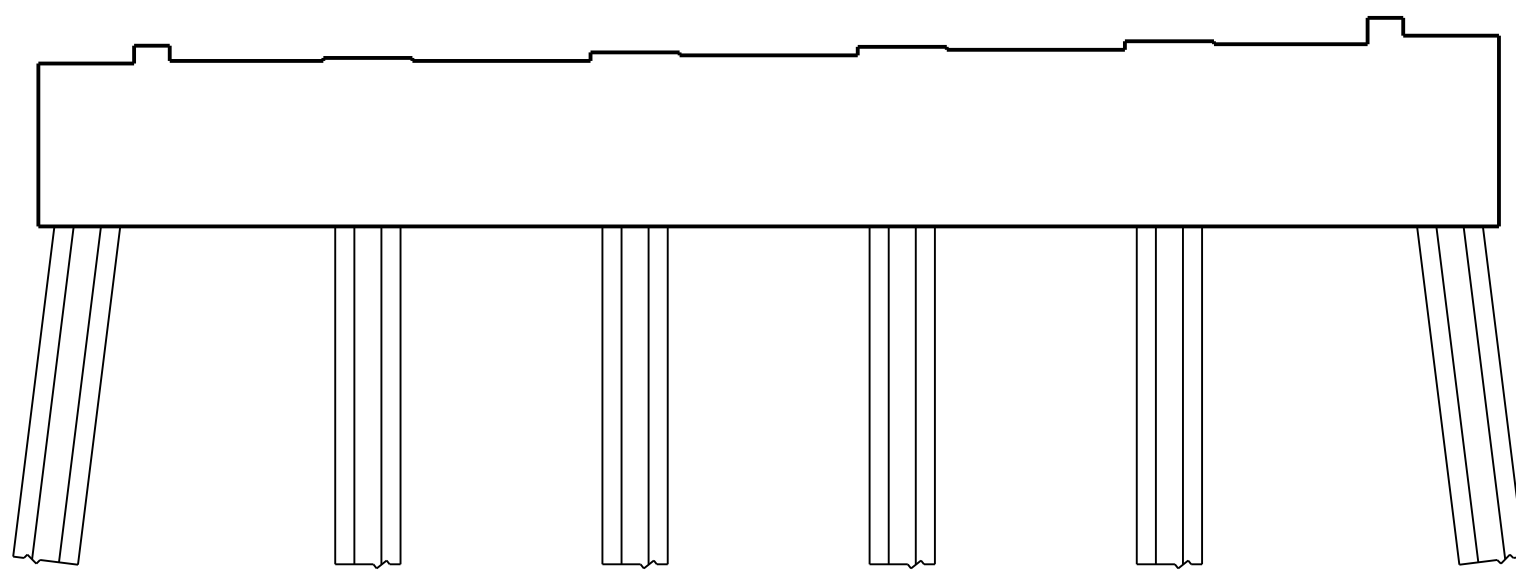


SPAN "C"
SPAN "D"

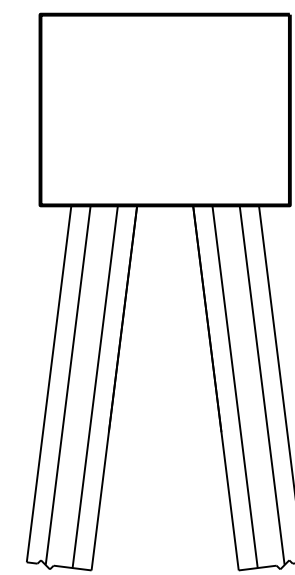
PLAN
TOP OF CAP



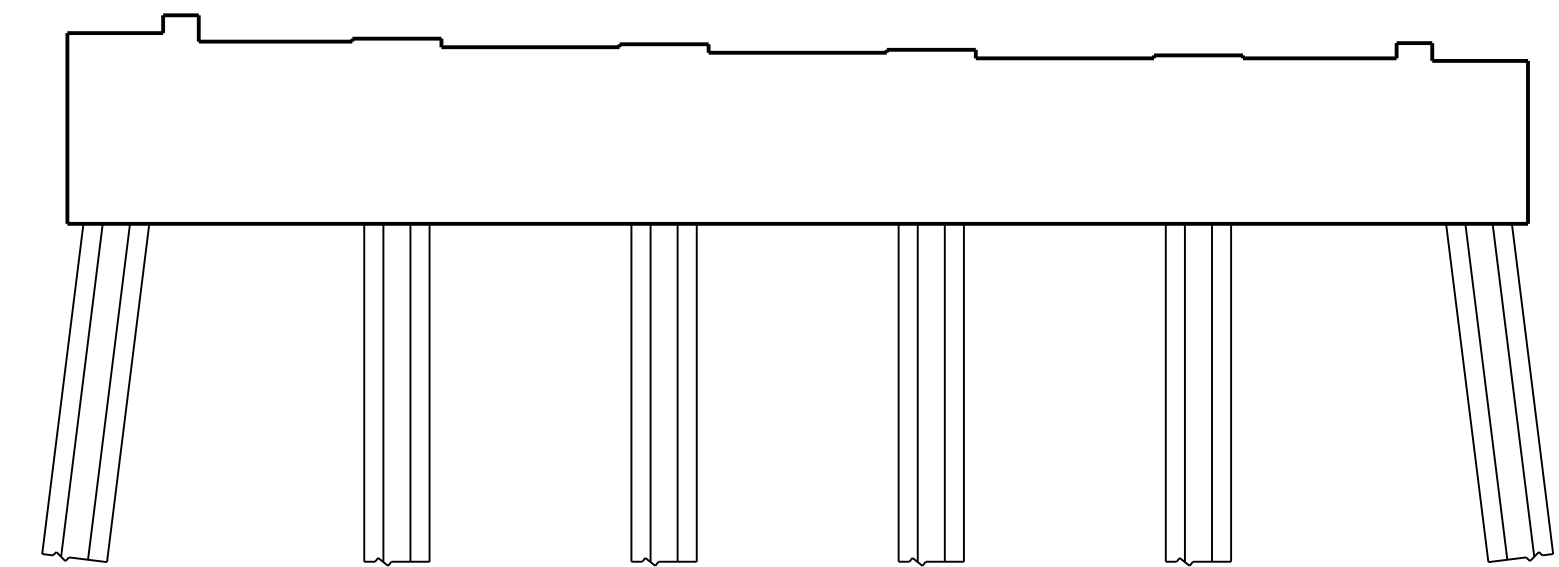
END VIEW
NORTH END



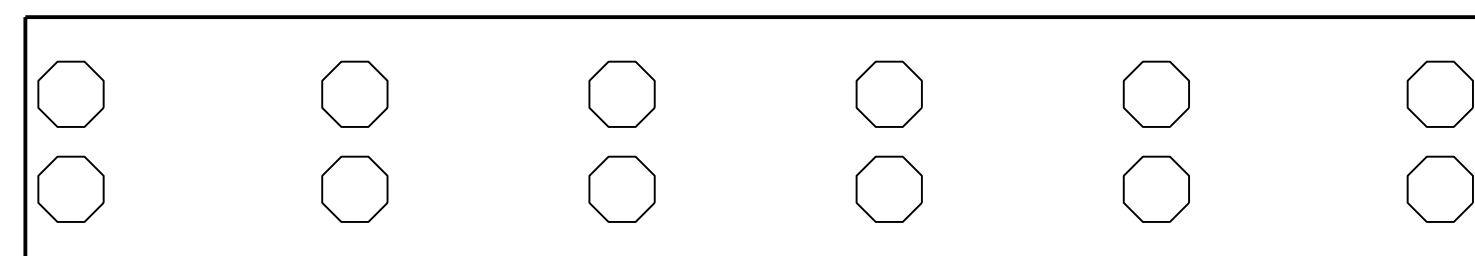
ELEVATION
WEST SIDE



END VIEW
SOUTH SIDE



ELEVATION
EAST SIDE



SPAN "D"
SPAN "C"

PLAN
BOTTOM OF CAP

- CONCRETE REPAIR
- SHOTCRETE REPAIR
- ERI EPOXY RESIN INJECTION



DocuSigned by:
P. Corey Newton
6/23/2019

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STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

**SUBSTRUCTURE
BENT 3**

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	TOTAL SHEETS
1			3			S12-11
2			4			113

PROJECT NO. I-5940
PENDER COUNTY
BRIDGE NO. 700235

DRAWN BY : P. D. BRYANT / S. T. SANDOR DATE : 01/2019
CHECKED BY : W. C. SMITH DATE : 05/2019

REPAIR QUANTITY TABLE				
BENT 3	QUANTITIES			
	ESTIMATE		ACTUAL	
SHOTCRETE REPAIR	AREA SF	VOLUME CF	AREA SF	VOLUME CF
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
CONCRETE REPAIR				
CAP (VERTICAL FACE)	0.0	0.0		
CAP (HORIZONTAL FACE)	0.0	0.0		
COLUMN	0.0	0.0		
EPOXY RESIN INJECTION		LF		LF
CAP		0.0		
COLUMN		0.0		

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

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.

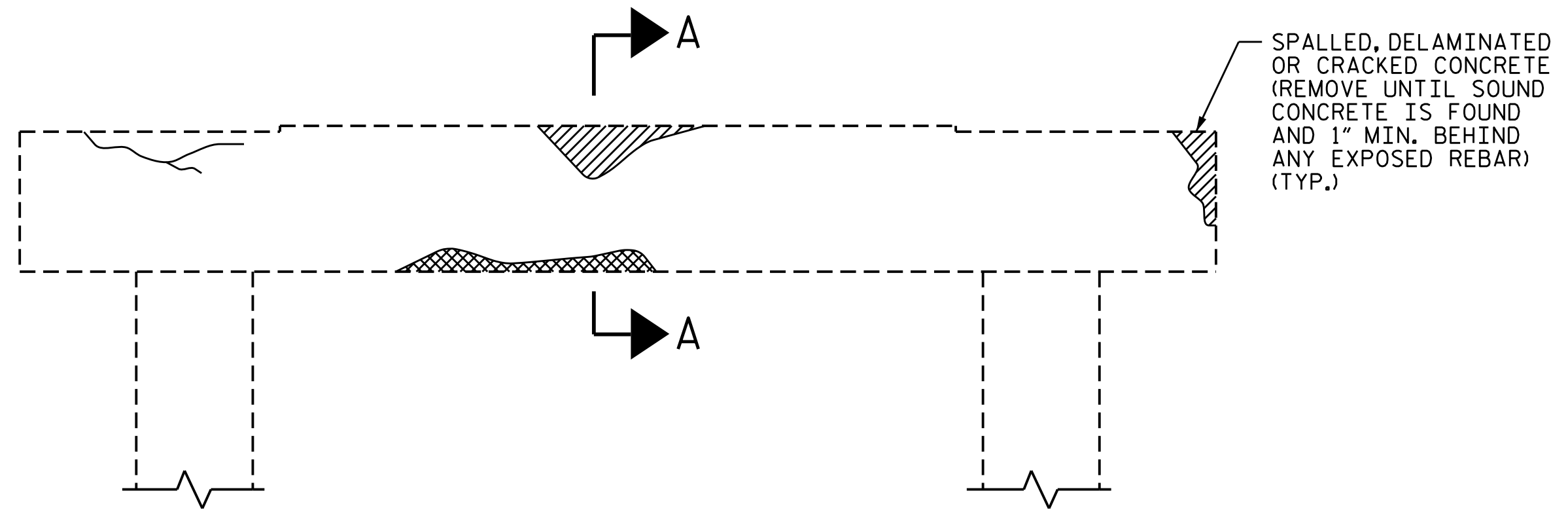
COAT ALL REPAIR SURFACE AREAS ON THE TOP OF CAPS, INCLUDING CHAMFERS, WITH EPOXY PROTECTIVE COATING, OVERLAPPING THE REPAIR AREA BY A MINIMUM OF 3" ON ALL POSSIBLE SIDES.

FOR SHOTCRETE REPAIRS, SEE SPECIAL PROVISIONS.

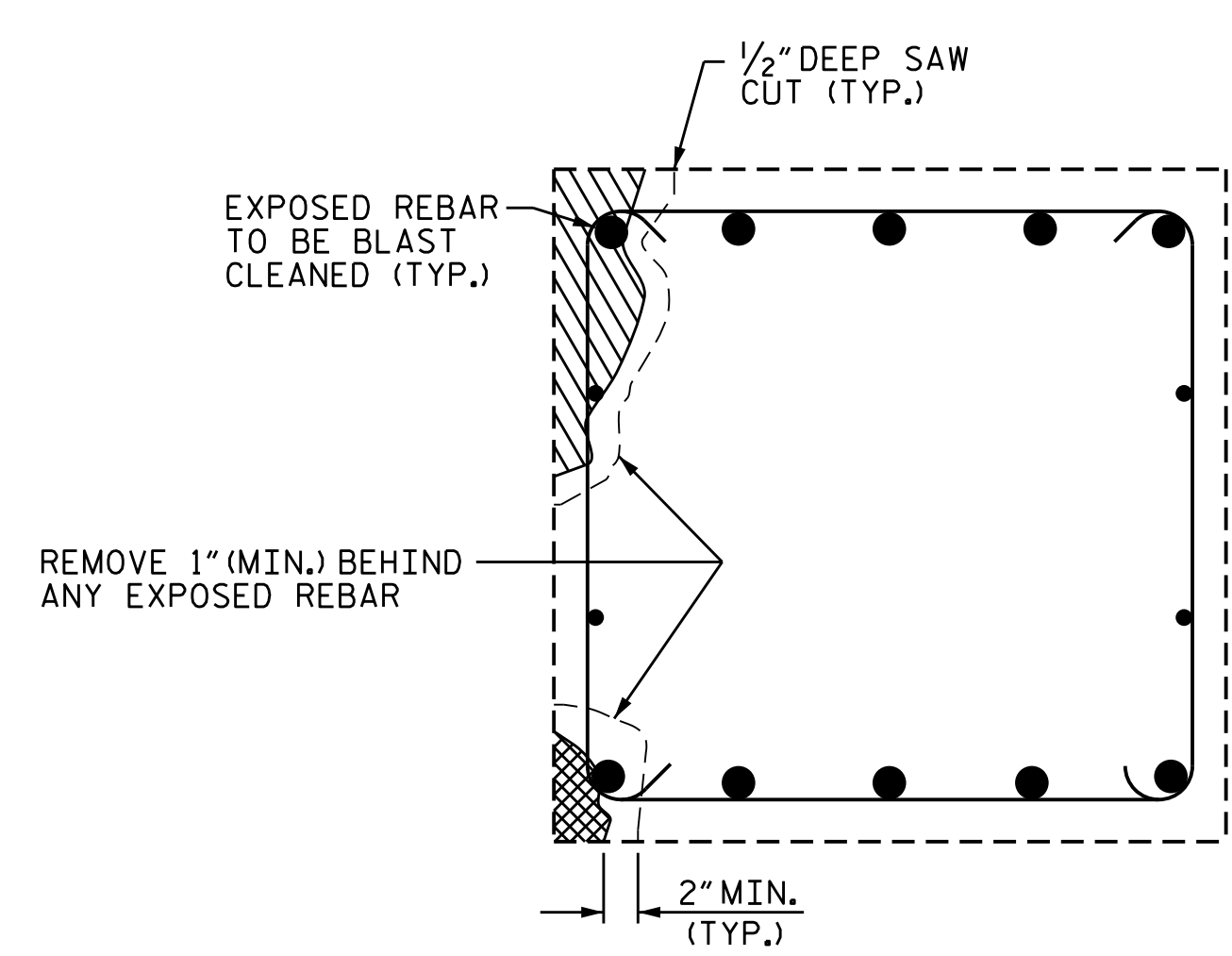
FOR CONCRETE REPAIRS, SEE SPECIAL PROVISIONS.

FOR EPOXY PROTECTIVE COATING, SEE SPECIAL PROVISIONS.

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

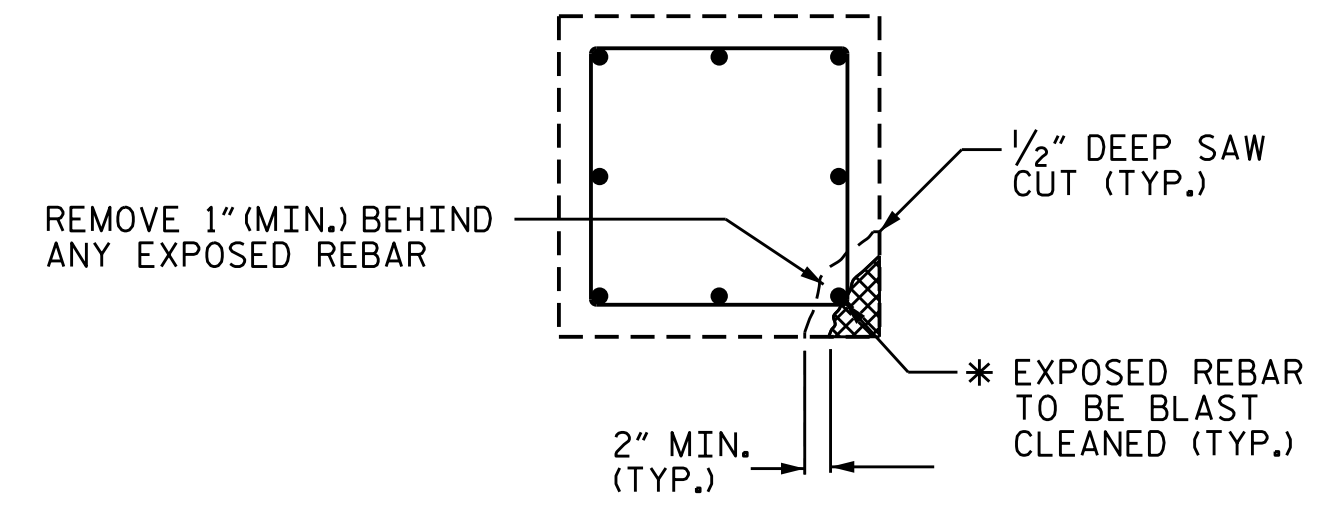


BENT CAP REPAIRS



SECTION A-A

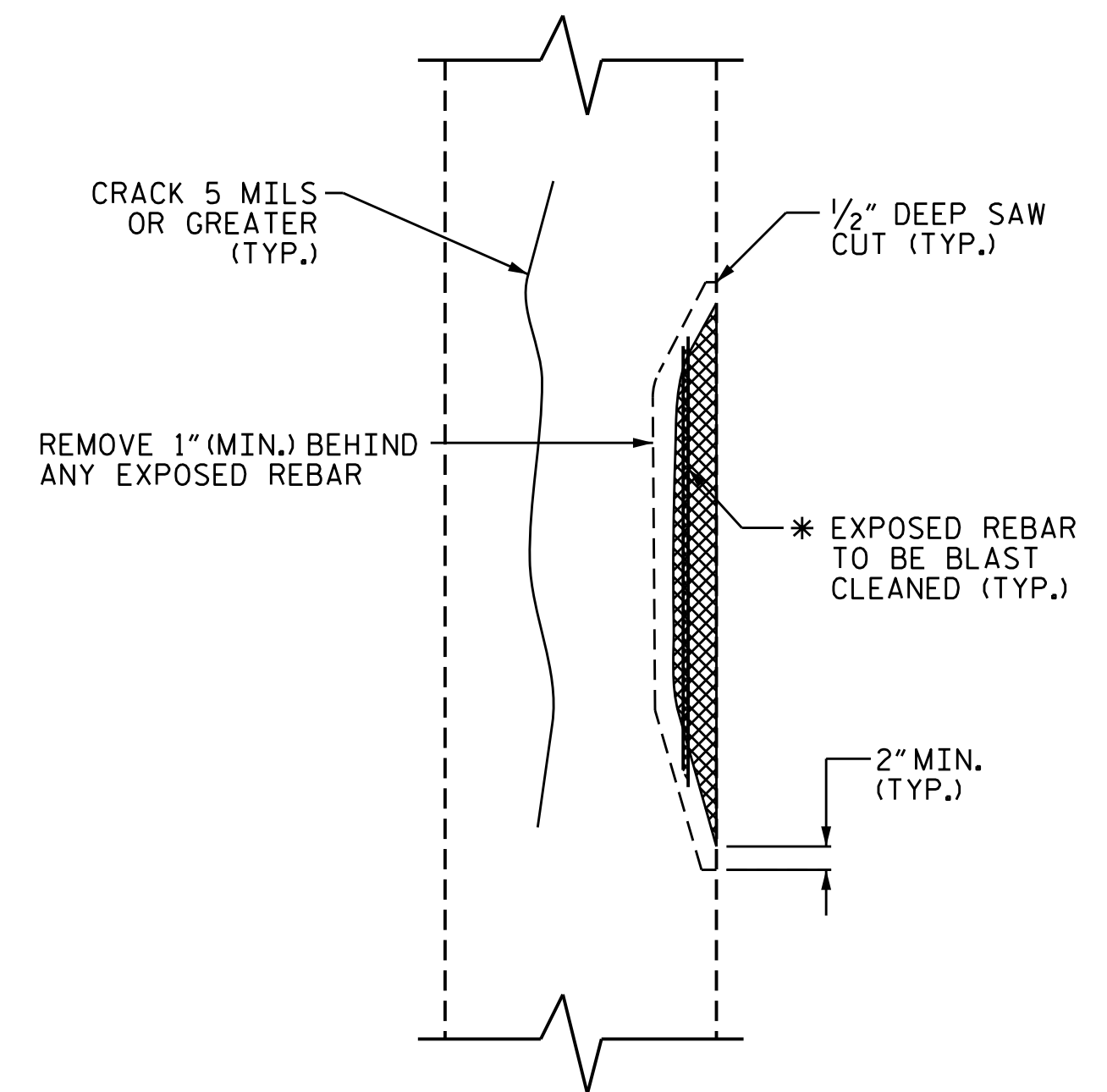
CAP REPAIR



PLAN OF COLUMN

REPAIR KEY

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

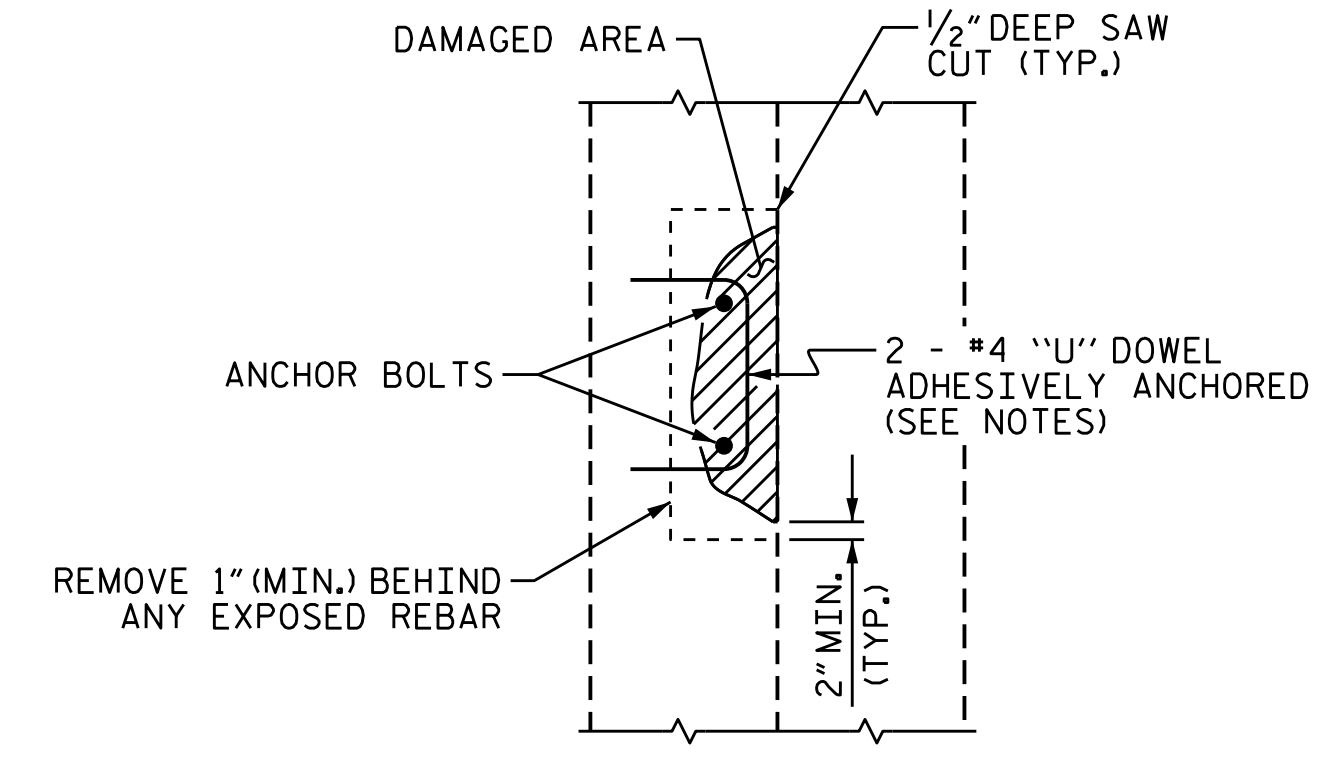


ELEVATION OF COLUMN

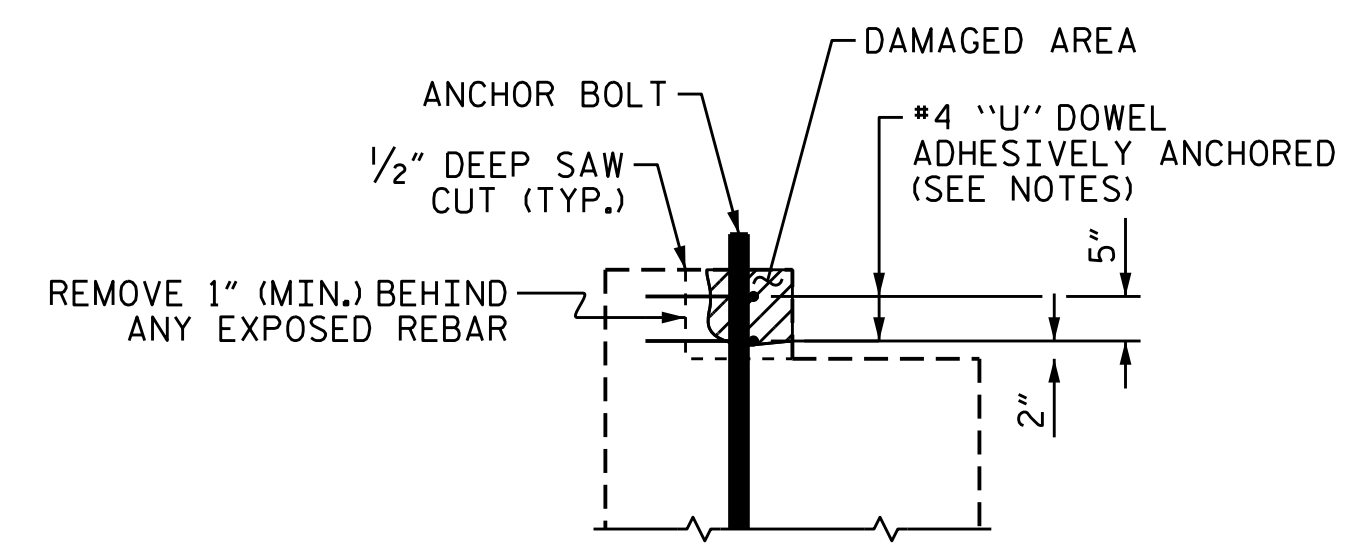
COLUMN REPAIR

* REPAIR LENGTH SHALL NOT EXCEED 10 FEET.

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"



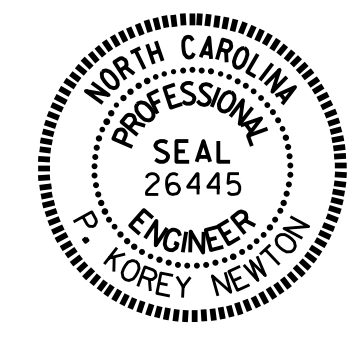
PLAN



ELEVATION

PEDESTAL WALL REPAIR

PROJ. NO. I- 5940
 DUPLIN & PENDER COUNTIES
 BRIDGE NO. 427, 428, 429, 430,
435, 436, 437, 438, 449, 450,
234 & 235



DocuSigned by:
 P. Corey Newton
 6/23/2019

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

ASSEMBLED BY : S. T. SANDOR DATE : 02/2019
 CHECKED BY : W. C. SMITH DATE : 05/2019
 DRAWN BY : NAP 8/18
 CHECKED BY :

DOCUMENT NOT CONSIDERED
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 SIGNATURES COMPLETED

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

STANDARD NOTES

DESIGN DATA:

SPECIFICATIONS	-----	A.A.S.H.T.O. (CURRENT)
LIVE LOAD	-----	SEE PLANS
IMPACT ALLOWANCE	-----	SEE A.A.S.H.T.O.
STRESS IN EXTREME FIBER OF STRUCTURAL STEEL - AASHTO M270 GRADE 36	--	20,000 LBS. PER SQ. IN.
- AASHTO M270 GRADE 50W	--	27,000 LBS. PER SQ. IN.
- AASHTO M270 GRADE 50	--	27,000 LBS. PER SQ. IN.
REINFORCING STEEL IN TENSION - GRADE 60	---	24,000 LBS. PER SQ. IN.
CONCRETE IN COMPRESSION	-----	1,200 LBS. PER SQ. IN.
CONCRETE IN SHEAR	-----	SEE A.A.S.H.T.O.
STRUCTURAL TIMBER - TREATED OR UNTREATED EXTREME FIBER STRESS	---	1,800 LBS. PER SQ. IN.
COMPRESSION PERPENDICULAR TO GRAIN OF TIMBER	-----	375 LBS. PER SQ. IN.
EQUIVALENT FLUID PRESSURE OF EARTH	-----	30 LBS. PER CU. FT. (MINIMUM)

MATERIAL AND WORKMANSHIP:

EXCEPT AS MAY OTHERWISE BE SPECIFIED ON PLANS OR IN THE SPECIAL PROVISIONS, ALL MATERIAL AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE 2018 "STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES" OF THE N. C. DEPARTMENT OF TRANSPORTATION.

STEEL SHEET PILING FOR PERMANENT OR TEMPORARY APPLICATIONS SHALL BE HOT ROLLED.

CONCRETE:

UNLESS OTHERWISE REQUIRED ON PLANS, CLASS A CONCRETE SHALL BE USED FOR ALL PORTIONS OF ALL STRUCTURES WITH THE EXCEPTION THAT: CLASS AA CONCRETE SHALL BE USED IN BRIDGE SUPERSTRUCTURES, ABUTMENT BACKWALLS, AND APPROACH SLABS; AND CLASS B CONCRETE SHALL BE USED FOR SLOPE PROTECTION AND RIP RAP.

CONCRETE CHAMFERS:

UNLESS OTHERWISE NOTED ON THE PLANS, ALL EXPOSED CORNERS ON STRUCTURES SHALL BE CHAMFERED $\frac{3}{4}$ " WITH THE FOLLOWING EXCEPTIONS: TOP CORNERS OF CURBS MAY BE ROUNDED TO $\frac{1}{2}$ " RADIUS WHICH IS BUILT INTO CURB FORMS; CORNERS OF TRANSVERSE FLOOR EXPANSION JOINTS SHALL BE ROUNDED WITH A $\frac{1}{4}$ " FINISHING TOOL UNLESS OTHERWISE REQUIRED ON PLANS; AND CORNERS OF EXPANSION JOINTS IN THE ROADWAY FACES AND TOPS OF CURBS AND SIDEWALKS SHALL BE ROUNDED TO A $\frac{1}{4}$ " RADIUS WITH A FINISHING STONE OR TOOL UNLESS OTHERWISE REQUIRED ON PLANS.

DOWELS:

DOWELS WHEN INDICATED ON PLANS AS FOR CULVERT EXTENSIONS, SHALL BE EMBEDDED AT LEAST 12" INTO THE OLD CONCRETE AND GROUTED INTO PLACE WITH 1:2 CEMENT MORTAR.

ALLOWANCE FOR DEAD LOAD DEFLECTION, SETTLEMENT, ETC. IN CASTING SUPERSTRUCTURES:

BRIDGES SHALL BE BUILT ON THE GRADE OR VERTICAL CURVE SHOWN ON PLANS. SLABS, CURBS AND PARAPETS SHALL CONFORM TO THE GRADE OR CURVE.

ALL DIMENSIONS WHICH ARE GIVEN IN SECTION AND ARE AFFECTED BY DEAD LOAD DEFLECTIONS ARE DIMENSIONS AT CENTER LINE OF BEARING UNLESS OTHERWISE NOTED ON PLANS. IN SETTING FORMS FOR STEEL BEAM BRIDGES AND PRESTRESSED CONCRETE GIRDER BRIDGES, ADJUSTMENTS SHALL BE MADE DUE TO THE DEAD LOAD DEFLECTIONS FOR THE ELEVATIONS SHOWN. WHERE BLOCKS ARE SHOWN OVER BEAMS FOR BUILDING UP TO THE SLAB, THE VERTICAL DIMENSIONS OF THE BLOCKS SHALL BE ADJUSTED BETWEEN BEARINGS TO COMPENSATE FOR DEAD LOAD DEFLECTIONS, VERTICAL CURVE ORDINATE, AND ACTUAL BEAM CAMBER. WHERE BOTTOM OF SLAB IS IN LINE WITH BOTTOM OF TOP FLANGES, DEPTH OF SLAB BETWEEN BEARINGS SHALL BE ADJUSTED TO COMPENSATE FOR DEAD LOAD DEFLECTION, VERTICAL CURVE ORDINATE, AND ACTUAL BEAM CAMBER.

IN SETTING FALSEWORK AND FORMS FOR REINFORCED CONCRETE SPANS, AN ALLOWANCE SHALL BE MADE FOR DEAD LOAD DEFLECTIONS, SETTLEMENT OF FALSEWORK, AND PERMANENT CAMBER WHICH SHALL BE PROVIDED FOR IN ADDITION TO THE ELEVATIONS SHOWN. AFTER REMOVAL OF THE FALSEWORK, THE FINISHED STRUCTURES SHALL CONFORM TO THE PROFILE AND ELEVATIONS SHOWN ON THE PLANS AND CONSTRUCTION ELEVATIONS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR FALSEWORK OR FORMS FOR BRIDGE SUPERSTRUCTURE AND ANY STRUCTURE OR PARTS OF A STRUCTURE AS NOTED ON THE PLANS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL BEFORE CONSTRUCTION OF THE FALSEWORK OR FORMS IS STARTED.

REINFORCING STEEL:

ALL REINFORCING STEEL SHALL BE DEFORMED. DIMENSIONS RELATIVE TO PLACEMENT OF REINFORCING ARE TO CENTERS OF BARS UNLESS OTHERWISE INDICATED IN THE PLANS. DIMENSIONS ON BAR DETAILS ARE TO CENTERS OF BARS OR ARE OUT TO OUT AS INDICATED ON PLANS.

WIRE BAR SUPPORTS SHALL BE PROVIDED FOR REINFORCING STEEL WHERE INDICATED ON THE PLANS. WHEN BAR SUPPORT PIECES ARE PLACED IN CONTINUOUS LINES, THEY SHALL BE SO PLACED THAT THE ENDS OF THE SUPPORTING WIRES SHALL BE LAPPED TO LOCK LEGS ON ADJOINING PIECES.

STRUCTURAL STEEL:

AT THE CONTRACTOR'S OPTION, HE MAY SUBSTITUTE $\frac{7}{8}$ " \emptyset SHEAR STUDS FOR THE $\frac{3}{4}$ " \emptyset STUDS SPECIFIED ON THE PLANS. THIS SUBSTITUTION SHALL BE MADE AT THE RATE OF 3 - $\frac{7}{8}$ " \emptyset STUDS FOR 4 - $\frac{3}{4}$ " \emptyset STUDS, AND STUD SPACING CHANGES SHALL BE MADE AS NECESSARY TO PROVIDE THE SAME EQUIVALENT NUMBER OF $\frac{7}{8}$ " \emptyset STUDS ALONG THE BEAM AS SHOWN FOR $\frac{3}{4}$ " \emptyset STUDS BASED ON THE RATIO OF 3 - $\frac{7}{8}$ " \emptyset STUDS FOR 4 - $\frac{3}{4}$ " \emptyset STUDS. STUDS OF THE LENGTH SPECIFIED ON THE PLANS MUST BE PROVIDED. THE MAXIMUM SPACING SHALL BE 2'-0".

EXCEPT AT THE INTERIOR SUPPORTS OF CONTINUOUS BEAMS WHERE THE COVER PLATE IS IN CONTACT WITH BEARING PLATE, THE CONTRACTOR MAY, AT HIS OPTION, SUBSTITUTE FOR THE COVER PLATES DESIGNATED ON THE PLANS COVER PLATES OF THE EQUIVALENT AREA PROVIDED THESE PLATES ARE AT LEAST $\frac{5}{16}$ " IN THICKNESS AND DO NOT EXCEED A WIDTH EQUAL TO THE FLANGE WIDTH LESS 2" OR A THICKNESS EQUAL TO 2 TIMES THE FLANGE THICKNESS. THE SIZE OF FILLET WELDS SHALL CONFORM TO THE REQUIREMENTS OF THE CURRENT ANSI/AASHTO/AWS "BRIDGE WELDING CODE". ELECTROSLAG WELDING WILL NOT BE PERMITTED.

WITH THE SOLE EXCEPTION OF EDGES AT SURFACES WHICH BEAR ON OTHER SURFACES, ALL SHARP EDGES AND ENDS OF SHAPES AND PLATES SHALL BE SLIGHTLY ROUNDED BY SUITABLE MEANS TO A RADIUS OF APPROXIMATELY $\frac{1}{16}$ INCH OR EQUIVALENT FLAT SURFACE AT A SUITABLE ANGLE PRIOR TO PAINTING, GALVANIZING, OR METALLIZING.

HANDRAILS AND POSTS:

METAL STANDARDS AND FACES OF THE CONCRETE END POSTS FOR THE METAL RAIL SHALL BE SET NORMAL TO THE GRADE OF THE CURB, UNLESS OTHERWISE SHOWN ON PLANS. THE METAL RAIL AND TOPS OF CONCRETE POSTS USED WITH THE ALUMINUM RAIL SHALL BE BUILT PARALLEL TO THE GRADE OF THE CURB.

METAL HANDRAILS SHALL BE IN ACCORDANCE WITH THE PLANS. RAILS SHALL BE AS MANUFACTURED FOR BRIDGE RAILING. CASTINGS SHALL BE OF A UNIFORM APPEARANCE. FINIS AND OTHER DEFORMATIONS RESULTING FROM CASTING OR OTHERWISE SHALL BE REMOVED IN A MANNER SO THAT A UNIFORM COLORING OF THE COMPLETED CASTING SHALL BE OBTAINED. CASTINGS WITH DISCOLORATIONS OR OF NON-UNIFORM COLORING WILL NOT BE ACCEPTED. CERTIFIED MILL REPORTS ARE REQUIRED FOR METAL RAILS AND POSTS.

SPECIAL NOTES:

GENERALLY, IN CASE OF DISCREPANCY, THIS STANDARD SHEET OF NOTES SHALL GOVERN OVER THE SPECIFICATIONS, BUT THE REMAINDER OF THE PLANS SHALL GOVERN OVER NOTES HEREON, AND SPECIAL PROVISIONS SHALL GOVERN OVER ALL. SEE SPECIFICATIONS ARTICLE 105-4.

ENGLISH

JANUARY, 1990

STD. NO. SN